

Phase II Environmental Site Assessment Report



Percontee Cherry Hill Road Facility

11700 Cherry Hill Road
Silver Spring, Maryland 20904

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1.0 INTRODUCTION

Arc Environmental, Inc. (Arc Environmental) has prepared this Phase II Environmental Site Assessment (ESA) Report for the Percontee Cherry Hill Road facility located at 11700 Cherry Hill Rd. in Silver Spring, Maryland 20904 (Site) on behalf of Global LifeSci Development Corporation (Client).

The Maryland Department of the Environment (MDE) approved a Sampling and Analysis Plan prepared by Arc Environmental in March 2015 detailing the sampling and analysis activities described herein. The sampling and analysis plan was provided to MDE in the November 2014 Voluntary Cleanup Program (VCP) application submittal for the Site.

Field activities conducted for this investigation included the advancement of twenty-nine soil borings, the installation of eight groundwater monitoring wells, and laboratory analysis of soil, groundwater, stormwater management pond, stream sediment, and soil gas samples collected from the Site. Field activities were performed between March 10, 2015 and May 15, 2015.

2.0 SITE AND ENVIRONMENTAL DESCRIPTION

2.1 Site Description

The Site is located within a mixed industrial and commercial area of Silver Spring, Maryland. The Site consists of five land parcels totaling approximately 171 acres. The Site boundaries are depicted on Figure 1, Tab 1. The Site was once mined for bank run gravel. Currently, the Site operates as a rubble dump, a sand, gravel, stone and topsoil processor and wholesaler, a concrete recycler, a liquor store, and a residence. The Site is divided into two portions by FDA Boulevard which runs east to west through the Site. More specific Site operation descriptions are provided below:

The eastern portion of the Site, north of FDA Boulevard, consists primarily of the Percontee facility. The structures associated with the Percontee facility consist of a service bay and two single-story buildings utilized for office space, maintenance and storage. These buildings are located on a reportedly unmined portion of the Site. Uses of the Site adjacent to the Percontee buildings consist of leased equipment storage for small contractors to the east and landscaping material stockpile (mulch, straw, landscaping brick, etc.) storage to the west. The northeast corner of the Site is improved with a liquor store and a residence, addressed as 11790 Cherry Hill Rd. and 11800 Cherry Hill Rd., respectively.

The northwest area of the western portion of the Site, north of FDA Boulevard, is leased by Concrete Supply Corporation (CSC), a concrete recycler. The CSC structures consist of a concrete mixer and three single-story structures consisting of an office building, a maintenance building, and a storage building. Other uses of the western Site division consist of stone and gravel processing.

The remaining portions of the northern half of the Site and the area south of FDA Boulevard consist of mined areas that have been filled with rubble and are now vegetated with grasses and wooded buffers along the Site boundaries.

2.2 Site Setting



The Site is located within a mixed industrial and commercial area of Silver Spring. Properties surrounding the Site consist of: commercial/light industrial buildings to the north, the former Washington Suburban Sanitary Commission (WSSC) ComPro facility to the northwest, Paint Branch Park to the west, the former Naval Surface Weapons Center (NSWC) to the south and southwest and residential and commercial buildings to the southeast and east.

The Site and surrounding area are serviced by municipal water and sewer (WSSC), and no known potable water supply wells are located on the Site or surrounding properties. There are seven small stormwater retention ponds on the Site and an unnamed tributary of the Paint Branch flows north to south through the Site. The nearest off-Site surface water body, the Paint Branch, is located approximately 300 feet west of the Site.

2.3 Site History

A Phase I Environmental Site Assessment (ESA) was completed in November 2004 by Eco Dynamics Corp and two Phase I ESAs were completed in October 2007 and October 2014 by Arc Environmental. The following Recognized Environmental Conditions (RECs) were identified in connection with the most recent Phase I ESA iteration prepared for the Site:

Historic Site Operations: The Site was developed in the mid-1950s as a gravel quarry. The mined areas of the Site were reportedly backfilled with a combination of fill material from cuttings generated during installation of the Washington Metropolitan Area Transit Authority Metro System, concrete demolition debris, and other fill-type material from unknown sources. This material which was utilized to backfill a large portion of the Site is from an unknown source with no known characterization data. Therefore, there is a potential for the import of contaminated material.

Soil and Gravel Staining: Dark staining was observed on the soil in the northeastern portion of the Site in the equipment storage areas leased by several small contractors and on the gravel beneath the vehicle and equipment storage areas on the northeastern portion of the Site. The potential exists for impacts to the subsurface by the observed surface releases.

Storage Tanks: Twenty-five aboveground storage tanks (ASTs) were observed throughout the Site. The majority of the ASTs appeared to be in sound condition and exhibited no signs of a release. Small pools of liquid were observed under two 275-gallon waste oil ASTs, one located in the Percontee maintenance building and one located in the Concrete Supply Corp. (CSC) maintenance building. The liquid was contained and an absorbent material was observed on the concrete floor surface. Staining was observed in the vicinity of three 275-gallon ASTs located in the CSC maintenance building. The pools of liquid and staining appeared to be a result of overfills and poor housekeeping practices.

One 10,000-gallon diesel underground storage tank (UST) is currently in operation at the Site. Fill ports associated with the UST were observed under manhole coverings located on the concrete, and two monitoring wells were located on either side of the UST. According to a previous environmental report, the monitoring wells were recently gauged in 2004 and no water or petroleum odors were present.

The Site is also identified in the Environmental Data Resources (EDR) database as containing



two registered USTs; one 10,000-gallon diesel UST and one 40,000-gallon diesel UST. However, according to Site observations and the Site Manager, only the 10,000-gallon diesel is present at the Site in the CSC portion, and no 40,000-gallon UST has been on Site.

Hazardous Substances: Several one to five-gallon gasoline cans, quarts of motor oil and other fluids typical of vehicle maintenance were observed throughout the Percontee and CSC maintenance buildings. These containers were stored either on the floor metal/wood shelving and appeared to be in sound condition. No floor staining was observed in the Percontee maintenance building storage area and as aforementioned, staining was observed on the concrete floor in the vicinity of the motor oil storage area in the CSC maintenance building.

Two parts washers were observed, one located in the Percontee maintenance building and one located in the CSC maintenance building. The washers appeared to be in working order and the concrete flooring in the vicinity appeared to be in sound condition, exhibiting no evidence of pitting or cracks. In addition, no floor drains were observed in the immediate vicinity.

Several compressed gas cylinders were also observed throughout the two maintenance buildings and along the eastern exterior of a CSC storage building. Acetylene and oxygen gas signs were posted on the doors of the Percontee storage building and several discarded compressed gas cylinders were observed north of the building entrance.

Several lead acid batteries were observed within the interior of the CSC maintenance building. The batteries located in the interior of the building were stored on the bottom shelf of a cart in a motor oil storage area and the batteries appeared to be sound condition.

Off-Site Operations: Remedial activities and groundwater monitoring are occurring at the former Naval Surface Warfare Center (NSWC) site, adjacent to the southern and southwestern property border, due to a release of chlorinated solvents from prior site activities impacting groundwater in the site vicinity. The northern portion of NSWC Site Area 13 extends into the southern portion of the Site and two monitoring wells have been installed along the southern property boundary of the Site. Groundwater injections consisting of a zero-valent iron (ZVI) slurry have been completed in attempts to accelerate the remediation process and sampling for volatile organic compounds (VOCs) is ongoing. Results from 2004 and 2006 sampling events indicate concentrations of perchloric acid (PCA), cis-dichloroethene (cis-DCE), perchloroethylene (PCE), trichloroethylene (TCE), and vinyl chloride (VC) exceeded their respective Safe Drinking Water Act Maximum Contaminant Level (SWDA MCL) during one or both sampling events and in general an increasing trend in total VOC concentration has been observed.

Site Database Listings: The Site is listed on several environmental databases including Resource Conservation and Recovery Act - Generator (RCRA-GEN), Facility Index System (FINDS), UST, Historic UST (HIST UST), and Oil Control Program Cases (OCPCASES). Pilot Construction, Inc., a former Site occupant, is listed as a RCRA-Conditionally Exempt Small Quantity Generator (CESQG), meaning less than 100 kilograms of hazardous waste is generated per month. This facility generated ignitable (D001), cadmium (D006), lead (D008), benzene (D018), methyl ethyl ketone (D035), tetrachloroethylene (D039), and trichloroethylene (D040) wastes. There are no violations listed for the Site. The Site is listed in the FINDS database consisting of database listings in the Aerometric Information Retrieval System (AIRS), Air Facility System (AFS), Maryland-Environmental Permits Service Center (MD-EPSC), and



Maryland-Permanent (Air) Emission (MD-PEMIS) databases associated with airborne pollution, multi-media pollution prevention, and air emissions and National Pollutant Discharge Elimination System (NPDES) and Integrated Compliance Information System (ICIS) databases associated with surface water permitting and pollution prevention. The Site is listed in the AIRS database with a permit (No. 031-01884) issued on May 1, 2010 which expires on April 30, 2015. No violations are listed in the database.

CSC, a current Site occupant, is listed in the UST database with eight USTs ranging from 500-gallons to 10,000-gallons. A 10,000-gallon diesel UST is listed as currently in use and the remaining USTs are all listed as permanently out of use. The Site address is also identified in the HIST UST database as Pilot Construction. This database references the same USTs as listed in the UST database, with the exception of the 10,000-gallon diesel UST. The HIST UST database indicates that the seven USTs that are permanently out of use have been removed. Additionally, Percontee Inc., a current Site occupant, is listed in the HIST UST database with a 40,000-gallon diesel UST which is listed as currently in use. Pilot Construction, is listed in the OCPCASES database with one closed case. This case was associated with a motor/lube oil tank closure in July 1993. A release and subsequent cleanup were reported and the case was closed in June 1999. Percontee, Inc. is also listed with one closed case. This case is associated with a training accident involving motor/lube oil in January 1990. No release or cleanup was reported and the case was closed in February 1997.

2.4 Local Geology and Hydrology

The Site elevation ranges from approximately 250 to 350 feet above mean sea level. The lowest elevation, approximately 250 feet, follows the Paint Branch tributary that flows north to south through the Site, the remaining Site elevation increases to approximately 350 feet on either side of the tributary. Drainage on the property generally follows Site topography towards low-lying areas of the Site and into storm water management ponds.

According to the Maryland Geologic Society 1968 Geologic Map of Maryland, the Site lies within the Perry Hall Upland District in the Upland Section of the Piedmont Plateau physiographic province, with Boulder Gneiss and Potomac Group soil material. Soils within these complexes consist of thick-bedded to massive, pebble- and boulder-bearing, arenaceous to pelitic metamorphic rock, and typically a medium-grained, garnet-oligoclase-mica-quartz gneiss and interbedded quartzose gravels; protoquartzitic to orthoquartzitic argillaceous sands; and white, dark gray and multicolored silts and clays.

Soils encountered during soil boring activities consisted of fill material which consists of sandy soil and construction debris consisting of wood and concrete, and silty sands and gravel.

2.5 Future Development

The planned development of the Site will consist of a mixed use life sciences community, including research and lab space, a blend of workforce, affordable and market housing, high quality shops and restaurants and a premier hotel and conference center. All current Site operations will be discontinued and it is expected that Site will be subdivided and sold to various groups and developers. Land uses will vary across the Site and will consist of unrestricted residential land use in instances with fee-simple single family residential development, restricted residential land use in instances with townhome and apartment/condominium development



where exterior areas are maintained by a Homeowners Association or similar and school and daycare center development and commercial land uses consisting of office, retail and hotel development. Figure 2 (Tab 1) provides a current depiction of the proposed development planned for the Site. This proposed development plan is subject to change during the overall property development due to market changes or overall future community needs and plans.

3.0 SITE SAMPLING AND ANALYSIS

The goal of the sampling and analysis performed at the Site was to provide additional Site characterization information to support the application of the Site into the VCP. The following sections provide the methodologies utilized during sampling and analysis activities completed at the Site. Sample locations are presented on Figure 1 (Tab 1).

Soil analysis was completed on select sample for priority pollutant (PPL) list of metals, semi-volatile organic compounds (SVOCs), polycyclic aromatic hydrocarbons (PAHs), VOCs, total petroleum hydrocarbons (TPH) diesel range organics (DRO) and gasoline range organics (GRO), and polychlorinated biphenyls (PCBs). In addition, select samples were analyzed for elemental mercury, hexavalent chromium, and asbestos.

Groundwater analysis was completed on all samples for VOCs, TPH-DRO/GRO, and PPL metals.

Stormwater management pond water and sediment analysis was completed on all samples for PPL metals VOCs, and PCBs.

Soil gas analysis was completed on all samples for VOCs.

3.1 Soil Sampling

Between March 9, 2015 and April 8, 2015, 29 soil borings (B1 through B21 and MW-2 through MW-9) were advanced at the Site to provide characterization information to support the VCP application for the Site. The soil sampling locations are illustrated on Figure 1 (Tab 1).

The soil borings advanced in areas of the Site not previously mined such as the Percontee operations situated along the northeastern portion of the Site (B1 through B7) were all advanced to 20 feet below grade using a direct push drilling unit. All other soil borings (B8 through B21 and MW-2 through MW-9) were advanced using a hollow stem auger drill rig to depths ranging from 12 feet below grade (B11) to 70 feet below grade (MW-6). The soil boring was relocated if refusal was encountered before reaching the base of the fill.

Soils were continuously recovered at each direct push installed soil boring using a five foot long stainless-steel barrel sampler (two inch interior diameter) lined with a dedicated plastic liner to the base of the boring. Soils were continuously recovered from augered soil boring using split spoon sample devices from the zero to six feet below grade interval and from drill cuttings from depths beyond six feet below grade to the suspected base of fill and split spoon sampling resumed to confirm the presence of native soil material.

Soils encountered during drilling activities consisted of sandy soil and construction debris consisting of wood, asphalt, and concrete, underlain by silts and clays that became more



competent with depth. An orange coarse sandy clay with quartz was determined to be the base of fill and considered native material. Groundwater encountered during drilling activities ranged from 10 feet below grade (MW-9) to 68 feet below grade (MW-6). The soil boring logs are attached to this report in Tab 3.

Recovered soils were classified and field screened for total VOCs using a photo-ionization detector (PID). No PID readings above background (0.0 PID units) were observed at any soil boring location. Surface and subsurface samples were collected at each boring location at the zero to two foot and the four to six feet below grade soil column intervals, respectively, for laboratory analysis. Soil samples were collected from the bases of four soil borings (B11, B13, B17, and B18) for laboratory analysis to characterize suspected native soil material at the Site.

Each soil sample was submitted for laboratory analysis of PPL metals by United States Environmental Protection Agency (USEPA) Method 200.8/6020, PAHs by USEPA Method 8270C, TPH-GRO/DRO by USEPA Method 8015B and PCBs by USEPA Method 8082.

In addition, 11 soil samples, as shown on Table 1, Tab 2, were submitted for analysis of VOCs by USEPA Method 5035/8260 and 16 soil samples were submitted for analysis of full suite SVOCs. One soil sample (MW-2 4'-6') was submitted for laboratory analysis of hexavalent chromium by USEPA Method 7196A and sample B8 4'-6' was submitted for analysis of elemental mercury by USEPA Method 3200. In addition, two samples (MW-4 4'-6' and B21 0'-2') from soil borings with obvious evidence of fill material (e.g. concrete fragments, asphalt fragments, etc.) were submitted for analysis of asbestos by USEPA Method 600/R-93/116.

Soil borings not converted to groundwater monitoring wells were grouted to surface grade using hydrated bentonite. Soil cuttings were stockpiled on 6 mil polyethylene sheeting and covered each evening with 6 mil polyethylene sheeting for future off-Site disposal.

3.2 Groundwater Sampling

Between March 9, 2015 and April 8, 2015, eight of the soil borings (MW-2 through MW-9) were converted to groundwater monitoring wells for sample collection and depth to groundwater measurements. Each monitoring well was installed with a slotted well screen so there was a minimum of ten feet of screen both above and below the groundwater surface. A solid well casing was extended to above surface grade. No. 2 well gravel was used to fill the annulus between the well casing and the borehole wall to approximately two feet above the screened interval. Hydrated bentonite was used to fill the remainder of the annulus to the surface. Following installation, each well was sufficiently developed using a submersible pump equipped with dedicated polyethylene tubing until water was mostly clear of sediment. Well development water was placed in drums near each well location for future off-Site disposal.

Approximately one month following well completion, on April 28 and 29, 2015, depth to water measurements and groundwater samples were collected from each of the installed monitoring wells utilizing low flow purging and sampling techniques. Depth to groundwater ranged from 12.01 feet below grade (MW-9) to 63.12 feet below grade (MW-5). Each monitoring well was purged using a low-flow peristaltic pump with dedicated polyethylene tubing. Water quality data was collected for the duration of the well purging using a water quality monitoring system. The well purge data is attached to this report (Tab 3), and includes measurements of pH, oxygen reduction potential (ORP), specific conductivity, temperature, turbidity, and dissolved oxygen



(DO) concentrations.

Each groundwater sample was submitted for laboratory analysis of PPL metals by USEPA Method 200.8/6020, SVOCs by USEPA Method 8270C, VOCs by USEPA Method 8260B and TPH-GRO/DRO by USEPA Method 8015B.

The groundwater monitoring well locations are illustrated on Figure 1 (Tab 1). Purge water was placed in 55-gallon drums for future off-Site disposal.

3.3 Stormwater Management Pond and Stream Sampling

On April 30, 2015, stormwater management pond and stream surface water samples and stream sediment samples were collected from seven stormwater management ponds that are located on-Site (S2 through S8). One of the ponds (S1) is no longer located at the Site.

Each surface water sample was submitted for laboratory analysis of PPL metals by USEPA Method 200.8/6020, VOCs by USPEA Method 8260, SVOCs by USEPA Method 8270C and TPH-GRO/DRO by USEPA Method 8015B. Sediment samples were submitted for laboratory analysis of PPL metals by USEPA Method 200.8/6020, VOCs by USPEA Method 8260, SVOCs by USEPA Method 8270C, TPH-GRO/DRO by USEPA Method 8015B and PCBs by USEPA Method 8082.

The sampling locations are illustrated on Figure 1 (Tab 1).

3.4 Soil Gas Sampling

On April 7, 2015, Arc Environmental installed two soil borings (SVP-1 and SVP-2) along the southern property boundary for the purpose of evaluating soil gas near the NSWC remedial activity. The soil boring locations were installed using a direct push drilling unit to approximately 15 feet below grade (five to ten feet above anticipated groundwater). Following installation, a sample apparatus, consisting of a six-inch section of 20-slot PVC well screen attached to polyethylene tubing was inserted into the borehole with the screened section situated at the base of the boring. Annular space was filled using No. 2 silica sand to approximately two-inches above the screened section of the sampling apparatus or the base of the slab, whichever was deeper, and capped with at least a two foot thick hydrated bentonite seal.

On April 29, 2015, Arc Environmental returned to the Site to begin sample soil gas sampling. Prior to sample collection each sample point was purged using a hand pump for approximately one minute to prepare the point for sample collection. Summa canisters equipped with 24 hour flow controllers were then attached to the tubing of the sample ports for sample collection. After the 24 hour sampling period, the summa canisters were disconnected and submitted for laboratory analysis of VOCs by USEPA Method TO-15.

The sampling locations are illustrated on Figure 1 (Tab 1).

3.5 Surficial Soil Sampling

Arc Environmental collected three surface soil samples (SS-1 through SS-3) within the area of aboveground storage tanks (AST) north of the Percontee maintenance garage. The purpose of



this sampling was to evaluate soil staining identified within the vicinity of the AST equipment (also within the vicinity of B6) at the time of the MDE Site inspection completed on March 3, 2015. Using a hand trowel, soil samples were obtained from obviously stained areas from the zero to six-inch below grade interval of the soil column.

Each soil sample was submitted for laboratory analysis of SVOCs by USEPA Method 8270, TPH-GRO/DRO by USEPA Method 8015B and PCBs by USEPA Method by USEPA Method 8082.

The sampling locations are illustrated on Figure 1 (Tab 1).

3.6 Test Pit Installation

Arc Environmental installed five test pits within a mound of buried debris located along the northern portion of the Site, east of the stream traversing the Site. The test pits were installed using a back hoe to depths ranging from seven feet below grade (TP-5) to 13 feet six inches below grade (TP-4). The purpose of the test pit excavation was to evaluate observed surficial debris observed at the time of the MDE Site inspection completed on March 3, 2015. The contents of the soil and material observed were catalogued and documented and consisted of brown silty sand with concrete, asphalt, wood and metal fragments. Each test pit was back filled with the excavated material upon completion. In lieu of sample collection, the base and sidewalls of each test pit will be photo-documented and is attached in Tab 1 (Photos 1 and 2).

3.7 Quality Control Samples

The quality of data obtained in the field for chemical analysis was evaluated using QC samples. The below QC samples were collected, preserved, handled, transported, and analyzed in a manner identical to the actual samples. It should be noted that low sample recovery upon retrieval of the split spoon and macro-core tubes limited the quantity of material available for duplicate samples and only two duplicate samples were collected for laboratory analysis (MW-6A 0'-2' and B20A 0'-2'). The Relative Percent Difference (RPD) between compounds reported in the duplicate samples and their respective parent samples ranges from 3.51% to 48.89% (Table 7, Tab 2). It is in the opinion of Arc Environmental that an acceptable RPD should be within the range of 10%. The majority of the compounds reported RPDs greater than 10%; however, Arc Environmental attributes the high RPD between the parent and duplicate samples to the ununiformed nature of the fill material at the Site.

4.0 RESULTS

4.1 Soil Samples

Sixty-three soil samples (B1 through B21 and MW-2 through MW-9) were collected from the Site and submitted for laboratory analysis of one or more of the following: PPL metals, TPH-DRO/GRO, PCBs, SVOCs, PAHs, VOCs, asbestos, hexavalent chromium, and elemental mercury. To assess whether there has been an impact to the soil from historic Site operations, the analytical results were compared to the MDE Cleanup Standards for Residential Soil (RCS) (June 2008). This cleanup standard was selected because the expected future use of the Site will be under the MDE VCP Tier 1B (restricted residential) land use category. Soil sample results for metals were also compared to the central Maryland Anticipated Typical



Concentrations (ATC). Under the MDE VCP, the greater of the MDE RCS or the ATC (background standard) may be used as the applicable cleanup standard. The laboratory analytical results for the soil samples are summarized in Table 1a (Tab 2) and are discussed below. Laboratory Certificates of Analysis are attached in Tab 4.

Metals

All sixty-three soil samples were analyzed for PPL metals. Concentrations of several metals were reported in all of the collected samples. The detected metals include antimony, arsenic, beryllium, chromium, copper, lead, mercury, nickel, selenium, thallium, and zinc. Of these detections, the following metals exceeded the MDE RCS or ATC:

- Arsenic was detected in sixty-three of the collected samples at concentrations ranging from 0.83 mg/kg (milligrams/kilogram) (B18 45'-47') to 11 mg/kg (B8 4'-6'). Arsenic concentrations in six samples exceeded the ATC for arsenic of 4.9 mg/kg (central region).
- Chromium was detected in sixty-two of the collected samples at concentrations ranging from 8.8 mg/kg (B18 45'-47') to 200 mg/kg (MW-2 4'-6'). Chromium concentrations in forty-four samples exceeded the ATC for chromium of 30 mg/kg. In addition, the sample from MW-2 4'-6' was analyzed for laboratory analysis of hexavalent chromium due to the sample exhibiting one of the highest total chromium concentration above the RCS. No hexavalent chromium was detected in the sample.
- Mercury was detected in forty-one of the collected samples at concentrations ranging from 0.045 mg/kg (B5 4'-6') to 0.20 mg/kg (B11 0'-2'). Mercury concentrations in three samples exceeded the ATC for mercury of 0.14 mg/kg. In addition, sample B8 4'-6' was submitted for laboratory analysis of elemental mercury due to the sample exhibiting one of the highest total mercury concentrations above the RCS. Elemental mercury was detected at a concentration of 0.124 mg/kg in this sample.
- Nickel was detected in sixty-three of the collected samples at concentrations ranging from 1.5 mg/kg (B18 45'-47') to 350 mg/kg (B16 0'-2'). Nickel concentrations in two samples exceeded the MDE RCS for nickel of 160 mg/kg.

All other detected metals were reported at concentrations below their respective MDE RCS or ATC. The remaining metal compounds, cadmium and silver, were not reported at concentrations exceeding their respective Lowest Level of Quantitation (LLQ).

TPH-DRO/GRO

Sixty-two soil samples were analyzed for TPH-DRO/GRO. Fifty-seven samples reported concentrations of TPH-DRO at concentrations ranging from 5.4 mg/kg (MW-7 0'-2' and B20 4'-6') to 830 mg/kg (MW-6A 5'-7'). TPH-DRO concentrations in five samples exceeded the RCS for TPH-DRO of 230 mg/kg.

Ten samples reported concentrations of TPH-GRO at concentrations ranging from 69 micrograms/kilogram ($\mu\text{g}/\text{kg}$) (B10 4'-6') to 470 $\mu\text{g}/\text{kg}$ (MW-6A 0'-2'). No detected concentrations were reported above the RCS for TPH-GRO of 230,000 $\mu\text{g}/\text{kg}$.

PCBs



Sixty-three soil samples were analyzed for PCBs. Four samples reported concentrations of PCBs at concentrations ranging from 0.074 mg/kg (B13 4'-6') to 0.28 mg/kg (MW-2 4'-6' and B10 0'-2'). No detected concentrations were reported above the RCS for PCBs of 0.32 mg/kg.

SVOCs

Seventeen soil samples were analyzed for SVOCs. Concentrations of several SVOCs were reported including butyl benzyl phthalate, carbazole, and di-n-butyl phthalate; however, the concentrations were below their respective MDE RCS. The remaining SVOCs were not reported above their respective LLQ in any sample.

PAHs

Sixty soil samples were analyzed for PAHs. Concentrations of several PAHs were reported in the collected samples including: acenaphthene, acenaphthylene, anthracene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, fluoranthene, fluorene, indeno(1,2-cd)pyrene, 2-methylnaphthalene, naphthalene, phenanthrene, and pyrene. Of these detections, the following PAHs exceeded the MDE RCS:

- Benzo(a)anthracene was detected in forty of the collected samples at concentrations ranging from 6.1 µg/kg (B7 4'-6') to 1,300 µg/kg (MW-5 4'-6'). Benzo(a)anthracene concentrations in four samples exceeded the RCS for benzo(a)anthracene of 220 µg/kg.
- Benzo(a)pyrene was detected in forty-one of the collected samples at concentrations ranging from 6.4 µg/kg (B7 4'-6') to 1,000 µg/kg (MW-5 4'-6'). Benzo(a)pyrene concentrations in thirty-four samples exceeded the RCS for benzo(a)pyrene of 22 µg/kg.
- Benzo(k)fluoranthene was detected in forty of the collected samples at concentrations ranging from 4.2 µg/kg (B7 4'-6') to 2,500 µg/kg (MW-5 4'-6'). Benzo(k)fluoranthene concentrations in one sample exceeded the RCS for benzo(k)fluoranthene of 2,200 µg/kg.
- Dibenz(a,h)anthracene was detected in twenty of the collected samples at concentrations ranging from 4.2 µg/kg (B1 0'-2') to 290 µg/kg (MW-5 4'-6'). Dibenz(a,h)anthracene concentrations in eleven samples exceeded the RCS for dibenz(a,h)anthracene of 22 µg/kg.
- Indeno(1,2-cd)pyrene, was detected in twenty of the collected samples at concentrations ranging from 4.2 µg/kg (B7 4'-6') to 620 µg/kg (MW-4 4'-6'). Indeno(1,2-cd)pyrene concentrations in two samples exceeded the RCS for indeno(1,2-cd)pyrene of 200 µg/kg.

All other detected PAHs were reported at concentrations below their respective RCS. The remaining PAHs were not reported above their respective LLQ in any sample.

VOCs

Eleven soil samples were analyzed for VOCs. Concentrations of several VOCs were reported including acetone, 2-butanone, carbon disulfide, o-xylene and m,p-xylenes (total xylenes), 1,2,4-trichlorobenzene, and 1,2,3-trichlorobenzene; however, the concentrations were below their respective MDE RCS. The remaining VOCs were not reported above their respective LLQ in



any sample.

Asbestos

Two soil samples were analyzed for asbestos. No detectable concentrations of asbestos were detected in the samples.

4.2 Groundwater Samples

Eight groundwater samples (MW-2 through MW-9) were collected from the Site and submitted for laboratory analysis of the following: dissolved PPL metals, SVOCs, PAHs, VOCs, and TPH-DRO/GRO. To assess whether there has been an impact to the groundwater from historic Site operations, the analytical results were compared to the MDE Cleanup Standards for Type I and II Aquifers (GWS) (June 2008). The laboratory analytical results for the groundwater samples are summarized in Table 2 (Tab 2) and are discussed below. Laboratory Certificates of Analysis are attached in Tab 4.

Metals

Eight groundwater samples were analyzed for dissolved PPL metals. Concentrations of several metals were reported in all of the collected samples. The detected metals include arsenic, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver, thallium, and zinc. Of these detections, the following metals exceeded the MDE GWS:

- Arsenic was detected in seven of the collected samples at concentrations ranging from 0.85 µg/L (micrograms/Liter) (MW8) to 16 mg/L (MW-3). Arsenic concentrations in one sample exceeded the MDE GWS for arsenic of 10 µg/L.
- Chromium was detected in eight of the collected samples at concentrations ranging from 1.2 µg/L (MW9) to 160 mg/L (MW-6). Chromium concentrations in two samples exceeded the MDE GWS for chromium of 100 µg/L.
- Lead was detected in eight of the collected samples at concentrations ranging from 0.76 µg/L (MW9) to 30 µg/L (MW-6). Lead concentrations in two samples exceeded the MDE GWS for lead of 15 µg/L.
- Nickel was detected in eight of the collected samples at concentrations ranging from 1.6 µg/L (MW9) to 110 µg/L (MW-6). Nickel concentrations in one sample exceeded the MDE GWS for nickel of 73 µg/L.

All other detected metals were reported at concentrations below their respective MDE GWS. The remaining metal compounds, antimony and beryllium, were not reported at concentrations exceeding their respective LLQ.

TPH-DRO/GRO

Eight groundwater samples were analyzed for TPH-DRO/GRO. All eight samples reported concentrations of TPH-DRO at concentrations ranging from 0.056 mg/L (MW-5) to 0.430 mg/L (MW-4). TPH-DRO concentrations in all eight samples exceeded the GWS of TPH-DRO of 0.047 mg/L.

One sample reported a concentration of TPH-GRO at 47 µg/L (MW-6), which is equal to the



GWS for TPH-GRO of 47 µg/L. The remaining TPH-GRO concentrations were not reported above their respective LLQ in any sample.

SVOCs

Eight groundwater samples were analyzed for SVOCs. No SVOC concentrations were reported above their respective LLQ in any sample.

PAHs

Eight groundwater samples were analyzed for PAHs. Concentrations of several PAHs were reported in one collected sample (MW-9) including acenaphthene and fluorene; however, the concentrations were below their respective MDE GWS. The remaining PAHs were not reported above their respective LLQ in any sample.

VOCs

Eight groundwater samples were analyzed for VOCs. Concentrations of several VOCs were reported including acetone, 1,1-dichloroethane, and methyl-t-butyl ether (MTBE); however, the concentrations were below their respective MDE GWS. The remaining VOCs were not reported above their respective LLQ in any sample.

4.3 Stormwater Management Pond Samples

Seven surface water samples (S-2 through S-8) were collected from each of the Site's seven stormwater management ponds and submitted for laboratory analysis of the following: Dissolved PPL Metals, SVOCs, PAHs, VOCs, and TPH-DRO/GRO. The analytical results were compared to the Maryland Numerical Criteria for Toxic Substances in Surface Water Standard (MNC) (COMAR 26.08.02.03-2) for human health for consumption of organisms. The laboratory analytical results for the stormwater management pond samples are summarized in Table 3 (Tab 2) and are discussed below. Laboratory Certificates of Analysis are attached in Tab 4.

Metals

Seven surface water samples were analyzed for dissolved PPL metals. Concentrations of several metals were reported in all of the collected samples. The detected metals include arsenic, beryllium, cadmium, chromium, copper, lead, mercury, nickel, selenium, thallium, and zinc. Of these detections, the following metals exceeded the MNC:

- Arsenic was detected in seven of the collected samples at concentrations ranging from 0.51 µg/L (S-8) to 13 µg /L (S-2). Arsenic concentrations in three samples exceeded the MNC for arsenic of 1.4 µg /L.
- Thallium was detected in two of the collected samples at concentrations ranging from 0.55 µg/L (S-2) to 0.74 µg /L (S-5). Thallium concentrations in both samples exceeded the MNC for thallium of 0.47 µg /L.
- All other detected metals were reported at concentrations below their respective MNC or no MNC was identified. The remaining metal compounds, antimony and silver, were not reported at concentrations exceeding their respective Lowest Level of Quantitation (LLQ).

TPH-DRO/GRO



Seven surface samples were analyzed for TPH-DRO/GRO. All seven samples reported concentrations of TPH-DRO at concentrations ranging from 0.14 mg/L (S-2 and S-5) to 0.53 mg/L (S-7); however, no MNC is identified for TPH-DRO.

No TPH-GRO concentrations were reported above their respective LLQ in any sample.

SVOCs

Seven surface water samples were analyzed for SVOCs. Concentrations of one SVOC, bis(2-ethylhexyl)phthalate, was reported in two collected samples (S-5 and S-7); however, the concentrations were below the MNC. The remaining SVOCs were not reported above their respective LLQ in any sample.

PAHs

Seven surface water samples were analyzed for PAHs. Concentrations of several PAHs were reported in the collected samples including: acenaphthene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, fluoranthene, indeno(1,2-cd)pyrene, phenanthrene, and pyrene. Of these detections, the following PAHs exceeded the MNC:

- Benzo(a)anthracene was detected in three of the collected samples at concentrations ranging from 0.10 µg/L (S-3 and S-5) to 0.73 µg/L (S-7). Benzo(a)anthracene concentration in one sample exceeded the MNC of 0.18 µg/L.
- Benzo(a)pyrene was detected in three of the collected samples at concentrations ranging from 0.10 µg/L (S-3) to 0.56 µg/L (S-7). Benzo(a)pyrene concentration in one sample exceeded the MNC of 0.18 µg/L.
- Benzo(b)fluoranthene was detected in four of the collected samples at concentrations ranging from 0.21 µg/L (S-2) to 1.50 µg/L (S-7). Benzo(b)fluoranthene concentrations in four samples exceeded the MNC of 0.18 µg/L.
- Benzo(k)fluoranthene was detected in one of the collected samples (S-7) at a concentration of 0.18 µg/L, which is equal to the MNC of benzo(k)fluoranthene of 0.18 µg/L.
- Chrysene was detected in one of the collected samples (S-7) at a concentration of 0.51 µg/L, which exceeds the MNC of chrysene of 0.18 µg/L.
- Indeno(1,2,3-c,d)pyrene was detected in four of the collected samples at concentrations ranging from 0.38 µg/L (S-2) to 1.10 µg/L (S-7). Indeno(1,2,3-c,d)pyrene concentrations in four samples exceeded the MNC of 0.18 µg/L.

VOCs

Seven surface water samples were analyzed for VOCs. Concentrations of one SVOC, toluene, was reported in one collected samples (S-4); however, the concentrations were below the MNC. The remaining VOCs were not reported above their respective LLQ in any sample.

4.4 Stream Sediment Samples



Seven soil sediment samples (S-2 through S-8) were collected from each of the Site's seven stormwater management ponds and submitted for laboratory analysis of the following: PPL Metals, TPH-DRO/GRO, PCBs, SVOCs, PAHs, and VOCs. To assess whether there has been an impact to the soil from historic Site operations, the analytical results were compared to the MDE RCS (June 2008). Soil sample results for metals were also compared to the central Maryland ATC. Under the MDE VCP, the greater of the MDE RCS or the ATC (background standard) may be used as the applicable cleanup standard. The laboratory analytical results for the stream sediment samples are summarized in Table 4 (Tab 2) and are discussed below. Laboratory Certificates of Analysis are attached in Tab 4.

Metals

Seven soil sediment samples were analyzed for PPL metals. Concentrations of several metals were reported in all of the collected samples. The detected metals include arsenic, chromium, copper, lead, mercury, nickel, and zinc. Of these detections, the following metals exceeded the MDE RCS or ATC:

- Arsenic was detected in seven of the collected samples at concentrations ranging from 1.4 mg/kg (S-8) to 9.0 mg/kg (S-6). Arsenic concentrations in two samples exceeded the ATC for arsenic of 4.9 mg/kg (central region).
- Chromium was detected in seven of the collected samples at concentrations ranging from 17 mg/kg (S-5) to 82 mg/kg (S-3). Chromium concentrations in five samples exceeded the ATC for chromium of 30 mg/kg.
- Mercury was detected in three of the collected samples at concentrations ranging from 0.069 mg/kg (S-7) to 0.35 mg/kg (0.35). Mercury concentration in one sample exceeded the ATC for mercury of 0.14 mg/kg.

All other detected metals were reported at concentrations below their respective MDE RCS or ATC. The remaining metal compounds, antimony, beryllium, cadmium, selenium, silver, and thallium were not reported at concentrations exceeding their respective LLQ.

TPH-DRO/GRO

Seven soil sediment samples were analyzed for TPH-DRO/GRO. Three of the collected samples reported concentrations of TPH-DRO at concentrations ranging from 24 mg/L (S-2) to 160 mg/L (S-3). No detected concentrations were reported above the RCS for TPH-DRO of 230 mg/kg.

No TPH-GRO concentrations were reported above their respective LLQ in any sample.

PCBs

Seven soil sediment samples were analyzed for PCBs. No PCB concentrations were reported above their respective LLQ in any sample.

SVOCs

Seven soil sediment were analyzed for SVOCs. No SVOC concentrations were reported above their respective LLQ in any sample.



PAHs

Seven sediment samples were analyzed for PAHs. Concentrations of several PAHs were reported in the collected samples including: benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, fluoranthene, indeno(1,2-cd)pyrene, and pyrene. Of these detections, the following PAHs exceeded the MDE RCS:

- Benzo(a)pyrene was detected in one of the collected samples (S-3) at a concentration of 46 µg/kg, which exceeds the RCS of Benzo(a)pyrene of 22 µg/kg.
- Indeno(1,2-c,d)pyrene was detected in six of the collected samples at concentrations ranging from 10 µg/kg (S-5) to 230 µg/kg (S-3 and S-8). Indeno(1,2-cd)pyrene concentrations in two samples exceeded the RCS for indeno(1,2-cd)pyrene of 200 µg/kg.

All other detected PAHs were reported at concentrations below their respective RCS. The remaining PAHs were not reported above their respective LLQ in any sample.

VOCs

Seven soil sediment samples were analyzed for VOCs. Concentrations of two VOCs were reported including acetone and toluene; however, the concentrations were below their respective MDE RCS. The remaining VOCs were not reported above their respective LLQ in any sample.

4.5 Soil Gas Samples

Two soil gas samples collected from soil vapor monitoring points SVP-1 and SVP-2 for laboratory analysis of VOCs. The analytical results were compared to the USEPA Regional Screening Levels (RSLs) for Industrial Air (January 2015) which are based on a carcinogenic target risk of 1×10^{-5} and a Hazard Index of 1. A multiplier of 100 was applied to the indoor air screening level to establish soil vapor screening levels and the more conservative value for individual compounds with both carcinogenic and non-carcinogenic criteria was used. The laboratory analytical results for the soil gas samples are summarized in Table 5 (Tab 2) and are discussed below. Laboratory Certificates of Analysis are attached in Tab 4.

Concentrations of several VOCs were reported in each sample; however, the concentrations were below their respective RSLs. The remaining VOCs were not reported above their respective LLQ in either sample.

4.6 Surficial Soil Sampling

Three surface soil samples (SS-1 through SS-3) were collected within the area of ASTs north of the Percontee maintenance garage and submitted for laboratory analysis of PAHs, TPH-GRO/DRO, and PCBs. To assess whether there has been an impact to the soil from historic Site operations, the analytical results were compared to the MDE RCS (June 2008). The laboratory analytical results for the surficial soil samples are summarized in Table 6 (Tab 2) and are discussed below. Laboratory Certificates of Analysis are attached in Tab 4.

PAHs:



Three surface soil samples were analyzed for PAHs. Concentrations of several PAHs were reported in the collected samples including: acenaphthene, anthracene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, fluoranthene, fluorene, indeno(1,2-cd)pyrene, 2-methylnaphthalene, naphthalene, phenanthrene, and pyrene. Of these detections, the following PAHs exceeded the MDE RCS:

- Benzo(a)anthracene was detected in two of the collected samples at concentrations ranging from 190 µg/kg (SS-2) to 440 µg/kg (SS-1). Benzo(a)anthracene concentrations in one sample exceeded the RCS for benzo(a)anthracene of 220 µg/kg.
- Benzo(a)pyrene was detected in two of the collected samples at concentrations ranging from 220 µg/kg (SS-2) to 370 µg/kg (SS-1). Benzo(a)pyrene concentrations in both of these samples exceeded the RCS for benzo(a)pyrene of 22 µg/kg.
- Indeno(1,2-c,d)pyrene was detected in one of the collected samples (SS-1) at a concentration of 200 µg/kg, which is equal to the RCS of indeno(1,2-cd)pyrene of 200 µg/kg.

All other detected PAHs were reported at concentrations below their respective RCS. The remaining PAHs were not reported above their respective LLQ in any sample.

TPH-DRO/GRO

Three surface soil samples were analyzed for TPH-DRO/GRO. All three samples reported concentrations of TPH-DRO at concentrations ranging from 580 mg/kg (SS-2) to 2,700 mg/kg (SS-1), all of which exceeded the RCS of TPH-DRO of 230 mg/kg.

Two samples reported concentrations of TPH-GRO at concentrations ranging from 1,100 µg/kg (SS-1) to 30,000 µg/kg (SS-3). No detected concentrations were reported above the RCS for TPH-GRO of 230,000 µg/kg.

PCBs

Three surface soil samples were analyzed for PCBs. No PCB concentrations were reported above their respective LLQ in any sample.

5.0 CONCLUSIONS

Between March and May 2015, Arc Environmental conducted a Phase II ESA at the Site to characterize soil, groundwater, and soil gas as part of participation in Maryland's VCP. In total, thirty-one soil borings, eight of which were converted to groundwater monitoring wells and two of which were converted to soil gas monitoring points, and five test pits were completed at the Site. Soil and sediment samples were collected from twenty-nine soil borings, stream sediment in the Site stormwater management ponds, and surface areas near the AST area on the northern portion of the Site for select laboratory analysis. Groundwater and surface water samples were collected from the eight converted groundwater monitoring wells, and surface water samples collected from the seven stormwater management ponds for select laboratory analysis.

Seventy-three soil and sediment samples were collected from the Site and submitted for one or more of the following laboratory analyses: PPL Metals, TPH-DRO/GRO, PCBs, SVOCs, PAHs,



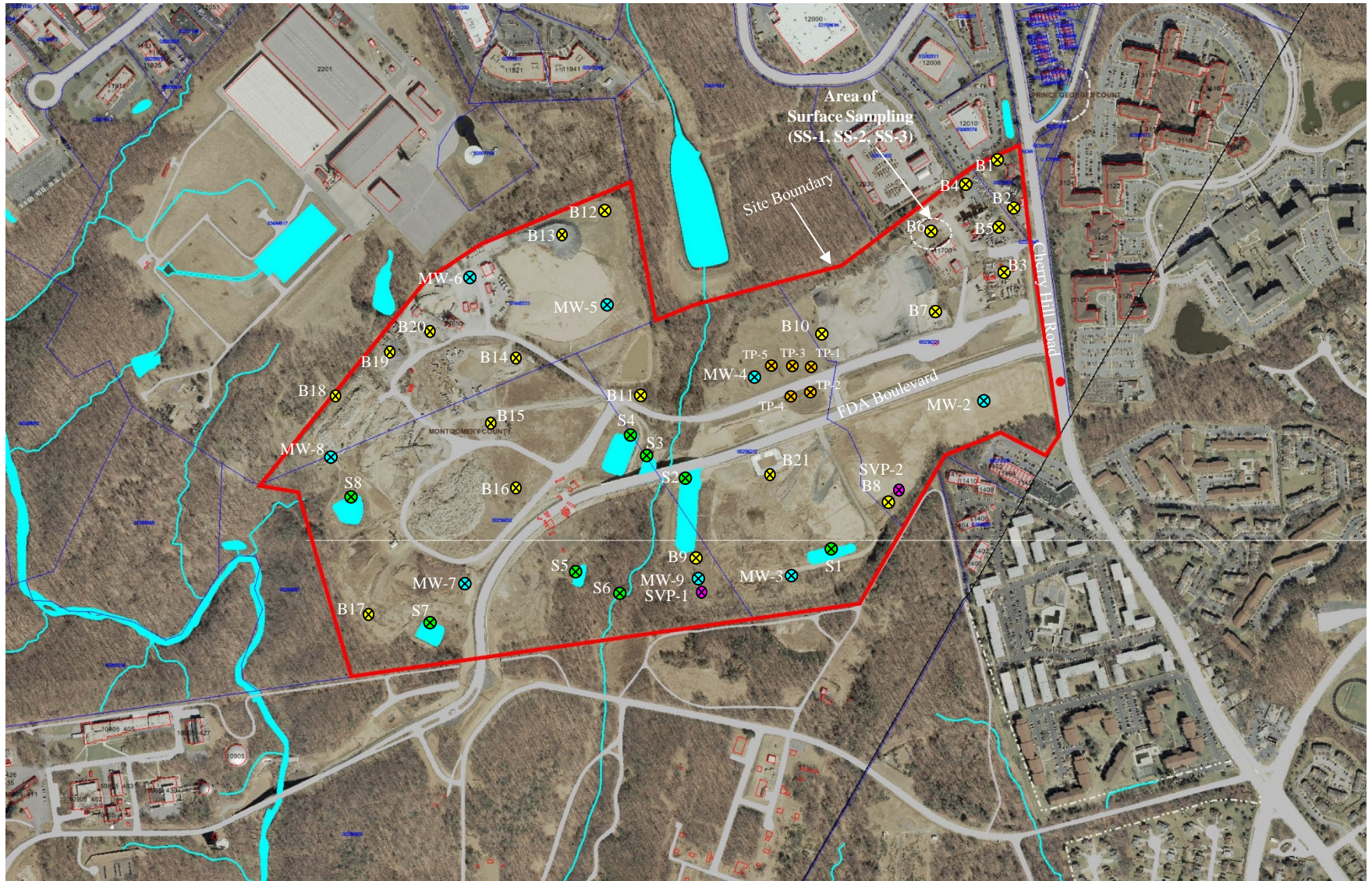
VOCs, asbestos, hexavalent chromium, and elemental mercury. Results of the soil analysis have identified the presence of several metals (arsenic, chromium, lead, mercury, and nickel), TPH-DRO, and PAHs (benzo(a)anthracene, benzo(a)pyrene, benzo(k)fluoranthene, dibenz(a,h)anthracene, and indeno(1,2-c,d)pyrene) above the applicable ATC or MDE RCS in one or more soil samples.

Eight groundwater samples were collected from the Site and submitted for laboratory analysis of PPL metals, SVOCs, VOCs, and TPH-GRO/DRO. Results of the groundwater analysis have identified the presence of several metals (arsenic, chromium, lead, and nickel) and TPH-DRO/GRO above the applicable MDE GWS in one or more groundwater samples.

Seven surface water samples were collected from the Site and submitted for laboratory analysis of PPL Metals, TPH-DRO/GRO, SVOCs, and VOCs. Results of the surface water analysis have identified the presence of several metals (arsenic and thallium) and PAHs (benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, and indeno(1,2-c,d)pyrene) above the applicable MNC in one or more surface water samples.

Two soil gas samples collected from the Site and submitted for laboratory analysis of VOCs. No concentrations of detected VOCs were greater than their respective RSLs. The remaining VOCs were not reported above their respective LLQ in the samples.

Tab 1



Notes
 ⊗ = soil boring locations ⊗ = sediment and/or surface water sample locations
 ⊗ = monitoring well locations ⊗ = soil gas sampling point ⊗ = test pit locations

FIGURE 1

June 12, 2015

11700 Cherry Hill Road
 Silver Spring, MD 20904



Low Road Alternative/2nd Gate to FDA



Tab 2

**Table 1
Soil Sample Analysis Table**

**Percontee Cherry Hill Road Facility
11700 Cherry Hill Road
Silver Spring, Maryland 20904**

Soil Sample ID	PPL Metals	Full Suite SVOCs	VOCs	PAHs	GRO/DRO	PCBs	Asbestos	Elemental Mercury	Hexavalent Chromium
MW-2 0' - 2'	x			x	x	x			
MW-2 4' - 6'	x			x	x	x		x	x
MW-3 0' - 2'	x			x	x	x			
MW-3 4' - 6'	x			x	x	x			
MW-4 0' - 2'	x			x	x	x			
MW-4 4' - 6'	x	x		x	x	x	x		
MW-5 0' - 2'	x			x	x	x			
MW-5 4' - 6'	x		x	x	x	x			
MW-6 0' - 2'	x			x	x	x			
MW-6A 0' - 2'	x			x	x	x			
MW-6 5' - 7'	x		x	x	x	x			
MW-7 0' - 2'	x			x	x	x			
MW-7 4' - 6'	x		x	x	x	x			
MW-8 0' - 2'	x	x		x	x	x			
MW-8 4' - 6'	x	x		x	x	x		x	
MW-9 0' - 2'	x			x	x	x			
MW-9 4' - 6'	x			x	x	x			
B1 0' - 2'	x			x	x	x			
B1 4' - 6'	x			x	x	x			
B2 0' - 2'	x			x	x	x			
B2 4' - 6'	x			x	x	x			
B3 0' - 2'	x			x	x	x			
B3 4' - 6'	x			x	x	x			
B4 0' - 2'	x			x	x	x			
B4 4' - 6'	x			x	x	x			
B5 0' - 2'	x			x	x	x			
B5 4' - 6'	x			x	x	x			

**Table 1
Soil Sample Analysis Table**

**Percontee Cherry Hill Road Facility
11700 Cherry Hill Road
Silver Spring, Maryland 20904**

Soil Sample ID	PPL Metals	Full Suite SVOCs	VOCs	PAHs	GRO/DRO	PCBs	Asbestos	Elemental Mercury	Hexavalent Chromium
B6 0' - 2'	x	x	x	x	x	x			
B6 4' - 6'	x	x	x	x	x	x			
B7 0' - 2'	x			x	x	x			
B7 4' - 6'	x			x	x	x			
B8 0' - 2'	x			x	x	x			
B8 4' - 6'	x		x	x	x	x			
B9 0' - 2'	x			x	x	x			
B9 4' - 6'	x		x	x	x	x			
B10 0' - 2'	x	x		x	x	x			
B10 4' - 6'	x	x	x	x	x	x			
B11 0' - 2'	x			x	x	x			
B11 5' - 7'	x		x	x	x	x			
B11 10' - 12'	x			x	x	x			
B12 4' - 6'	x			x	x	x			
B13 0' - 2'	x			x	x	x			
B13 4' - 6'	x			x	x	x			
B13 20' - 22'	x			x	x	x			
B14 0' - 2'	x			x	x	x			
B14 4' - 6'	x			x	x	x			
B15 0' - 2'	x			x	x	x			
B15 5' - 7'	x			x	x	x			
B16 0' - 2'	x			x	x	x			
B16 4' - 6'	x		x	x	x	x			
B17 0' - 2'	x	x		x	x	x			
B17 4' - 6'	x	x	x	x	x	x			
B17 28' - 30'	x	x		x	x	x			
B18 0' - 2'	x			x	x	x			

Table 1
Soil Sample Analysis Table

Percontee Cherry Hill Road Facility
11700 Cherry Hill Road
Silver Spring, Maryland 20904

Soil Sample ID	PPL Metals	Full Suite SVOCs	VOCs	PAHs	GRO/DRO	PCBs	Asbestos	Elemental Mercury	Hexavalent Chromium
B18 4' - 6'	x			x	x	x			
B18 45' - 47'	x			x	x	x			
B19 0' - 2'	x	x		x	x	x			
B19 4' - 6'	x	x		x	x	x			
B20 0' - 2'	x	x			x	x			
B20A 0' - 2'	x	x			x	x			
B20 4' - 6'	x	x			x	x			
B21 0' - 2'	x	x		x	x	x	x		
B21 4' - 7'	x			x	x	x			

Table 1a
Analytes Detected in Soil

Percontee Cherry Hill Road Facility
11700 Cherry Hill Road
Silver Spring, Maryland 20904

Compound	MDE RCS	ATC - Central Maryland	MW-2	MW-2	MW-3	MW-3	MW-4	MW-4	MW-5	MW-5	MW-6	MW-6A (duplicate)	MW-6	MW-7	MW-7	MW-8	MW-8	MW-9
			0' - 2' 3/25/2015	4' - 6' 3/25/2015	0' - 2' 3/26/2015	4' - 6' 3/26/2015	0' - 2' 3/18/2015	4' - 6' 3/18/2015	0' - 2' 3/12/2015	4' - 6' 3/12/2015	0' - 2' 3/23/2015	0' - 2' 3/23/2015	5' - 7' 3/23/2015	0' - 2' 3/13/2015	4' - 6' 3/13/2015	0' - 2' 3/16/2015	4' - 6' 3/16/2015	0' - 2' 3/27/2015
Petroleum Hydrocarbons																		
Total Petroleum Hydrocarbons Diesel Range Organics (mg/kg)	230	-	6.9	19	25	18	28	29	36	130	750	830	ND (11)	5.4J	8J	22	200	20
Total Petroleum Hydrocarbons Gasoline Range Organics (µg/kg)	230,000	-	ND (120)	ND (120)	ND (120)	ND (110)	NA	ND (110)	ND (110)	ND (110)	400	470	ND (110)	ND (120)	ND (110)	87J	72J	120
Poly Chlorinated Biphenyl																		
Total Poly Chlorinated Biphenyl (mg/kg)	0.32	-	ND (0.061)	0.28	ND (0.062)	ND (0.057)	ND (0.059)	ND (0.057)	ND (0.055)	ND (0.056)	ND (0.054)	ND (0.053)	ND (0.056)	ND (0.060)	ND (0.054)	ND (0.059)	ND (0.059)	ND (0.060)
Poly Aromatic Hydrocarbons																		
Acenaphthene (µg/kg)	470,000	-	ND (40)	ND (39)	ND (84)	ND (76)	ND (4.0)	450	ND (38)	580	110	170	ND (3.7)	ND (4.0)	ND (3.7)	ND (79)	ND (79)	54
Acenaphthylene (µg/kg)	470,000	-	ND (40)	ND (39)	ND (84)	ND (76)	6.0	13	ND (38)	110	ND (71)	ND (72)	ND (3.7)	9.9	ND (3.7)	ND (79)	ND (79)	8.1
Anthracene (µg/kg)	2,300,000	-	49	ND (39)	ND (84)	120	17	ND (3.8)	ND (38)	920	ND (71)	ND (72)	ND (3.7)	9.9	8.6	ND (79)	100	120
Benzo(a)anthracene (µg/kg)	220	-	100	95	180	170	47	980	72	1,300	ND (71)	ND (72)	ND (3.7)	27	27	150	250	160
Benzo(a)pyrene (µg/kg)	22	-	85	95	240	110	53	840	83	1,000	ND (71)	ND (72)	ND (3.7)	32	22	190	230	140
Benzo(b)fluoranthene (µg/kg)	2,200	-	77	83	ND (84)	110	ND (4.0)	7.9	80	ND (38)	ND (71)	ND (72)	ND (3.7)	ND (4.0)	27	ND (79)	ND (79)	ND (4.0)
Benzo(g,h,i)perylene (µg/kg)	230,000	-	57	59	170	84	34	530	91	440	ND (71)	ND (72)	ND (3.7)	19	13	130	140	81
Benzo(k)fluoranthene (µg/kg)	2,200	-	100	110	560	99	130	ND (3.8)	64	2,500	ND (71)	ND (72)	ND (3.7)	76	20	450	610	130
Chrysene (µg/kg)	22,000	-	120	100	230	160	71	970	99	1,400	92	86	ND (3.7)	32	29	220	280	170
Dibenz(a,h)anthracene (µg/kg)	22	-	ND (40)	ND (39)	ND (84)	ND (76)	16	260	68	290	ND (71)	ND (72)	ND (3.7)	8.7	6.7	ND (79)	ND (79)	36
Fluoranthene (µg/kg)	310,000	-	290	180	280	340	100	ND (3.8)	180	2,500	ND (71)	ND (72)	ND (3.7)	49	54	300	470	ND (4.0)
Fluorene (µg/kg)	310,000	-	ND (40)	ND (39)	ND (84)	ND (76)	4.4	360	ND (38)	590	150	240	ND (3.7)	5.1	ND (3.7)	ND (79)	ND (79)	50
Indeno(1,2,3-c,d)pyrene (µg/kg)	200	-	53	59	150	ND (76)	37	620	91	570	ND (71)	ND (72)	ND (3.7)	21	15	130	170	69
2-Methylnaphthalene (µg/kg)	31,000	-	ND (40)	ND (39)	ND (84)	ND (76)	ND (4.0)	35	ND (38)	190	390	500	ND (3.7)	ND (4.0)	ND (3.7)	ND (79)	ND (79)	8.1
Naphthalene (µg/kg)	160,000	-	ND (40)	ND (39)	ND (84)	ND (76)	ND (4.0)	94	ND (38)	180	ND (71)	ND (72)	ND (3.7)	ND (4.0)	ND (3.7)	ND (79)	ND (79)	5.3
Phenanthrene (µg/kg)	2,300,000	-	280	170	84J	390	47	ND (3.8)	64	2,800	340	560	ND (3.7)	23	45	140	280	ND (4.0)
Pyrene (µg/kg)	230,000	-	210	140	310	300	91	2,000	140	2,400	120	190	ND (3.7)	51	46	290	440	410
Volatile Organic Compounds																		
Acetone (µg/kg)	7,000,000	-	NA	NA	NA	NA	NA	NA	NA	49	NA	NA	ND (26)	NA	84	NA	NA	NA
2-Butanone (µg/kg)	4,700,000	-	NA	NA	NA	NA	NA	NA	NA	ND (21)	NA	NA	ND (26)	NA	ND (22)	NA	NA	NA
Carbon Disulfide (µg/kg)	780,000	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND (13)	NA	ND (11)	NA	NA	NA
Total Xylenes (µg/kg)	1,600,000	-	NA	NA	NA	NA	NA	NA	NA	ND (11)	NA	NA	ND (13)	NA	ND (11)	NA	NA	NA
1,2,4-Trichlorobenzene (µg/kg)	-	-	NA	NA	NA	NA	NA	NA	NA	ND (5.3)	NA	NA	ND (6.5)	NA	ND (5.5)	NA	NA	NA
1,2,3-Trichlorobenzene (µg/kg)	-	-	NA	NA	NA	NA	NA	NA	NA	ND (5.3)	NA	NA	ND (6.5)	NA	ND (5.5)	NA	NA	NA
Semi-Volatile Organic Compounds																		
Butyl Benzyl Phthalate (µg/kg)	-	-	NA	NA	NA	NA	NA	ND (190)	NA	NA	NA	NA	NA	NA	NA	ND (2,000)	ND (2,000)	NA
Carbazole (µg/kg)	32,000	-	NA	NA	NA	NA	NA	110J	NA	NA	NA	NA	NA	NA	NA	ND (2,000)	ND (2,000)	NA
Di-n-Butyl Phthalate (µg/kg)	780,000	-	NA	NA	NA	NA	NA	ND (190)	NA	NA	NA	NA	NA	NA	NA	ND (2,000)	ND (2,000)	NA
Asbestos																		
Total Asbestos	-	-	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Metals																		
Antimony (mg/kg)	3.1	6.8	ND (2.6)	ND (2.3)	ND (2.6)	ND (2.7)	ND (2.2)	ND (2.3)	ND (2.6)	ND (2.6)	ND (1.9)	ND (2.3)	ND (2.5)	ND (2.4)	ND (2.5)	ND (2.0)	ND (2.9)	ND (2.8)
Arsenic (mg/kg)	0.43	4.9	3.4	2.2	5.0	3.1	4.2	2.9	3.6	3.3	3.3	3.8	4.2	1.5	2.7	2.8	4.1	6.1
Beryllium (mg/kg)	16	1.6	1.4J	ND (2.3)	ND (2.6)	ND (2.7)	ND (2.2)	1.2J	ND (2.6)	ND (2.6)	ND (1.9)	ND (2.3)	ND (2.5)	ND (2.4)	ND (2.5)	ND (2.0)	ND (2.9)	ND (2.8)
Chromium (mg/kg)	23	30	51	200	46	61	37	44	58	92	26	25	18	140	54	57	54	40
Copper (mg/kg)	310	42	30	38	35	36	28	26	26	26	14	18	5.6	26	13	21	32	19
Lead (mg/kg)	400	61	28	12	16	17	21	22	22	23	5.8	6.1	4.3	9.8	7.1	32	24	17
Mercury (mg/kg)	-	0.14	0.093J	0.058J	0.075J	0.067J	0.058J	0.057J	0.071J	0.055J	ND (0.075)	ND (0.091)	ND (0.10)	0.058J	0.064J	0.068J	0.073J	0.072J
Nickel (mg/kg)	160	22	47	52	22	46	22	24	38	89	27	26	4.0	130	41	80	76	45
Selenium (mg/kg)	39	1.0	ND (2.6)	ND (2.3)	ND (2.6)	ND (2.7)	ND (2.2)	ND (2.3)	ND (2.6)	ND (2.6)	ND (1.9)	ND (2.3)	ND (2.5)	ND (2.4)	ND (2.5)	ND (2.0)	ND (2.9)	ND (2.8)
Thallium (mg/kg)	0.55	1.5	0.58	ND (0.46)	0.39J	0.28J	0.22J	0.32J	ND (0.52)	ND (0.52)	ND (0.37)	0.24J	ND (0.51)	0.50	ND (0.51)	ND (0.40)	ND (0.58)	ND (0.56)
Zinc (mg/kg)	2,300	73	57	54	50	54	68	61	49	46	17	13	8.2J	44	22	47	56	48
Metals Speciation																		
Elemental Mercury (mg/kg)	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexavalent Chromium (mg/kg)	-	-	NA	ND (1.2)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
MDE RCS = Maryland Department of the Environment Residential Cleanup Standard (June 2008)
ATC = Anticipated Typical Concentration for Central Maryland
J - target analyte was positively identified below the reporting limit but greater than the Laboratory Method Detection Limit
- Compound Not Analyzed/No Criteria
ND - non detect
NA - not analyzed
mg/kg - milligrams per kilogram
µg/kg - micrograms per kilogram
Bold cells are in excess of the specific reporting limit
Green highlighted cells are in excess of MDE RCS or ATC, whichever is greater

Table 1a
Analytes Detected in Soil

Percontee Cherry Hill Road Facility
11700 Cherry Hill Road
Silver Spring, Maryland 20904

Compound	MDE RCS	ATC - Central Maryland	MW-9	B1	B1	B2	B2	B3	B3	B4	B4	B5	B5	B6	B6	B7	B7	B8
			4' - 6' 3/27/2015	0' - 2' 4/7/2015	4' - 6' 4/7/2015	0' - 2' 4/8/2015	4' - 6' 4/8/2015	0' - 2' 4/8/2015	4' - 6' 4/8/2015	0' - 2' 4/8/2015	4' - 6' 4/8/2015	0' - 2' 4/7/2015	4' - 6' 4/7/2015	0' - 2' 4/8/2015	4' - 6' 4/8/2015	0' - 2' 4/7/2015	4' - 6' 4/7/2015	0' - 2' 4/7/2015
Petroleum Hydrocarbons																		
Total Petroleum Hydrocarbons Diesel Range Organics (mg/kg)	230	-	28	41	15	97	4.6J	250	17	83	16	7.8J	ND (11)	360	54	65	39	8.6J
Total Petroleum Hydrocarbons Gasoline Range Organics (µg/kg)	230,000	-	ND (120)	ND (100)	ND (110)	ND (110)	ND (110)	ND (110)	ND (110)	ND (110)	ND (110)	ND (110)	ND (110)	ND (100)	ND (100)	ND (110)	ND (110)	ND (110)
Poly Chlorinated Biphenyl																		
Total Poly Chlorinated Biphenyl (mg/kg)	0.32	-	ND (0.061)	ND (0.052)	ND (0.054)	ND (0.054)	ND (0.054)	ND (0.056)	ND (0.054)	ND (0.056)	ND (0.058)	ND (0.052)	ND (0.052)	ND (0.052)	ND (0.052)	ND (0.055)	ND (0.057)	0.16
Poly Aromatic Hydrocarbons																		
Acenaphthene (µg/kg)	470,000	-	ND (4.1)	ND (3.5)	ND (3.7)	3.9	ND (3.6)	ND (37)	ND (3.6)	ND (3.7)	ND (38)	ND (3.6)	ND (3.6)	ND (140)	ND (3.5)	ND (38)	ND (3.8)	ND (38)
Acenaphthylene (µg/kg)	470,000	-	4.5	ND (3.5)	5.5	ND (3.6)	ND (3.6)	ND (37)	ND (3.6)	ND (3.7)	ND (38)	ND (3.6)	ND (3.6)	ND (140)	ND (3.5)	ND (38)	ND (3.8)	ND (38)
Anthracene (µg/kg)	2,300,000	-	4.9	ND (3.5)	4.8	11	ND (3.6)	ND (37)	ND (3.6)	19	ND (38)	ND (3.6)	ND (3.6)	ND (140)	ND (3.5)	45	ND (3.8)	41
Benzo(a)anthracene (µg/kg)	220	-	8.6	18	21	22	ND (3.6)	160	14	35	ND (38)	ND (3.6)	ND (3.6)	ND (140)	13	210	6.1	110
Benzo(a)pyrene (µg/kg)	22	-	13	20	23	20	ND (3.6)	150	13	24	ND (38)	ND (3.6)	ND (3.6)	140J	19	200	6.4	110
Benzo(b)fluoranthene (µg/kg)	2,200	-	ND (4.1)	20	23	23	ND (3.6)	200	16	22	ND (38)	ND (3.6)	ND (3.6)	ND (140)	11	120	4.5	79
Benzo(g,h,i)perylene (µg/kg)	230,000	-	19	16	16	19	ND (3.6)	130	6.4	12	ND (38)	ND (3.6)	ND (3.6)	ND (140)	11	120	4.5	79
Benzo(k)fluoranthene (µg/kg)	2,200	-	21	6.9	8.1	7.2	ND (3.6)	48	4.6	8.6	ND (38)	ND (3.6)	ND (3.6)	ND (140)	5.6	83	4.2	ND (38)
Chrysene (µg/kg)	22,000	-	12	26	26	23	ND (3.6)	180	16	31	ND (38)	ND (3.6)	ND (3.6)	190	20	210	7.6	120
Dibenz(a,h)anthracene (µg/kg)	22	-	7.0	4.2	ND (3.7)	ND (3.6)	ND (3.6)	ND (37)	ND (3.6)	ND (3.7)	ND (38)	ND (3.6)	ND (3.6)	ND (140)	ND (3.5)	ND (38)	ND (3.8)	ND (38)
Fluoranthene (µg/kg)	310,000	-	20	17	27	37	ND (3.6)	200	28	44	ND (38)	ND (3.6)	ND (3.6)	ND (140)	16	360	10	210
Fluorene (µg/kg)	310,000	-	ND (4.1)	ND (3.5)	ND (3.7)	5.7	ND (3.6)	ND (37)	ND (3.6)	6.0	ND (38)	ND (3.6)	ND (3.6)	ND (140)	ND (3.5)	ND (38)	ND (3.8)	ND (38)
Indeno(1,2,3-c,d)pyrene (µg/kg)	200	-	9.9	16	14	19	ND (3.6)	130	7.9	13	ND (38)	ND (3.6)	ND (3.6)	ND (140)	11	150	4.2	71
2-Methylnaphthalene (µg/kg)	31,000	-	ND (4.1)	ND (3.5)	ND (3.7)	ND (3.6)	ND (3.6)	ND (37)	ND (3.6)	ND (3.7)	ND (38)	ND (3.6)	ND (3.6)	ND (140)	8.4	ND (38)	ND (3.8)	ND (38)
Naphthalene (µg/kg)	160,000	-	ND (4.1)	ND (3.5)	ND (3.7)	ND (3.6)	ND (3.6)	ND (37)	ND (3.6)	ND (3.7)	ND (38)	ND (3.6)	ND (3.6)	ND (140)	6.7	ND (38)	ND (3.8)	ND (38)
Phenanthrene (µg/kg)	2,300,000	-	18	13	26	30	ND (3.6)	56	8.6	60	ND (38)	ND (3.6)	ND (3.6)	ND (140)	8.1	230	4.9	120
Pyrene (µg/kg)	230,000	-	25	41	86	59	ND (3.6)	360	33	87	ND (38)	ND (3.6)	ND (3.6)	360	59	390	9.8	180
Volatile Organic Compounds																		
Acetone (µg/kg)	7,000,000	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	56	27	NA	NA	NA
2-Butanone (µg/kg)	4,700,000	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND (21)	ND (18)	NA	NA	NA
Carbon Disulfide (µg/kg)	780,000	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND (11)	ND (9.2)	NA	NA	NA
Total Xylenes (µg/kg)	1,600,000	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	18.7	ND (9.2)	NA	NA	NA
1,2,4-Trichlorobenzene (µg/kg)	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.3J	ND (4.6)	NA	NA	NA
1,2,3-Trichlorobenzene (µg/kg)	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.7J	ND (4.6)	NA	NA	NA
Semi-Volatile Organic Compounds																		
Butyl Benzyl Phthalate (µg/kg)	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND (6,900)	ND (170)	NA	NA	NA
Carbazole (µg/kg)	32,000	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND (6,900)	ND (170)	NA	NA	NA
Di-n-Butyl Phthalate (µg/kg)	780,000	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND (6,900)	ND (170)	NA	NA	NA
Asbestos																		
Total Asbestos	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Metals																		
Antimony (mg/kg)	3.1	6.8	ND (3.0)	ND (2.2)	ND (2.2)	ND (2.1)	ND (2.4)	ND (2.1)	ND (2.4)	ND (2.5)	ND (2.7)	ND (2.4)	ND (2.2)	ND (2.1)	ND (2.3)	ND (2.4)	ND (2.4)	ND (2.5)
Arsenic (mg/kg)	0.43	4.9	3.0	1.4	4.5	0.98	2.8	3.4	2.0	2.3	4.3	3.6	3.5	1.7	2.6	3.4	4.0	3.0
Beryllium (mg/kg)	16	1.6	ND (3.0)	ND (2.2)	ND (2.2)	ND (2.1)	ND (2.4)	ND (2.1)	ND (2.4)	ND (2.5)	ND (2.7)	ND (2.4)	ND (2.2)	ND (2.1)	ND (2.3)	ND (2.4)	ND (2.4)	ND (2.5)
Chromium (mg/kg)	23	30	66	69	80	14	17	92	ND (2.4)	50	37	16	14	74	20	70	32	110
Copper (mg/kg)	310	42	22	25	12	41	11	21	4.0	20	12	19	12	39	18	24	19	36
Lead (mg/kg)	400	61	13	5.5	15	4.1	4.4	17	4.2	10	10	7.1	5.7	5.1	4.1	23	12	29
Mercury (mg/kg)	-	0.14	0.064J	ND (0.090)	0.046J	ND (0.083)	0.052J	ND (0.084)	ND (0.098)	ND (0.10)	ND (0.11)	ND (0.095)	0.045J	ND (0.085)	ND (0.090)	0.064J	0.05J	0.08J
Nickel (mg/kg)	160	22	63	65	85	20	5.3	230	8.1	27	29	9.0	3.9	120	17	43	31	49
Selenium (mg/kg)	39	1.0	ND (3.0)	ND (2.2)	ND (2.2)	ND (2.1)	ND (2.4)	ND (2.1)	ND (2.4)	ND (2.5)	ND (2.7)	ND (2.4)	1.2J	ND (2.1)	ND (2.3)	ND (2.4)	ND (2.4)	ND (2.5)
Thallium (mg/kg)	0.55	1.5	ND (0.60)	ND (0.45)	ND (0.43)	ND (0.42)	ND (0.48)	ND (0.42)	ND (0.49)	ND (0.51)	ND (0.53)	ND (0.48)	ND (0.45)	ND (0.43)	ND (0.45)	ND (0.48)	ND (0.49)	ND (0.51)
Zinc (mg/kg)	2,300	73	43	46	30	20	7.4	23	8.5J	35	26	19	7.9J	26	9.9	52	20	61
Metals Speciation																		
Elemental Mercury (mg/kg)	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexavalent Chromium (mg/kg)	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Table 1a
Analytes Detected in Soil

Percontee Cherry Hill Road Facility
11700 Cherry Hill Road
Silver Spring, Maryland 20904

Compound	MDE RCS	ATC - Central Maryland	B8	B9	B9	B10	B10	B11	B11	B11	B12	B13	B13	B13	B14	B14	B15	B15
			4' - 6' 3/25/2015	0' - 2' 3/26/2015	4' - 6' 3/26/2015	0' - 2' 3/18/2015	4' - 6' 3/18/2015	0' - 2' 3/9/2015	5' - 7' 3/9/2015	10' - 12' 3/9/2015	4' - 6' 3/9/2015	0' - 2' 3/9/2015	4' - 6' 3/9/2015	20' - 22' 3/9/2015	0' - 2' 3/10/2015	4' - 6' 3/10/2015	0' - 2' 3/10/2015	5' - 7' 3/10/2015
Petroleum Hydrocarbons																		
Total Petroleum Hydrocarbons Diesel Range Organics (mg/kg)	230	-	ND (13)	110	270	27	30	14	18	6.7J	24	6.8J	25	ND (12)	5.1J	6.5J	14	NA
Total Petroleum Hydrocarbons Gasoline Range Organics (µg/kg)	230,000	-	ND (130)	ND (120)	ND (110)	91J	69J	ND (120)	ND (130)	ND (150)	ND (120)	ND (120)	ND (110)	ND (120)	ND (110)	ND (130)	ND (110)	ND (110)
Poly Chlorinated Biphenyl																		
Total Poly Chlorinated Biphenyl (mg/kg)	0.32	-	ND (0.067)	ND (0.058)	ND (0.058)	0.28	ND (0.058)	ND (0.063)	ND (0.065)	ND (0.076)	ND (0.062)	ND (0.062)	0.074	ND (0.058)	ND (0.056)	ND (0.063)	ND (0.055)	ND (0.057)
Poly Aromatic Hydrocarbons																		
Acenaphthene (µg/kg)	470,000	-	ND (45)	ND (78)	ND (75)	9.5	17	ND (4.2)	ND (45)	ND (5.0)	ND (4.2)	5.3	ND (3.7)	ND (4.0)	ND (74)	ND (4.3)	6.4	42
Acenaphthylene (µg/kg)	470,000	-	ND (45)	ND (78)	ND (75)	19	9.7	5.5	ND (45)	ND (5.0)	ND (4.2)	4.5	ND (3.7)	ND (4.0)	ND (74)	17	22	ND (38)
Anthracene (µg/kg)	2,300,000	-	ND (45)	ND (78)	91	50	38	11	ND (45)	ND (5.0)	4.6	35	9.2	ND (4.0)	ND (74)	12	60	110
Benzo(a)anthracene (µg/kg)	220	-	ND (45)	100	170	120	73	40	ND (45)	ND (5.0)	18	89	34	ND (4.0)	270	35	140	210
Benzo(a)pyrene (µg/kg)	22	-	ND (45)	110	170	120	60	36	ND (45)	ND (5.0)	15	76	32	ND (4.0)	270	59	110	210
Benzo(b)fluoranthene (µg/kg)	2,200	-	ND (45)	100	ND (75)	ND (3.8)	ND (3.9)	30	ND (45)	ND (5.0)	ND (4.2)	74	ND (3.7)	ND (4.0)	210	47	93	180
Benzo(g,h,i)perylene (µg/kg)	230,000	-	ND (45)	93	150	74	36	27	ND (45)	ND (5.0)	10	46	18	ND (4.0)	170	48	65	110
Benzo(k)fluoranthene (µg/kg)	2,200	-	ND (45)	93	300	260	130	38	ND (45)	ND (5.0)	35	57	75	ND (4.0)	270	31	120	160
Chrysene (µg/kg)	22,000	-	ND (45)	140	200	120	93	47	ND (45)	ND (5.0)	20	94	39	ND (4.0)	350	45	150	220
Dibenz(a,h)anthracene (µg/kg)	22	-	ND (45)	ND (78)	ND (75)	26	15	12	ND (45)	ND (5.0)	5.4	24	9.6	ND (4.0)	74J	24	35	68
Fluoranthene (µg/kg)	310,000	-	ND (45)	190	310	180	170	90	ND (45)	ND (5.0)	34	170	67	ND (4.0)	740	38	330	460
Fluorene (µg/kg)	310,000	-	ND (45)	ND (78)	ND (75)	17	19	ND (4.2)	ND (45)	ND (5.0)	ND (4.2)	6.1	ND (3.7)	ND (4.0)	ND (74)	4.7	8.3	64
Indeno(1,2,3-c,d)pyrene (µg/kg)	200	-	ND (45)	ND (78)	98	84	39	29	ND (45)	ND (5.0)	13	54	22	ND (4.0)	180	48	78	140
2-Methylnaphthalene (µg/kg)	31,000	-	ND (45)	ND (78)	ND (75)	ND (3.8)	12	ND (4.2)	ND (45)	ND (5.0)	ND (4.2)	ND (4.1)	ND (3.7)	ND (4.0)	ND (74)	ND (4.3)	4.1	ND (38)
Naphthalene (µg/kg)	160,000	-	ND (45)	ND (78)	ND (75)	4.2	16	ND (4.2)	ND (45)	ND (5.0)	ND (4.2)	ND (4.1)	ND (3.7)	ND (4.0)	ND (74)	ND (4.3)	5.6	ND (38)
Phenanthrene (µg/kg)	2,300,000	-	ND (45)	110	200	110	ND (3.9)	45	ND (45)	ND (5.0)	16	120	33	ND (4.0)	310	14	300	410
Pyrene (µg/kg)	230,000	-	ND (45)	190	300	180	160	74	ND (45)	ND (5.0)	28	150	55	ND (4.0)	530	49	300	340
Volatile Organic Compounds																		
Acetone (µg/kg)	7,000,000	-	20	NA	180	NA	48	NA	26	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone (µg/kg)	4,700,000	-	ND (22)	NA	19J	NA	ND (22)	NA	ND (26)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide (µg/kg)	780,000	-	ND (11)	NA	5.6J	NA	ND (11)	NA	ND (13)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Xylenes (µg/kg)	1,600,000	-	ND (11)	NA	ND (10)	NA	ND (11)	NA	ND (13)	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene (µg/kg)	-	-	ND (5.4)	NA	ND (5.1)	NA	ND (5.6)	NA	ND (6.5)	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene (µg/kg)	-	-	ND (5.4)	NA	ND (5.1)	NA	ND (5.6)	NA	ND (6.5)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semi-Volatile Organic Compounds																		
Butyl Benzyl Phthalate (µg/kg)	-	-	NA	NA	NA	180J	ND (190)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole (µg/kg)	32,000	-	NA	NA	NA	ND (190)	ND (190)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butyl Phthalate (µg/kg)	780,000	-	NA	NA	NA	ND (190)	ND (190)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Asbestos																		
Total Asbestos	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Metals																		
Antimony (mg/kg)	3.1	6.8	ND (3.3)	ND (2.6)	ND (2.6)	ND (2.5)	ND (2.8)	ND (2.6)	ND (2.5)	ND (2.9)	ND (3.1)	ND (2.4)	ND (2.6)	ND (2.3)	ND (2.2)	ND (2.6)	ND (2.1)	ND (3.0)
Arsenic (mg/kg)	0.43	4.9	11	4.3	3.2	2.9	3.4	2.7	6.4	7.8	5.7	2.2	2.6	2.8	2.7	6.6	1.5	4.2
Beryllium (mg/kg)	16	1.6	ND (3.3)	ND (2.6)	ND (2.6)	ND (2.5)	ND (2.8)	ND (2.6)	ND (2.5)	ND (2.9)	ND (3.1)	ND (2.4)	ND (2.6)	ND (2.3)	ND (2.2)	ND (2.6)	ND (2.1)	ND (3.0)
Chromium (mg/kg)	23	30	42	45	51	64	39	81	25	26	68	45	60	19	83	27	64	50
Copper (mg/kg)	310	42	23	17	120	25	22	21	14	21	18	17	23	7.4	19	12	35	15
Lead (mg/kg)	400	61	16	22	120	51	29	18	10	10	14	19	11	8.2	11	11	6.5	13
Mercury (mg/kg)	-	0.14	0.16	0.06J	0.063J	0.096J	0.11J	ND (0.10)	0.063J	0.14	ND (0.12)	0.048J	ND (0.10)	0.046J	ND (0.090)	0.1J	ND (0.085)	0.072J
Nickel (mg/kg)	160	22	9.3	33	86	42	27	98	7.3	3.9	27	41	75	7.4	110	6.6	41	19
Selenium (mg/kg)	39	1.0	2.8J	ND (2.6)	ND (2.6)	ND (2.5)	ND (2.8)	ND (2.6)	ND (2.5)	ND (2.9)	ND (3.1)	ND (2.4)	ND (2.6)	ND (2.3)	ND (2.2)	ND (2.6)	ND (2.1)	ND (3.0)
Thallium (mg/kg)	0.55	1.5	ND (0.66)	ND (0.51)	ND (0.52)	0.25J	ND (0.57)	ND (0.52)	ND (0.49)	ND (0.58)	ND (0.62)	ND (0.48)	ND (0.51)	ND (0.45)	ND (0.45)	ND (0.52)	ND (0.43)	ND (0.060)
Zinc (mg/kg)	2,300	73	19	39	83	53	53	51	12	14	37	35	24	13	23	13	52	32
Metals Speciation																		
Elemental Mercury (mg/kg)	-	-	0.124	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexavalent Chromium (mg/kg)	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
MDE RCS = Maryland Department of the Environment Residential Cleanup Standard (June 2008)
ATC = Anticipated Typical Concentration for Central Maryland
J - target analyte was positively identified below the reporting limit but greater than the Laboratory Method Detection Limit
- Compound Not Analyzed/No Criteria
ND - non detect
NA - not analyzed
mg/kg - milligrams per kilogram
µg/kg - micrograms per kilogram
Bold cells are in excess of the specific reporting limit
Green highlighted cells are in excess of MDE RCS or ATC, whichever is greater

Table 1a
Analytes Detected in Soil

Percontee Cherry Hill Road Facility
11700 Cherry Hill Road
Silver Spring, Maryland 20904

Compound	MDE RCS	ATC - Central Maryland	B16	B16	B17	B17	B17	B18	B18	B18	B19	B19	B20	B20A (Duplicate)	B20	B21	B21
			0' - 2' 3/11/2015	4' - 6' 3/11/2015	0' - 2' 3/17/2015	4' - 6' 3/17/2015	28' - 30' 3/17/2015	0' - 2' 3/12/2015	4' - 6' 3/12/2015	45' - 47' 3/12/2015	0' - 2' 3/17/2015	4' - 6' 3/17/2015	0' - 2' 3/19/2015	0' - 2' 3/19/2015	4' - 6' 3/19/2015	0' - 2' 3/24/2015	4' - 7' 3/24/2015
Petroleum Hydrocarbons																	
Total Petroleum Hydrocarbons Diesel Range Organics (mg/kg)	230	-	130	59	11J	26	ND (12)	8.2J	9.2J	10J	19	5.4	46	43	5.4J	12	8.3
Total Petroleum Hydrocarbons Gasoline Range Organics (µg/kg)	230,000	-	ND (110)	120	ND (120)	ND (120)	ND (120)	81J	71J	ND (110)	ND (110)	ND (120)	ND (110)	ND (110)	ND (120)	ND (110)	ND (110)
Poly Chlorinated Biphenyl																	
Total Poly Chlorinated Biphenyl (mg/kg)	0.32	-	ND (0.055)	ND (0.057)	ND (0.061)	ND (0.060)	ND (0.061)	ND (0.059)	ND (0.067)	ND (0.053)	ND (0.058)	ND (0.060)	ND (0.055)	ND (0.054)	ND (0.059)	ND (0.058)	ND (0.058)
Poly Aromatic Hydrocarbons																	
Acenaphthene (µg/kg)	470,000	-	ND (37)	ND (39)	ND (40)	ND (80)	ND (4.1)	ND (4.1)	ND (4.6)	ND (3.6)	ND (3.8)	ND (4.0)	NA	NA	NA	ND (38)	ND (39)
Acenaphthylene (µg/kg)	470,000	-	ND (37)	51	ND (40)	ND (80)	ND (4.1)	ND (4.1)	ND (4.6)	ND (3.6)	ND (3.8)	ND (4.0)	NA	NA	NA	45	ND (39)
Anthracene (µg/kg)	2,300,000	-	ND (37)	ND (39)	44	ND (80)	ND (4.1)	4.5	ND (4.6)	ND (3.6)	ND (3.8)	ND (4.0)	NA	NA	NA	75	ND (39)
Benzo(a)anthracene (µg/kg)	220	-	ND (37)	110	89	ND (80)	ND (4.1)	15	ND (4.6)	ND (3.6)	ND (3.8)	ND (4.0)	NA	NA	NA	180	ND (39)
Benzo(a)pyrene (µg/kg)	22	-	49	140	110	ND (80)	ND (4.1)	16	ND (4.6)	ND (3.6)	ND (3.8)	ND (4.0)	NA	NA	NA	170	ND (39)
Benzo(b)fluoranthene (µg/kg)	2,200	-	ND (37)	120	ND (40)	ND (80)	ND (4.1)	12	ND (4.6)	ND (3.6)	ND (3.8)	ND (4.0)	NA	NA	NA	ND (38)	ND (39)
Benzo(g,h,i)perylene (µg/kg)	230,000	-	41	78	77	ND (80)	ND (4.1)	9.0	ND (4.6)	ND (3.6)	ND (3.8)	ND (4.0)	NA	NA	NA	110	ND (39)
Benzo(k)fluoranthene (µg/kg)	2,200	-	110	90	260	180	ND (4.1)	16	ND (4.6)	ND (3.6)	ND (3.8)	ND (4.0)	NA	NA	NA	340	ND (39)
Chrysene (µg/kg)	22,000	-	97	130	130	80J	ND (4.1)	18	ND (4.6)	ND (3.6)	ND (3.8)	ND (4.0)	NA	NA	NA	180	ND (39)
Dibenz(a,h)anthracene (µg/kg)	22	-	ND (37)	ND (39)	ND (40)	ND (80)	ND (4.1)	4.5	ND (4.6)	ND (3.6)	ND (3.8)	ND (4.0)	NA	NA	NA	57	ND (39)
Fluoranthene (µg/kg)	310,000	-	41	140	200	96	ND (4.1)	28	ND (4.6)	ND (3.6)	ND (3.8)	ND (4.0)	NA	NA	NA	290	47
Fluorene (µg/kg)	310,000	-	ND (37)	ND (39)	ND (40)	ND (80)	ND (4.1)	ND (4.1)	ND (4.6)	ND (3.6)	ND (3.8)	ND (4.0)	NA	NA	NA	ND (38)	ND (39)
Indeno(1,2,3-c,d)pyrene (µg/kg)	200	-	ND (37)	82	81	ND (80)	ND (4.1)	9.9	ND (4.6)	ND (3.6)	ND (3.8)	ND (4.0)	NA	NA	NA	98	ND (39)
2-Methylnaphthalene (µg/kg)	31,000	-	ND (37)	ND (39)	ND (40)	ND (80)	ND (4.1)	ND (4.1)	ND (4.6)	ND (3.6)	ND (3.8)	ND (4.0)	NA	NA	NA	ND (38)	ND (39)
Naphthalene (µg/kg)	160,000	-	ND (37)	ND (39)	ND (40)	ND (80)	ND (4.1)	ND (4.1)	ND (4.6)	ND (3.6)	ND (3.8)	ND (4.0)	NA	NA	NA	ND (38)	ND (39)
Phenanthrene (µg/kg)	2,300,000	-	ND (37)	74	97	ND (80)	ND (4.1)	17	ND (4.6)	ND (3.6)	ND (3.8)	ND (4.0)	NA	NA	NA	210	43
Pyrene (µg/kg)	230,000	-	75	220	170	96	ND (4.1)	30	ND (4.6)	ND (3.6)	ND (3.8)	ND (4.0)	NA	NA	NA	280	ND (39)
Volatile Organic Compounds																	
Acetone (µg/kg)	7,000,000	-	NA	94	NA	130	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone (µg/kg)	4,700,000	-	NA	ND (23)	NA	ND (22)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide (µg/kg)	780,000	-	NA	ND (12)	NA	ND (11)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Xylenes (µg/kg)	1,600,000	-	NA	ND (12)	NA	ND (11)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene (µg/kg)	-	-	NA	ND (5.5)	NA	ND (6.5)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene (µg/kg)	-	-	NA	ND (5.5)	NA	ND (6.5)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semi-Volatile Organic Compounds																	
Butyl Benzyl Phthalate (µg/kg)	-	-	NA	NA	ND (200)	ND (200)	ND (210)	NA	NA	NA	ND (1,900)	ND (200)	ND (190)	ND (180)	ND (200)	ND (190)	ND (190)
Carbazole (µg/kg)	32,000	-	NA	NA	440	ND (200)	ND (210)	NA	NA	NA	ND (1,900)	ND (200)	ND (190)	ND (180)	ND (200)	ND (190)	ND (190)
Di-n-Butyl Phthalate (µg/kg)	780,000	-	NA	NA	ND (200)	ND (200)	ND (210)	NA	NA	NA	ND (1,900)	ND (200)	ND (190)	ND (180)	ND (200)	170J	130J
Asbestos																	
Total Asbestos	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
Total Metals																	
Antimony (mg/kg)	3.1	6.8	ND (2.3)	ND (2.3)	ND (2.6)	2.5J	ND (2.9)	ND (2.4)	ND (3.3)	ND (2.3)	ND (2.5)	ND (3.0)	ND (2.8)	ND (2.0)	ND (2.4)	ND (2.0)	ND (2.3)
Arsenic (mg/kg)	0.43	4.9	2.3	3.2	3.7	4.0	0.87	3.2	4.3	0.83	1.7	2.6	3.1	2.9	5.1	2.8	2.6
Beryllium (mg/kg)	16	1.6	ND (2.3)	ND (2.3)	ND (2.6)	ND (2.8)	ND (2.9)	ND (2.4)	ND (3.3)	ND (2.3)	1.4J	ND (3.0)	ND (2.8)	ND (2.0)	ND (2.4)	ND (2.0)	ND (2.3)
Chromium (mg/kg)	23	30	180	49	31	34	11	33	34	8.8	57	16	23	22	28	48	38
Copper (mg/kg)	310	42	15	22	16	22	5.4	13	9.7	1.9J	26	7.1	11	8.7	6.4	23	21
Lead (mg/kg)	400	61	4.3	33	40	32	4.7	7.8	13	2J	12	9.1	6.9	5.6	7.5	23	13
Mercury (mg/kg)	-	0.14	ND (0.093)	0.074J	0.071J	0.11	ND (0.120)	0.20	0.076J	ND (0.090)	ND (0.10)	0.061J	0.072J	0.051J	0.061J	0.064J	ND (0.094)
Nickel (mg/kg)	160	22	350	39	18	31	2.3J	19	12	1.5J	33	8.1	8.4	8.7	3.3	37	36
Selenium (mg/kg)	39	1.0	ND (2.3)	ND (2.3)	ND (2.6)	2.5J	ND (2.9)	ND (2.4)	ND (3.3)	ND (2.3)	ND (2.5)	ND (3.0)	ND (2.8)	ND (2.0)	ND (2.4)	ND (2.0)	ND (2.3)
Thallium (mg/kg)	0.55	1.5	ND (0.46)	ND (0.46)	ND (0.52)	ND (0.55)	ND (0.58)	ND (0.47)	ND (0.66)	ND (0.45)	0.34J	ND (0.60)	ND (0.55)	ND (0.40)	ND (0.49)	0.20	ND (0.47)
Zinc (mg/kg)	2,300	73	20	43	49	57	6.5J	40	27	ND (9.0)	39	19	78	58	5.7J	51	32
Metals Speciation																	
Elemental Mercury (mg/kg)	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexavalent Chromium (mg/kg)	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
MDE RCS = Maryland Department of the Environment Residential Cleanup Standard (June 2008)
ATC = Anticipated Typical Concentration for Central Maryland
J - target analyte was positively identified below the reporting limit but greater than the Laboratory Method Detection Limit
- Compound Not Analyzed/No Criteria
ND - non detect
NA - not analyzed
mg/kg - milligrams per kilogram
µg/kg - micrograms per kilogram
Bold cells are in excess of the specific reporting limit
Green highlighted cells are in excess of MDE RCS or ATC, whichever is greater

Table 2
Analytes Detected in Groundwater

Percontee Cherry Hill Road Facility
11700 Cherry Hill Road
Silver Spring, Maryland 20904

Compound	MDE GWS	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8
		4/28/2015	4/28/2015	4/29/2015	4/29/2015	4/29/2015	4/29/2015	4/29/2015
Petroleum Hydrocarbons								
Total Petroleum Hydrocarbons Diesel Range Organics (mg/L)	0.047	0.070	0.140	0.430	0.056	0.240	0.074	0.110
Total Petroleum Hydrocarbons Gasoline Range Organics (µg/L)	47	ND (40)	ND (40)	ND (40)	ND (40)	47	ND (40)	ND (40)
Poly Aromatic Hydrocarbons								
Acenaphthene (µg/L)	37	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)
Fluorene (µg/L)	24	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)
Volatile Organic Compounds								
Acetone (µg/L)	550	ND (10)	ND (10)	ND (10)	ND (10)	7.9J	ND (10)	ND (10)
1,1-Dichloroethane (µg/L)	90	ND (1.0)	0.79J	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Methyl-t-butyl Ether (µg/L)	20	0.65J	ND (1.0)	0.59J	ND (1.0)	3.8	ND (1.0)	ND (1.0)
Total Metals								
Arsenic (µg/L)	10	1.4	16	2.4	5.7	7.2	8.5	0.85J
Cadmium (µg/L)	5.0	ND (1.0)	ND (1.0)	ND (1.0)	2.8	ND (1.0)	ND (1.0)	ND (1.0)
Chromium (µg/L)	100	4.6	2.1	3.7	110	160	3.1	5.2
Copper (µg/L)	1,300	3.6	4.2	4.4	55	83	4.8	5.0
Lead (µg/L)	15	1.5	1.4	2.9	19	30	2.3	1.7
Mercury (µg/L)	2.0	0.39	ND (0.20)	ND (0.20)	0.20	0.54	ND (0.20)	ND (0.20)
Nickel (µg/L)	73	11	6.9	9.0	44	110	11	5.1
Selenium (µg/L)	50	1.8	ND (1.0)	ND (1.0)	1.9	0.72J	ND (1.0)	ND (1.0)
Silver (µg/L)	18	ND (1.0)	ND (1.0)	ND (1.0)	0.70J	3.7	ND (1.0)	ND (1.0)
Thallium (µg/L)	2.0	ND (1.0)	ND (1.0)	ND (1.0)	0.64J	ND (1.0)	ND (1.0)	ND (1.0)
Zinc (µg/L)	1,100	51	31	44	80	150	49	24

Notes:

MDE GWS = Maryland Department of the Environment Groundwater Quality Standards (June 2008)

J - target analyte was positively identified below the reporting limit but greater than the Laboratory Method Detection Limit

ND - non detect

mg/L - milligrams per Liter

µg/L - micrograms per Liter

Bold cells are in excess of the specific reporting limit

Blue highlighted cells are in excess of MDE GWS

Table 2
Analytes Detected in Groundwater

Percontee Cherry Hill Road Facility
11700 Cherry Hill Road
Silver Spring, Maryland 20904

Compound	MDE GWS	MW-9 4/28/2015
Petroleum Hydrocarbons		
Total Petroleum Hydrocarbons Diesel Range Organics (mg/L)	0.047	0.210
Total Petroleum Hydrocarbons Gasoline Range Organics (µg/L)	47	ND (40)
Poly Aromatic Hydrocarbons		
Acenaphthene (µg/L)	37	0.43
Fluorene (µg/L)	24	0.14
Volatile Organic Compounds		
Acetone (µg/L)	550	ND (10)
1,1-Dichloroethane (µg/L)	90	ND (1.0)
Methyl-t-butyl Ether (µg/L)	20	ND (1.0)
Total Metals		
Arsenic (µg/L)	10	ND (1.0)
Cadmium (µg/L)	5.0	ND (1.0)
Chromium (µg/L)	100	1.2
Copper (µg/L)	1,300	0.72J
Lead (µg/L)	15	0.76J
Mercury (µg/L)	2.0	ND (0.20)
Nickel (µg/L)	73	1.6
Selenium (µg/L)	50	ND (1.0)
Silver (µg/L)	18	ND (1.0)
Thallium (µg/L)	2.0	ND (1.0)
Zinc (µg/L)	1,100	15

Notes:

MDE GWS = Maryland Department of the Environment Groundwater Quality Standards (June 2008)

J - target analyte was positively identified below the reporting limit but greater than the Laboratory Method De

ND - non detect

mg/L - milligrams per Liter

µg/L - micrograms per Liter

Bold cells are in excess of the specific reporting limit

Blue highlighted cells are in excess of MDE GWS

Table 3
Analytes Detected in Stormwater Management Ponds

Percontee Cherry Hill Road Facility
11700 Cherry Hill Road
Silver Spring, Maryland 20904

Compound	MNC	S-2	S-3	S-4	S-5	S-6	S-7	S-8
		4/30/2015	4/30/2015	4/30/2015	4/30/2015	4/30/2015	4/30/2015	4/30/2015
Petroleum Hydrocarbons								
Total Petroleum Hydrocarbons Diesel Range Organics (mg/L)	-	0.14	0.23	0.17	0.14	0.16	0.53	0.15
Poly Aromatic Hydrocarbons								
Acenaphthene (µg/L)	990	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	0.18	ND (0.10)
Benzo(a)anthracene (µg/L)	0.18	ND (0.10)	0.10J	ND (0.10)	0.10J	ND (0.10)	0.73	ND (0.10)
Benzo(a)pyrene (µg/L)	0.18	ND (0.10)	0.10J	ND (0.10)	0.11J	ND (0.10)	0.56	ND (0.10)
Benzo(b)fluoranthene (µg/L)	0.18	0.21	0.27	ND (0.10)	0.30	ND (0.10)	1.50	ND (0.10)
Benzo(g,h,i)perylene (µg/L)	-	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	0.24	ND (0.10)
Benzo(k)fluoranthene (µg/L)	0.18	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	0.18	ND (0.10)
Chrysene (µg/L)	0.18	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	0.51	ND (0.10)
Dibenz(a,h)anthracene (µg/L)	0.18	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	0.12	ND (0.10)
Fluoranthene (µg/L)	140	0.28	0.20	ND (0.10)	0.21	ND (0.10)	1.3	ND (0.10)
Indeno(1,2,3-c,d)pyrene (µg/L)	0.18	0.38	0.45	ND (0.10)	0.48	ND (0.10)	1.10	ND (0.10)
Phenanthrene (µg/L)	-	ND (0.10)	ND (0.10)	ND (0.10)	0.10J	ND (0.10)	0.73	ND (0.10)
Pyrene (µg/L)	4,000	0.13	0.14	ND (0.10)	0.15	ND (0.10)	0.94	ND (0.10)
Volatile Organic Compounds								
Toluene (µg/L)	15,000	ND (1.0)	ND (1.0)	0.73J	ND (1.0)	ND (1.0)	ND (100)	ND (1.0)
Semi-Volatile Organic Compounds								
bis(2-ethylhexyl)phthalate (µg/L)	22	ND (5.0)	ND (5.0)	ND (5.0)	3.0J	ND (5.0)	3.7J	ND (5.0)
Total Metals								
Arsenic (µg/L)	1.4	13	0.83J	0.80J	11	ND (1.0)	5.5	0.51J
Beryllium (µg/L)	-	2.2	ND (1.0)	ND (1.0)	2.6	ND (1.0)	ND (1.0)	ND (1.0)
Cadmium (µg/L)	-	1.5	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Chromium (µg/L)	-	130	4.2	8.5	54	ND (1.0)	14	1.1
Copper (µg/L)	-	89	4.6	4.0	86	0.97J	14	4.7
Lead (µg/L)	-	130	2.1	ND (1.0)	49	ND (1.0)	15	0.78J
Mercury (µg/L)	-	0.27	ND (0.20)	ND (0.20)	0.39	ND (0.20)	ND (0.20)	ND (0.20)
Nickel (µg/L)	4,600	160	6.5	4.1	45	ND (1.0)	19	3.9
Selenium (µg/L)	4,200	0.96J	ND (1.0)	ND (1.0)	1.4	ND (1.0)	ND (1.0)	ND (1.0)
Thallium (µg/L)	0.47	0.55J	ND (1.0)	ND (1.0)	0.74	ND (1.0)	ND (1.0)	ND (1.0)
Zinc (µg/L)	26,000	240	23	17J	140	15J	44	56

Notes:

MNC = Maryland Numerical Criteria for Toxic Substances in Surface Water Standard (COMAR 26.08.02.03-2).

J - target analyte was positively identified below the reporting limit but greater than the Laboratory Method Detection Limit

- Compound Not Analyzed/No Criteria

ND - non detect; mg/L - milligrams per Liter; µg/L - micrograms per Liter; Bold cells are in excess of the specific reporting limit; Blue highlighted cells are in excess of MNC

**Table 4
Analytes Detected in Stream Sediment**

Percontee Cherry Hill Road Facility
11700 Cherry Hill Road
Silver Spring, Maryland 20904

Compound	MDE RCS	ATC - Central Maryland	S-2 4/30/2015	S-3 4/30/2015	S-4 4/30/2015	S-5 4/30/2015	S-6 4/30/2015	S-7 4/30/2015	S-8 4/30/2015
Petroleum Hydrocarbons									
Total Petroleum Hydrocarbons Diesel Range Organics (mg/kg)	230	-	ND (19)	24	160	ND (14)	ND (41)	ND (16)	42
Poly Aromatic Hydrocarbons									
Benzo(a)anthracene (µg/kg)	220	-	ND (6.5)	50	ND (44)	ND (4.8)	ND (14)	ND (5.2)	ND (44)
Benzo(a)pyrene (µg/kg)	22	-	ND (6.5)	46	ND (44)	ND (4.8)	ND (14)	ND (5.2)	ND (44)
Benzo(b)fluoranthene (µg/kg)	2,200	-	7.8	130	83	ND (4.8)	ND (14)	ND (5.2)	110
Fluoranthene (µg/kg)	310,000	-	ND (6.5)	92	66	ND (4.8)	ND (14)	5.2J	57
Indeno(1,2,3-c,d)pyrene (µg/kg)	200	-	18	230	140	10	ND (14)	12	230
Pyrene (µg/kg)	230,000	-	ND (6.5)	71	61	ND (4.8)	ND (14)	ND (5.2)	48
Volatile Organic Compounds									
Acetone (µg/kg)	7,000,000	-	42	35	43	ND (29)	ND (85)	ND (31)	ND (25)
Toluene (µg/kg)	630,000	-	ND (9.7)	27	ND (6.9)	ND (7.3)	ND (21)	ND (7.7)	ND (6.4)
Total Metals									
Arsenic (mg/kg)	0.43	4.9	7.8	2.7	2.1	2.3	9.0	3.3	1.4
Chromium (mg/kg)	23	30	60	82	59	17	20	31	46
Copper (mg/kg)	310	42	25	22	17	30	9.6	17	15
Lead (mg/kg)	400	61	29	13	11	6.4	13	24	9.2
Mercury (mg/kg)	-	0.14	0.11	ND (0.12)	ND (0.095)	ND (0.13)	0.35	0.069	ND (0.090)
Nickel (mg/kg)	160	22	26	130	58	4.9	13	23	60
Zinc (mg/kg)	2,300	73	60	34	33	9.7J	22	45	44

Notes:

MDE RCS = Maryland Department of the Environment Residential Cleanup Standard (June 2008)

ATC = Anticipated Typical Concentration for Central Maryland

J - target analyte was positively identified below the reporting limit but greater than the Laboratory Method Detection Limit

ND - non detect

mg/kg - milligrams per kilogram

µg/kg - micrograms per kilogram

Bold cells are in excess of the specific reporting limit

Green highlighted cells are in excess of MDE RCS or ATC, whichever is greater

Table 5
Analytes Detected in Soil Gas

Percontee Cherry Hill Road Facility
11700 Cherry Hill Road
Silver Spring, Maryland 20904

Compound	USEPA RSL for Industrial Air x 100 for Carcinogenic Risk	USEPA RSL for Industrial Air x 100 for Non-Carcinogenic Risk	SVP-1 4/29/2015	SVP-2 4/29/2015
Volatile Organic Compounds				
Acetone (µg/m ³)	-	14,000,000	19	680
2-Butanone (MEK) (µg/m ³)	-	2,200,000	2.4	89E
Chloroethane (µg/m ³)	-	-	--	0.90
Chloroform (µg/m ³)	53	43,000	--	8.4
Chloromethane (µg/m ³)	-	39,000	1.7	--
Dichlorodifluoromethane (µg/m ³)	-	44,000	2.7	4.0
Naphthalene (µg/m ³)	-	-	3.0	2.4
Propylene (µg/m ³)	-	1,300,000	2.5	21
Toluene (µg/m ³)	-	2,200,000	2.4	4.4
Trichlorofluoromethane (µg/m ³)	-	310,000	1.5	1.4
1,2,4-Trimethylbenzene (µg/m ³)	-	31	5.0	1.0
2,2,4-Trimethylpentane (µg/m ³)	-	-	--	9.0
Vinyl Acetate (µg/m ³)	-	880	--	6.0
m,p-Xylenes (µg/m ³)	-	440	--	1.9

NOTES:

µg/m³ = micrograms per cubic meter

USEPA RSL = United States Environmental Protection Agency (USEPA) Regional Screen Levels (RSLs) for Industrial Air (January 2015)

The greater of the USEPA RSLs is used for comparison

-- = Not detected at the reporting limit.

Bold cell = Compound detected above the practical quantitation limit.

Bold and Shaded cell = Compound detected above RSL

Table 6
Analytes Detected in Surficial Soil

Percontee Cherry Hill Road Facility
11700 Cherry Hill Road
Silver Spring, Maryland 20904

Compound	MDE RCS	SS-1 Surface 4/8/2015	SS-2 Surface 4/8/2015	SS-3 Surface 4/8/2015
Petroleum Hydrocarbons				
Total Petroleum Hydrocarbons Diesel Range Organics (mg/kg)	230	2,900	580	2,700
Total Petroleum Hydrocarbons Gasoline Range Organics (µg/kg)	230,000	1,100	ND (120)	30,000
Poly Aromatic Hydrocarbons				
Acenaphthene (µg/kg)	470,000	180	390	ND (160)
Anthracene (µg/kg)	2,300,000	250	ND (150)	ND (160)
Benzo(a)anthracene (µg/kg)	220	440	190	ND (160)
Benzo(a)pyrene (µg/kg)	22	370	220	ND (160)
Benzo(b)fluoranthene (µg/kg)	2,200	580	340	230
Benzo(g,h,i)perylene (µg/kg)	230,000	130	ND (150)	ND (160)
Benzo(k)fluoranthene (µg/kg)	2,200	200	ND (150)	ND (160)
Chrysene (µg/kg)	22,000	440	290	160J
Fluoranthene (µg/kg)	310,000	930	370	ND (160)
Fluorene (µg/kg)	310,000	280	220	ND (160)
Indeno(1,2,3-c,d)pyrene (µg/kg)	200	200	ND (150)	ND (160)
2-Methylnaphthalene (µg/kg)	31,000	1,200	3,700	280
Naphthalene (µg/kg)	160,000	670	3,200	310
Phenanthrene (µg/kg)	2,300,000	720	290	ND (160)
Pyrene (µg/kg)	230,000	1,600	1,000	400

Notes:

MDE RCS = Maryland Department of the Environment Residential Cleanup Standard (June 2008)

ND - non detect

mg/kg - milligrams per kilogram

µg/kg - micrograms per kilogram

Bold cells are in excess of the specific reporting limit

Green highlighted cells are in excess of MDE RCS

**Table 7
Duplicate Summary**

Percontee Cherry Hill Road Facility
11700 Cherry Hill Road
Silver Spring, Maryland 20904

Analyte	Units	Sample Type:	Parent	Duplicate	RPD (%)	Parent	Duplicate	RPD (%)
		Sample Name:	MW-6 0'-2'	MW-6A 0'-2'		B20 0'-2'	B20A 0'-2'	
		Sample Date:	3/23/2015	3/23/2015		3/19/2015	3/19/2015	
Petroleum Hydrocarbons								
Total Petroleum Hydrocarbons Diesel Range Organics	mg/kg	750	830	10.13	46	43	6.74	
Total Petroleum Hydrocarbons Gasoline Range Organics	µg/kg	400	470	16.09	ND	ND	-	
Poly Aromatic Hydrocarbons								
Acenaphthene	µg/kg	110	170	42.86	NA	NA	-	
Chrysene	µg/kg	92	86	6.74	NA	NA	-	
Fluorene	µg/kg	150	240	46.15	NA	NA	-	
2-Methylnaphthalene	µg/kg	390	500	24.72	NA	NA	-	
Phenanthrene	µg/kg	340	560	48.89	NA	NA	-	
Pyrene	µg/kg	120	190	45.16	NA	NA	-	
Total Metals								
Arsenic	mg/kg	3.3	3.8	14.08	3.1	2.9	6.67	
Chromium	mg/kg	26	25	3.92	23	22	4.44	
Copper	mg/kg	14	18	25.00	11	8.7	23.35	
Lead	mg/kg	5.8	6.1	5.04	6.9	5.6	20.80	
Mercury	mg/kg	ND	ND	-	0.072	0.051	34.15	
Nickel	mg/kg	27	26	3.77	8.4	8.7	3.51	
Thallium	mg/kg	0.37	0.24	42.62	ND	ND	-	
Zinc	mg/kg	17	13	26.67	78	58	29.41	

Notes:

Analytes not listed were not detected in any samples.

ND = Non detect

NA = Not analyzed

- = No Criteria

RPD was calculated for analytes detected in both the parent and duplicate sample

RPD: Relative Percent Difference

Tab 3

Soil Boring Log

Site and Location: Percontee - 11700 Cherry Hill Road, Silver Spring, Maryland 20904
Soil Boring ID: MW-2
Drilling Method and Equipment: Drill rig equipped with 4.25 inch diameter hollow stem augers
Sampling Method: Split-spoon
Date: 3/25/15
Drilling Start Time: 0805
Drilling Finish Time: 1130
Fill Depth: 30"
Water Level: 47'
Surface Conditions: Grass

Percent Recovery	Sample Location and ID	PID Readings	Boring Depth (feet)	Log of Soils
25%	MW-2 0-2	0	0 1	Dark brown silty SAND with medium and large rock fragments
50%		0	2 3	Dark brown and red silty SAND with less rocks
50%	MW-2 4-6	0	4 5	Dark brown and red silty SAND
			6 7 8 9	
			10 11 12 13 14	Red silty SAND
		0	15 16 17 18 19 20 21 22 23 24 25	Brown silty CLAY

Soil Boring Log

Percent Recovery	Sample Location and ID	PID Readings	Boring Depth (feet)	Log of Soils	
			26		
			27		
50%		0	28 29	Orange sand with quartz, Native	
		0	30 31 32		
50%			33 34	Orange sand with quartz, becoming moist Groundwater encountered	
		0	35 36 37		
50%		0	38 39		
		0	40 41 42		
50%		0	43 44		
		0	45 46 47 48 49		
50%		0	50 51		Tan silty CLAY, very moist Borehole terminated at 52'
Logged By: <u> </u> Drilling Contractor: <u> </u>					

Soil Boring Log

Site and Location: Percontee - 11700 Cherry Hill Road, Silver Spring, Maryland 20904

Soil Boring ID: MW-3

Drilling Method and Equipment: Drill rig equipped with 4.25 inch diameter hollow stem augers

Sampling Method: Split-spoon

Date: 3/26/15

Drilling Start Time: 0745

Drilling Finish Time: 0920

Fill Depth: 25"

Water Level: 30'

Surface Conditions: Grass

Percent Recovery	Sample Location and ID	PID Readings	Boring Depth (feet)	Log of Soils
50%	MW-3 0-2	0	0 1	Brown silty SAND with medium rock fragments
25%		0	2 3	
50%	MW-3 4-6	0	4 5	Dark brown silty SAND with small rock fragments, becoming more fine with depth
			6	
			7	
			8	
			9	
			10	
			11	
			12	
			13	
		0	14	
			15	
			16	
			17	
			18	
			19	
			20	
			21	
			22	
50%		0	23 24	Tan SAND with quartz, Native
		0	25 26	

Soil Boring Log

Percent Recovery	Sample Location and ID	PID Readings	Boring Depth (feet)	Log of Soils
			27	
			28	
			29	
50%		0	30	
			31	
			32	
		0	33	Tan silty SAND, moist, groundwater encountered
			34	
50%		0	35	
			36	
Logged By: <u>Kyle Begey</u> Drilling Contractor: <u>Earth Matters</u> Borehole terminated at 37'				

Soil Boring Log

Site and Location: Percontee - 11700 Cherry Hill Road, Silver Spring, Maryland 20904

Soil Boring ID: MW-4

Drilling Method and Equipment: Drill rig equipped with 4.25 inch diameter hollow stem augers

Sampling Method: Split-spoon

Date: 3/18/15

Drilling Start Time: 1223

Drilling Finish Time: 1340

Fill Depth: 36'

Water Level: 38'

Surface Conditions: Dirt

Percent Recovery	Sample Location and ID	PID Readings	Boring Depth (feet)	Log of Soils
10%	MW-4 0-2	0	0 1	Brown silty SAND with clay, gravel, concrete, and brick fragments
25%		0	2 3	Brown, fine silty SAND with trace clay, brick, and concrete fragments, quartz, mica, and gravel
50%	MW-4 4-6	0	4 5	Brownish orange silty SAND, brick, mica, gravel, dark areas similar to asphalt, mica
			6 7 8 9	
			10 11 12 13 14	Brown fine SAND with wood and gravel fragments
		0	15 16 17 18 19	Gray silty CLAY with gravel
			20 21 22	Rounded gravel
			23 24 25 26	Brown silty CLAY

Soil Boring Log

Percent Recovery	Sample Location and ID	PID Readings	Boring Depth (feet)	Log of Soils
			27 28 29 30 31 32	
25%		0	33 34	
25%		0	35 36	Asphalt into soft CLAY, Native
		0	37	
25%		0	38 39	Groundwater encountered at 38'
		0	40 41 42 43 44 45 46 47	Borehole terminated at 48'
Logged By: <u>Christie Pulvino</u> Drilling Contractor: <u>Earth Matters</u>				

Soil Boring Log

Site and Location: Percontee - 11700 Cherry Hill Road, Silver Spring, Maryland 20904

Soil Boring ID: MW-5

Drilling Method and Equipment: Drill rig equipped with 4.25 inch diameter hollow stem augers

Sampling Method: Split-spoon

Date: 3/12/15

Drilling Start Time: 0945

Drilling Finish Time: 1420

Fill Depth: 50'

Water Level: 63'

Surface Conditions: Grass

Percent Recovery	Sample Location and ID	PID Readings	Boring Depth (feet)	Log of Soils
50%	MW-5 0-2	0	0 1	Brown silty SAND with fine quartz fragments
25%		0	2 3	Brown silty SAND with medium quartz fragments
50%	MW-5 4-6	0	4 5	Brown silty SAND
		0	6 7 8 9 10 11 12 13 14 15 16 17 18 19	
50%		0	20 21	Dark brown silty SAND with small asphalt and concrete fragments Dark gray silty CLAY with quartz fragments
		0	22 23 24 25 26	

Soil Boring Log

Percent Recovery	Sample Location and ID	PID Readings	Boring Depth (feet)	Log of Soils
			27	
			28	
			29	
50%		0	30	Dark gray silty CLAY with medium to large quartz fragments
			31	
			32	Gravel
			33	
			34	
			35	
			36	
			37	
			38	
			39	
		0	40	
			41	
			42	
			43	
			44	
			45	
			46	
			47	
			48	
			49	
50%		0	50	Orange silty SAND with quartz transitioning into white CLAY, Native
			51	
			52	
			53	
			54	
		0	55	
			56	
			57	
			58	
			59	
50%		0	60	Orange silty SAND with quartz
			61	Borehole terminated at 62'

Soil Boring Log

Percent Recovery	Sample Location and ID	PID Readings	Boring Depth (feet)	Log of Soils
<p>Logged By: <u>Kyle Begey</u></p> <p>Drilling Contractor: <u>Earth Matters</u></p>				

Soil Boring Log

Site and Location: Percontee - 11700 Cherry Hill Road, Silver Spring, Maryland 20904

Soil Boring ID: MW-6

Drilling Method and Equipment: Drill rig equipped with 4.25 inch diameter hollow stem augers

Sampling Method: Split-spoon

Date: 3/23/15

Drilling Start Time: 0945

Drilling Finish Time: 1420

Fill Depth: 30'

Water Level: 68'

Surface Conditions: Grass

Percent Recovery	Sample Location and ID	PID Readings	Boring Depth (feet)	Log of Soils
75%	MW-6 0-2	0	0	Brown medium SAND with concrete fragments
			1	
50%		0	2	
			3	
		0	4	
75%	MW-6 5-7	0	5	Orange SAND with quartz
			6	
			7	
			8	
			9	
			10	
			11	
			12	
			13	
			14	
			15	
		0	16	
			17	
			18	
			19	
			20	
			21	
			22	
			23	
			24	
			25	

Soil Boring Log

Percent Recovery	Sample Location and ID	PID Readings	Boring Depth (feet)	Log of Soils
			26 27 28 29	
50%		0	30 31	Orange coarse SAND with quartz, Native
			32 33 34 35 36 37 38 39 40 41 42 43 44	
50%		0	45 46	
			47 48 49 50 51 52 53 54	
50%		0	55 56	
			57 58 59	

Soil Boring Log

Percent Recovery	Sample Location and ID	PID Readings	Boring Depth (feet)	Log of Soils
50%		0	60	White fine SAND and gravel
			61	
			62	
			63	
			64	
50%		0	65	
			66	
			67	
			68	
			69	Groundwater at 68'
				Borehole terminated at 70'
Logged By:		<u>Kyle Begey</u>		
Drilling Contractor:		<u>Earth Matters</u>		

Soil Boring Log

Site and Location: Percontee - 11700 Cherry Hill Road, Silver Spring, Maryland 20904

Soil Boring ID: MW-7

Drilling Method and Equipment: Drill rig equipped with 4.25 inch diameter hollow stem augers

Sampling Method: Split-spoon

Date: 3/13/15

Drilling Start Time: 1150

Drilling Finish Time: 1348

Fill Depth: 10'

Water Level: 37'

Surface Conditions: Dirt

Percent Recovery	Sample Location and ID	PID Readings	Boring Depth (feet)	Log of Soils
50%	MW-7 0-2	0	0	Brown silty SAND with mica, little clay, gravel, and wood
			1	
50%		0	2	Brown and gray silty SAND with mica, trace clay, gravel, wood, and concrete fragments
			3	
50%	MW-7 4-6	0	4	Orange SAND with gravel and quartz layer
			5	
		0	6	Orange SAND with medium gravel, very gravelly
			7	
			8	
			9	
50%		0	10	Orange/white mottled dry CLAY, quartz, Native
			11	
		0	12	
			13	
			14	
			15	
			16	
			17	
			18	
			19	
			20	
			21	
			22	
			23	
			24	
			25	
		26		

Soil Boring Log

Percent Recovery	Sample Location and ID	PID Readings	Boring Depth (feet)	Log of Soils	
			27		
			28		
			29		
			30		
			31		
			32		
			33		
			34		
50%		0	35		
			36		
			37		Groundwater encountered at 37'
			38		
			39		
			40		
			41		
			42		
			43		
			44	Borehole terminated at 45'	
Logged By: <u>Christie Pulvino</u> Drilling Contractor: <u>Earth Matters</u>					

Soil Boring Log

Site and Location: Percontee - 11700 Cherry Hill Road, Silver Spring, Maryland 20904

Soil Boring ID: MW-8

Drilling Method and Equipment: Drill rig equipped with 4.25 inch diameter hollow stem augers

Sampling Method: Split-spoon

Date: 3/16/15

Drilling Start Time: 0825

Drilling Finish Time: 1125

Fill Depth: 43'

Water Level: 53'

Surface Conditions: Dirt

Percent Recovery	Sample Location and ID	PID Readings	Boring Depth (feet)	Log of Soils	
50%	MW-8 0-2	0	0 1	Dark brown silty SAND with medium frock fragments	
50%		0	2 3		
100%	MW-8 4-6	0	4 5	Dark brown silty SAND with large frock fragments	
			6 7 8 9	Dark brown and gray silty CLAY, very soft	
		0	10 11 12 13 14 15		
			16 17 18 19		
			20 21 22 23 24 25 26		
					Dark brown silty SAND, pebbly

Soil Boring Log

Percent Recovery	Sample Location and ID	PID Readings	Boring Depth (feet)	Log of Soils
			27	
			28	
			29	
			30	
			31	
			32	
			33	
			34	
			35	
			36	
			37	Light brown silty CLAY, moist
50%		0	38	Dark brown silty CLAY with cement, brick, and wood fragments
			39	
		0	40	
		0	41	Reddish brown silty CLAY with quartz fragments, Native
			42	
50%		0	43	
			44	
50%		0	45	
			46	
50%		0	47	
			48	
		0	49	
			50	
			51	
			52	
50%		0	53	Light brown silty SAND, Groundwater encountered
			54	Borehole terminated at 55'
Logged By:		<u>Kyle Begey</u>		
Drilling Contractor:		<u>Earth Matters</u>		

Soil Boring Log

Site and Location: Percontee - 11700 Cherry Hill Road, Silver Spring, Maryland 20904

Soil Boring ID: MW-9

Drilling Method and Equipment: Drill rig equipped with 4.25 inch diameter hollow stem augers

Sampling Method: Split-spoon

Date: 3/27/15

Drilling Start Time: 0745

Drilling Finish Time: 0900

Fill Depth: N/A

Water Level: 10'

Surface Conditions: Grass

Percent Recovery	Sample Location and ID	PID Readings	Boring Depth (feet)	Log of Soils
50%	MW-9 0-2	0	0 1	Brown silty SAND with medium rock fragments
50%		0	2 3	Grayish brown silty CLAY with red silty CLAY and small rock fragments
75%	MW-9 4-6	0	4 5	Grayish black silty SAND with fine rock fragments, becoming moist with depth
			6 7 8 9	
		0	10 11 12 13 14 15 16 17 18 19	Gray silty SAND, very moist, groundwater encountered
50%		0	20 21	Borehole terminated at 22'

Logged By: Kyle Begey

Drilling Contractor: Earth Matters

Soil Boring Log

Site and Location: Percontee - 11700 Cherry Hill Road, Silver Spring, Maryland 20904

Soil Boring ID: B1

Drilling Method and Equipment: Direct-Push Drilling Unit

Sampling Method: 60-inch plastic liners

Date: 4/7/15

Drilling Start Time: 1200

Drilling Finish Time: 1230

Fill Depth: N/A

Water Level: N/A

Surface Conditions: Dirt

Percent Recovery	Sample Location and ID	PID Readings	Boring Depth (feet)	Log of Soils
100%	B1 0-2	0	0	Grayish black silty SAND with small rock fragments
			1	
	B1 4-6		2	Dark brown silty CLAY with small rock fragments
			3	
75%	B1 4-6	0	4	Reddish orange SAND with small rock fragments
			5	
			6	
			7	
100%	B1 4-6	0	8	Tan silty SAND, very dense
			9	
			10	
			11	
100%	B1 4-6	0	12	Light brown silty SAND, moist
			13	
			14	
			15	
100%	B1 4-6	0	16	Tan silty SAND, very dense Borehole terminated at 20'
			17	
			18	
			19	

Logged By: Kyle Begey

Drilling Contractor: Earth Matters

Soil Boring Log

Site and Location: Percontee - 11700 Cherry Hill Road, Silver Spring, Maryland 20904

Soil Boring ID: B2

Drilling Method and Equipment: Direct-Push Drilling Unit

Sampling Method: 60-inch plastic liners

Date: 4/8/15

Drilling Start Time: 0950

Drilling Finish Time: 1015

Fill Depth: 12'

Water Level: N/A

Surface Conditions: Dirt

Percent Recovery	Sample Location and ID	PID Readings	Boring Depth (feet)	Log of Soils
100%	B2 0-2	0	0	Gravel and asphalt
			1	
			2	
			3	
100%	B2 4-6	0	4	Orange and red SAND with small quartz fragments
			5	
			6	
			7	
75%		0	8	
			9	
			10	
			11	
100%		0	12	Orange and brown SAND with large quartz fragments, Native
			13	
			14	
			15	
100%		0	16	
			17	
			18	
			19	
				Light tan CLAY, very dense Borehole terminated at 20'

Logged By: Kyle Begey

Drilling Contractor: Earth Matters

Soil Boring Log

Site and Location: Percottee - 11700 Cherry Hill Road, Silver Spring, Maryland 20904

Soil Boring ID: B3

Drilling Method and Equipment: Direct-Push Drilling Unit

Sampling Method: 60-inch plastic liners

Date: 4/8/15

Drilling Start Time: 1055

Drilling Finish Time: 1120

Fill Depth: 11'

Water Level: N/A

Surface Conditions: Dirt

Percent Recovery	Sample Location and ID	PID Readings	Boring Depth (feet)	Log of Soils
100%	B3 0-2	0	0	Gravel and asphalt
			1	Brown SAND with small rock fragments
			2	
			3	Brown CLAY, very dense
100%	B3 4-6	0	4	Orange and red silty SAND
			5	
			6	Orange and red SAND
			7	
100%		0	8	
			9	
			10	
			11	Orange and brown SAND with large quartz fragments, Native
100%		0	12	
			13	
			14	
			15	Light tan silty SAND, very fine
100%		0	16	
			17	
			18	Orange and red silty SAND with fine rock fragments
			19	Borehole terminated at 20'

Logged By: Kyle Begey

Drilling Contractor: Earth Matters

Soil Boring Log

Site and Location: Percontee - 11700 Cherry Hill Road, Silver Spring, Maryland 20904

Soil Boring ID: B4

Drilling Method and Equipment: Direct-Push Drilling Unit

Sampling Method: 60-inch plastic liners

Date: 4/7/15

Drilling Start Time: 1245

Drilling Finish Time: 1310

Fill Depth: 12'

Water Level: N/A

Surface Conditions: Dirt

Percent Recovery	Sample Location and ID	PID Readings	Boring Depth (feet)	Log of Soils
100%	B4 0-2	0	0	Gravel
			1	Brown silty CLAY with fine rock fragments
			2	
	3			
B4 4-6	4	Dark brown and black SAND with medium rock fragments		
100%		0	5	Brown silty SAND with quartz fragments
			6	
			7	
			8	
100%		0	9	Reddish brown SAND with quartz fragments
			10	
			11	
			12	
100%		0	13	Orange brown silty SAND with quartz fragments, Native
			14	
			15	
			16	
100%		0	17	Orange brown SAND with quartz
			18	
			19	
			20	Light gray silty SAND transitioning to orange SAND, very dense Borehole terminated at 20'

Logged By: Kyle Begey

Drilling Contractor: Earth Matters

Soil Boring Log

Site and Location: Percontee - 11700 Cherry Hill Road, Silver Spring, Maryland 20904

Soil Boring ID: B5

Drilling Method and Equipment: Direct-Push Drilling Unit

Sampling Method: 60-inch plastic liners

Date: 4/8/15

Drilling Start Time: 1025

Drilling Finish Time: 1045

Fill Depth: 11'

Water Level: N/A

Surface Conditions: Dirt

Percent Recovery	Sample Location and ID	PID Readings	Boring Depth (feet)	Log of Soils	
100%	B5 0-2	0	0	Gravel and asphalt	
			1	Orange and red SAND with fine quartz fragments	
			2		
			3		
100%	B5 4-6	0	4	Orange and brown SAND with large quartz fragments, Native	
			5		
			6		
			7		
100%		0	8		Tan with purple streaks CLAY, very dense
			9		
			10		
			11		
100%		0	12		Borehole terminated at 20'
			13		
			14		
			15		
100%		0	16		
			17		
			18		
			19		

Logged By: Kyle Begey

Drilling Contractor: Earth Matters

Soil Boring Log

Site and Location: Percontee - 11700 Cherry Hill Road, Silver Spring, Maryland 20904

Soil Boring ID: B6

Drilling Method and Equipment: Direct-Push Drilling Unit

Sampling Method: 60-inch plastic liners

Date: 4/7/15

Drilling Start Time: 1330

Drilling Finish Time: 1355

Fill Depth: 10'

Water Level: N/A

Surface Conditions: Dirt

Percent Recovery	Sample Location and ID	PID Readings	Boring Depth (feet)	Log of Soils
75%	B6 0-2	0	0	Gravel
			1	
			2	Brown SAND with quartz and medium rock fragments
			3	
100%	B6 4-6	0	4	
			5	
			6	Brown SAND with quartz
			7	
75%		0	8	
			9	
			10	Orange and brown SAND with quartz, Native
			11	
100%		0	12	
			13	
			14	
			15	
100%		0	16	
			17	
			18	
			19	Orange silty SAND, moist Borehole terminated at 20'

Logged By: Kyle Begey

Drilling Contractor: Earth Matters

Soil Boring Log

Site and Location: Percontee - 11700 Cherry Hill Road, Silver Spring, Maryland 20904

Soil Boring ID: B7

Drilling Method and Equipment: Direct-Push Drilling Unit

Sampling Method: 60-inch plastic liners

Date: 4/7/15

Drilling Start Time: 1410

Drilling Finish Time: 1435

Fill Depth: 11'

Water Level: N/A

Surface Conditions: Grass

Percent Recovery	Sample Location and ID	PID Readings	Boring Depth (feet)	Log of Soils
100%	B7 0-2	0	0	Topsoil
			1	Dark brown with red silty CLAY
			2	
			3	Brown and red silty SAND with fine rock fragments
75%	B7 4-6	0	4	
			5	
			6	Dark brown with dark red silty SAND, dense
			7	Light brown SAND, very fine
100%		0	8	
			9	
			10	
			11	Orange and brown sand with quartz becoming dense with depth, Native
100%		0	12	
			13	
			14	
			15	
100%		0	16	
			17	
			18	
			19	Light tan silty SAND, dense and moist
			20	Borehole terminated at 20'

Logged By: Kyle Begey

Drilling Contractor: Earth Matters

Soil Boring Log

Site and Location: Percontee - 11700 Cherry Hill Road, Silver Spring, Maryland 20904
Soil Boring ID: B8
Drilling Method and Equipment: Drill rig equipped with 4.25 inch diameter hollow stem augers
Sampling Method: Split-spoon
Date: 3/25/15
Drilling Start Time: 1330
Drilling Finish Time: 1430
Fill Depth: 29'
Water Level: N/A
Surface Conditions: Grass

Percent Recovery	Sample Location and ID	PID Readings	Boring Depth (feet)	Log of Soils
50%	B8 0-2	0	0	Dark brown silty SAND with large rock fragments
			1	
50%		0	2	Orange and brown silty SAND with dark brown silty CLAY
			3	
50%	B8 4-6	0	4	Tan CLAY with small quartz fragments
			5	
		0	6	Dark brown silty SAND with medium rock fragments
			7	
			8	
			9	
			10	
			11	
			12	
			13	
			14	
			15	
			16	
			17	
			18	
			19	
			20	
			21	
			22	
			23	
			24	
25				
26				
27				

Soil Boring Log

Percent Recovery	Sample Location and ID	PID Readings	Boring Depth (feet)	Log of Soils
50%		0	28 29	Orange SAND with quartz Boring terminated at 30'
Logged By: <u>Kyle Begey</u> Drilling Contractor: <u>Earth Matters</u>				

Soil Boring Log

Site and Location: Percontee - 11700 Cherry Hill Road, Silver Spring, Maryland 20904

Soil Boring ID: B9

Drilling Method and Equipment: Drill rig equipped with 4.25 inch diameter hollow stem augers

Sampling Method: Split-spoon

Date: 3/26/15

Drilling Start Time: 1350

Drilling Finish Time: 1440

Fill Depth: 23'

Water Level: N/A

Surface Conditions: Dirt

Percent Recovery	Sample Location and ID	PID Readings	Boring Depth (feet)	Log of Soils
50%	B9 0-2	0	0 1	Dark brown silty SAND with medium to large rock fragments
50%		0	2 3	Dark brown silty SAND with fine quartz fragments
50%	B9 4-6	0	4 5	Black silty SAND with small to medium rock fragments
		0	6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	
			23 24	Tan SAND with quartz, Native
50%		0	25 26	Borehole terminated at 27'

Soil Boring Log

Percent Recovery	Sample Location and ID	PID Readings	Boring Depth (feet)	Log of Soils
<p>Logged By: <u>Kyle Begey</u></p> <p>Drilling Contractor: <u>Earth Matters</u></p>				

Soil Boring Log

Site and Location: Percontee - 11700 Cherry Hill Road, Silver Spring, Maryland 20904
Soil Boring ID: B10
Drilling Method and Equipment: Drill rig equipped with 4.25 inch diameter hollow stem augers
Sampling Method: Split-spoon
Date: 3/18/15
Drilling Start Time: 0853
Drilling Finish Time: 1002
Fill Depth: 38'
Water Level: N/A
Surface Conditions: Dirt

Percent Recovery	Sample Location and ID	PID Readings	Boring Depth (feet)	Log of Soils
30%	B10 0-2	0	0 1	Brown silty CLAY with medium brick, concrete, gravel, and mica
50%		0	2 3	
50%	B10 4-6	0	4 5	
		0	6 7 8 9	Brown silty CLAY with small brick, concrete, gravel, and mica
		0	10 11 12 13	
		0	14 15 16 17 18 19	Very gravelly, wood, brick, and SANDY with metal fragments
		0	20 21 22 23 24	Brown fine silty SAND with gravel transitioning to a lighter brown
		0	25 26 27 28 29	Yellow CLAY
		0		Gravel

Soil Boring Log

Percent Recovery	Sample Location and ID	PID Readings	Boring Depth (feet)	Log of Soils
			30	
			31	
			32	
10%		0	33	Gray silty CLAY with gravel
			34	
		0	35	
			36	
			37	
10%		0	38	Tan, soft CLAY, wet, Native
			39	Borehole terminated at 40'
Logged By: <u>Christie Pulvino</u> Drilling Contractor: <u>Earth Matters</u>				

Soil Boring Log

Site and Location: Percontee - 11700 Cherry Hill Road, Silver Spring, Maryland 20904 Soil Boring ID: B11 Drilling Method and Equipment: Drill rig equipped with 4.25 inch diameter hollow stem augers Sampling Method: Split-spoon Date: 3/9/15 Drilling Start Time: 1020 Drilling Finish Time: 1115 Fill Depth: 5' Water Level: N/A Surface Conditions: Dirt				
Percent Recovery	Sample Location and ID	PID Readings	Boring Depth (feet)	Log of Soils
50%	B11 0-2	0	0	Topsoil
			1	Brown silty CLAY with small rock fragments
25%		0	2	
			3	
		0	4	
50%	B11 5-7	0	5	Tan silty CLAY, moist, Native
			6	
		0	7	
			8	
			9	
50%	B11 10-12	0	10	
			11	
Borehole terminated at 12'				
Logged By:		<u>Kyle Begey</u>		
Drilling Contractor:		<u>Earth Matters</u>		

Soil Boring Log

Site and Location: Percontee - 11700 Cherry Hill Road, Silver Spring, Maryland 20904
Soil Boring ID: B12
Drilling Method and Equipment: Drill rig equipped with 4.25 inch diameter hollow stem augers
Sampling Method: Split-spoon
Date: 3/9/15-3/10/15
Drilling Start Time: 1415
Drilling Finish Time: 0800
Fill Depth: 20'
Water Level: N/A
Surface Conditions: Mulch

Percent Recovery	Sample Location and ID	PID Readings	Boring Depth (feet)	Log of Soils
50%		0	0 1	Mulch
50%		0	2 3	Dark brown silty SAND with mulch fragments
50%	B12 4-6	0	4 5	Dark brown silty CLAY, very moist
		0	6 7 8 9 10 11 12 13 14 15 16 17 18 19	Very dark brown silty SAND
50%		0	20 21	Brown silty SAND, moist, small to medium gravel, mica, slight mottling, Native Borehole terminated at 22'

Logged By: Kyle Begey/Christie Pulvino
Drilling Contractor: Earth Matters

Soil Boring Log

Site and Location: Percontee - 11700 Cherry Hill Road, Silver Spring, Maryland 20904

Soil Boring ID: B13

Drilling Method and Equipment: Drill rig equipped with 4.25 inch diameter hollow stem augers

Sampling Method: Split-spoon

Date: 3/9/15

Drilling Start Time: 1220

Drilling Finish Time: 1320

Fill Depth: 23'

Water Level: N/A

Surface Conditions: Dirt

Percent Recovery	Sample Location and ID	PID Readings	Boring Depth (feet)	Log of Soils
50%	B13 0-2	0	0	Topsoil
			1	Dark brown silty SAND with small rock fragments
50%		0	2	
			3	
50%	B13 0-2	0	4	Reddish brown silty SAND
			5	Brown SILT with rock fragments, dense
75%		0	6	
			7	
		0	8	
			9	
			10	
			11	
			12	
			13	
			14	
			15	
			16	
			17	
			18	
			19	
60%	B13 20-22	0	20	Gray and dark brown silty CLAY transitioning into silty SAND
			21	
		0	22	
75%		0	23	Reddish brown silty CLAY with quartz fragments, Native
			24	Borehole terminated at 25'

Logged By: Kyle Begey

Drilling Contractor: Earth Matters

Soil Boring Log

Site and Location: Percontee - 11700 Cherry Hill Road, Silver Spring, Maryland 20904
Soil Boring ID: B14
Drilling Method and Equipment: Drill rig equipped with 4.25 inch diameter hollow stem augers
Sampling Method: Split-spoon
Date: 3/11/15
Drilling Start Time: 1225
Drilling Finish Time: 1430
Fill Depth: 50'
Water Level: 25'
Surface Conditions: Dirt

Percent Recovery	Sample Location and ID	PID Readings	Boring Depth (feet)	Log of Soils
50%	B14 0-2	0	0	Black SAND, dark, gravel, concrete, asphalt
			1	
			2	
		0	3	
50%	B14 4-6	0	4	Brown SAND with gravel, concrete, and brick
			5	
			6	
			7	
			8	
			9	
			10	Wet, brown silty SAND
			11	
			12	
			13	
			14	
		0	15	
			16	
			17	
			18	
			19	
			20	
			21	
			22	
			23	
			24	
75%		0	25	Brown/gray silty, fine to medium SAND with some clay. Gravel and wood fragments, mica
			26	
			27	
		0	28	
			29	

Soil Boring Log

Percent Recovery	Sample Location and ID	PID Readings	Boring Depth (feet)	Log of Soils
			30	
			31	
			32	
			33	
			34	
			35	
			36	
			37	
			38	
			39	
10%		0	40	
			41	
			42	
		0	43	
			44	
			45	
			46	
			47	
10%		0	48	
			49	
10%		0	50	White/tan sandy CLAY, Native
			51	
		0	52	
			53	
		0	54	Borehole terminated at 55'
			55	
Logged By: <u>Christie Pulvino</u> Drilling Contractor: <u>Earth Matters</u>				

Soil Boring Log

Site and Location: Percontee - 11700 Cherry Hill Road, Silver Spring, Maryland 20904
Soil Boring ID: B16
Drilling Method and Equipment: Drill rig equipped with 4.25 inch diameter hollow stem augers
Sampling Method: Split-spoon
Date: 3/11/15
Drilling Start Time: 1237
Drilling Finish Time: 1339
Fill Depth: 18'
Water Level: 18'
Surface Conditions: Dirt

Percent Recovery	Sample Location and ID	PID Readings	Boring Depth (feet)	Log of Soils
50%	B16 0'-2'	0	0 1	Gray and brown SAND with gravel
50%		0	2 3	Gray medium to coarse SAND with gravel, concrete, and brick fragments
30%	B16 4'-6'	0	4 5	Brown silty SAND with mica and gravel
		0	6 7 8 9 10 11 12 13 14 15 16 17	
100%		0	18 19	Orange, soft CLAY and brown medium to coarse sand, Groundwater at 18', Native Borehole terminated at 20'

Logged By: Christie Pulvino
Drilling Contractor: Earth Matters

Soil Boring Log

Site and Location: Percontee - 11700 Cherry Hill Road, Silver Spring, Maryland 20904
Soil Boring ID: B17
Drilling Method and Equipment: Drill rig equipped with 4.25 inch diameter hollow stem augers
Sampling Method: Split-spoon
Date: 3/17/15
Drilling Start Time: 0830
Drilling Finish Time: 0925
Fill Depth: 30'
Water Level: N/A
Surface Conditions: Dirt

Percent Recovery	Sample Location and ID	PID Readings	Boring Depth (feet)	Log of Soils
50%	B17 0-2	0	0 1	Dark brown silty SAND with small rock and wood fragments
50%		0	2 3	
50%	B17 4-6	0	4 5	
		0	6 7 8 9 10 11 12 13 14 15 16 17	Dark brown silty CLAY with medium rock fragments
50%		0	18 19	
		0	20 21 22 23 24 25 26 27	

Soil Boring Log

Site and Location: Percontee - 11700 Cherry Hill Road, Silver Spring, Maryland 20904
Soil Boring ID: B18
Drilling Method and Equipment: Drill rig equipped with 4.25 inch diameter hollow stem augers
Sampling Method: Split-spoon
Date: 3/12/15
Drilling Start Time: 0749
Drilling Finish Time: 0850
Fill Depth: 45'
Water Level: 13'
Surface Conditions: Dirt

Percent Recovery	Sample Location and ID	PID Readings	Boring Depth (feet)	Log of Soils
50%	B18 0-2	0	0	Gravel and brick fill, some coarse SAND with little clay
			1	
25%		0	2	Brown silty fine to medium SAND with clay, mica, and gravel
			3	
50%	B18 4-6	0	4	Brown silty fine to medium SAND, little clay, mica, small gravel
			5	
		0	6	Brown silty fine to medium SAND, with clay, wood, mica, gravel beading up Groundwater at 13' Concrete fragments, brown silty fine to medium SAND becoming lighter in color and more clayey Concrete fragments, light brown silty fine to medium SAND and more gravelly
			7	
			8	
			9	
			10	
			11	
			12	
			13	
			14	
			15	
			16	
			17	
			18	
			19	
			20	
			21	
			22	
			23	
			24	
25				

Soil Boring Log

Percent Recovery	Sample Location and ID	PID Readings	Boring Depth (feet)	Log of Soils
			26	
			27	
			28	
			29	
			30	
			31	
			32	
			33	
			34	
			35	
			36	
			37	
			38	
			39	
			40	
			41	
			42	
			43	
			44	
75%	B18 45-47	0	45	Quartz layer, Native
			46	Borehole terminated at 47'
Logged By: <u>Christie Pulvino</u> Drilling Contractor: <u>Earth Matters</u>				

Soil Boring Log

Site and Location: Percontee - 11700 Cherry Hill Road, Silver Spring, Maryland 20904
Soil Boring ID: B19
Drilling Method and Equipment: Drill rig equipped with 4.25 inch diameter hollow stem augers
Sampling Method: Split-spoon
Date: 3/17/15
Drilling Start Time: 1130
Drilling Finish Time: 1225
Fill Depth: 30'
Water Level: N/A
Surface Conditions: Dirt

Percent Recovery	Sample Location and ID	PID Readings	Boring Depth (feet)	Log of Soils
50%	B19 0-2	0	0 1	Dark brown silty SAND with fine quartz fragments
50%		0	2 3	
50%	B19 4-6	0	4 5	Dark brown silty SAND with small rock fragments
			6	
			7	
			8	
			9	
			10	
		0	11	
			12	
			13	
			14	
			15	
			16	
			17	
25%		0	18 19	Dark brown silty SAND with large rock and concrete fragments
			20	
			21	
			22	
		0	23	
			24	
			25	
			26	
			27	

Soil Boring Log

Percent Recovery	Sample Location and ID	PID Readings	Boring Depth (feet)	Log of Soils
50%		0	28 29	Tan and white SAND with quartz fragments, Native Boring terminated at 30'
Logged By: <u>Kyle Begey</u>				
Drilling Contractor: <u>Earth Matters</u>				

Soil Boring Log

Site and Location: Percontee - 11700 Cherry Hill Road, Silver Spring, Maryland 20904				
Soil Boring ID: B20				
Drilling Method and Equipment: Drill rig equipped with 4.25 inch diameter hollow stem augers				
Sampling Method: Split-spoon				
Date: 3/19/15				
Drilling Start Time: 1040				
Drilling Finish Time: 1225				
Fill Depth: 28'				
Water Level: N/A				
Surface Conditions: Concrete				
Percent Recovery	Sample Location and ID	PID Readings	Boring Depth (feet)	Log of Soils
20%	B20 0'-2'	0	0	Concrete slab
			1	Brown, dry hard SAND with gravel
75%		0	2	Dry, hard silty SAND with some clay and fine gravel, brown/tan
			3	
25%	B20 4'-6'	0	4	Light brown/tan with mottled red clayey SILTY with minor gravel, dry to slightly moist
			5	
		0	6	Reddish brown, slightly moist clayey silty SAND with fine gravel
			7	
			8	
			9	
5%		0	10	
			11	
		0	12	Medium rounded gravel in clayey SAND matrix, slightly moist
			13	
			14	
			15	
			16	
			17	
			18	
19				
50%		0	20	White clayey SILT with some fine gravel, dry
			21	
		0	22	
			23	
50%		0	24	White clayey SILT with some fine gravel, moist
			25	

Soil Boring Log

Percent Recovery	Sample Location and ID	PID Readings	Boring Depth (feet)	Log of Soils
		0	26 27	
25%		0	28 29	White, dry fine sandy SILT with quartz fragments, Native
		0	30 31	
25%		0	32 33	
		0	34 35 36 37	Quartz and gravel in a white/tan sandy SILT matrix, dry
50%		0	38 39	
Borehole terminated at 40'				
Logged By: <u>David Leety</u> Drilling Contractor: <u>Earth Matters</u>				

Soil Boring Log

Site and Location: Percontee - 11700 Cherry Hill Road, Silver Spring, Maryland 20904
Soil Boring ID: B21
Drilling Method and Equipment: Drill rig equipped with 4.25 inch diameter hollow stem augers
Sampling Method: Split-spoon
Date: 3/21/15
Drilling Start Time: 1156
Drilling Finish Time: 1300
Fill Depth: 35'
Water Level: 25'
Surface Conditions: Concrete
Sheet 1 of 1

Percent Recovery	Sample Location and ID	PID Readings	Boring Depth (feet)	Log of Soils
50%	B21 0'-2'	0	0 1	Brown silty fine to medium SAND with some clay, brick, gravel, and concrete fragments
50%		0	2 3	Brown silty fine to medium SAND with some clay, brick, gravel, asphalt and concrete fragments with mica
10%	B21 4'-6'	0	4 5	Brown silty fine to medium SAND with some clay, mica, brick, and concrete fragments
		0	6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	Brown silty SAND, concrete fragments, and gravel
			25 26 27	Brown, wet silty CLAY with concrete and gravel bits, groundwater at 25'

Soil Boring Log

Percent Recovery	Sample Location and ID	PID Readings	Boring Depth (feet)	Log of Soils
			28	
			29	
10%		0	30	
			31	
		0	32	
			33	
			34	
5%		0	35	
			36	
		0	37	
25%		0	38	Borehole terminated at 40'
			39	
Logged By: <u>Christie Pulvino</u> Drilling Contractor: <u>Earth Matters</u>				

WELL PURGE/SAMPLE LOG

Site Name: Percontee	Date: 28 April 2015
Well ID: MW-2	Sampler: Ray Goodwin
Depth to Water: feet 47.03	Depth to Product:
Total Well Depth: 63.05	(A) Water Column:
Begin Purge: 4:46 PM	End Purge: 5:04 PM
Total Volume Removed (gallons): 0.71	(B) Well Diameter (inches):
(C) Well Volume: $\{[(B)/12]^2 \times 3.14159/4\} \times (A) \times 7.48 \text{ Gal/Cubic Feet} =$ 0.00	
Pump Type: Submersible	
Three Well Volumes: (C) x 3 = 0.00	

Water Quality Measurements

Time	Temperature (°C)	SpCond (mS/cm)	Dissolved Oxygen (mg/l)	pH (std. units)	ORP (mV)	Turbidity (NTU)	Flow Rate (ml/min)	Depth to Water (feet)	Comments (color, odor, sheen, etc)
	10%	3%	10%	0.1	10%	10%			
4:46 PM	17.06	0.693	1.35	6.24	63.6	271.0	100	47.57	
4:49 PM	15.94	0.667	0.00	5.88	81.6	359.1	100	47.52	
4:52 PM	15.99	0.663	0.00	5.83	91.3	377.2	100	47.57	Increased pump speed
4:55 PM	15.77	0.660	0.00	5.81	95.0	136.5	200	47.82	
4:58 PM	15.77	0.665	0.00	5.83	94.7	33.2	200	47.67	
5:01 PM	15.68	0.665	0.00	5.82	98.4	33.2	200	47.57	
5:04 PM	15.57	0.666	0.00	5.82	98.6	33.2	200	47.57	

Time Sampled: 5:06 PM Sample ID: MW-2

Sampler Signature: *Ray D Goodwin*

WELL PURGE/SAMPLE LOG

Site Name: Percontee	Date: 28 April 2015
Well ID: MW-3	Sampler: Ray Goodwin
Depth to Water: feet 31.40	Depth to Product:
Total Well Depth: 43.08	(A) Water Column:
Begin Purge: 1:16 PM	End Purge: 1:40 PM
Total Volume Removed (gallons): 1.27	(B) Well Diameter (inches):
(C) Well Volume: $\{[(B)/12]^2\} \times 3.14159/4\} \times (A) \times 7.48 \text{ Gal/Cubic Feet} =$ 0.00	
Pump Type: Submersible	
Three Well Volumes: (C) x 3 = 0.00	

Water Quality Measurements

Time	Temperature (°C)	SpCond (mS/cm)	Dissolved Oxygen (mg/l)	pH (std. units)	ORP (mV)	Turbidity (NTU)	Flow Rate (ml/min)	Depth to Water (feet)	Comments (color, odor, sheen, etc)
	10%	3%	10%	0.1	10%	10%			
1:16 PM	14.84	0.704	7.39	6.72	28.1	271.0	200	47.57	
1:19 PM	15.07	0.648	6.54	6.76	7.1	359.1	200	47.52	
1:22 PM	14.08	0.649	0.49	6.73	4.3	377.2	200	47.57	
1:25 PM	14.66	0.661	0.00	6.69	-4.1	136.5	200	47.82	
1:28 PM	13.32	0.655	0.00	6.65	-8.0	33.2	200	47.67	
1:31 PM	13.99	0.659	0.00	6.63	-8.0	33.2	200	47.57	
1:34 PM	15.00	0.664	0.00	6.60	-9.8	33.2	200	47.57	
1:37 PM	15.02	0.665	0.00	6.59	-9.9	33.2	200	47.57	
1:40 PM	15.05	0.665	0.00	6.57	-10.0	33.2	200	47.57	

Time Sampled: 1:42 PM

Sample ID: MW-3

Sampler Signature: *Ray D Goodwin*

WELL PURGE/SAMPLE LOG

Site Name: Percontee	Date: 29 April 2015
Well ID: MW-5	Sampler: Ray Goodwin
Depth to Water: feet 63.12	Depth to Product:
Total Well Depth: 77.00	(A) Water Column:
Begin Purge:	End Purge:
Total Volume Removed (gallons):	(B) Well Diameter (inches): 2
(C) Well Volume: $\{[(B)/12]^2 \times 3.14159/4\} \times (A) \times 7.48 \text{ Gal/Cubic Feet} =$ 0.00	
Pump Type: Bailer	
Three Well Volumes: (C) x 3 = 0.00	

Water Quality Measurements

Time	Temperature (°C)	SpCond (mS/cm)	Dissolved Oxygen (mg/l)	pH (std. units)	ORP (mV)	Turbidity (NTU)	Flow Rate (ml/min)	Depth to Water (feet)	Comments (color, odor, sheen, etc)
	10%	3%	10%	0.1	10%	10%			
12:00 PM	17.15	0.624	0.30	5.99	111.0	872.2		63.12	Bailed

Time Sampled: 12:00 PM Sample ID: MW-5

Sampler Signature: *Ray D Goodwin*

WELL PURGE/SAMPLE LOG

Site Name: Percontee	Date: 29 April 2015
Well ID: MW-6	Sampler: Ray Goodwin
Depth to Water: feet 62.81	Depth to Product:
Total Well Depth: 68.00	(A) Water Column:
Begin Purge:	End Purge:
Total Volume Removed (gallons):	(B) Well Diameter (inches): 2
(C) Well Volume: $[(B)/12]^2 \times 3.14159/4 \times (A) \times 7.48$ Gal/Cubic Feet = 0.00	
Pump Type: Bailer	
Three Well Volumes: (C) x 3 = 0.00	

Water Quality Measurements

Time	Temperature (°C)	SpCond (mS/cm)	Dissolved Oxygen (mg/l)	pH (std. units)	ORP (mV)	Turbidity (NTU)	Flow Rate (ml/min)	Depth to Water (feet)	Comments (color, odor, sheen, etc)
	10%	3%	10%	0.1	10%	10%			
1:06 PM	16.60	0.523	0.95	6.44	1.4	2051.6		62.81	Bailed

Time Sampled: 1:06 PM Sample ID: MW-6

Sampler Signature: *Ray D Goodwin*

WELL PURGE/SAMPLE LOG

Site Name: Percontee	Date: 29 April 2015
Well ID: MW-7	Sampler: Ray Goodwin
Depth to Water: feet 30.40	Depth to Product:
Total Well Depth: 49.05	(A) Water Column:
Begin Purge: 2:07 PM	End Purge: 2:19 PM
Total Volume Removed (gallons): 0.63	(B) Well Diameter (inches):
(C) Well Volume: $\{[(B)/12]^2 \times 3.14159/4\} \times (A) \times 7.48 \text{ Gal/Cubic Feet} = \mathbf{0.00}$	
Pump Type: Submersible	
Three Well Volumes: (C) x 3 = 0.00	

Water Quality Measurements

Time	Temperature (°C)	SpCond (mS/cm)	Dissolved Oxygen (mg/l)	pH (std. units)	ORP (mV)	Turbidity (NTU)	Flow Rate (ml/min)	Depth to Water (feet)	Comments (color, odor, sheen, etc)
	10%	3%	10%	0.1	10%	10%			
2:07 PM	17.11	0.664	1.35	6.24	-47.7	431.4	200	30.50	
2:10 PM	16.78	0.669	0.00	6.24	-52.2	395.6	200	30.50	
2:13 PM	16.68	0.678	0.00	6.24	-53.7	204.5	200	30.70	
2:16 PM	16.69	0.680	0.00	6.25	-54.7	193.8	200	30.70	
2:19 PM	16.62	0.680	0.00	6.25	-54.5	202.8	200	30.70	

Time Sampled: 2:21 PM Sample ID: MW-7

Sampler Signature: *Ray D Goodwin*

WELL PURGE/SAMPLE LOG

Site Name: Percontee	Date: 29 April 2015
Well ID: MW-8	Sampler: Ray Goodwin
Depth to Water: feet 47.55	Depth to Product:
Total Well Depth: 66.00	(A) Water Column:
Begin Purge: 3:10 PM	End Purge: 3:25 PM
Total Volume Removed (gallons): 0.63	(B) Well Diameter (inches):
(C) Well Volume: $\{[(B)/12]^2 \times 3.14159/4\} \times (A) \times 7.48 \text{ Gal/Cubic Feet} =$ 0.00	
Pump Type: Submersible	
Three Well Volumes: (C) x 3 = 0.00	

Water Quality Measurements

Time	Temperature (°C)	SpCond (mS/cm)	Dissolved Oxygen (mg/l)	pH (std. units)	ORP (mV)	Turbidity (NTU)	Flow Rate (ml/min)	Depth to Water (feet)	Comments (color, odor, sheen, etc)
	10%	3%	10%	0.1	10%	10%			
3:10 PM	18.02	0.985	1.58	6.72	-34	97.9	200	47.80	
3:13 PM	17.44	0.976	0.00	6.73	-44.6	90.2	200	47.80	
3:16 PM	17.98	0.988	0.00	6.73	-47.9	67.9	200	47.80	
3:19 PM	18.03	0.995	0.00	6.73	-50.3	22.3	200	47.80	
3:22 PM	18.08	1.008	0.00	6.71	-49.2	22.6	200	47.80	
3:25 PM	18.08	1.008	0.00	6.69	-49.7	22.8	200	47.80	

Time Sampled: 3:27 PM Sample ID: MW-8

Sampler Signature: *Ray D Goodwin*

WELL PURGE/SAMPLE LOG

Site Name: Percontee	Date: 28 April 2015
Well ID: MW-9	Sampler: Ray Goodwin
Depth to Water: feet 11.71	Depth to Product:
Total Well Depth: 27.20	(A) Water Column:
Begin Purge: 2:29 PM	End Purge: 3:25 PM
Total Volume Removed (gallons): 0.95	(B) Well Diameter (inches):
(C) Well Volume: $\{[(B)/12]^2\} \times 3.14159/4\} \times (A) \times 7.48 \text{ Gal/Cubic Feet} = \mathbf{0.00}$	
Pump Type: Submersible	
Three Well Volumes: (C) x 3 = 0.00	

Water Quality Measurements

Time	Temperature (°C)	SpCond (mS/cm)	Dissolved Oxygen (mg/l)	pH (std. units)	ORP (mV)	Turbidity (NTU)	Flow Rate (ml/min)	Depth to Water (feet)	Comments (color, odor, sheen, etc)
	10%	3%	10%	0.1	10%	10%			
2:29 PM	14.81	1.351	0.44	7.19	-75.2	595.3	200	12.01	
2:32 PM	12.72	1.387	0.00	7.19	-82.6	252.7	200	12.05	
2:35 PM	12.33	1.331	0.00	7.21	-86.6	71.0	200	12.09	
2:38 PM	12.30	1.321	0.00	7.19	-85.3	42.2	200	12.12	
2:41 PM	12.29	1.318	0.00	7.16	-85.3	42.3	200	12.17	
2:44 PM	12.29	1.325	0.00	7.15	-85.8	42.5	200	12.17	
2:47 PM	11.87	1.330	0.00	7.14	-86.5	42.6	200	12.19	
2:50 PM	12.09	1.335	0.00	7.14	-87.0	43.2	200	12.20	

Time Sampled: 2:52 PM Sample ID: MW-9

Sampler Signature: *Ray D Goodwin*

Test Pit Log

Arc Environmental, Inc.
1311 Hauvert Street
Baltimore, MD 21230

Test Pit Identification: TP-1

Site Location: Percontee - 11700 Cherry Hill Road
Silver Spring, Maryland 20904

Excavation Method: Back Hoe

Sampling Method: Equipment Bucket

Surface Conditions: Earth



Test Pit Cross Section

Feet Below Grade

Test Pit Width=3'

Description

0		Fill Brown Silty Sand
1		Fill Brown Silty Sand with brick, concrete, asphalt, wood and plastic
2		
3		
4		
5		
6		
7		Refusal at 8'6" below grade; concrete fragments too large
8		

Logged By: Christie Pulvino

Date: May 15, 2015

Test Pit Log

Arc Environmental, Inc.
1311 Hauvert Street
Baltimore, MD 21230

Test Pit Identification: TP-2

Site Location: Percontee - 11700 Cherry Hill Road
Silver Spring, Maryland 20904

Excavation Method: Back Hoe

Sampling Method: Equipment Bucket

Surface Conditions: Earth



Test Pit Cross Section

Feet Below Grade

Test Pit Width=3'

Description

0		Fill Brown Silty Sand with brick, concrete, asphalt, wood, plastic, terracotta and tile
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13	Refusal at 13' below grade; concrete fragments too large	

Logged By: Christie Pulvino

Date: May 15, 2015

Test Pit Log

Arc Environmental, Inc.
1311 Hauvert Street
Baltimore, MD 21230

Test Pit Identification: TP-3
Site Location: Percontee - 11700 Cherry Hill Road
Silver Spring, Maryland 20904
Excavation Method: Back Hoe
Sampling Method: Equipment Bucket
Surface Conditions: Earth



Test Pit Cross Section

Feet Below Grade

Test Pit Width=3'

Description

0		Fill Brown Silty Sand with brick, concrete, asphalt, metal, PVC, wood and plastic
1		
2		
3		
4		
5		
6		
7		
8		
9		
10	Clay comingled with fill at 10' below grade	
11	Refusal at 11'6" below grade; concrete fragments too large	

Logged By: Christie Pulvino

Date: May 15, 2015

Test Pit Log

Arc Environmental, Inc.
1311 Hauvert Street
Baltimore, MD 21230

Test Pit Identification: TP-4

Site Location: Percontee - 11700 Cherry Hill Road
Silver Spring, Maryland 20904

Excavation Method: Back Hoe

Sampling Method: Equipment Bucket

Surface Conditions: Earth



Test Pit Cross Section

Feet Below Grade

Test Pit Width=3'

Description

0		Fill Brown Silty Sand with brick, concrete, asphalt, wood, plastic, gravel and metal
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13	Refusal at 13'6" below grade; concrete fragments too large	

Logged By: Christie Pulvino

Date: May 15, 2015



Test Pit Log

Arc Environmental, Inc.
1311 Hauvert Street
Baltimore, MD 21230

Test Pit Identification: TP-5
Site Location: Percontee - 11700 Cherry Hill Road
Silver Spring, Maryland 20904
Excavation Method: Back Hoe
Sampling Method: Equipment Bucket
Surface Conditions: Earth

Test Pit Cross Section

Feet Below Grade

Test Pit Width=3'

Description

0		Fill Brown Silty Sand with brick, concrete, asphalt, wood, plastic, gravel, filter fabric and metal
1		
2		
3		
4		
5		
6		
7	Refusal at 7' below grade; concrete fragments too large	

Logged By: Christie Pulvino

Date: May 15, 2015

Tab 4

Analytical Report for

Arc Environmental

Certificate of Analysis No.: 15040908

Project Manager: Kyle Begey

Project Name : Percontee

Project Location: Silver Spring, MD

Project ID : 057-5



April 22, 2015

Phase Separation Science, Inc.

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Baltimore, MD 21228

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PHASE SEPARATION SCIENCE, INC.



April 22, 2015

Kyle Begey
Arc Environmental
1311 Haubert Street
Baltimore, MD 21230

Reference: PSS Work Order(s) No: **15040908**
Project Name: Percontee
Project Location: Silver Spring, MD
Project ID.: 057-5

Dear Kyle Begey :

This report includes the analytical results from the analyses performed on the samples received under the project name referenced above and identified with the Phase Separation Science (PSS) Work Order(s) numbered **15040908**.

All work reported herein has been performed in accordance with current NELAP standards, referenced methodologies, PSS Standard Operating Procedures and the PSS Quality Assurance Manual unless otherwise noted in the Case Narrative Summary. PSS is limited in liability to the actual cost of the sample analysis done.

PSS reserves the right to return any unused samples, extracts or related solutions. Otherwise, the samples are scheduled for disposal, without any further notice, on May 14, 2015. This includes any samples that were received with a request to be held but lacked a specific hold period. It is your responsibility to provide a written request defining a specific disposal date if additional storage is required. Upon receipt, the request will be acknowledged by PSS, thus extending the storage period.

This report shall not be reproduced except in full, without the written approval of an authorized PSS representative. A copy of this report will be retained by PSS for at least 5 years, after which time it will be disposed of without further notice, unless prior arrangements have been made.

We thank you for selecting Phase Separation Science, Inc. to serve your analytical needs. If you have any questions concerning this report, do not hesitate to contact us at 410-747-8770 or info@phaseonline.com.

Sincerely,

Dan Prucnal
Laboratory Manager



Sample Summary
Client Name: Arc Environmental
Project Name: Percontee

Work Order Number(s): 15040908

Project ID: 057-5

The following samples were received under chain of custody by Phase Separation Science (PSS) on 04/09/2015 at 12:30 pm

Lab Sample Id	Sample Id	Matrix	Date/Time Collected
15040908-001	B1 0'-2'	SOIL	04/07/15 12:00
15040908-002	B1 4'-6'	SOIL	04/07/15 12:05
15040908-003	B4 0'-2'	SOIL	04/07/15 12:45
15040908-004	B4 4'-6'	SOIL	04/07/15 12:50
15040908-005	B6 0'-2'	SOIL	04/07/15 13:30
15040908-006	B6 4'-6'	SOIL	04/07/15 13:35
15040908-007	B7 0'-2'	SOIL	04/07/15 14:10
15040908-008	B7 4'-6'	SOIL	04/07/15 14:20
15040908-009	B2 0'-2'	SOIL	04/08/15 09:50
15040908-010	B2 4'-6'	SOIL	04/08/15 09:55
15040908-011	B5 0'-2'	SOIL	04/08/15 10:25
15040908-012	B5 4'-6'	SOIL	04/08/15 10:30
15040908-013	B3 0'-2'	SOIL	04/08/15 10:55
15040908-014	B3 4'-6'	SOIL	04/08/15 11:00
15040908-015	SS-1	SOIL	04/08/15 11:45
15040908-016	SS-2	SOIL	04/08/15 11:50
15040908-017	SS-3	SOIL	04/08/15 11:55

Please reference the Chain of Custody and Sample Receipt Checklist for specific container counts and preservatives. Any sample conditions not in compliance with sample acceptance criteria are described in Case Narrative Summary.

Notes:

1. The presence of a common laboratory contaminant such as methylene chloride may be considered a possible laboratory artifact. Where observed, appropriate consideration of data should be taken.
2. Unless otherwise noted in the case narrative, results are reported on a dry weight basis with the exception of pH, flashpoint, moisture, and paint filter test.
3. Drinking water samples collected for the purpose of compliance with SDWA may not be suitable for their intended use unless collected by a certified sampler [COMAR 26.08.05.07.C.2].
4. The analyses of 1,2-dibromo-3-chloropropane (DBCP) and 1,2-dibromoethane (EDB) by EPA 524.2 and calcium, magnesium, sodium and iron by EPA 200.8 are not currently promulgated for use in testing to meet the Safe Drinking Water Act and as such cannot be used for compliance purposes. The listings of the current promulgated methods for testing in compliance with the Safe Drinking Water Act can be found in the 40 CFR part 141.1, for the primary drinking water contaminants, and part 141.3, for the secondary drinking water contaminants.
5. Sample prepared under EPA 3550C with concentrations greater than 20 mg/Kg should employ the microtip extraction procedure if required to meet data quality objectives.
6. The analysis of acrolein by EPA 624 must be analyzed within three days of sampling unless pH is adjusted to 4-5 units [40 CFR part 136.3(e)].
7. Method 180.1, The Determination of Turbidity by Nephelometry, recommends samples over 40 NTU be diluted until the turbidity falls below 40 units. Routine samples over 40 NTU may not be diluted as long as the data quality objectives are not affected.
8. Alkalinity results analyzed by EPA 310.2 that are reported by dilution are estimated and are not in compliance with method requirements.



Sample Summary

Client Name: Arc Environmental
Project Name: Percontee

Work Order Number(s): 15040908

Standard Flags/Abbreviations:

- B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- C Results Pending Final Confirmation.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- Fail The result exceeds the regulatory level for Toxicity Characteristic (TCLP) as cited in 40 CFR 261.24 Table 1.
- J The target analyte was positively identified below the reporting limit but greater than the MDL.
- MDL This is the Laboratory Method Detection Limit which is equivalent to the Limit of Detection (LOD). The LOD is an estimate of the minimum amount of a substance that an analytical process can reliably detect. This value will remain constant across multiple similar instrumentation and among different analysts. An LOD is analyte and matrix specific.
- ND Not Detected at or above the reporting limit.
- RL PSS Reporting Limit.
- U Not detected.

Certifications:

NELAP Certifications: PA 68-03330, VA 460156
State Certifications: MD 179, WV 303
Regulated Soil Permit: P330-12-00268
NSWC USCG Accepted Laboratory
LDBE MWAA LD1997-0041-2015

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15040908

Arc Environmental, Baltimore, MD

April 22, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B1 0'-2'	Date/Time Sampled: 04/07/2015 12:00	PSS Sample ID: 15040908-001
Matrix: SOIL	Date/Time Received: 04/09/2015 12:30	% Solids: 95

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	mg/kg	2.2		1	1.1	04/10/15	04/13/15 15:53	1033
Arsenic	1.4	mg/kg	0.45		1	0.22	04/10/15	04/13/15 15:53	1033
Beryllium	ND	mg/kg	2.2		1	1.1	04/10/15	04/13/15 15:53	1033
Cadmium	ND	mg/kg	2.2		1	1.1	04/10/15	04/13/15 15:53	1033
Chromium	69	mg/kg	2.2		1	1.1	04/10/15	04/14/15 13:49	1033
Copper	25	mg/kg	2.2		1	1.1	04/10/15	04/13/15 15:53	1033
Lead	5.5	mg/kg	2.2		1	1.1	04/10/15	04/13/15 15:53	1033
Mercury	ND	mg/kg	0.090		1	0.045	04/10/15	04/13/15 15:53	1033
Nickel	65	mg/kg	2.2		1	1.1	04/10/15	04/13/15 15:53	1033
Selenium	ND	mg/kg	2.2		1	1.1	04/10/15	04/13/15 15:53	1033
Silver	ND	mg/kg	2.2		1	1.1	04/10/15	04/13/15 15:53	1033
Thallium	ND	mg/kg	0.45		1	0.22	04/10/15	04/13/15 15:53	1033
Zinc	46	mg/kg	9.0		1	4.5	04/10/15	04/13/15 15:53	1033

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: SW3550C

DF/HF - No. 2/diesel fuel and heavier fuel/oil patterns observed in sample.

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	41	mg/kg	10	DF	1	4.2	04/09/15	04/10/15 16:58	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/kg	100		1	51	04/13/15	04/13/15 11:48	1035

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15040908

Arc Environmental, Baltimore, MD

April 22, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B1 0'-2'	Date/Time Sampled: 04/07/2015 12:00	PSS Sample ID: 15040908-001
Matrix: SOIL	Date/Time Received: 04/09/2015 12:30	% Solids: 95

Polychlorinated Biphenyls

Analytical Method: SW-846 8082 A

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
PCB-1016	ND	mg/kg	0.052		1	0.052	04/13/15	04/14/15 12:31	1029
PCB-1221	ND	mg/kg	0.052		1	0.052	04/13/15	04/14/15 12:31	1029
PCB-1232	ND	mg/kg	0.052		1	0.052	04/13/15	04/14/15 12:31	1029
PCB-1242	ND	mg/kg	0.052		1	0.052	04/13/15	04/14/15 12:31	1029
PCB-1248	ND	mg/kg	0.052		1	0.052	04/13/15	04/14/15 12:31	1029
PCB-1254	ND	mg/kg	0.052		1	0.052	04/13/15	04/14/15 12:31	1029
PCB-1260	ND	mg/kg	0.052		1	0.052	04/13/15	04/14/15 12:31	1029

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/kg	3.5		1	3.5	04/13/15	04/19/15 03:21	1055
Acenaphthylene	ND	ug/kg	3.5		1	3.5	04/13/15	04/19/15 03:21	1055
Anthracene	ND	ug/kg	3.5		1	3.5	04/13/15	04/19/15 03:21	1055
Benzo(a)anthracene	18	ug/kg	3.5		1	3.5	04/13/15	04/19/15 03:21	1055
Benzo(a)pyrene	20	ug/kg	3.5		1	3.5	04/13/15	04/19/15 03:21	1055
Benzo(b)fluoranthene	20	ug/kg	3.5		1	3.5	04/13/15	04/19/15 03:21	1055
Benzo(g,h,i)perylene	16	ug/kg	3.5		1	3.5	04/13/15	04/19/15 03:21	1055
Benzo(k)fluoranthene	6.9	ug/kg	3.5		1	3.5	04/13/15	04/19/15 03:21	1055
Chrysene	26	ug/kg	3.5		1	3.5	04/13/15	04/19/15 03:21	1055
Dibenz(a,h)Anthracene	4.2	ug/kg	3.5		1	3.5	04/13/15	04/19/15 03:21	1055
Fluoranthene	17	ug/kg	3.5		1	3.5	04/13/15	04/19/15 03:21	1055
Fluorene	ND	ug/kg	3.5		1	3.5	04/13/15	04/19/15 03:21	1055
Indeno(1,2,3-c,d)Pyrene	16	ug/kg	3.5		1	3.5	04/13/15	04/19/15 03:21	1055
2-Methylnaphthalene	ND	ug/kg	3.5		1	3.5	04/13/15	04/19/15 03:21	1055
Naphthalene	ND	ug/kg	3.5		1	3.5	04/13/15	04/19/15 03:21	1055
Phenanthrene	13	ug/kg	3.5		1	3.5	04/13/15	04/19/15 03:21	1055
Pyrene	41	ug/kg	3.5		1	3.5	04/13/15	04/19/15 03:21	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15040908

Arc Environmental, Baltimore, MD

April 22, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B1 4'-6'	Date/Time Sampled: 04/07/2015 12:05	PSS Sample ID: 15040908-002
Matrix: SOIL	Date/Time Received: 04/09/2015 12:30	% Solids: 90

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	mg/kg	2.2		1	1.1	04/10/15	04/13/15 16:29	1033
Arsenic	4.5	mg/kg	0.43		1	0.22	04/10/15	04/13/15 16:29	1033
Beryllium	ND	mg/kg	2.2		1	1.1	04/10/15	04/13/15 16:29	1033
Cadmium	ND	mg/kg	2.2		1	1.1	04/10/15	04/13/15 16:29	1033
Chromium	80	mg/kg	2.2		1	1.1	04/10/15	04/14/15 13:55	1033
Copper	12	mg/kg	2.2		1	1.1	04/10/15	04/13/15 16:29	1033
Lead	15	mg/kg	2.2		1	1.1	04/10/15	04/13/15 16:29	1033
Mercury	0.046	mg/kg	0.087	J	1	0.043	04/10/15	04/13/15 16:29	1033
Nickel	85	mg/kg	2.2		1	1.1	04/10/15	04/13/15 16:29	1033
Selenium	ND	mg/kg	2.2		1	1.1	04/10/15	04/13/15 16:29	1033
Silver	ND	mg/kg	2.2		1	1.1	04/10/15	04/13/15 16:29	1033
Thallium	ND	mg/kg	0.43		1	0.22	04/10/15	04/13/15 16:29	1033
Zinc	30	mg/kg	8.7		1	4.3	04/10/15	04/13/15 16:29	1033

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: SW3550C

DF/HF - No. 2/diesel fuel and heavier fuel/oil patterns observed in sample.

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	15	mg/kg	11	DF	1	4.5	04/09/15	04/10/15 15:32	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/kg	110		1	54	04/13/15	04/13/15 12:18	1035

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15040908

Arc Environmental, Baltimore, MD

April 22, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B1 4'-6'	Date/Time Sampled: 04/07/2015 12:05	PSS Sample ID: 15040908-002
Matrix: SOIL	Date/Time Received: 04/09/2015 12:30	% Solids: 90

Polychlorinated Biphenyls

Analytical Method: SW-846 8082 A

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
PCB-1016	ND	mg/kg	0.054		1	0.054	04/13/15	04/14/15 12:59	1029
PCB-1221	ND	mg/kg	0.054		1	0.054	04/13/15	04/14/15 12:59	1029
PCB-1232	ND	mg/kg	0.054		1	0.054	04/13/15	04/14/15 12:59	1029
PCB-1242	ND	mg/kg	0.054		1	0.054	04/13/15	04/14/15 12:59	1029
PCB-1248	ND	mg/kg	0.054		1	0.054	04/13/15	04/14/15 12:59	1029
PCB-1254	ND	mg/kg	0.054		1	0.054	04/13/15	04/14/15 12:59	1029
PCB-1260	ND	mg/kg	0.054		1	0.054	04/13/15	04/14/15 12:59	1029

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/kg	3.7		1	3.7	04/13/15	04/20/15 20:05	1055
Acenaphthylene	5.5	ug/kg	3.7		1	3.7	04/13/15	04/20/15 20:05	1055
Anthracene	4.8	ug/kg	3.7		1	3.7	04/13/15	04/20/15 20:05	1055
Benzo(a)anthracene	21	ug/kg	3.7		1	3.7	04/13/15	04/20/15 20:05	1055
Benzo(a)pyrene	23	ug/kg	3.7		1	3.7	04/13/15	04/20/15 20:05	1055
Benzo(b)fluoranthene	23	ug/kg	3.7		1	3.7	04/13/15	04/20/15 20:05	1055
Benzo(g,h,i)perylene	16	ug/kg	3.7		1	3.7	04/13/15	04/20/15 20:05	1055
Benzo(k)fluoranthene	8.1	ug/kg	3.7		1	3.7	04/13/15	04/20/15 20:05	1055
Chrysene	26	ug/kg	3.7		1	3.7	04/13/15	04/20/15 20:05	1055
Dibenz(a,h)Anthracene	ND	ug/kg	3.7		1	3.7	04/13/15	04/20/15 20:05	1055
Fluoranthene	27	ug/kg	3.7		1	3.7	04/13/15	04/20/15 20:05	1055
Fluorene	ND	ug/kg	3.7		1	3.7	04/13/15	04/20/15 20:05	1055
Indeno(1,2,3-c,d)Pyrene	14	ug/kg	3.7		1	3.7	04/13/15	04/20/15 20:05	1055
2-Methylnaphthalene	ND	ug/kg	3.7		1	3.7	04/13/15	04/20/15 20:05	1055
Naphthalene	ND	ug/kg	3.7		1	3.7	04/13/15	04/20/15 20:05	1055
Phenanthrene	26	ug/kg	3.7		1	3.7	04/13/15	04/20/15 20:05	1055
Pyrene	86	ug/kg	3.7		1	3.7	04/13/15	04/20/15 20:05	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15040908

Arc Environmental, Baltimore, MD

April 22, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B4 0'-2'	Date/Time Sampled: 04/07/2015 12:45	PSS Sample ID: 15040908-003
Matrix: SOIL	Date/Time Received: 04/09/2015 12:30	% Solids: 89

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	mg/kg	2.5		1	1.3	04/10/15	04/13/15 16:35	1033
Arsenic	2.3	mg/kg	0.51		1	0.25	04/10/15	04/13/15 16:35	1033
Beryllium	ND	mg/kg	2.5		1	1.3	04/10/15	04/13/15 16:35	1033
Cadmium	ND	mg/kg	2.5		1	1.3	04/10/15	04/13/15 16:35	1033
Chromium	50	mg/kg	2.5		1	1.3	04/10/15	04/14/15 14:00	1033
Copper	20	mg/kg	2.5		1	1.3	04/10/15	04/13/15 16:35	1033
Lead	10	mg/kg	2.5		1	1.3	04/10/15	04/13/15 16:35	1033
Mercury	ND	mg/kg	0.10		1	0.051	04/10/15	04/13/15 16:35	1033
Nickel	27	mg/kg	2.5		1	1.3	04/10/15	04/13/15 16:35	1033
Selenium	ND	mg/kg	2.5		1	1.3	04/10/15	04/13/15 16:35	1033
Silver	ND	mg/kg	2.5		1	1.3	04/10/15	04/13/15 16:35	1033
Thallium	ND	mg/kg	0.51		1	0.25	04/10/15	04/13/15 16:35	1033
Zinc	35	mg/kg	10		1	5.1	04/10/15	04/13/15 16:35	1033

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: SW3550C

DF/HF - No. 2/diesel fuel and heavier fuel/oil patterns observed in sample.

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	83	mg/kg	11	DF	1	4.5	04/09/15	04/10/15 16:58	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/kg	110		1	55	04/13/15	04/13/15 12:47	1035

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15040908

Arc Environmental, Baltimore, MD

April 22, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B4 0'-2'	Date/Time Sampled: 04/07/2015 12:45	PSS Sample ID: 15040908-003
Matrix: SOIL	Date/Time Received: 04/09/2015 12:30	% Solids: 89

Polychlorinated Biphenyls

Analytical Method: SW-846 8082 A

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
PCB-1016	ND	mg/kg	0.056		1	0.056	04/13/15	04/14/15 13:28	1029
PCB-1221	ND	mg/kg	0.056		1	0.056	04/13/15	04/14/15 13:28	1029
PCB-1232	ND	mg/kg	0.056		1	0.056	04/13/15	04/14/15 13:28	1029
PCB-1242	ND	mg/kg	0.056		1	0.056	04/13/15	04/14/15 13:28	1029
PCB-1248	ND	mg/kg	0.056		1	0.056	04/13/15	04/14/15 13:28	1029
PCB-1254	ND	mg/kg	0.056		1	0.056	04/13/15	04/14/15 13:28	1029
PCB-1260	ND	mg/kg	0.056		1	0.056	04/13/15	04/14/15 13:28	1029

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/kg	3.7		1	3.7	04/13/15	04/19/15 00:10	1055
Acenaphthylene	ND	ug/kg	3.7		1	3.7	04/13/15	04/19/15 00:10	1055
Anthracene	19	ug/kg	3.7		1	3.7	04/13/15	04/19/15 00:10	1055
Benzo(a)anthracene	35	ug/kg	3.7		1	3.7	04/13/15	04/19/15 00:10	1055
Benzo(a)pyrene	24	ug/kg	3.7		1	3.7	04/13/15	04/19/15 00:10	1055
Benzo(b)fluoranthene	22	ug/kg	3.7		1	3.7	04/13/15	04/19/15 00:10	1055
Benzo(g,h,i)perylene	12	ug/kg	3.7		1	3.7	04/13/15	04/19/15 00:10	1055
Benzo(k)fluoranthene	8.6	ug/kg	3.7		1	3.7	04/13/15	04/19/15 00:10	1055
Chrysene	31	ug/kg	3.7		1	3.7	04/13/15	04/19/15 00:10	1055
Dibenz(a,h)Anthracene	ND	ug/kg	3.7		1	3.7	04/13/15	04/19/15 00:10	1055
Fluoranthene	44	ug/kg	3.7		1	3.7	04/13/15	04/19/15 00:10	1055
Fluorene	6.0	ug/kg	3.7		1	3.7	04/13/15	04/19/15 00:10	1055
Indeno(1,2,3-c,d)Pyrene	13	ug/kg	3.7		1	3.7	04/13/15	04/19/15 00:10	1055
2-Methylnaphthalene	ND	ug/kg	3.7		1	3.7	04/13/15	04/19/15 00:10	1055
Naphthalene	ND	ug/kg	3.7		1	3.7	04/13/15	04/19/15 00:10	1055
Phenanthrene	60	ug/kg	3.7		1	3.7	04/13/15	04/19/15 00:10	1055
Pyrene	87	ug/kg	3.7		1	3.7	04/13/15	04/19/15 00:10	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15040908

Arc Environmental, Baltimore, MD

April 22, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B4 4'-6'	Date/Time Sampled: 04/07/2015 12:50	PSS Sample ID: 15040908-004
Matrix: SOIL	Date/Time Received: 04/09/2015 12:30	% Solids: 87

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	mg/kg	2.7		1	1.3	04/10/15	04/13/15 16:41	1033
Arsenic	4.3	mg/kg	0.53		1	0.27	04/10/15	04/13/15 16:41	1033
Beryllium	ND	mg/kg	2.7		1	1.3	04/10/15	04/13/15 16:41	1033
Cadmium	ND	mg/kg	2.7		1	1.3	04/10/15	04/13/15 16:41	1033
Chromium	37	mg/kg	2.7		1	1.3	04/10/15	04/14/15 14:06	1033
Copper	12	mg/kg	2.7		1	1.3	04/10/15	04/13/15 16:41	1033
Lead	10	mg/kg	2.7		1	1.3	04/10/15	04/13/15 16:41	1033
Mercury	ND	mg/kg	0.11		1	0.053	04/10/15	04/13/15 16:41	1033
Nickel	29	mg/kg	2.7		1	1.3	04/10/15	04/13/15 16:41	1033
Selenium	ND	mg/kg	2.7		1	1.3	04/10/15	04/13/15 16:41	1033
Silver	ND	mg/kg	2.7		1	1.3	04/10/15	04/13/15 16:41	1033
Thallium	ND	mg/kg	0.53		1	0.27	04/10/15	04/13/15 16:41	1033
Zinc	26	mg/kg	11		1	5.3	04/10/15	04/13/15 16:41	1033

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: SW3550C

DF/HF - No. 2/diesel fuel and heavier fuel/oil patterns observed in sample.

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	16	mg/kg	11	DF	1	4.6	04/13/15	04/14/15 15:12	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/kg	110		1	57	04/13/15	04/13/15 13:16	1035

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15040908

Arc Environmental, Baltimore, MD

April 22, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B4 4'-6'	Date/Time Sampled: 04/07/2015 12:50	PSS Sample ID: 15040908-004
Matrix: SOIL	Date/Time Received: 04/09/2015 12:30	% Solids: 87

Polychlorinated Biphenyls

Analytical Method: SW-846 8082 A

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
PCB-1016	ND	mg/kg	0.058		1	0.058	04/13/15	04/14/15 13:57	1029
PCB-1221	ND	mg/kg	0.058		1	0.058	04/13/15	04/14/15 13:57	1029
PCB-1232	ND	mg/kg	0.058		1	0.058	04/13/15	04/14/15 13:57	1029
PCB-1242	ND	mg/kg	0.058		1	0.058	04/13/15	04/14/15 13:57	1029
PCB-1248	ND	mg/kg	0.058		1	0.058	04/13/15	04/14/15 13:57	1029
PCB-1254	ND	mg/kg	0.058		1	0.058	04/13/15	04/14/15 13:57	1029
PCB-1260	ND	mg/kg	0.058		1	0.058	04/13/15	04/14/15 13:57	1029

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/kg	38		10	38	04/13/15	04/19/15 01:45	1055
Acenaphthylene	ND	ug/kg	38		10	38	04/13/15	04/19/15 01:45	1055
Anthracene	ND	ug/kg	38		10	38	04/13/15	04/19/15 01:45	1055
Benzo(a)anthracene	ND	ug/kg	38		10	38	04/13/15	04/19/15 01:45	1055
Benzo(a)pyrene	ND	ug/kg	38		10	38	04/13/15	04/19/15 01:45	1055
Benzo(b)fluoranthene	ND	ug/kg	38		10	38	04/13/15	04/19/15 01:45	1055
Benzo(g,h,i)perylene	ND	ug/kg	38		10	38	04/13/15	04/19/15 01:45	1055
Benzo(k)fluoranthene	ND	ug/kg	38		10	38	04/13/15	04/19/15 01:45	1055
Chrysene	ND	ug/kg	38		10	38	04/13/15	04/19/15 01:45	1055
Dibenz(a,h)Anthracene	ND	ug/kg	38		10	38	04/13/15	04/19/15 01:45	1055
Fluoranthene	ND	ug/kg	38		10	38	04/13/15	04/19/15 01:45	1055
Fluorene	ND	ug/kg	38		10	38	04/13/15	04/19/15 01:45	1055
Indeno(1,2,3-c,d)Pyrene	ND	ug/kg	38		10	38	04/13/15	04/19/15 01:45	1055
2-Methylnaphthalene	ND	ug/kg	38		10	38	04/13/15	04/19/15 01:45	1055
Naphthalene	ND	ug/kg	38		10	38	04/13/15	04/19/15 01:45	1055
Phenanthrene	ND	ug/kg	38		10	38	04/13/15	04/19/15 01:45	1055
Pyrene	ND	ug/kg	38		10	38	04/13/15	04/19/15 01:45	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15040908

Arc Environmental, Baltimore, MD

April 22, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B6 0'-2'	Date/Time Sampled: 04/07/2015 13:30	PSS Sample ID: 15040908-005
Matrix: SOIL	Date/Time Received: 04/09/2015 12:30	% Solids: 96

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	mg/kg	2.1		1	1.1	04/10/15	04/13/15 17:11	1033
Arsenic	1.7	mg/kg	0.43		1	0.21	04/10/15	04/13/15 17:11	1033
Beryllium	ND	mg/kg	2.1		1	1.1	04/10/15	04/13/15 17:11	1033
Cadmium	ND	mg/kg	2.1		1	1.1	04/10/15	04/13/15 17:11	1033
Chromium	74	mg/kg	2.1		1	1.1	04/10/15	04/14/15 14:12	1033
Copper	39	mg/kg	2.1		1	1.1	04/10/15	04/13/15 17:11	1033
Lead	5.1	mg/kg	2.1		1	1.1	04/10/15	04/13/15 17:11	1033
Mercury	ND	mg/kg	0.085		1	0.043	04/10/15	04/13/15 17:11	1033
Nickel	120	mg/kg	2.1		1	1.1	04/10/15	04/13/15 17:11	1033
Selenium	ND	mg/kg	2.1		1	1.1	04/10/15	04/13/15 17:11	1033
Silver	ND	mg/kg	2.1		1	1.1	04/10/15	04/13/15 17:11	1033
Thallium	ND	mg/kg	0.43		1	0.21	04/10/15	04/13/15 17:11	1033
Zinc	26	mg/kg	8.5		1	4.3	04/10/15	04/13/15 17:11	1033

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: SW3550C

DF/HF - No. 2/diesel fuel and heavier fuel/oil patterns observed in sample.

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	360	mg/kg	52	DF	1	21	04/13/15	04/15/15 19:19	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/kg	100		1	52	04/13/15	04/13/15 18:40	1035

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15040908

Arc Environmental, Baltimore, MD

April 22, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B6 0'-2'	Date/Time Sampled: 04/07/2015 13:30	PSS Sample ID: 15040908-005
Matrix: SOIL	Date/Time Received: 04/09/2015 12:30	% Solids: 96

Polychlorinated Biphenyls

Analytical Method: SW-846 8082 A

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
PCB-1016	ND	mg/kg	0.052		1	0.052	04/13/15	04/14/15 14:26	1029
PCB-1221	ND	mg/kg	0.052		1	0.052	04/13/15	04/14/15 14:26	1029
PCB-1232	ND	mg/kg	0.052		1	0.052	04/13/15	04/14/15 14:26	1029
PCB-1242	ND	mg/kg	0.052		1	0.052	04/13/15	04/14/15 14:26	1029
PCB-1248	ND	mg/kg	0.052		1	0.052	04/13/15	04/14/15 14:26	1029
PCB-1254	ND	mg/kg	0.052		1	0.052	04/13/15	04/14/15 14:26	1029
PCB-1260	ND	mg/kg	0.052		1	0.052	04/13/15	04/14/15 14:26	1029

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CERTIFICATE OF ANALYSIS

No: 15040908

Arc Environmental, Baltimore, MD

April 22, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B6 0'-2'	Date/Time Sampled: 04/07/2015 13:30	PSS Sample ID: 15040908-005
Matrix: SOIL	Date/Time Received: 04/09/2015 12:30	% Solids: 96

TCL Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5035A

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Dichlorodifluoromethane	ND	ug/kg	5.3		1	2.7	04/14/15	04/14/15 11:57	1011
Chloromethane	ND	ug/kg	5.3		1	2.7	04/14/15	04/14/15 11:57	1011
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	ug/kg	5.3		1	2.7	04/14/15	04/14/15 11:57	1011
Vinyl Chloride	ND	ug/kg	5.3		1	2.7	04/14/15	04/14/15 11:57	1011
Bromomethane	ND	ug/kg	5.3		1	2.7	04/14/15	04/14/15 11:57	1011
Chloroethane	ND	ug/kg	5.3		1	2.7	04/14/15	04/14/15 11:57	1011
Acetone	56	ug/kg	21		1	11	04/14/15	04/14/15 11:57	1011
Cyclohexane	ND	ug/kg	21		1	11	04/14/15	04/14/15 11:57	1011
Trichlorofluoromethane	ND	ug/kg	5.3		1	2.7	04/14/15	04/14/15 11:57	1011
1,1-Dichloroethene	ND	ug/kg	5.3		1	2.7	04/14/15	04/14/15 11:57	1011
Methylene Chloride	ND	ug/kg	5.3		1	2.7	04/14/15	04/14/15 11:57	1011
trans-1,2-Dichloroethene	ND	ug/kg	5.3		1	2.7	04/14/15	04/14/15 11:57	1011
Methyl-t-butyl ether	ND	ug/kg	5.3		1	2.7	04/14/15	04/14/15 11:57	1011
1,1-Dichloroethane	ND	ug/kg	5.3		1	2.7	04/14/15	04/14/15 11:57	1011
2-Butanone	ND	ug/kg	21		1	11	04/14/15	04/14/15 11:57	1011
cis-1,2-Dichloroethene	ND	ug/kg	5.3		1	2.7	04/14/15	04/14/15 11:57	1011
Bromochloromethane	ND	ug/kg	5.3		1	2.7	04/14/15	04/14/15 11:57	1011
Chloroform	ND	ug/kg	5.3		1	2.7	04/14/15	04/14/15 11:57	1011
1,1,1-Trichloroethane	ND	ug/kg	5.3		1	2.7	04/14/15	04/14/15 11:57	1011
1,2-Dichloroethane	ND	ug/kg	5.3		1	2.7	04/14/15	04/14/15 11:57	1011
Carbon Tetrachloride	ND	ug/kg	5.3		1	2.7	04/14/15	04/14/15 11:57	1011
Benzene	ND	ug/kg	5.3		1	2.7	04/14/15	04/14/15 11:57	1011
1,2-Dichloropropane	ND	ug/kg	5.3		1	2.7	04/14/15	04/14/15 11:57	1011
Carbon Disulfide	ND	ug/kg	11		1	5.3	04/14/15	04/14/15 11:57	1011
Methylcyclohexane	ND	ug/kg	21		1	11	04/14/15	04/14/15 11:57	1011
Trichloroethene	ND	ug/kg	5.3		1	2.7	04/14/15	04/14/15 11:57	1011
Methyl Acetate	ND	ug/kg	21		1	11	04/14/15	04/14/15 11:57	1011
Bromodichloromethane	ND	ug/kg	5.3		1	2.7	04/14/15	04/14/15 11:57	1011
cis-1,3-Dichloropropene	ND	ug/kg	5.3		1	2.7	04/14/15	04/14/15 11:57	1011
4-Methyl-2-Pentanone	ND	ug/kg	21		1	11	04/14/15	04/14/15 11:57	1011

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15040908

Arc Environmental, Baltimore, MD

April 22, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B6 0'-2'	Date/Time Sampled: 04/07/2015 13:30	PSS Sample ID: 15040908-005
Matrix: SOIL	Date/Time Received: 04/09/2015 12:30	% Solids: 96

TCL Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5035A

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
trans-1,3-Dichloropropene	ND	ug/kg	5.3		1	2.7	04/14/15	04/14/15 11:57	1011
1,1,2-Trichloroethane	ND	ug/kg	5.3		1	2.7	04/14/15	04/14/15 11:57	1011
Toluene	ND	ug/kg	5.3		1	2.7	04/14/15	04/14/15 11:57	1011
2-Hexanone	ND	ug/kg	21		1	11	04/14/15	04/14/15 11:57	1011
1,2-Dibromoethane	ND	ug/kg	5.3		1	2.7	04/14/15	04/14/15 11:57	1011
Dibromochloromethane	ND	ug/kg	5.3		1	2.7	04/14/15	04/14/15 11:57	1011
Bromoform	ND	ug/kg	5.3		1	2.7	04/14/15	04/14/15 11:57	1011
Tetrachloroethene	ND	ug/kg	5.3		1	2.7	04/14/15	04/14/15 11:57	1011
Chlorobenzene	ND	ug/kg	5.3		1	2.7	04/14/15	04/14/15 11:57	1011
Ethylbenzene	ND	ug/kg	5.3		1	2.7	04/14/15	04/14/15 11:57	1011
m,p-Xylenes	12	ug/kg	11		1	5.3	04/14/15	04/14/15 11:57	1011
Styrene	ND	ug/kg	5.3		1	2.7	04/14/15	04/14/15 11:57	1011
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.3		1	2.7	04/14/15	04/14/15 11:57	1011
o-Xylene	6.7	ug/kg	5.3		1	2.7	04/14/15	04/14/15 11:57	1011
Isopropylbenzene	ND	ug/kg	5.3		1	2.7	04/14/15	04/14/15 11:57	1011
1,3-Dichlorobenzene	ND	ug/kg	5.3		1	2.7	04/14/15	04/14/15 11:57	1011
1,4-Dichlorobenzene	ND	ug/kg	5.3		1	2.7	04/14/15	04/14/15 11:57	1011
1,2-Dichlorobenzene	ND	ug/kg	5.3		1	2.7	04/14/15	04/14/15 11:57	1011
1,2-Dibromo-3-Chloropropane	ND	ug/kg	43		1	21	04/14/15	04/14/15 11:57	1011
1,2,4-Trichlorobenzene	4.3	ug/kg	5.3	J	1	2.7	04/14/15	04/14/15 11:57	1011
1,2,3-Trichlorobenzene	4.7	ug/kg	5.3	J	1	2.7	04/14/15	04/14/15 11:57	1011

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CERTIFICATE OF ANALYSIS

No: 15040908

Arc Environmental, Baltimore, MD

April 22, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B6 0'-2'	Date/Time Sampled: 04/07/2015 13:30	PSS Sample ID: 15040908-005
Matrix: SOIL	Date/Time Received: 04/09/2015 12:30	% Solids: 96

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/kg	140		20	140	04/13/15	04/20/15 22:13	1055
Acenaphthylene	ND	ug/kg	140		20	140	04/13/15	04/20/15 22:13	1055
Anthracene	ND	ug/kg	140		20	140	04/13/15	04/20/15 22:13	1055
Benzo(a)anthracene	ND	ug/kg	140		20	140	04/13/15	04/20/15 22:13	1055
Benzo(a)pyrene	140	ug/kg	140	J	20	140	04/13/15	04/20/15 22:13	1055
Benzo(b)fluoranthene	190	ug/kg	140		20	140	04/13/15	04/20/15 22:13	1055
Benzo(g,h,i)perylene	ND	ug/kg	140		20	140	04/13/15	04/20/15 22:13	1055
Benzo(k)fluoranthene	ND	ug/kg	140		20	140	04/13/15	04/20/15 22:13	1055
Chrysene	190	ug/kg	140		20	140	04/13/15	04/20/15 22:13	1055
Dibenz(a,h)Anthracene	ND	ug/kg	140		20	140	04/13/15	04/20/15 22:13	1055
Fluoranthene	ND	ug/kg	140		20	140	04/13/15	04/20/15 22:13	1055
Fluorene	ND	ug/kg	140		20	140	04/13/15	04/20/15 22:13	1055
Indeno(1,2,3-c,d)Pyrene	ND	ug/kg	140		20	140	04/13/15	04/20/15 22:13	1055
2-Methylnaphthalene	ND	ug/kg	140		20	140	04/13/15	04/20/15 22:13	1055
Naphthalene	ND	ug/kg	140		20	140	04/13/15	04/20/15 22:13	1055
Phenanthrene	ND	ug/kg	140		20	140	04/13/15	04/20/15 22:13	1055
Pyrene	360	ug/kg	140		20	140	04/13/15	04/20/15 22:13	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15040908

Arc Environmental, Baltimore, MD

April 22, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B6 0'-2'	Date/Time Sampled: 04/07/2015 13:30	PSS Sample ID: 15040908-005
Matrix: SOIL	Date/Time Received: 04/09/2015 12:30	% Solids: 96

TCL Semivolatile Organic Compounds w/o PAHs Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acetophenone	ND	ug/kg	6,900		20	3,500	04/13/15	04/17/15 00:16	1055
Biphenyl (Diphenyl)	ND	ug/kg	6,900		20	3,500	04/13/15	04/17/15 00:16	1055
Butyl benzyl phthalate	ND	ug/kg	6,900		20	3,500	04/13/15	04/17/15 00:16	1055
bis(2-chloroethoxy) methane	ND	ug/kg	6,900		20	3,500	04/13/15	04/17/15 00:16	1055
bis(2-chloroethyl) ether	ND	ug/kg	6,900		20	3,500	04/13/15	04/17/15 00:16	1055
bis(2-chloroisopropyl) ether	ND	ug/kg	6,900		20	3,500	04/13/15	04/17/15 00:16	1055
bis(2-ethylhexyl) phthalate	ND	ug/kg	6,900		20	3,500	04/13/15	04/17/15 00:16	1055
4-Bromophenylphenyl ether	ND	ug/kg	6,900		20	3,500	04/13/15	04/17/15 00:16	1055
Di-n-butyl phthalate	ND	ug/kg	6,900		20	3,500	04/13/15	04/17/15 00:16	1055
Carbazole	ND	ug/kg	6,900		20	3,500	04/13/15	04/17/15 00:16	1055
4-Chloro-3-methylphenol	ND	ug/kg	6,900		20	3,500	04/13/15	04/17/15 00:16	1055
4-Chloroaniline	ND	ug/kg	6,900		20	6,900	04/13/15	04/17/15 00:16	1055
2-Chloronaphthalene	ND	ug/kg	6,900		20	3,500	04/13/15	04/17/15 00:16	1055
2-Chlorophenol	ND	ug/kg	6,900		20	3,500	04/13/15	04/17/15 00:16	1055
4-Chlorophenyl phenyl ether	ND	ug/kg	6,900		20	3,500	04/13/15	04/17/15 00:16	1055
Dibenzofuran	ND	ug/kg	6,900		20	3,500	04/13/15	04/17/15 00:16	1055
3,3-Dichlorobenzidine	ND	ug/kg	6,900		20	3,500	04/13/15	04/17/15 00:16	1055
2,4-Dichlorophenol	ND	ug/kg	6,900		20	3,500	04/13/15	04/17/15 00:16	1055
Diethyl phthalate	ND	ug/kg	6,900		20	3,500	04/13/15	04/17/15 00:16	1055
Dimethyl phthalate	ND	ug/kg	6,900		20	3,500	04/13/15	04/17/15 00:16	1055
2,4-Dimethylphenol	ND	ug/kg	6,900		20	3,500	04/13/15	04/17/15 00:16	1055
4,6-Dinitro-2-methyl phenol	ND	ug/kg	6,900		20	3,500	04/13/15	04/17/15 00:16	1055
2,4-Dinitrophenol	ND	ug/kg	14,000		20	6,900	04/13/15	04/17/15 00:16	1055
2,4-Dinitrotoluene	ND	ug/kg	6,900		20	3,500	04/13/15	04/17/15 00:16	1055
2,6-Dinitrotoluene	ND	ug/kg	6,900		20	3,500	04/13/15	04/17/15 00:16	1055
Hexachlorobenzene	ND	ug/kg	6,900		20	3,500	04/13/15	04/17/15 00:16	1055
Hexachlorobutadiene	ND	ug/kg	6,900		20	3,500	04/13/15	04/17/15 00:16	1055
Hexachlorocyclopentadiene	ND	ug/kg	6,900		20	3,500	04/13/15	04/17/15 00:16	1055
Hexachloroethane	ND	ug/kg	6,900		20	3,500	04/13/15	04/17/15 00:16	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15040908

Arc Environmental, Baltimore, MD

April 22, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B6 0'-2'	Date/Time Sampled: 04/07/2015 13:30	PSS Sample ID: 15040908-005
Matrix: SOIL	Date/Time Received: 04/09/2015 12:30	% Solids: 96

TCL Semivolatile Organic Compounds w/o PAHs Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Isophorone	ND	ug/kg	6,900		20	3,500	04/13/15	04/17/15 00:16	1055
2-Methylphenol	ND	ug/kg	6,900		20	3,500	04/13/15	04/17/15 00:16	1055
3&4-Methylphenol	ND	ug/kg	6,900		20	3,500	04/13/15	04/17/15 00:16	1055
4-Nitroaniline	ND	ug/kg	6,900		20	6,900	04/13/15	04/17/15 00:16	1055
3-Nitroaniline	ND	ug/kg	6,900		20	3,500	04/13/15	04/17/15 00:16	1055
2-Nitroaniline	ND	ug/kg	6,900		20	3,500	04/13/15	04/17/15 00:16	1055
Nitrobenzene	ND	ug/kg	6,900		20	3,500	04/13/15	04/17/15 00:16	1055
2-Nitrophenol	ND	ug/kg	6,900		20	3,500	04/13/15	04/17/15 00:16	1055
4-Nitrophenol	ND	ug/kg	6,900		20	3,500	04/13/15	04/17/15 00:16	1055
N-Nitrosodi-n-Propylamine	ND	ug/kg	2,800		20	2,800	04/13/15	04/17/15 00:16	1055
N-Nitrosodiphenylamine	ND	ug/kg	6,900		20	3,500	04/13/15	04/17/15 00:16	1055
Di-n-octyl phthalate	ND	ug/kg	6,900		20	6,900	04/13/15	04/17/15 00:16	1055
Pentachlorophenol	ND	ug/kg	6,900		20	6,900	04/13/15	04/17/15 00:16	1055
Phenol	ND	ug/kg	6,900		20	3,500	04/13/15	04/17/15 00:16	1055
Atrazine	ND	ug/kg	6,900		20	3,500	04/13/15	04/17/15 00:16	1055
Pyridine	ND	ug/kg	6,900		20	3,500	04/13/15	04/17/15 00:16	1055
Caprolactam	ND	ug/kg	6,900		20	3,500	04/13/15	04/17/15 00:16	1055
2,4,6-Trichlorophenol	ND	ug/kg	6,900		20	3,500	04/13/15	04/17/15 00:16	1055
2,4,5-Trichlorophenol	ND	ug/kg	6,900		20	3,500	04/13/15	04/17/15 00:16	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15040908

Arc Environmental, Baltimore, MD

April 22, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B6 4'-6'	Date/Time Sampled: 04/07/2015 13:35	PSS Sample ID: 15040908-006
Matrix: SOIL	Date/Time Received: 04/09/2015 12:30	% Solids: 95

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	mg/kg	2.3		1	1.1	04/10/15	04/13/15 17:17	1033
Arsenic	2.6	mg/kg	0.45		1	0.23	04/10/15	04/13/15 17:17	1033
Beryllium	ND	mg/kg	2.3		1	1.1	04/10/15	04/13/15 17:17	1033
Cadmium	ND	mg/kg	2.3		1	1.1	04/10/15	04/13/15 17:17	1033
Chromium	20	mg/kg	2.3		1	1.1	04/10/15	04/14/15 14:18	1033
Copper	18	mg/kg	2.3		1	1.1	04/10/15	04/13/15 17:17	1033
Lead	4.1	mg/kg	2.3		1	1.1	04/10/15	04/13/15 17:17	1033
Mercury	ND	mg/kg	0.090		1	0.045	04/10/15	04/13/15 17:17	1033
Nickel	17	mg/kg	2.3		1	1.1	04/10/15	04/13/15 17:17	1033
Selenium	ND	mg/kg	2.3		1	1.1	04/10/15	04/13/15 17:17	1033
Silver	ND	mg/kg	2.3		1	1.1	04/10/15	04/13/15 17:17	1033
Thallium	ND	mg/kg	0.45		1	0.23	04/10/15	04/13/15 17:17	1033
Zinc	9.9	mg/kg	9.0		1	4.5	04/10/15	04/13/15 17:17	1033

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: SW3550C

DF/HF - No. 2/diesel fuel and heavier fuel/oil patterns observed in sample.

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	54	mg/kg	10	DF	1	4.2	04/13/15	04/15/15 17:53	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/kg	100		1	52	04/13/15	04/13/15 13:46	1035

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15040908

Arc Environmental, Baltimore, MD

April 22, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B6 4'-6'	Date/Time Sampled: 04/07/2015 13:35	PSS Sample ID: 15040908-006
Matrix: SOIL	Date/Time Received: 04/09/2015 12:30	% Solids: 95

Polychlorinated Biphenyls

Analytical Method: SW-846 8082 A

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
PCB-1016	ND	mg/kg	0.052		1	0.052	04/13/15	04/14/15 14:55	1029
PCB-1221	ND	mg/kg	0.052		1	0.052	04/13/15	04/14/15 14:55	1029
PCB-1232	ND	mg/kg	0.052		1	0.052	04/13/15	04/14/15 14:55	1029
PCB-1242	ND	mg/kg	0.052		1	0.052	04/13/15	04/14/15 14:55	1029
PCB-1248	ND	mg/kg	0.052		1	0.052	04/13/15	04/14/15 14:55	1029
PCB-1254	ND	mg/kg	0.052		1	0.052	04/13/15	04/14/15 14:55	1029
PCB-1260	ND	mg/kg	0.052		1	0.052	04/13/15	04/14/15 14:55	1029

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CERTIFICATE OF ANALYSIS

No: 15040908

Arc Environmental, Baltimore, MD

April 22, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B6 4'-6'	Date/Time Sampled: 04/07/2015 13:35	PSS Sample ID: 15040908-006
Matrix: SOIL	Date/Time Received: 04/09/2015 12:30	% Solids: 95

TCL Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5035A

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Dichlorodifluoromethane	ND	ug/kg	4.6		1	2.3	04/14/15	04/14/15 12:27	1011
Chloromethane	ND	ug/kg	4.6		1	2.3	04/14/15	04/14/15 12:27	1011
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	ug/kg	4.6		1	2.3	04/14/15	04/14/15 12:27	1011
Vinyl Chloride	ND	ug/kg	4.6		1	2.3	04/14/15	04/14/15 12:27	1011
Bromomethane	ND	ug/kg	4.6		1	2.3	04/14/15	04/14/15 12:27	1011
Chloroethane	ND	ug/kg	4.6		1	2.3	04/14/15	04/14/15 12:27	1011
Acetone	27	ug/kg	18		1	9.2	04/14/15	04/14/15 12:27	1011
Cyclohexane	ND	ug/kg	18		1	9.2	04/14/15	04/14/15 12:27	1011
Trichlorofluoromethane	ND	ug/kg	4.6		1	2.3	04/14/15	04/14/15 12:27	1011
1,1-Dichloroethene	ND	ug/kg	4.6		1	2.3	04/14/15	04/14/15 12:27	1011
Methylene Chloride	ND	ug/kg	4.6		1	2.3	04/14/15	04/14/15 12:27	1011
trans-1,2-Dichloroethene	ND	ug/kg	4.6		1	2.3	04/14/15	04/14/15 12:27	1011
Methyl-t-butyl ether	ND	ug/kg	4.6		1	2.3	04/14/15	04/14/15 12:27	1011
1,1-Dichloroethane	ND	ug/kg	4.6		1	2.3	04/14/15	04/14/15 12:27	1011
2-Butanone	ND	ug/kg	18		1	9.2	04/14/15	04/14/15 12:27	1011
cis-1,2-Dichloroethene	ND	ug/kg	4.6		1	2.3	04/14/15	04/14/15 12:27	1011
Bromochloromethane	ND	ug/kg	4.6		1	2.3	04/14/15	04/14/15 12:27	1011
Chloroform	ND	ug/kg	4.6		1	2.3	04/14/15	04/14/15 12:27	1011
1,1,1-Trichloroethane	ND	ug/kg	4.6		1	2.3	04/14/15	04/14/15 12:27	1011
1,2-Dichloroethane	ND	ug/kg	4.6		1	2.3	04/14/15	04/14/15 12:27	1011
Carbon Tetrachloride	ND	ug/kg	4.6		1	2.3	04/14/15	04/14/15 12:27	1011
Benzene	ND	ug/kg	4.6		1	2.3	04/14/15	04/14/15 12:27	1011
1,2-Dichloropropane	ND	ug/kg	4.6		1	2.3	04/14/15	04/14/15 12:27	1011
Carbon Disulfide	ND	ug/kg	9.2		1	4.6	04/14/15	04/14/15 12:27	1011
Methylcyclohexane	ND	ug/kg	18		1	9.2	04/14/15	04/14/15 12:27	1011
Trichloroethene	ND	ug/kg	4.6		1	2.3	04/14/15	04/14/15 12:27	1011
Methyl Acetate	ND	ug/kg	18		1	9.2	04/14/15	04/14/15 12:27	1011
Bromodichloromethane	ND	ug/kg	4.6		1	2.3	04/14/15	04/14/15 12:27	1011
cis-1,3-Dichloropropene	ND	ug/kg	4.6		1	2.3	04/14/15	04/14/15 12:27	1011
4-Methyl-2-Pentanone	ND	ug/kg	18		1	9.2	04/14/15	04/14/15 12:27	1011

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15040908

Arc Environmental, Baltimore, MD

April 22, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B6 4'-6'	Date/Time Sampled: 04/07/2015 13:35	PSS Sample ID: 15040908-006
Matrix: SOIL	Date/Time Received: 04/09/2015 12:30	% Solids: 95

TCL Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5035A

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
trans-1,3-Dichloropropene	ND	ug/kg	4.6		1	2.3	04/14/15	04/14/15 12:27	1011
1,1,2-Trichloroethane	ND	ug/kg	4.6		1	2.3	04/14/15	04/14/15 12:27	1011
Toluene	ND	ug/kg	4.6		1	2.3	04/14/15	04/14/15 12:27	1011
2-Hexanone	ND	ug/kg	18		1	9.2	04/14/15	04/14/15 12:27	1011
1,2-Dibromoethane	ND	ug/kg	4.6		1	2.3	04/14/15	04/14/15 12:27	1011
Dibromochloromethane	ND	ug/kg	4.6		1	2.3	04/14/15	04/14/15 12:27	1011
Bromoform	ND	ug/kg	4.6		1	2.3	04/14/15	04/14/15 12:27	1011
Tetrachloroethene	ND	ug/kg	4.6		1	2.3	04/14/15	04/14/15 12:27	1011
Chlorobenzene	ND	ug/kg	4.6		1	2.3	04/14/15	04/14/15 12:27	1011
Ethylbenzene	ND	ug/kg	4.6		1	2.3	04/14/15	04/14/15 12:27	1011
m,p-Xylenes	ND	ug/kg	9.2		1	4.6	04/14/15	04/14/15 12:27	1011
Styrene	ND	ug/kg	4.6		1	2.3	04/14/15	04/14/15 12:27	1011
1,1,2,2-Tetrachloroethane	ND	ug/kg	4.6		1	2.3	04/14/15	04/14/15 12:27	1011
o-Xylene	ND	ug/kg	4.6		1	2.3	04/14/15	04/14/15 12:27	1011
Isopropylbenzene	ND	ug/kg	4.6		1	2.3	04/14/15	04/14/15 12:27	1011
1,3-Dichlorobenzene	ND	ug/kg	4.6		1	2.3	04/14/15	04/14/15 12:27	1011
1,4-Dichlorobenzene	ND	ug/kg	4.6		1	2.3	04/14/15	04/14/15 12:27	1011
1,2-Dichlorobenzene	ND	ug/kg	4.6		1	2.3	04/14/15	04/14/15 12:27	1011
1,2-Dibromo-3-Chloropropane	ND	ug/kg	37		1	18	04/14/15	04/14/15 12:27	1011
1,2,4-Trichlorobenzene	ND	ug/kg	4.6		1	2.3	04/14/15	04/14/15 12:27	1011
1,2,3-Trichlorobenzene	ND	ug/kg	4.6		1	2.3	04/14/15	04/14/15 12:27	1011

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CERTIFICATE OF ANALYSIS

No: 15040908

Arc Environmental, Baltimore, MD

April 22, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B6 4'-6'	Date/Time Sampled: 04/07/2015 13:35	PSS Sample ID: 15040908-006
Matrix: SOIL	Date/Time Received: 04/09/2015 12:30	% Solids: 95

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/kg	3.5		1	3.5	04/13/15	04/20/15 21:09	1055
Acenaphthylene	ND	ug/kg	3.5		1	3.5	04/13/15	04/20/15 21:09	1055
Anthracene	ND	ug/kg	3.5		1	3.5	04/13/15	04/20/15 21:09	1055
Benzo(a)anthracene	13	ug/kg	3.5		1	3.5	04/13/15	04/20/15 21:09	1055
Benzo(a)pyrene	19	ug/kg	3.5		1	3.5	04/13/15	04/20/15 21:09	1055
Benzo(b)fluoranthene	27	ug/kg	3.5		1	3.5	04/13/15	04/20/15 21:09	1055
Benzo(g,h,i)perylene	11	ug/kg	3.5		1	3.5	04/13/15	04/20/15 21:09	1055
Benzo(k)fluoranthene	5.6	ug/kg	3.5		1	3.5	04/13/15	04/20/15 21:09	1055
Chrysene	20	ug/kg	3.5		1	3.5	04/13/15	04/20/15 21:09	1055
Dibenz(a,h)Anthracene	ND	ug/kg	3.5		1	3.5	04/13/15	04/20/15 21:09	1055
Fluoranthene	16	ug/kg	3.5		1	3.5	04/13/15	04/20/15 21:09	1055
Fluorene	ND	ug/kg	3.5		1	3.5	04/13/15	04/20/15 21:09	1055
Indeno(1,2,3-c,d)Pyrene	11	ug/kg	3.5		1	3.5	04/13/15	04/20/15 21:09	1055
2-Methylnaphthalene	8.4	ug/kg	3.5		1	3.5	04/13/15	04/20/15 21:09	1055
Naphthalene	6.7	ug/kg	3.5		1	3.5	04/13/15	04/20/15 21:09	1055
Phenanthrene	8.1	ug/kg	3.5		1	3.5	04/13/15	04/20/15 21:09	1055
Pyrene	59	ug/kg	3.5		1	3.5	04/13/15	04/20/15 21:09	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15040908

Arc Environmental, Baltimore, MD

April 22, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B6 4'-6'	Date/Time Sampled: 04/07/2015 13:35	PSS Sample ID: 15040908-006
Matrix: SOIL	Date/Time Received: 04/09/2015 12:30	% Solids: 95

TCL Semivolatile Organic Compounds w/o PAHs Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acetophenone	ND	ug/kg	170		1	87	04/13/15	04/16/15 22:44	1055
Biphenyl (Diphenyl)	ND	ug/kg	170		1	87	04/13/15	04/16/15 22:44	1055
Butyl benzyl phthalate	ND	ug/kg	170		1	87	04/13/15	04/16/15 22:44	1055
bis(2-chloroethoxy) methane	ND	ug/kg	170		1	87	04/13/15	04/16/15 22:44	1055
bis(2-chloroethyl) ether	ND	ug/kg	170		1	87	04/13/15	04/16/15 22:44	1055
bis(2-chloroisopropyl) ether	ND	ug/kg	170		1	87	04/13/15	04/16/15 22:44	1055
bis(2-ethylhexyl) phthalate	ND	ug/kg	170		1	87	04/13/15	04/16/15 22:44	1055
4-Bromophenylphenyl ether	ND	ug/kg	170		1	87	04/13/15	04/16/15 22:44	1055
Di-n-butyl phthalate	ND	ug/kg	170		1	87	04/13/15	04/16/15 22:44	1055
Carbazole	ND	ug/kg	170		1	87	04/13/15	04/16/15 22:44	1055
4-Chloro-3-methylphenol	ND	ug/kg	170		1	87	04/13/15	04/16/15 22:44	1055
4-Chloroaniline	ND	ug/kg	170		1	170	04/13/15	04/16/15 22:44	1055
2-Chloronaphthalene	ND	ug/kg	170		1	87	04/13/15	04/16/15 22:44	1055
2-Chlorophenol	ND	ug/kg	170		1	87	04/13/15	04/16/15 22:44	1055
4-Chlorophenyl phenyl ether	ND	ug/kg	170		1	87	04/13/15	04/16/15 22:44	1055
Dibenzofuran	ND	ug/kg	170		1	87	04/13/15	04/16/15 22:44	1055
3,3-Dichlorobenzidine	ND	ug/kg	170		1	87	04/13/15	04/16/15 22:44	1055
2,4-Dichlorophenol	ND	ug/kg	170		1	87	04/13/15	04/16/15 22:44	1055
Diethyl phthalate	ND	ug/kg	170		1	87	04/13/15	04/16/15 22:44	1055
Dimethyl phthalate	ND	ug/kg	170		1	87	04/13/15	04/16/15 22:44	1055
2,4-Dimethylphenol	ND	ug/kg	170		1	87	04/13/15	04/16/15 22:44	1055
4,6-Dinitro-2-methyl phenol	ND	ug/kg	170		1	87	04/13/15	04/16/15 22:44	1055
2,4-Dinitrophenol	ND	ug/kg	350		1	170	04/13/15	04/16/15 22:44	1055
2,4-Dinitrotoluene	ND	ug/kg	170		1	87	04/13/15	04/16/15 22:44	1055
2,6-Dinitrotoluene	ND	ug/kg	170		1	87	04/13/15	04/16/15 22:44	1055
Hexachlorobenzene	ND	ug/kg	170		1	87	04/13/15	04/16/15 22:44	1055
Hexachlorobutadiene	ND	ug/kg	170		1	87	04/13/15	04/16/15 22:44	1055
Hexachlorocyclopentadiene	ND	ug/kg	170		1	87	04/13/15	04/16/15 22:44	1055
Hexachloroethane	ND	ug/kg	170		1	87	04/13/15	04/16/15 22:44	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15040908

Arc Environmental, Baltimore, MD

April 22, 2015

Project Name: Percontee
 Project Location: Silver Spring, MD
 Project ID: 057-5

Sample ID: B6 4'-6'	Date/Time Sampled: 04/07/2015 13:35	PSS Sample ID: 15040908-006
Matrix: SOIL	Date/Time Received: 04/09/2015 12:30	% Solids: 95

TCL Semivolatile Organic Compounds w/o PAHs Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Isophorone	ND	ug/kg	170		1	87	04/13/15	04/16/15 22:44	1055
2-Methylphenol	ND	ug/kg	170		1	87	04/13/15	04/16/15 22:44	1055
3&4-Methylphenol	ND	ug/kg	170		1	87	04/13/15	04/16/15 22:44	1055
4-Nitroaniline	ND	ug/kg	170		1	170	04/13/15	04/16/15 22:44	1055
3-Nitroaniline	ND	ug/kg	170		1	87	04/13/15	04/16/15 22:44	1055
2-Nitroaniline	ND	ug/kg	170		1	87	04/13/15	04/16/15 22:44	1055
Nitrobenzene	ND	ug/kg	170		1	87	04/13/15	04/16/15 22:44	1055
2-Nitrophenol	ND	ug/kg	170		1	87	04/13/15	04/16/15 22:44	1055
4-Nitrophenol	ND	ug/kg	170		1	87	04/13/15	04/16/15 22:44	1055
N-Nitrosodi-n-Propylamine	ND	ug/kg	70		1	70	04/13/15	04/16/15 22:44	1055
N-Nitrosodiphenylamine	ND	ug/kg	170		1	87	04/13/15	04/16/15 22:44	1055
Di-n-octyl phthalate	ND	ug/kg	170		1	170	04/13/15	04/16/15 22:44	1055
Pentachlorophenol	ND	ug/kg	170		1	170	04/13/15	04/16/15 22:44	1055
Phenol	ND	ug/kg	170		1	87	04/13/15	04/16/15 22:44	1055
Atrazine	ND	ug/kg	170		1	87	04/13/15	04/16/15 22:44	1055
Pyridine	ND	ug/kg	170		1	87	04/13/15	04/16/15 22:44	1055
Caprolactam	ND	ug/kg	170		1	87	04/13/15	04/16/15 22:44	1055
2,4,6-Trichlorophenol	ND	ug/kg	170		1	87	04/13/15	04/16/15 22:44	1055
2,4,5-Trichlorophenol	ND	ug/kg	170		1	87	04/13/15	04/16/15 22:44	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15040908

Arc Environmental, Baltimore, MD

April 22, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B7 0'-2'	Date/Time Sampled: 04/07/2015 14:10	PSS Sample ID: 15040908-007
Matrix: SOIL	Date/Time Received: 04/09/2015 12:30	% Solids: 88

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	mg/kg	2.4		1	1.2	04/10/15	04/13/15 17:23	1033
Arsenic	3.4	mg/kg	0.48		1	0.24	04/10/15	04/13/15 17:23	1033
Beryllium	ND	mg/kg	2.4		1	1.2	04/10/15	04/13/15 17:23	1033
Cadmium	ND	mg/kg	2.4		1	1.2	04/10/15	04/13/15 17:23	1033
Chromium	70	mg/kg	2.4		1	1.2	04/10/15	04/14/15 14:49	1033
Copper	24	mg/kg	2.4		1	1.2	04/10/15	04/13/15 17:23	1033
Lead	23	mg/kg	2.4		1	1.2	04/10/15	04/13/15 17:23	1033
Mercury	0.064	mg/kg	0.095	J	1	0.048	04/10/15	04/13/15 17:23	1033
Nickel	43	mg/kg	2.4		1	1.2	04/10/15	04/13/15 17:23	1033
Selenium	ND	mg/kg	2.4		1	1.2	04/10/15	04/13/15 17:23	1033
Silver	ND	mg/kg	2.4		1	1.2	04/10/15	04/13/15 17:23	1033
Thallium	ND	mg/kg	0.48		1	0.24	04/10/15	04/13/15 17:23	1033
Zinc	52	mg/kg	9.5		1	4.8	04/10/15	04/13/15 17:23	1033

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: SW3550C

DF/HF - No. 2/diesel fuel and heavier fuel/oil patterns observed in sample.

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	65	mg/kg	11	DF	1	4.5	04/13/15	04/14/15 15:55	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/kg	110		1	56	04/13/15	04/13/15 14:15	1035

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15040908

Arc Environmental, Baltimore, MD

April 22, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B7 0'-2'	Date/Time Sampled: 04/07/2015 14:10	PSS Sample ID: 15040908-007
Matrix: SOIL	Date/Time Received: 04/09/2015 12:30	% Solids: 88

Polychlorinated Biphenyls

Analytical Method: SW-846 8082 A

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
PCB-1016	ND	mg/kg	0.055		1	0.055	04/13/15	04/14/15 15:24	1029
PCB-1221	ND	mg/kg	0.055		1	0.055	04/13/15	04/14/15 15:24	1029
PCB-1232	ND	mg/kg	0.055		1	0.055	04/13/15	04/14/15 15:24	1029
PCB-1242	ND	mg/kg	0.055		1	0.055	04/13/15	04/14/15 15:24	1029
PCB-1248	ND	mg/kg	0.055		1	0.055	04/13/15	04/14/15 15:24	1029
PCB-1254	ND	mg/kg	0.055		1	0.055	04/13/15	04/14/15 15:24	1029
PCB-1260	ND	mg/kg	0.055		1	0.055	04/13/15	04/14/15 15:24	1029

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/kg	38		10	38	04/13/15	04/19/15 00:42	1055
Acenaphthylene	ND	ug/kg	38		10	38	04/13/15	04/19/15 00:42	1055
Anthracene	45	ug/kg	38		10	38	04/13/15	04/19/15 00:42	1055
Benzo(a)anthracene	210	ug/kg	38		10	38	04/13/15	04/19/15 00:42	1055
Benzo(a)pyrene	200	ug/kg	38		10	38	04/13/15	04/19/15 00:42	1055
Benzo(b)fluoranthene	280	ug/kg	38		10	38	04/13/15	04/19/15 00:42	1055
Benzo(g,h,i)perylene	120	ug/kg	38		10	38	04/13/15	04/19/15 00:42	1055
Benzo(k)fluoranthene	83	ug/kg	38		10	38	04/13/15	04/19/15 00:42	1055
Chrysene	210	ug/kg	38		10	38	04/13/15	04/19/15 00:42	1055
Dibenz(a,h)Anthracene	ND	ug/kg	38		10	38	04/13/15	04/19/15 00:42	1055
Fluoranthene	360	ug/kg	38		10	38	04/13/15	04/19/15 00:42	1055
Fluorene	ND	ug/kg	38		10	38	04/13/15	04/19/15 00:42	1055
Indeno(1,2,3-c,d)Pyrene	150	ug/kg	38		10	38	04/13/15	04/19/15 00:42	1055
2-Methylnaphthalene	ND	ug/kg	38		10	38	04/13/15	04/19/15 00:42	1055
Naphthalene	ND	ug/kg	38		10	38	04/13/15	04/19/15 00:42	1055
Phenanthrene	230	ug/kg	38		10	38	04/13/15	04/19/15 00:42	1055
Pyrene	390	ug/kg	38		10	38	04/13/15	04/19/15 00:42	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15040908

Arc Environmental, Baltimore, MD

April 22, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B7 4'-6'	Date/Time Sampled: 04/07/2015 14:20	PSS Sample ID: 15040908-008
Matrix: SOIL	Date/Time Received: 04/09/2015 12:30	% Solids: 88

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	mg/kg	2.4		1	1.2	04/10/15	04/13/15 17:29	1033
Arsenic	4.0	mg/kg	0.49		1	0.24	04/10/15	04/13/15 17:29	1033
Beryllium	ND	mg/kg	2.4		1	1.2	04/10/15	04/13/15 17:29	1033
Cadmium	ND	mg/kg	2.4		1	1.2	04/10/15	04/13/15 17:29	1033
Chromium	32	mg/kg	2.4		1	1.2	04/10/15	04/14/15 14:55	1033
Copper	19	mg/kg	2.4		1	1.2	04/10/15	04/13/15 17:29	1033
Lead	12	mg/kg	2.4		1	1.2	04/10/15	04/13/15 17:29	1033
Mercury	0.050	mg/kg	0.098	J	1	0.049	04/10/15	04/13/15 17:29	1033
Nickel	31	mg/kg	2.4		1	1.2	04/10/15	04/13/15 17:29	1033
Selenium	ND	mg/kg	2.4		1	1.2	04/10/15	04/13/15 17:29	1033
Silver	ND	mg/kg	2.4		1	1.2	04/10/15	04/13/15 17:29	1033
Thallium	ND	mg/kg	0.49		1	0.24	04/10/15	04/13/15 17:29	1033
Zinc	20	mg/kg	9.8		1	4.9	04/10/15	04/13/15 17:29	1033

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: SW3550C

DF/HF - No. 2/diesel fuel and heavier fuel/oil patterns observed in sample.

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	39	mg/kg	11	DF	1	4.5	04/13/15	04/14/15 15:55	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/kg	110		1	56	04/13/15	04/13/15 14:44	1035

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15040908

Arc Environmental, Baltimore, MD

April 22, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B7 4'-6'	Date/Time Sampled: 04/07/2015 14:20	PSS Sample ID: 15040908-008
Matrix: SOIL	Date/Time Received: 04/09/2015 12:30	% Solids: 88

Polychlorinated Biphenyls

Analytical Method: SW-846 8082 A

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
PCB-1016	ND	mg/kg	0.057		1	0.057	04/13/15	04/14/15 21:12	1029
PCB-1221	ND	mg/kg	0.057		1	0.057	04/13/15	04/14/15 21:12	1029
PCB-1232	ND	mg/kg	0.057		1	0.057	04/13/15	04/14/15 21:12	1029
PCB-1242	ND	mg/kg	0.057		1	0.057	04/13/15	04/14/15 21:12	1029
PCB-1248	ND	mg/kg	0.057		1	0.057	04/13/15	04/14/15 21:12	1029
PCB-1254	ND	mg/kg	0.057		1	0.057	04/13/15	04/14/15 21:12	1029
PCB-1260	ND	mg/kg	0.057		1	0.057	04/13/15	04/14/15 21:12	1029

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/kg	3.8		1	3.8	04/13/15	04/18/15 22:34	1055
Acenaphthylene	ND	ug/kg	3.8		1	3.8	04/13/15	04/18/15 22:34	1055
Anthracene	ND	ug/kg	3.8		1	3.8	04/13/15	04/18/15 22:34	1055
Benzo(a)anthracene	6.1	ug/kg	3.8		1	3.8	04/13/15	04/18/15 22:34	1055
Benzo(a)pyrene	6.4	ug/kg	3.8		1	3.8	04/13/15	04/18/15 22:34	1055
Benzo(b)fluoranthene	7.6	ug/kg	3.8		1	3.8	04/13/15	04/18/15 22:34	1055
Benzo(g,h,i)perylene	4.5	ug/kg	3.8		1	3.8	04/13/15	04/18/15 22:34	1055
Benzo(k)fluoranthene	4.2	ug/kg	3.8		1	3.8	04/13/15	04/18/15 22:34	1055
Chrysene	7.6	ug/kg	3.8		1	3.8	04/13/15	04/18/15 22:34	1055
Dibenz(a,h)Anthracene	ND	ug/kg	3.8		1	3.8	04/13/15	04/18/15 22:34	1055
Fluoranthene	10	ug/kg	3.8		1	3.8	04/13/15	04/18/15 22:34	1055
Fluorene	ND	ug/kg	3.8		1	3.8	04/13/15	04/18/15 22:34	1055
Indeno(1,2,3-c,d)Pyrene	4.2	ug/kg	3.8		1	3.8	04/13/15	04/18/15 22:34	1055
2-Methylnaphthalene	ND	ug/kg	3.8		1	3.8	04/13/15	04/18/15 22:34	1055
Naphthalene	ND	ug/kg	3.8		1	3.8	04/13/15	04/18/15 22:34	1055
Phenanthrene	4.9	ug/kg	3.8		1	3.8	04/13/15	04/18/15 22:34	1055
Pyrene	9.8	ug/kg	3.8		1	3.8	04/13/15	04/18/15 22:34	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15040908

Arc Environmental, Baltimore, MD

April 22, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B2 0'-2'	Date/Time Sampled: 04/08/2015 09:50	PSS Sample ID: 15040908-009
Matrix: SOIL	Date/Time Received: 04/09/2015 12:30	% Solids: 93

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	mg/kg	2.1		1	1	04/10/15	04/13/15 17:35	1033
Arsenic	0.98	mg/kg	0.42		1	0.21	04/10/15	04/13/15 17:35	1033
Beryllium	ND	mg/kg	2.1		1	1	04/10/15	04/13/15 17:35	1033
Cadmium	ND	mg/kg	2.1		1	1	04/10/15	04/13/15 17:35	1033
Chromium	14	mg/kg	2.1		1	1	04/10/15	04/14/15 15:01	1033
Copper	41	mg/kg	2.1		1	1	04/10/15	04/13/15 17:35	1033
Lead	4.1	mg/kg	2.1		1	1	04/10/15	04/13/15 17:35	1033
Mercury	ND	mg/kg	0.083		1	0.042	04/10/15	04/13/15 17:35	1033
Nickel	20	mg/kg	2.1		1	1	04/10/15	04/13/15 17:35	1033
Selenium	ND	mg/kg	2.1		1	1	04/10/15	04/13/15 17:35	1033
Silver	ND	mg/kg	2.1		1	1	04/10/15	04/13/15 17:35	1033
Thallium	ND	mg/kg	0.42		1	0.21	04/10/15	04/13/15 17:35	1033
Zinc	20	mg/kg	8.3		1	4.2	04/10/15	04/13/15 17:35	1033

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: SW3550C

DF/HF - No. 2/diesel fuel and heavier fuel/oil patterns observed in sample.

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	97	mg/kg	11	DF	1	4.3	04/13/15	04/15/15 18:36	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/kg	110		1	53	04/13/15	04/13/15 15:13	1035

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15040908

Arc Environmental, Baltimore, MD

April 22, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B2 0'-2'	Date/Time Sampled: 04/08/2015 09:50	PSS Sample ID: 15040908-009
Matrix: SOIL	Date/Time Received: 04/09/2015 12:30	% Solids: 93

Polychlorinated Biphenyls

Analytical Method: SW-846 8082 A

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
PCB-1016	ND	mg/kg	0.054		1	0.054	04/13/15	04/14/15 20:43	1029
PCB-1221	ND	mg/kg	0.054		1	0.054	04/13/15	04/14/15 20:43	1029
PCB-1232	ND	mg/kg	0.054		1	0.054	04/13/15	04/14/15 20:43	1029
PCB-1242	ND	mg/kg	0.054		1	0.054	04/13/15	04/14/15 20:43	1029
PCB-1248	ND	mg/kg	0.054		1	0.054	04/13/15	04/14/15 20:43	1029
PCB-1254	ND	mg/kg	0.054		1	0.054	04/13/15	04/14/15 20:43	1029
PCB-1260	ND	mg/kg	0.054		1	0.054	04/13/15	04/14/15 20:43	1029

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	3.9	ug/kg	3.6		1	3.6	04/13/15	04/19/15 02:17	1055
Acenaphthylene	ND	ug/kg	3.6		1	3.6	04/13/15	04/19/15 02:17	1055
Anthracene	11	ug/kg	3.6		1	3.6	04/13/15	04/19/15 02:17	1055
Benzo(a)anthracene	22	ug/kg	3.6		1	3.6	04/13/15	04/19/15 02:17	1055
Benzo(a)pyrene	20	ug/kg	3.6		1	3.6	04/13/15	04/19/15 02:17	1055
Benzo(b)fluoranthene	23	ug/kg	3.6		1	3.6	04/13/15	04/19/15 02:17	1055
Benzo(g,h,i)perylene	19	ug/kg	3.6		1	3.6	04/13/15	04/19/15 02:17	1055
Benzo(k)fluoranthene	7.2	ug/kg	3.6		1	3.6	04/13/15	04/19/15 02:17	1055
Chrysene	23	ug/kg	3.6		1	3.6	04/13/15	04/19/15 02:17	1055
Dibenz(a,h)Anthracene	ND	ug/kg	3.6		1	3.6	04/13/15	04/19/15 02:17	1055
Fluoranthene	37	ug/kg	3.6		1	3.6	04/13/15	04/19/15 02:17	1055
Fluorene	5.7	ug/kg	3.6		1	3.6	04/13/15	04/19/15 02:17	1055
Indeno(1,2,3-c,d)Pyrene	19	ug/kg	3.6		1	3.6	04/13/15	04/19/15 02:17	1055
2-Methylnaphthalene	ND	ug/kg	3.6		1	3.6	04/13/15	04/19/15 02:17	1055
Naphthalene	ND	ug/kg	3.6		1	3.6	04/13/15	04/19/15 02:17	1055
Phenanthrene	30	ug/kg	3.6		1	3.6	04/13/15	04/19/15 02:17	1055
Pyrene	59	ug/kg	3.6		1	3.6	04/13/15	04/19/15 02:17	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15040908

Arc Environmental, Baltimore, MD

April 22, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B2 4'-6'	Date/Time Sampled: 04/08/2015 09:55	PSS Sample ID: 15040908-010
Matrix: SOIL	Date/Time Received: 04/09/2015 12:30	% Solids: 92

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	mg/kg	2.4		1	1.2	04/10/15	04/13/15 17:41	1033
Arsenic	2.8	mg/kg	0.48		1	0.24	04/10/15	04/13/15 17:41	1033
Beryllium	ND	mg/kg	2.4		1	1.2	04/10/15	04/13/15 17:41	1033
Cadmium	ND	mg/kg	2.4		1	1.2	04/10/15	04/13/15 17:41	1033
Chromium	17	mg/kg	2.4		1	1.2	04/10/15	04/14/15 15:07	1033
Copper	11	mg/kg	2.4		1	1.2	04/10/15	04/13/15 17:41	1033
Lead	4.4	mg/kg	2.4		1	1.2	04/10/15	04/13/15 17:41	1033
Mercury	0.052	mg/kg	0.095	J	1	0.048	04/10/15	04/13/15 17:41	1033
Nickel	5.3	mg/kg	2.4		1	1.2	04/10/15	04/13/15 17:41	1033
Selenium	ND	mg/kg	2.4		1	1.2	04/10/15	04/13/15 17:41	1033
Silver	ND	mg/kg	2.4		1	1.2	04/10/15	04/13/15 17:41	1033
Thallium	ND	mg/kg	0.48		1	0.24	04/10/15	04/13/15 17:41	1033
Zinc	7.4	mg/kg	9.5	J	1	4.8	04/10/15	04/13/15 17:41	1033

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: SW3550C

DF/HF - No. 2/diesel fuel and heavier fuel/oil patterns observed in sample.

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	4.6	mg/kg	11	J	1	4.4	04/13/15	04/14/15 16:38	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/kg	110		1	53	04/13/15	04/13/15 15:43	1035

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15040908

Arc Environmental, Baltimore, MD

April 22, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B2 4'-6'	Date/Time Sampled: 04/08/2015 09:55	PSS Sample ID: 15040908-010
Matrix: SOIL	Date/Time Received: 04/09/2015 12:30	% Solids: 92

Polychlorinated Biphenyls

Analytical Method: SW-846 8082 A

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
PCB-1016	ND	mg/kg	0.054		1	0.054	04/13/15	04/14/15 20:14	1029
PCB-1221	ND	mg/kg	0.054		1	0.054	04/13/15	04/14/15 20:14	1029
PCB-1232	ND	mg/kg	0.054		1	0.054	04/13/15	04/14/15 20:14	1029
PCB-1242	ND	mg/kg	0.054		1	0.054	04/13/15	04/14/15 20:14	1029
PCB-1248	ND	mg/kg	0.054		1	0.054	04/13/15	04/14/15 20:14	1029
PCB-1254	ND	mg/kg	0.054		1	0.054	04/13/15	04/14/15 20:14	1029
PCB-1260	ND	mg/kg	0.054		1	0.054	04/13/15	04/14/15 20:14	1029

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/kg	3.6		1	3.6	04/13/15	04/18/15 23:06	1055
Acenaphthylene	ND	ug/kg	3.6		1	3.6	04/13/15	04/18/15 23:06	1055
Anthracene	ND	ug/kg	3.6		1	3.6	04/13/15	04/18/15 23:06	1055
Benzo(a)anthracene	ND	ug/kg	3.6		1	3.6	04/13/15	04/18/15 23:06	1055
Benzo(a)pyrene	ND	ug/kg	3.6		1	3.6	04/13/15	04/18/15 23:06	1055
Benzo(b)fluoranthene	ND	ug/kg	3.6		1	3.6	04/13/15	04/18/15 23:06	1055
Benzo(g,h,i)perylene	ND	ug/kg	3.6		1	3.6	04/13/15	04/18/15 23:06	1055
Benzo(k)fluoranthene	ND	ug/kg	3.6		1	3.6	04/13/15	04/18/15 23:06	1055
Chrysene	ND	ug/kg	3.6		1	3.6	04/13/15	04/18/15 23:06	1055
Dibenz(a,h)Anthracene	ND	ug/kg	3.6		1	3.6	04/13/15	04/18/15 23:06	1055
Fluoranthene	ND	ug/kg	3.6		1	3.6	04/13/15	04/18/15 23:06	1055
Fluorene	ND	ug/kg	3.6		1	3.6	04/13/15	04/18/15 23:06	1055
Indeno(1,2,3-c,d)Pyrene	ND	ug/kg	3.6		1	3.6	04/13/15	04/18/15 23:06	1055
2-Methylnaphthalene	ND	ug/kg	3.6		1	3.6	04/13/15	04/18/15 23:06	1055
Naphthalene	ND	ug/kg	3.6		1	3.6	04/13/15	04/18/15 23:06	1055
Phenanthrene	ND	ug/kg	3.6		1	3.6	04/13/15	04/18/15 23:06	1055
Pyrene	ND	ug/kg	3.6		1	3.6	04/13/15	04/18/15 23:06	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15040908

Arc Environmental, Baltimore, MD

April 22, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B5 0'-2'	Date/Time Sampled: 04/08/2015 10:25	PSS Sample ID: 15040908-011
Matrix: SOIL	Date/Time Received: 04/09/2015 12:30	% Solids: 93

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	mg/kg	2.4		1	1.2	04/10/15	04/13/15 17:47	1033
Arsenic	3.6	mg/kg	0.48		1	0.24	04/10/15	04/13/15 17:47	1033
Beryllium	ND	mg/kg	2.4		1	1.2	04/10/15	04/13/15 17:47	1033
Cadmium	ND	mg/kg	2.4		1	1.2	04/10/15	04/13/15 17:47	1033
Chromium	16	mg/kg	2.4		1	1.2	04/10/15	04/14/15 15:12	1033
Copper	19	mg/kg	2.4		1	1.2	04/10/15	04/13/15 17:47	1033
Lead	7.1	mg/kg	2.4		1	1.2	04/10/15	04/13/15 17:47	1033
Mercury	ND	mg/kg	0.095		1	0.048	04/10/15	04/13/15 17:47	1033
Nickel	9.0	mg/kg	2.4		1	1.2	04/10/15	04/13/15 17:47	1033
Selenium	ND	mg/kg	2.4		1	1.2	04/10/15	04/13/15 17:47	1033
Silver	ND	mg/kg	2.4		1	1.2	04/10/15	04/13/15 17:47	1033
Thallium	ND	mg/kg	0.48		1	0.24	04/10/15	04/13/15 17:47	1033
Zinc	19	mg/kg	9.5		1	4.8	04/10/15	04/13/15 17:47	1033

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	7.8	mg/kg	11	J	1	4.3	04/13/15	04/14/15 15:12	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/kg	110		1	54	04/13/15	04/13/15 16:13	1035

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15040908

Arc Environmental, Baltimore, MD

April 22, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B5 0'-2'	Date/Time Sampled: 04/08/2015 10:25	PSS Sample ID: 15040908-011
Matrix: SOIL	Date/Time Received: 04/09/2015 12:30	% Solids: 93

Polychlorinated Biphenyls

Analytical Method: SW-846 8082 A

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
PCB-1016	ND	mg/kg	0.052		1	0.052	04/13/15	04/14/15 19:45	1029
PCB-1221	ND	mg/kg	0.052		1	0.052	04/13/15	04/14/15 19:45	1029
PCB-1232	ND	mg/kg	0.052		1	0.052	04/13/15	04/14/15 19:45	1029
PCB-1242	ND	mg/kg	0.052		1	0.052	04/13/15	04/14/15 19:45	1029
PCB-1248	ND	mg/kg	0.052		1	0.052	04/13/15	04/14/15 19:45	1029
PCB-1254	ND	mg/kg	0.052		1	0.052	04/13/15	04/14/15 19:45	1029
PCB-1260	ND	mg/kg	0.052		1	0.052	04/13/15	04/14/15 19:45	1029

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/kg	3.6		1	3.6	04/13/15	04/18/15 22:02	1055
Acenaphthylene	ND	ug/kg	3.6		1	3.6	04/13/15	04/18/15 22:02	1055
Anthracene	ND	ug/kg	3.6		1	3.6	04/13/15	04/18/15 22:02	1055
Benzo(a)anthracene	ND	ug/kg	3.6		1	3.6	04/13/15	04/18/15 22:02	1055
Benzo(a)pyrene	ND	ug/kg	3.6		1	3.6	04/13/15	04/18/15 22:02	1055
Benzo(b)fluoranthene	ND	ug/kg	3.6		1	3.6	04/13/15	04/18/15 22:02	1055
Benzo(g,h,i)perylene	ND	ug/kg	3.6		1	3.6	04/13/15	04/18/15 22:02	1055
Benzo(k)fluoranthene	ND	ug/kg	3.6		1	3.6	04/13/15	04/18/15 22:02	1055
Chrysene	ND	ug/kg	3.6		1	3.6	04/13/15	04/18/15 22:02	1055
Dibenz(a,h)Anthracene	ND	ug/kg	3.6		1	3.6	04/13/15	04/18/15 22:02	1055
Fluoranthene	ND	ug/kg	3.6		1	3.6	04/13/15	04/18/15 22:02	1055
Fluorene	ND	ug/kg	3.6		1	3.6	04/13/15	04/18/15 22:02	1055
Indeno(1,2,3-c,d)Pyrene	ND	ug/kg	3.6		1	3.6	04/13/15	04/18/15 22:02	1055
2-Methylnaphthalene	ND	ug/kg	3.6		1	3.6	04/13/15	04/18/15 22:02	1055
Naphthalene	ND	ug/kg	3.6		1	3.6	04/13/15	04/18/15 22:02	1055
Phenanthrene	ND	ug/kg	3.6		1	3.6	04/13/15	04/18/15 22:02	1055
Pyrene	ND	ug/kg	3.6		1	3.6	04/13/15	04/18/15 22:02	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15040908

Arc Environmental, Baltimore, MD

April 22, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B5 4'-6'	Date/Time Sampled: 04/08/2015 10:30	PSS Sample ID: 15040908-012
Matrix: SOIL	Date/Time Received: 04/09/2015 12:30	% Solids: 92

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	mg/kg	2.2		1	1.1	04/10/15	04/13/15 17:53	1033
Arsenic	3.5	mg/kg	0.45		1	0.22	04/10/15	04/13/15 17:53	1033
Beryllium	ND	mg/kg	2.2		1	1.1	04/10/15	04/13/15 17:53	1033
Cadmium	ND	mg/kg	2.2		1	1.1	04/10/15	04/13/15 17:53	1033
Chromium	14	mg/kg	2.2		1	1.1	04/10/15	04/14/15 15:18	1033
Copper	12	mg/kg	2.2		1	1.1	04/10/15	04/13/15 17:53	1033
Lead	5.7	mg/kg	2.2		1	1.1	04/10/15	04/13/15 17:53	1033
Mercury	0.045	mg/kg	0.089	J	1	0.045	04/10/15	04/13/15 17:53	1033
Nickel	3.9	mg/kg	2.2		1	1.1	04/10/15	04/13/15 17:53	1033
Selenium	1.2	mg/kg	2.2	J	1	1.1	04/10/15	04/13/15 17:53	1033
Silver	ND	mg/kg	2.2		1	1.1	04/10/15	04/13/15 17:53	1033
Thallium	ND	mg/kg	0.45		1	0.22	04/10/15	04/13/15 17:53	1033
Zinc	7.9	mg/kg	8.9	J	1	4.5	04/10/15	04/13/15 17:53	1033

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	ND	mg/kg	11		1	4.3	04/13/15	04/14/15 12:41	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/kg	110		1	54	04/13/15	04/13/15 16:43	1035

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15040908

Arc Environmental, Baltimore, MD

April 22, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B5 4'-6'	Date/Time Sampled: 04/08/2015 10:30	PSS Sample ID: 15040908-012
Matrix: SOIL	Date/Time Received: 04/09/2015 12:30	% Solids: 92

Polychlorinated Biphenyls

Analytical Method: SW-846 8082 A

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
PCB-1016	ND	mg/kg	0.052		1	0.052	04/13/15	04/14/15 19:15	1029
PCB-1221	ND	mg/kg	0.052		1	0.052	04/13/15	04/14/15 19:15	1029
PCB-1232	ND	mg/kg	0.052		1	0.052	04/13/15	04/14/15 19:15	1029
PCB-1242	ND	mg/kg	0.052		1	0.052	04/13/15	04/14/15 19:15	1029
PCB-1248	ND	mg/kg	0.052		1	0.052	04/13/15	04/14/15 19:15	1029
PCB-1254	ND	mg/kg	0.052		1	0.052	04/13/15	04/14/15 19:15	1029
PCB-1260	ND	mg/kg	0.052		1	0.052	04/13/15	04/14/15 19:15	1029

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/kg	3.6		1	3.6	04/13/15	04/18/15 19:15	1055
Acenaphthylene	ND	ug/kg	3.6		1	3.6	04/13/15	04/18/15 19:15	1055
Anthracene	ND	ug/kg	3.6		1	3.6	04/13/15	04/18/15 19:15	1055
Benzo(a)anthracene	ND	ug/kg	3.6		1	3.6	04/13/15	04/18/15 19:15	1055
Benzo(a)pyrene	ND	ug/kg	3.6		1	3.6	04/13/15	04/18/15 19:15	1055
Benzo(b)fluoranthene	ND	ug/kg	3.6		1	3.6	04/13/15	04/18/15 19:15	1055
Benzo(g,h,i)perylene	ND	ug/kg	3.6		1	3.6	04/13/15	04/18/15 19:15	1055
Benzo(k)fluoranthene	ND	ug/kg	3.6		1	3.6	04/13/15	04/18/15 19:15	1055
Chrysene	ND	ug/kg	3.6		1	3.6	04/13/15	04/18/15 19:15	1055
Dibenz(a,h)Anthracene	ND	ug/kg	3.6		1	3.6	04/13/15	04/18/15 19:15	1055
Fluoranthene	ND	ug/kg	3.6		1	3.6	04/13/15	04/18/15 19:15	1055
Fluorene	ND	ug/kg	3.6		1	3.6	04/13/15	04/18/15 19:15	1055
Indeno(1,2,3-c,d)Pyrene	ND	ug/kg	3.6		1	3.6	04/13/15	04/18/15 19:15	1055
2-Methylnaphthalene	ND	ug/kg	3.6		1	3.6	04/13/15	04/18/15 19:15	1055
Naphthalene	ND	ug/kg	3.6		1	3.6	04/13/15	04/18/15 19:15	1055
Phenanthrene	ND	ug/kg	3.6		1	3.6	04/13/15	04/18/15 19:15	1055
Pyrene	ND	ug/kg	3.6		1	3.6	04/13/15	04/18/15 19:15	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15040908

Arc Environmental, Baltimore, MD

April 22, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B3 0'-2'	Date/Time Sampled: 04/08/2015 10:55	PSS Sample ID: 15040908-013
Matrix: SOIL	Date/Time Received: 04/09/2015 12:30	% Solids: 89

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	mg/kg	2.1		1	1.1	04/10/15	04/13/15 17:59	1033
Arsenic	3.4	mg/kg	0.42		1	0.21	04/10/15	04/13/15 17:59	1033
Beryllium	ND	mg/kg	2.1		1	1.1	04/10/15	04/13/15 17:59	1033
Cadmium	ND	mg/kg	2.1		1	1.1	04/10/15	04/13/15 17:59	1033
Chromium	92	mg/kg	21		10	11	04/10/15	04/14/15 15:24	1033
Copper	21	mg/kg	2.1		1	1.1	04/10/15	04/13/15 17:59	1033
Lead	17	mg/kg	2.1		1	1.1	04/10/15	04/13/15 17:59	1033
Mercury	ND	mg/kg	0.084		1	0.042	04/10/15	04/13/15 17:59	1033
Nickel	230	mg/kg	21		10	11	04/10/15	04/14/15 15:24	1033
Selenium	ND	mg/kg	2.1		1	1.1	04/10/15	04/13/15 17:59	1033
Silver	ND	mg/kg	2.1		1	1.1	04/10/15	04/13/15 17:59	1033
Thallium	ND	mg/kg	0.42		1	0.21	04/10/15	04/13/15 17:59	1033
Zinc	23	mg/kg	8.4		1	4.2	04/10/15	04/13/15 17:59	1033

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: SW3550C

DF/HF - No. 2/diesel fuel and heavier fuel/oil patterns observed in sample.

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	250	mg/kg	110	DF	10	44	04/13/15	04/14/15 18:05	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/kg	110		1	56	04/13/15	04/13/15 17:12	1035

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CERTIFICATE OF ANALYSIS

No: 15040908

Arc Environmental, Baltimore, MD

April 22, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B3 0'-2'	Date/Time Sampled: 04/08/2015 10:55	PSS Sample ID: 15040908-013
Matrix: SOIL	Date/Time Received: 04/09/2015 12:30	% Solids: 89

Polychlorinated Biphenyls

Analytical Method: SW-846 8082 A

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
PCB-1016	ND	mg/kg	0.056		1	0.056	04/13/15	04/14/15 18:47	1029
PCB-1221	ND	mg/kg	0.056		1	0.056	04/13/15	04/14/15 18:47	1029
PCB-1232	ND	mg/kg	0.056		1	0.056	04/13/15	04/14/15 18:47	1029
PCB-1242	ND	mg/kg	0.056		1	0.056	04/13/15	04/14/15 18:47	1029
PCB-1248	ND	mg/kg	0.056		1	0.056	04/13/15	04/14/15 18:47	1029
PCB-1254	ND	mg/kg	0.056		1	0.056	04/13/15	04/14/15 18:47	1029
PCB-1260	ND	mg/kg	0.056		1	0.056	04/13/15	04/14/15 18:47	1029

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/kg	37		10	37	04/13/15	04/19/15 01:13	1055
Acenaphthylene	ND	ug/kg	37		10	37	04/13/15	04/19/15 01:13	1055
Anthracene	ND	ug/kg	37		10	37	04/13/15	04/19/15 01:13	1055
Benzo(a)anthracene	160	ug/kg	37		10	37	04/13/15	04/19/15 01:13	1055
Benzo(a)pyrene	150	ug/kg	37		10	37	04/13/15	04/19/15 01:13	1055
Benzo(b)fluoranthene	200	ug/kg	37		10	37	04/13/15	04/19/15 01:13	1055
Benzo(g,h,i)perylene	130	ug/kg	37		10	37	04/13/15	04/19/15 01:13	1055
Benzo(k)fluoranthene	48	ug/kg	37		10	37	04/13/15	04/19/15 01:13	1055
Chrysene	180	ug/kg	37		10	37	04/13/15	04/19/15 01:13	1055
Dibenz(a,h)Anthracene	ND	ug/kg	37		10	37	04/13/15	04/19/15 01:13	1055
Fluoranthene	200	ug/kg	37		10	37	04/13/15	04/19/15 01:13	1055
Fluorene	ND	ug/kg	37		10	37	04/13/15	04/19/15 01:13	1055
Indeno(1,2,3-c,d)Pyrene	130	ug/kg	37		10	37	04/13/15	04/19/15 01:13	1055
2-Methylnaphthalene	ND	ug/kg	37		10	37	04/13/15	04/19/15 01:13	1055
Naphthalene	ND	ug/kg	37		10	37	04/13/15	04/19/15 01:13	1055
Phenanthrene	56	ug/kg	37		10	37	04/13/15	04/19/15 01:13	1055
Pyrene	360	ug/kg	37		10	37	04/13/15	04/19/15 01:13	1055

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CERTIFICATE OF ANALYSIS

No: 15040908

Arc Environmental, Baltimore, MD

April 22, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B3 4'-6'	Date/Time Sampled: 04/08/2015 11:00	PSS Sample ID: 15040908-014
Matrix: SOIL	Date/Time Received: 04/09/2015 12:30	% Solids: 92

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	mg/kg	2.4		1	1.2	04/10/15	04/13/15 18:29	1033
Arsenic	2.0	mg/kg	0.49		1	0.24	04/10/15	04/13/15 18:29	1033
Beryllium	ND	mg/kg	2.4		1	1.2	04/10/15	04/13/15 18:29	1033
Cadmium	ND	mg/kg	2.4		1	1.2	04/10/15	04/13/15 18:29	1033
Chromium	ND	mg/kg	2.4		1	1.2	04/10/15	04/13/15 18:29	1033
Copper	4.0	mg/kg	2.4		1	1.2	04/10/15	04/13/15 18:29	1033
Lead	4.2	mg/kg	2.4		1	1.2	04/10/15	04/13/15 18:29	1033
Mercury	ND	mg/kg	0.098		1	0.049	04/10/15	04/13/15 18:29	1033
Nickel	8.1	mg/kg	2.4		1	1.2	04/10/15	04/13/15 18:29	1033
Selenium	ND	mg/kg	2.4		1	1.2	04/10/15	04/13/15 18:29	1033
Silver	ND	mg/kg	2.4		1	1.2	04/10/15	04/13/15 18:29	1033
Thallium	ND	mg/kg	0.49		1	0.24	04/10/15	04/13/15 18:29	1033
Zinc	8.5	mg/kg	9.8	J	1	4.9	04/10/15	04/13/15 18:29	1033

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: SW3550C

DF/HF - No. 2/diesel fuel and heavier fuel/oil patterns observed in sample.

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	17	mg/kg	11	DF	1	4.4	04/13/15	04/14/15 16:38	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/kg	110		1	53	04/13/15	04/13/15 17:42	1035

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15040908

Arc Environmental, Baltimore, MD

April 22, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B3 4'-6'	Date/Time Sampled: 04/08/2015 11:00	PSS Sample ID: 15040908-014
Matrix: SOIL	Date/Time Received: 04/09/2015 12:30	% Solids: 92

Polychlorinated Biphenyls

Analytical Method: SW-846 8082 A

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
PCB-1016	ND	mg/kg	0.054		1	0.054	04/13/15	04/14/15 18:18	1029
PCB-1221	ND	mg/kg	0.054		1	0.054	04/13/15	04/14/15 18:18	1029
PCB-1232	ND	mg/kg	0.054		1	0.054	04/13/15	04/14/15 18:18	1029
PCB-1242	ND	mg/kg	0.054		1	0.054	04/13/15	04/14/15 18:18	1029
PCB-1248	ND	mg/kg	0.054		1	0.054	04/13/15	04/14/15 18:18	1029
PCB-1254	ND	mg/kg	0.054		1	0.054	04/13/15	04/14/15 18:18	1029
PCB-1260	ND	mg/kg	0.054		1	0.054	04/13/15	04/14/15 18:18	1029

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/kg	3.6		1	3.6	04/13/15	04/18/15 23:38	1055
Acenaphthylene	ND	ug/kg	3.6		1	3.6	04/13/15	04/18/15 23:38	1055
Anthracene	ND	ug/kg	3.6		1	3.6	04/13/15	04/18/15 23:38	1055
Benzo(a)anthracene	14	ug/kg	3.6		1	3.6	04/13/15	04/18/15 23:38	1055
Benzo(a)pyrene	13	ug/kg	3.6		1	3.6	04/13/15	04/18/15 23:38	1055
Benzo(b)fluoranthene	16	ug/kg	3.6		1	3.6	04/13/15	04/18/15 23:38	1055
Benzo(g,h,i)perylene	6.4	ug/kg	3.6		1	3.6	04/13/15	04/18/15 23:38	1055
Benzo(k)fluoranthene	4.6	ug/kg	3.6		1	3.6	04/13/15	04/18/15 23:38	1055
Chrysene	16	ug/kg	3.6		1	3.6	04/13/15	04/18/15 23:38	1055
Dibenz(a,h)Anthracene	ND	ug/kg	3.6		1	3.6	04/13/15	04/18/15 23:38	1055
Fluoranthene	28	ug/kg	3.6		1	3.6	04/13/15	04/18/15 23:38	1055
Fluorene	ND	ug/kg	3.6		1	3.6	04/13/15	04/18/15 23:38	1055
Indeno(1,2,3-c,d)Pyrene	7.9	ug/kg	3.6		1	3.6	04/13/15	04/18/15 23:38	1055
2-Methylnaphthalene	ND	ug/kg	3.6		1	3.6	04/13/15	04/18/15 23:38	1055
Naphthalene	ND	ug/kg	3.6		1	3.6	04/13/15	04/18/15 23:38	1055
Phenanthrene	8.6	ug/kg	3.6		1	3.6	04/13/15	04/18/15 23:38	1055
Pyrene	33	ug/kg	3.6		1	3.6	04/13/15	04/18/15 23:38	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15040908

Arc Environmental, Baltimore, MD

April 22, 2015

Project Name: Percontee
 Project Location: Silver Spring, MD
 Project ID: 057-5

Sample ID: SS-1	Date/Time Sampled: 04/08/2015 11:45	PSS Sample ID: 15040908-015
Matrix: SOIL	Date/Time Received: 04/09/2015 12:30	% Solids: 72

Total Petroleum Hydrocarbons - DRO Analytical Method: SW-846 8015 C Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	2,900	mg/kg	140		10	55	04/13/15	04/14/15 18:48	1055

Total Petroleum Hydrocarbons-GRO Analytical Method: SW-846 8015C Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	1,100	ug/kg	140		1	69	04/13/15	04/13/15 18:11	1035

Polychlorinated Biphenyls Analytical Method: SW-846 8082 A Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
PCB-1016	ND	mg/kg	0.070		1	0.07	04/13/15	04/14/15 17:49	1029
PCB-1221	ND	mg/kg	0.070		1	0.07	04/13/15	04/14/15 17:49	1029
PCB-1232	ND	mg/kg	0.070		1	0.07	04/13/15	04/14/15 17:49	1029
PCB-1242	ND	mg/kg	0.070		1	0.07	04/13/15	04/14/15 17:49	1029
PCB-1248	ND	mg/kg	0.070		1	0.07	04/13/15	04/14/15 17:49	1029
PCB-1254	ND	mg/kg	0.070		1	0.07	04/13/15	04/14/15 17:49	1029
PCB-1260	ND	mg/kg	0.070		1	0.07	04/13/15	04/14/15 17:49	1029

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CERTIFICATE OF ANALYSIS

No: 15040908

Arc Environmental, Baltimore, MD

April 22, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: SS-1	Date/Time Sampled: 04/08/2015 11:45	PSS Sample ID: 15040908-015
Matrix: SOIL	Date/Time Received: 04/09/2015 12:30	% Solids: 72

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	180	ug/kg	46		10	46	04/13/15	04/21/15 01:25	1055
Acenaphthylene	ND	ug/kg	46		10	46	04/13/15	04/21/15 01:25	1055
Anthracene	250	ug/kg	46		10	46	04/13/15	04/21/15 01:25	1055
Benzo(a)anthracene	440	ug/kg	46		10	46	04/13/15	04/21/15 01:25	1055
Benzo(a)pyrene	370	ug/kg	46		10	46	04/13/15	04/21/15 01:25	1055
Benzo(b)fluoranthene	580	ug/kg	46		10	46	04/13/15	04/21/15 01:25	1055
Benzo(g,h,i)perylene	130	ug/kg	46		10	46	04/13/15	04/21/15 01:25	1055
Benzo(k)fluoranthene	200	ug/kg	46		10	46	04/13/15	04/21/15 01:25	1055
Chrysene	440	ug/kg	46		10	46	04/13/15	04/21/15 01:25	1055
Dibenz(a,h)Anthracene	ND	ug/kg	46		10	46	04/13/15	04/21/15 01:25	1055
Fluoranthene	930	ug/kg	46		10	46	04/13/15	04/21/15 01:25	1055
Fluorene	280	ug/kg	46		10	46	04/13/15	04/21/15 01:25	1055
Indeno(1,2,3-c,d)Pyrene	200	ug/kg	46		10	46	04/13/15	04/21/15 01:25	1055
2-Methylnaphthalene	1,200	ug/kg	46		10	46	04/13/15	04/21/15 01:25	1055
Naphthalene	670	ug/kg	46		10	46	04/13/15	04/21/15 01:25	1055
Phenanthrene	720	ug/kg	46		10	46	04/13/15	04/21/15 01:25	1055
Pyrene	1,600	ug/kg	46		10	46	04/13/15	04/21/15 01:25	1055

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CERTIFICATE OF ANALYSIS

No: 15040908

Arc Environmental, Baltimore, MD

April 22, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: SS-2	Date/Time Sampled: 04/08/2015 11:50	PSS Sample ID: 15040908-016
Matrix: SOIL	Date/Time Received: 04/09/2015 12:30	% Solids: 85

Total Petroleum Hydrocarbons - DRO Analytical Method: SW-846 8015 C Preparation Method: SW3550C
DF/HF - No. 2/diesel fuel and heavier fuel/oil patterns observed in sample.

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	580	mg/kg	58	DF	1	23	04/13/15	04/15/15 18:36	1055

Total Petroleum Hydrocarbons-GRO Analytical Method: SW-846 8015C Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/kg	120		1	58	04/13/15	04/14/15 05:10	1035

Polychlorinated Biphenyls Analytical Method: SW-846 8082 A Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
PCB-1016	ND	mg/kg	0.059		1	0.059	04/13/15	04/14/15 17:20	1029
PCB-1221	ND	mg/kg	0.059		1	0.059	04/13/15	04/14/15 17:20	1029
PCB-1232	ND	mg/kg	0.059		1	0.059	04/13/15	04/14/15 17:20	1029
PCB-1242	ND	mg/kg	0.059		1	0.059	04/13/15	04/14/15 17:20	1029
PCB-1248	ND	mg/kg	0.059		1	0.059	04/13/15	04/14/15 17:20	1029
PCB-1254	ND	mg/kg	0.059		1	0.059	04/13/15	04/14/15 17:20	1029
PCB-1260	ND	mg/kg	0.059		1	0.059	04/13/15	04/14/15 17:20	1029

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CERTIFICATE OF ANALYSIS

No: 15040908

Arc Environmental, Baltimore, MD

April 22, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: SS-2	Date/Time Sampled: 04/08/2015 11:50	PSS Sample ID: 15040908-016
Matrix: SOIL	Date/Time Received: 04/09/2015 12:30	% Solids: 85

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	390	ug/kg	150		20	150	04/13/15	04/21/15 00:21	1055
Acenaphthylene	ND	ug/kg	150		20	150	04/13/15	04/21/15 00:21	1055
Anthracene	ND	ug/kg	150		20	150	04/13/15	04/21/15 00:21	1055
Benzo(a)anthracene	190	ug/kg	150		20	150	04/13/15	04/21/15 00:21	1055
Benzo(a)pyrene	220	ug/kg	150		20	150	04/13/15	04/21/15 00:21	1055
Benzo(b)fluoranthene	340	ug/kg	150		20	150	04/13/15	04/21/15 00:21	1055
Benzo(g,h,i)perylene	ND	ug/kg	150		20	150	04/13/15	04/21/15 00:21	1055
Benzo(k)fluoranthene	ND	ug/kg	150		20	150	04/13/15	04/21/15 00:21	1055
Chrysene	290	ug/kg	150		20	150	04/13/15	04/21/15 00:21	1055
Dibenz(a,h)Anthracene	ND	ug/kg	150		20	150	04/13/15	04/21/15 00:21	1055
Fluoranthene	370	ug/kg	150		20	150	04/13/15	04/21/15 00:21	1055
Fluorene	220	ug/kg	150		20	150	04/13/15	04/21/15 00:21	1055
Indeno(1,2,3-c,d)Pyrene	ND	ug/kg	150		20	150	04/13/15	04/21/15 00:21	1055
2-Methylnaphthalene	3,700	ug/kg	150		20	150	04/13/15	04/21/15 00:21	1055
Naphthalene	3,200	ug/kg	150		20	150	04/13/15	04/21/15 00:21	1055
Phenanthrene	290	ug/kg	150		20	150	04/13/15	04/21/15 00:21	1055
Pyrene	1,000	ug/kg	150		20	150	04/13/15	04/21/15 00:21	1055

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CERTIFICATE OF ANALYSIS

No: 15040908

Arc Environmental, Baltimore, MD

April 22, 2015

Project Name: Percontee
 Project Location: Silver Spring, MD
 Project ID: 057-5

Sample ID: SS-3	Date/Time Sampled: 04/08/2015 11:55	PSS Sample ID: 15040908-017
Matrix: SOIL	Date/Time Received: 04/09/2015 12:30	% Solids: 82

Total Petroleum Hydrocarbons - DRO Analytical Method: SW-846 8015 C Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	2,700	mg/kg	370		10	150	04/13/15	04/14/15 19:31	1055

Total Petroleum Hydrocarbons-GRO Analytical Method: SW-846 8015C Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	30,000	ug/kg	120		1	60	04/13/15	04/14/15 05:39	1035

Polychlorinated Biphenyls Analytical Method: SW-846 8082 A Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
PCB-1016	ND	mg/kg	0.061		1	0.061	04/13/15	04/14/15 16:51	1029
PCB-1221	ND	mg/kg	0.061		1	0.061	04/13/15	04/14/15 16:51	1029
PCB-1232	ND	mg/kg	0.061		1	0.061	04/13/15	04/14/15 16:51	1029
PCB-1242	ND	mg/kg	0.061		1	0.061	04/13/15	04/14/15 16:51	1029
PCB-1248	ND	mg/kg	0.061		1	0.061	04/13/15	04/14/15 16:51	1029
PCB-1254	ND	mg/kg	0.061		1	0.061	04/13/15	04/14/15 16:51	1029
PCB-1260	ND	mg/kg	0.061		1	0.061	04/13/15	04/14/15 16:51	1029

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CERTIFICATE OF ANALYSIS

No: 15040908

Arc Environmental, Baltimore, MD

April 22, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: SS-3	Date/Time Sampled: 04/08/2015 11:55	PSS Sample ID: 15040908-017
Matrix: SOIL	Date/Time Received: 04/09/2015 12:30	% Solids: 82

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/kg	160		20	160	04/13/15	04/20/15 23:17	1055
Acenaphthylene	ND	ug/kg	160		20	160	04/13/15	04/20/15 23:17	1055
Anthracene	ND	ug/kg	160		20	160	04/13/15	04/20/15 23:17	1055
Benzo(a)anthracene	ND	ug/kg	160		20	160	04/13/15	04/20/15 23:17	1055
Benzo(a)pyrene	ND	ug/kg	160		20	160	04/13/15	04/20/15 23:17	1055
Benzo(b)fluoranthene	230	ug/kg	160		20	160	04/13/15	04/20/15 23:17	1055
Benzo(g,h,i)perylene	ND	ug/kg	160		20	160	04/13/15	04/20/15 23:17	1055
Benzo(k)fluoranthene	ND	ug/kg	160		20	160	04/13/15	04/20/15 23:17	1055
Chrysene	160	ug/kg	160	J	20	160	04/13/15	04/20/15 23:17	1055
Dibenz(a,h)Anthracene	ND	ug/kg	160		20	160	04/13/15	04/20/15 23:17	1055
Fluoranthene	ND	ug/kg	160		20	160	04/13/15	04/20/15 23:17	1055
Fluorene	ND	ug/kg	160		20	160	04/13/15	04/20/15 23:17	1055
Indeno(1,2,3-c,d)Pyrene	ND	ug/kg	160		20	160	04/13/15	04/20/15 23:17	1055
2-Methylnaphthalene	280	ug/kg	160		20	160	04/13/15	04/20/15 23:17	1055
Naphthalene	310	ug/kg	160		20	160	04/13/15	04/20/15 23:17	1055
Phenanthrene	ND	ug/kg	160		20	160	04/13/15	04/20/15 23:17	1055
Pyrene	400	ug/kg	160		20	160	04/13/15	04/20/15 23:17	1055



Case Narrative Summary

Client Name: Arc Environmental

Project Name: Percontee

Work Order Number(s): 15040908

Project ID: 057-5

Any holding time exceedances, deviations from the method specifications, regulatory requirements or variations to the procedures outlined in the PSS Quality Assurance Manual are outlined below.

The analyses of chlorine, pH, dissolved oxygen, temperature and sulfite for drinking water and non-potable samples tested for compliance have a maximum holding time of 15 minutes. As such, all laboratory analyses for these analytes exceed holding times.

Matrix spike and matrix spike duplicate analyses may not be performed due to insufficient sample quantity. In these instances, a laboratory control sample and laboratory control sample duplicate are analyzed unless otherwise noted or specified in the method.

Sample Receipt:

Sample(s) received at 0 degrees but no samples were frozen.

Analytical:

RCRA Metals

Batch: 121804

Matrix spike and/or matrix spike duplicate (MS/MSD) exceedances identified; see MS summary form.

Total Petroleum Hydrocarbons - DRO

Batch: 121878

Surrogate recoveries affected by sample dilution.

Batch: 121880

Surrogate recoveries affected by sample matrix.

TCL Volatile Organic Compounds

Batch: 121849

Surrogate exceedances identified; see surrogate summary form.

Poly Aromatic Hydrocarbons by SIM

Batch: 122037

Surrogate recoveries affected by sample matrix.

Internal Standards fell below 50% due to sample matrix.

Batch: 122039

Surrogate recoveries affected by sample dilution.

Surrogate recoveries affected by sample matrix.

Internal Standards fell below 50% due to sample matrix.

TCL Semivolatile Organic Compounds w/o PAHs

Batch: 121936

Surrogate exceedances identified; see surrogate summary form.

Internal Standards fell below 50% due to sample matrix.

NELAP accreditation was held for all analyses performed unless noted below. See www.phaseonline.com for complete PSS scope of accreditation.



Case Narrative Summary

Client Name: Arc Environmental

Project Name: Percontee

Work Order Number(s): 15040908

Project ID: 057-5



Analytical Data Package Information Summary

Work Order(s): 15040908

Report Prepared For: Arc Environmental, Baltimore, MD

Project Name: Percontee

Project Manager: Kyle Begey

Method	Client Sample Id	Analysis Type	Lab Sample Id	Analyst	Mtx	Prep Batch	Analytical Batch	Sampled	Prepared	Analyzed
ASTM D2216 05	B1 0'-2'	Initial	15040908-001	1051	S	121746	121746	04/07/2015	04/09/2015 16:38	04/09/2015 16:38
	B1 4'-6'	Initial	15040908-002	1051	S	121746	121746	04/07/2015	04/09/2015 16:38	04/09/2015 16:38
	B4 0'-2'	Initial	15040908-003	1051	S	121746	121746	04/07/2015	04/09/2015 16:38	04/09/2015 16:38
	B4 4'-6'	Initial	15040908-004	1051	S	121746	121746	04/07/2015	04/09/2015 16:38	04/09/2015 16:38
	B6 0'-2'	Initial	15040908-005	1051	S	121746	121746	04/07/2015	04/09/2015 16:38	04/09/2015 16:38
	B6 4'-6'	Initial	15040908-006	1051	S	121746	121746	04/07/2015	04/09/2015 16:38	04/09/2015 16:38
	B7 0'-2'	Initial	15040908-007	1051	S	121746	121746	04/07/2015	04/09/2015 16:38	04/09/2015 16:38
	B7 4'-6'	Initial	15040908-008	1051	S	121746	121746	04/07/2015	04/09/2015 16:38	04/09/2015 16:38
	B2 0'-2'	Initial	15040908-009	1051	S	121746	121746	04/08/2015	04/09/2015 16:38	04/09/2015 16:38
	B2 4'-6'	Initial	15040908-010	1051	S	121746	121746	04/08/2015	04/09/2015 16:38	04/09/2015 16:38
	B5 0'-2'	Initial	15040908-011	1051	S	121746	121746	04/08/2015	04/09/2015 16:38	04/09/2015 16:38
	B5 4'-6'	Initial	15040908-012	1051	S	121746	121746	04/08/2015	04/09/2015 16:38	04/09/2015 16:38
	B3 0'-2'	Initial	15040908-013	1051	S	121746	121746	04/08/2015	04/09/2015 16:38	04/09/2015 16:38
	B3 4'-6'	Initial	15040908-014	1051	S	121746	121746	04/08/2015	04/09/2015 16:38	04/09/2015 16:38
	SS-1	Initial	15040908-015	1051	S	121746	121746	04/08/2015	04/09/2015 16:38	04/09/2015 16:38
	SS-2	Initial	15040908-016	1051	S	121746	121746	04/08/2015	04/09/2015 16:38	04/09/2015 16:38
	SS-3	Initial	15040908-017	1051	S	121746	121746	04/08/2015	04/09/2015 16:38	04/09/2015 16:38
SW-846 6020 A	B1 0'-2'	Initial	15040908-001	1033	S	54953	121804	04/07/2015	04/10/2015 12:56	04/13/2015 15:53
	B1 4'-6'	Initial	15040908-002	1033	S	54953	121804	04/07/2015	04/10/2015 12:56	04/13/2015 16:29
	B4 0'-2'	Initial	15040908-003	1033	S	54953	121804	04/07/2015	04/10/2015 12:56	04/13/2015 16:35
	B4 4'-6'	Initial	15040908-004	1033	S	54953	121804	04/07/2015	04/10/2015 12:56	04/13/2015 16:41
	B6 0'-2'	Initial	15040908-005	1033	S	54953	121804	04/07/2015	04/10/2015 12:56	04/13/2015 17:11
	B6 4'-6'	Initial	15040908-006	1033	S	54953	121804	04/07/2015	04/10/2015 12:56	04/13/2015 17:17
	B7 0'-2'	Initial	15040908-007	1033	S	54953	121804	04/07/2015	04/10/2015 12:56	04/13/2015 17:23
	B7 4'-6'	Initial	15040908-008	1033	S	54953	121804	04/07/2015	04/10/2015 12:56	04/13/2015 17:29
	B2 0'-2'	Initial	15040908-009	1033	S	54953	121804	04/08/2015	04/10/2015 12:56	04/13/2015 17:35
	B2 4'-6'	Initial	15040908-010	1033	S	54953	121804	04/08/2015	04/10/2015 12:56	04/13/2015 17:41
	B5 0'-2'	Initial	15040908-011	1033	S	54953	121804	04/08/2015	04/10/2015 12:56	04/13/2015 17:47
	B5 4'-6'	Initial	15040908-012	1033	S	54953	121804	04/08/2015	04/10/2015 12:56	04/13/2015 17:53



Analytical Data Package Information Summary

Work Order(s): 15040908

Report Prepared For: Arc Environmental, Baltimore, MD

Project Name: Percontee

Project Manager: Kyle Begey

Method	Client Sample Id	Analysis Type	Lab Sample Id	Analyst	Mtx	Prep Batch	Analytical Batch	Sampled	Prepared	Analyzed
SW-846 6020 A	B3 0'-2'	Initial	15040908-013	1033	S	54953	121804	04/08/2015	04/10/2015 12:56	04/13/2015 17:59
	B3 4'-6'	Initial	15040908-014	1033	S	54953	121804	04/08/2015	04/10/2015 12:56	04/13/2015 18:29
	54953-1-BKS	BKS	54953-1-BKS	1033	S	54953	121804	-----	04/10/2015 12:56	04/13/2015 15:29
	54953-1-BLK	BLK	54953-1-BLK	1033	S	54953	121804	-----	04/10/2015 12:56	04/13/2015 15:04
	B1 0'-2' S	MS	15040908-001 S	1033	S	54953	121804	04/07/2015	04/10/2015 12:56	04/13/2015 15:59
	B1 0'-2' SD	MSD	15040908-001 SD	1033	S	54953	121804	04/07/2015	04/10/2015 12:56	04/13/2015 16:05
	B1 0'-2'	Reanalysis	15040908-001	1033	S	54953	121854	04/07/2015	04/10/2015 12:56	04/14/2015 13:49
	B1 4'-6'	Reanalysis	15040908-002	1033	S	54953	121854	04/07/2015	04/10/2015 12:56	04/14/2015 13:55
	B4 0'-2'	Reanalysis	15040908-003	1033	S	54953	121854	04/07/2015	04/10/2015 12:56	04/14/2015 14:00
	B4 4'-6'	Reanalysis	15040908-004	1033	S	54953	121854	04/07/2015	04/10/2015 12:56	04/14/2015 14:06
	B6 0'-2'	Reanalysis	15040908-005	1033	S	54953	121854	04/07/2015	04/10/2015 12:56	04/14/2015 14:12
	B6 4'-6'	Reanalysis	15040908-006	1033	S	54953	121854	04/07/2015	04/10/2015 12:56	04/14/2015 14:18
	B7 0'-2'	Reanalysis	15040908-007	1033	S	54953	121854	04/07/2015	04/10/2015 12:56	04/14/2015 14:49
	B7 4'-6'	Reanalysis	15040908-008	1033	S	54953	121854	04/07/2015	04/10/2015 12:56	04/14/2015 14:55
	B2 0'-2'	Reanalysis	15040908-009	1033	S	54953	121854	04/08/2015	04/10/2015 12:56	04/14/2015 15:01
	B2 4'-6'	Reanalysis	15040908-010	1033	S	54953	121854	04/08/2015	04/10/2015 12:56	04/14/2015 15:07
	B5 0'-2'	Reanalysis	15040908-011	1033	S	54953	121854	04/08/2015	04/10/2015 12:56	04/14/2015 15:12
	B5 4'-6'	Reanalysis	15040908-012	1033	S	54953	121854	04/08/2015	04/10/2015 12:56	04/14/2015 15:18
B3 0'-2'	Reanalysis	15040908-013	1033	S	54953	121854	04/08/2015	04/10/2015 12:56	04/14/2015 15:24	
SW-846 8015 C	B1 0'-2'	Initial	15040908-001	1055	S	54943	121797	04/07/2015	04/09/2015 17:19	04/10/2015 16:58
	B1 4'-6'	Initial	15040908-002	1055	S	54943	121797	04/07/2015	04/09/2015 17:19	04/10/2015 15:32
	B4 0'-2'	Initial	15040908-003	1055	S	54943	121797	04/07/2015	04/09/2015 17:19	04/10/2015 16:58
	54943-1-BKS	BKS	54943-1-BKS	1055	S	54943	121797	-----	04/09/2015 17:19	04/10/2015 11:34
	54943-1-BLK	BLK	54943-1-BLK	1055	S	54943	121797	-----	04/09/2015 17:19	04/10/2015 11:13
	54943-1-BSD	BSD	54943-1-BSD	1055	S	54943	121797	-----	04/09/2015 17:19	04/10/2015 11:56
	11892-HA1-10" S	MS	15040930-001 S	1055	S	54943	121797	04/08/2015	04/09/2015 17:19	04/10/2015 14:05
	11892-HA1-10" SD	MSD	15040930-001 SD	1055	S	54943	121797	04/08/2015	04/09/2015 17:19	04/10/2015 14:27
	B5 4'-6'	Initial	15040908-012	1055	S	54975	121867	04/08/2015	04/13/2015 17:23	04/14/2015 12:41
	54975-1-BKS	BKS	54975-1-BKS	1055	S	54975	121867	-----	04/13/2015 17:23	04/14/2015 11:58



Analytical Data Package Information Summary

Work Order(s): 15040908

Report Prepared For: Arc Environmental, Baltimore, MD

Project Name: Percontee

Project Manager: Kyle Begey

Method	Client Sample Id	Analysis Type	Lab Sample Id	Analyst	Mtx	Prep Batch	Analytical Batch	Sampled	Prepared	Analyzed	
SW-846 8015 C	54975-1-BLK	BLK	54975-1-BLK	1055	S	54975	121867	-----	04/13/2015 17:23	04/14/2015 11:36	
	54975-1-BSD	BSD	54975-1-BSD	1055	S	54975	121867	-----	04/13/2015 17:23	04/14/2015 12:19	
	B4 4'-6'	Initial	15040908-004	1055	S	54975	121878	04/07/2015	04/13/2015 17:23	04/14/2015 15:12	
	B7 0'-2'	Initial	15040908-007	1055	S	54975	121878	04/07/2015	04/13/2015 17:23	04/14/2015 15:55	
	B7 4'-6'	Initial	15040908-008	1055	S	54975	121878	04/07/2015	04/13/2015 17:23	04/14/2015 15:55	
	B2 4'-6'	Initial	15040908-010	1055	S	54975	121878	04/08/2015	04/13/2015 17:23	04/14/2015 16:38	
	B5 0'-2'	Initial	15040908-011	1055	S	54975	121878	04/08/2015	04/13/2015 17:23	04/14/2015 15:12	
	B3 0'-2'	Initial	15040908-013	1055	S	54975	121878	04/08/2015	04/13/2015 17:23	04/14/2015 18:05	
	B3 4'-6'	Initial	15040908-014	1055	S	54975	121878	04/08/2015	04/13/2015 17:23	04/14/2015 16:38	
	SS-1	Initial	15040908-015	1055	S	54975	121878	04/08/2015	04/13/2015 17:23	04/14/2015 18:48	
	SS-3	Initial	15040908-017	1055	S	54975	121878	04/08/2015	04/13/2015 17:23	04/14/2015 19:31	
	B6 0'-2'	Initial	15040908-005	1055	S	54975	121880	04/07/2015	04/13/2015 17:23	04/15/2015 19:19	
	B6 4'-6'	Initial	15040908-006	1055	S	54975	121880	04/07/2015	04/13/2015 17:23	04/15/2015 17:53	
	B2 0'-2'	Initial	15040908-009	1055	S	54975	121880	04/08/2015	04/13/2015 17:23	04/15/2015 18:36	
	SS-2	Initial	15040908-016	1055	S	54975	121880	04/08/2015	04/13/2015 17:23	04/15/2015 18:36	
	SW-846 8015C	B1 0'-2'	Initial	15040908-001	1035	S	54971	121800	04/07/2015	04/13/2015 08:48	04/13/2015 11:48
		B1 4'-6'	Initial	15040908-002	1035	S	54971	121800	04/07/2015	04/13/2015 08:48	04/13/2015 12:18
B4 0'-2'		Initial	15040908-003	1035	S	54971	121800	04/07/2015	04/13/2015 08:48	04/13/2015 12:47	
B4 4'-6'		Initial	15040908-004	1035	S	54971	121800	04/07/2015	04/13/2015 08:48	04/13/2015 13:16	
B6 0'-2'		Initial	15040908-005	1035	S	54971	121800	04/07/2015	04/13/2015 08:48	04/13/2015 18:40	
B6 4'-6'		Initial	15040908-006	1035	S	54971	121800	04/07/2015	04/13/2015 08:48	04/13/2015 13:46	
B7 0'-2'		Initial	15040908-007	1035	S	54971	121800	04/07/2015	04/13/2015 08:48	04/13/2015 14:15	
B7 4'-6'		Initial	15040908-008	1035	S	54971	121800	04/07/2015	04/13/2015 08:48	04/13/2015 14:44	
B2 0'-2'		Initial	15040908-009	1035	S	54971	121800	04/08/2015	04/13/2015 08:48	04/13/2015 15:13	
B2 4'-6'		Initial	15040908-010	1035	S	54971	121800	04/08/2015	04/13/2015 08:48	04/13/2015 15:43	
B5 0'-2'		Initial	15040908-011	1035	S	54971	121800	04/08/2015	04/13/2015 08:48	04/13/2015 16:13	
B5 4'-6'		Initial	15040908-012	1035	S	54971	121800	04/08/2015	04/13/2015 08:48	04/13/2015 16:43	
B3 0'-2'		Initial	15040908-013	1035	S	54971	121800	04/08/2015	04/13/2015 08:48	04/13/2015 17:12	
B3 4'-6'		Initial	15040908-014	1035	S	54971	121800	04/08/2015	04/13/2015 08:48	04/13/2015 17:42	



Analytical Data Package Information Summary

Work Order(s): 15040908

Report Prepared For: Arc Environmental, Baltimore, MD

Project Name: Percontee

Project Manager: Kyle Begey

Method	Client Sample Id	Analysis Type	Lab Sample Id	Analyst	Mtx	Prep Batch	Analytical Batch	Sampled	Prepared	Analyzed
SW-846 8015C	SS-1	Initial	15040908-015	1035	S	54971	121800	04/08/2015	04/13/2015 08:48	04/13/2015 18:11
	54971-2-BKS	BKS	54971-2-BKS	1035	S	54971	121800	-----	04/13/2015 08:48	04/13/2015 10:20
	54971-2-BLK	BLK	54971-2-BLK	1035	S	54971	121800	-----	04/13/2015 08:48	04/13/2015 09:51
	B1 0'-2' S	MS	15040908-001 S	1035	S	54971	121800	04/07/2015	04/13/2015 08:48	04/13/2015 19:09
	B1 0'-2' SD	MSD	15040908-001 SD	1035	S	54971	121800	04/07/2015	04/13/2015 08:48	04/13/2015 19:38
	SS-2	Initial	15040908-016	1035	S	54976	121812	04/08/2015	04/13/2015 21:07	04/14/2015 05:10
	SS-3	Initial	15040908-017	1035	S	54976	121812	04/08/2015	04/13/2015 21:07	04/14/2015 05:39
	54976-2-BKS	BKS	54976-2-BKS	1035	S	54976	121812	-----	04/13/2015 21:07	04/13/2015 23:33
	54976-2-BLK	BLK	54976-2-BLK	1035	S	54976	121812	-----	04/13/2015 21:07	04/13/2015 23:04
	11237-SSE-4/15 S	MS	15041009-004 S	1035	S	54976	121812	04/10/2015	04/13/2015 21:07	04/14/2015 06:09
	11237-SSE-4/15 SD	MSD	15041009-004 SD	1035	S	54976	121812	04/10/2015	04/13/2015 21:07	04/14/2015 06:38
	SW-846 8082 A	B1 0'-2'	Initial	15040908-001	1029	S	54959	121855	04/07/2015	04/13/2015 09:43
B1 4'-6'		Initial	15040908-002	1029	S	54959	121855	04/07/2015	04/13/2015 09:43	04/14/2015 12:59
B4 0'-2'		Initial	15040908-003	1029	S	54959	121855	04/07/2015	04/13/2015 09:43	04/14/2015 13:28
B4 4'-6'		Initial	15040908-004	1029	S	54959	121855	04/07/2015	04/13/2015 09:43	04/14/2015 13:57
B6 0'-2'		Initial	15040908-005	1029	S	54959	121855	04/07/2015	04/13/2015 09:43	04/14/2015 14:26
B6 4'-6'		Initial	15040908-006	1029	S	54959	121855	04/07/2015	04/13/2015 09:43	04/14/2015 14:55
B7 0'-2'		Initial	15040908-007	1029	S	54959	121855	04/07/2015	04/13/2015 09:43	04/14/2015 15:24
B7 4'-6'		Initial	15040908-008	1029	S	54959	121855	04/07/2015	04/13/2015 09:43	04/14/2015 21:12
B2 0'-2'		Initial	15040908-009	1029	S	54959	121855	04/08/2015	04/13/2015 09:43	04/14/2015 20:43
B2 4'-6'		Initial	15040908-010	1029	S	54959	121855	04/08/2015	04/13/2015 09:43	04/14/2015 20:14
B5 0'-2'		Initial	15040908-011	1029	S	54959	121855	04/08/2015	04/13/2015 09:43	04/14/2015 19:45
B5 4'-6'		Initial	15040908-012	1029	S	54959	121855	04/08/2015	04/13/2015 09:43	04/14/2015 19:15
B3 0'-2'		Initial	15040908-013	1029	S	54959	121855	04/08/2015	04/13/2015 09:43	04/14/2015 18:47
B3 4'-6'		Initial	15040908-014	1029	S	54959	121855	04/08/2015	04/13/2015 09:43	04/14/2015 18:18
SS-1		Initial	15040908-015	1029	S	54959	121855	04/08/2015	04/13/2015 09:43	04/14/2015 17:49
SS-2		Initial	15040908-016	1029	S	54959	121855	04/08/2015	04/13/2015 09:43	04/14/2015 17:20
SS-3		Initial	15040908-017	1029	S	54959	121855	04/08/2015	04/13/2015 09:43	04/14/2015 16:51
54959-1-BKS		BKS	54959-1-BKS	1029	S	54959	121855	-----	04/13/2015 09:43	04/14/2015 10:34



Analytical Data Package Information Summary

Work Order(s): 15040908

Report Prepared For: Arc Environmental, Baltimore, MD

Project Name: Percontee

Project Manager: Kyle Begey

Method	Client Sample Id	Analysis Type	Lab Sample Id	Analyst	Mtx	Prep Batch	Analytical Batch	Sampled	Prepared	Analyzed
SW-846 8082 A	54959-1-BLK	BLK	54959-1-BLK	1029	S	54959	121855	-----	04/13/2015 09:43	04/14/2015 10:05
	54959-1-BSD	BSD	54959-1-BSD	1029	S	54959	121855	-----	04/13/2015 09:43	04/14/2015 11:03
	B1 0'-2' S	MS	15040908-001 S	1029	S	54959	121855	04/07/2015	04/13/2015 09:43	04/14/2015 11:32
	B1 0'-2' SD	MSD	15040908-001 SD	1029	S	54959	121855	04/07/2015	04/13/2015 09:43	04/14/2015 12:01
SW-846 8260 B	B6 0'-2'	Initial	15040908-005	1011	S	55003	121849	04/07/2015	04/14/2015 09:12	04/14/2015 11:57
	B6 4'-6'	Initial	15040908-006	1011	S	55003	121849	04/07/2015	04/14/2015 09:12	04/14/2015 12:27
	55003-1-BKS	BKS	55003-1-BKS	1011	S	55003	121849	-----	04/14/2015 09:12	04/14/2015 11:20
	55003-1-BLK	BLK	55003-1-BLK	1011	S	55003	121849	-----	04/14/2015 09:12	04/14/2015 10:50
	041315-COX-MCL-S1 S	MS	15041304-001 S	1011	S	55003	121849	04/13/2015	04/14/2015 09:12	04/14/2015 14:25
	041315-COX-MCL-S1 SD	MSD	15041304-001 SD	1011	S	55003	121849	04/13/2015	04/14/2015 09:12	04/14/2015 14:55
SW-846 8270 C	54961-1-BKS	BKS	54961-1-BKS	1055	S	54961	121895	-----	04/13/2015 09:46	04/15/2015 23:06
	54961-1-BLK	BLK	54961-1-BLK	1055	S	54961	121895	-----	04/13/2015 09:46	04/15/2015 22:34
	54961-1-BSD	BSD	54961-1-BSD	1055	S	54961	121895	-----	04/13/2015 09:46	04/15/2015 23:38
	B6 0'-2'	Initial	15040908-005	1055	S	54961	121936	04/07/2015	04/13/2015 09:46	04/17/2015 00:16
	B6 4'-6'	Initial	15040908-006	1055	S	54961	121936	04/07/2015	04/13/2015 09:46	04/16/2015 22:44
	11237-SSS-4/15 S	MS	15041009-002 S	1055	S	54961	121936	04/10/2015	04/13/2015 09:46	04/16/2015 17:34
	11237-SSS-4/15 SD	MSD	15041009-002 SD	1055	S	54961	121936	04/10/2015	04/13/2015 09:46	04/16/2015 18:05
SW-846 8270 C	B5 4'-6'	Initial	15040908-012	1055	S	54966	122036	04/08/2015	04/13/2015 11:09	04/18/2015 19:15
	54966-1-BKS	BKS	54966-1-BKS	1055	S	54966	122036	-----	04/13/2015 11:09	04/18/2015 17:39
	54966-1-BLK	BLK	54966-1-BLK	1055	S	54966	122036	-----	04/13/2015 11:09	04/18/2015 18:43
	54966-1-BSD	BSD	54966-1-BSD	1055	S	54966	122036	-----	04/13/2015 11:09	04/18/2015 18:11
	B5 4'-6' S	MS	15040908-012 S	1055	S	54966	122036	04/08/2015	04/13/2015 11:09	04/18/2015 19:47
	B5 4'-6' SD	MSD	15040908-012 SD	1055	S	54966	122036	04/08/2015	04/13/2015 11:09	04/18/2015 20:19
	B1 0'-2'	Initial	15040908-001	1055	S	54966	122037	04/07/2015	04/13/2015 11:09	04/19/2015 03:21
	B4 0'-2'	Initial	15040908-003	1055	S	54966	122037	04/07/2015	04/13/2015 11:09	04/19/2015 00:10
	B4 4'-6'	Initial	15040908-004	1055	S	54966	122037	04/07/2015	04/13/2015 11:09	04/19/2015 01:45
B7 0'-2'	Initial	15040908-007	1055	S	54966	122037	04/07/2015	04/13/2015 11:09	04/19/2015 00:42	



Analytical Data Package Information Summary

Work Order(s): 15040908

Report Prepared For: Arc Environmental, Baltimore, MD

Project Name: Percontee

Project Manager: Kyle Begey

Method	Client Sample Id	Analysis Type	Lab Sample Id	Analyst	Mtx	Prep Batch	Analytical Batch	Sampled	Prepared	Analyzed
SW-846 8270 C	B7 4'-6'	Initial	15040908-008	1055	S	54966	122037	04/07/2015	04/13/2015 11:09	04/18/2015 22:34
	B2 0'-2'	Initial	15040908-009	1055	S	54966	122037	04/08/2015	04/13/2015 11:09	04/19/2015 02:17
	B2 4'-6'	Initial	15040908-010	1055	S	54966	122037	04/08/2015	04/13/2015 11:09	04/18/2015 23:06
	B5 0'-2'	Initial	15040908-011	1055	S	54966	122037	04/08/2015	04/13/2015 11:09	04/18/2015 22:02
	B3 0'-2'	Initial	15040908-013	1055	S	54966	122037	04/08/2015	04/13/2015 11:09	04/19/2015 01:13
	B3 4'-6'	Initial	15040908-014	1055	S	54966	122037	04/08/2015	04/13/2015 11:09	04/18/2015 23:38
	B1 4'-6'	Initial	15040908-002	1055	S	54966	122039	04/07/2015	04/13/2015 11:09	04/20/2015 20:05
	B6 0'-2'	Initial	15040908-005	1055	S	54966	122039	04/07/2015	04/13/2015 11:09	04/20/2015 22:13
	B6 4'-6'	Initial	15040908-006	1055	S	54966	122039	04/07/2015	04/13/2015 11:09	04/20/2015 21:09
	SS-1	Initial	15040908-015	1055	S	54966	122039	04/08/2015	04/13/2015 11:09	04/21/2015 01:25
	SS-2	Initial	15040908-016	1055	S	54966	122039	04/08/2015	04/13/2015 11:09	04/21/2015 00:21
	SS-3	Initial	15040908-017	1055	S	54966	122039	04/08/2015	04/13/2015 11:09	04/20/2015 23:17

PHASE SEPARATION SCIENCE, INC.

QC Summary 15040908

Arc Environmental Percontee

Analytical Method: SW-846 8082 A

Seq Number: 121855
PSS Sample ID: 15040908-001

Matrix: Soil

Prep Method: SW3550C
Date Prep: 04/13/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	57		11-150	%	04/14/15 12:31
Tetrachloro-m-xylene	59		12-158	%	04/14/15 12:31

Analytical Method: SW-846 8015 C

Seq Number: 121797
PSS Sample ID: 15040908-001

Matrix: Soil

Prep Method: SW3550C
Date Prep: 04/09/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	46		42-129	%	04/10/15 16:58

Analytical Method: SW-846 8270 C

Seq Number: 122037
PSS Sample ID: 15040908-001

Matrix: Soil

Prep Method: SW3550C
Date Prep: 04/13/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	73		51-109	%	04/19/15 03:21
Nitrobenzene-d5	68		48-111	%	04/19/15 03:21
Terphenyl-D14	157	*	45-137	%	04/19/15 03:21

Analytical Method: SW-846 8015C

Seq Number: 121800
PSS Sample ID: 15040908-001

Matrix: Soil

Prep Method: SW5030
Date Prep: 04/13/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	84		55-142	%	04/13/15 11:48

Analytical Method: SW-846 8082 A

Seq Number: 121855
PSS Sample ID: 15040908-002

Matrix: Soil

Prep Method: SW3550C
Date Prep: 04/13/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	65		11-150	%	04/14/15 12:59
Tetrachloro-m-xylene	64		12-158	%	04/14/15 12:59

PHASE SEPARATION SCIENCE, INC.

QC Summary 15040908

Arc Environmental Percontee

Analytical Method: SW-846 8015 C

Seq Number: 121797
PSS Sample ID: 15040908-002

Prep Method: SW3550C
Date Prep: 04/09/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	77		42-129	%	04/10/15 15:32

Analytical Method: SW-846 8270 C

Seq Number: 122039
PSS Sample ID: 15040908-002

Prep Method: SW3550C
Date Prep: 04/13/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	64		51-109	%	04/20/15 20:05
Nitrobenzene-d5	66		48-111	%	04/20/15 20:05
Terphenyl-D14	165	*	45-137	%	04/20/15 20:05

Analytical Method: SW-846 8015C

Seq Number: 121800
PSS Sample ID: 15040908-002

Prep Method: SW5030
Date Prep: 04/13/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	83		55-142	%	04/13/15 12:18

Analytical Method: SW-846 8082 A

Seq Number: 121855
PSS Sample ID: 15040908-003

Prep Method: SW3550C
Date Prep: 04/13/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	61		11-150	%	04/14/15 13:28
Tetrachloro-m-xylene	60		12-158	%	04/14/15 13:28

Analytical Method: SW-846 8015 C

Seq Number: 121797
PSS Sample ID: 15040908-003

Prep Method: SW3550C
Date Prep: 04/09/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	58		42-129	%	04/10/15 16:58

PHASE SEPARATION SCIENCE, INC.

QC Summary 15040908

Arc Environmental Percontee

Analytical Method: SW-846 8270 C

Seq Number: 122037
PSS Sample ID: 15040908-003

Prep Method: SW3550C
Date Prep: 04/13/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	71		51-109	%	04/19/15 00:10
Nitrobenzene-d5	70		48-111	%	04/19/15 00:10
Terphenyl-D14	123		45-137	%	04/19/15 00:10

Analytical Method: SW-846 8015C

Seq Number: 121800
PSS Sample ID: 15040908-003

Prep Method: SW5030
Date Prep: 04/13/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	84		55-142	%	04/13/15 12:47

Analytical Method: SW-846 8082 A

Seq Number: 121855
PSS Sample ID: 15040908-004

Prep Method: SW3550C
Date Prep: 04/13/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	71		11-150	%	04/14/15 13:57
Tetrachloro-m-xylene	74		12-158	%	04/14/15 13:57

Analytical Method: SW-846 8015 C

Seq Number: 121878
PSS Sample ID: 15040908-004

Prep Method: SW3550C
Date Prep: 04/13/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	65		42-129	%	04/14/15 15:12

Analytical Method: SW-846 8270 C

Seq Number: 122037
PSS Sample ID: 15040908-004

Prep Method: SW3550C
Date Prep: 04/13/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	60		51-109	%	04/19/15 01:45
Nitrobenzene-d5	60		48-111	%	04/19/15 01:45
Terphenyl-D14	110		45-137	%	04/19/15 01:45

PHASE SEPARATION SCIENCE, INC.

QC Summary 15040908

Arc Environmental Percontee

Analytical Method: SW-846 8015C

Seq Number: 121800
PSS Sample ID: 15040908-004

Matrix: Soil

Prep Method: SW5030
Date Prep: 04/13/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	84		55-142	%	04/13/15 13:16

Analytical Method: SW-846 8082 A

Seq Number: 121855
PSS Sample ID: 15040908-005

Matrix: Soil

Prep Method: SW3550C
Date Prep: 04/13/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	69		11-150	%	04/14/15 14:26
Tetrachloro-m-xylene	66		12-158	%	04/14/15 14:26

Analytical Method: SW-846 8015 C

Seq Number: 121880
PSS Sample ID: 15040908-005

Matrix: Soil

Prep Method: SW3550C
Date Prep: 04/13/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	12	*	42-129	%	04/15/15 19:19

Analytical Method: SW-846 8270 C

Seq Number: 121936
PSS Sample ID: 15040908-005

Matrix: Soil

Prep Method: SW3550C
Date Prep: 04/13/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	43	*	60-131	%	04/17/15 00:16
2-Fluorophenol	18	*	45-108	%	04/17/15 00:16
Nitrobenzene-d5	29	*	42-131	%	04/17/15 00:16
Phenol-d6	32	*	48-124	%	04/17/15 00:16
Terphenyl-D14	49	*	59-137	%	04/17/15 00:16
2,4,6-Tribromophenol	25	*	46-129	%	04/17/15 00:16

Analytical Method: SW-846 8270 C

Seq Number: 122039
PSS Sample ID: 15040908-005

Matrix: Soil

Prep Method: SW3550C
Date Prep: 04/13/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	40	*	51-109	%	04/20/15 22:13
Nitrobenzene-d5	40	*	48-111	%	04/20/15 22:13
Terphenyl-D14	120		45-137	%	04/20/15 22:13

PHASE SEPARATION SCIENCE, INC.

QC Summary 15040908

Arc Environmental Percontee

Analytical Method: SW-846 8015C

Seq Number: 121800
PSS Sample ID: 15040908-005

Prep Method: SW5030
Date Prep: 04/13/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	80		55-142	%	04/13/15 18:40

Analytical Method: SW-846 8260 B

Seq Number: 121849
PSS Sample ID: 15040908-005

Prep Method: SW5035
Date Prep: 04/14/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	138	*	80-125	%	04/14/15 11:57
Dibromofluoromethane	116	*	85-115	%	04/14/15 11:57
Toluene-D8	85	*	91-109	%	04/14/15 11:57

Analytical Method: SW-846 8082 A

Seq Number: 121855
PSS Sample ID: 15040908-006

Prep Method: SW3550C
Date Prep: 04/13/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	65		11-150	%	04/14/15 14:55
Tetrachloro-m-xylene	62		12-158	%	04/14/15 14:55

Analytical Method: SW-846 8015 C

Seq Number: 121880
PSS Sample ID: 15040908-006

Prep Method: SW3550C
Date Prep: 04/13/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	60		42-129	%	04/15/15 17:53

Analytical Method: SW-846 8270 C

Seq Number: 121936
PSS Sample ID: 15040908-006

Prep Method: SW3550C
Date Prep: 04/13/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	99		60-131	%	04/16/15 22:44
2-Fluorophenol	66		45-108	%	04/16/15 22:44
Nitrobenzene-d5	88		42-131	%	04/16/15 22:44
Phenol-d6	94		48-124	%	04/16/15 22:44
Terphenyl-D14	107		59-137	%	04/16/15 22:44
2,4,6-Tribromophenol	95		46-129	%	04/16/15 22:44

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QC Summary 15040908

Arc Environmental Percontee

Analytical Method: SW-846 8270 C

Seq Number: 122039
PSS Sample ID: 15040908-006

Prep Method: SW3550C
Date Prep: 04/13/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	62		51-109	%	04/20/15 21:09
Nitrobenzene-d5	70		48-111	%	04/20/15 21:09
Terphenyl-D14	200	*	45-137	%	04/20/15 21:09

Analytical Method: SW-846 8015C

Seq Number: 121800
PSS Sample ID: 15040908-006

Prep Method: SW5030
Date Prep: 04/13/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	83		55-142	%	04/13/15 13:46

Analytical Method: SW-846 8260 B

Seq Number: 121849
PSS Sample ID: 15040908-006

Prep Method: SW5035
Date Prep: 04/14/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	111		80-125	%	04/14/15 12:27
Dibromofluoromethane	104		85-115	%	04/14/15 12:27
Toluene-D8	100		91-109	%	04/14/15 12:27

Analytical Method: SW-846 8082 A

Seq Number: 121855
PSS Sample ID: 15040908-007

Prep Method: SW3550C
Date Prep: 04/13/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	75		11-150	%	04/14/15 15:24
Tetrachloro-m-xylene	65		12-158	%	04/14/15 15:24

Analytical Method: SW-846 8015 C

Seq Number: 121878
PSS Sample ID: 15040908-007

Prep Method: SW3550C
Date Prep: 04/13/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	69		42-129	%	04/14/15 15:55

PHASE SEPARATION SCIENCE, INC.

QC Summary 15040908

Arc Environmental Percontee

Analytical Method: SW-846 8270 C

Seq Number: 122037
PSS Sample ID: 15040908-007

Prep Method: SW3550C
Date Prep: 04/13/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	70		51-109	%	04/19/15 00:42
Nitrobenzene-d5	60		48-111	%	04/19/15 00:42
Terphenyl-D14	110		45-137	%	04/19/15 00:42

Analytical Method: SW-846 8015C

Seq Number: 121800
PSS Sample ID: 15040908-007

Prep Method: SW5030
Date Prep: 04/13/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	84		55-142	%	04/13/15 14:15

Analytical Method: SW-846 8082 A

Seq Number: 121855
PSS Sample ID: 15040908-008

Prep Method: SW3550C
Date Prep: 04/13/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	74		11-150	%	04/14/15 21:12
Tetrachloro-m-xylene	68		12-158	%	04/14/15 21:12

Analytical Method: SW-846 8015 C

Seq Number: 121878
PSS Sample ID: 15040908-008

Prep Method: SW3550C
Date Prep: 04/13/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	83		42-129	%	04/14/15 15:55

Analytical Method: SW-846 8270 C

Seq Number: 122037
PSS Sample ID: 15040908-008

Prep Method: SW3550C
Date Prep: 04/13/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	74		51-109	%	04/18/15 22:34
Nitrobenzene-d5	70		48-111	%	04/18/15 22:34
Terphenyl-D14	95		45-137	%	04/18/15 22:34

PHASE SEPARATION SCIENCE, INC.

QC Summary 15040908

Arc Environmental Percontee

Analytical Method: SW-846 8015C

Seq Number: 121800
PSS Sample ID: 15040908-008

Prep Method: SW5030
Date Prep: 04/13/2015

Matrix: Soil

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	85		55-142	%	04/13/15 14:44

Analytical Method: SW-846 8082 A

Seq Number: 121855
PSS Sample ID: 15040908-009

Prep Method: SW3550C
Date Prep: 04/13/2015

Matrix: Soil

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	74		11-150	%	04/14/15 20:43
Tetrachloro-m-xylene	68		12-158	%	04/14/15 20:43

Analytical Method: SW-846 8015 C

Seq Number: 121880
PSS Sample ID: 15040908-009

Prep Method: SW3550C
Date Prep: 04/13/2015

Matrix: Soil

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	61		42-129	%	04/15/15 18:36

Analytical Method: SW-846 8270 C

Seq Number: 122037
PSS Sample ID: 15040908-009

Prep Method: SW3550C
Date Prep: 04/13/2015

Matrix: Soil

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	68		51-109	%	04/19/15 02:17
Nitrobenzene-d5	72		48-111	%	04/19/15 02:17
Terphenyl-D14	138	*	45-137	%	04/19/15 02:17

Analytical Method: SW-846 8015C

Seq Number: 121800
PSS Sample ID: 15040908-009

Prep Method: SW5030
Date Prep: 04/13/2015

Matrix: Soil

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	83		55-142	%	04/13/15 15:13

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QC Summary 15040908

Arc Environmental Percontee

Analytical Method: SW-846 8082 A

Seq Number: 121855
PSS Sample ID: 15040908-010

Prep Method: SW3550C
Date Prep: 04/13/2015

Matrix: Soil

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	85		11-150	%	04/14/15 20:14
Tetrachloro-m-xylene	72		12-158	%	04/14/15 20:14

Analytical Method: SW-846 8015 C

Seq Number: 121878
PSS Sample ID: 15040908-010

Prep Method: SW3550C
Date Prep: 04/13/2015

Matrix: Soil

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	65		42-129	%	04/14/15 16:38

Analytical Method: SW-846 8270 C

Seq Number: 122037
PSS Sample ID: 15040908-010

Prep Method: SW3550C
Date Prep: 04/13/2015

Matrix: Soil

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	70		51-109	%	04/18/15 23:06
Nitrobenzene-d5	65		48-111	%	04/18/15 23:06
Terphenyl-D14	87		45-137	%	04/18/15 23:06

Analytical Method: SW-846 8015C

Seq Number: 121800
PSS Sample ID: 15040908-010

Prep Method: SW5030
Date Prep: 04/13/2015

Matrix: Soil

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	84		55-142	%	04/13/15 15:43

Analytical Method: SW-846 8082 A

Seq Number: 121855
PSS Sample ID: 15040908-011

Prep Method: SW3550C
Date Prep: 04/13/2015

Matrix: Soil

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	90		11-150	%	04/14/15 19:45
Tetrachloro-m-xylene	81		12-158	%	04/14/15 19:45

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QC Summary 15040908

Arc Environmental Percontee

Analytical Method: SW-846 8015 C

Seq Number: 121878
PSS Sample ID: 15040908-011

Matrix: Soil

Prep Method: SW3550C
Date Prep: 04/13/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	71		42-129	%	04/14/15 15:12

Analytical Method: SW-846 8270 C

Seq Number: 122037
PSS Sample ID: 15040908-011

Matrix: Soil

Prep Method: SW3550C
Date Prep: 04/13/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	68		51-109	%	04/18/15 22:02
Nitrobenzene-d5	62		48-111	%	04/18/15 22:02
Terphenyl-D14	85		45-137	%	04/18/15 22:02

Analytical Method: SW-846 8015C

Seq Number: 121800
PSS Sample ID: 15040908-011

Matrix: Soil

Prep Method: SW5030
Date Prep: 04/13/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	84		55-142	%	04/13/15 16:13

Analytical Method: SW-846 8082 A

Seq Number: 121855
PSS Sample ID: 15040908-012

Matrix: Soil

Prep Method: SW3550C
Date Prep: 04/13/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	83		11-150	%	04/14/15 19:15
Tetrachloro-m-xylene	74		12-158	%	04/14/15 19:15

Analytical Method: SW-846 8015 C

Seq Number: 121867
PSS Sample ID: 15040908-012

Matrix: Soil

Prep Method: SW3550C
Date Prep: 04/13/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	77		42-129	%	04/14/15 12:41

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QC Summary 15040908

Arc Environmental Percontee

Analytical Method: SW-846 8270 C

Seq Number: 122036
PSS Sample ID: 15040908-012

Prep Method: SW3550C
Date Prep: 04/13/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	74		51-109	%	04/18/15 19:15
Nitrobenzene-d5	66		48-111	%	04/18/15 19:15
Terphenyl-D14	78		45-137	%	04/18/15 19:15

Analytical Method: SW-846 8015C

Seq Number: 121800
PSS Sample ID: 15040908-012

Prep Method: SW5030
Date Prep: 04/13/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	84		55-142	%	04/13/15 16:43

Analytical Method: SW-846 8082 A

Seq Number: 121855
PSS Sample ID: 15040908-013

Prep Method: SW3550C
Date Prep: 04/13/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	52		11-150	%	04/14/15 18:47
Tetrachloro-m-xylene	51		12-158	%	04/14/15 18:47

Analytical Method: SW-846 8015 C

Seq Number: 121878
PSS Sample ID: 15040908-013

Prep Method: SW3550C
Date Prep: 04/13/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	57		42-129	%	04/14/15 18:05

Analytical Method: SW-846 8270 C

Seq Number: 122037
PSS Sample ID: 15040908-013

Prep Method: SW3550C
Date Prep: 04/13/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	60		51-109	%	04/19/15 01:13
Nitrobenzene-d5	60		48-111	%	04/19/15 01:13
Terphenyl-D14	100		45-137	%	04/19/15 01:13

PHASE SEPARATION SCIENCE, INC.

QC Summary 15040908

Arc Environmental Percontee

Analytical Method: SW-846 8015C

Seq Number: 121800
PSS Sample ID: 15040908-013

Prep Method: SW5030
Date Prep: 04/13/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	83		55-142	%	04/13/15 17:12

Analytical Method: SW-846 8082 A

Seq Number: 121855
PSS Sample ID: 15040908-014

Prep Method: SW3550C
Date Prep: 04/13/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	84		11-150	%	04/14/15 18:18
Tetrachloro-m-xylene	86		12-158	%	04/14/15 18:18

Analytical Method: SW-846 8015 C

Seq Number: 121878
PSS Sample ID: 15040908-014

Prep Method: SW3550C
Date Prep: 04/13/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	67		42-129	%	04/14/15 16:38

Analytical Method: SW-846 8270 C

Seq Number: 122037
PSS Sample ID: 15040908-014

Prep Method: SW3550C
Date Prep: 04/13/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	71		51-109	%	04/18/15 23:38
Nitrobenzene-d5	70		48-111	%	04/18/15 23:38
Terphenyl-D14	91		45-137	%	04/18/15 23:38

Analytical Method: SW-846 8015C

Seq Number: 121800
PSS Sample ID: 15040908-014

Prep Method: SW5030
Date Prep: 04/13/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	84		55-142	%	04/13/15 17:42

PHASE SEPARATION SCIENCE, INC.

QC Summary 15040908

Arc Environmental Percontee

Analytical Method: SW-846 8082 A

Seq Number: 121855
PSS Sample ID: 15040908-015

Matrix: Soil

Prep Method: SW3550C
Date Prep: 04/13/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	42		11-150	%	04/14/15 17:49
Tetrachloro-m-xylene	33		12-158	%	04/14/15 17:49

Analytical Method: SW-846 8015 C

Seq Number: 121878
PSS Sample ID: 15040908-015

Matrix: Soil

Prep Method: SW3550C
Date Prep: 04/13/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	94		42-129	%	04/14/15 18:48

Analytical Method: SW-846 8270 C

Seq Number: 122039
PSS Sample ID: 15040908-015

Matrix: Soil

Prep Method: SW3550C
Date Prep: 04/13/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	50	*	51-109	%	04/21/15 01:25
Nitrobenzene-d5	220	*	48-111	%	04/21/15 01:25
Terphenyl-D14	150	*	45-137	%	04/21/15 01:25

Analytical Method: SW-846 8015C

Seq Number: 121800
PSS Sample ID: 15040908-015

Matrix: Soil

Prep Method: SW5030
Date Prep: 04/13/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	83		55-142	%	04/13/15 18:11

Analytical Method: SW-846 8082 A

Seq Number: 121855
PSS Sample ID: 15040908-016

Matrix: Soil

Prep Method: SW3550C
Date Prep: 04/13/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	27		11-150	%	04/14/15 17:20
Tetrachloro-m-xylene	28		12-158	%	04/14/15 17:20

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QC Summary 15040908

Arc Environmental Percontee

Analytical Method: SW-846 8015 C

Seq Number: 121880
PSS Sample ID: 15040908-016

Prep Method: SW3550C
Date Prep: 04/13/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	13	*	42-129	%	04/15/15 18:36

Analytical Method: SW-846 8270 C

Seq Number: 122039
PSS Sample ID: 15040908-016

Prep Method: SW3550C
Date Prep: 04/13/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	40	*	51-109	%	04/21/15 00:21
Nitrobenzene-d5	220	*	48-111	%	04/21/15 00:21
Terphenyl-D14	100		45-137	%	04/21/15 00:21

Analytical Method: SW-846 8015C

Seq Number: 121812
PSS Sample ID: 15040908-016

Prep Method: SW5030
Date Prep: 04/13/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	83		55-142	%	04/14/15 05:10

Analytical Method: SW-846 8082 A

Seq Number: 121855
PSS Sample ID: 15040908-017

Prep Method: SW3550C
Date Prep: 04/13/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	29		11-150	%	04/14/15 16:51
Tetrachloro-m-xylene	21		12-158	%	04/14/15 16:51

Analytical Method: SW-846 8015 C

Seq Number: 121878
PSS Sample ID: 15040908-017

Prep Method: SW3550C
Date Prep: 04/13/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	34	*	42-129	%	04/14/15 19:31

PHASE SEPARATION SCIENCE, INC.

QC Summary 15040908

Arc Environmental Percontee

Analytical Method: SW-846 8270 C

Seq Number: 122039
PSS Sample ID: 15040908-017

Matrix: Soil

Prep Method: SW3550C
Date Prep: 04/13/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	20	*	51-109	%	04/20/15 23:17
Nitrobenzene-d5	20	*	48-111	%	04/20/15 23:17
Terphenyl-D14	80		45-137	%	04/20/15 23:17

Analytical Method: SW-846 8015C

Seq Number: 121812
PSS Sample ID: 15040908-017

Matrix: Soil

Prep Method: SW5030
Date Prep: 04/13/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	131		55-142	%	04/14/15 05:39

F = RPD exceeded the laboratory control limits
X = Recovery of MS, MSD or both outside of QC Criteria
H= Recovery of BS,BSD or both exceeded the laboratory control limits
L = Recovery of BS,BSD or both below the laboratory control limits

PHASE SEPARATION SCIENCE, INC.

QC Summary 15040908

Arc Environmental Percontee

Analytical Method: SW-846 6020 A

Seq Number: 121804

MB Sample Id: 54953-1-BLK

Matrix: Solid

LCS Sample Id: 54953-1-BKS

Prep Method: SW3050B

Date Prep: 04/10/15

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Analysis Date	Flag
Antimony	<1.246	19.93	19.87	100	80-120	mg/kg	04/13/15 15:29	
Arsenic	<0.2491	19.93	23.33	117	80-120	mg/kg	04/13/15 15:29	
Beryllium	<1.246	19.93	19.10	96	80-120	mg/kg	04/13/15 15:29	
Cadmium	<1.246	19.93	21.43	108	80-120	mg/kg	04/13/15 15:29	
Chromium	<1.246	19.93	23.96	120	80-120	mg/kg	04/13/15 15:29	
Copper	<1.246	19.93	23.35	117	80-120	mg/kg	04/13/15 15:29	
Lead	<1.246	19.93	21.13	106	80-120	mg/kg	04/13/15 15:29	
Mercury	<0.04983	0.4983	0.4733	95	80-120	mg/kg	04/13/15 15:29	
Nickel	<1.246	19.93	23.27	117	80-120	mg/kg	04/13/15 15:29	
Selenium	<1.246	19.93	20.43	103	80-120	mg/kg	04/13/15 15:29	
Silver	<1.246	19.93	21.66	109	80-120	mg/kg	04/13/15 15:29	
Thallium	<0.2491	19.93	19.71	99	80-120	mg/kg	04/13/15 15:29	
Zinc	<4.983	19.93	19.77	99	80-120	mg/kg	04/13/15 15:29	

Analytical Method: SW-846 6020 A

Seq Number: 121804

Parent Sample Id: 15040908-001

Matrix: Soil

MS Sample Id: 15040908-001 S

Prep Method: SW3050B

Date Prep: 04/10/15

MSD Sample Id: 15040908-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Antimony	<1.246	19.93	17.08	86	16.56	88	75-125	3	30	mg/kg	04/13/15 15:59	
Arsenic	1.414	19.93	21.62	101	21.07	104	75-125	3	30	mg/kg	04/13/15 15:59	
Beryllium	<1.246	19.93	19.44	98	18.71	99	75-125	4	30	mg/kg	04/13/15 15:59	
Cadmium	<1.246	19.93	22.88	115	21.71	115	75-125	5	30	mg/kg	04/13/15 15:59	
Chromium	79.46	19.93	117	188	101.8	118	75-125	14	30	mg/kg	04/13/15 15:59	X
Copper	24.74	19.93	57.70	165	40.84	85	75-125	34	30	mg/kg	04/13/15 15:59	XF
Lead	5.472	19.93	28.36	115	27.21	115	75-125	4	30	mg/kg	04/13/15 15:59	
Mercury	<0.04983	0.4983	0.5431	109	0.5393	114	75-125	1	30	mg/kg	04/13/15 15:59	
Nickel	65.36	19.93	83.66	92	85.72	108	75-125	2	30	mg/kg	04/13/15 15:59	
Selenium	<1.246	19.93	18.10	91	17.10	90	75-125	6	30	mg/kg	04/13/15 15:59	
Silver	<1.246	19.93	22.54	113	21.94	116	75-125	3	30	mg/kg	04/13/15 15:59	
Thallium	<0.2491	19.93	21.97	110	20.93	111	75-125	5	20	mg/kg	04/13/15 15:59	
Zinc	45.57	19.93	65.77	101	60.84	81	75-125	8	30	mg/kg	04/13/15 15:59	

Analytical Method: SW-846 8082 A

Seq Number: 121855

MB Sample Id: 54959-1-BLK

Matrix: Solid

LCS Sample Id: 54959-1-BKS

Prep Method: SW3550C

Date Prep: 04/13/15

LCSD Sample Id: 54959-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
PCB-1016	<0.05015	0.5015	0.3901	78	0.4413	89	62-136	12	25	mg/kg	04/14/15 10:34	
PCB-1260	<0.05015	0.5015	0.3635	72	0.3999	81	56-113	10	25	mg/kg	04/14/15 10:34	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	87		87		96		11-150	%	04/14/15 10:34
Tetrachloro-m-xylene	71		77		88		12-158	%	04/14/15 10:34

PHASE SEPARATION SCIENCE, INC.

QC Summary 15040908

Arc Environmental Percontee

Analytical Method: SW-846 8082 A

 Seq Number: 121855
 Parent Sample Id: 15040908-001

 Matrix: Soil
 MS Sample Id: 15040908-001 S

 Prep Method: SW3550C
 Date Prep: 04/13/15
 MSD Sample Id: 15040908-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
PCB-1016	<0.05404	0.5404	0.3117	58	0.3014	57	44-139	3	30	mg/kg	04/14/15 11:32	
PCB-1260	<0.05404	0.5404	0.2558	47	0.2290	43	19-114	11	30	mg/kg	04/14/15 11:32	

Surrogate	MS Result	MS Flag	MSD Result	MSD Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	55		51		11-150	%	04/14/15 11:32
Tetrachloro-m-xylene	57		54		12-158	%	04/14/15 11:32

Analytical Method: SW-846 8015 C

 Seq Number: 121797
 MB Sample Id: 54943-1-BLK

 Matrix: Solid
 LCS Sample Id: 54943-1-BKS

 Prep Method: SW3550C
 Date Prep: 04/09/15
 LCSD Sample Id: 54943-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
TPH-DRO (Diesel Range Organics)	<4.064	33.86	27.07	80	28.60	86	56-117	5	25	mg/kg	04/10/15 11:34	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units	Analysis Date
o-Terphenyl	65		67		72		42-129	%	04/10/15 11:34

Analytical Method: SW-846 8015 C

 Seq Number: 121867
 MB Sample Id: 54975-1-BLK

 Matrix: Solid
 LCS Sample Id: 54975-1-BKS

 Prep Method: SW3550C
 Date Prep: 04/13/15
 LCSD Sample Id: 54975-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
TPH-DRO (Diesel Range Organics)	<4.003	33.36	29.81	89	31.92	95	56-117	7	25	mg/kg	04/14/15 11:58	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units	Analysis Date
o-Terphenyl	94		77		83		42-129	%	04/14/15 11:58

PHASE SEPARATION SCIENCE, INC.

QC Summary 15040908

Arc Environmental Percontee

Analytical Method: SW-846 8270 C

Seq Number: 121895

MB Sample Id: 54961-1-BLK

Matrix: Solid

LCS Sample Id: 54961-1-BKS

Prep Method: SW3550C

Date Prep: 04/13/15

LCSD Sample Id: 54961-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Acetophenone	<83.28	1332	1287	97	1271	95	61-114	1	25	ug/kg	04/15/15 23:06	
Biphenyl (Diphenyl)	<83.28	1332	1269	95	1273	95	79-107	0	25	ug/kg	04/15/15 23:06	
Butyl benzyl phthalate	<83.28	1332	1311	98	1394	105	67-125	6	25	ug/kg	04/15/15 23:06	
bis(2-chloroethoxy) methane	<83.28	1332	1110	83	1141	86	58-106	3	25	ug/kg	04/15/15 23:06	
bis(2-chloroethyl) ether	<83.28	1332	1140	86	1166	87	58-105	2	25	ug/kg	04/15/15 23:06	
bis(2-chloroisopropyl) ether	<83.28	1332	1505	113	1529	115	53-114	2	25	ug/kg	04/15/15 23:06	H
bis(2-ethylhexyl) phthalate	<83.28	1332	1282	96	1342	101	54-137	5	25	ug/kg	04/15/15 23:06	
4-Bromophenylphenyl ether	<83.28	1332	1219	92	1248	94	65-110	2	25	ug/kg	04/15/15 23:06	
Di-n-butyl phthalate	<83.28	1332	1332	100	1338	100	61-127	0	25	ug/kg	04/15/15 23:06	
Carbazole	<83.28	1332	1209	91	1277	96	45-121	5	25	ug/kg	04/15/15 23:06	
4-Chloro-3-methylphenol	<83.28	1332	1227	92	1308	98	70-113	6	25	ug/kg	04/15/15 23:06	
4-Chloroaniline	<166.6	1332	1147	86	1260	95	73-103	9	25	ug/kg	04/15/15 23:06	
2-Chloronaphthalene	<83.28	1332	1178	88	1192	89	76-104	1	25	ug/kg	04/15/15 23:06	
2-Chlorophenol	<83.28	1332	1108	83	1125	84	69-97	2	25	ug/kg	04/15/15 23:06	
4-Chlorophenyl phenyl ether	<83.28	1332	1253	94	1288	97	67-113	3	25	ug/kg	04/15/15 23:06	
Dibenzofuran	<83.28	1332	1197	90	1252	94	72-109	4	25	ug/kg	04/15/15 23:06	
3,3-Dichlorobenzidine	<83.28	1332	1349	101	1394	105	56-128	3	25	ug/kg	04/15/15 23:06	
2,4-Dichlorophenol	<83.28	1332	1116	84	1214	91	75-101	8	25	ug/kg	04/15/15 23:06	
Diethyl phthalate	<83.28	1332	1198	90	1260	95	69-120	5	25	ug/kg	04/15/15 23:06	
Dimethyl phthalate	<83.28	1332	1108	83	1250	94	64-119	12	25	ug/kg	04/15/15 23:06	
2,4-Dimethylphenol	<83.28	1332	1081	81	1176	88	66-98	8	25	ug/kg	04/15/15 23:06	
4,6-Dinitro-2-methyl phenol	<83.28	1332	1127	85	1200	90	63-126	6	25	ug/kg	04/15/15 23:06	
2,4-Dinitrophenol	<166.6	1332	773.5	58	892	67	56-123	14	25	ug/kg	04/15/15 23:06	
2,4-Dinitrotoluene	<83.28	1332	1191	89	1296	97	70-116	8	25	ug/kg	04/15/15 23:06	
2,6-Dinitrotoluene	<83.28	1332	1146	86	1227	92	72-112	7	25	ug/kg	04/15/15 23:06	
Hexachlorobenzene	<83.28	1332	1279	96	1320	99	72-112	3	25	ug/kg	04/15/15 23:06	
Hexachlorobutadiene	<83.28	1332	1112	83	1130	85	72-100	2	25	ug/kg	04/15/15 23:06	
Hexachlorocyclopentadiene	<83.28	1332	1110	83	1190	89	51-125	7	25	ug/kg	04/15/15 23:06	
Hexachloroethane	<83.28	1332	1137	85	1165	87	69-102	2	25	ug/kg	04/15/15 23:06	
Isophorone	<83.28	1332	1227	92	1316	99	71-96	7	25	ug/kg	04/15/15 23:06	H
2-Methylphenol	<83.28	1332	1183	89	1219	91	69-102	3	25	ug/kg	04/15/15 23:06	
3&4-Methylphenol	<83.28	1332	1216	91	1234	93	64-113	1	25	ug/kg	04/15/15 23:06	
4-Nitroaniline	<166.6	1332	1079	81	1168	88	41-121	8	25	ug/kg	04/15/15 23:06	
3-Nitroaniline	<83.28	1332	1191	89	1357	102	49-117	13	25	ug/kg	04/15/15 23:06	
2-Nitroaniline	<83.28	1332	1358	102	1457	109	71-109	7	25	ug/kg	04/15/15 23:06	
Nitrobenzene	<83.28	1332	1139	86	1206	90	66-101	6	25	ug/kg	04/15/15 23:06	
2-Nitrophenol	<83.28	1332	1128	85	1175	88	74-108	4	25	ug/kg	04/15/15 23:06	
4-Nitrophenol	<83.28	1332	947	71	954	72	58-125	1	25	ug/kg	04/15/15 23:06	
N-Nitrosodi-n-Propylamine	<66.62	1332	1295	97	1307	98	58-110	1	25	ug/kg	04/15/15 23:06	
N-Nitrosodiphenylamine	<83.28	1332	1212	91	1294	97	70-109	7	25	ug/kg	04/15/15 23:06	
Di-n-octyl phthalate	<166.6	1332	1351	101	1397	105	63-122	3	25	ug/kg	04/15/15 23:06	
Pentachlorophenol	<166.6	1332	1043	78	1069	80	76-114	2	25	ug/kg	04/15/15 23:06	
Phenol	<83.28	1332	1096	82	1026	77	69-109	7	25	ug/kg	04/15/15 23:06	
Atrazine	<83.28	1332	7253	545	7401	555	69-131	2	25	ug/kg	04/15/15 23:06	H
Pyridine	<83.28	1332	855.4	64	965.3	72	60-86	12	25	ug/kg	04/15/15 23:06	
Caprolactam	<83.28	1332	1244	93	1381	104	59-129	10	25	ug/kg	04/15/15 23:06	
2,4,6-Trichlorophenol	<83.28	1332	1168	88	1259	94	75-111	7	25	ug/kg	04/15/15 23:06	
2,4,5-Trichlorophenol	<83.28	1332	1201	90	1188	89	81-112	1	25	ug/kg	04/15/15 23:06	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	91		90		89		60-131	%	04/15/15 23:06

PHASE SEPARATION SCIENCE, INC.

QC Summary 15040908

Arc Environmental Percontee

Analytical Method: SW-846 8270 C

Seq Number: 121895

MB Sample Id: 54961-1-BLK

Matrix: Solid

LCS Sample Id: 54961-1-BKS

Prep Method: SW3550C

Date Prep: 04/13/15

LCSD Sample Id: 54961-1-BSD

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units	Analysis Date
2-Fluorophenol	70		63		72		45-108	%	04/15/15 23:06
Nitrobenzene-d5	90		83		87		42-131	%	04/15/15 23:06
Phenol-d6	79		88		89		48-124	%	04/15/15 23:06
Terphenyl-D14	96		103		107		59-137	%	04/15/15 23:06
2,4,6-Tribromophenol	89		83		90		46-129	%	04/15/15 23:06

Analytical Method: SW-846 8270 C

Seq Number: 122036

MB Sample Id: 54966-1-BLK

Matrix: Solid

LCS Sample Id: 54966-1-BKS

Prep Method: SW3550C

Date Prep: 04/13/15

LCSD Sample Id: 54966-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Acenaphthene	<3.316	66.31	54.05	82	52.39	79	65-104	3	31	ug/kg	04/18/15 17:39	
Acenaphthylene	<3.316	66.31	51.39	77	50.41	76	59-105	2	25	ug/kg	04/18/15 17:39	
Anthracene	<3.316	66.31	51.72	78	51.40	78	52-121	1	25	ug/kg	04/18/15 17:39	
Benzo(a)anthracene	<3.316	66.31	51.72	78	51.40	78	47-114	1	25	ug/kg	04/18/15 17:39	
Benzo(a)pyrene	<3.316	66.31	58.02	87	57.66	87	57-111	1	25	ug/kg	04/18/15 17:39	
Benzo(b)fluoranthene	<3.316	66.31	52.06	79	51.73	78	47-123	1	25	ug/kg	04/18/15 17:39	
Benzo(g,h,i)perylene	<3.316	66.31	51.72	78	54.70	83	46-119	6	25	ug/kg	04/18/15 17:39	
Benzo(k)fluoranthene	<3.316	66.31	50.73	77	52.39	79	44-133	3	25	ug/kg	04/18/15 17:39	
Chrysene	<3.316	66.31	51.72	78	52.39	79	51-111	1	25	ug/kg	04/18/15 17:39	
Dibenz(a,h)Anthracene	<3.316	66.31	49.73	75	53.05	81	44-121	6	25	ug/kg	04/18/15 17:39	
Fluoranthene	<3.316	66.31	51.72	78	53.05	81	55-114	3	25	ug/kg	04/18/15 17:39	
Fluorene	<3.316	66.31	52.06	79	51.07	77	59-107	2	25	ug/kg	04/18/15 17:39	
Indeno(1,2,3-c,d)Pyrene	<3.316	66.31	44.43	67	49.42	75	42-123	11	25	ug/kg	04/18/15 17:39	
2-Methylnaphthalene	<3.316	66.31	51.72	78	50.41	76	67-99	3	25	ug/kg	04/18/15 17:39	
Naphthalene	<3.316	66.31	49.73	75	47.78	73	61-108	4	25	ug/kg	04/18/15 17:39	
Phenanthrene	<3.316	66.31	52.39	79	52.06	79	50-122	1	25	ug/kg	04/18/15 17:39	
Pyrene	<3.316	66.31	45.42	68	44.48	67	45-118	2	31	ug/kg	04/18/15 17:39	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	87		79		75		51-109	%	04/18/15 17:39
Nitrobenzene-d5	79		74		74		48-111	%	04/18/15 17:39
Terphenyl-D14	83		79		76		45-137	%	04/18/15 17:39

PHASE SEPARATION SCIENCE, INC.

QC Summary 15040908

Arc Environmental Percontee

Analytical Method: SW-846 8270 C

Seq Number: 122036

Parent Sample Id: 15040908-012

Matrix: Soil

MS Sample Id: 15040908-012 S

Prep Method: SW3550C

Date Prep: 04/13/15

MSD Sample Id: 15040908-012 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Acenaphthene	<3.593	71.87	53.90	75	53.57	74	33-146	1	30	ug/kg	04/18/15 19:47	
Acenaphthylene	<3.593	71.87	52.46	73	51.78	72	23-154	1	30	ug/kg	04/18/15 19:47	
Anthracene	<3.593	71.87	54.26	75	54.29	75	24-155	0	30	ug/kg	04/18/15 19:47	
Benzo(a)anthracene	<3.593	71.87	57.13	79	57.17	80	6-165	0	30	ug/kg	04/18/15 19:47	
Benzo(a)pyrene	<3.593	71.87	62.16	86	62.56	87	10-200	1	30	ug/kg	04/18/15 19:47	
Benzo(b)fluoranthene	<3.593	71.87	60.01	83	63.64	88	10-186	6	30	ug/kg	04/18/15 19:47	
Benzo(g,h,i)perylene	<3.593	71.87	60.01	83	52.50	73	10-180	13	30	ug/kg	04/18/15 19:47	
Benzo(k)fluoranthene	<3.593	71.87	49.95	70	52.14	73	10-169	4	30	ug/kg	04/18/15 19:47	
Chrysene	<3.593	71.87	58.21	81	58.25	81	10-178	0	30	ug/kg	04/18/15 19:47	
Dibenz(a,h)Anthracene	<3.593	71.87	62.52	87	53.22	74	19-168	16	30	ug/kg	04/18/15 19:47	
Fluoranthene	<3.593	71.87	57.13	79	56.81	79	10-200	1	30	ug/kg	04/18/15 19:47	
Fluorene	<3.593	71.87	52.46	73	52.86	74	9-162	1	30	ug/kg	04/18/15 19:47	
Indeno(1,2,3-c,d)Pyrene	<3.593	71.87	63.60	88	54.65	76	10-178	15	30	ug/kg	04/18/15 19:47	
2-Methylnaphthalene	<3.593	71.87	51.38	71	50.70	71	17-162	1	30	ug/kg	04/18/15 19:47	
Naphthalene	<3.593	71.87	49.23	68	48.90	68	9-179	1	30	ug/kg	04/18/15 19:47	
Phenanthrene	<3.593	71.87	55.70	78	55.37	77	10-169	1	30	ug/kg	04/18/15 19:47	
Pyrene	<3.593	71.87	49.59	69	53.93	75	10-172	8	30	ug/kg	04/18/15 19:47	

Surrogate	MS Result	MS Flag	MSD Result	MSD Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	71		72		51-109	%	04/18/15 19:47
Nitrobenzene-d5	69		70		48-111	%	04/18/15 19:47
Terphenyl-D14	79		87		45-137	%	04/18/15 19:47

Analytical Method: SW-846 8015C

Seq Number: 121800

MB Sample Id: 54971-2-BLK

Matrix: Solid

LCS Sample Id: 54971-2-BKS

Prep Method: SW5030

Date Prep: 04/13/15

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Analysis Date	Flag
TPH-GRO (Gasoline Range Organic)	<50.00	5000	3969	79	60-112	ug/kg	04/13/15 10:20	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	81		94		55-142	%	04/13/15 10:20

Analytical Method: SW-846 8015C

Seq Number: 121812

MB Sample Id: 54976-2-BLK

Matrix: Solid

LCS Sample Id: 54976-2-BKS

Prep Method: SW5030

Date Prep: 04/13/15

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Analysis Date	Flag
TPH-GRO (Gasoline Range Organic)	<49.70	4970	3897	78	60-112	ug/kg	04/13/15 23:33	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	81		96		55-142	%	04/13/15 23:33

PHASE SEPARATION SCIENCE, INC.

QC Summary 15040908

Arc Environmental Percontee

Analytical Method: SW-846 8015C

Seq Number: 121800

Parent Sample Id: 15040908-001

Matrix: Soil

MS Sample Id: 15040908-001 S

Prep Method: SW5030

Date Prep: 04/13/15

MSD Sample Id: 15040908-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
TPH-GRO (Gasoline Range Organic)	<52.21	5221	3198	61	2619	51	36-131	20	30	ug/kg	04/13/15 19:09	
Surrogate			MS Result	MS Flag		MSD Result	MSD Flag	Limits		Units	Analysis Date	
a,a,a-Trifluorotoluene			93			102		55-142		%	04/13/15 19:09	

PHASE SEPARATION SCIENCE, INC.

QC Summary 15040908

Arc Environmental Percontee

Analytical Method: SW-846 8260 B

Seq Number: 121849

MB Sample Id: 55003-1-BLK

Matrix: Solid

LCS Sample Id: 55003-1-BKS

Prep Method: SW5030

Date Prep: 04/14/15

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Analysis Date	Flag
Dichlorodifluoromethane	<2.604	62.50	78.68	126	53-144	ug/kg	04/14/15 11:20	
Chloromethane	<2.604	62.50	73.13	117	62-143	ug/kg	04/14/15 11:20	
1,1,2-Trichloro-1,2,2-Trifluoroethane	<2.604	62.50	70.13	112	50-162	ug/kg	04/14/15 11:20	
Vinyl Chloride	<2.604	62.50	75.02	120	61-156	ug/kg	04/14/15 11:20	
Bromomethane	<2.604	62.50	69.71	112	45-199	ug/kg	04/14/15 11:20	
Chloroethane	<2.604	62.50	68.05	109	59-151	ug/kg	04/14/15 11:20	
Acetone	<10.42	62.50	90.17	144	24-197	ug/kg	04/14/15 11:20	
Cyclohexane	<10.42	62.50	70.21	112	50-148	ug/kg	04/14/15 11:20	
Trichlorofluoromethane	<2.604	62.50	73.19	117	54-175	ug/kg	04/14/15 11:20	
1,1-Dichloroethene	<2.604	62.50	77.49	124	60-154	ug/kg	04/14/15 11:20	
Methylene Chloride	<2.604	62.50	60.20	96	56-140	ug/kg	04/14/15 11:20	
trans-1,2-Dichloroethene	<2.604	62.50	70.17	112	60-153	ug/kg	04/14/15 11:20	
Methyl-t-butyl ether	<2.604	62.50	78.35	125	59-133	ug/kg	04/14/15 11:20	
1,1-Dichloroethane	<2.604	62.50	67.77	108	60-148	ug/kg	04/14/15 11:20	
2-Butanone	<10.42	62.50	91.92	147	35-173	ug/kg	04/14/15 11:20	
cis-1,2-Dichloroethene	<2.604	62.50	66.45	106	67-126	ug/kg	04/14/15 11:20	
Bromochloromethane	<2.604	62.50	63.72	102	64-121	ug/kg	04/14/15 11:20	
Chloroform	<2.604	62.50	69.81	112	65-126	ug/kg	04/14/15 11:20	
1,1,1-Trichloroethane	<2.604	62.50	71.27	114	60-145	ug/kg	04/14/15 11:20	
1,2-Dichloroethane	<2.604	62.50	66.93	107	62-127	ug/kg	04/14/15 11:20	
Carbon Tetrachloride	<2.604	62.50	68.56	110	55-152	ug/kg	04/14/15 11:20	
Benzene	<2.604	62.50	73.43	117	69-128	ug/kg	04/14/15 11:20	
1,2-Dichloropropane	<2.604	62.50	66.92	107	66-125	ug/kg	04/14/15 11:20	
Carbon Disulfide	<5.208	62.50	60.39	97	58-153	ug/kg	04/14/15 11:20	
Methylcyclohexane	<10.42	62.50	60.94	98	41-142	ug/kg	04/14/15 11:20	
Trichloroethene	<2.604	62.50	70.52	113	68-130	ug/kg	04/14/15 11:20	
Methyl Acetate	<10.42	62.50	64.26	103	47-151	ug/kg	04/14/15 11:20	
Bromodichloromethane	<2.604	62.50	65.85	105	60-125	ug/kg	04/14/15 11:20	
cis-1,3-Dichloropropene	<2.604	62.50	64.28	103	59-122	ug/kg	04/14/15 11:20	
4-Methyl-2-Pentanone	<10.42	62.50	77.18	123	22-173	ug/kg	04/14/15 11:20	
trans-1,3-Dichloropropene	<2.604	62.50	63.69	102	56-124	ug/kg	04/14/15 11:20	
1,1,2-Trichloroethane	<2.604	62.50	66.00	106	65-120	ug/kg	04/14/15 11:20	
Toluene	<2.604	62.50	68.81	110	66-127	ug/kg	04/14/15 11:20	
2-Hexanone	<10.42	62.50	76.63	123	30-175	ug/kg	04/14/15 11:20	
1,2-Dibromoethane	<2.604	62.50	64.78	104	64-123	ug/kg	04/14/15 11:20	
Dibromochloromethane	<2.604	62.50	62.80	100	55-128	ug/kg	04/14/15 11:20	
Bromoform	<2.604	62.50	64.80	104	46-128	ug/kg	04/14/15 11:20	
Tetrachloroethene	<2.604	62.50	67.21	108	55-145	ug/kg	04/14/15 11:20	
Chlorobenzene	<2.604	62.50	63.73	102	61-124	ug/kg	04/14/15 11:20	
Ethylbenzene	<2.604	62.50	63.19	101	58-130	ug/kg	04/14/15 11:20	
m,p-Xylenes	<5.208	125	120.4	96	60-131	ug/kg	04/14/15 11:20	
Styrene	<2.604	62.50	58.80	94	54-123	ug/kg	04/14/15 11:20	
1,1,2,2-Tetrachloroethane	<2.604	62.50	65.05	104	50-134	ug/kg	04/14/15 11:20	
o-Xylene	<2.604	62.50	61.48	98	60-126	ug/kg	04/14/15 11:20	
Isopropylbenzene	<2.604	62.50	63.08	101	52-130	ug/kg	04/14/15 11:20	
1,3-Dichlorobenzene	<2.604	62.50	55.55	89	42-123	ug/kg	04/14/15 11:20	
1,4-Dichlorobenzene	<2.604	62.50	56.09	90	40-121	ug/kg	04/14/15 11:20	
1,2-Dichlorobenzene	<2.604	62.50	54.15	87	38-128	ug/kg	04/14/15 11:20	
1,2-Dibromo-3-Chloropropane	<20.83	62.50	64.48	103	43-149	ug/kg	04/14/15 11:20	
1,2,4-Trichlorobenzene	<2.604	62.50	38.61	62	14-143	ug/kg	04/14/15 11:20	
1,2,3-Trichlorobenzene	<2.604	62.50	39.45	63	15-144	ug/kg	04/14/15 11:20	

PHASE SEPARATION SCIENCE, INC.

QC Summary 15040908

Arc Environmental Percontee

Analytical Method: SW-846 8260 B

Seq Number: 121849

MB Sample Id: 55003-1-BLK

Matrix: Solid

LCS Sample Id: 55003-1-BKS

Prep Method: SW5030

Date Prep: 04/14/15

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	117		108		80-125	%	04/14/15 11:20
Dibromofluoromethane	99		100		85-115	%	04/14/15 11:20
Toluene-D8	100		101		91-109	%	04/14/15 11:20

F = RPD exceeded the laboratory control limits

X = Recovery of MS, MSD or both outside of QC Criteria

H= Recovery of BS,BSD or both exceeded the laboratory control limits

L = Recovery of BS,BSD or both below the laboratory control limits



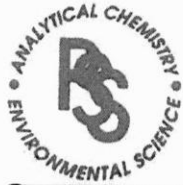
SAMPLE CHAIN OF CUSTODY/AGREEMENT FORM

PHASE SEPARATION SCIENCE, INC.

www.phaseonline.com
email: info@phaseonline.com

1 CLIENT: Arc Environmental		OFFICE LOC. Baltimore, MD		PSS Work Order #: 15040908		PAGE 1 OF 2								
PROJECT MGR: Kyle Begey		PHONE NO.: 410-659-9971		Matrix Codes: SW=Surface Wtr DW=Drinking Wtr GW=Ground Wtr WW=Waste Wtr O=Oil S=Soil WL=Waste Liquid WS=Waste Solid W= Wipe										
EMAIL: kbegey@arcenvironmental.com		FAX NO.: 410-962-1065		No. CONTAINERS	SAMPLE TYPE C = COMP G = GRAB	PPI Metals	SVOCs 8270	VOCs 8260	GRO/DRO 8015	PCBs	Asbestos	PAHs (SIM)	Preservatives Used ←	
PROJECT NAME: Percontee		PROJECT NO.: 057-5												Analysis/Method Required ←
SITE LOCATION: Silver Spring, MD		P.O. NO.:												
SAMPLERS: Kyle Begey, Ray Goodwin and Christie Pulvino		DW CERT NO.:												REMARKS ↓
2 LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX (See Codes)										
1	B1 0'-2'	4/7/15	1200	S	2	G	X			X	X	X		Click to enter Remarks
2	B1 4'-6'		1205				X		X	X	X			
3	B4 0'-2'		1245				X		X	X	X			
4	B4 4'-6'		1250				X		X	X	X			
5	B6 0'-2'		1330		6		X	X	X	X	X			
6	B6 4'-6'		1335		6		X	X	X	X	X			
7	B7 0'-2'		1410		2		X		X	X	X			
8	B7 4'-6'		1420				X		X	X	X			
9	B2 0'-2'	4/8/15	0950				X		X	X	X			
5 10	B2 4'-6'		0955				X		X	X	X			
5 Relinquished By: (1) Kyle Begey		Date: 4/9/15	Time:	Received By: [Signature]		4 Requested Turnaround Time			# of Coolers: 1					
Relinquished By: (2) [Signature]		Date: 4/9/15	Time: 1230	Received By: [Signature]		<input checked="" type="checkbox"/> 5-Day <input type="checkbox"/> 3-Day <input type="checkbox"/> 2-Day <input type="checkbox"/> Next Day <input type="checkbox"/> Emergency <input type="checkbox"/> Other			Custody Seal: ABS					
Relinquished By: (3)		Date:	Time:	Received By:		Data Deliverables Required:			Ice Present: PRES Temp: 0°C NOT FROZEN					
Relinquished By: (4)		Date:	Time:	Received By:		Special Instructions: VCP Project with comparison to residential cleanup standards								

6630 Baltimore National Pike • Route 40 West • Baltimore, Maryland 21228 • (410) 747-8770 • (800) 932-9047 • Fax (410) 788-8723
 The client (Client Name), by signing, or having client's agent sign, this "Sample Chain of Custody/Agreement Form", agrees to pay for the above requested services per the latest version of the Service Brochure or PSS-provided quotation including any and all attorney's or other reasonable fees if collection becomes necessary.



SAMPLE CHAIN OF CUSTODY/AGREEMENT FORM

PHASE SEPARATION SCIENCE, INC.

www.phaseonline.com
email: info@phaseonline.com

1 CLIENT: Arc Environmental OFFICE LOC. Baltimore, MD					PSS Work Order #: 15040908 PAGE 2 OF 2										
PROJECT MGR: Kyle Begey PHONE NO.: 410-659-9971					Matrix Codes: SW=Surface Wtr DW=Drinking Wtr GW=Ground Wtr WW=Waste Wtr O=Oil S=Soil WL=Waste Liquid WS=Waste Solid W= Wipe										
EMAIL: kbegey@arcenvironmental.com FAX NO.: 410-962-1065					No. CONTAINERS: Preservative Used ←										
PROJECT NAME: Percontee PROJECT NO.: 057-5					SAMPLE TYPE: C=COMP G=GRAB										
SITE LOCATION: Silver Spring, MD P.O. NO.:					PPI Metals SVOCs 8270 VOCs 8260 GRO/DRO 8015 PCBs Asbestos PAHs (SIM)										
SAMPLERS: Kyle Begey, Ray Goodwin and Christie Pulvino DW CERT NO.:					Analysis/Method Required ←										
2					REMARKS ↓										
LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX (See Codes)	No.	CONTAINERS	SAMPLE TYPE	PPI Metals	SVOCs 8270	VOCs 8260	GRO/DRO 8015	PCBs	Asbestos	PAHs (SIM)	REMARKS
11	B5 0'-2'	4/8/15	1025	S	2	G		X			X	X		X	Click to enter Remarks
12	B5 4'-6'	↓	1030	↓	↓	↓		X			X	X		X	
13	B3 0'-2'	↓	1055	↓	↓	↓		X			X	X		X	
14	B3 4'-6'	↓	1100	↓	↓	↓		X			X	X		X	
15	SS-1	↓	1145	↓	↓	↓					X	X		X	
16	SS-2	↓	1150	↓	↓	↓					X	X		X	
17	SS-3	↓	1155	↓	↓	↓					X	X		X	
5 Relinquished By: (1) <i>Kyle Begey</i> Date: 4/9/15 Time: Received By: <i>[Signature]</i>					4 Requested Turnaround Time: <input checked="" type="checkbox"/> 5-Day <input type="checkbox"/> 3-Day <input type="checkbox"/> 2-Day <input type="checkbox"/> Next Day <input type="checkbox"/> Emergency <input type="checkbox"/> Other # of Coolers: 1										
Relinquished By: (2) TTE Date: 04-09-15 Time: 1230 Received By: <i>B. Rivera</i>					Data Deliverables Required: Ice Present: PRES Temp: 0°C NOT FROZEN Shipping Carrier: TTE										
Relinquished By: (3)					Special Instructions: VCP Project with comparison to residential cleanup standards										
Relinquished By: (4)															

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 The client (Client Name), by signing, or having client's agent sign, this "Sample Chain of Custody/Agreement Form", agrees to pay for the above requested services per the latest version of the Service Brochure or PSS-provided quotation including any and all attorney's or other reasonable fees if collection becomes necessary.



Phase Separation Science, Inc

Sample Receipt Checklist

Work Order # 15040908 **Received By** Shirley Rivera
Client Name Arc Environmental **Date Received** 04/09/2015 12:30:00 PM
Project Name Percontee **Delivered By** Trans Time Express
Project Number 057-5 **Tracking No** Not Applicable
Disposal Date 05/14/2015 **Logged In By** Cathy Thompson

Shipping Container(s)

No. of Coolers 1

		Ice	Present
Custody Seal(s) Intact?	N/A	Temp (deg C)	0
Seal(s) Signed / Dated?	N/A	Temp Blank Present	No

Documentation

COC agrees with sample labels?	Yes	Sampler Name	<u>Kyle Begey</u>
Chain of Custody	Yes	MD DW Cert. No.	<u>N/A</u>

Sample Container

Appropriate for Specified Analysis?	Yes	Custody Seal(s) Intact?	Not Applicable
Intact?	Yes	Seal(s) Signed / Dated	Not Applicable
Labeled and Labels Legible?	Yes		

Total No. of Samples Received 17

Total No. of Containers Received 42

Preservation

Metals	(pH<2)	N/A
Cyanides	(pH>12)	N/A
Sulfide	(pH>9)	N/A
TOC, COD, Phenols	(pH<2)	N/A
TOX, TKN, NH3, Total Phos	(pH<2)	N/A
VOC, BTEX (VOA Vials Rcvd Preserved)	(pH<2)	Yes
Do VOA vials have zero headspace?		N/A
624 VOC (Rcvd at least one unpreserved VOA vial)		N/A

Comments: (Any "No" response must be detailed in the comments section below.)

For any improper preservation conditions, list sample ID, preservative added (reagent ID number) below as well as documentation of any client notification as well as client instructions. Samples for pH, chlorine and dissolved oxygen should be analyzed as soon as possible, preferably in the field at the time of sampling. Samples which require thermal preservation shall be considered acceptable when received at a temperature above freezing to 6°C. Samples that are hand delivered on the day that they are collected may not meet these criteria but shall be considered acceptable if there is evidence that the chilling process has begun such as arrival on ice.

Sample(s) received at 0 degrees but no samples were frozen.

Samples Inspected/Checklist Completed By:

Cathy Thompson

Date: 04/09/2015

PM Review and Approval:

Lynn Jackson

Date: 04/10/2015

Analytical Report for

Arc Environmental

Certificate of Analysis No.: 15043020

Project Manager: Kyle Begey

Project Name : Percontee

Project Location: Silver Spring, MD



May 8, 2015

Phase Separation Science, Inc.

6630 Baltimore National Pike

Baltimore, MD 21228

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BALTIMORE, MD 21228
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FAX 410-788-8723

PHASE SEPARATION SCIENCE, INC.



May 8, 2015

Kyle Begey
Arc Environmental
1311 Haubert Street
Baltimore, MD 21230

Reference: PSS Work Order(s) No: **15043020**
Project Name: Percontee
Project Location: Silver Spring, MD

Dear Kyle Begey :

This report includes the analytical results from the analyses performed on the samples received under the project name referenced above and identified with the Phase Separation Science (PSS) Work Order(s) numbered **15043020**.

All work reported herein has been performed in accordance with current NELAP standards, referenced methodologies, PSS Standard Operating Procedures and the PSS Quality Assurance Manual unless otherwise noted in the Case Narrative Summary. PSS is limited in liability to the actual cost of the sample analysis done.

PSS reserves the right to return any unused samples, extracts or related solutions. Otherwise, the samples are scheduled for disposal, without any further notice, on June 4, 2015. This includes any samples that were received with a request to be held but lacked a specific hold period. It is your responsibility to provide a written request defining a specific disposal date if additional storage is required. Upon receipt, the request will be acknowledged by PSS, thus extending the storage period.

This report shall not be reproduced except in full, without the written approval of an authorized PSS representative. A copy of this report will be retained by PSS for at least 5 years, after which time it will be disposed of without further notice, unless prior arrangements have been made.

We thank you for selecting Phase Separation Science, Inc. to serve your analytical needs. If you have any questions concerning this report, do not hesitate to contact us at 410-747-8770 or info@phaseonline.com.

Sincerely,

A handwritten signature in black ink that reads 'Dan Prucnal'.

Dan Prucnal
Laboratory Manager



Sample Summary

Client Name: Arc Environmental
Project Name: Percontee

Work Order Number(s): 15043020

The following samples were received under chain of custody by Phase Separation Science (PSS) on 04/30/2015 at 12:20 pm

Lab Sample Id	Sample Id	Matrix	Date/Time Collected
15043020-001	MW-4	GROUND WATER	04/29/15 10:16
15043020-002	MW-5	GROUND WATER	04/29/15 12:00
15043020-003	MW-6	GROUND WATER	04/29/15 13:06
15043020-004	MW-7	GROUND WATER	04/29/15 13:21
15043020-005	MW-8	GROUND WATER	04/29/15 15:25

Please reference the Chain of Custody and Sample Receipt Checklist for specific container counts and preservatives. Any sample conditions not in compliance with sample acceptance criteria are described in Case Narrative Summary.

Notes:

1. The presence of a common laboratory contaminant such as methylene chloride may be considered a possible laboratory artifact. Where observed, appropriate consideration of data should be taken.
2. Unless otherwise noted in the case narrative, results are reported on a dry weight basis with the exception of pH, flashpoint, moisture, and paint filter test.
3. Drinking water samples collected for the purpose of compliance with SDWA may not be suitable for their intended use unless collected by a certified sampler [COMAR 26.08.05.07.C.2].
4. The analyses of 1,2-dibromo-3-chloropropane (DBCP) and 1,2-dibromoethane (EDB) by EPA 524.2 and calcium, magnesium, sodium and iron by EPA 200.8 are not currently promulgated for use in testing to meet the Safe Drinking Water Act and as such cannot be used for compliance purposes. The listings of the current promulgated methods for testing in compliance with the Safe Drinking Water Act can be found in the 40 CFR part 141.1, for the primary drinking water contaminants, and part 141.3, for the secondary drinking water contaminants.
5. Sample prepared under EPA 3550C with concentrations greater than 20 mg/Kg should employ the microtip extraction procedure if required to meet data quality objectives.
6. The analysis of acrolein by EPA 624 must be analyzed within three days of sampling unless pH is adjusted to 4-5 units [40 CFR part 136.3(e)].
7. Method 180.1, The Determination of Turbidity by Nephelometry, recommends samples over 40 NTU be diluted until the turbidity falls below 40 units. Routine samples over 40 NTU may not be diluted as long as the data quality objectives are not affected.
8. Alkalinity results analyzed by EPA 310.2 that are reported by dilution are estimated and are not in compliance with method requirements.

Standard Flags/Abbreviations:

- B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- C Results Pending Final Confirmation.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- Fail The result exceeds the regulatory level for Toxicity Characteristic (TCLP) as cited in 40 CFR 261.24 Table 1.
- J The target analyte was positively identified below the reporting limit but greater than the MDL.
- MDL This is the Laboratory Method Detection Limit which is equivalent to the Limit of Detection (LOD). The LOD is an estimate of the minimum amount of a substance that an analytical process can reliably detect. This value will remain constant across multiple similar instrumentation and among different analysts. An LOD is analyte and matrix specific.
- ND Not Detected at or above the reporting limit.
- RL PSS Reporting Limit.
- U Not detected.

Certifications:

NELAP Certifications: PA 68-03330, VA 460156
State Certifications: MD 179, WV 303
Regulated Soil Permit: P330-12-00268
NSWC USCG Accepted Laboratory
LDBE MWAA LD1997-0041-2015

OFFICES:
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 ROUTE 40 WEST
 BALTIMORE, MD 21228
 410-747-8770
 800-932-9047
 FAX 410-788-8723

PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15043020

Arc Environmental, Baltimore, MD

May 8, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: MW-4 **Date/Time Sampled: 04/29/2015 10:16** **PSS Sample ID: 15043020-001**
Matrix: GROUND WATER **Date/Time Received: 04/30/2015 12:20**

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3010A

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	ug/L	5.0		1	2.5	05/05/15	05/05/15 14:49	1034
Arsenic	2.4	ug/L	1.0		1	0.5	05/05/15	05/05/15 14:49	1034
Beryllium	ND	ug/L	1.0		1	0.5	05/05/15	05/05/15 14:49	1034
Cadmium	ND	ug/L	1.0		1	0.5	05/05/15	05/05/15 14:49	1034
Chromium	3.7	ug/L	1.0		1	0.5	05/05/15	05/05/15 14:49	1034
Copper	4.4	ug/L	1.0		1	0.5	05/05/15	05/05/15 14:49	1034
Lead	2.9	ug/L	1.0		1	0.5	05/05/15	05/05/15 14:49	1034
Mercury	ND	ug/L	0.20		1	0.1	05/05/15	05/05/15 14:49	1034
Nickel	9.0	ug/L	1.0		1	0.5	05/05/15	05/05/15 14:49	1034
Selenium	ND	ug/L	1.0		1	0.5	05/05/15	05/05/15 14:49	1034
Silver	ND	ug/L	1.0		1	0.5	05/05/15	05/05/15 14:49	1034
Thallium	ND	ug/L	1.0		1	0.5	05/05/15	05/05/15 14:49	1034
Zinc	44	ug/L	20		1	10	05/05/15	05/05/15 14:49	1034

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	0.43	mg/L	0.040		1	0.04	05/01/15	05/04/15 14:55	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/L	40		1	40	05/01/15	05/01/15 13:20	1035

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15043020

Arc Environmental, Baltimore, MD

May 8, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: MW-4 **Date/Time Sampled: 04/29/2015 10:16** **PSS Sample ID: 15043020-001**
Matrix: GROUND WATER **Date/Time Received: 04/30/2015 12:20**

TCL Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Dichlorodifluoromethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 01:05	1011
Chloromethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 01:05	1011
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 01:05	1011
Vinyl Chloride	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 01:05	1011
Bromomethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 01:05	1011
Chloroethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 01:05	1011
Acetone	ND	ug/L	10		1	5	05/02/15	05/03/15 01:05	1011
Cyclohexane	ND	ug/L	10		1	5	05/02/15	05/03/15 01:05	1011
Trichlorofluoromethane	ND	ug/L	5.0		1	2.5	05/02/15	05/03/15 01:05	1011
1,1-Dichloroethene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 01:05	1011
Methylene Chloride	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 01:05	1011
trans-1,2-Dichloroethene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 01:05	1011
Methyl-t-butyl ether	0.59	ug/L	1.0	J	1	0.5	05/02/15	05/03/15 01:05	1011
1,1-Dichloroethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 01:05	1011
2-Butanone	ND	ug/L	10		1	5	05/02/15	05/03/15 01:05	1011
cis-1,2-Dichloroethene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 01:05	1011
Bromochloromethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 01:05	1011
Chloroform	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 01:05	1011
1,1,1-Trichloroethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 01:05	1011
1,2-Dichloroethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 01:05	1011
Carbon Tetrachloride	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 01:05	1011
Benzene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 01:05	1011
1,2-Dichloropropane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 01:05	1011
Methyl Acetate	ND	ug/L	10		1	5	05/02/15	05/03/15 01:05	1011
Methylcyclohexane	ND	ug/L	10		1	5	05/02/15	05/03/15 01:05	1011
Trichloroethene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 01:05	1011
Carbon Disulfide	ND	ug/L	10		1	5	05/02/15	05/03/15 01:05	1011
Bromodichloromethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 01:05	1011
cis-1,3-Dichloropropene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 01:05	1011
4-Methyl-2-Pentanone	ND	ug/L	5.0		1	2.5	05/02/15	05/03/15 01:05	1011

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15043020

Arc Environmental, Baltimore, MD

May 8, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: MW-4 **Date/Time Sampled: 04/29/2015 10:16** **PSS Sample ID: 15043020-001**
Matrix: GROUND WATER **Date/Time Received: 04/30/2015 12:20**

TCL Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
trans-1,3-Dichloropropene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 01:05	1011
1,1,2-Trichloroethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 01:05	1011
Toluene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 01:05	1011
2-Hexanone	ND	ug/L	10		1	5	05/02/15	05/03/15 01:05	1011
1,2-Dibromoethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 01:05	1011
Dibromochloromethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 01:05	1011
Bromoform	ND	ug/L	5.0		1	2.5	05/02/15	05/03/15 01:05	1011
Tetrachloroethene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 01:05	1011
Chlorobenzene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 01:05	1011
Ethylbenzene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 01:05	1011
m,p-Xylenes	ND	ug/L	2.0		1	1	05/02/15	05/03/15 01:05	1011
Styrene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 01:05	1011
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 01:05	1011
o-Xylene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 01:05	1011
Isopropylbenzene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 01:05	1011
1,3-Dichlorobenzene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 01:05	1011
1,4-Dichlorobenzene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 01:05	1011
1,2-Dichlorobenzene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 01:05	1011
1,2-Dibromo-3-Chloropropane	ND	ug/L	10		1	5	05/02/15	05/03/15 01:05	1011
1,2,4-Trichlorobenzene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 01:05	1011
1,2,3-Trichlorobenzene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 01:05	1011

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CERTIFICATE OF ANALYSIS

No: 15043020

Arc Environmental, Baltimore, MD

May 8, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: MW-4 **Date/Time Sampled: 04/29/2015 10:16** **PSS Sample ID: 15043020-001**
Matrix: GROUND WATER **Date/Time Received: 04/30/2015 12:20**

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 14:14	1055
Acenaphthylene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 14:14	1055
Anthracene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 14:14	1055
Benzo(a)anthracene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 14:14	1055
Benzo(a)pyrene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 14:14	1055
Benzo(b)fluoranthene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 14:14	1055
Benzo(g,h,i)perylene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 14:14	1055
Benzo(k)fluoranthene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 14:14	1055
Chrysene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 14:14	1055
Dibenz(a,h)Anthracene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 14:14	1055
Fluoranthene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 14:14	1055
Fluorene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 14:14	1055
Indeno(1,2,3-c,d)Pyrene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 14:14	1055
2-Methylnaphthalene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 14:14	1055
Naphthalene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 14:14	1055
Phenanthrene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 14:14	1055
Pyrene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 14:14	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15043020

Arc Environmental, Baltimore, MD

May 8, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: MW-4 **Date/Time Sampled: 04/29/2015 10:16** **PSS Sample ID: 15043020-001**
Matrix: GROUND WATER **Date/Time Received: 04/30/2015 12:20**

TCL Semivolatile Organic Compounds w/o Analytical Method: SW-846 8270 C
 PAHs

Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acetophenone	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 01:33	1055
Caprolactam	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 01:33	1055
Biphenyl (Diphenyl)	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 01:33	1055
Atrazine	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 01:33	1055
Butyl benzyl phthalate	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 01:33	1055
bis(2-chloroethoxy) methane	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 01:33	1055
bis(2-chloroethyl) ether	ND	ug/L	0.50		1	0.5	05/01/15	05/05/15 01:33	1055
bis(2-chloroisopropyl) ether	ND	ug/L	0.50		1	0.5	05/01/15	05/05/15 01:33	1055
bis(2-ethylhexyl) phthalate	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 01:33	1055
4-Bromophenylphenyl ether	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 01:33	1055
Di-n-butyl phthalate	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 01:33	1055
Carbazole	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 01:33	1055
4-Chloro-3-methyl phenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 01:33	1055
4-Chloroaniline	ND	ug/L	5.0		1	5	05/01/15	05/05/15 01:33	1055
2-Chloronaphthalene	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 01:33	1055
2-Chlorophenol	ND	ug/L	2.0		1	2	05/01/15	05/05/15 01:33	1055
4-Chlorophenyl phenyl ether	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 01:33	1055
Dibenzofuran	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 01:33	1055
3,3-Dichlorobenzidine	ND	ug/L	0.50		1	0.5	05/01/15	05/05/15 01:33	1055
2,4-Dichlorophenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 01:33	1055
Diethyl phthalate	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 01:33	1055
Dimethyl phthalate	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 01:33	1055
2,4-Dimethylphenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 01:33	1055
4,6-Dinitro-2-methyl phenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 01:33	1055
2,4-Dinitrophenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 01:33	1055
2,4-Dinitrotoluene	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 01:33	1055
2,6-Dinitrotoluene	ND	ug/L	2.0		1	1	05/01/15	05/05/15 01:33	1055
Hexachlorobenzene	ND	ug/L	1.0		1	0.5	05/01/15	05/05/15 01:33	1055
Hexachlorobutadiene	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 01:33	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15043020

Arc Environmental, Baltimore, MD

May 8, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: MW-4 **Date/Time Sampled: 04/29/2015 10:16** **PSS Sample ID: 15043020-001**
Matrix: GROUND WATER **Date/Time Received: 04/30/2015 12:20**

TCL Semivolatile Organic Compounds w/o PAHs Analytical Method: SW-846 8270 C

Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Hexachlorocyclopentadiene	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 01:33	1055
Hexachloroethane	ND	ug/L	2.0		1	1	05/01/15	05/05/15 01:33	1055
Isophorone	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 01:33	1055
2-Methyl phenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 01:33	1055
3&4-Methylphenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 01:33	1055
4-Nitroaniline	ND	ug/L	5.0		1	5	05/01/15	05/05/15 01:33	1055
3-Nitroaniline	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 01:33	1055
2-Nitroaniline	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 01:33	1055
Nitrobenzene	ND	ug/L	2.0		1	1	05/01/15	05/05/15 01:33	1055
2-Nitrophenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 01:33	1055
4-Nitrophenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 01:33	1055
N-Nitrosodi-n-propyl amine	ND	ug/L	0.50		1	0.5	05/01/15	05/05/15 01:33	1055
N-Nitrosodiphenylamine	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 01:33	1055
Di-n-octyl phthalate	ND	ug/L	5.0		1	5	05/01/15	05/05/15 01:33	1055
Pentachlorophenol	ND	ug/L	2.0		1	2	05/01/15	05/05/15 01:33	1055
Phenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 01:33	1055
Pyridine	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 01:33	1055
2,4,6-Trichlorophenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 01:33	1055
2,4,5-Trichlorophenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 01:33	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15043020

Arc Environmental, Baltimore, MD

May 8, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: MW-5 **Date/Time Sampled: 04/29/2015 12:00** **PSS Sample ID: 15043020-002**
Matrix: GROUND WATER **Date/Time Received: 04/30/2015 12:20**

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3010A

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	ug/L	5.0		1	2.5	05/05/15	05/05/15 15:42	1034
Arsenic	5.7	ug/L	1.0		1	0.5	05/05/15	05/05/15 15:42	1034
Beryllium	ND	ug/L	1.0		1	0.5	05/05/15	05/05/15 15:42	1034
Cadmium	2.8	ug/L	1.0		1	0.5	05/05/15	05/05/15 15:42	1034
Chromium	110	ug/L	1.0		1	0.5	05/05/15	05/05/15 15:42	1034
Copper	55	ug/L	1.0		1	0.5	05/05/15	05/05/15 15:42	1034
Lead	19	ug/L	1.0		1	0.5	05/05/15	05/05/15 15:42	1034
Mercury	0.20	ug/L	0.20		1	0.1	05/05/15	05/05/15 15:42	1034
Nickel	44	ug/L	1.0		1	0.5	05/05/15	05/05/15 15:42	1034
Selenium	1.9	ug/L	1.0		1	0.5	05/05/15	05/05/15 15:42	1034
Silver	0.70	ug/L	1.0	J	1	0.5	05/05/15	05/05/15 15:42	1034
Thallium	0.64	ug/L	1.0	J	1	0.5	05/05/15	05/05/15 15:42	1034
Zinc	80	ug/L	20		1	10	05/05/15	05/05/15 15:42	1034

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	0.056	mg/L	0.040		1	0.04	05/01/15	05/04/15 15:26	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/L	40		1	40	05/01/15	05/01/15 13:45	1035

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CERTIFICATE OF ANALYSIS

No: 15043020

Arc Environmental, Baltimore, MD

May 8, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: MW-5 **Date/Time Sampled: 04/29/2015 12:00** **PSS Sample ID: 15043020-002**
Matrix: GROUND WATER **Date/Time Received: 04/30/2015 12:20**

TCL Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Dichlorodifluoromethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 03:25	1011
Chloromethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 03:25	1011
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 03:25	1011
Vinyl Chloride	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 03:25	1011
Bromomethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 03:25	1011
Chloroethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 03:25	1011
Acetone	ND	ug/L	10		1	5	05/02/15	05/03/15 03:25	1011
Cyclohexane	ND	ug/L	10		1	5	05/02/15	05/03/15 03:25	1011
Trichlorofluoromethane	ND	ug/L	5.0		1	2.5	05/02/15	05/03/15 03:25	1011
1,1-Dichloroethene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 03:25	1011
Methylene Chloride	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 03:25	1011
trans-1,2-Dichloroethene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 03:25	1011
Methyl-t-butyl ether	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 03:25	1011
1,1-Dichloroethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 03:25	1011
2-Butanone	ND	ug/L	10		1	5	05/02/15	05/03/15 03:25	1011
cis-1,2-Dichloroethene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 03:25	1011
Bromochloromethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 03:25	1011
Chloroform	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 03:25	1011
1,1,1-Trichloroethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 03:25	1011
1,2-Dichloroethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 03:25	1011
Carbon Tetrachloride	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 03:25	1011
Benzene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 03:25	1011
1,2-Dichloropropane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 03:25	1011
Methyl Acetate	ND	ug/L	10		1	5	05/02/15	05/03/15 03:25	1011
Methylcyclohexane	ND	ug/L	10		1	5	05/02/15	05/03/15 03:25	1011
Trichloroethene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 03:25	1011
Carbon Disulfide	ND	ug/L	10		1	5	05/02/15	05/03/15 03:25	1011
Bromodichloromethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 03:25	1011
cis-1,3-Dichloropropene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 03:25	1011
4-Methyl-2-Pentanone	ND	ug/L	5.0		1	2.5	05/02/15	05/03/15 03:25	1011

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15043020

Arc Environmental, Baltimore, MD

May 8, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: MW-5 **Date/Time Sampled: 04/29/2015 12:00** **PSS Sample ID: 15043020-002**
Matrix: GROUND WATER **Date/Time Received: 04/30/2015 12:20**

TCL Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
trans-1,3-Dichloropropene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 03:25	1011
1,1,2-Trichloroethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 03:25	1011
Toluene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 03:25	1011
2-Hexanone	ND	ug/L	10		1	5	05/02/15	05/03/15 03:25	1011
1,2-Dibromoethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 03:25	1011
Dibromochloromethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 03:25	1011
Bromoform	ND	ug/L	5.0		1	2.5	05/02/15	05/03/15 03:25	1011
Tetrachloroethene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 03:25	1011
Chlorobenzene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 03:25	1011
Ethylbenzene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 03:25	1011
m,p-Xylenes	ND	ug/L	2.0		1	1	05/02/15	05/03/15 03:25	1011
Styrene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 03:25	1011
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 03:25	1011
o-Xylene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 03:25	1011
Isopropylbenzene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 03:25	1011
1,3-Dichlorobenzene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 03:25	1011
1,4-Dichlorobenzene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 03:25	1011
1,2-Dichlorobenzene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 03:25	1011
1,2-Dibromo-3-Chloropropane	ND	ug/L	10		1	5	05/02/15	05/03/15 03:25	1011
1,2,4-Trichlorobenzene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 03:25	1011
1,2,3-Trichlorobenzene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 03:25	1011

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No: 15043020

Arc Environmental, Baltimore, MD

May 8, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: MW-5 **Date/Time Sampled: 04/29/2015 12:00** **PSS Sample ID: 15043020-002**
Matrix: GROUND WATER **Date/Time Received: 04/30/2015 12:20**

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 14:44	1055
Acenaphthylene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 14:44	1055
Anthracene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 14:44	1055
Benzo(a)anthracene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 14:44	1055
Benzo(a)pyrene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 14:44	1055
Benzo(b)fluoranthene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 14:44	1055
Benzo(g,h,i)perylene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 14:44	1055
Benzo(k)fluoranthene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 14:44	1055
Chrysene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 14:44	1055
Dibenz(a,h)Anthracene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 14:44	1055
Fluoranthene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 14:44	1055
Fluorene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 14:44	1055
Indeno(1,2,3-c,d)Pyrene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 14:44	1055
2-Methylnaphthalene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 14:44	1055
Naphthalene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 14:44	1055
Phenanthrene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 14:44	1055
Pyrene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 14:44	1055

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CERTIFICATE OF ANALYSIS

No: 15043020

Arc Environmental, Baltimore, MD

May 8, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: MW-5 **Date/Time Sampled: 04/29/2015 12:00** **PSS Sample ID: 15043020-002**
Matrix: GROUND WATER **Date/Time Received: 04/30/2015 12:20**

TCL Semivolatile Organic Compounds w/o PAHs Analytical Method: SW-846 8270 C

Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acetophenone	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 02:05	1055
Caprolactam	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 02:05	1055
Biphenyl (Diphenyl)	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 02:05	1055
Atrazine	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 02:05	1055
Butyl benzyl phthalate	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 02:05	1055
bis(2-chloroethoxy) methane	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 02:05	1055
bis(2-chloroethyl) ether	ND	ug/L	0.50		1	0.5	05/01/15	05/05/15 02:05	1055
bis(2-chloroisopropyl) ether	ND	ug/L	0.50		1	0.5	05/01/15	05/05/15 02:05	1055
bis(2-ethylhexyl) phthalate	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 02:05	1055
4-Bromophenylphenyl ether	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 02:05	1055
Di-n-butyl phthalate	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 02:05	1055
Carbazole	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 02:05	1055
4-Chloro-3-methyl phenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 02:05	1055
4-Chloroaniline	ND	ug/L	5.0		1	5	05/01/15	05/05/15 02:05	1055
2-Chloronaphthalene	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 02:05	1055
2-Chlorophenol	ND	ug/L	2.0		1	2	05/01/15	05/05/15 02:05	1055
4-Chlorophenyl phenyl ether	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 02:05	1055
Dibenzofuran	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 02:05	1055
3,3-Dichlorobenzidine	ND	ug/L	0.50		1	0.5	05/01/15	05/05/15 02:05	1055
2,4-Dichlorophenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 02:05	1055
Diethyl phthalate	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 02:05	1055
Dimethyl phthalate	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 02:05	1055
2,4-Dimethylphenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 02:05	1055
4,6-Dinitro-2-methyl phenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 02:05	1055
2,4-Dinitrophenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 02:05	1055
2,4-Dinitrotoluene	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 02:05	1055
2,6-Dinitrotoluene	ND	ug/L	2.0		1	1	05/01/15	05/05/15 02:05	1055
Hexachlorobenzene	ND	ug/L	1.0		1	0.5	05/01/15	05/05/15 02:05	1055
Hexachlorobutadiene	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 02:05	1055

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CERTIFICATE OF ANALYSIS

No: 15043020

Arc Environmental, Baltimore, MD

May 8, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: MW-5 **Date/Time Sampled: 04/29/2015 12:00** **PSS Sample ID: 15043020-002**
Matrix: GROUND WATER **Date/Time Received: 04/30/2015 12:20**

TCL Semivolatile Organic Compounds w/o PAHs Analytical Method: SW-846 8270 C

Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Hexachlorocyclopentadiene	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 02:05	1055
Hexachloroethane	ND	ug/L	2.0		1	1	05/01/15	05/05/15 02:05	1055
Isophorone	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 02:05	1055
2-Methyl phenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 02:05	1055
3&4-Methylphenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 02:05	1055
4-Nitroaniline	ND	ug/L	5.0		1	5	05/01/15	05/05/15 02:05	1055
3-Nitroaniline	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 02:05	1055
2-Nitroaniline	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 02:05	1055
Nitrobenzene	ND	ug/L	2.0		1	1	05/01/15	05/05/15 02:05	1055
2-Nitrophenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 02:05	1055
4-Nitrophenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 02:05	1055
N-Nitrosodi-n-propyl amine	ND	ug/L	0.50		1	0.5	05/01/15	05/05/15 02:05	1055
N-Nitrosodiphenylamine	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 02:05	1055
Di-n-octyl phthalate	ND	ug/L	5.0		1	5	05/01/15	05/05/15 02:05	1055
Pentachlorophenol	ND	ug/L	2.0		1	2	05/01/15	05/05/15 02:05	1055
Phenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 02:05	1055
Pyridine	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 02:05	1055
2,4,6-Trichlorophenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 02:05	1055
2,4,5-Trichlorophenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 02:05	1055

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CERTIFICATE OF ANALYSIS

No: 15043020

Arc Environmental, Baltimore, MD

May 8, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: MW-6 **Date/Time Sampled: 04/29/2015 13:06** **PSS Sample ID: 15043020-003**
Matrix: GROUND WATER **Date/Time Received: 04/30/2015 12:20**

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3010A

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	ug/L	5.0		1	2.5	05/05/15	05/05/15 15:48	1034
Arsenic	7.2	ug/L	1.0		1	0.5	05/05/15	05/05/15 15:48	1034
Beryllium	ND	ug/L	1.0		1	0.5	05/05/15	05/05/15 15:48	1034
Cadmium	ND	ug/L	1.0		1	0.5	05/05/15	05/05/15 15:48	1034
Chromium	160	ug/L	1.0		1	0.5	05/05/15	05/05/15 15:48	1034
Copper	83	ug/L	1.0		1	0.5	05/05/15	05/05/15 15:48	1034
Lead	30	ug/L	1.0		1	0.5	05/05/15	05/05/15 15:48	1034
Mercury	0.54	ug/L	0.20		1	0.1	05/05/15	05/05/15 15:48	1034
Nickel	110	ug/L	1.0		1	0.5	05/05/15	05/05/15 15:48	1034
Selenium	0.72	ug/L	1.0	J	1	0.5	05/05/15	05/05/15 15:48	1034
Silver	3.7	ug/L	1.0		1	0.5	05/05/15	05/05/15 15:48	1034
Thallium	ND	ug/L	1.0		1	0.5	05/05/15	05/05/15 15:48	1034
Zinc	150	ug/L	20		1	10	05/05/15	05/05/15 15:48	1034

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	0.24	mg/L	0.040		1	0.04	05/01/15	05/04/15 15:26	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	47	ug/L	40		1	40	05/01/15	05/01/15 14:11	1035

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CERTIFICATE OF ANALYSIS

No: 15043020

Arc Environmental, Baltimore, MD

May 8, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: MW-6 **Date/Time Sampled: 04/29/2015 13:06** **PSS Sample ID: 15043020-003**
Matrix: GROUND WATER **Date/Time Received: 04/30/2015 12:20**

TCL Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Dichlorodifluoromethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 04:01	1011
Chloromethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 04:01	1011
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 04:01	1011
Vinyl Chloride	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 04:01	1011
Bromomethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 04:01	1011
Chloroethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 04:01	1011
Acetone	7.9	ug/L	10	J	1	5	05/02/15	05/03/15 04:01	1011
Cyclohexane	ND	ug/L	10		1	5	05/02/15	05/03/15 04:01	1011
Trichlorofluoromethane	ND	ug/L	5.0		1	2.5	05/02/15	05/03/15 04:01	1011
1,1-Dichloroethene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 04:01	1011
Methylene Chloride	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 04:01	1011
trans-1,2-Dichloroethene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 04:01	1011
Methyl-t-butyl ether	3.8	ug/L	1.0		1	0.5	05/02/15	05/03/15 04:01	1011
1,1-Dichloroethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 04:01	1011
2-Butanone	ND	ug/L	10		1	5	05/02/15	05/03/15 04:01	1011
cis-1,2-Dichloroethene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 04:01	1011
Bromochloromethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 04:01	1011
Chloroform	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 04:01	1011
1,1,1-Trichloroethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 04:01	1011
1,2-Dichloroethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 04:01	1011
Carbon Tetrachloride	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 04:01	1011
Benzene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 04:01	1011
1,2-Dichloropropane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 04:01	1011
Methyl Acetate	ND	ug/L	10		1	5	05/02/15	05/03/15 04:01	1011
Methylcyclohexane	ND	ug/L	10		1	5	05/02/15	05/03/15 04:01	1011
Trichloroethene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 04:01	1011
Carbon Disulfide	ND	ug/L	10		1	5	05/02/15	05/03/15 04:01	1011
Bromodichloromethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 04:01	1011
cis-1,3-Dichloropropene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 04:01	1011
4-Methyl-2-Pentanone	ND	ug/L	5.0		1	2.5	05/02/15	05/03/15 04:01	1011

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15043020

Arc Environmental, Baltimore, MD

May 8, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: MW-6 **Date/Time Sampled: 04/29/2015 13:06** **PSS Sample ID: 15043020-003**
Matrix: GROUND WATER **Date/Time Received: 04/30/2015 12:20**

TCL Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
trans-1,3-Dichloropropene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 04:01	1011
1,1,2-Trichloroethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 04:01	1011
Toluene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 04:01	1011
2-Hexanone	ND	ug/L	10		1	5	05/02/15	05/03/15 04:01	1011
1,2-Dibromoethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 04:01	1011
Dibromochloromethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 04:01	1011
Bromoform	ND	ug/L	5.0		1	2.5	05/02/15	05/03/15 04:01	1011
Tetrachloroethene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 04:01	1011
Chlorobenzene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 04:01	1011
Ethylbenzene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 04:01	1011
m,p-Xylenes	ND	ug/L	2.0		1	1	05/02/15	05/03/15 04:01	1011
Styrene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 04:01	1011
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 04:01	1011
o-Xylene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 04:01	1011
Isopropylbenzene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 04:01	1011
1,3-Dichlorobenzene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 04:01	1011
1,4-Dichlorobenzene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 04:01	1011
1,2-Dichlorobenzene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 04:01	1011
1,2-Dibromo-3-Chloropropane	ND	ug/L	10		1	5	05/02/15	05/03/15 04:01	1011
1,2,4-Trichlorobenzene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 04:01	1011
1,2,3-Trichlorobenzene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 04:01	1011

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15043020

Arc Environmental, Baltimore, MD

May 8, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: MW-6	Date/Time Sampled: 04/29/2015 13:06	PSS Sample ID: 15043020-003
Matrix: GROUND WATER	Date/Time Received: 04/30/2015 12:20	

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 15:14	1055
Acenaphthylene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 15:14	1055
Anthracene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 15:14	1055
Benzo(a)anthracene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 15:14	1055
Benzo(a)pyrene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 15:14	1055
Benzo(b)fluoranthene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 15:14	1055
Benzo(g,h,i)perylene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 15:14	1055
Benzo(k)fluoranthene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 15:14	1055
Chrysene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 15:14	1055
Dibenz(a,h)Anthracene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 15:14	1055
Fluoranthene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 15:14	1055
Fluorene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 15:14	1055
Indeno(1,2,3-c,d)Pyrene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 15:14	1055
2-Methylnaphthalene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 15:14	1055
Naphthalene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 15:14	1055
Phenanthrene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 15:14	1055
Pyrene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 15:14	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15043020

Arc Environmental, Baltimore, MD

May 8, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: MW-6 **Date/Time Sampled: 04/29/2015 13:06** **PSS Sample ID: 15043020-003**
Matrix: GROUND WATER **Date/Time Received: 04/30/2015 12:20**

TCL Semivolatile Organic Compounds w/o Analytical Method: SW-846 8270 C
 PAHs

Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acetophenone	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 02:37	1055
Caprolactam	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 02:37	1055
Biphenyl (Diphenyl)	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 02:37	1055
Atrazine	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 02:37	1055
Butyl benzyl phthalate	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 02:37	1055
bis(2-chloroethoxy) methane	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 02:37	1055
bis(2-chloroethyl) ether	ND	ug/L	0.50		1	0.5	05/01/15	05/05/15 02:37	1055
bis(2-chloroisopropyl) ether	ND	ug/L	0.50		1	0.5	05/01/15	05/05/15 02:37	1055
bis(2-ethylhexyl) phthalate	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 02:37	1055
4-Bromophenylphenyl ether	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 02:37	1055
Di-n-butyl phthalate	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 02:37	1055
Carbazole	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 02:37	1055
4-Chloro-3-methyl phenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 02:37	1055
4-Chloroaniline	ND	ug/L	5.0		1	5	05/01/15	05/05/15 02:37	1055
2-Chloronaphthalene	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 02:37	1055
2-Chlorophenol	ND	ug/L	2.0		1	2	05/01/15	05/05/15 02:37	1055
4-Chlorophenyl phenyl ether	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 02:37	1055
Dibenzofuran	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 02:37	1055
3,3-Dichlorobenzidine	ND	ug/L	0.50		1	0.5	05/01/15	05/05/15 02:37	1055
2,4-Dichlorophenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 02:37	1055
Diethyl phthalate	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 02:37	1055
Dimethyl phthalate	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 02:37	1055
2,4-Dimethylphenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 02:37	1055
4,6-Dinitro-2-methyl phenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 02:37	1055
2,4-Dinitrophenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 02:37	1055
2,4-Dinitrotoluene	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 02:37	1055
2,6-Dinitrotoluene	ND	ug/L	2.0		1	1	05/01/15	05/05/15 02:37	1055
Hexachlorobenzene	ND	ug/L	1.0		1	0.5	05/01/15	05/05/15 02:37	1055
Hexachlorobutadiene	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 02:37	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15043020

Arc Environmental, Baltimore, MD

May 8, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: MW-6 **Date/Time Sampled: 04/29/2015 13:06** **PSS Sample ID: 15043020-003**
Matrix: GROUND WATER **Date/Time Received: 04/30/2015 12:20**

TCL Semivolatile Organic Compounds w/o Analytical Method: SW-846 8270 C
 PAHs

Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Hexachlorocyclopentadiene	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 02:37	1055
Hexachloroethane	ND	ug/L	2.0		1	1	05/01/15	05/05/15 02:37	1055
Isophorone	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 02:37	1055
2-Methyl phenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 02:37	1055
3&4-Methylphenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 02:37	1055
4-Nitroaniline	ND	ug/L	5.0		1	5	05/01/15	05/05/15 02:37	1055
3-Nitroaniline	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 02:37	1055
2-Nitroaniline	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 02:37	1055
Nitrobenzene	ND	ug/L	2.0		1	1	05/01/15	05/05/15 02:37	1055
2-Nitrophenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 02:37	1055
4-Nitrophenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 02:37	1055
N-Nitrosodi-n-propyl amine	ND	ug/L	0.50		1	0.5	05/01/15	05/05/15 02:37	1055
N-Nitrosodiphenylamine	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 02:37	1055
Di-n-octyl phthalate	ND	ug/L	5.0		1	5	05/01/15	05/05/15 02:37	1055
Pentachlorophenol	ND	ug/L	2.0		1	2	05/01/15	05/05/15 02:37	1055
Phenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 02:37	1055
Pyridine	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 02:37	1055
2,4,6-Trichlorophenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 02:37	1055
2,4,5-Trichlorophenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 02:37	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15043020

Arc Environmental, Baltimore, MD

May 8, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: MW-7 **Date/Time Sampled: 04/29/2015 13:21** **PSS Sample ID: 15043020-004**
Matrix: GROUND WATER **Date/Time Received: 04/30/2015 12:20**

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3010A

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	ug/L	5.0		1	2.5	05/05/15	05/05/15 15:54	1034
Arsenic	8.5	ug/L	1.0		1	0.5	05/05/15	05/05/15 15:54	1034
Beryllium	ND	ug/L	1.0		1	0.5	05/05/15	05/05/15 15:54	1034
Cadmium	ND	ug/L	1.0		1	0.5	05/05/15	05/05/15 15:54	1034
Chromium	3.1	ug/L	1.0		1	0.5	05/05/15	05/05/15 15:54	1034
Copper	4.8	ug/L	1.0		1	0.5	05/05/15	05/05/15 15:54	1034
Lead	2.3	ug/L	1.0		1	0.5	05/05/15	05/05/15 15:54	1034
Mercury	ND	ug/L	0.20		1	0.1	05/05/15	05/05/15 15:54	1034
Nickel	11	ug/L	1.0		1	0.5	05/05/15	05/05/15 15:54	1034
Selenium	ND	ug/L	1.0		1	0.5	05/05/15	05/05/15 15:54	1034
Silver	ND	ug/L	1.0		1	0.5	05/05/15	05/05/15 15:54	1034
Thallium	ND	ug/L	1.0		1	0.5	05/05/15	05/05/15 15:54	1034
Zinc	49	ug/L	20		1	10	05/05/15	05/05/15 15:54	1034

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	0.074	mg/L	0.040		1	0.04	05/01/15	05/04/15 16:40	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/L	40		1	40	05/01/15	05/01/15 14:36	1035

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15043020

Arc Environmental, Baltimore, MD

May 8, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: MW-7 **Date/Time Sampled: 04/29/2015 13:21** **PSS Sample ID: 15043020-004**
Matrix: GROUND WATER **Date/Time Received: 04/30/2015 12:20**

TCL Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Dichlorodifluoromethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 04:36	1011
Chloromethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 04:36	1011
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 04:36	1011
Vinyl Chloride	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 04:36	1011
Bromomethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 04:36	1011
Chloroethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 04:36	1011
Acetone	ND	ug/L	10		1	5	05/02/15	05/03/15 04:36	1011
Cyclohexane	ND	ug/L	10		1	5	05/02/15	05/03/15 04:36	1011
Trichlorofluoromethane	ND	ug/L	5.0		1	2.5	05/02/15	05/03/15 04:36	1011
1,1-Dichloroethene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 04:36	1011
Methylene Chloride	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 04:36	1011
trans-1,2-Dichloroethene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 04:36	1011
Methyl-t-butyl ether	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 04:36	1011
1,1-Dichloroethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 04:36	1011
2-Butanone	ND	ug/L	10		1	5	05/02/15	05/03/15 04:36	1011
cis-1,2-Dichloroethene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 04:36	1011
Bromochloromethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 04:36	1011
Chloroform	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 04:36	1011
1,1,1-Trichloroethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 04:36	1011
1,2-Dichloroethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 04:36	1011
Carbon Tetrachloride	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 04:36	1011
Benzene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 04:36	1011
1,2-Dichloropropane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 04:36	1011
Methyl Acetate	ND	ug/L	10		1	5	05/02/15	05/03/15 04:36	1011
Methylcyclohexane	ND	ug/L	10		1	5	05/02/15	05/03/15 04:36	1011
Trichloroethene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 04:36	1011
Carbon Disulfide	ND	ug/L	10		1	5	05/02/15	05/03/15 04:36	1011
Bromodichloromethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 04:36	1011
cis-1,3-Dichloropropene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 04:36	1011
4-Methyl-2-Pentanone	ND	ug/L	5.0		1	2.5	05/02/15	05/03/15 04:36	1011

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15043020

Arc Environmental, Baltimore, MD

May 8, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: MW-7	Date/Time Sampled: 04/29/2015 13:21	PSS Sample ID: 15043020-004
Matrix: GROUND WATER	Date/Time Received: 04/30/2015 12:20	

TCL Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
trans-1,3-Dichloropropene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 04:36	1011
1,1,2-Trichloroethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 04:36	1011
Toluene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 04:36	1011
2-Hexanone	ND	ug/L	10		1	5	05/02/15	05/03/15 04:36	1011
1,2-Dibromoethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 04:36	1011
Dibromochloromethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 04:36	1011
Bromoform	ND	ug/L	5.0		1	2.5	05/02/15	05/03/15 04:36	1011
Tetrachloroethene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 04:36	1011
Chlorobenzene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 04:36	1011
Ethylbenzene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 04:36	1011
m,p-Xylenes	ND	ug/L	2.0		1	1	05/02/15	05/03/15 04:36	1011
Styrene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 04:36	1011
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 04:36	1011
o-Xylene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 04:36	1011
Isopropylbenzene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 04:36	1011
1,3-Dichlorobenzene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 04:36	1011
1,4-Dichlorobenzene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 04:36	1011
1,2-Dichlorobenzene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 04:36	1011
1,2-Dibromo-3-Chloropropane	ND	ug/L	10		1	5	05/02/15	05/03/15 04:36	1011
1,2,4-Trichlorobenzene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 04:36	1011
1,2,3-Trichlorobenzene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 04:36	1011

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15043020

Arc Environmental, Baltimore, MD

May 8, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: MW-7 **Date/Time Sampled: 04/29/2015 13:21** **PSS Sample ID: 15043020-004**
Matrix: GROUND WATER **Date/Time Received: 04/30/2015 12:20**

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 15:44	1055
Acenaphthylene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 15:44	1055
Anthracene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 15:44	1055
Benzo(a)anthracene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 15:44	1055
Benzo(a)pyrene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 15:44	1055
Benzo(b)fluoranthene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 15:44	1055
Benzo(g,h,i)perylene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 15:44	1055
Benzo(k)fluoranthene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 15:44	1055
Chrysene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 15:44	1055
Dibenz(a,h)Anthracene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 15:44	1055
Fluoranthene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 15:44	1055
Fluorene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 15:44	1055
Indeno(1,2,3-c,d)Pyrene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 15:44	1055
2-Methylnaphthalene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 15:44	1055
Naphthalene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 15:44	1055
Phenanthrene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 15:44	1055
Pyrene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 15:44	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15043020

Arc Environmental, Baltimore, MD

May 8, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: MW-7 **Date/Time Sampled: 04/29/2015 13:21** **PSS Sample ID: 15043020-004**
Matrix: GROUND WATER **Date/Time Received: 04/30/2015 12:20**

TCL Semivolatile Organic Compounds w/o Analytical Method: SW-846 8270 C
 PAHs

Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acetophenone	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 03:09	1055
Caprolactam	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 03:09	1055
Biphenyl (Diphenyl)	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 03:09	1055
Atrazine	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 03:09	1055
Butyl benzyl phthalate	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 03:09	1055
bis(2-chloroethoxy) methane	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 03:09	1055
bis(2-chloroethyl) ether	ND	ug/L	0.50		1	0.5	05/01/15	05/05/15 03:09	1055
bis(2-chloroisopropyl) ether	ND	ug/L	0.50		1	0.5	05/01/15	05/05/15 03:09	1055
bis(2-ethylhexyl) phthalate	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 03:09	1055
4-Bromophenylphenyl ether	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 03:09	1055
Di-n-butyl phthalate	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 03:09	1055
Carbazole	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 03:09	1055
4-Chloro-3-methyl phenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 03:09	1055
4-Chloroaniline	ND	ug/L	5.0		1	5	05/01/15	05/05/15 03:09	1055
2-Chloronaphthalene	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 03:09	1055
2-Chlorophenol	ND	ug/L	2.0		1	2	05/01/15	05/05/15 03:09	1055
4-Chlorophenyl phenyl ether	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 03:09	1055
Dibenzofuran	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 03:09	1055
3,3-Dichlorobenzidine	ND	ug/L	0.50		1	0.5	05/01/15	05/05/15 03:09	1055
2,4-Dichlorophenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 03:09	1055
Diethyl phthalate	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 03:09	1055
Dimethyl phthalate	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 03:09	1055
2,4-Dimethylphenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 03:09	1055
4,6-Dinitro-2-methyl phenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 03:09	1055
2,4-Dinitrophenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 03:09	1055
2,4-Dinitrotoluene	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 03:09	1055
2,6-Dinitrotoluene	ND	ug/L	2.0		1	1	05/01/15	05/05/15 03:09	1055
Hexachlorobenzene	ND	ug/L	1.0		1	0.5	05/01/15	05/05/15 03:09	1055
Hexachlorobutadiene	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 03:09	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15043020

Arc Environmental, Baltimore, MD

May 8, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: MW-7 **Date/Time Sampled: 04/29/2015 13:21** **PSS Sample ID: 15043020-004**
Matrix: GROUND WATER **Date/Time Received: 04/30/2015 12:20**

TCL Semivolatile Organic Compounds w/o Analytical Method: SW-846 8270 C
 PAHs

Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Hexachlorocyclopentadiene	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 03:09	1055
Hexachloroethane	ND	ug/L	2.0		1	1	05/01/15	05/05/15 03:09	1055
Isophorone	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 03:09	1055
2-Methyl phenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 03:09	1055
3&4-Methylphenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 03:09	1055
4-Nitroaniline	ND	ug/L	5.0		1	5	05/01/15	05/05/15 03:09	1055
3-Nitroaniline	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 03:09	1055
2-Nitroaniline	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 03:09	1055
Nitrobenzene	ND	ug/L	2.0		1	1	05/01/15	05/05/15 03:09	1055
2-Nitrophenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 03:09	1055
4-Nitrophenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 03:09	1055
N-Nitrosodi-n-propyl amine	ND	ug/L	0.50		1	0.5	05/01/15	05/05/15 03:09	1055
N-Nitrosodiphenylamine	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 03:09	1055
Di-n-octyl phthalate	ND	ug/L	5.0		1	5	05/01/15	05/05/15 03:09	1055
Pentachlorophenol	ND	ug/L	2.0		1	2	05/01/15	05/05/15 03:09	1055
Phenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 03:09	1055
Pyridine	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 03:09	1055
2,4,6-Trichlorophenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 03:09	1055
2,4,5-Trichlorophenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 03:09	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15043020

Arc Environmental, Baltimore, MD

May 8, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: MW-8	Date/Time Sampled: 04/29/2015 15:25	PSS Sample ID: 15043020-005
Matrix: GROUND WATER	Date/Time Received: 04/30/2015 12:20	

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3010A

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	ug/L	5.0		1	2.5	05/05/15	05/05/15 16:00	1034
Arsenic	0.85	ug/L	1.0	J	1	0.5	05/05/15	05/05/15 16:00	1034
Beryllium	ND	ug/L	1.0		1	0.5	05/05/15	05/05/15 16:00	1034
Cadmium	ND	ug/L	1.0		1	0.5	05/05/15	05/05/15 16:00	1034
Chromium	5.2	ug/L	1.0		1	0.5	05/05/15	05/05/15 16:00	1034
Copper	5.0	ug/L	1.0		1	0.5	05/05/15	05/05/15 16:00	1034
Lead	1.7	ug/L	1.0		1	0.5	05/05/15	05/05/15 16:00	1034
Mercury	ND	ug/L	0.20		1	0.1	05/05/15	05/05/15 16:00	1034
Nickel	5.1	ug/L	1.0		1	0.5	05/05/15	05/05/15 16:00	1034
Selenium	ND	ug/L	1.0		1	0.5	05/05/15	05/05/15 16:00	1034
Silver	ND	ug/L	1.0		1	0.5	05/05/15	05/05/15 16:00	1034
Thallium	ND	ug/L	1.0		1	0.5	05/05/15	05/05/15 16:00	1034
Zinc	24	ug/L	20		1	10	05/05/15	05/05/15 16:00	1034

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	0.11	mg/L	0.040		1	0.04	05/01/15	05/04/15 16:40	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/L	40		1	40	05/01/15	05/01/15 15:02	1035

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15043020

Arc Environmental, Baltimore, MD

May 8, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: MW-8 **Date/Time Sampled: 04/29/2015 15:25** **PSS Sample ID: 15043020-005**
Matrix: GROUND WATER **Date/Time Received: 04/30/2015 12:20**

TCL Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Dichlorodifluoromethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 05:11	1011
Chloromethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 05:11	1011
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 05:11	1011
Vinyl Chloride	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 05:11	1011
Bromomethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 05:11	1011
Chloroethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 05:11	1011
Acetone	ND	ug/L	10		1	5	05/02/15	05/03/15 05:11	1011
Cyclohexane	ND	ug/L	10		1	5	05/02/15	05/03/15 05:11	1011
Trichlorofluoromethane	ND	ug/L	5.0		1	2.5	05/02/15	05/03/15 05:11	1011
1,1-Dichloroethene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 05:11	1011
Methylene Chloride	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 05:11	1011
trans-1,2-Dichloroethene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 05:11	1011
Methyl-t-butyl ether	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 05:11	1011
1,1-Dichloroethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 05:11	1011
2-Butanone	ND	ug/L	10		1	5	05/02/15	05/03/15 05:11	1011
cis-1,2-Dichloroethene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 05:11	1011
Bromochloromethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 05:11	1011
Chloroform	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 05:11	1011
1,1,1-Trichloroethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 05:11	1011
1,2-Dichloroethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 05:11	1011
Carbon Tetrachloride	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 05:11	1011
Benzene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 05:11	1011
1,2-Dichloropropane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 05:11	1011
Methyl Acetate	ND	ug/L	10		1	5	05/02/15	05/03/15 05:11	1011
Methylcyclohexane	ND	ug/L	10		1	5	05/02/15	05/03/15 05:11	1011
Trichloroethene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 05:11	1011
Carbon Disulfide	ND	ug/L	10		1	5	05/02/15	05/03/15 05:11	1011
Bromodichloromethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 05:11	1011
cis-1,3-Dichloropropene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 05:11	1011
4-Methyl-2-Pentanone	ND	ug/L	5.0		1	2.5	05/02/15	05/03/15 05:11	1011

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15043020

Arc Environmental, Baltimore, MD

May 8, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: MW-8 **Date/Time Sampled: 04/29/2015 15:25** **PSS Sample ID: 15043020-005**
Matrix: GROUND WATER **Date/Time Received: 04/30/2015 12:20**

TCL Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
trans-1,3-Dichloropropene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 05:11	1011
1,1,2-Trichloroethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 05:11	1011
Toluene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 05:11	1011
2-Hexanone	ND	ug/L	10		1	5	05/02/15	05/03/15 05:11	1011
1,2-Dibromoethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 05:11	1011
Dibromochloromethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 05:11	1011
Bromoform	ND	ug/L	5.0		1	2.5	05/02/15	05/03/15 05:11	1011
Tetrachloroethene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 05:11	1011
Chlorobenzene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 05:11	1011
Ethylbenzene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 05:11	1011
m,p-Xylenes	ND	ug/L	2.0		1	1	05/02/15	05/03/15 05:11	1011
Styrene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 05:11	1011
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 05:11	1011
o-Xylene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 05:11	1011
Isopropylbenzene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 05:11	1011
1,3-Dichlorobenzene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 05:11	1011
1,4-Dichlorobenzene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 05:11	1011
1,2-Dichlorobenzene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 05:11	1011
1,2-Dibromo-3-Chloropropane	ND	ug/L	10		1	5	05/02/15	05/03/15 05:11	1011
1,2,4-Trichlorobenzene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 05:11	1011
1,2,3-Trichlorobenzene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 05:11	1011

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15043020

Arc Environmental, Baltimore, MD

May 8, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: MW-8 **Date/Time Sampled: 04/29/2015 15:25** **PSS Sample ID: 15043020-005**
Matrix: GROUND WATER **Date/Time Received: 04/30/2015 12:20**

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 16:13	1055
Acenaphthylene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 16:13	1055
Anthracene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 16:13	1055
Benzo(a)anthracene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 16:13	1055
Benzo(a)pyrene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 16:13	1055
Benzo(b)fluoranthene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 16:13	1055
Benzo(g,h,i)perylene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 16:13	1055
Benzo(k)fluoranthene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 16:13	1055
Chrysene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 16:13	1055
Dibenz(a,h)Anthracene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 16:13	1055
Fluoranthene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 16:13	1055
Fluorene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 16:13	1055
Indeno(1,2,3-c,d)Pyrene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 16:13	1055
2-Methylnaphthalene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 16:13	1055
Naphthalene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 16:13	1055
Phenanthrene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 16:13	1055
Pyrene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 16:13	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15043020

Arc Environmental, Baltimore, MD

May 8, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: MW-8 **Date/Time Sampled: 04/29/2015 15:25** **PSS Sample ID: 15043020-005**
Matrix: GROUND WATER **Date/Time Received: 04/30/2015 12:20**

TCL Semivolatile Organic Compounds w/o Analytical Method: SW-846 8270 C
 PAHs

Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acetophenone	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 03:41	1055
Caprolactam	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 03:41	1055
Biphenyl (Diphenyl)	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 03:41	1055
Atrazine	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 03:41	1055
Butyl benzyl phthalate	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 03:41	1055
bis(2-chloroethoxy) methane	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 03:41	1055
bis(2-chloroethyl) ether	ND	ug/L	0.50		1	0.5	05/01/15	05/05/15 03:41	1055
bis(2-chloroisopropyl) ether	ND	ug/L	0.50		1	0.5	05/01/15	05/05/15 03:41	1055
bis(2-ethylhexyl) phthalate	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 03:41	1055
4-Bromophenylphenyl ether	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 03:41	1055
Di-n-butyl phthalate	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 03:41	1055
Carbazole	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 03:41	1055
4-Chloro-3-methyl phenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 03:41	1055
4-Chloroaniline	ND	ug/L	5.0		1	5	05/01/15	05/05/15 03:41	1055
2-Chloronaphthalene	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 03:41	1055
2-Chlorophenol	ND	ug/L	2.0		1	2	05/01/15	05/05/15 03:41	1055
4-Chlorophenyl phenyl ether	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 03:41	1055
Dibenzofuran	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 03:41	1055
3,3-Dichlorobenzidine	ND	ug/L	0.50		1	0.5	05/01/15	05/05/15 03:41	1055
2,4-Dichlorophenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 03:41	1055
Diethyl phthalate	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 03:41	1055
Dimethyl phthalate	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 03:41	1055
2,4-Dimethylphenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 03:41	1055
4,6-Dinitro-2-methyl phenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 03:41	1055
2,4-Dinitrophenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 03:41	1055
2,4-Dinitrotoluene	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 03:41	1055
2,6-Dinitrotoluene	ND	ug/L	2.0		1	1	05/01/15	05/05/15 03:41	1055
Hexachlorobenzene	ND	ug/L	1.0		1	0.5	05/01/15	05/05/15 03:41	1055
Hexachlorobutadiene	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 03:41	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15043020

Arc Environmental, Baltimore, MD

May 8, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: MW-8 **Date/Time Sampled: 04/29/2015 15:25** **PSS Sample ID: 15043020-005**
Matrix: GROUND WATER **Date/Time Received: 04/30/2015 12:20**

TCL Semivolatile Organic Compounds w/o Analytical Method: SW-846 8270 C
 PAHs

Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Hexachlorocyclopentadiene	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 03:41	1055
Hexachloroethane	ND	ug/L	2.0		1	1	05/01/15	05/05/15 03:41	1055
Isophorone	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 03:41	1055
2-Methyl phenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 03:41	1055
3&4-Methylphenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 03:41	1055
4-Nitroaniline	ND	ug/L	5.0		1	5	05/01/15	05/05/15 03:41	1055
3-Nitroaniline	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 03:41	1055
2-Nitroaniline	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 03:41	1055
Nitrobenzene	ND	ug/L	2.0		1	1	05/01/15	05/05/15 03:41	1055
2-Nitrophenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 03:41	1055
4-Nitrophenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 03:41	1055
N-Nitrosodi-n-propyl amine	ND	ug/L	0.50		1	0.5	05/01/15	05/05/15 03:41	1055
N-Nitrosodiphenylamine	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 03:41	1055
Di-n-octyl phthalate	ND	ug/L	5.0		1	5	05/01/15	05/05/15 03:41	1055
Pentachlorophenol	ND	ug/L	2.0		1	2	05/01/15	05/05/15 03:41	1055
Phenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 03:41	1055
Pyridine	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 03:41	1055
2,4,6-Trichlorophenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 03:41	1055
2,4,5-Trichlorophenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 03:41	1055



Case Narrative Summary

Client Name: Arc Environmental

Project Name: Percontee

Work Order Number(s): 15043020

Any holding time exceedances, deviations from the method specifications, regulatory requirements or variations to the procedures outlined in the PSS Quality Assurance Manual are outlined below.

The analyses of chlorine, pH, dissolved oxygen, temperature and sulfite for drinking water and non-potable samples tested for compliance have a maximum holding time of 15 minutes. As such, all laboratory analyses for these analytes exceed holding times.

Matrix spike and matrix spike duplicate analyses may not be performed due to insufficient sample quantity. In these instances, a laboratory control sample and laboratory control sample duplicate are analyzed unless otherwise noted or specified in the method.

Sample Receipt:

Metals container for sample MW-8 received with frozen sample.

Analytical:

PP Metals

Batch: 122413

Low Level CCV for Arsenic and Antimony (69% and 68% recovery) exceeds acceptance criteria of 70-130%.

Total Petroleum Hydrocarbons - DRO

Batch: 122374

Surrogate exceedances identified; see surrogate summary form. Samples 15043020-004 and -005 showed no surrogate recovery.

TCL Semivolatile Organic Compounds w/o PAHs

Batch: 122428

Surrogate exceedances identified; see surrogate summary form.

Laboratory control sample and/or laboratory control sample duplicate (LCS/LCSD) exceedances identified; see LCS summary form.

NELAP accreditation was held for all analyses performed unless noted below. See www.phaseonline.com for complete PSS scope of accreditation.



Analytical Data Package Information Summary

Work Order(s): 15043020

Report Prepared For: Arc Environmental, Baltimore, MD

Project Name: Percontee

Project Manager: Kyle Begey

Method	Client Sample Id	Analysis Type	Lab Sample Id	Analyst	Mtx	Prep Batch	Analytical Batch	Sampled	Prepared	Analyzed
SW-846 6020 A	MW-4	Initial	15043020-001	1034	W	55290	122413	04/29/2015	05/05/2015 09:17	05/05/2015 14:49
	MW-5	Initial	15043020-002	1034	W	55290	122413	04/29/2015	05/05/2015 09:17	05/05/2015 15:42
	MW-6	Initial	15043020-003	1034	W	55290	122413	04/29/2015	05/05/2015 09:17	05/05/2015 15:48
	MW-7	Initial	15043020-004	1034	W	55290	122413	04/29/2015	05/05/2015 09:17	05/05/2015 15:54
	MW-8	Initial	15043020-005	1034	W	55290	122413	04/29/2015	05/05/2015 09:17	05/05/2015 16:00
	55290-1-BKS	BKS	55290-1-BKS	1034	W	55290	122413	-----	05/05/2015 09:17	05/05/2015 14:43
	55290-1-BLK	BLK	55290-1-BLK	1034	W	55290	122413	-----	05/05/2015 09:17	05/05/2015 14:37
	MW-4 S	MS	15043020-001 S	1034	W	55290	122413	04/29/2015	05/05/2015 09:17	05/05/2015 15:18
	MW-4 SD	MSD	15043020-001 SD	1034	W	55290	122413	04/29/2015	05/05/2015 09:17	05/05/2015 15:24
SW-846 8015 C	MW-4	Initial	15043020-001	1055	W	55251	122374	04/29/2015	05/01/2015 10:46	05/04/2015 14:55
	MW-5	Initial	15043020-002	1055	W	55251	122374	04/29/2015	05/01/2015 10:46	05/04/2015 15:26
	MW-6	Initial	15043020-003	1055	W	55251	122374	04/29/2015	05/01/2015 10:46	05/04/2015 15:26
	MW-7	Initial	15043020-004	1055	W	55251	122374	04/29/2015	05/01/2015 10:46	05/04/2015 16:40
	MW-8	Initial	15043020-005	1055	W	55251	122374	04/29/2015	05/01/2015 10:46	05/04/2015 16:40
	55251-1-BKS	BKS	55251-1-BKS	1055	W	55251	122374	-----	05/01/2015 10:46	05/04/2015 14:24
	55251-1-BLK	BLK	55251-1-BLK	1055	W	55251	122374	-----	05/01/2015 10:46	05/04/2015 13:52
	55251-1-BSD	BSD	55251-1-BSD	1055	W	55251	122374	-----	05/01/2015 10:46	05/04/2015 14:55
SW-846 8015C	MW-4	Initial	15043020-001	1035	W	55278	122346	04/29/2015	05/01/2015 10:12	05/01/2015 13:20
	MW-5	Initial	15043020-002	1035	W	55278	122346	04/29/2015	05/01/2015 10:12	05/01/2015 13:45
	MW-6	Initial	15043020-003	1035	W	55278	122346	04/29/2015	05/01/2015 10:12	05/01/2015 14:11
	MW-7	Initial	15043020-004	1035	W	55278	122346	04/29/2015	05/01/2015 10:12	05/01/2015 14:36
	MW-8	Initial	15043020-005	1035	W	55278	122346	04/29/2015	05/01/2015 10:12	05/01/2015 15:02
	55278-2-BKS	BKS	55278-2-BKS	1035	W	55278	122346	-----	05/01/2015 10:12	05/01/2015 12:30
	55278-2-BLK	BLK	55278-2-BLK	1035	W	55278	122346	-----	05/01/2015 10:12	05/01/2015 11:38
	S-8 S	MS	15050104-001 S	1035	W	55278	122346	04/30/2015	05/01/2015 10:12	05/01/2015 19:18
	S-8 SD	MSD	15050104-001 SD	1035	W	55278	122346	04/30/2015	05/01/2015 10:12	05/01/2015 19:44
SW-846 8260 B	MW-4	Initial	15043020-001	1011	W	55269	122335	04/29/2015	05/02/2015 08:48	05/03/2015 01:05
	MW-5	Initial	15043020-002	1011	W	55269	122335	04/29/2015	05/02/2015 08:48	05/03/2015 03:25



Analytical Data Package Information Summary

Work Order(s): 15043020

Report Prepared For: Arc Environmental, Baltimore, MD

Project Name: Percontee

Project Manager: Kyle Begey

Method	Client Sample Id	Analysis Type	Lab Sample Id	Analyst	Mtx	Prep Batch	Analytical Batch	Sampled	Prepared	Analyzed
SW-846 8260 B	MW-6	Initial	15043020-003	1011	W	55269	122335	04/29/2015	05/02/2015 08:48	05/03/2015 04:01
	MW-7	Initial	15043020-004	1011	W	55269	122335	04/29/2015	05/02/2015 08:48	05/03/2015 04:36
	MW-8	Initial	15043020-005	1011	W	55269	122335	04/29/2015	05/02/2015 08:48	05/03/2015 05:11
	55269-1-BKS	BKS	55269-1-BKS	1011	W	55269	122335	-----	05/02/2015 08:48	05/02/2015 23:19
	55269-1-BLK	BLK	55269-1-BLK	1011	W	55269	122335	-----	05/02/2015 08:48	05/03/2015 00:30
	MW-4 S	MS	15043020-001 S	1011	W	55269	122335	04/29/2015	05/02/2015 08:48	05/03/2015 01:40
	MW-4 SD	MSD	15043020-001 SD	1011	W	55269	122335	04/29/2015	05/02/2015 08:48	05/03/2015 02:15
SW-846 8270 C	MW-4	Initial	15043020-001	1055	W	55253	122428	04/29/2015	05/01/2015 12:30	05/05/2015 01:33
	MW-5	Initial	15043020-002	1055	W	55253	122428	04/29/2015	05/01/2015 12:30	05/05/2015 02:05
	MW-6	Initial	15043020-003	1055	W	55253	122428	04/29/2015	05/01/2015 12:30	05/05/2015 02:37
	MW-7	Initial	15043020-004	1055	W	55253	122428	04/29/2015	05/01/2015 12:30	05/05/2015 03:09
	MW-8	Initial	15043020-005	1055	W	55253	122428	04/29/2015	05/01/2015 12:30	05/05/2015 03:41
	55253-1-BKS	BKS	55253-1-BKS	1014	W	55253	122428	-----	05/01/2015 12:30	05/04/2015 21:19
	55253-1-BLK	BLK	55253-1-BLK	1014	W	55253	122428	-----	05/01/2015 12:30	05/04/2015 20:15
	55253-1-BSD	BSD	55253-1-BSD	1014	W	55253	122428	-----	05/01/2015 12:30	05/04/2015 21:51
SW-846 8270 C	MW-4	Initial	15043020-001	1055	W	55283	122519	04/29/2015	05/04/2015 14:51	05/08/2015 14:14
	MW-5	Initial	15043020-002	1055	W	55283	122519	04/29/2015	05/04/2015 14:51	05/08/2015 14:44
	MW-6	Initial	15043020-003	1055	W	55283	122519	04/29/2015	05/04/2015 14:51	05/08/2015 15:14
	MW-7	Initial	15043020-004	1055	W	55283	122519	04/29/2015	05/04/2015 14:51	05/08/2015 15:44
	MW-8	Initial	15043020-005	1055	W	55283	122519	04/29/2015	05/04/2015 14:51	05/08/2015 16:13
	55283-1-BLK	BLK	55283-1-BLK	1055	W	55283	122519	-----	05/04/2015 14:51	05/08/2015 13:44

PHASE SEPARATION SCIENCE, INC.

QC Summary 15043020

Arc Environmental Percontee

Analytical Method: SW-846 8015 C

Seq Number: 122374
PSS Sample ID: 15043020-001

Matrix: Ground Water

Prep Method: SW3510C
Date Prep: 05/01/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	78		37-136	%	05/04/15 14:55

Analytical Method: SW-846 8270 C

Seq Number: 122428
PSS Sample ID: 15043020-001

Matrix: Ground Water

Prep Method: SW3510C
Date Prep: 05/01/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	119	*	68-116	%	05/05/15 01:33
2-Fluorophenol	82		57-98	%	05/05/15 01:33
Nitrobenzene-d5	114	*	58-107	%	05/05/15 01:33
Phenol-d6	88		59-109	%	05/05/15 01:33
Terphenyl-D14	127	*	69-121	%	05/05/15 01:33
2,4,6-Tribromophenol	99		48-119	%	05/05/15 01:33

Analytical Method: SW-846 8270 C

Seq Number: 122519
PSS Sample ID: 15043020-001

Matrix: Ground Water

Prep Method: SW3510C
Date Prep: 05/04/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	57		40-106	%	05/08/15 14:14
Nitrobenzene-d5	57		36-105	%	05/08/15 14:14
Terphenyl-D14	78		50-120	%	05/08/15 14:14

Analytical Method: SW-846 8260 B

Seq Number: 122335
PSS Sample ID: 15043020-001

Matrix: Ground Water

Prep Method: SW5030B
Date Prep: 05/02/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	96		81-133	%	05/03/15 01:05
Dibromofluoromethane	104		84-110	%	05/03/15 01:05
Toluene-D8	102		94-109	%	05/03/15 01:05

Analytical Method: SW-846 8015C

Seq Number: 122346
PSS Sample ID: 15043020-001

Matrix: Ground Water

Prep Method: SW5030B
Date Prep: 05/01/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	67		65-111	%	05/01/15 13:20

PHASE SEPARATION SCIENCE, INC.

QC Summary 15043020

Arc Environmental Percentage

Analytical Method: SW-846 8015 C

Seq Number: 122374
PSS Sample ID: 15043020-002

Matrix: Ground Water

Prep Method: SW3510C
Date Prep: 05/01/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	71		37-136	%	05/04/15 15:26

Analytical Method: SW-846 8270 C

Seq Number: 122428
PSS Sample ID: 15043020-002

Matrix: Ground Water

Prep Method: SW3510C
Date Prep: 05/01/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	100		68-116	%	05/05/15 02:05
2-Fluorophenol	67		57-98	%	05/05/15 02:05
Nitrobenzene-d5	96		58-107	%	05/05/15 02:05
Phenol-d6	75		59-109	%	05/05/15 02:05
Terphenyl-D14	126	*	69-121	%	05/05/15 02:05
2,4,6-Tribromophenol	95		48-119	%	05/05/15 02:05

Analytical Method: SW-846 8270 C

Seq Number: 122519
PSS Sample ID: 15043020-002

Matrix: Ground Water

Prep Method: SW3510C
Date Prep: 05/04/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	59		40-106	%	05/08/15 14:44
Nitrobenzene-d5	58		36-105	%	05/08/15 14:44
Terphenyl-D14	80		50-120	%	05/08/15 14:44

Analytical Method: SW-846 8260 B

Seq Number: 122335
PSS Sample ID: 15043020-002

Matrix: Ground Water

Prep Method: SW5030B
Date Prep: 05/02/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	97		81-133	%	05/03/15 03:25
Dibromofluoromethane	104		84-110	%	05/03/15 03:25
Toluene-D8	102		94-109	%	05/03/15 03:25

Analytical Method: SW-846 8015C

Seq Number: 122346
PSS Sample ID: 15043020-002

Matrix: Ground Water

Prep Method: SW5030B
Date Prep: 05/01/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	69		65-111	%	05/01/15 13:45

PHASE SEPARATION SCIENCE, INC.

QC Summary 15043020

Arc Environmental Percontee

Analytical Method: SW-846 8015 CSeq Number: 122374
PSS Sample ID: 15043020-003

Matrix: Ground Water

Prep Method: SW3510C
Date Prep: 05/01/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	81		37-136	%	05/04/15 15:26

Analytical Method: SW-846 8270 CSeq Number: 122428
PSS Sample ID: 15043020-003

Matrix: Ground Water

Prep Method: SW3510C
Date Prep: 05/01/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	128	*	68-116	%	05/05/15 02:37
2-Fluorophenol	83		57-98	%	05/05/15 02:37
Nitrobenzene-d5	122	*	58-107	%	05/05/15 02:37
Phenol-d6	92		59-109	%	05/05/15 02:37
Terphenyl-D14	131	*	69-121	%	05/05/15 02:37
2,4,6-Tribromophenol	112		48-119	%	05/05/15 02:37

Analytical Method: SW-846 8270 CSeq Number: 122519
PSS Sample ID: 15043020-003

Matrix: Ground Water

Prep Method: SW3510C
Date Prep: 05/04/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	65		40-106	%	05/08/15 15:14
Nitrobenzene-d5	70		36-105	%	05/08/15 15:14
Terphenyl-D14	79		50-120	%	05/08/15 15:14

Analytical Method: SW-846 8260 BSeq Number: 122335
PSS Sample ID: 15043020-003

Matrix: Ground Water

Prep Method: SW5030B
Date Prep: 05/02/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	97		81-133	%	05/03/15 04:01
Dibromofluoromethane	104		84-110	%	05/03/15 04:01
Toluene-D8	102		94-109	%	05/03/15 04:01

Analytical Method: SW-846 8015CSeq Number: 122346
PSS Sample ID: 15043020-003

Matrix: Ground Water

Prep Method: SW5030B
Date Prep: 05/01/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	67		65-111	%	05/01/15 14:11

PHASE SEPARATION SCIENCE, INC.

QC Summary 15043020

Arc Environmental Percontee

Analytical Method: SW-846 8015 C

Seq Number: 122374
PSS Sample ID: 15043020-004

Matrix: Ground Water

Prep Method: SW3510C
Date Prep: 05/01/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	0	*	37-136	%	05/04/15 16:40

Analytical Method: SW-846 8270 C

Seq Number: 122428
PSS Sample ID: 15043020-004

Matrix: Ground Water

Prep Method: SW3510C
Date Prep: 05/01/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	126	*	68-116	%	05/05/15 03:09
2-Fluorophenol	85		57-98	%	05/05/15 03:09
Nitrobenzene-d5	122	*	58-107	%	05/05/15 03:09
Phenol-d6	94		59-109	%	05/05/15 03:09
Terphenyl-D14	133	*	69-121	%	05/05/15 03:09
2,4,6-Tribromophenol	107		48-119	%	05/05/15 03:09

Analytical Method: SW-846 8270 C

Seq Number: 122519
PSS Sample ID: 15043020-004

Matrix: Ground Water

Prep Method: SW3510C
Date Prep: 05/04/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	60		40-106	%	05/08/15 15:44
Nitrobenzene-d5	66		36-105	%	05/08/15 15:44
Terphenyl-D14	81		50-120	%	05/08/15 15:44

Analytical Method: SW-846 8260 B

Seq Number: 122335
PSS Sample ID: 15043020-004

Matrix: Ground Water

Prep Method: SW5030B
Date Prep: 05/02/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	98		81-133	%	05/03/15 04:36
Dibromofluoromethane	102		84-110	%	05/03/15 04:36
Toluene-D8	104		94-109	%	05/03/15 04:36

Analytical Method: SW-846 8015C

Seq Number: 122346
PSS Sample ID: 15043020-004

Matrix: Ground Water

Prep Method: SW5030B
Date Prep: 05/01/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	67		65-111	%	05/01/15 14:36

PHASE SEPARATION SCIENCE, INC.

QC Summary 15043020

Arc Environmental Percentage

Analytical Method: SW-846 8015 C

Seq Number: 122374
PSS Sample ID: 15043020-005

Matrix: Ground Water

Prep Method: SW3510C
Date Prep: 05/01/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	0	*	37-136	%	05/04/15 16:40

Analytical Method: SW-846 8270 C

Seq Number: 122428
PSS Sample ID: 15043020-005

Matrix: Ground Water

Prep Method: SW3510C
Date Prep: 05/01/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	128	*	68-116	%	05/05/15 03:41
2-Fluorophenol	86		57-98	%	05/05/15 03:41
Nitrobenzene-d5	125	*	58-107	%	05/05/15 03:41
Phenol-d6	93		59-109	%	05/05/15 03:41
Terphenyl-D14	134	*	69-121	%	05/05/15 03:41
2,4,6-Tribromophenol	106		48-119	%	05/05/15 03:41

Analytical Method: SW-846 8270 C

Seq Number: 122519
PSS Sample ID: 15043020-005

Matrix: Ground Water

Prep Method: SW3510C
Date Prep: 05/04/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	64		40-106	%	05/08/15 16:13
Nitrobenzene-d5	66		36-105	%	05/08/15 16:13
Terphenyl-D14	80		50-120	%	05/08/15 16:13

Analytical Method: SW-846 8260 B

Seq Number: 122335
PSS Sample ID: 15043020-005

Matrix: Ground Water

Prep Method: SW5030B
Date Prep: 05/02/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	99		81-133	%	05/03/15 05:11
Dibromofluoromethane	104		84-110	%	05/03/15 05:11
Toluene-D8	103		94-109	%	05/03/15 05:11

Analytical Method: SW-846 8015C

Seq Number: 122346
PSS Sample ID: 15043020-005

Matrix: Ground Water

Prep Method: SW5030B
Date Prep: 05/01/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	65		65-111	%	05/01/15 15:02

PHASE SEPARATION SCIENCE, INC.

QC Summary 15043020

Arc Environmental Percontee

F = RPD exceeded the laboratory control limits

X = Recovery of MS, MSD or both outside of QC Criteria

H= Recovery of BS,BSD or both exceeded the laboratory control limits

L = Recovery of BS,BSD or both below the laboratory control limits

PHASE SEPARATION SCIENCE, INC.

QC Summary 15043020

Arc Environmental Percontee

Analytical Method: SW-846 6020 A

Seq Number: 122413

MB Sample Id: 55290-1-BLK

Matrix: Water

LCS Sample Id: 55290-1-BKS

Prep Method: SW3010A

Date Prep: 05/05/15

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Analysis Date	Flag
Antimony	<2.500	40.00	41.45	104	80-120	ug/L	05/05/15 14:43	
Arsenic	<0.5000	40.00	41.61	104	80-120	ug/L	05/05/15 14:43	
Beryllium	<0.5000	40.00	39.67	99	80-120	ug/L	05/05/15 14:43	
Cadmium	<0.5000	40.00	42.65	107	80-120	ug/L	05/05/15 14:43	
Chromium	<0.5000	40.00	40.63	102	80-120	ug/L	05/05/15 14:43	
Copper	<0.5000	40.00	38.91	97	80-120	ug/L	05/05/15 14:43	
Lead	<0.5000	40.00	39.75	99	80-120	ug/L	05/05/15 14:43	
Mercury	<0.1000	1.000	1.020	102	80-120	ug/L	05/05/15 14:43	
Nickel	<0.5000	40.00	41.45	104	80-120	ug/L	05/05/15 14:43	
Selenium	<0.5000	40.00	40.31	101	80-120	ug/L	05/05/15 14:43	
Silver	<0.5000	40.00	40.88	102	80-120	ug/L	05/05/15 14:43	
Thallium	<0.5000	40.00	38.95	97	80-120	ug/L	05/05/15 14:43	
Zinc	<10.00	40.00	43.98	110	80-120	ug/L	05/05/15 14:43	

Analytical Method: SW-846 6020 A

Seq Number: 122413

Parent Sample Id: 15043020-001

Matrix: Ground Water

MS Sample Id: 15043020-001 S

Prep Method: SW3010A

Date Prep: 05/05/15

MSD Sample Id: 15043020-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Antimony	<2.500	40.00	36.98	92	38.91	97	75-125	5	25	ug/L	05/05/15 15:18	
Arsenic	2.440	40.00	41.45	98	44.46	105	75-125	7	25	ug/L	05/05/15 15:18	
Beryllium	<0.5000	40.00	36.80	92	37.84	95	75-125	3	25	ug/L	05/05/15 15:18	
Cadmium	<0.5000	40.00	39.81	100	41.40	104	75-125	4	25	ug/L	05/05/15 15:18	
Chromium	3.730	40.00	42.58	97	45.76	105	75-125	7	25	ug/L	05/05/15 15:18	
Copper	4.430	40.00	40.21	89	42.13	94	75-125	5	25	ug/L	05/05/15 15:18	
Lead	2.910	40.00	42.63	99	44.47	104	75-125	4	25	ug/L	05/05/15 15:18	
Mercury	<0.1000	1.000	1.010	101	0.9600	96	75-125	5	25	ug/L	05/05/15 15:18	
Nickel	8.990	40.00	47.30	96	49.50	101	75-125	5	25	ug/L	05/05/15 15:18	
Selenium	<0.5000	40.00	33.81	85	36.16	90	75-125	7	25	ug/L	05/05/15 15:18	
Silver	<0.5000	40.00	39.77	99	41.52	104	75-125	4	25	ug/L	05/05/15 15:18	
Thallium	<0.5000	40.00	38.64	97	39.47	99	75-125	2	25	ug/L	05/05/15 15:18	
Zinc	43.68	40.00	80.32	92	83.52	100	75-125	4	25	ug/L	05/05/15 15:18	

Analytical Method: SW-846 8015 C

Seq Number: 122374

MB Sample Id: 55251-1-BLK

Matrix: Water

LCS Sample Id: 55251-1-BKS

Prep Method: SW3510C

Date Prep: 05/01/15

LCSD Sample Id: 55251-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
TPH-DRO (Diesel Range Organics)	<0.04000	1.000	1.002	100	1.033	103	61-119	3	20	mg/L	05/04/15 14:24	
Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units	Analysis Date			
o-Terphenyl	78		75		76		37-136	%	05/04/15 14:24			

PHASE SEPARATION SCIENCE, INC.

QC Summary 15043020

Arc Environmental Percontee

Analytical Method: SW-846 8270 C

Seq Number: 122428

MB Sample Id: 55253-1-BLK

Matrix: Water

LCS Sample Id: 55253-1-BKS

Prep Method: SW3510C

Date Prep: 05/01/15

LCSD Sample Id: 55253-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Acetophenone	<2.500	40.00	34.96	87	32.28	81	64-108	8	20	ug/L	05/04/15 21:19	
Caprolactam	<2.500	40.00	44.03	110	42.49	106	51-128	4	20	ug/L	05/04/15 21:19	
Biphenyl (Diphenyl)	<2.500	40.00	37.75	94	34.85	87	77-107	8	20	ug/L	05/04/15 21:19	
Butyl benzyl phthalate	<2.500	40.00	39.06	98	36.04	90	71-124	8	20	ug/L	05/04/15 21:19	
bis(2-chloroethoxy) methane	<2.500	40.00	36.54	91	33.96	85	56-105	7	20	ug/L	05/04/15 21:19	
bis(2-chloroethyl) ether	<0.5000	40.00	34.64	87	31.83	80	54-107	8	20	ug/L	05/04/15 21:19	
bis(2-chloroisopropyl) ether	<0.5000	40.00	40.11	100	36.75	92	41-120	9	20	ug/L	05/04/15 21:19	
bis(2-ethylhexyl) phthalate	<2.500	40.00	38.27	96	35.15	88	63-133	8	20	ug/L	05/04/15 21:19	
4-Bromophenylphenyl ether	<2.500	40.00	40.47	101	37.58	94	65-109	7	20	ug/L	05/04/15 21:19	
Di-n-butyl phthalate	<2.500	40.00	38.60	97	35.81	90	72-122	7	20	ug/L	05/04/15 21:19	
Carbazole	<2.500	40.00	39.22	98	38.23	96	60-116	3	20	ug/L	05/04/15 21:19	
4-Chloro-3-methyl phenol	<2.500	40.00	40.43	101	38.60	97	65-114	5	20	ug/L	05/04/15 21:19	
4-Chloroaniline	<5.000	40.00	38.73	97	37.25	93	71-103	4	20	ug/L	05/04/15 21:19	
2-Chloronaphthalene	<2.500	40.00	35.22	88	31.81	80	72-108	10	20	ug/L	05/04/15 21:19	
2-Chlorophenol	<2.000	40.00	34.65	87	32.09	80	68-99	8	20	ug/L	05/04/15 21:19	
4-Chlorophenyl phenyl ether	<2.500	40.00	42.01	105	38.63	97	66-110	8	20	ug/L	05/04/15 21:19	
Dibenzofuran	<2.500	40.00	38.29	96	35.66	89	72-108	7	20	ug/L	05/04/15 21:19	
3,3-Dichlorobenzidine	<0.5000	40.00	50.60	127	47.65	119	71-112	6	20	ug/L	05/04/15 21:19	H
2,4-Dichlorophenol	<2.500	40.00	38.18	95	36.35	91	71-104	5	20	ug/L	05/04/15 21:19	
Diethyl phthalate	<2.500	40.00	38.70	97	35.86	90	71-121	8	20	ug/L	05/04/15 21:19	
Dimethyl phthalate	<2.500	40.00	37.39	93	34.60	87	72-114	8	20	ug/L	05/04/15 21:19	
2,4-Dimethylphenol	<2.500	40.00	36.59	91	34.19	85	68-98	7	20	ug/L	05/04/15 21:19	
4,6-Dinitro-2-methyl phenol	<2.500	40.00	47.86	120	45.12	113	54-130	6	20	ug/L	05/04/15 21:19	
2,4-Dinitrophenol	<2.500	40.00	37.51	94	36.94	92	37-137	2	20	ug/L	05/04/15 21:19	
2,4-Dinitrotoluene	<2.500	40.00	38.98	97	36.00	90	72-109	8	20	ug/L	05/04/15 21:19	
2,6-Dinitrotoluene	<1.000	40.00	38.47	96	36.04	90	72-107	7	20	ug/L	05/04/15 21:19	
Hexachlorobenzene	<0.5000	40.00	40.01	100	36.90	92	71-115	8	20	ug/L	05/04/15 21:19	
Hexachlorobutadiene	<2.500	40.00	35.88	90	33.22	83	71-102	8	20	ug/L	05/04/15 21:19	
Hexachlorocyclopentadiene	<2.500	40.00	34.84	87	32.80	82	46-134	6	20	ug/L	05/04/15 21:19	
Hexachloroethane	<1.000	40.00	33.81	85	31.42	79	63-107	7	20	ug/L	05/04/15 21:19	
Isophorone	<2.500	40.00	39.20	98	37.07	93	64-101	6	20	ug/L	05/04/15 21:19	
2-Methyl phenol	<2.500	40.00	35.70	89	32.86	82	69-103	8	20	ug/L	05/04/15 21:19	
3&4-Methylphenol	<2.500	40.00	35.40	89	33.22	83	61-115	6	20	ug/L	05/04/15 21:19	
4-Nitroaniline	<5.000	40.00	39.86	100	37.53	94	44-117	6	20	ug/L	05/04/15 21:19	
3-Nitroaniline	<2.500	40.00	38.43	96	36.07	90	61-106	6	20	ug/L	05/04/15 21:19	
2-Nitroaniline	<2.500	40.00	41.93	105	39.18	98	67-108	7	20	ug/L	05/04/15 21:19	
Nitrobenzene	<1.000	40.00	37.32	93	34.22	86	62-104	9	20	ug/L	05/04/15 21:19	
2-Nitrophenol	<2.500	40.00	36.19	90	33.24	83	68-111	8	20	ug/L	05/04/15 21:19	
4-Nitrophenol	<2.500	40.00	54.59	136	51.36	128	58-116	6	20	ug/L	05/04/15 21:19	H
N-Nitrosodi-n-propyl amine	<0.5000	40.00	35.64	89	33.06	83	54-114	8	20	ug/L	05/04/15 21:19	
N-Nitrosodiphenylamine	<2.500	40.00	37.08	93	34.58	86	71-109	7	20	ug/L	05/04/15 21:19	
Di-n-octyl phthalate	<5.000	40.00	39.81	100	35.91	90	53-138	10	20	ug/L	05/04/15 21:19	
Pentachlorophenol	<2.000	40.00	45.25	113	43.28	108	66-121	4	20	ug/L	05/04/15 21:19	
Phenol	<2.500	40.00	34.61	87	31.80	80	65-113	8	20	ug/L	05/04/15 21:19	
Pyridine	<2.500	40.00	33.76	84	31.48	79	57-88	7	20	ug/L	05/04/15 21:19	
2,4,6-Trichlorophenol	<2.500	40.00	38.38	96	34.87	87	71-113	10	20	ug/L	05/04/15 21:19	
2,4,5-Trichlorophenol	<2.500	40.00	40.35	101	36.49	91	77-112	10	20	ug/L	05/04/15 21:19	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	146	*	119	*	124	*	68-116	%	05/04/15 21:19
2-Fluorophenol	103	*	95		99	*	57-98	%	05/04/15 21:19

PHASE SEPARATION SCIENCE, INC.

QC Summary 15043020

Arc Environmental Percontee

Analytical Method: SW-846 8270 C

Seq Number: 122428

MB Sample Id: 55253-1-BLK

Matrix: Water

LCS Sample Id: 55253-1-BKS

Prep Method: SW3510C

Date Prep: 05/01/15

LCSD Sample Id: 55253-1-BSD

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units	Analysis Date
Nitrobenzene-d5	139	*	126	*	129	*	58-107	%	05/04/15 21:19
Phenol-d6	105		98		103		59-109	%	05/04/15 21:19
Terphenyl-D14	128	*	133	*	137	*	69-121	%	05/04/15 21:19
2,4,6-Tribromophenol	109		111		115		48-119	%	05/04/15 21:19

Analytical Method: SW-846 8270 C

Seq Number: 122519

MB Sample Id: 55283-1-BLK

Matrix: Water

MB Sample Id: 55283-1-BLK

Prep Method: SW3510C

Date Prep: 05/04/15

Parameter	MB Result	LOD	RL	Units	Analysis Date	Flag
Acenaphthene	ND	0.1000	0.1000	ug/L	05/08/15 13:44	
Acenaphthylene	ND	0.1000	0.1000	ug/L	05/08/15 13:44	
Anthracene	ND	0.1000	0.1000	ug/L	05/08/15 13:44	
Benzo(a)anthracene	ND	0.1000	0.1000	ug/L	05/08/15 13:44	
Benzo(a)pyrene	ND	0.1000	0.1000	ug/L	05/08/15 13:44	
Benzo(b)fluoranthene	ND	0.1000	0.1000	ug/L	05/08/15 13:44	
Benzo(g,h,i)perylene	ND	0.1000	0.1000	ug/L	05/08/15 13:44	
Benzo(k)fluoranthene	ND	0.1000	0.1000	ug/L	05/08/15 13:44	
Chrysene	ND	0.1000	0.1000	ug/L	05/08/15 13:44	
Dibenz(a,h)Anthracene	ND	0.1000	0.1000	ug/L	05/08/15 13:44	
Fluoranthene	ND	0.1000	0.1000	ug/L	05/08/15 13:44	
Fluorene	ND	0.1000	0.1000	ug/L	05/08/15 13:44	
Indeno(1,2,3-c,d)Pyrene	ND	0.1000	0.1000	ug/L	05/08/15 13:44	
2-Methylnaphthalene	ND	0.1000	0.1000	ug/L	05/08/15 13:44	
Naphthalene	ND	0.1000	0.1000	ug/L	05/08/15 13:44	
Phenanthrene	ND	0.1000	0.1000	ug/L	05/08/15 13:44	
Pyrene	ND	0.1000	0.1000	ug/L	05/08/15 13:44	

Analytical Method: SW-846 8015C

Seq Number: 122346

MB Sample Id: 55278-2-BLK

Matrix: Water

LCS Sample Id: 55278-2-BKS

Prep Method: SW5030B

Date Prep: 05/01/15

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Analysis Date	Flag
TPH-GRO (Gasoline Range Organic)	<40.00	5000	5061	101	61-138	ug/L	05/01/15 12:30	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	68		75		65-111	%	05/01/15 12:30

PHASE SEPARATION SCIENCE, INC.

QC Summary 15043020

Arc Environmental Percontee

Analytical Method: SW-846 8260 B

Seq Number: 122335

MB Sample Id: 55269-1-BLK

Matrix: Water

LCS Sample Id: 55269-1-BKS

Prep Method: SW5030B

Date Prep: 05/02/15

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Analysis Date	Flag
Dichlorodifluoromethane	<0.5000	50.00	49.80	100	54-139	ug/L	05/02/15 23:19	
Chloromethane	<0.5000	50.00	48.03	96	62-131	ug/L	05/02/15 23:19	
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.5000	50.00	54.79	110	56-126	ug/L	05/02/15 23:19	
Vinyl Chloride	<0.5000	50.00	54.39	109	64-132	ug/L	05/02/15 23:19	
Bromomethane	<0.5000	50.00	54.65	109	40-147	ug/L	05/02/15 23:19	
Chloroethane	<0.5000	50.00	51.92	104	59-132	ug/L	05/02/15 23:19	
Acetone	<5.000	50.00	49.57	99	53-146	ug/L	05/02/15 23:19	
Cyclohexane	<5.000	50.00	52.44	105	46-150	ug/L	05/02/15 23:19	
Trichlorofluoromethane	<2.500	50.00	60.64	121	45-130	ug/L	05/02/15 23:19	
1,1-Dichloroethene	<0.5000	50.00	54.73	109	59-123	ug/L	05/02/15 23:19	
Methylene Chloride	<0.5000	50.00	49.23	98	61-126	ug/L	05/02/15 23:19	
trans-1,2-Dichloroethene	<0.5000	50.00	56.76	114	58-134	ug/L	05/02/15 23:19	
Methyl-t-butyl ether	<0.5000	50.00	38.57	77	30-168	ug/L	05/02/15 23:19	
1,1-Dichloroethane	<0.5000	50.00	53.93	108	51-136	ug/L	05/02/15 23:19	
2-Butanone	<5.000	50.00	48.16	96	56-133	ug/L	05/02/15 23:19	
cis-1,2-Dichloroethene	<0.5000	50.00	56.56	113	77-119	ug/L	05/02/15 23:19	
Bromochloromethane	<0.5000	50.00	55.19	110	71-122	ug/L	05/02/15 23:19	
Chloroform	<0.5000	50.00	54.41	109	71-118	ug/L	05/02/15 23:19	
1,1,1-Trichloroethane	<0.5000	50.00	57.11	114	66-133	ug/L	05/02/15 23:19	
1,2-Dichloroethane	<0.5000	50.00	54.76	110	64-130	ug/L	05/02/15 23:19	
Carbon Tetrachloride	<0.5000	50.00	54.93	110	74-127	ug/L	05/02/15 23:19	
Benzene	<0.5000	50.00	58.43	117	77-122	ug/L	05/02/15 23:19	
1,2-Dichloropropane	<0.5000	50.00	54.68	109	75-125	ug/L	05/02/15 23:19	
Methyl Acetate	<5.000	50.00	47.87	96	47-145	ug/L	05/02/15 23:19	
Methylcyclohexane	<5.000	50.00	55.27	111	61-155	ug/L	05/02/15 23:19	
Trichloroethene	<0.5000	50.00	57.27	115	72-127	ug/L	05/02/15 23:19	
Carbon Disulfide	<5.000	50.00	54.78	110	62-134	ug/L	05/02/15 23:19	
Bromodichloromethane	<0.5000	50.00	57.76	116	76-122	ug/L	05/02/15 23:19	
cis-1,3-Dichloropropene	<0.5000	50.00	52.21	104	74-123	ug/L	05/02/15 23:19	
4-Methyl-2-Pentanone	<2.500	50.00	50.75	102	45-145	ug/L	05/02/15 23:19	
trans-1,3-Dichloropropene	<0.5000	50.00	53.47	107	73-116	ug/L	05/02/15 23:19	
1,1,2-Trichloroethane	<0.5000	50.00	55.40	111	72-128	ug/L	05/02/15 23:19	
Toluene	<0.5000	50.00	57.43	115	77-123	ug/L	05/02/15 23:19	
2-Hexanone	<5.000	50.00	45.68	91	56-134	ug/L	05/02/15 23:19	
1,2-Dibromoethane	<0.5000	50.00	51.94	104	78-121	ug/L	05/02/15 23:19	
Dibromochloromethane	<0.5000	50.00	48.09	96	75-114	ug/L	05/02/15 23:19	
Bromoform	<2.500	50.00	48.39	97	69-115	ug/L	05/02/15 23:19	
Tetrachloroethene	<0.5000	50.00	55.34	111	78-113	ug/L	05/02/15 23:19	
Chlorobenzene	<0.5000	50.00	54.14	108	76-116	ug/L	05/02/15 23:19	
Ethylbenzene	<0.5000	50.00	54.68	109	79-122	ug/L	05/02/15 23:19	
m,p-Xylenes	<1.000	100	108.5	109	78-119	ug/L	05/02/15 23:19	
Styrene	<0.5000	50.00	54.96	110	73-118	ug/L	05/02/15 23:19	
1,1,2,2-Tetrachloroethane	<0.5000	50.00	49.94	100	71-126	ug/L	05/02/15 23:19	
o-Xylene	<0.5000	50.00	55.42	111	79-123	ug/L	05/02/15 23:19	
Isopropylbenzene	<0.5000	50.00	53.51	107	80-128	ug/L	05/02/15 23:19	
1,3-Dichlorobenzene	<0.5000	50.00	53.82	108	80-122	ug/L	05/02/15 23:19	
1,4-Dichlorobenzene	<0.5000	50.00	53.03	106	77-118	ug/L	05/02/15 23:19	
1,2-Dichlorobenzene	<0.5000	50.00	54.30	109	80-122	ug/L	05/02/15 23:19	
1,2-Dibromo-3-Chloropropane	<5.000	50.00	44.86	90	59-135	ug/L	05/02/15 23:19	
1,2,4-Trichlorobenzene	<0.5000	50.00	51.39	103	72-143	ug/L	05/02/15 23:19	
1,2,3-Trichlorobenzene	<0.5000	50.00	49.68	99	66-140	ug/L	05/02/15 23:19	

PHASE SEPARATION SCIENCE, INC.

QC Summary 15043020

Arc Environmental Percontee

Analytical Method: SW-846 8260 B

Seq Number: 122335

MB Sample Id: 55269-1-BLK

Matrix: Water

LCS Sample Id: 55269-1-BKS

Prep Method: SW5030B

Date Prep: 05/02/15

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	97		95		81-133	%	05/02/15 23:19
Dibromofluoromethane	104		105		84-110	%	05/02/15 23:19
Toluene-D8	102		103		94-109	%	05/02/15 23:19

PHASE SEPARATION SCIENCE, INC.

QC Summary 15043020

Arc Environmental Percontee

Analytical Method: SW-846 8260 B

Seq Number: 122335

Parent Sample Id: 15043020-001

Matrix: Ground Water

MS Sample Id: 15043020-001 S

Prep Method: SW5030B

Date Prep: 05/02/15

MSD Sample Id: 15043020-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Dichlorodifluoromethane	<0.5000	50.00	49.95	100	48.69	97	47-159	3	25	ug/L	05/03/15 01:40	
Chloromethane	<0.5000	50.00	45.71	91	48.03	96	59-144	5	25	ug/L	05/03/15 01:40	
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.5000	50.00	53.59	107	52.71	105	47-139	2	25	ug/L	05/03/15 01:40	
Vinyl Chloride	<0.5000	50.00	51.21	102	53.77	108	60-146	5	25	ug/L	05/03/15 01:40	
Bromomethane	<0.5000	50.00	50.71	101	53.92	108	29-154	6	25	ug/L	05/03/15 01:40	
Chloroethane	<0.5000	50.00	48.04	96	50.69	101	40-150	5	25	ug/L	05/03/15 01:40	
Acetone	<5.000	50.00	49.71	99	51.80	104	41-161	4	25	ug/L	05/03/15 01:40	
Cyclohexane	<5.000	50.00	51.87	104	51.56	103	34-161	1	25	ug/L	05/03/15 01:40	
Trichlorofluoromethane	<2.500	50.00	60.28	121	59.96	120	37-147	1	25	ug/L	05/03/15 01:40	
1,1-Dichloroethene	<0.5000	50.00	51.15	102	52.52	105	50-136	3	25	ug/L	05/03/15 01:40	
Methylene Chloride	<0.5000	50.00	46.31	93	46.89	94	56-137	1	25	ug/L	05/03/15 01:40	
trans-1,2-Dichloroethene	<0.5000	50.00	52.67	105	54.85	110	54-144	4	25	ug/L	05/03/15 01:40	
Methyl-t-butyl ether	0.5900	50.00	35.71	70	37.64	74	22-182	5	25	ug/L	05/03/15 01:40	
1,1-Dichloroethane	<0.5000	50.00	51.17	102	51.64	103	44-152	1	25	ug/L	05/03/15 01:40	
2-Butanone	<5.000	50.00	44.08	88	46.83	94	47-140	6	25	ug/L	05/03/15 01:40	
cis-1,2-Dichloroethene	<0.5000	50.00	52.80	106	54.39	109	76-127	3	25	ug/L	05/03/15 01:40	
Bromochloromethane	<0.5000	50.00	51.35	103	53.00	106	67-130	3	25	ug/L	05/03/15 01:40	
Chloroform	<0.5000	50.00	51.85	104	52.53	105	67-130	1	25	ug/L	05/03/15 01:40	
1,1,1-Trichloroethane	<0.5000	50.00	54.20	108	55.72	111	70-138	3	25	ug/L	05/03/15 01:40	
1,2-Dichloroethane	<0.5000	50.00	51.78	104	52.64	105	60-142	2	25	ug/L	05/03/15 01:40	
Carbon Tetrachloride	<0.5000	50.00	52.98	106	53.74	107	74-136	1	25	ug/L	05/03/15 01:40	
Benzene	<0.5000	50.00	55.51	111	56.41	113	75-132	2	25	ug/L	05/03/15 01:40	
1,2-Dichloropropane	<0.5000	50.00	51.53	103	51.75	104	70-139	0	25	ug/L	05/03/15 01:40	
Methyl Acetate	<5.000	50.00	38.15	76	41.73	83	37-143	9	25	ug/L	05/03/15 01:40	
Methylcyclohexane	<5.000	50.00	54.42	109	52.88	106	55-148	3	25	ug/L	05/03/15 01:40	
Trichloroethene	<0.5000	50.00	53.96	108	54.55	109	67-139	1	25	ug/L	05/03/15 01:40	
Carbon Disulfide	<5.000	50.00	52.70	105	52.83	106	59-146	0	25	ug/L	05/03/15 01:40	
Bromodichloromethane	<0.5000	50.00	54.08	108	55.35	111	69-134	2	25	ug/L	05/03/15 01:40	
cis-1,3-Dichloropropene	<0.5000	50.00	47.71	95	49.02	98	64-127	3	25	ug/L	05/03/15 01:40	
4-Methyl-2-Pentanone	<2.500	50.00	45.63	91	47.95	96	44-133	5	25	ug/L	05/03/15 01:40	
trans-1,3-Dichloropropene	<0.5000	50.00	49.56	99	50.21	100	62-123	1	25	ug/L	05/03/15 01:40	
1,1,2-Trichloroethane	<0.5000	50.00	52.57	105	52.99	106	65-143	1	25	ug/L	05/03/15 01:40	
Toluene	<0.5000	50.00	54.19	108	55.02	110	74-132	2	25	ug/L	05/03/15 01:40	
2-Hexanone	<5.000	50.00	43.35	87	44.77	90	50-130	3	25	ug/L	05/03/15 01:40	
1,2-Dibromoethane	<0.5000	50.00	48.37	97	49.62	99	72-126	3	25	ug/L	05/03/15 01:40	
Dibromochloromethane	<0.5000	50.00	45.26	91	46.12	92	73-114	2	25	ug/L	05/03/15 01:40	
Bromoform	<2.500	50.00	45.59	91	46.92	94	65-115	3	25	ug/L	05/03/15 01:40	
Tetrachloroethene	<0.5000	50.00	52.31	105	52.37	105	69-126	0	25	ug/L	05/03/15 01:40	
Chlorobenzene	<0.5000	50.00	50.68	101	51.55	103	78-115	2	25	ug/L	05/03/15 01:40	
Ethylbenzene	<0.5000	50.00	51.81	104	52.25	105	74-129	1	25	ug/L	05/03/15 01:40	
m,p-Xylenes	<1.000	100	103	103	103.9	104	78-119	1	25	ug/L	05/03/15 01:40	
Styrene	<0.5000	50.00	51.23	102	51.95	104	67-121	1	25	ug/L	05/03/15 01:40	
1,1,2,2-Tetrachloroethane	<0.5000	50.00	47.23	94	48.97	98	68-127	4	25	ug/L	05/03/15 01:40	
o-Xylene	<0.5000	50.00	51.72	103	52.64	105	80-123	2	25	ug/L	05/03/15 01:40	
Isopropylbenzene	<0.5000	50.00	49.59	99	51.72	103	72-130	4	25	ug/L	05/03/15 01:40	
1,3-Dichlorobenzene	<0.5000	50.00	49.26	99	51.31	103	73-117	4	25	ug/L	05/03/15 01:40	
1,4-Dichlorobenzene	<0.5000	50.00	48.71	97	50.10	100	72-111	3	25	ug/L	05/03/15 01:40	
1,2-Dichlorobenzene	<0.5000	50.00	49.87	100	52.48	105	73-117	5	25	ug/L	05/03/15 01:40	
1,2-Dibromo-3-Chloropropane	<5.000	50.00	42.10	84	44.77	90	45-125	6	25	ug/L	05/03/15 01:40	
1,2,4-Trichlorobenzene	<0.5000	50.00	46.06	92	49.61	99	31-135	7	25	ug/L	05/03/15 01:40	
1,2,3-Trichlorobenzene	<0.5000	50.00	44.54	89	48.10	96	9-139	8	25	ug/L	05/03/15 01:40	

PHASE SEPARATION SCIENCE, INC.

QC Summary 15043020

Arc Environmental Percontee

Analytical Method: SW-846 8260 B

Seq Number: 122335

Parent Sample Id: 15043020-001

Matrix: Ground Water

MS Sample Id: 15043020-001 S

Prep Method: SW5030B

Date Prep: 05/02/15

MSD Sample Id: 15043020-001 SD

Surrogate	MS Result	MS Flag	MSD Result	MSD Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	95		96		81-133	%	05/03/15 01:40
Dibromofluoromethane	105		105		84-110	%	05/03/15 01:40
Toluene-D8	103		102		94-109	%	05/03/15 01:40

F = RPD exceeded the laboratory control limits

X = Recovery of MS, MSD or both outside of QC Criteria

H= Recovery of BS,BSD or both exceeded the laboratory control limits

L = Recovery of BS,BSD or both below the laboratory control limits



SAMPLE CHAIN OF CUSTODY/AGREEMENT FORM

PHASE SEPARATION SCIENCE, INC.

www.phaseonline.com
email: info@phaseonline.com

1 CLIENT: Arc Environmental OFFICE LOC. Baltimore, MD				PSS Work Order #: <u>15043020</u> PAGE <u>1</u> OF <u> </u>								
PROJECT MGR: Kyle Begey PHONE NO.: 410-659-9971				Matrix Codes: SW=Surface Wtr DW=Drinking Wtr GW=Ground Wtr WW=Waste Wtr O=Oil S=Soil WL=Waste Liquid WS=Waste Solid W=Wipe No. CONTAINERS SAMPLE TYPE C = COMP G = GRAB PPL Metals SVOCs 8270 PAHs SIM VOCs GRO/DRO Preservative Used <input type="checkbox"/> Analysis/Method Required <input type="checkbox"/> REMARKS ↓								
EMAIL: kbegey@arcenvironmental.com FAX NO.: 410-962-1065												
PROJECT NAME: Percontee PROJECT NO.:												
SITE LOCATION: Silver Spring, MD P.O. NO.:												
SAMPLERS: Ray Goodwin DW CERT NO. :				Click to enter Remarks								
2												
LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX (See Codes)	No.	SAMPLE TYPE	PPL Metals	SVOCs 8270	PAHs SIM	VOCs	GRO/DRO	REMARKS
1	MW-4	4/29/15	1016	GW	10	G	X	X	X	X	X	
2	MW-5	4/29/15	1200	GW	10	G	X	X	X	X	X	
3	MW-6	4/29/15	1306	GW	10	G	X	X	X	X	X	
4	MW-7	4/29/15	1321	GW	10	G	X	X	X	X	X	
5	MW-8	4/29/15	1525	GW	10	G	X	X	X	X	X	
				GW	10	G						
				GW	10	G						
				GW	10	G						
				GW	10	G						
				GW	10	G						
				GW	10	G						
5						4						
Relinquished By: (1) <i>Ray Goodwin</i>	Date 4/29/15	Time	Received By: <i>[Signature]</i>			Requested Turnaround Time <input checked="" type="checkbox"/> 5-Day <input type="checkbox"/> 3-Day <input type="checkbox"/> 2-Day <input type="checkbox"/> Next Day <input type="checkbox"/> Emergency <input type="checkbox"/> Other				# of Coolers: <u>3</u>		
Relinquished By: (2) <i>[Signature]</i>	Date 4/30/15	Time 1220	Received By: <i>[Signature]</i>			Data Deliverables Required:				Ice Present: <u>YES</u> Temp: <u>0° F</u> <u>FROZEN</u> <u>SEE NOTE</u>		
Relinquished By: (3)	Date	Time	Received By:			Special Instructions:						
Relinquished By: (4)	Date	Time	Received By:									

6630 Baltimore National Pike • Route 40 West • Baltimore, Maryland 21228 • (410) 747-8770 • (800) 932-9047 • Fax (410) 788-8723

The client (Client Name), by signing, or having client's agent sign, this "Sample Chain of Custody/Agreement Form", agrees to pay for the above requested services per the latest version of the Service Brochure or PSS-provided quotation including any and all attorney's or other reasonable fees if collection becomes necessary.



Phase Separation Science, Inc

Sample Receipt Checklist

Work Order #	15043020	Received By	Rachel Davis
Client Name	Arc Environmental	Date Received	04/30/2015 12:20:00 PM
Project Name	Percontee	Delivered By	Trans Time Express
Disposal Date	06/04/2015	Tracking No	Not Applicable
		Logged In By	Rachel Davis

Shipping Container(s)

No. of Coolers 1

		Ice	Present
Custody Seal(s) Intact?	N/A	Temp (deg C)	0
Seal(s) Signed / Dated?	N/A	Temp Blank Present	No

Documentation

COC agrees with sample labels?	Yes	Sampler Name	<u>Ray Goodwin</u>
Chain of Custody	Yes	MD DW Cert. No.	<u>N/A</u>

Sample Container

Appropriate for Specified Analysis?	Yes	Custody Seal(s) Intact?	Not Applicable
Intact?	Yes	Seal(s) Signed / Dated	Not Applicable
Labeled and Labels Legible?	Yes		

Total No. of Samples Received 5

Total No. of Containers Received 50

Preservation

Metals	(pH<2)	Yes
Cyanides	(pH>12)	N/A
Sulfide	(pH>9)	N/A
TOC, COD, Phenols	(pH<2)	N/A
TOX, TKN, NH3, Total Phos	(pH<2)	N/A
VOC, BTEX (VOA Vials Rcvd Preserved)	(pH<2)	Yes
Do VOA vials have zero headspace?		Yes
624 VOC (Rcvd at least one unpreserved VOA vial)		N/A

Comments: (Any "No" response must be detailed in the comments section below.)

For any improper preservation conditions, list sample ID, preservative added (reagent ID number) below as well as documentation of any client notification as well as client instructions. Samples for pH, chlorine and dissolved oxygen should be analyzed as soon as possible, preferably in the field at the time of sampling. Samples which require thermal preservation shall be considered acceptable when received at a temperature above freezing to 6°C. Samples that are hand delivered on the day that they are collected may not meet these criteria but shall be considered acceptable if there is evidence that the chilling process has begun such as arrival on ice.

Metals container for sample MW-8 received with frozen sample.

Samples Inspected/Checklist Completed By:

Rachel Davis

Date: 04/30/2015

PM Review and Approval:

Shirley Rivera

Date: 04/30/2015

Analytical Report for

Arc Environmental

Certificate of Analysis No.: 15043021

Project Manager: Christie Pulvino

Project Name : Percontee

Project Location: Silver Spring, MD



May 11, 2015

Phase Separation Science, Inc.

6630 Baltimore National Pike

Baltimore, MD 21228

Phone: (410) 747-8770

Fax: (410) 788-8723

OFFICES:
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ROUTE 40 WEST
BALTIMORE, MD 21228
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800-932-9047
FAX 410-788-8723

PHASE SEPARATION SCIENCE, INC.



May 11, 2015

Christie Pulvino
Arc Environmental
1311 Haubert Street
Baltimore, MD 21230

Reference: PSS Work Order(s) No: **15043021**
Project Name: Percontee
Project Location: Silver Spring, MD

Dear Christie Pulvino :

This report includes the analytical results from the analyses performed on the samples received under the project name referenced above and identified with the Phase Separation Science (PSS) Work Order(s) numbered **15043021**.

All work reported herein has been performed in accordance with current NELAP standards, referenced methodologies, PSS Standard Operating Procedures and the PSS Quality Assurance Manual unless otherwise noted in the Case Narrative Summary. PSS is limited in liability to the actual cost of the sample analysis done.

PSS reserves the right to return any unused samples, extracts or related solutions. Otherwise, the samples are scheduled for disposal, without any further notice, on June 4, 2015. This includes any samples that were received with a request to be held but lacked a specific hold period. It is your responsibility to provide a written request defining a specific disposal date if additional storage is required. Upon receipt, the request will be acknowledged by PSS, thus extending the storage period.

This report shall not be reproduced except in full, without the written approval of an authorized PSS representative. A copy of this report will be retained by PSS for at least 5 years, after which time it will be disposed of without further notice, unless prior arrangements have been made.

We thank you for selecting Phase Separation Science, Inc. to serve your analytical needs. If you have any questions concerning this report, do not hesitate to contact us at 410-747-8770 or info@phaseonline.com.

Sincerely,

Dan Prucnal
Laboratory Manager



Sample Summary

Client Name: Arc Environmental
Project Name: Percontee

Work Order Number(s): 15043021

The following samples were received under chain of custody by Phase Separation Science (PSS) on 04/30/2015 at 12:20 pm

Lab Sample Id	Sample Id	Matrix	Date/Time Collected
15043021-001	MW-3	GROUND WATER	04/28/15 13:42
15043021-002	MW-9	GROUND WATER	04/28/15 14:50
15043021-003	MW-2	GROUND WATER	04/28/15 17:06

Please reference the Chain of Custody and Sample Receipt Checklist for specific container counts and preservatives. Any sample conditions not in compliance with sample acceptance criteria are described in Case Narrative Summary.

Notes:

1. The presence of a common laboratory contaminant such as methylene chloride may be considered a possible laboratory artifact. Where observed, appropriate consideration of data should be taken.
2. Unless otherwise noted in the case narrative, results are reported on a dry weight basis with the exception of pH, flashpoint, moisture, and paint filter test.
3. Drinking water samples collected for the purpose of compliance with SDWA may not be suitable for their intended use unless collected by a certified sampler [COMAR 26.08.05.07.C.2].
4. The analyses of 1,2-dibromo-3-chloropropane (DBCP) and 1,2-dibromoethane (EDB) by EPA 524.2 and calcium, magnesium, sodium and iron by EPA 200.8 are not currently promulgated for use in testing to meet the Safe Drinking Water Act and as such cannot be used for compliance purposes. The listings of the current promulgated methods for testing in compliance with the Safe Drinking Water Act can be found in the 40 CFR part 141.1, for the primary drinking water contaminants, and part 141.3, for the secondary drinking water contaminants.
5. Sample prepared under EPA 3550C with concentrations greater than 20 mg/Kg should employ the microtip extraction procedure if required to meet data quality objectives.
6. The analysis of acrolein by EPA 624 must be analyzed within three days of sampling unless pH is adjusted to 4-5 units [40 CFR part 136.3(e)].
7. Method 180.1, The Determination of Turbidity by Nephelometry, recommends samples over 40 NTU be diluted until the turbidity falls below 40 units. Routine samples over 40 NTU may not be diluted as long as the data quality objectives are not affected.
8. Alkalinity results analyzed by EPA 310.2 that are reported by dilution are estimated and are not in compliance with method requirements.

Standard Flags/Abbreviations:

- B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- C Results Pending Final Confirmation.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- Fail The result exceeds the regulatory level for Toxicity Characteristic (TCLP) as cited in 40 CFR 261.24 Table 1.
- J The target analyte was positively identified below the reporting limit but greater than the MDL.
- MDL This is the Laboratory Method Detection Limit which is equivalent to the Limit of Detection (LOD). The LOD is an estimate of the minimum amount of a substance that an analytical process can reliably detect. This value will remain constant across multiple similar instrumentation and among different analysts. An LOD is analyte and matrix specific.
- ND Not Detected at or above the reporting limit.
- RL PSS Reporting Limit.
- U Not detected.

Certifications:

NELAP Certifications: PA 68-03330, VA 460156
State Certifications: MD 179, WV 303
Regulated Soil Permit: P330-12-00268
NSWC USCG Accepted Laboratory
LDBE MWAA LD1997-0041-2015

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15043021

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: MW-3 **Date/Time Sampled: 04/28/2015 13:42** **PSS Sample ID: 15043021-001**
Matrix: GROUND WATER **Date/Time Received: 04/30/2015 12:20**

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3010A

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	ug/L	5.0		1	2.5	05/05/15	05/05/15 16:06	1034
Arsenic	16	ug/L	1.0		1	0.5	05/05/15	05/05/15 16:06	1034
Beryllium	ND	ug/L	1.0		1	0.5	05/05/15	05/05/15 16:06	1034
Cadmium	ND	ug/L	1.0		1	0.5	05/05/15	05/05/15 16:06	1034
Chromium	2.1	ug/L	1.0		1	0.5	05/05/15	05/05/15 16:06	1034
Copper	4.2	ug/L	1.0		1	0.5	05/05/15	05/05/15 16:06	1034
Lead	1.4	ug/L	1.0		1	0.5	05/05/15	05/05/15 16:06	1034
Mercury	ND	ug/L	0.20		1	0.1	05/05/15	05/05/15 16:06	1034
Nickel	6.9	ug/L	1.0		1	0.5	05/05/15	05/05/15 16:06	1034
Selenium	ND	ug/L	1.0		1	0.5	05/05/15	05/05/15 16:06	1034
Silver	ND	ug/L	1.0		1	0.5	05/05/15	05/05/15 16:06	1034
Thallium	ND	ug/L	1.0		1	0.5	05/05/15	05/05/15 16:06	1034
Zinc	31	ug/L	20		1	10	05/05/15	05/05/15 16:06	1034

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	0.14	mg/L	0.040		1	0.04	05/01/15	05/04/15 17:11	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/L	40		1	40	04/30/15	04/30/15 18:22	1035

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CERTIFICATE OF ANALYSIS

No: 15043021

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: MW-3 **Date/Time Sampled: 04/28/2015 13:42** **PSS Sample ID: 15043021-001**
Matrix: GROUND WATER **Date/Time Received: 04/30/2015 12:20**

TCL Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Dichlorodifluoromethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 05:46	1011
Chloromethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 05:46	1011
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 05:46	1011
Vinyl Chloride	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 05:46	1011
Bromomethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 05:46	1011
Chloroethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 05:46	1011
Acetone	ND	ug/L	10		1	5	05/02/15	05/03/15 05:46	1011
Cyclohexane	ND	ug/L	10		1	5	05/02/15	05/03/15 05:46	1011
Trichlorofluoromethane	ND	ug/L	5.0		1	2.5	05/02/15	05/03/15 05:46	1011
1,1-Dichloroethene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 05:46	1011
Methylene Chloride	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 05:46	1011
trans-1,2-Dichloroethene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 05:46	1011
Methyl-t-butyl ether	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 05:46	1011
1,1-Dichloroethane	0.79	ug/L	1.0	J	1	0.5	05/02/15	05/03/15 05:46	1011
2-Butanone	ND	ug/L	10		1	5	05/02/15	05/03/15 05:46	1011
cis-1,2-Dichloroethene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 05:46	1011
Bromochloromethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 05:46	1011
Chloroform	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 05:46	1011
1,1,1-Trichloroethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 05:46	1011
1,2-Dichloroethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 05:46	1011
Carbon Tetrachloride	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 05:46	1011
Benzene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 05:46	1011
1,2-Dichloropropane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 05:46	1011
Methyl Acetate	ND	ug/L	10		1	5	05/02/15	05/03/15 05:46	1011
Methylcyclohexane	ND	ug/L	10		1	5	05/02/15	05/03/15 05:46	1011
Trichloroethene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 05:46	1011
Carbon Disulfide	ND	ug/L	10		1	5	05/02/15	05/03/15 05:46	1011
Bromodichloromethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 05:46	1011
cis-1,3-Dichloropropene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 05:46	1011
4-Methyl-2-Pentanone	ND	ug/L	5.0		1	2.5	05/02/15	05/03/15 05:46	1011

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15043021

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: MW-3 **Date/Time Sampled: 04/28/2015 13:42** **PSS Sample ID: 15043021-001**
Matrix: GROUND WATER **Date/Time Received: 04/30/2015 12:20**

TCL Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
trans-1,3-Dichloropropene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 05:46	1011
1,1,2-Trichloroethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 05:46	1011
Toluene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 05:46	1011
2-Hexanone	ND	ug/L	10		1	5	05/02/15	05/03/15 05:46	1011
1,2-Dibromoethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 05:46	1011
Dibromochloromethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 05:46	1011
Bromoform	ND	ug/L	5.0		1	2.5	05/02/15	05/03/15 05:46	1011
Tetrachloroethene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 05:46	1011
Chlorobenzene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 05:46	1011
Ethylbenzene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 05:46	1011
m,p-Xylenes	ND	ug/L	2.0		1	1	05/02/15	05/03/15 05:46	1011
Styrene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 05:46	1011
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 05:46	1011
o-Xylene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 05:46	1011
Isopropylbenzene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 05:46	1011
1,3-Dichlorobenzene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 05:46	1011
1,4-Dichlorobenzene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 05:46	1011
1,2-Dichlorobenzene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 05:46	1011
1,2-Dibromo-3-Chloropropane	ND	ug/L	10		1	5	05/02/15	05/03/15 05:46	1011
1,2,4-Trichlorobenzene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 05:46	1011
1,2,3-Trichlorobenzene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 05:46	1011

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CERTIFICATE OF ANALYSIS

No: 15043021

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: MW-3 **Date/Time Sampled: 04/28/2015 13:42** **PSS Sample ID: 15043021-001**
Matrix: GROUND WATER **Date/Time Received: 04/30/2015 12:20**

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 16:43	1055
Acenaphthylene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 16:43	1055
Anthracene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 16:43	1055
Benzo(a)anthracene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 16:43	1055
Benzo(a)pyrene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 16:43	1055
Benzo(b)fluoranthene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 16:43	1055
Benzo(g,h,i)perylene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 16:43	1055
Benzo(k)fluoranthene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 16:43	1055
Chrysene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 16:43	1055
Dibenz(a,h)Anthracene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 16:43	1055
Fluoranthene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 16:43	1055
Fluorene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 16:43	1055
Indeno(1,2,3-c,d)Pyrene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 16:43	1055
2-Methylnaphthalene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 16:43	1055
Naphthalene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 16:43	1055
Phenanthrene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 16:43	1055
Pyrene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 16:43	1055

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CERTIFICATE OF ANALYSIS

No: 15043021

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: MW-3 **Date/Time Sampled: 04/28/2015 13:42** **PSS Sample ID: 15043021-001**
Matrix: GROUND WATER **Date/Time Received: 04/30/2015 12:20**

TCL Semivolatile Organic Compounds w/o PAHs Analytical Method: SW-846 8270 C

Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acetophenone	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 04:13	1055
Caprolactam	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 04:13	1055
Biphenyl (Diphenyl)	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 04:13	1055
Atrazine	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 04:13	1055
Butyl benzyl phthalate	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 04:13	1055
bis(2-chloroethoxy) methane	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 04:13	1055
bis(2-chloroethyl) ether	ND	ug/L	0.50		1	0.5	05/01/15	05/05/15 04:13	1055
bis(2-chloroisopropyl) ether	ND	ug/L	0.50		1	0.5	05/01/15	05/05/15 04:13	1055
bis(2-ethylhexyl) phthalate	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 04:13	1055
4-Bromophenylphenyl ether	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 04:13	1055
Di-n-butyl phthalate	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 04:13	1055
Carbazole	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 04:13	1055
4-Chloro-3-methyl phenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 04:13	1055
4-Chloroaniline	ND	ug/L	5.0		1	5	05/01/15	05/05/15 04:13	1055
2-Chloronaphthalene	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 04:13	1055
2-Chlorophenol	ND	ug/L	2.0		1	2	05/01/15	05/05/15 04:13	1055
4-Chlorophenyl phenyl ether	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 04:13	1055
Dibenzofuran	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 04:13	1055
3,3-Dichlorobenzidine	ND	ug/L	0.50		1	0.5	05/01/15	05/05/15 04:13	1055
2,4-Dichlorophenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 04:13	1055
Diethyl phthalate	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 04:13	1055
Dimethyl phthalate	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 04:13	1055
2,4-Dimethylphenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 04:13	1055
4,6-Dinitro-2-methyl phenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 04:13	1055
2,4-Dinitrophenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 04:13	1055
2,4-Dinitrotoluene	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 04:13	1055
2,6-Dinitrotoluene	ND	ug/L	2.0		1	1	05/01/15	05/05/15 04:13	1055
Hexachlorobenzene	ND	ug/L	1.0		1	0.5	05/01/15	05/05/15 04:13	1055
Hexachlorobutadiene	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 04:13	1055

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CERTIFICATE OF ANALYSIS

No: 15043021

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: MW-3 **Date/Time Sampled: 04/28/2015 13:42** **PSS Sample ID: 15043021-001**
Matrix: GROUND WATER **Date/Time Received: 04/30/2015 12:20**

TCL Semivolatile Organic Compounds w/o PAHs Analytical Method: SW-846 8270 C

Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Hexachlorocyclopentadiene	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 04:13	1055
Hexachloroethane	ND	ug/L	2.0		1	1	05/01/15	05/05/15 04:13	1055
Isophorone	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 04:13	1055
2-Methyl phenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 04:13	1055
3&4-Methylphenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 04:13	1055
4-Nitroaniline	ND	ug/L	5.0		1	5	05/01/15	05/05/15 04:13	1055
3-Nitroaniline	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 04:13	1055
2-Nitroaniline	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 04:13	1055
Nitrobenzene	ND	ug/L	2.0		1	1	05/01/15	05/05/15 04:13	1055
2-Nitrophenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 04:13	1055
4-Nitrophenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 04:13	1055
N-Nitrosodi-n-propyl amine	ND	ug/L	0.50		1	0.5	05/01/15	05/05/15 04:13	1055
N-Nitrosodiphenylamine	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 04:13	1055
Di-n-octyl phthalate	ND	ug/L	5.0		1	5	05/01/15	05/05/15 04:13	1055
Pentachlorophenol	ND	ug/L	2.0		1	2	05/01/15	05/05/15 04:13	1055
Phenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 04:13	1055
Pyridine	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 04:13	1055
2,4,6-Trichlorophenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 04:13	1055
2,4,5-Trichlorophenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 04:13	1055

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CERTIFICATE OF ANALYSIS

No: 15043021

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: MW-9 **Date/Time Sampled: 04/28/2015 14:50** **PSS Sample ID: 15043021-002**
Matrix: GROUND WATER **Date/Time Received: 04/30/2015 12:20**

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3010A

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	ug/L	5.0		1	2.5	05/05/15	05/05/15 16:37	1034
Arsenic	ND	ug/L	1.0		1	0.5	05/05/15	05/05/15 16:37	1034
Beryllium	ND	ug/L	1.0		1	0.5	05/05/15	05/05/15 16:37	1034
Cadmium	ND	ug/L	1.0		1	0.5	05/05/15	05/05/15 16:37	1034
Chromium	1.2	ug/L	1.0		1	0.5	05/05/15	05/05/15 16:37	1034
Copper	0.72	ug/L	1.0	J	1	0.5	05/05/15	05/05/15 16:37	1034
Lead	0.76	ug/L	1.0	J	1	0.5	05/05/15	05/05/15 16:37	1034
Mercury	ND	ug/L	0.20		1	0.1	05/05/15	05/05/15 16:37	1034
Nickel	1.6	ug/L	1.0		1	0.5	05/05/15	05/05/15 16:37	1034
Selenium	ND	ug/L	1.0		1	0.5	05/05/15	05/05/15 16:37	1034
Silver	ND	ug/L	1.0		1	0.5	05/05/15	05/05/15 16:37	1034
Thallium	ND	ug/L	1.0		1	0.5	05/05/15	05/05/15 16:37	1034
Zinc	15	ug/L	20	J	1	10	05/05/15	05/05/15 16:37	1034

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	0.21	mg/L	0.040		1	0.04	05/01/15	05/04/15 17:11	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/L	40		1	40	04/30/15	04/30/15 18:47	1035

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15043021

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: MW-9 **Date/Time Sampled: 04/28/2015 14:50** **PSS Sample ID: 15043021-002**
Matrix: GROUND WATER **Date/Time Received: 04/30/2015 12:20**

TCL Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Dichlorodifluoromethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 06:21	1011
Chloromethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 06:21	1011
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 06:21	1011
Vinyl Chloride	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 06:21	1011
Bromomethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 06:21	1011
Chloroethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 06:21	1011
Acetone	ND	ug/L	10		1	5	05/02/15	05/03/15 06:21	1011
Cyclohexane	ND	ug/L	10		1	5	05/02/15	05/03/15 06:21	1011
Trichlorofluoromethane	ND	ug/L	5.0		1	2.5	05/02/15	05/03/15 06:21	1011
1,1-Dichloroethene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 06:21	1011
Methylene Chloride	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 06:21	1011
trans-1,2-Dichloroethene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 06:21	1011
Methyl-t-butyl ether	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 06:21	1011
1,1-Dichloroethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 06:21	1011
2-Butanone	ND	ug/L	10		1	5	05/02/15	05/03/15 06:21	1011
cis-1,2-Dichloroethene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 06:21	1011
Bromochloromethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 06:21	1011
Chloroform	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 06:21	1011
1,1,1-Trichloroethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 06:21	1011
1,2-Dichloroethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 06:21	1011
Carbon Tetrachloride	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 06:21	1011
Benzene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 06:21	1011
1,2-Dichloropropane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 06:21	1011
Methyl Acetate	ND	ug/L	10		1	5	05/02/15	05/03/15 06:21	1011
Methylcyclohexane	ND	ug/L	10		1	5	05/02/15	05/03/15 06:21	1011
Trichloroethene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 06:21	1011
Carbon Disulfide	ND	ug/L	10		1	5	05/02/15	05/03/15 06:21	1011
Bromodichloromethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 06:21	1011
cis-1,3-Dichloropropene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 06:21	1011
4-Methyl-2-Pentanone	ND	ug/L	5.0		1	2.5	05/02/15	05/03/15 06:21	1011

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15043021

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: MW-9 **Date/Time Sampled: 04/28/2015 14:50** **PSS Sample ID: 15043021-002**
Matrix: GROUND WATER **Date/Time Received: 04/30/2015 12:20**

TCL Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
trans-1,3-Dichloropropene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 06:21	1011
1,1,2-Trichloroethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 06:21	1011
Toluene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 06:21	1011
2-Hexanone	ND	ug/L	10		1	5	05/02/15	05/03/15 06:21	1011
1,2-Dibromoethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 06:21	1011
Dibromochloromethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 06:21	1011
Bromoform	ND	ug/L	5.0		1	2.5	05/02/15	05/03/15 06:21	1011
Tetrachloroethene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 06:21	1011
Chlorobenzene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 06:21	1011
Ethylbenzene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 06:21	1011
m,p-Xylenes	ND	ug/L	2.0		1	1	05/02/15	05/03/15 06:21	1011
Styrene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 06:21	1011
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 06:21	1011
o-Xylene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 06:21	1011
Isopropylbenzene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 06:21	1011
1,3-Dichlorobenzene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 06:21	1011
1,4-Dichlorobenzene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 06:21	1011
1,2-Dichlorobenzene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 06:21	1011
1,2-Dibromo-3-Chloropropane	ND	ug/L	10		1	5	05/02/15	05/03/15 06:21	1011
1,2,4-Trichlorobenzene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 06:21	1011
1,2,3-Trichlorobenzene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 06:21	1011

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CERTIFICATE OF ANALYSIS

No: 15043021

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: MW-9 **Date/Time Sampled: 04/28/2015 14:50** **PSS Sample ID: 15043021-002**
Matrix: GROUND WATER **Date/Time Received: 04/30/2015 12:20**

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	0.43	ug/L	0.10		1	0.1	05/04/15	05/08/15 17:13	1055
Acenaphthylene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 17:13	1055
Anthracene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 17:13	1055
Benzo(a)anthracene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 17:13	1055
Benzo(a)pyrene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 17:13	1055
Benzo(b)fluoranthene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 17:13	1055
Benzo(g,h,i)perylene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 17:13	1055
Benzo(k)fluoranthene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 17:13	1055
Chrysene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 17:13	1055
Dibenz(a,h)Anthracene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 17:13	1055
Fluoranthene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 17:13	1055
Fluorene	0.14	ug/L	0.10		1	0.1	05/04/15	05/08/15 17:13	1055
Indeno(1,2,3-c,d)Pyrene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 17:13	1055
2-Methylnaphthalene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 17:13	1055
Naphthalene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 17:13	1055
Phenanthrene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 17:13	1055
Pyrene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 17:13	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15043021

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: MW-2 **Date/Time Sampled: 04/28/2015 17:06** **PSS Sample ID: 15043021-003**
Matrix: GROUND WATER **Date/Time Received: 04/30/2015 12:20**

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3010A

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	ug/L	5.0		1	2.5	05/05/15	05/05/15 16:42	1034
Arsenic	1.4	ug/L	1.0		1	0.5	05/05/15	05/05/15 16:42	1034
Beryllium	ND	ug/L	1.0		1	0.5	05/05/15	05/05/15 16:42	1034
Cadmium	ND	ug/L	1.0		1	0.5	05/05/15	05/05/15 16:42	1034
Chromium	4.6	ug/L	1.0		1	0.5	05/05/15	05/05/15 16:42	1034
Copper	3.6	ug/L	1.0		1	0.5	05/05/15	05/05/15 16:42	1034
Lead	1.5	ug/L	1.0		1	0.5	05/05/15	05/05/15 16:42	1034
Mercury	0.39	ug/L	0.20		1	0.1	05/05/15	05/05/15 16:42	1034
Nickel	11	ug/L	1.0		1	0.5	05/05/15	05/05/15 16:42	1034
Selenium	1.8	ug/L	1.0		1	0.5	05/05/15	05/05/15 16:42	1034
Silver	ND	ug/L	1.0		1	0.5	05/05/15	05/05/15 16:42	1034
Thallium	ND	ug/L	1.0		1	0.5	05/05/15	05/05/15 16:42	1034
Zinc	51	ug/L	20		1	10	05/05/15	05/05/15 16:42	1034

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	0.070	mg/L	0.040		1	0.04	05/01/15	05/04/15 17:42	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/L	40		1	40	04/30/15	04/30/15 19:13	1035

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15043021

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: MW-2 **Date/Time Sampled: 04/28/2015 17:06** **PSS Sample ID: 15043021-003**
Matrix: GROUND WATER **Date/Time Received: 04/30/2015 12:20**

TCL Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Dichlorodifluoromethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 06:56	1011
Chloromethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 06:56	1011
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 06:56	1011
Vinyl Chloride	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 06:56	1011
Bromomethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 06:56	1011
Chloroethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 06:56	1011
Acetone	ND	ug/L	10		1	5	05/02/15	05/03/15 06:56	1011
Cyclohexane	ND	ug/L	10		1	5	05/02/15	05/03/15 06:56	1011
Trichlorofluoromethane	ND	ug/L	5.0		1	2.5	05/02/15	05/03/15 06:56	1011
1,1-Dichloroethene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 06:56	1011
Methylene Chloride	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 06:56	1011
trans-1,2-Dichloroethene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 06:56	1011
Methyl-t-butyl ether	0.65	ug/L	1.0	J	1	0.5	05/02/15	05/03/15 06:56	1011
1,1-Dichloroethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 06:56	1011
2-Butanone	ND	ug/L	10		1	5	05/02/15	05/03/15 06:56	1011
cis-1,2-Dichloroethene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 06:56	1011
Bromochloromethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 06:56	1011
Chloroform	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 06:56	1011
1,1,1-Trichloroethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 06:56	1011
1,2-Dichloroethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 06:56	1011
Carbon Tetrachloride	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 06:56	1011
Benzene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 06:56	1011
1,2-Dichloropropane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 06:56	1011
Methyl Acetate	ND	ug/L	10		1	5	05/02/15	05/03/15 06:56	1011
Methylcyclohexane	ND	ug/L	10		1	5	05/02/15	05/03/15 06:56	1011
Trichloroethene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 06:56	1011
Carbon Disulfide	ND	ug/L	10		1	5	05/02/15	05/03/15 06:56	1011
Bromodichloromethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 06:56	1011
cis-1,3-Dichloropropene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 06:56	1011
4-Methyl-2-Pentanone	ND	ug/L	5.0		1	2.5	05/02/15	05/03/15 06:56	1011

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CERTIFICATE OF ANALYSIS

No: 15043021

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: MW-2 **Date/Time Sampled: 04/28/2015 17:06** **PSS Sample ID: 15043021-003**
Matrix: GROUND WATER **Date/Time Received: 04/30/2015 12:20**

TCL Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
trans-1,3-Dichloropropene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 06:56	1011
1,1,2-Trichloroethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 06:56	1011
Toluene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 06:56	1011
2-Hexanone	ND	ug/L	10		1	5	05/02/15	05/03/15 06:56	1011
1,2-Dibromoethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 06:56	1011
Dibromochloromethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 06:56	1011
Bromoform	ND	ug/L	5.0		1	2.5	05/02/15	05/03/15 06:56	1011
Tetrachloroethene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 06:56	1011
Chlorobenzene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 06:56	1011
Ethylbenzene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 06:56	1011
m,p-Xylenes	ND	ug/L	2.0		1	1	05/02/15	05/03/15 06:56	1011
Styrene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 06:56	1011
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 06:56	1011
o-Xylene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 06:56	1011
Isopropylbenzene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 06:56	1011
1,3-Dichlorobenzene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 06:56	1011
1,4-Dichlorobenzene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 06:56	1011
1,2-Dichlorobenzene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 06:56	1011
1,2-Dibromo-3-Chloropropane	ND	ug/L	10		1	5	05/02/15	05/03/15 06:56	1011
1,2,4-Trichlorobenzene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 06:56	1011
1,2,3-Trichlorobenzene	ND	ug/L	1.0		1	0.5	05/02/15	05/03/15 06:56	1011

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Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: MW-2 **Date/Time Sampled: 04/28/2015 17:06** **PSS Sample ID: 15043021-003**
Matrix: GROUND WATER **Date/Time Received: 04/30/2015 12:20**

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 17:43	1055
Acenaphthylene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 17:43	1055
Anthracene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 17:43	1055
Benzo(a)anthracene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 17:43	1055
Benzo(a)pyrene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 17:43	1055
Benzo(b)fluoranthene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 17:43	1055
Benzo(g,h,i)perylene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 17:43	1055
Benzo(k)fluoranthene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 17:43	1055
Chrysene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 17:43	1055
Dibenz(a,h)Anthracene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 17:43	1055
Fluoranthene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 17:43	1055
Fluorene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 17:43	1055
Indeno(1,2,3-c,d)Pyrene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 17:43	1055
2-Methylnaphthalene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 17:43	1055
Naphthalene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 17:43	1055
Phenanthrene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 17:43	1055
Pyrene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 17:43	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15043021

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: MW-2 **Date/Time Sampled: 04/28/2015 17:06** **PSS Sample ID: 15043021-003**
Matrix: GROUND WATER **Date/Time Received: 04/30/2015 12:20**

TCL Semivolatile Organic Compounds w/o Analytical Method: SW-846 8270 C
 PAHs

Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acetophenone	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 04:45	1055
Caprolactam	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 04:45	1055
Biphenyl (Diphenyl)	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 04:45	1055
Atrazine	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 04:45	1055
Butyl benzyl phthalate	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 04:45	1055
bis(2-chloroethoxy) methane	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 04:45	1055
bis(2-chloroethyl) ether	ND	ug/L	0.50		1	0.5	05/01/15	05/05/15 04:45	1055
bis(2-chloroisopropyl) ether	ND	ug/L	0.50		1	0.5	05/01/15	05/05/15 04:45	1055
bis(2-ethylhexyl) phthalate	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 04:45	1055
4-Bromophenylphenyl ether	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 04:45	1055
Di-n-butyl phthalate	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 04:45	1055
Carbazole	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 04:45	1055
4-Chloro-3-methyl phenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 04:45	1055
4-Chloroaniline	ND	ug/L	5.0		1	5	05/01/15	05/05/15 04:45	1055
2-Chloronaphthalene	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 04:45	1055
2-Chlorophenol	ND	ug/L	2.0		1	2	05/01/15	05/05/15 04:45	1055
4-Chlorophenyl phenyl ether	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 04:45	1055
Dibenzofuran	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 04:45	1055
3,3-Dichlorobenzidine	ND	ug/L	0.50		1	0.5	05/01/15	05/05/15 04:45	1055
2,4-Dichlorophenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 04:45	1055
Diethyl phthalate	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 04:45	1055
Dimethyl phthalate	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 04:45	1055
2,4-Dimethylphenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 04:45	1055
4,6-Dinitro-2-methyl phenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 04:45	1055
2,4-Dinitrophenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 04:45	1055
2,4-Dinitrotoluene	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 04:45	1055
2,6-Dinitrotoluene	ND	ug/L	2.0		1	1	05/01/15	05/05/15 04:45	1055
Hexachlorobenzene	ND	ug/L	1.0		1	0.5	05/01/15	05/05/15 04:45	1055
Hexachlorobutadiene	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 04:45	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15043021

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: MW-2 **Date/Time Sampled: 04/28/2015 17:06** **PSS Sample ID: 15043021-003**
Matrix: GROUND WATER **Date/Time Received: 04/30/2015 12:20**

TCL Semivolatile Organic Compounds w/o Analytical Method: SW-846 8270 C
 PAHs

Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Hexachlorocyclopentadiene	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 04:45	1055
Hexachloroethane	ND	ug/L	2.0		1	1	05/01/15	05/05/15 04:45	1055
Isophorone	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 04:45	1055
2-Methyl phenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 04:45	1055
3&4-Methylphenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 04:45	1055
4-Nitroaniline	ND	ug/L	5.0		1	5	05/01/15	05/05/15 04:45	1055
3-Nitroaniline	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 04:45	1055
2-Nitroaniline	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 04:45	1055
Nitrobenzene	ND	ug/L	2.0		1	1	05/01/15	05/05/15 04:45	1055
2-Nitrophenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 04:45	1055
4-Nitrophenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 04:45	1055
N-Nitrosodi-n-propyl amine	ND	ug/L	0.50		1	0.5	05/01/15	05/05/15 04:45	1055
N-Nitrosodiphenylamine	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 04:45	1055
Di-n-octyl phthalate	ND	ug/L	5.0		1	5	05/01/15	05/05/15 04:45	1055
Pentachlorophenol	ND	ug/L	2.0		1	2	05/01/15	05/05/15 04:45	1055
Phenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 04:45	1055
Pyridine	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 04:45	1055
2,4,6-Trichlorophenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 04:45	1055
2,4,5-Trichlorophenol	ND	ug/L	5.0		1	2.5	05/01/15	05/05/15 04:45	1055



Case Narrative Summary

Client Name: Arc Environmental

Project Name: Percontee

Work Order Number(s): 15043021

Any holding time exceedances, deviations from the method specifications, regulatory requirements or variations to the procedures outlined in the PSS Quality Assurance Manual are outlined below.

The analyses of chlorine, pH, dissolved oxygen, temperature and sulfite for drinking water and non-potable samples tested for compliance have a maximum holding time of 15 minutes. As such, all laboratory analyses for these analytes exceed holding times.

Matrix spike and matrix spike duplicate analyses may not be performed due to insufficient sample quantity. In these instances, a laboratory control sample and laboratory control sample duplicate are analyzed unless otherwise noted or specified in the method.

Sample Receipt:

One amber for sample MW-9 received broken. Per client, analyze remaining ambers for PAHs and DRO. Sample(s) received at 0 degrees but no samples were frozen.

Analytical:

PP Metals

Batch: 122413

Low Level CCV for Arsenic and Antimony (69% and 68% recovery) exceeds acceptance criteria of 70-130%.

Total Petroleum Hydrocarbons - DRO

Batch: 122374

Surrogate exceedances identified; see surrogate summary form. Sample 15043021-001 showed no surrogate recovery.

Total Petroleum Hydrocarbons-GRO

Batch: 122319

Surrogate exceedances identified; see surrogate summary form.

Poly Aromatic Hydrocarbons by SIM

Batch: 122519

Laboratory control sample and/or laboratory control sample duplicate (LCS/LCSD) exceedances identified; see LCS summary form.

TCL Semivolatile Organic Compounds w/o PAHs

Batch: 122428

Surrogate exceedances identified; see surrogate summary form.

Laboratory control sample and/or laboratory control sample duplicate (LCS/LCSD) exceedances identified; see LCS summary form.

NELAP accreditation was held for all analyses performed unless noted below. See www.phaseonline.com for complete PSS scope of accreditation.



Analytical Data Package Information Summary

Work Order(s): 15043021

Report Prepared For: Arc Environmental, Baltimore, MD

Project Name: Percontee

Project Manager: Christie Pulvino

Method	Client Sample Id	Analysis Type	Lab Sample Id	Analyst	Mtx	Prep Batch	Analytical Batch	Sampled	Prepared	Analyzed
SW-846 6020 A	MW-3	Initial	15043021-001	1034	W	55290	122413	04/28/2015	05/05/2015 09:17	05/05/2015 16:06
	MW-9	Initial	15043021-002	1034	W	55290	122413	04/28/2015	05/05/2015 09:17	05/05/2015 16:37
	MW-2	Initial	15043021-003	1034	W	55290	122413	04/28/2015	05/05/2015 09:17	05/05/2015 16:42
	55290-1-BKS	BKS	55290-1-BKS	1034	W	55290	122413	-----	05/05/2015 09:17	05/05/2015 14:43
	55290-1-BLK	BLK	55290-1-BLK	1034	W	55290	122413	-----	05/05/2015 09:17	05/05/2015 14:37
	MW-4 S	MS	15043020-001 S	1034	W	55290	122413	04/29/2015	05/05/2015 09:17	05/05/2015 15:18
	MW-4 SD	MSD	15043020-001 SD	1034	W	55290	122413	04/29/2015	05/05/2015 09:17	05/05/2015 15:24
SW-846 8015 C	MW-3	Initial	15043021-001	1055	W	55251	122374	04/28/2015	05/01/2015 10:46	05/04/2015 17:11
	MW-9	Initial	15043021-002	1055	W	55251	122374	04/28/2015	05/01/2015 10:46	05/04/2015 17:11
	MW-2	Initial	15043021-003	1055	W	55251	122374	04/28/2015	05/01/2015 10:46	05/04/2015 17:42
	55251-1-BKS	BKS	55251-1-BKS	1055	W	55251	122374	-----	05/01/2015 10:46	05/04/2015 14:24
	55251-1-BLK	BLK	55251-1-BLK	1055	W	55251	122374	-----	05/01/2015 10:46	05/04/2015 13:52
	55251-1-BSD	BSD	55251-1-BSD	1055	W	55251	122374	-----	05/01/2015 10:46	05/04/2015 14:55
SW-846 8015C	MW-3	Initial	15043021-001	1035	W	55258	122319	04/28/2015	04/30/2015 11:58	04/30/2015 18:22
	MW-9	Initial	15043021-002	1035	W	55258	122319	04/28/2015	04/30/2015 11:58	04/30/2015 18:47
	MW-2	Initial	15043021-003	1035	W	55258	122319	04/28/2015	04/30/2015 11:58	04/30/2015 19:13
	55258-2-BKS	BKS	55258-2-BKS	1035	W	55258	122319	-----	04/30/2015 11:58	04/30/2015 15:49
	55258-2-BLK	BLK	55258-2-BLK	1035	W	55258	122319	-----	04/30/2015 11:58	04/30/2015 14:06
	GZ-7 S	MS	15042817-001 S	1035	W	55258	122319	04/25/2015	04/30/2015 11:58	05/01/2015 08:05
	GZ-7 SD	MSD	15042817-001 SD	1035	W	55258	122319	04/25/2015	04/30/2015 11:58	05/01/2015 08:30
SW-846 8260 B	MW-3	Initial	15043021-001	1011	W	55269	122335	04/28/2015	05/02/2015 08:48	05/03/2015 05:46
	MW-9	Initial	15043021-002	1011	W	55269	122335	04/28/2015	05/02/2015 08:48	05/03/2015 06:21
	MW-2	Initial	15043021-003	1011	W	55269	122335	04/28/2015	05/02/2015 08:48	05/03/2015 06:56
	55269-1-BKS	BKS	55269-1-BKS	1011	W	55269	122335	-----	05/02/2015 08:48	05/02/2015 23:19
	55269-1-BLK	BLK	55269-1-BLK	1011	W	55269	122335	-----	05/02/2015 08:48	05/03/2015 00:30
	MW-4 S	MS	15043020-001 S	1011	W	55269	122335	04/29/2015	05/02/2015 08:48	05/03/2015 01:40
	MW-4 SD	MSD	15043020-001 SD	1011	W	55269	122335	04/29/2015	05/02/2015 08:48	05/03/2015 02:15



Analytical Data Package Information Summary

Work Order(s): 15043021

Report Prepared For: Arc Environmental, Baltimore, MD

Project Name: Percontee

Project Manager: Christie Pulvino

Method	Client Sample Id	Analysis Type	Lab Sample Id	Analyst	Mtx	Prep Batch	Analytical Batch	Sampled	Prepared	Analyzed
SW-846 8270 C	MW-3	Initial	15043021-001	1055	W	55253	122428	04/28/2015	05/01/2015 12:30	05/05/2015 04:13
	MW-2	Initial	15043021-003	1055	W	55253	122428	04/28/2015	05/01/2015 12:30	05/05/2015 04:45
	55253-1-BKS	BKS	55253-1-BKS	1014	W	55253	122428	-----	05/01/2015 12:30	05/04/2015 21:19
	55253-1-BLK	BLK	55253-1-BLK	1014	W	55253	122428	-----	05/01/2015 12:30	05/04/2015 20:15
	55253-1-BSD	BSD	55253-1-BSD	1014	W	55253	122428	-----	05/01/2015 12:30	05/04/2015 21:51
SW-846 8270 C	MW-3	Initial	15043021-001	1055	W	55283	122519	04/28/2015	05/04/2015 14:51	05/08/2015 16:43
	MW-9	Initial	15043021-002	1055	W	55283	122519	04/28/2015	05/04/2015 14:51	05/08/2015 17:13
	MW-2	Initial	15043021-003	1055	W	55283	122519	04/28/2015	05/04/2015 14:51	05/08/2015 17:43
	55283-1-BKS	BKS	55283-1-BKS	1055	W	55283	122519	-----	05/04/2015 14:51	05/08/2015 20:40
	55283-1-BLK	BLK	55283-1-BLK	1055	W	55283	122519	-----	05/04/2015 14:51	05/08/2015 13:44
	55283-1-BSD	BSD	55283-1-BSD	1055	W	55283	122519	-----	05/04/2015 14:51	05/08/2015 21:10

PHASE SEPARATION SCIENCE, INC.

QC Summary 15043021

Arc Environmental Percontee

Analytical Method: SW-846 8015 C

Seq Number: 122374
PSS Sample ID: 15043021-001

Matrix: Ground Water

Prep Method: SW3510C
Date Prep: 05/01/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	0	*	37-136	%	05/04/15 17:11

Analytical Method: SW-846 8270 C

Seq Number: 122428
PSS Sample ID: 15043021-001

Matrix: Ground Water

Prep Method: SW3510C
Date Prep: 05/01/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	125	*	68-116	%	05/05/15 04:13
2-Fluorophenol	81		57-98	%	05/05/15 04:13
Nitrobenzene-d5	118	*	58-107	%	05/05/15 04:13
Phenol-d6	90		59-109	%	05/05/15 04:13
Terphenyl-D14	135	*	69-121	%	05/05/15 04:13
2,4,6-Tribromophenol	98		48-119	%	05/05/15 04:13

Analytical Method: SW-846 8270 C

Seq Number: 122519
PSS Sample ID: 15043021-001

Matrix: Ground Water

Prep Method: SW3510C
Date Prep: 05/04/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	63		40-106	%	05/08/15 16:43
Nitrobenzene-d5	67		36-105	%	05/08/15 16:43
Terphenyl-D14	79		50-120	%	05/08/15 16:43

Analytical Method: SW-846 8015C

Seq Number: 122319
PSS Sample ID: 15043021-001

Matrix: Ground Water

Prep Method: SW5030B
Date Prep: 04/30/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	68		65-111	%	04/30/15 18:22

Analytical Method: SW-846 8260 B

Seq Number: 122335
PSS Sample ID: 15043021-001

Matrix: Ground Water

Prep Method: SW5030B
Date Prep: 05/02/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	96		81-133	%	05/03/15 05:46
Dibromofluoromethane	106		84-110	%	05/03/15 05:46
Toluene-D8	102		94-109	%	05/03/15 05:46

PHASE SEPARATION SCIENCE, INC.

QC Summary 15043021

Arc Environmental Percontee

Analytical Method: SW-846 8015 C

Seq Number: 122374
PSS Sample ID: 15043021-002

Matrix: Ground Water

Prep Method: SW3510C
Date Prep: 05/01/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	84		37-136	%	05/04/15 17:11

Analytical Method: SW-846 8270 C

Seq Number: 122519
PSS Sample ID: 15043021-002

Matrix: Ground Water

Prep Method: SW3510C
Date Prep: 05/04/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	66		40-106	%	05/08/15 17:13
Nitrobenzene-d5	62		36-105	%	05/08/15 17:13
Terphenyl-D14	80		50-120	%	05/08/15 17:13

Analytical Method: SW-846 8015C

Seq Number: 122319
PSS Sample ID: 15043021-002

Matrix: Ground Water

Prep Method: SW5030B
Date Prep: 04/30/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	69		65-111	%	04/30/15 18:47

Analytical Method: SW-846 8260 B

Seq Number: 122335
PSS Sample ID: 15043021-002

Matrix: Ground Water

Prep Method: SW5030B
Date Prep: 05/02/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	97		81-133	%	05/03/15 06:21
Dibromofluoromethane	105		84-110	%	05/03/15 06:21
Toluene-D8	104		94-109	%	05/03/15 06:21

Analytical Method: SW-846 8015 C

Seq Number: 122374
PSS Sample ID: 15043021-003

Matrix: Ground Water

Prep Method: SW3510C
Date Prep: 05/01/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	70		37-136	%	05/04/15 17:42

PHASE SEPARATION SCIENCE, INC.

QC Summary 15043021

Arc Environmental Percontee

Analytical Method: SW-846 8270 C

Seq Number: 122428
PSS Sample ID: 15043021-003

Matrix: Ground Water

Prep Method: SW3510C
Date Prep: 05/01/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	114		68-116	%	05/05/15 04:45
2-Fluorophenol	78		57-98	%	05/05/15 04:45
Nitrobenzene-d5	114	*	58-107	%	05/05/15 04:45
Phenol-d6	88		59-109	%	05/05/15 04:45
Terphenyl-D14	142	*	69-121	%	05/05/15 04:45
2,4,6-Tribromophenol	108		48-119	%	05/05/15 04:45

Analytical Method: SW-846 8270 C

Seq Number: 122519
PSS Sample ID: 15043021-003

Matrix: Ground Water

Prep Method: SW3510C
Date Prep: 05/04/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	56		40-106	%	05/08/15 17:43
Nitrobenzene-d5	59		36-105	%	05/08/15 17:43
Terphenyl-D14	71		50-120	%	05/08/15 17:43

Analytical Method: SW-846 8015C

Seq Number: 122319
PSS Sample ID: 15043021-003

Matrix: Ground Water

Prep Method: SW5030B
Date Prep: 04/30/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	69		65-111	%	04/30/15 19:13

Analytical Method: SW-846 8260 B

Seq Number: 122335
PSS Sample ID: 15043021-003

Matrix: Ground Water

Prep Method: SW5030B
Date Prep: 05/02/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	99		81-133	%	05/03/15 06:56
Dibromofluoromethane	106		84-110	%	05/03/15 06:56
Toluene-D8	103		94-109	%	05/03/15 06:56

F = RPD exceeded the laboratory control limits
X = Recovery of MS, MSD or both outside of QC Criteria
H= Recovery of BS,BSD or both exceeded the laboratory control limits
L = Recovery of BS,BSD or both below the laboratory control limits

PHASE SEPARATION SCIENCE, INC.

QC Summary 15043021

Arc Environmental Percontee

Analytical Method: SW-846 6020 A

Seq Number: 122413

MB Sample Id: 55290-1-BLK

Matrix: Water

LCS Sample Id: 55290-1-BKS

Prep Method: SW3010A

Date Prep: 05/05/15

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Analysis Date	Flag
Antimony	<2.500	40.00	41.45	104	80-120	ug/L	05/05/15 14:43	
Arsenic	<0.5000	40.00	41.61	104	80-120	ug/L	05/05/15 14:43	
Beryllium	<0.5000	40.00	39.67	99	80-120	ug/L	05/05/15 14:43	
Cadmium	<0.5000	40.00	42.65	107	80-120	ug/L	05/05/15 14:43	
Chromium	<0.5000	40.00	40.63	102	80-120	ug/L	05/05/15 14:43	
Copper	<0.5000	40.00	38.91	97	80-120	ug/L	05/05/15 14:43	
Lead	<0.5000	40.00	39.75	99	80-120	ug/L	05/05/15 14:43	
Mercury	<0.1000	1.000	1.020	102	80-120	ug/L	05/05/15 14:43	
Nickel	<0.5000	40.00	41.45	104	80-120	ug/L	05/05/15 14:43	
Selenium	<0.5000	40.00	40.31	101	80-120	ug/L	05/05/15 14:43	
Silver	<0.5000	40.00	40.88	102	80-120	ug/L	05/05/15 14:43	
Thallium	<0.5000	40.00	38.95	97	80-120	ug/L	05/05/15 14:43	
Zinc	<10.00	40.00	43.98	110	80-120	ug/L	05/05/15 14:43	

Analytical Method: SW-846 8015 C

Seq Number: 122374

MB Sample Id: 55251-1-BLK

Matrix: Water

LCS Sample Id: 55251-1-BKS

Prep Method: SW3510C

Date Prep: 05/01/15

LCSD Sample Id: 55251-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
TPH-DRO (Diesel Range Organics)	<0.04000	1.000	1.002	100	1.033	103	61-119	3	20	mg/L	05/04/15 14:24	
Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units	Analysis Date	Flag		
o-Terphenyl	78		75		76		37-136	%	05/04/15 14:24			

PHASE SEPARATION SCIENCE, INC.

QC Summary 15043021

Arc Environmental Percontee

Analytical Method: SW-846 8270 C

Seq Number: 122428

MB Sample Id: 55253-1-BLK

Matrix: Water

LCS Sample Id: 55253-1-BKS

Prep Method: SW3510C

Date Prep: 05/01/15

LCSD Sample Id: 55253-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Acetophenone	<2.500	40.00	34.96	87	32.28	81	64-108	8	20	ug/L	05/04/15 21:19	
Caprolactam	<2.500	40.00	44.03	110	42.49	106	51-128	4	20	ug/L	05/04/15 21:19	
Biphenyl (Diphenyl)	<2.500	40.00	37.75	94	34.85	87	77-107	8	20	ug/L	05/04/15 21:19	
Butyl benzyl phthalate	<2.500	40.00	39.06	98	36.04	90	71-124	8	20	ug/L	05/04/15 21:19	
bis(2-chloroethoxy) methane	<2.500	40.00	36.54	91	33.96	85	56-105	7	20	ug/L	05/04/15 21:19	
bis(2-chloroethyl) ether	<0.5000	40.00	34.64	87	31.83	80	54-107	8	20	ug/L	05/04/15 21:19	
bis(2-chloroisopropyl) ether	<0.5000	40.00	40.11	100	36.75	92	41-120	9	20	ug/L	05/04/15 21:19	
bis(2-ethylhexyl) phthalate	<2.500	40.00	38.27	96	35.15	88	63-133	8	20	ug/L	05/04/15 21:19	
4-Bromophenylphenyl ether	<2.500	40.00	40.47	101	37.58	94	65-109	7	20	ug/L	05/04/15 21:19	
Di-n-butyl phthalate	<2.500	40.00	38.60	97	35.81	90	72-122	7	20	ug/L	05/04/15 21:19	
Carbazole	<2.500	40.00	39.22	98	38.23	96	60-116	3	20	ug/L	05/04/15 21:19	
4-Chloro-3-methyl phenol	<2.500	40.00	40.43	101	38.60	97	65-114	5	20	ug/L	05/04/15 21:19	
4-Chloroaniline	<5.000	40.00	38.73	97	37.25	93	71-103	4	20	ug/L	05/04/15 21:19	
2-Chloronaphthalene	<2.500	40.00	35.22	88	31.81	80	72-108	10	20	ug/L	05/04/15 21:19	
2-Chlorophenol	<2.000	40.00	34.65	87	32.09	80	68-99	8	20	ug/L	05/04/15 21:19	
4-Chlorophenyl phenyl ether	<2.500	40.00	42.01	105	38.63	97	66-110	8	20	ug/L	05/04/15 21:19	
Dibenzofuran	<2.500	40.00	38.29	96	35.66	89	72-108	7	20	ug/L	05/04/15 21:19	
3,3-Dichlorobenzidine	<0.5000	40.00	50.60	127	47.65	119	71-112	6	20	ug/L	05/04/15 21:19	H
2,4-Dichlorophenol	<2.500	40.00	38.18	95	36.35	91	71-104	5	20	ug/L	05/04/15 21:19	
Diethyl phthalate	<2.500	40.00	38.70	97	35.86	90	71-121	8	20	ug/L	05/04/15 21:19	
Dimethyl phthalate	<2.500	40.00	37.39	93	34.60	87	72-114	8	20	ug/L	05/04/15 21:19	
2,4-Dimethylphenol	<2.500	40.00	36.59	91	34.19	85	68-98	7	20	ug/L	05/04/15 21:19	
4,6-Dinitro-2-methyl phenol	<2.500	40.00	47.86	120	45.12	113	54-130	6	20	ug/L	05/04/15 21:19	
2,4-Dinitrophenol	<2.500	40.00	37.51	94	36.94	92	37-137	2	20	ug/L	05/04/15 21:19	
2,4-Dinitrotoluene	<2.500	40.00	38.98	97	36.00	90	72-109	8	20	ug/L	05/04/15 21:19	
2,6-Dinitrotoluene	<1.000	40.00	38.47	96	36.04	90	72-107	7	20	ug/L	05/04/15 21:19	
Hexachlorobenzene	<0.5000	40.00	40.01	100	36.90	92	71-115	8	20	ug/L	05/04/15 21:19	
Hexachlorobutadiene	<2.500	40.00	35.88	90	33.22	83	71-102	8	20	ug/L	05/04/15 21:19	
Hexachlorocyclopentadiene	<2.500	40.00	34.84	87	32.80	82	46-134	6	20	ug/L	05/04/15 21:19	
Hexachloroethane	<1.000	40.00	33.81	85	31.42	79	63-107	7	20	ug/L	05/04/15 21:19	
Isophorone	<2.500	40.00	39.20	98	37.07	93	64-101	6	20	ug/L	05/04/15 21:19	
2-Methyl phenol	<2.500	40.00	35.70	89	32.86	82	69-103	8	20	ug/L	05/04/15 21:19	
3&4-Methylphenol	<2.500	40.00	35.40	89	33.22	83	61-115	6	20	ug/L	05/04/15 21:19	
4-Nitroaniline	<5.000	40.00	39.86	100	37.53	94	44-117	6	20	ug/L	05/04/15 21:19	
3-Nitroaniline	<2.500	40.00	38.43	96	36.07	90	61-106	6	20	ug/L	05/04/15 21:19	
2-Nitroaniline	<2.500	40.00	41.93	105	39.18	98	67-108	7	20	ug/L	05/04/15 21:19	
Nitrobenzene	<1.000	40.00	37.32	93	34.22	86	62-104	9	20	ug/L	05/04/15 21:19	
2-Nitrophenol	<2.500	40.00	36.19	90	33.24	83	68-111	8	20	ug/L	05/04/15 21:19	
4-Nitrophenol	<2.500	40.00	54.59	136	51.36	128	58-116	6	20	ug/L	05/04/15 21:19	H
N-Nitrosodi-n-propyl amine	<0.5000	40.00	35.64	89	33.06	83	54-114	8	20	ug/L	05/04/15 21:19	
N-Nitrosodiphenylamine	<2.500	40.00	37.08	93	34.58	86	71-109	7	20	ug/L	05/04/15 21:19	
Di-n-octyl phthalate	<5.000	40.00	39.81	100	35.91	90	53-138	10	20	ug/L	05/04/15 21:19	
Pentachlorophenol	<2.000	40.00	45.25	113	43.28	108	66-121	4	20	ug/L	05/04/15 21:19	
Phenol	<2.500	40.00	34.61	87	31.80	80	65-113	8	20	ug/L	05/04/15 21:19	
Pyridine	<2.500	40.00	33.76	84	31.48	79	57-88	7	20	ug/L	05/04/15 21:19	
2,4,6-Trichlorophenol	<2.500	40.00	38.38	96	34.87	87	71-113	10	20	ug/L	05/04/15 21:19	
2,4,5-Trichlorophenol	<2.500	40.00	40.35	101	36.49	91	77-112	10	20	ug/L	05/04/15 21:19	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	146	*	119	*	124	*	68-116	%	05/04/15 21:19
2-Fluorophenol	103	*	95		99	*	57-98	%	05/04/15 21:19

PHASE SEPARATION SCIENCE, INC.

QC Summary 15043021

Arc Environmental Percontee

Analytical Method: SW-846 8270 C

Seq Number: 122428

MB Sample Id: 55253-1-BLK

Matrix: Water

LCS Sample Id: 55253-1-BKS

Prep Method: SW3510C

Date Prep: 05/01/15

LCSD Sample Id: 55253-1-BSD

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units	Analysis Date
Nitrobenzene-d5	139	*	126	*	129	*	58-107	%	05/04/15 21:19
Phenol-d6	105		98		103		59-109	%	05/04/15 21:19
Terphenyl-D14	128	*	133	*	137	*	69-121	%	05/04/15 21:19
2,4,6-Tribromophenol	109		111		115		48-119	%	05/04/15 21:19

Analytical Method: SW-846 8270 C

Seq Number: 122519

MB Sample Id: 55283-1-BLK

Matrix: Water

LCS Sample Id: 55283-1-BKS

Prep Method: SW3510C

Date Prep: 05/04/15

LCSD Sample Id: 55283-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Acenaphthene	<0.1000	2.000	1.550	78	1.590	80	63-107	3	31	ug/L	05/08/15 20:40	
Acenaphthylene	<0.1000	2.000	1.450	73	1.510	76	53-106	4	25	ug/L	05/08/15 20:40	
Anthracene	<0.1000	2.000	1.570	79	1.620	81	57-112	3	25	ug/L	05/08/15 20:40	
Benzo(a)anthracene	<0.1000	2.000	1.660	83	1.700	85	47-116	2	25	ug/L	05/08/15 20:40	
Benzo(a)pyrene	<0.1000	2.000	1.620	81	1.660	83	64-104	2	25	ug/L	05/08/15 20:40	
Benzo(b)fluoranthene	<0.1000	2.000	2.010	101	2.040	102	49-123	1	25	ug/L	05/08/15 20:40	
Benzo(g,h,i)perylene	<0.1000	2.000	1.780	89	1.780	89	58-103	0	25	ug/L	05/08/15 20:40	
Benzo(k)fluoranthene	<0.1000	2.000	1.510	76	1.470	74	52-120	3	25	ug/L	05/08/15 20:40	
Chrysene	<0.1000	2.000	1.500	75	1.520	76	52-106	1	25	ug/L	05/08/15 20:40	
Dibenz(a,h)Anthracene	<0.1000	2.000	2.070	104	2.170	109	59-102	5	25	ug/L	05/08/15 20:40	H
Fluoranthene	<0.1000	2.000	1.500	75	1.740	87	60-109	15	25	ug/L	05/08/15 20:40	
Fluorene	<0.1000	2.000	1.500	75	1.560	78	61-108	4	25	ug/L	05/08/15 20:40	
Indeno(1,2,3-c,d)Pyrene	<0.1000	2.000	2.490	125	2.670	134	56-107	7	25	ug/L	05/08/15 20:40	H
2-Methylnaphthalene	<0.1000	2.000	1.450	73	1.490	75	60-106	3	25	ug/L	05/08/15 20:40	
Naphthalene	<0.1000	2.000	1.540	77	1.590	80	61-109	3	25	ug/L	05/08/15 20:40	
Phenanthrene	<0.1000	2.000	1.550	78	1.590	80	57-113	3	25	ug/L	05/08/15 20:40	
Pyrene	<0.1000	2.000	1.990	100	1.580	79	43-116	23	31	ug/L	05/08/15 20:40	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	65		69		73		40-106	%	05/08/15 20:40
Nitrobenzene-d5	70		69		73		36-105	%	05/08/15 20:40
Terphenyl-D14	78		90		76		50-120	%	05/08/15 20:40

Analytical Method: SW-846 8015C

Seq Number: 122319

MB Sample Id: 55258-2-BLK

Matrix: Water

LCS Sample Id: 55258-2-BKS

Prep Method: SW5030B

Date Prep: 04/30/15

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Analysis Date	Flag
TPH-GRO (Gasoline Range Organic)	<40.00	5000	4631	93	61-138	ug/L	04/30/15 15:49	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	65		64	*	65-111	%	04/30/15 15:49

PHASE SEPARATION SCIENCE, INC.

QC Summary 15043021

Arc Environmental Percontee

Analytical Method: SW-846 8260 B

Seq Number: 122335

MB Sample Id: 55269-1-BLK

Matrix: Water

LCS Sample Id: 55269-1-BKS

Prep Method: SW5030B

Date Prep: 05/02/15

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Analysis Date	Flag
Dichlorodifluoromethane	<0.5000	50.00	49.80	100	54-139	ug/L	05/02/15 23:19	
Chloromethane	<0.5000	50.00	48.03	96	62-131	ug/L	05/02/15 23:19	
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.5000	50.00	54.79	110	56-126	ug/L	05/02/15 23:19	
Vinyl Chloride	<0.5000	50.00	54.39	109	64-132	ug/L	05/02/15 23:19	
Bromomethane	<0.5000	50.00	54.65	109	40-147	ug/L	05/02/15 23:19	
Chloroethane	<0.5000	50.00	51.92	104	59-132	ug/L	05/02/15 23:19	
Acetone	<5.000	50.00	49.57	99	53-146	ug/L	05/02/15 23:19	
Cyclohexane	<5.000	50.00	52.44	105	46-150	ug/L	05/02/15 23:19	
Trichlorofluoromethane	<2.500	50.00	60.64	121	45-130	ug/L	05/02/15 23:19	
1,1-Dichloroethene	<0.5000	50.00	54.73	109	59-123	ug/L	05/02/15 23:19	
Methylene Chloride	<0.5000	50.00	49.23	98	61-126	ug/L	05/02/15 23:19	
trans-1,2-Dichloroethene	<0.5000	50.00	56.76	114	58-134	ug/L	05/02/15 23:19	
Methyl-t-butyl ether	<0.5000	50.00	38.57	77	30-168	ug/L	05/02/15 23:19	
1,1-Dichloroethane	<0.5000	50.00	53.93	108	51-136	ug/L	05/02/15 23:19	
2-Butanone	<5.000	50.00	48.16	96	56-133	ug/L	05/02/15 23:19	
cis-1,2-Dichloroethene	<0.5000	50.00	56.56	113	77-119	ug/L	05/02/15 23:19	
Bromochloromethane	<0.5000	50.00	55.19	110	71-122	ug/L	05/02/15 23:19	
Chloroform	<0.5000	50.00	54.41	109	71-118	ug/L	05/02/15 23:19	
1,1,1-Trichloroethane	<0.5000	50.00	57.11	114	66-133	ug/L	05/02/15 23:19	
1,2-Dichloroethane	<0.5000	50.00	54.76	110	64-130	ug/L	05/02/15 23:19	
Carbon Tetrachloride	<0.5000	50.00	54.93	110	74-127	ug/L	05/02/15 23:19	
Benzene	<0.5000	50.00	58.43	117	77-122	ug/L	05/02/15 23:19	
1,2-Dichloropropane	<0.5000	50.00	54.68	109	75-125	ug/L	05/02/15 23:19	
Methyl Acetate	<5.000	50.00	47.87	96	47-145	ug/L	05/02/15 23:19	
Methylcyclohexane	<5.000	50.00	55.27	111	61-155	ug/L	05/02/15 23:19	
Trichloroethene	<0.5000	50.00	57.27	115	72-127	ug/L	05/02/15 23:19	
Carbon Disulfide	<5.000	50.00	54.78	110	62-134	ug/L	05/02/15 23:19	
Bromodichloromethane	<0.5000	50.00	57.76	116	76-122	ug/L	05/02/15 23:19	
cis-1,3-Dichloropropene	<0.5000	50.00	52.21	104	74-123	ug/L	05/02/15 23:19	
4-Methyl-2-Pentanone	<2.500	50.00	50.75	102	45-145	ug/L	05/02/15 23:19	
trans-1,3-Dichloropropene	<0.5000	50.00	53.47	107	73-116	ug/L	05/02/15 23:19	
1,1,2-Trichloroethane	<0.5000	50.00	55.40	111	72-128	ug/L	05/02/15 23:19	
Toluene	<0.5000	50.00	57.43	115	77-123	ug/L	05/02/15 23:19	
2-Hexanone	<5.000	50.00	45.68	91	56-134	ug/L	05/02/15 23:19	
1,2-Dibromoethane	<0.5000	50.00	51.94	104	78-121	ug/L	05/02/15 23:19	
Dibromochloromethane	<0.5000	50.00	48.09	96	75-114	ug/L	05/02/15 23:19	
Bromoform	<2.500	50.00	48.39	97	69-115	ug/L	05/02/15 23:19	
Tetrachloroethene	<0.5000	50.00	55.34	111	78-113	ug/L	05/02/15 23:19	
Chlorobenzene	<0.5000	50.00	54.14	108	76-116	ug/L	05/02/15 23:19	
Ethylbenzene	<0.5000	50.00	54.68	109	79-122	ug/L	05/02/15 23:19	
m,p-Xylenes	<1.000	100	108.5	109	78-119	ug/L	05/02/15 23:19	
Styrene	<0.5000	50.00	54.96	110	73-118	ug/L	05/02/15 23:19	
1,1,2,2-Tetrachloroethane	<0.5000	50.00	49.94	100	71-126	ug/L	05/02/15 23:19	
o-Xylene	<0.5000	50.00	55.42	111	79-123	ug/L	05/02/15 23:19	
Isopropylbenzene	<0.5000	50.00	53.51	107	80-128	ug/L	05/02/15 23:19	
1,3-Dichlorobenzene	<0.5000	50.00	53.82	108	80-122	ug/L	05/02/15 23:19	
1,4-Dichlorobenzene	<0.5000	50.00	53.03	106	77-118	ug/L	05/02/15 23:19	
1,2-Dichlorobenzene	<0.5000	50.00	54.30	109	80-122	ug/L	05/02/15 23:19	
1,2-Dibromo-3-Chloropropane	<5.000	50.00	44.86	90	59-135	ug/L	05/02/15 23:19	
1,2,4-Trichlorobenzene	<0.5000	50.00	51.39	103	72-143	ug/L	05/02/15 23:19	
1,2,3-Trichlorobenzene	<0.5000	50.00	49.68	99	66-140	ug/L	05/02/15 23:19	

PHASE SEPARATION SCIENCE, INC.

QC Summary 15043021

Arc Environmental Percontee

Analytical Method: SW-846 8260 B

Seq Number: 122335

MB Sample Id: 55269-1-BLK

Matrix: Water

LCS Sample Id: 55269-1-BKS

Prep Method: SW5030B

Date Prep: 05/02/15

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	97		95		81-133	%	05/02/15 23:19
Dibromofluoromethane	104		105		84-110	%	05/02/15 23:19
Toluene-D8	102		103		94-109	%	05/02/15 23:19

F = RPD exceeded the laboratory control limits

X = Recovery of MS, MSD or both outside of QC Criteria

H= Recovery of BS,BSD or both exceeded the laboratory control limits

L = Recovery of BS,BSD or both below the laboratory control limits



SAMPLE CHAIN OF CUSTODY/AGREEMENT FORM

PHASE SEPARATION SCIENCE, INC.

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email: info@phaseonline.com

1 CLIENT: Arc Environmental OFFICE LOC. Baltimore, MD PROJECT MGR: Kyle Begey PHONE NO.: 410-659-9971 EMAIL: kbegey@arcenvironmental.com FAX NO.: 410-962-1065 PROJECT NAME: Percontee PROJECT NO.: SITE LOCATION: Silver Spring, MD P.O. NO.: SAMPLERS: Ray Goodwin DW CERT NO.:		PSS Work Order #: 15043021 PAGE 1 OF _____ Matrix Codes: SW=Surface Wtr DW=Drinking Wtr GW=Ground Wtr WW=Waste Wtr O=Oil S=Soil WL=Waste Liquid WS=Waste Solid W=Wipe																																																																																																																																																																																																															
		No. CONTAINERS SAMPLE TYPE C = COMP G = GRAB	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td>PPL Metals</td> <td>SVOCs 8270</td> <td>PAHs SIM</td> <td>VOCs</td> <td>GRO/DRO</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	PPL Metals	SVOCs 8270	PAHs SIM	VOCs	GRO/DRO																		X	X	X	X	X																			X	X	X	X	X																			X	X	X	X	X																																																																																																																																					
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2 LAB NO. SAMPLE IDENTIFICATION DATE TIME MATRIX (See Codes)		REMARKS ← Analysis/Method Required ↓ Click to enter Remarks																																																																																																																																																																																																															
1	MW-3	4/28/15	1342	GW	10	G	X	X	X	X	X																																																																																																																																																																																																						
2	MW-9	4/28/15	1450	GW	10	G	X	X	X	X	X																																																																																																																																																																																																						
3	MW-2	4/28/15	1706	GW	10	G	X	X	X	X	X																																																																																																																																																																																																						
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5 Relinquished By: (1) <i>Ray Goodwin</i> Date: 4/28/15 Time: Received By: <i>[Signature]</i>		4 Requested Turnaround Time <input checked="" type="checkbox"/> 5-Day <input type="checkbox"/> 3-Day <input type="checkbox"/> 2-Day <input type="checkbox"/> Next Day <input type="checkbox"/> Emergency <input type="checkbox"/> Other				# of Coolers: 3 Custody Seal: ABS	
Relinquished By: (2) <i>[Signature]</i> Date: 4/30/15 Time: 1220 Received By: <i>[Signature]</i>		Data Deliverables Required:				Ice Present: YES Temp: 0C PROVEN SEE NOTES	
Relinquished By: (3) Date: Time: Received By:		Special Instructions:				Shipping Carrier: TFE	
Relinquished By: (4) Date: Time: Received By:							



Phase Separation Science, Inc

Sample Receipt Checklist

Work Order #	15043021	Received By	Rachel Davis
Client Name	Arc Environmental	Date Received	04/30/2015 12:20:00 PM
Project Name	Percontee	Delivered By	Trans Time Express
Disposal Date	06/04/2015	Tracking No	Not Applicable
		Logged In By	Rachel Davis

Shipping Container(s)

No. of Coolers 1

		Ice	Present
Custody Seal(s) Intact?	N/A	Temp (deg C)	0
Seal(s) Signed / Dated?	N/A	Temp Blank Present	No

Documentation

COC agrees with sample labels?	Yes	Sampler Name	<u>Ray Goodwin</u>
Chain of Custody	Yes	MD DW Cert. No.	<u>N/A</u>

Sample Container

Appropriate for Specified Analysis?	Yes	Custody Seal(s) Intact?	Not Applicable
Intact?	No	Seal(s) Signed / Dated	Not Applicable
Labeled and Labels Legible?	Yes		

Total No. of Samples Received 3

Total No. of Containers Received 29

Preservation

Metals	(pH<2)	Yes
Cyanides	(pH>12)	N/A
Sulfide	(pH>9)	N/A
TOC, COD, Phenols	(pH<2)	N/A
TOX, TKN, NH3, Total Phos	(pH<2)	N/A
VOC, BTEX (VOA Vials Rcvd Preserved)	(pH<2)	Yes
Do VOA vials have zero headspace?		Yes
624 VOC (Rcvd at least one unpreserved VOA vial)		N/A

Comments: (Any "No" response must be detailed in the comments section below.)

For any improper preservation conditions, list sample ID, preservative added (reagent ID number) below as well as documentation of any client notification as well as client instructions. Samples for pH, chlorine and dissolved oxygen should be analyzed as soon as possible, preferably in the field at the time of sampling. Samples which require thermal preservation shall be considered acceptable when received at a temperature above freezing to 6°C. Samples that are hand delivered on the day that they are collected may not meet these criteria but shall be considered acceptable if there is evidence that the chilling process has begun such as arrival on ice.

One amber for sample MW-9 received broken. Per client, analyze remaining ambers for PAHs and DRO. Sample(s) received at 0 degrees but no samples were frozen.

Samples Inspected/Checklist Completed By: Rachel Davis Date: 04/30/2015
 Rachel Davis

PM Review and Approval: Lynn Jackson Date: 04/30/2015
 Lynn Jackson

Analytical Report for

Arc Environmental

Certificate of Analysis No.: 15050104

Project Manager: Christie Pulvino

Project Name : Percontee

Project Location: Silver Spring, MD



May 11, 2015

Phase Separation Science, Inc.

6630 Baltimore National Pike

Baltimore, MD 21228

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PHASE SEPARATION SCIENCE, INC.



May 11, 2015

Christie Pulvino
Arc Environmental
1311 Haubert Street
Baltimore, MD 21230

Reference: PSS Work Order(s) No: **15050104**
Project Name: Percontee
Project Location: Silver Spring, MD

Dear Christie Pulvino :

This report includes the analytical results from the analyses performed on the samples received under the project name referenced above and identified with the Phase Separation Science (PSS) Work Order(s) numbered **15050104**.

All work reported herein has been performed in accordance with current NELAP standards, referenced methodologies, PSS Standard Operating Procedures and the PSS Quality Assurance Manual unless otherwise noted in the Case Narrative Summary. PSS is limited in liability to the actual cost of the sample analysis done.

PSS reserves the right to return any unused samples, extracts or related solutions. Otherwise, the samples are scheduled for disposal, without any further notice, on June 5, 2015. This includes any samples that were received with a request to be held but lacked a specific hold period. It is your responsibility to provide a written request defining a specific disposal date if additional storage is required. Upon receipt, the request will be acknowledged by PSS, thus extending the storage period.

This report shall not be reproduced except in full, without the written approval of an authorized PSS representative. A copy of this report will be retained by PSS for at least 5 years, after which time it will be disposed of without further notice, unless prior arrangements have been made.

We thank you for selecting Phase Separation Science, Inc. to serve your analytical needs. If you have any questions concerning this report, do not hesitate to contact us at 410-747-8770 or info@phaseonline.com.

Sincerely,

Dan Prucnal
Laboratory Manager



Sample Summary

Client Name: Arc Environmental
Project Name: Percontee

Work Order Number(s): 15050104

The following samples were received under chain of custody by Phase Separation Science (PSS) on 05/01/2015 at 10:44 am

Lab Sample Id	Sample Id	Matrix	Date/Time Collected
15050104-001	S-8	SURFACE WATER	04/30/15 09:35
15050104-002	S-7	SURFACE WATER	04/30/15 09:55
15050104-003	S-4	SURFACE WATER	04/30/15 10:30
15050104-004	S-3	SURFACE WATER	04/30/15 11:33
15050104-005	S-6	SURFACE WATER	04/30/15 12:35
15050104-006	S-5	SURFACE WATER	04/30/15 13:31
15050104-007	S-2	SURFACE WATER	04/30/15 15:32

Please reference the Chain of Custody and Sample Receipt Checklist for specific container counts and preservatives. Any sample conditions not in compliance with sample acceptance criteria are described in Case Narrative Summary.

Notes:

1. The presence of a common laboratory contaminant such as methylene chloride may be considered a possible laboratory artifact. Where observed, appropriate consideration of data should be taken.
2. Unless otherwise noted in the case narrative, results are reported on a dry weight basis with the exception of pH, flashpoint, moisture, and paint filter test.
3. Drinking water samples collected for the purpose of compliance with SDWA may not be suitable for their intended use unless collected by a certified sampler [COMAR 26.08.05.07.C.2].
4. The analyses of 1,2-dibromo-3-chloropropane (DBCP) and 1,2-dibromoethane (EDB) by EPA 524.2 and calcium, magnesium, sodium and iron by EPA 200.8 are not currently promulgated for use in testing to meet the Safe Drinking Water Act and as such cannot be used for compliance purposes. The listings of the current promulgated methods for testing in compliance with the Safe Drinking Water Act can be found in the 40 CFR part 141.1, for the primary drinking water contaminants, and part 141.3, for the secondary drinking water contaminants.
5. Sample prepared under EPA 3550C with concentrations greater than 20 mg/Kg should employ the microtip extraction procedure if required to meet data quality objectives.
6. The analysis of acrolein by EPA 624 must be analyzed within three days of sampling unless pH is adjusted to 4-5 units [40 CFR part 136.3(e)].
7. Method 180.1, The Determination of Turbidity by Nephelometry, recommends samples over 40 NTU be diluted until the turbidity falls below 40 units. Routine samples over 40 NTU may not be diluted as long as the data quality objectives are not affected.
8. Alkalinity results analyzed by EPA 310.2 that are reported by dilution are estimated and are not in compliance with method requirements.

Standard Flags/Abbreviations:

- B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- C Results Pending Final Confirmation.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- Fail The result exceeds the regulatory level for Toxicity Characteristic (TCLP) as cited in 40 CFR 261.24 Table 1.
- J The target analyte was positively identified below the reporting limit but greater than the MDL.
- MDL This is the Laboratory Method Detection Limit which is equivalent to the Limit of Detection (LOD). The LOD is an estimate of the minimum amount of a substance that an analytical process can reliably detect. This value will remain constant across multiple similar instrumentation and among different analysts. An LOD is analyte and matrix specific.
- ND Not Detected at or above the reporting limit.
- RL PSS Reporting Limit.
- U Not detected.

Certifications:

NELAP Certifications: PA 68-03330, VA 460156
State Certifications: MD 179, WV 303
Regulated Soil Permit: P330-12-00268
NSWC USCG Accepted Laboratory
LDBE MWAA LD1997-0041-2015

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15050104

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-8 **Date/Time Sampled: 04/30/2015 09:35** **PSS Sample ID: 15050104-001**
Matrix: SURFACE WATER **Date/Time Received: 05/01/2015 10:44**

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3010A

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	ug/L	5.0		1	2.5	05/05/15	05/05/15 16:48	1034
Arsenic	0.51	ug/L	1.0	J	1	0.5	05/05/15	05/05/15 16:48	1034
Beryllium	ND	ug/L	1.0		1	0.5	05/05/15	05/05/15 16:48	1034
Cadmium	ND	ug/L	1.0		1	0.5	05/05/15	05/05/15 16:48	1034
Chromium	1.1	ug/L	1.0		1	0.5	05/05/15	05/05/15 16:48	1034
Copper	4.7	ug/L	1.0		1	0.5	05/05/15	05/05/15 16:48	1034
Lead	0.78	ug/L	1.0	J	1	0.5	05/05/15	05/05/15 16:48	1034
Mercury	ND	ug/L	0.20		1	0.1	05/05/15	05/05/15 16:48	1034
Nickel	3.9	ug/L	1.0		1	0.5	05/05/15	05/05/15 16:48	1034
Selenium	ND	ug/L	1.0		1	0.5	05/05/15	05/05/15 16:48	1034
Silver	ND	ug/L	1.0		1	0.5	05/05/15	05/05/15 16:48	1034
Thallium	ND	ug/L	1.0		1	0.5	05/05/15	05/05/15 16:48	1034
Zinc	56	ug/L	20		1	10	05/05/15	05/05/15 16:48	1034

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	0.15	mg/L	0.040		1	0.04	05/04/15	05/04/15 20:19	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/L	40		1	40	05/01/15	05/01/15 15:28	1035

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15050104

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-8 **Date/Time Sampled: 04/30/2015 09:35** **PSS Sample ID: 15050104-001**
Matrix: SURFACE WATER **Date/Time Received: 05/01/2015 10:44**

TCL Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Dichlorodifluoromethane	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 18:31	1011
Chloromethane	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 18:31	1011
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 18:31	1011
Vinyl Chloride	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 18:31	1011
Bromomethane	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 18:31	1011
Chloroethane	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 18:31	1011
Acetone	ND	ug/L	10		1	5	05/03/15	05/03/15 18:31	1011
Cyclohexane	ND	ug/L	10		1	5	05/03/15	05/03/15 18:31	1011
Trichlorofluoromethane	ND	ug/L	5.0		1	2.5	05/03/15	05/03/15 18:31	1011
1,1-Dichloroethene	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 18:31	1011
Methylene Chloride	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 18:31	1011
trans-1,2-Dichloroethene	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 18:31	1011
Methyl-t-butyl ether	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 18:31	1011
1,1-Dichloroethane	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 18:31	1011
2-Butanone	ND	ug/L	10		1	5	05/03/15	05/03/15 18:31	1011
cis-1,2-Dichloroethene	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 18:31	1011
Bromochloromethane	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 18:31	1011
Chloroform	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 18:31	1011
1,1,1-Trichloroethane	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 18:31	1011
1,2-Dichloroethane	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 18:31	1011
Carbon Tetrachloride	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 18:31	1011
Benzene	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 18:31	1011
1,2-Dichloropropane	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 18:31	1011
Methyl Acetate	ND	ug/L	10		1	5	05/03/15	05/03/15 18:31	1011
Methylcyclohexane	ND	ug/L	10		1	5	05/03/15	05/03/15 18:31	1011
Trichloroethene	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 18:31	1011
Carbon Disulfide	ND	ug/L	10		1	5	05/03/15	05/03/15 18:31	1011
Bromodichloromethane	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 18:31	1011
cis-1,3-Dichloropropene	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 18:31	1011
4-Methyl-2-Pentanone	ND	ug/L	5.0		1	2.5	05/03/15	05/03/15 18:31	1011

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15050104

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-8 **Date/Time Sampled: 04/30/2015 09:35** **PSS Sample ID: 15050104-001**
Matrix: SURFACE WATER **Date/Time Received: 05/01/2015 10:44**

TCL Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
trans-1,3-Dichloropropene	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 18:31	1011
1,1,2-Trichloroethane	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 18:31	1011
Toluene	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 18:31	1011
2-Hexanone	ND	ug/L	10		1	5	05/03/15	05/03/15 18:31	1011
1,2-Dibromoethane	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 18:31	1011
Dibromochloromethane	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 18:31	1011
Bromoform	ND	ug/L	5.0		1	2.5	05/03/15	05/03/15 18:31	1011
Tetrachloroethene	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 18:31	1011
Chlorobenzene	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 18:31	1011
Ethylbenzene	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 18:31	1011
m,p-Xylenes	ND	ug/L	2.0		1	1	05/03/15	05/03/15 18:31	1011
Styrene	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 18:31	1011
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 18:31	1011
o-Xylene	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 18:31	1011
Isopropylbenzene	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 18:31	1011
1,3-Dichlorobenzene	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 18:31	1011
1,4-Dichlorobenzene	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 18:31	1011
1,2-Dichlorobenzene	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 18:31	1011
1,2-Dibromo-3-Chloropropane	ND	ug/L	10		1	5	05/03/15	05/03/15 18:31	1011
1,2,4-Trichlorobenzene	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 18:31	1011
1,2,3-Trichlorobenzene	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 18:31	1011

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15050104

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-8 **Date/Time Sampled: 04/30/2015 09:35** **PSS Sample ID: 15050104-001**
Matrix: SURFACE WATER **Date/Time Received: 05/01/2015 10:44**

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 18:12	1055
Acenaphthylene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 18:12	1055
Anthracene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 18:12	1055
Benzo(a)anthracene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 18:12	1055
Benzo(a)pyrene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 18:12	1055
Benzo(b)fluoranthene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 18:12	1055
Benzo(g,h,i)perylene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 18:12	1055
Benzo(k)fluoranthene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 18:12	1055
Chrysene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 18:12	1055
Dibenz(a,h)Anthracene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 18:12	1055
Fluoranthene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 18:12	1055
Fluorene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 18:12	1055
Indeno(1,2,3-c,d)Pyrene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 18:12	1055
2-Methylnaphthalene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 18:12	1055
Naphthalene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 18:12	1055
Phenanthrene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 18:12	1055
Pyrene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 18:12	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15050104

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-8 **Date/Time Sampled: 04/30/2015 09:35** **PSS Sample ID: 15050104-001**
Matrix: SURFACE WATER **Date/Time Received: 05/01/2015 10:44**

TCL Semivolatle Organic Compounds w/o Analytical Method: SW-846 8270 C
PAHs

Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acetophenone	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 03:44	1055
Caprolactam	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 03:44	1055
Biphenyl (Diphenyl)	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 03:44	1055
Atrazine	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 03:44	1055
Butyl benzyl phthalate	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 03:44	1055
bis(2-chloroethoxy) methane	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 03:44	1055
bis(2-chloroethyl) ether	ND	ug/L	0.50		1	0.5	05/05/15	05/08/15 03:44	1055
bis(2-chloroisopropyl) ether	ND	ug/L	0.50		1	0.5	05/05/15	05/08/15 03:44	1055
bis(2-ethylhexyl) phthalate	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 03:44	1055
4-Bromophenylphenyl ether	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 03:44	1055
Di-n-butyl phthalate	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 03:44	1055
Carbazole	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 03:44	1055
4-Chloro-3-methyl phenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 03:44	1055
4-Chloroaniline	ND	ug/L	5.0		1	5	05/05/15	05/08/15 03:44	1055
2-Chloronaphthalene	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 03:44	1055
2-Chlorophenol	ND	ug/L	2.0		1	2	05/05/15	05/08/15 03:44	1055
4-Chlorophenyl phenyl ether	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 03:44	1055
Dibenzofuran	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 03:44	1055
3,3-Dichlorobenzidine	ND	ug/L	0.50		1	0.5	05/05/15	05/08/15 03:44	1055
2,4-Dichlorophenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 03:44	1055
Diethyl phthalate	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 03:44	1055
Dimethyl phthalate	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 03:44	1055
2,4-Dimethylphenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 03:44	1055
4,6-Dinitro-2-methyl phenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 03:44	1055
2,4-Dinitrophenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 03:44	1055
2,4-Dinitrotoluene	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 03:44	1055
2,6-Dinitrotoluene	ND	ug/L	2.0		1	1	05/05/15	05/08/15 03:44	1055
Hexachlorobenzene	ND	ug/L	1.0		1	0.5	05/05/15	05/08/15 03:44	1055
Hexachlorobutadiene	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 03:44	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15050104

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-8 **Date/Time Sampled: 04/30/2015 09:35** **PSS Sample ID: 15050104-001**
Matrix: SURFACE WATER **Date/Time Received: 05/01/2015 10:44**

TCL Semivolatile Organic Compounds w/o PAHs Analytical Method: SW-846 8270 C

Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Hexachlorocyclopentadiene	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 03:44	1055
Hexachloroethane	ND	ug/L	2.0		1	1	05/05/15	05/08/15 03:44	1055
Isophorone	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 03:44	1055
2-Methyl phenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 03:44	1055
3&4-Methylphenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 03:44	1055
4-Nitroaniline	ND	ug/L	5.0		1	5	05/05/15	05/08/15 03:44	1055
3-Nitroaniline	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 03:44	1055
2-Nitroaniline	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 03:44	1055
Nitrobenzene	ND	ug/L	2.0		1	1	05/05/15	05/08/15 03:44	1055
2-Nitrophenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 03:44	1055
4-Nitrophenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 03:44	1055
N-Nitrosodi-n-propyl amine	ND	ug/L	0.50		1	0.5	05/05/15	05/08/15 03:44	1055
N-Nitrosodiphenylamine	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 03:44	1055
Di-n-octyl phthalate	ND	ug/L	5.0		1	5	05/05/15	05/08/15 03:44	1055
Pentachlorophenol	ND	ug/L	2.0		1	2	05/05/15	05/08/15 03:44	1055
Phenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 03:44	1055
Pyridine	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 03:44	1055
2,4,6-Trichlorophenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 03:44	1055
2,4,5-Trichlorophenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 03:44	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15050104

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-7 **Date/Time Sampled: 04/30/2015 09:55** **PSS Sample ID: 15050104-002**
Matrix: SURFACE WATER **Date/Time Received: 05/01/2015 10:44**

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3010A

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	ug/L	5.0		1	2.5	05/05/15	05/05/15 16:54	1034
Arsenic	5.5	ug/L	1.0		1	0.5	05/05/15	05/05/15 16:54	1034
Beryllium	ND	ug/L	1.0		1	0.5	05/05/15	05/05/15 16:54	1034
Cadmium	ND	ug/L	1.0		1	0.5	05/05/15	05/05/15 16:54	1034
Chromium	14	ug/L	1.0		1	0.5	05/05/15	05/05/15 16:54	1034
Copper	14	ug/L	1.0		1	0.5	05/05/15	05/05/15 16:54	1034
Lead	15	ug/L	1.0		1	0.5	05/05/15	05/05/15 16:54	1034
Mercury	ND	ug/L	0.20		1	0.1	05/05/15	05/05/15 16:54	1034
Nickel	19	ug/L	1.0		1	0.5	05/05/15	05/05/15 16:54	1034
Selenium	ND	ug/L	1.0		1	0.5	05/05/15	05/05/15 16:54	1034
Silver	ND	ug/L	1.0		1	0.5	05/05/15	05/05/15 16:54	1034
Thallium	ND	ug/L	1.0		1	0.5	05/05/15	05/05/15 16:54	1034
Zinc	44	ug/L	20		1	10	05/05/15	05/05/15 16:54	1034

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	0.53	mg/L	0.040		1	0.04	05/04/15	05/05/15 01:29	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/L	40		1	40	05/01/15	05/01/15 15:53	1035

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15050104

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-7 **Date/Time Sampled: 04/30/2015 09:55** **PSS Sample ID: 15050104-002**
Matrix: SURFACE WATER **Date/Time Received: 05/01/2015 10:44**

TCL Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Dichlorodifluoromethane	ND	ug/L	100		100	50	05/03/15	05/03/15 19:06	1011
Chloromethane	ND	ug/L	100		100	50	05/03/15	05/03/15 19:06	1011
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	ug/L	100		100	50	05/03/15	05/03/15 19:06	1011
Vinyl Chloride	ND	ug/L	100		100	50	05/03/15	05/03/15 19:06	1011
Bromomethane	ND	ug/L	100		100	50	05/03/15	05/03/15 19:06	1011
Chloroethane	ND	ug/L	100		100	50	05/03/15	05/03/15 19:06	1011
Acetone	ND	ug/L	1,000		100	500	05/03/15	05/03/15 19:06	1011
Cyclohexane	ND	ug/L	1,000		100	500	05/03/15	05/03/15 19:06	1011
Trichlorofluoromethane	ND	ug/L	500		100	250	05/03/15	05/03/15 19:06	1011
1,1-Dichloroethene	ND	ug/L	100		100	50	05/03/15	05/03/15 19:06	1011
Methylene Chloride	ND	ug/L	100		100	50	05/03/15	05/03/15 19:06	1011
trans-1,2-Dichloroethene	ND	ug/L	100		100	50	05/03/15	05/03/15 19:06	1011
Methyl-t-butyl ether	ND	ug/L	100		100	50	05/03/15	05/03/15 19:06	1011
1,1-Dichloroethane	ND	ug/L	100		100	50	05/03/15	05/03/15 19:06	1011
2-Butanone	ND	ug/L	1,000		100	500	05/03/15	05/03/15 19:06	1011
cis-1,2-Dichloroethene	ND	ug/L	100		100	50	05/03/15	05/03/15 19:06	1011
Bromochloromethane	ND	ug/L	100		100	50	05/03/15	05/03/15 19:06	1011
Chloroform	ND	ug/L	100		100	50	05/03/15	05/03/15 19:06	1011
1,1,1-Trichloroethane	ND	ug/L	100		100	50	05/03/15	05/03/15 19:06	1011
1,2-Dichloroethane	ND	ug/L	100		100	50	05/03/15	05/03/15 19:06	1011
Carbon Tetrachloride	ND	ug/L	100		100	50	05/03/15	05/03/15 19:06	1011
Benzene	ND	ug/L	100		100	50	05/03/15	05/03/15 19:06	1011
1,2-Dichloropropane	ND	ug/L	100		100	50	05/03/15	05/03/15 19:06	1011
Methyl Acetate	ND	ug/L	1,000		100	500	05/03/15	05/03/15 19:06	1011
Methylcyclohexane	ND	ug/L	1,000		100	500	05/03/15	05/03/15 19:06	1011
Trichloroethene	ND	ug/L	100		100	50	05/03/15	05/03/15 19:06	1011
Carbon Disulfide	ND	ug/L	1,000		100	500	05/03/15	05/03/15 19:06	1011
Bromodichloromethane	ND	ug/L	100		100	50	05/03/15	05/03/15 19:06	1011
cis-1,3-Dichloropropene	ND	ug/L	100		100	50	05/03/15	05/03/15 19:06	1011
4-Methyl-2-Pentanone	ND	ug/L	500		100	250	05/03/15	05/03/15 19:06	1011

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15050104

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-7 **Date/Time Sampled: 04/30/2015 09:55** **PSS Sample ID: 15050104-002**
Matrix: SURFACE WATER **Date/Time Received: 05/01/2015 10:44**

TCL Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
trans-1,3-Dichloropropene	ND	ug/L	100		100	50	05/03/15	05/03/15 19:06	1011
1,1,2-Trichloroethane	ND	ug/L	100		100	50	05/03/15	05/03/15 19:06	1011
Toluene	ND	ug/L	100		100	50	05/03/15	05/03/15 19:06	1011
2-Hexanone	ND	ug/L	1,000		100	500	05/03/15	05/03/15 19:06	1011
1,2-Dibromoethane	ND	ug/L	100		100	50	05/03/15	05/03/15 19:06	1011
Dibromochloromethane	ND	ug/L	100		100	50	05/03/15	05/03/15 19:06	1011
Bromoform	ND	ug/L	500		100	250	05/03/15	05/03/15 19:06	1011
Tetrachloroethene	ND	ug/L	100		100	50	05/03/15	05/03/15 19:06	1011
Chlorobenzene	ND	ug/L	100		100	50	05/03/15	05/03/15 19:06	1011
Ethylbenzene	ND	ug/L	100		100	50	05/03/15	05/03/15 19:06	1011
m,p-Xylenes	ND	ug/L	200		100	100	05/03/15	05/03/15 19:06	1011
Styrene	ND	ug/L	100		100	50	05/03/15	05/03/15 19:06	1011
1,1,2,2-Tetrachloroethane	ND	ug/L	100		100	50	05/03/15	05/03/15 19:06	1011
o-Xylene	ND	ug/L	100		100	50	05/03/15	05/03/15 19:06	1011
Isopropylbenzene	ND	ug/L	100		100	50	05/03/15	05/03/15 19:06	1011
1,3-Dichlorobenzene	ND	ug/L	100		100	50	05/03/15	05/03/15 19:06	1011
1,4-Dichlorobenzene	ND	ug/L	100		100	50	05/03/15	05/03/15 19:06	1011
1,2-Dichlorobenzene	ND	ug/L	100		100	50	05/03/15	05/03/15 19:06	1011
1,2-Dibromo-3-Chloropropane	ND	ug/L	1,000		100	500	05/03/15	05/03/15 19:06	1011
1,2,4-Trichlorobenzene	ND	ug/L	100		100	50	05/03/15	05/03/15 19:06	1011
1,2,3-Trichlorobenzene	ND	ug/L	100		100	50	05/03/15	05/03/15 19:06	1011

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15050104

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-7 **Date/Time Sampled: 04/30/2015 09:55** **PSS Sample ID: 15050104-002**
Matrix: SURFACE WATER **Date/Time Received: 05/01/2015 10:44**

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/L	0.10		1	0.1	05/04/15	05/10/15 00:12	1055
Acenaphthylene	ND	ug/L	0.10		1	0.1	05/04/15	05/10/15 00:12	1055
Anthracene	0.18	ug/L	0.10		1	0.1	05/04/15	05/10/15 00:12	1055
Benzo(a)anthracene	0.73	ug/L	0.10		1	0.1	05/04/15	05/10/15 00:12	1055
Benzo(a)pyrene	0.56	ug/L	0.10		1	0.1	05/04/15	05/10/15 00:12	1055
Benzo(b)fluoranthene	1.5	ug/L	0.10		1	0.1	05/04/15	05/10/15 00:12	1055
Benzo(g,h,i)perylene	0.24	ug/L	0.10		1	0.1	05/04/15	05/10/15 00:12	1055
Benzo(k)fluoranthene	0.18	ug/L	0.10		1	0.1	05/04/15	05/10/15 00:12	1055
Chrysene	0.51	ug/L	0.10		1	0.1	05/04/15	05/10/15 00:12	1055
Dibenz(a,h)Anthracene	0.12	ug/L	0.10		1	0.1	05/04/15	05/10/15 00:12	1055
Fluoranthene	1.3	ug/L	0.10		1	0.1	05/04/15	05/10/15 00:12	1055
Fluorene	ND	ug/L	0.10		1	0.1	05/04/15	05/10/15 00:12	1055
Indeno(1,2,3-c,d)Pyrene	1.1	ug/L	0.10		1	0.1	05/04/15	05/10/15 00:12	1055
2-Methylnaphthalene	ND	ug/L	0.10		1	0.1	05/04/15	05/10/15 00:12	1055
Naphthalene	ND	ug/L	0.10		1	0.1	05/04/15	05/10/15 00:12	1055
Phenanthrene	0.73	ug/L	0.10		1	0.1	05/04/15	05/10/15 00:12	1055
Pyrene	0.94	ug/L	0.10		1	0.1	05/04/15	05/10/15 00:12	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15050104

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-7 **Date/Time Sampled: 04/30/2015 09:55** **PSS Sample ID: 15050104-002**
Matrix: SURFACE WATER **Date/Time Received: 05/01/2015 10:44**

TCL Semivolatile Organic Compounds w/o PAHs Analytical Method: SW-846 8270 C

Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acetophenone	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 04:15	1055
Caprolactam	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 04:15	1055
Biphenyl (Diphenyl)	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 04:15	1055
Atrazine	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 04:15	1055
Butyl benzyl phthalate	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 04:15	1055
bis(2-chloroethoxy) methane	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 04:15	1055
bis(2-chloroethyl) ether	ND	ug/L	0.50		1	0.5	05/05/15	05/08/15 04:15	1055
bis(2-chloroisopropyl) ether	ND	ug/L	0.50		1	0.5	05/05/15	05/08/15 04:15	1055
bis(2-ethylhexyl) phthalate	3.7	ug/L	5.0	J	1	2.5	05/05/15	05/08/15 04:15	1055
4-Bromophenylphenyl ether	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 04:15	1055
Di-n-butyl phthalate	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 04:15	1055
Carbazole	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 04:15	1055
4-Chloro-3-methyl phenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 04:15	1055
4-Chloroaniline	ND	ug/L	5.0		1	5	05/05/15	05/08/15 04:15	1055
2-Chloronaphthalene	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 04:15	1055
2-Chlorophenol	ND	ug/L	2.0		1	2	05/05/15	05/08/15 04:15	1055
4-Chlorophenyl phenyl ether	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 04:15	1055
Dibenzofuran	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 04:15	1055
3,3-Dichlorobenzidine	ND	ug/L	0.50		1	0.5	05/05/15	05/08/15 04:15	1055
2,4-Dichlorophenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 04:15	1055
Diethyl phthalate	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 04:15	1055
Dimethyl phthalate	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 04:15	1055
2,4-Dimethylphenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 04:15	1055
4,6-Dinitro-2-methyl phenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 04:15	1055
2,4-Dinitrophenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 04:15	1055
2,4-Dinitrotoluene	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 04:15	1055
2,6-Dinitrotoluene	ND	ug/L	2.0		1	1	05/05/15	05/08/15 04:15	1055
Hexachlorobenzene	ND	ug/L	1.0		1	0.5	05/05/15	05/08/15 04:15	1055
Hexachlorobutadiene	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 04:15	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15050104

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-7 **Date/Time Sampled: 04/30/2015 09:55** **PSS Sample ID: 15050104-002**
Matrix: SURFACE WATER **Date/Time Received: 05/01/2015 10:44**

TCL Semivolatile Organic Compounds w/o PAHs Analytical Method: SW-846 8270 C

Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Hexachlorocyclopentadiene	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 04:15	1055
Hexachloroethane	ND	ug/L	2.0		1	1	05/05/15	05/08/15 04:15	1055
Isophorone	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 04:15	1055
2-Methyl phenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 04:15	1055
3&4-Methylphenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 04:15	1055
4-Nitroaniline	ND	ug/L	5.0		1	5	05/05/15	05/08/15 04:15	1055
3-Nitroaniline	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 04:15	1055
2-Nitroaniline	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 04:15	1055
Nitrobenzene	ND	ug/L	2.0		1	1	05/05/15	05/08/15 04:15	1055
2-Nitrophenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 04:15	1055
4-Nitrophenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 04:15	1055
N-Nitrosodi-n-propyl amine	ND	ug/L	0.50		1	0.5	05/05/15	05/08/15 04:15	1055
N-Nitrosodiphenylamine	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 04:15	1055
Di-n-octyl phthalate	ND	ug/L	5.0		1	5	05/05/15	05/08/15 04:15	1055
Pentachlorophenol	ND	ug/L	2.0		1	2	05/05/15	05/08/15 04:15	1055
Phenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 04:15	1055
Pyridine	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 04:15	1055
2,4,6-Trichlorophenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 04:15	1055
2,4,5-Trichlorophenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 04:15	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15050104

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-4 **Date/Time Sampled: 04/30/2015 10:30** **PSS Sample ID: 15050104-003**
Matrix: SURFACE WATER **Date/Time Received: 05/01/2015 10:44**

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3010A

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	ug/L	5.0		1	2.5	05/05/15	05/05/15 17:00	1034
Arsenic	0.80	ug/L	1.0	J	1	0.5	05/05/15	05/05/15 17:00	1034
Beryllium	ND	ug/L	1.0		1	0.5	05/05/15	05/05/15 17:00	1034
Cadmium	ND	ug/L	1.0		1	0.5	05/05/15	05/05/15 17:00	1034
Chromium	8.5	ug/L	1.0		1	0.5	05/05/15	05/05/15 17:00	1034
Copper	4.0	ug/L	1.0		1	0.5	05/05/15	05/05/15 17:00	1034
Lead	ND	ug/L	1.0		1	0.5	05/05/15	05/05/15 17:00	1034
Mercury	ND	ug/L	0.20		1	0.1	05/05/15	05/05/15 17:00	1034
Nickel	4.1	ug/L	1.0		1	0.5	05/05/15	05/05/15 17:00	1034
Selenium	ND	ug/L	1.0		1	0.5	05/05/15	05/05/15 17:00	1034
Silver	ND	ug/L	1.0		1	0.5	05/05/15	05/05/15 17:00	1034
Thallium	ND	ug/L	1.0		1	0.5	05/05/15	05/05/15 17:00	1034
Zinc	17	ug/L	20	J	1	10	05/05/15	05/05/15 17:00	1034

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	0.17	mg/L	0.040		1	0.04	05/04/15	05/04/15 23:25	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/L	40		1	40	05/01/15	05/01/15 16:19	1035

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15050104

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-4 **Date/Time Sampled: 04/30/2015 10:30** **PSS Sample ID: 15050104-003**
Matrix: SURFACE WATER **Date/Time Received: 05/01/2015 10:44**

TCL Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Dichlorodifluoromethane	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 19:41	1011
Chloromethane	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 19:41	1011
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 19:41	1011
Vinyl Chloride	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 19:41	1011
Bromomethane	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 19:41	1011
Chloroethane	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 19:41	1011
Acetone	ND	ug/L	10		1	5	05/03/15	05/03/15 19:41	1011
Cyclohexane	ND	ug/L	10		1	5	05/03/15	05/03/15 19:41	1011
Trichlorofluoromethane	ND	ug/L	5.0		1	2.5	05/03/15	05/03/15 19:41	1011
1,1-Dichloroethene	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 19:41	1011
Methylene Chloride	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 19:41	1011
trans-1,2-Dichloroethene	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 19:41	1011
Methyl-t-butyl ether	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 19:41	1011
1,1-Dichloroethane	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 19:41	1011
2-Butanone	ND	ug/L	10		1	5	05/03/15	05/03/15 19:41	1011
cis-1,2-Dichloroethene	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 19:41	1011
Bromochloromethane	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 19:41	1011
Chloroform	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 19:41	1011
1,1,1-Trichloroethane	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 19:41	1011
1,2-Dichloroethane	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 19:41	1011
Carbon Tetrachloride	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 19:41	1011
Benzene	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 19:41	1011
1,2-Dichloropropane	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 19:41	1011
Methyl Acetate	ND	ug/L	10		1	5	05/03/15	05/03/15 19:41	1011
Methylcyclohexane	ND	ug/L	10		1	5	05/03/15	05/03/15 19:41	1011
Trichloroethene	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 19:41	1011
Carbon Disulfide	ND	ug/L	10		1	5	05/03/15	05/03/15 19:41	1011
Bromodichloromethane	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 19:41	1011
cis-1,3-Dichloropropene	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 19:41	1011
4-Methyl-2-Pentanone	ND	ug/L	5.0		1	2.5	05/03/15	05/03/15 19:41	1011

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15050104

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-4 **Date/Time Sampled: 04/30/2015 10:30** **PSS Sample ID: 15050104-003**
Matrix: SURFACE WATER **Date/Time Received: 05/01/2015 10:44**

TCL Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
trans-1,3-Dichloropropene	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 19:41	1011
1,1,2-Trichloroethane	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 19:41	1011
Toluene	0.73	ug/L	1.0	J	1	0.5	05/03/15	05/03/15 19:41	1011
2-Hexanone	ND	ug/L	10		1	5	05/03/15	05/03/15 19:41	1011
1,2-Dibromoethane	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 19:41	1011
Dibromochloromethane	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 19:41	1011
Bromoform	ND	ug/L	5.0		1	2.5	05/03/15	05/03/15 19:41	1011
Tetrachloroethene	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 19:41	1011
Chlorobenzene	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 19:41	1011
Ethylbenzene	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 19:41	1011
m,p-Xylenes	ND	ug/L	2.0		1	1	05/03/15	05/03/15 19:41	1011
Styrene	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 19:41	1011
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 19:41	1011
o-Xylene	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 19:41	1011
Isopropylbenzene	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 19:41	1011
1,3-Dichlorobenzene	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 19:41	1011
1,4-Dichlorobenzene	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 19:41	1011
1,2-Dichlorobenzene	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 19:41	1011
1,2-Dibromo-3-Chloropropane	ND	ug/L	10		1	5	05/03/15	05/03/15 19:41	1011
1,2,4-Trichlorobenzene	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 19:41	1011
1,2,3-Trichlorobenzene	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 19:41	1011

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15050104

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-4 **Date/Time Sampled: 04/30/2015 10:30** **PSS Sample ID: 15050104-003**
Matrix: SURFACE WATER **Date/Time Received: 05/01/2015 10:44**

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 18:42	1055
Acenaphthylene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 18:42	1055
Anthracene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 18:42	1055
Benzo(a)anthracene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 18:42	1055
Benzo(a)pyrene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 18:42	1055
Benzo(b)fluoranthene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 18:42	1055
Benzo(g,h,i)perylene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 18:42	1055
Benzo(k)fluoranthene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 18:42	1055
Chrysene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 18:42	1055
Dibenz(a,h)Anthracene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 18:42	1055
Fluoranthene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 18:42	1055
Fluorene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 18:42	1055
Indeno(1,2,3-c,d)Pyrene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 18:42	1055
2-Methylnaphthalene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 18:42	1055
Naphthalene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 18:42	1055
Phenanthrene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 18:42	1055
Pyrene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 18:42	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15050104

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-4 **Date/Time Sampled: 04/30/2015 10:30** **PSS Sample ID: 15050104-003**
Matrix: SURFACE WATER **Date/Time Received: 05/01/2015 10:44**

TCL Semivolatile Organic Compounds w/o PAHs Analytical Method: SW-846 8270 C

Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acetophenone	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 02:10	1055
Caprolactam	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 02:10	1055
Biphenyl (Diphenyl)	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 02:10	1055
Atrazine	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 02:10	1055
Butyl benzyl phthalate	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 02:10	1055
bis(2-chloroethoxy) methane	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 02:10	1055
bis(2-chloroethyl) ether	ND	ug/L	0.50		1	0.5	05/05/15	05/08/15 02:10	1055
bis(2-chloroisopropyl) ether	ND	ug/L	0.50		1	0.5	05/05/15	05/08/15 02:10	1055
bis(2-ethylhexyl) phthalate	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 02:10	1055
4-Bromophenylphenyl ether	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 02:10	1055
Di-n-butyl phthalate	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 02:10	1055
Carbazole	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 02:10	1055
4-Chloro-3-methyl phenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 02:10	1055
4-Chloroaniline	ND	ug/L	5.0		1	5	05/05/15	05/08/15 02:10	1055
2-Chloronaphthalene	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 02:10	1055
2-Chlorophenol	ND	ug/L	2.0		1	2	05/05/15	05/08/15 02:10	1055
4-Chlorophenyl phenyl ether	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 02:10	1055
Dibenzofuran	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 02:10	1055
3,3-Dichlorobenzidine	ND	ug/L	0.50		1	0.5	05/05/15	05/08/15 02:10	1055
2,4-Dichlorophenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 02:10	1055
Diethyl phthalate	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 02:10	1055
Dimethyl phthalate	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 02:10	1055
2,4-Dimethylphenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 02:10	1055
4,6-Dinitro-2-methyl phenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 02:10	1055
2,4-Dinitrophenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 02:10	1055
2,4-Dinitrotoluene	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 02:10	1055
2,6-Dinitrotoluene	ND	ug/L	2.0		1	1	05/05/15	05/08/15 02:10	1055
Hexachlorobenzene	ND	ug/L	1.0		1	0.5	05/05/15	05/08/15 02:10	1055
Hexachlorobutadiene	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 02:10	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15050104

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-4 **Date/Time Sampled: 04/30/2015 10:30** **PSS Sample ID: 15050104-003**
Matrix: SURFACE WATER **Date/Time Received: 05/01/2015 10:44**

TCL Semivolatile Organic Compounds w/o PAHs Analytical Method: SW-846 8270 C

Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Hexachlorocyclopentadiene	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 02:10	1055
Hexachloroethane	ND	ug/L	2.0		1	1	05/05/15	05/08/15 02:10	1055
Isophorone	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 02:10	1055
2-Methyl phenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 02:10	1055
3&4-Methylphenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 02:10	1055
4-Nitroaniline	ND	ug/L	5.0		1	5	05/05/15	05/08/15 02:10	1055
3-Nitroaniline	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 02:10	1055
2-Nitroaniline	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 02:10	1055
Nitrobenzene	ND	ug/L	2.0		1	1	05/05/15	05/08/15 02:10	1055
2-Nitrophenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 02:10	1055
4-Nitrophenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 02:10	1055
N-Nitrosodi-n-propyl amine	ND	ug/L	0.50		1	0.5	05/05/15	05/08/15 02:10	1055
N-Nitrosodiphenylamine	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 02:10	1055
Di-n-octyl phthalate	ND	ug/L	5.0		1	5	05/05/15	05/08/15 02:10	1055
Pentachlorophenol	ND	ug/L	2.0		1	2	05/05/15	05/08/15 02:10	1055
Phenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 02:10	1055
Pyridine	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 02:10	1055
2,4,6-Trichlorophenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 02:10	1055
2,4,5-Trichlorophenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 02:10	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15050104

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-3 **Date/Time Sampled: 04/30/2015 11:33** **PSS Sample ID: 15050104-004**
Matrix: SURFACE WATER **Date/Time Received: 05/01/2015 10:44**

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3010A

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	ug/L	5.0		1	2.5	05/05/15	05/05/15 17:06	1034
Arsenic	0.83	ug/L	1.0	J	1	0.5	05/05/15	05/05/15 17:06	1034
Beryllium	ND	ug/L	1.0		1	0.5	05/05/15	05/05/15 17:06	1034
Cadmium	ND	ug/L	1.0		1	0.5	05/05/15	05/05/15 17:06	1034
Chromium	4.2	ug/L	1.0		1	0.5	05/05/15	05/05/15 17:06	1034
Copper	4.6	ug/L	1.0		1	0.5	05/05/15	05/05/15 17:06	1034
Lead	2.1	ug/L	1.0		1	0.5	05/05/15	05/05/15 17:06	1034
Mercury	ND	ug/L	0.20		1	0.1	05/05/15	05/05/15 17:06	1034
Nickel	6.5	ug/L	1.0		1	0.5	05/05/15	05/05/15 17:06	1034
Selenium	ND	ug/L	1.0		1	0.5	05/05/15	05/05/15 17:06	1034
Silver	ND	ug/L	1.0		1	0.5	05/05/15	05/05/15 17:06	1034
Thallium	ND	ug/L	1.0		1	0.5	05/05/15	05/05/15 17:06	1034
Zinc	23	ug/L	20		1	10	05/05/15	05/05/15 17:06	1034

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	0.23	mg/L	0.040		1	0.04	05/04/15	05/05/15 02:32	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/L	40		1	40	05/01/15	05/01/15 16:44	1035

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15050104

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-3 **Date/Time Sampled: 04/30/2015 11:33** **PSS Sample ID: 15050104-004**
Matrix: SURFACE WATER **Date/Time Received: 05/01/2015 10:44**

TCL Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Dichlorodifluoromethane	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 20:16	1011
Chloromethane	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 20:16	1011
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 20:16	1011
Vinyl Chloride	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 20:16	1011
Bromomethane	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 20:16	1011
Chloroethane	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 20:16	1011
Acetone	ND	ug/L	10		1	5	05/03/15	05/03/15 20:16	1011
Cyclohexane	ND	ug/L	10		1	5	05/03/15	05/03/15 20:16	1011
Trichlorofluoromethane	ND	ug/L	5.0		1	2.5	05/03/15	05/03/15 20:16	1011
1,1-Dichloroethene	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 20:16	1011
Methylene Chloride	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 20:16	1011
trans-1,2-Dichloroethene	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 20:16	1011
Methyl-t-butyl ether	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 20:16	1011
1,1-Dichloroethane	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 20:16	1011
2-Butanone	ND	ug/L	10		1	5	05/03/15	05/03/15 20:16	1011
cis-1,2-Dichloroethene	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 20:16	1011
Bromochloromethane	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 20:16	1011
Chloroform	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 20:16	1011
1,1,1-Trichloroethane	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 20:16	1011
1,2-Dichloroethane	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 20:16	1011
Carbon Tetrachloride	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 20:16	1011
Benzene	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 20:16	1011
1,2-Dichloropropane	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 20:16	1011
Methyl Acetate	ND	ug/L	10		1	5	05/03/15	05/03/15 20:16	1011
Methylcyclohexane	ND	ug/L	10		1	5	05/03/15	05/03/15 20:16	1011
Trichloroethene	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 20:16	1011
Carbon Disulfide	ND	ug/L	10		1	5	05/03/15	05/03/15 20:16	1011
Bromodichloromethane	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 20:16	1011
cis-1,3-Dichloropropene	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 20:16	1011
4-Methyl-2-Pentanone	ND	ug/L	5.0		1	2.5	05/03/15	05/03/15 20:16	1011

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15050104

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-3 **Date/Time Sampled: 04/30/2015 11:33** **PSS Sample ID: 15050104-004**
Matrix: SURFACE WATER **Date/Time Received: 05/01/2015 10:44**

TCL Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
trans-1,3-Dichloropropene	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 20:16	1011
1,1,2-Trichloroethane	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 20:16	1011
Toluene	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 20:16	1011
2-Hexanone	ND	ug/L	10		1	5	05/03/15	05/03/15 20:16	1011
1,2-Dibromoethane	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 20:16	1011
Dibromochloromethane	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 20:16	1011
Bromoform	ND	ug/L	5.0		1	2.5	05/03/15	05/03/15 20:16	1011
Tetrachloroethene	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 20:16	1011
Chlorobenzene	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 20:16	1011
Ethylbenzene	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 20:16	1011
m,p-Xylenes	ND	ug/L	2.0		1	1	05/03/15	05/03/15 20:16	1011
Styrene	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 20:16	1011
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 20:16	1011
o-Xylene	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 20:16	1011
Isopropylbenzene	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 20:16	1011
1,3-Dichlorobenzene	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 20:16	1011
1,4-Dichlorobenzene	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 20:16	1011
1,2-Dichlorobenzene	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 20:16	1011
1,2-Dibromo-3-Chloropropane	ND	ug/L	10		1	5	05/03/15	05/03/15 20:16	1011
1,2,4-Trichlorobenzene	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 20:16	1011
1,2,3-Trichlorobenzene	ND	ug/L	1.0		1	0.5	05/03/15	05/03/15 20:16	1011

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15050104

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-3 **Date/Time Sampled: 04/30/2015 11:33** **PSS Sample ID: 15050104-004**
Matrix: SURFACE WATER **Date/Time Received: 05/01/2015 10:44**

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/L	0.10		1	0.1	05/04/15	05/09/15 23:43	1055
Acenaphthylene	ND	ug/L	0.10		1	0.1	05/04/15	05/09/15 23:43	1055
Anthracene	ND	ug/L	0.10		1	0.1	05/04/15	05/09/15 23:43	1055
Benzo(a)anthracene	0.10	ug/L	0.10	J	1	0.1	05/04/15	05/09/15 23:43	1055
Benzo(a)pyrene	0.10	ug/L	0.10	J	1	0.1	05/04/15	05/09/15 23:43	1055
Benzo(b)fluoranthene	0.27	ug/L	0.10		1	0.1	05/04/15	05/09/15 23:43	1055
Benzo(g,h,i)perylene	ND	ug/L	0.10		1	0.1	05/04/15	05/09/15 23:43	1055
Benzo(k)fluoranthene	ND	ug/L	0.10		1	0.1	05/04/15	05/09/15 23:43	1055
Chrysene	ND	ug/L	0.10		1	0.1	05/04/15	05/09/15 23:43	1055
Dibenz(a,h)Anthracene	ND	ug/L	0.10		1	0.1	05/04/15	05/09/15 23:43	1055
Fluoranthene	0.20	ug/L	0.10		1	0.1	05/04/15	05/09/15 23:43	1055
Fluorene	ND	ug/L	0.10		1	0.1	05/04/15	05/09/15 23:43	1055
Indeno(1,2,3-c,d)Pyrene	0.45	ug/L	0.10		1	0.1	05/04/15	05/09/15 23:43	1055
2-Methylnaphthalene	ND	ug/L	0.10		1	0.1	05/04/15	05/09/15 23:43	1055
Naphthalene	ND	ug/L	0.10		1	0.1	05/04/15	05/09/15 23:43	1055
Phenanthrene	ND	ug/L	0.10		1	0.1	05/04/15	05/09/15 23:43	1055
Pyrene	0.14	ug/L	0.10		1	0.1	05/04/15	05/09/15 23:43	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15050104

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-3 **Date/Time Sampled: 04/30/2015 11:33** **PSS Sample ID: 15050104-004**
Matrix: SURFACE WATER **Date/Time Received: 05/01/2015 10:44**

TCL Semivolatile Organic Compounds w/o PAHs Analytical Method: SW-846 8270 C

Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acetophenone	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 04:47	1055
Caprolactam	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 04:47	1055
Biphenyl (Diphenyl)	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 04:47	1055
Atrazine	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 04:47	1055
Butyl benzyl phthalate	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 04:47	1055
bis(2-chloroethoxy) methane	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 04:47	1055
bis(2-chloroethyl) ether	ND	ug/L	0.50		1	0.5	05/05/15	05/08/15 04:47	1055
bis(2-chloroisopropyl) ether	ND	ug/L	0.50		1	0.5	05/05/15	05/08/15 04:47	1055
bis(2-ethylhexyl) phthalate	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 04:47	1055
4-Bromophenylphenyl ether	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 04:47	1055
Di-n-butyl phthalate	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 04:47	1055
Carbazole	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 04:47	1055
4-Chloro-3-methyl phenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 04:47	1055
4-Chloroaniline	ND	ug/L	5.0		1	5	05/05/15	05/08/15 04:47	1055
2-Chloronaphthalene	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 04:47	1055
2-Chlorophenol	ND	ug/L	2.0		1	2	05/05/15	05/08/15 04:47	1055
4-Chlorophenyl phenyl ether	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 04:47	1055
Dibenzofuran	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 04:47	1055
3,3-Dichlorobenzidine	ND	ug/L	0.50		1	0.5	05/05/15	05/08/15 04:47	1055
2,4-Dichlorophenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 04:47	1055
Diethyl phthalate	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 04:47	1055
Dimethyl phthalate	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 04:47	1055
2,4-Dimethylphenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 04:47	1055
4,6-Dinitro-2-methyl phenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 04:47	1055
2,4-Dinitrophenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 04:47	1055
2,4-Dinitrotoluene	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 04:47	1055
2,6-Dinitrotoluene	ND	ug/L	2.0		1	1	05/05/15	05/08/15 04:47	1055
Hexachlorobenzene	ND	ug/L	1.0		1	0.5	05/05/15	05/08/15 04:47	1055
Hexachlorobutadiene	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 04:47	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15050104

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-3 **Date/Time Sampled: 04/30/2015 11:33** **PSS Sample ID: 15050104-004**
Matrix: SURFACE WATER **Date/Time Received: 05/01/2015 10:44**

TCL Semivolatile Organic Compounds w/o PAHs Analytical Method: SW-846 8270 C

Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Hexachlorocyclopentadiene	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 04:47	1055
Hexachloroethane	ND	ug/L	2.0		1	1	05/05/15	05/08/15 04:47	1055
Isophorone	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 04:47	1055
2-Methyl phenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 04:47	1055
3&4-Methylphenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 04:47	1055
4-Nitroaniline	ND	ug/L	5.0		1	5	05/05/15	05/08/15 04:47	1055
3-Nitroaniline	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 04:47	1055
2-Nitroaniline	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 04:47	1055
Nitrobenzene	ND	ug/L	2.0		1	1	05/05/15	05/08/15 04:47	1055
2-Nitrophenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 04:47	1055
4-Nitrophenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 04:47	1055
N-Nitrosodi-n-propyl amine	ND	ug/L	0.50		1	0.5	05/05/15	05/08/15 04:47	1055
N-Nitrosodiphenylamine	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 04:47	1055
Di-n-octyl phthalate	ND	ug/L	5.0		1	5	05/05/15	05/08/15 04:47	1055
Pentachlorophenol	ND	ug/L	2.0		1	2	05/05/15	05/08/15 04:47	1055
Phenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 04:47	1055
Pyridine	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 04:47	1055
2,4,6-Trichlorophenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 04:47	1055
2,4,5-Trichlorophenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 04:47	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15050104

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-6 **Date/Time Sampled: 04/30/2015 12:35** **PSS Sample ID: 15050104-005**
Matrix: SURFACE WATER **Date/Time Received: 05/01/2015 10:44**

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3010A

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	ug/L	5.0		1	2.5	05/05/15	05/05/15 17:12	1034
Arsenic	ND	ug/L	1.0		1	0.5	05/05/15	05/05/15 17:12	1034
Beryllium	ND	ug/L	1.0		1	0.5	05/05/15	05/05/15 17:12	1034
Cadmium	ND	ug/L	1.0		1	0.5	05/05/15	05/05/15 17:12	1034
Chromium	ND	ug/L	1.0		1	0.5	05/05/15	05/05/15 17:12	1034
Copper	0.97	ug/L	1.0	J	1	0.5	05/05/15	05/05/15 17:12	1034
Lead	ND	ug/L	1.0		1	0.5	05/05/15	05/05/15 17:12	1034
Mercury	ND	ug/L	0.20		1	0.1	05/05/15	05/05/15 17:12	1034
Nickel	ND	ug/L	1.0		1	0.5	05/05/15	05/05/15 17:12	1034
Selenium	ND	ug/L	1.0		1	0.5	05/05/15	05/05/15 17:12	1034
Silver	ND	ug/L	1.0		1	0.5	05/05/15	05/05/15 17:12	1034
Thallium	ND	ug/L	1.0		1	0.5	05/05/15	05/05/15 17:12	1034
Zinc	15	ug/L	20	J	1	10	05/05/15	05/05/15 17:12	1034

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	0.16	mg/L	0.040		1	0.04	05/04/15	05/04/15 20:19	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/L	40		1	40	05/01/15	05/01/15 17:10	1035

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15050104

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-6 **Date/Time Sampled: 04/30/2015 12:35** **PSS Sample ID: 15050104-005**
Matrix: SURFACE WATER **Date/Time Received: 05/01/2015 10:44**

TCL Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Dichlorodifluoromethane	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 05:36	1011
Chloromethane	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 05:36	1011
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 05:36	1011
Vinyl Chloride	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 05:36	1011
Bromomethane	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 05:36	1011
Chloroethane	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 05:36	1011
Acetone	ND	ug/L	10		1	5	05/03/15	05/04/15 05:36	1011
Cyclohexane	ND	ug/L	10		1	5	05/03/15	05/04/15 05:36	1011
Trichlorofluoromethane	ND	ug/L	5.0		1	2.5	05/03/15	05/04/15 05:36	1011
1,1-Dichloroethene	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 05:36	1011
Methylene Chloride	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 05:36	1011
trans-1,2-Dichloroethene	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 05:36	1011
Methyl-t-butyl ether	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 05:36	1011
1,1-Dichloroethane	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 05:36	1011
2-Butanone	ND	ug/L	10		1	5	05/03/15	05/04/15 05:36	1011
cis-1,2-Dichloroethene	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 05:36	1011
Bromochloromethane	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 05:36	1011
Chloroform	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 05:36	1011
1,1,1-Trichloroethane	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 05:36	1011
1,2-Dichloroethane	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 05:36	1011
Carbon Tetrachloride	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 05:36	1011
Benzene	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 05:36	1011
1,2-Dichloropropane	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 05:36	1011
Methyl Acetate	ND	ug/L	10		1	5	05/03/15	05/04/15 05:36	1011
Methylcyclohexane	ND	ug/L	10		1	5	05/03/15	05/04/15 05:36	1011
Trichloroethene	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 05:36	1011
Carbon Disulfide	ND	ug/L	10		1	5	05/03/15	05/04/15 05:36	1011
Bromodichloromethane	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 05:36	1011
cis-1,3-Dichloropropene	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 05:36	1011
4-Methyl-2-Pentanone	ND	ug/L	5.0		1	2.5	05/03/15	05/04/15 05:36	1011

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15050104

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-6 **Date/Time Sampled: 04/30/2015 12:35** **PSS Sample ID: 15050104-005**
Matrix: SURFACE WATER **Date/Time Received: 05/01/2015 10:44**

TCL Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
trans-1,3-Dichloropropene	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 05:36	1011
1,1,2-Trichloroethane	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 05:36	1011
Toluene	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 05:36	1011
2-Hexanone	ND	ug/L	10		1	5	05/03/15	05/04/15 05:36	1011
1,2-Dibromoethane	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 05:36	1011
Dibromochloromethane	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 05:36	1011
Bromoform	ND	ug/L	5.0		1	2.5	05/03/15	05/04/15 05:36	1011
Tetrachloroethene	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 05:36	1011
Chlorobenzene	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 05:36	1011
Ethylbenzene	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 05:36	1011
m,p-Xylenes	ND	ug/L	2.0		1	1	05/03/15	05/04/15 05:36	1011
Styrene	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 05:36	1011
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 05:36	1011
o-Xylene	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 05:36	1011
Isopropylbenzene	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 05:36	1011
1,3-Dichlorobenzene	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 05:36	1011
1,4-Dichlorobenzene	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 05:36	1011
1,2-Dichlorobenzene	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 05:36	1011
1,2-Dibromo-3-Chloropropane	ND	ug/L	10		1	5	05/03/15	05/04/15 05:36	1011
1,2,4-Trichlorobenzene	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 05:36	1011
1,2,3-Trichlorobenzene	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 05:36	1011

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15050104

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-6 **Date/Time Sampled: 04/30/2015 12:35** **PSS Sample ID: 15050104-005**
Matrix: SURFACE WATER **Date/Time Received: 05/01/2015 10:44**

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 19:12	1055
Acenaphthylene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 19:12	1055
Anthracene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 19:12	1055
Benzo(a)anthracene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 19:12	1055
Benzo(a)pyrene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 19:12	1055
Benzo(b)fluoranthene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 19:12	1055
Benzo(g,h,i)perylene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 19:12	1055
Benzo(k)fluoranthene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 19:12	1055
Chrysene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 19:12	1055
Dibenz(a,h)Anthracene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 19:12	1055
Fluoranthene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 19:12	1055
Fluorene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 19:12	1055
Indeno(1,2,3-c,d)Pyrene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 19:12	1055
2-Methylnaphthalene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 19:12	1055
Naphthalene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 19:12	1055
Phenanthrene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 19:12	1055
Pyrene	ND	ug/L	0.10		1	0.1	05/04/15	05/08/15 19:12	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15050104

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-6 **Date/Time Sampled: 04/30/2015 12:35** **PSS Sample ID: 15050104-005**
Matrix: SURFACE WATER **Date/Time Received: 05/01/2015 10:44**

TCL Semivolatile Organic Compounds w/o PAHs Analytical Method: SW-846 8270 C

Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acetophenone	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 01:38	1055
Caprolactam	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 01:38	1055
Biphenyl (Diphenyl)	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 01:38	1055
Atrazine	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 01:38	1055
Butyl benzyl phthalate	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 01:38	1055
bis(2-chloroethoxy) methane	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 01:38	1055
bis(2-chloroethyl) ether	ND	ug/L	0.50		1	0.5	05/05/15	05/08/15 01:38	1055
bis(2-chloroisopropyl) ether	ND	ug/L	0.50		1	0.5	05/05/15	05/08/15 01:38	1055
bis(2-ethylhexyl) phthalate	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 01:38	1055
4-Bromophenylphenyl ether	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 01:38	1055
Di-n-butyl phthalate	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 01:38	1055
Carbazole	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 01:38	1055
4-Chloro-3-methyl phenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 01:38	1055
4-Chloroaniline	ND	ug/L	5.0		1	5	05/05/15	05/08/15 01:38	1055
2-Chloronaphthalene	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 01:38	1055
2-Chlorophenol	ND	ug/L	2.0		1	2	05/05/15	05/08/15 01:38	1055
4-Chlorophenyl phenyl ether	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 01:38	1055
Dibenzofuran	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 01:38	1055
3,3-Dichlorobenzidine	ND	ug/L	0.50		1	0.5	05/05/15	05/08/15 01:38	1055
2,4-Dichlorophenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 01:38	1055
Diethyl phthalate	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 01:38	1055
Dimethyl phthalate	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 01:38	1055
2,4-Dimethylphenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 01:38	1055
4,6-Dinitro-2-methyl phenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 01:38	1055
2,4-Dinitrophenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 01:38	1055
2,4-Dinitrotoluene	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 01:38	1055
2,6-Dinitrotoluene	ND	ug/L	2.0		1	1	05/05/15	05/08/15 01:38	1055
Hexachlorobenzene	ND	ug/L	1.0		1	0.5	05/05/15	05/08/15 01:38	1055
Hexachlorobutadiene	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 01:38	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15050104

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-6 **Date/Time Sampled: 04/30/2015 12:35** **PSS Sample ID: 15050104-005**
Matrix: SURFACE WATER **Date/Time Received: 05/01/2015 10:44**

TCL Semivolatile Organic Compounds w/o PAHs Analytical Method: SW-846 8270 C

Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Hexachlorocyclopentadiene	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 01:38	1055
Hexachloroethane	ND	ug/L	2.0		1	1	05/05/15	05/08/15 01:38	1055
Isophorone	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 01:38	1055
2-Methyl phenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 01:38	1055
3&4-Methylphenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 01:38	1055
4-Nitroaniline	ND	ug/L	5.0		1	5	05/05/15	05/08/15 01:38	1055
3-Nitroaniline	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 01:38	1055
2-Nitroaniline	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 01:38	1055
Nitrobenzene	ND	ug/L	2.0		1	1	05/05/15	05/08/15 01:38	1055
2-Nitrophenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 01:38	1055
4-Nitrophenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 01:38	1055
N-Nitrosodi-n-propyl amine	ND	ug/L	0.50		1	0.5	05/05/15	05/08/15 01:38	1055
N-Nitrosodiphenylamine	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 01:38	1055
Di-n-octyl phthalate	ND	ug/L	5.0		1	5	05/05/15	05/08/15 01:38	1055
Pentachlorophenol	ND	ug/L	2.0		1	2	05/05/15	05/08/15 01:38	1055
Phenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 01:38	1055
Pyridine	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 01:38	1055
2,4,6-Trichlorophenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 01:38	1055
2,4,5-Trichlorophenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 01:38	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15050104

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-5 **Date/Time Sampled: 04/30/2015 13:31** **PSS Sample ID: 15050104-006**
Matrix: SURFACE WATER **Date/Time Received: 05/01/2015 10:44**

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3010A

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	ug/L	5.0		1	2.5	05/05/15	05/05/15 17:18	1034
Arsenic	11	ug/L	1.0		1	0.5	05/05/15	05/05/15 17:18	1034
Beryllium	2.6	ug/L	1.0		1	0.5	05/05/15	05/05/15 17:18	1034
Cadmium	ND	ug/L	1.0		1	0.5	05/05/15	05/05/15 17:18	1034
Chromium	54	ug/L	1.0		1	0.5	05/05/15	05/05/15 17:18	1034
Copper	86	ug/L	1.0		1	0.5	05/05/15	05/05/15 17:18	1034
Lead	49	ug/L	1.0		1	0.5	05/05/15	05/05/15 17:18	1034
Mercury	0.39	ug/L	0.20		1	0.1	05/05/15	05/05/15 17:18	1034
Nickel	45	ug/L	1.0		1	0.5	05/05/15	05/05/15 17:18	1034
Selenium	1.4	ug/L	1.0		1	0.5	05/05/15	05/05/15 17:18	1034
Silver	ND	ug/L	1.0		1	0.5	05/05/15	05/05/15 17:18	1034
Thallium	0.74	ug/L	1.0	J	1	0.5	05/05/15	05/05/15 17:18	1034
Zinc	140	ug/L	20		1	10	05/05/15	05/05/15 17:18	1034

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	0.14	mg/L	0.040		1	0.04	05/04/15	05/04/15 23:25	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/L	40		1	40	05/01/15	05/01/15 17:35	1035

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15050104

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-5 **Date/Time Sampled: 04/30/2015 13:31** **PSS Sample ID: 15050104-006**
Matrix: SURFACE WATER **Date/Time Received: 05/01/2015 10:44**

TCL Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Dichlorodifluoromethane	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 07:57	1011
Chloromethane	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 07:57	1011
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 07:57	1011
Vinyl Chloride	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 07:57	1011
Bromomethane	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 07:57	1011
Chloroethane	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 07:57	1011
Acetone	ND	ug/L	10		1	5	05/03/15	05/04/15 07:57	1011
Cyclohexane	ND	ug/L	10		1	5	05/03/15	05/04/15 07:57	1011
Trichlorofluoromethane	ND	ug/L	5.0		1	2.5	05/03/15	05/04/15 07:57	1011
1,1-Dichloroethene	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 07:57	1011
Methylene Chloride	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 07:57	1011
trans-1,2-Dichloroethene	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 07:57	1011
Methyl-t-butyl ether	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 07:57	1011
1,1-Dichloroethane	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 07:57	1011
2-Butanone	ND	ug/L	10		1	5	05/03/15	05/04/15 07:57	1011
cis-1,2-Dichloroethene	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 07:57	1011
Bromochloromethane	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 07:57	1011
Chloroform	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 07:57	1011
1,1,1-Trichloroethane	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 07:57	1011
1,2-Dichloroethane	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 07:57	1011
Carbon Tetrachloride	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 07:57	1011
Benzene	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 07:57	1011
1,2-Dichloropropane	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 07:57	1011
Methyl Acetate	ND	ug/L	10		1	5	05/03/15	05/04/15 07:57	1011
Methylcyclohexane	ND	ug/L	10		1	5	05/03/15	05/04/15 07:57	1011
Trichloroethene	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 07:57	1011
Carbon Disulfide	ND	ug/L	10		1	5	05/03/15	05/04/15 07:57	1011
Bromodichloromethane	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 07:57	1011
cis-1,3-Dichloropropene	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 07:57	1011
4-Methyl-2-Pentanone	ND	ug/L	5.0		1	2.5	05/03/15	05/04/15 07:57	1011

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15050104

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-5 **Date/Time Sampled: 04/30/2015 13:31** **PSS Sample ID: 15050104-006**
Matrix: SURFACE WATER **Date/Time Received: 05/01/2015 10:44**

TCL Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
trans-1,3-Dichloropropene	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 07:57	1011
1,1,2-Trichloroethane	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 07:57	1011
Toluene	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 07:57	1011
2-Hexanone	ND	ug/L	10		1	5	05/03/15	05/04/15 07:57	1011
1,2-Dibromoethane	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 07:57	1011
Dibromochloromethane	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 07:57	1011
Bromoform	ND	ug/L	5.0		1	2.5	05/03/15	05/04/15 07:57	1011
Tetrachloroethene	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 07:57	1011
Chlorobenzene	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 07:57	1011
Ethylbenzene	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 07:57	1011
m,p-Xylenes	ND	ug/L	2.0		1	1	05/03/15	05/04/15 07:57	1011
Styrene	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 07:57	1011
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 07:57	1011
o-Xylene	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 07:57	1011
Isopropylbenzene	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 07:57	1011
1,3-Dichlorobenzene	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 07:57	1011
1,4-Dichlorobenzene	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 07:57	1011
1,2-Dichlorobenzene	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 07:57	1011
1,2-Dibromo-3-Chloropropane	ND	ug/L	10		1	5	05/03/15	05/04/15 07:57	1011
1,2,4-Trichlorobenzene	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 07:57	1011
1,2,3-Trichlorobenzene	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 07:57	1011

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CERTIFICATE OF ANALYSIS

No: 15050104

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-5 **Date/Time Sampled: 04/30/2015 13:31** **PSS Sample ID: 15050104-006**
Matrix: SURFACE WATER **Date/Time Received: 05/01/2015 10:44**

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/L	0.10		1	0.1	05/04/15	05/09/15 23:13	1055
Acenaphthylene	ND	ug/L	0.10		1	0.1	05/04/15	05/09/15 23:13	1055
Anthracene	ND	ug/L	0.10		1	0.1	05/04/15	05/09/15 23:13	1055
Benzo(a)anthracene	0.10	ug/L	0.10	J	1	0.1	05/04/15	05/09/15 23:13	1055
Benzo(a)pyrene	0.11	ug/L	0.10		1	0.1	05/04/15	05/09/15 23:13	1055
Benzo(b)fluoranthene	0.30	ug/L	0.10		1	0.1	05/04/15	05/09/15 23:13	1055
Benzo(g,h,i)perylene	ND	ug/L	0.10		1	0.1	05/04/15	05/09/15 23:13	1055
Benzo(k)fluoranthene	ND	ug/L	0.10		1	0.1	05/04/15	05/09/15 23:13	1055
Chrysene	ND	ug/L	0.10		1	0.1	05/04/15	05/09/15 23:13	1055
Dibenz(a,h)Anthracene	ND	ug/L	0.10		1	0.1	05/04/15	05/09/15 23:13	1055
Fluoranthene	0.21	ug/L	0.10		1	0.1	05/04/15	05/09/15 23:13	1055
Fluorene	ND	ug/L	0.10		1	0.1	05/04/15	05/09/15 23:13	1055
Indeno(1,2,3-c,d)Pyrene	0.48	ug/L	0.10		1	0.1	05/04/15	05/09/15 23:13	1055
2-Methylnaphthalene	ND	ug/L	0.10		1	0.1	05/04/15	05/09/15 23:13	1055
Naphthalene	ND	ug/L	0.10		1	0.1	05/04/15	05/09/15 23:13	1055
Phenanthrene	0.10	ug/L	0.10	J	1	0.1	05/04/15	05/09/15 23:13	1055
Pyrene	0.15	ug/L	0.10		1	0.1	05/04/15	05/09/15 23:13	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15050104

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-5 **Date/Time Sampled: 04/30/2015 13:31** **PSS Sample ID: 15050104-006**
Matrix: SURFACE WATER **Date/Time Received: 05/01/2015 10:44**

TCL Semivolatile Organic Compounds w/o PAHs Analytical Method: SW-846 8270 C

Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acetophenone	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 02:41	1055
Caprolactam	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 02:41	1055
Biphenyl (Diphenyl)	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 02:41	1055
Atrazine	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 02:41	1055
Butyl benzyl phthalate	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 02:41	1055
bis(2-chloroethoxy) methane	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 02:41	1055
bis(2-chloroethyl) ether	ND	ug/L	0.50		1	0.5	05/05/15	05/08/15 02:41	1055
bis(2-chloroisopropyl) ether	ND	ug/L	0.50		1	0.5	05/05/15	05/08/15 02:41	1055
bis(2-ethylhexyl) phthalate	3.0	ug/L	5.0	J	1	2.5	05/05/15	05/08/15 02:41	1055
4-Bromophenylphenyl ether	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 02:41	1055
Di-n-butyl phthalate	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 02:41	1055
Carbazole	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 02:41	1055
4-Chloro-3-methyl phenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 02:41	1055
4-Chloroaniline	ND	ug/L	5.0		1	5	05/05/15	05/08/15 02:41	1055
2-Chloronaphthalene	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 02:41	1055
2-Chlorophenol	ND	ug/L	2.0		1	2	05/05/15	05/08/15 02:41	1055
4-Chlorophenyl phenyl ether	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 02:41	1055
Dibenzofuran	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 02:41	1055
3,3-Dichlorobenzidine	ND	ug/L	0.50		1	0.5	05/05/15	05/08/15 02:41	1055
2,4-Dichlorophenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 02:41	1055
Diethyl phthalate	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 02:41	1055
Dimethyl phthalate	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 02:41	1055
2,4-Dimethylphenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 02:41	1055
4,6-Dinitro-2-methyl phenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 02:41	1055
2,4-Dinitrophenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 02:41	1055
2,4-Dinitrotoluene	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 02:41	1055
2,6-Dinitrotoluene	ND	ug/L	2.0		1	1	05/05/15	05/08/15 02:41	1055
Hexachlorobenzene	ND	ug/L	1.0		1	0.5	05/05/15	05/08/15 02:41	1055
Hexachlorobutadiene	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 02:41	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15050104

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-5 **Date/Time Sampled: 04/30/2015 13:31** **PSS Sample ID: 15050104-006**
Matrix: SURFACE WATER **Date/Time Received: 05/01/2015 10:44**

TCL Semivolatile Organic Compounds w/o PAHs Analytical Method: SW-846 8270 C

Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Hexachlorocyclopentadiene	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 02:41	1055
Hexachloroethane	ND	ug/L	2.0		1	1	05/05/15	05/08/15 02:41	1055
Isophorone	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 02:41	1055
2-Methyl phenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 02:41	1055
3&4-Methylphenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 02:41	1055
4-Nitroaniline	ND	ug/L	5.0		1	5	05/05/15	05/08/15 02:41	1055
3-Nitroaniline	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 02:41	1055
2-Nitroaniline	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 02:41	1055
Nitrobenzene	ND	ug/L	2.0		1	1	05/05/15	05/08/15 02:41	1055
2-Nitrophenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 02:41	1055
4-Nitrophenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 02:41	1055
N-Nitrosodi-n-propyl amine	ND	ug/L	0.50		1	0.5	05/05/15	05/08/15 02:41	1055
N-Nitrosodiphenylamine	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 02:41	1055
Di-n-octyl phthalate	ND	ug/L	5.0		1	5	05/05/15	05/08/15 02:41	1055
Pentachlorophenol	ND	ug/L	2.0		1	2	05/05/15	05/08/15 02:41	1055
Phenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 02:41	1055
Pyridine	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 02:41	1055
2,4,6-Trichlorophenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 02:41	1055
2,4,5-Trichlorophenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 02:41	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15050104

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-2 **Date/Time Sampled: 04/30/2015 15:32** **PSS Sample ID: 15050104-007**
Matrix: SURFACE WATER **Date/Time Received: 05/01/2015 10:44**

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3010A

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	ug/L	5.0		1	2.5	05/05/15	05/05/15 17:24	1034
Arsenic	13	ug/L	1.0		1	0.5	05/05/15	05/05/15 17:24	1034
Beryllium	2.2	ug/L	1.0		1	0.5	05/05/15	05/05/15 17:24	1034
Cadmium	1.5	ug/L	1.0		1	0.5	05/05/15	05/05/15 17:24	1034
Chromium	130	ug/L	1.0		1	0.5	05/05/15	05/05/15 17:24	1034
Copper	89	ug/L	1.0		1	0.5	05/05/15	05/05/15 17:24	1034
Lead	130	ug/L	1.0		1	0.5	05/05/15	05/05/15 17:24	1034
Mercury	0.27	ug/L	0.20		1	0.1	05/05/15	05/05/15 17:24	1034
Nickel	160	ug/L	1.0		1	0.5	05/05/15	05/05/15 17:24	1034
Selenium	0.96	ug/L	1.0	J	1	0.5	05/05/15	05/05/15 17:24	1034
Silver	ND	ug/L	1.0		1	0.5	05/05/15	05/05/15 17:24	1034
Thallium	0.55	ug/L	1.0	J	1	0.5	05/05/15	05/05/15 17:24	1034
Zinc	240	ug/L	20		1	10	05/05/15	05/05/15 17:24	1034

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	0.14	mg/L	0.040		1	0.04	05/04/15	05/05/15 02:32	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/L	40		1	40	05/01/15	05/01/15 18:01	1035

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15050104

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-2 **Date/Time Sampled: 04/30/2015 15:32** **PSS Sample ID: 15050104-007**
Matrix: SURFACE WATER **Date/Time Received: 05/01/2015 10:44**

TCL Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Dichlorodifluoromethane	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 08:31	1011
Chloromethane	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 08:31	1011
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 08:31	1011
Vinyl Chloride	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 08:31	1011
Bromomethane	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 08:31	1011
Chloroethane	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 08:31	1011
Acetone	ND	ug/L	10		1	5	05/03/15	05/04/15 08:31	1011
Cyclohexane	ND	ug/L	10		1	5	05/03/15	05/04/15 08:31	1011
Trichlorofluoromethane	ND	ug/L	5.0		1	2.5	05/03/15	05/04/15 08:31	1011
1,1-Dichloroethene	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 08:31	1011
Methylene Chloride	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 08:31	1011
trans-1,2-Dichloroethene	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 08:31	1011
Methyl-t-butyl ether	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 08:31	1011
1,1-Dichloroethane	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 08:31	1011
2-Butanone	ND	ug/L	10		1	5	05/03/15	05/04/15 08:31	1011
cis-1,2-Dichloroethene	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 08:31	1011
Bromochloromethane	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 08:31	1011
Chloroform	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 08:31	1011
1,1,1-Trichloroethane	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 08:31	1011
1,2-Dichloroethane	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 08:31	1011
Carbon Tetrachloride	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 08:31	1011
Benzene	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 08:31	1011
1,2-Dichloropropane	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 08:31	1011
Methyl Acetate	ND	ug/L	10		1	5	05/03/15	05/04/15 08:31	1011
Methylcyclohexane	ND	ug/L	10		1	5	05/03/15	05/04/15 08:31	1011
Trichloroethene	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 08:31	1011
Carbon Disulfide	ND	ug/L	10		1	5	05/03/15	05/04/15 08:31	1011
Bromodichloromethane	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 08:31	1011
cis-1,3-Dichloropropene	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 08:31	1011
4-Methyl-2-Pentanone	ND	ug/L	5.0		1	2.5	05/03/15	05/04/15 08:31	1011

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15050104

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-2 **Date/Time Sampled: 04/30/2015 15:32** **PSS Sample ID: 15050104-007**
Matrix: SURFACE WATER **Date/Time Received: 05/01/2015 10:44**

TCL Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
trans-1,3-Dichloropropene	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 08:31	1011
1,1,2-Trichloroethane	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 08:31	1011
Toluene	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 08:31	1011
2-Hexanone	ND	ug/L	10		1	5	05/03/15	05/04/15 08:31	1011
1,2-Dibromoethane	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 08:31	1011
Dibromochloromethane	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 08:31	1011
Bromoform	ND	ug/L	5.0		1	2.5	05/03/15	05/04/15 08:31	1011
Tetrachloroethene	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 08:31	1011
Chlorobenzene	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 08:31	1011
Ethylbenzene	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 08:31	1011
m,p-Xylenes	ND	ug/L	2.0		1	1	05/03/15	05/04/15 08:31	1011
Styrene	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 08:31	1011
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 08:31	1011
o-Xylene	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 08:31	1011
Isopropylbenzene	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 08:31	1011
1,3-Dichlorobenzene	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 08:31	1011
1,4-Dichlorobenzene	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 08:31	1011
1,2-Dichlorobenzene	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 08:31	1011
1,2-Dibromo-3-Chloropropane	ND	ug/L	10		1	5	05/03/15	05/04/15 08:31	1011
1,2,4-Trichlorobenzene	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 08:31	1011
1,2,3-Trichlorobenzene	ND	ug/L	1.0		1	0.5	05/03/15	05/04/15 08:31	1011

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CERTIFICATE OF ANALYSIS

No: 15050104

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-2 **Date/Time Sampled: 04/30/2015 15:32** **PSS Sample ID: 15050104-007**
Matrix: SURFACE WATER **Date/Time Received: 05/01/2015 10:44**

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/L	0.10		1	0.1	05/04/15	05/09/15 22:43	1055
Acenaphthylene	ND	ug/L	0.10		1	0.1	05/04/15	05/09/15 22:43	1055
Anthracene	ND	ug/L	0.10		1	0.1	05/04/15	05/09/15 22:43	1055
Benzo(a)anthracene	ND	ug/L	0.10		1	0.1	05/04/15	05/09/15 22:43	1055
Benzo(a)pyrene	ND	ug/L	0.10		1	0.1	05/04/15	05/09/15 22:43	1055
Benzo(b)fluoranthene	0.21	ug/L	0.10		1	0.1	05/04/15	05/09/15 22:43	1055
Benzo(g,h,i)perylene	ND	ug/L	0.10		1	0.1	05/04/15	05/09/15 22:43	1055
Benzo(k)fluoranthene	ND	ug/L	0.10		1	0.1	05/04/15	05/09/15 22:43	1055
Chrysene	ND	ug/L	0.10		1	0.1	05/04/15	05/09/15 22:43	1055
Dibenz(a,h)Anthracene	ND	ug/L	0.10		1	0.1	05/04/15	05/09/15 22:43	1055
Fluoranthene	0.28	ug/L	0.10		1	0.1	05/04/15	05/09/15 22:43	1055
Fluorene	ND	ug/L	0.10		1	0.1	05/04/15	05/09/15 22:43	1055
Indeno(1,2,3-c,d)Pyrene	0.38	ug/L	0.10		1	0.1	05/04/15	05/09/15 22:43	1055
2-Methylnaphthalene	ND	ug/L	0.10		1	0.1	05/04/15	05/09/15 22:43	1055
Naphthalene	ND	ug/L	0.10		1	0.1	05/04/15	05/09/15 22:43	1055
Phenanthrene	ND	ug/L	0.10		1	0.1	05/04/15	05/09/15 22:43	1055
Pyrene	0.13	ug/L	0.10		1	0.1	05/04/15	05/09/15 22:43	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15050104

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-2 **Date/Time Sampled: 04/30/2015 15:32** **PSS Sample ID: 15050104-007**
Matrix: SURFACE WATER **Date/Time Received: 05/01/2015 10:44**

TCL Semivolatile Organic Compounds w/o PAHs Analytical Method: SW-846 8270 C

Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acetophenone	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 03:12	1055
Caprolactam	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 03:12	1055
Biphenyl (Diphenyl)	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 03:12	1055
Atrazine	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 03:12	1055
Butyl benzyl phthalate	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 03:12	1055
bis(2-chloroethoxy) methane	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 03:12	1055
bis(2-chloroethyl) ether	ND	ug/L	0.50		1	0.5	05/05/15	05/08/15 03:12	1055
bis(2-chloroisopropyl) ether	ND	ug/L	0.50		1	0.5	05/05/15	05/08/15 03:12	1055
bis(2-ethylhexyl) phthalate	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 03:12	1055
4-Bromophenylphenyl ether	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 03:12	1055
Di-n-butyl phthalate	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 03:12	1055
Carbazole	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 03:12	1055
4-Chloro-3-methyl phenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 03:12	1055
4-Chloroaniline	ND	ug/L	5.0		1	5	05/05/15	05/08/15 03:12	1055
2-Chloronaphthalene	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 03:12	1055
2-Chlorophenol	ND	ug/L	2.0		1	2	05/05/15	05/08/15 03:12	1055
4-Chlorophenyl phenyl ether	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 03:12	1055
Dibenzofuran	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 03:12	1055
3,3-Dichlorobenzidine	ND	ug/L	0.50		1	0.5	05/05/15	05/08/15 03:12	1055
2,4-Dichlorophenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 03:12	1055
Diethyl phthalate	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 03:12	1055
Dimethyl phthalate	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 03:12	1055
2,4-Dimethylphenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 03:12	1055
4,6-Dinitro-2-methyl phenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 03:12	1055
2,4-Dinitrophenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 03:12	1055
2,4-Dinitrotoluene	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 03:12	1055
2,6-Dinitrotoluene	ND	ug/L	2.0		1	1	05/05/15	05/08/15 03:12	1055
Hexachlorobenzene	ND	ug/L	1.0		1	0.5	05/05/15	05/08/15 03:12	1055
Hexachlorobutadiene	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 03:12	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15050104

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-2 **Date/Time Sampled: 04/30/2015 15:32** **PSS Sample ID: 15050104-007**
Matrix: SURFACE WATER **Date/Time Received: 05/01/2015 10:44**

TCL Semivolatile Organic Compounds w/o PAHs Analytical Method: SW-846 8270 C

Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Hexachlorocyclopentadiene	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 03:12	1055
Hexachloroethane	ND	ug/L	2.0		1	1	05/05/15	05/08/15 03:12	1055
Isophorone	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 03:12	1055
2-Methyl phenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 03:12	1055
3&4-Methylphenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 03:12	1055
4-Nitroaniline	ND	ug/L	5.0		1	5	05/05/15	05/08/15 03:12	1055
3-Nitroaniline	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 03:12	1055
2-Nitroaniline	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 03:12	1055
Nitrobenzene	ND	ug/L	2.0		1	1	05/05/15	05/08/15 03:12	1055
2-Nitrophenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 03:12	1055
4-Nitrophenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 03:12	1055
N-Nitrosodi-n-propyl amine	ND	ug/L	0.50		1	0.5	05/05/15	05/08/15 03:12	1055
N-Nitrosodiphenylamine	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 03:12	1055
Di-n-octyl phthalate	ND	ug/L	5.0		1	5	05/05/15	05/08/15 03:12	1055
Pentachlorophenol	ND	ug/L	2.0		1	2	05/05/15	05/08/15 03:12	1055
Phenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 03:12	1055
Pyridine	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 03:12	1055
2,4,6-Trichlorophenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 03:12	1055
2,4,5-Trichlorophenol	ND	ug/L	5.0		1	2.5	05/05/15	05/08/15 03:12	1055



Case Narrative Summary

Client Name: Arc Environmental

Project Name: Percontee

Work Order Number(s): 15050104

Any holding time exceedances, deviations from the method specifications, regulatory requirements or variations to the procedures outlined in the PSS Quality Assurance Manual are outlined below.

The analyses of chlorine, pH, dissolved oxygen, temperature and sulfite for drinking water and non-potable samples tested for compliance have a maximum holding time of 15 minutes. As such, all laboratory analyses for these analytes exceed holding times.

Matrix spike and matrix spike duplicate analyses may not be performed due to insufficient sample quantity. In these instances, a laboratory control sample and laboratory control sample duplicate are analyzed unless otherwise noted or specified in the method.

Sample Receipt:

Sample(s) received at 0 degrees but no samples were frozen.

Analytical:

PP Metals

Batch: 122413

Low Level CCV for Arsenic and Antimony (69% and 68% recovery) exceeds acceptance criteria of 70-130%.

TCL Volatile Organic Compounds

Batch: 122336

15050104-002. 100X dilution performed to prevent sample foam over during purge.

Poly Aromatic Hydrocarbons by SIM

Batch: 122519

Laboratory control sample and/or laboratory control sample duplicate (LCS/LCSD) exceedances identified; see LCS summary form.

TCL Semivolatile Organic Compounds w/o PAHs

Batch: 122503

Surrogate exceedances identified; see surrogate summary form.

Laboratory control sample and/or laboratory control sample duplicate (LCS/LCSD) exceedances identified; see LCS summary form.

NELAP accreditation was held for all analyses performed unless noted below. See www.phaseonline.com for complete PSS scope of accreditation.



Analytical Data Package Information Summary

Work Order(s): 15050104

Report Prepared For: Arc Environmental, Baltimore, MD

Project Name: Percontee

Project Manager: Christie Pulvino

Method	Client Sample Id	Analysis Type	Lab Sample Id	Analyst	Mtx	Prep Batch	Analytical Batch	Sampled	Prepared	Analyzed	
SW-846 6020 A	S-8	Initial	15050104-001	1034	W	55290	122413	04/30/2015	05/05/2015 09:17	05/05/2015 16:48	
	S-7	Initial	15050104-002	1034	W	55290	122413	04/30/2015	05/05/2015 09:17	05/05/2015 16:54	
	S-4	Initial	15050104-003	1034	W	55290	122413	04/30/2015	05/05/2015 09:17	05/05/2015 17:00	
	S-3	Initial	15050104-004	1034	W	55290	122413	04/30/2015	05/05/2015 09:17	05/05/2015 17:06	
	S-6	Initial	15050104-005	1034	W	55290	122413	04/30/2015	05/05/2015 09:17	05/05/2015 17:12	
	S-5	Initial	15050104-006	1034	W	55290	122413	04/30/2015	05/05/2015 09:17	05/05/2015 17:18	
	S-2	Initial	15050104-007	1034	W	55290	122413	04/30/2015	05/05/2015 09:17	05/05/2015 17:24	
	55290-1-BKS	BKS	55290-1-BKS	1034	W	55290	122413	-----	05/05/2015 09:17	05/05/2015 14:43	
	55290-1-BLK	BLK	55290-1-BLK	1034	W	55290	122413	-----	05/05/2015 09:17	05/05/2015 14:37	
	MW-4 S	MS	15043020-001 S	1034	W	55290	122413	04/29/2015	05/05/2015 09:17	05/05/2015 15:18	
	MW-4 SD	MSD	15043020-001 SD	1034	W	55290	122413	04/29/2015	05/05/2015 09:17	05/05/2015 15:24	
	SW-846 8015 C	S-8	Initial	15050104-001	1055	W	55276	122373	04/30/2015	05/04/2015 10:04	05/04/2015 20:19
S-7		Initial	15050104-002	1055	W	55276	122373	04/30/2015	05/04/2015 10:04	05/05/2015 01:29	
S-4		Initial	15050104-003	1055	W	55276	122373	04/30/2015	05/04/2015 10:04	05/04/2015 23:25	
S-3		Initial	15050104-004	1055	W	55276	122373	04/30/2015	05/04/2015 10:04	05/05/2015 02:32	
S-6		Initial	15050104-005	1055	W	55276	122373	04/30/2015	05/04/2015 10:04	05/04/2015 20:19	
S-5		Initial	15050104-006	1055	W	55276	122373	04/30/2015	05/04/2015 10:04	05/04/2015 23:25	
S-2		Initial	15050104-007	1055	W	55276	122373	04/30/2015	05/04/2015 10:04	05/05/2015 02:32	
55276-1-BKS		BKS	55276-1-BKS	1055	W	55276	122373	-----	05/04/2015 10:04	05/04/2015 12:14	
55276-1-BLK		BLK	55276-1-BLK	1055	W	55276	122373	-----	05/04/2015 10:04	05/04/2015 12:14	
55276-1-BSD		BSD	55276-1-BSD	1055	W	55276	122373	-----	05/04/2015 10:04	05/04/2015 12:45	
SW-846 8015C		S-8	Initial	15050104-001	1035	W	55278	122346	04/30/2015	05/01/2015 10:12	05/01/2015 15:28
		S-7	Initial	15050104-002	1035	W	55278	122346	04/30/2015	05/01/2015 10:12	05/01/2015 15:53
	S-4	Initial	15050104-003	1035	W	55278	122346	04/30/2015	05/01/2015 10:12	05/01/2015 16:19	
	S-3	Initial	15050104-004	1035	W	55278	122346	04/30/2015	05/01/2015 10:12	05/01/2015 16:44	
	S-6	Initial	15050104-005	1035	W	55278	122346	04/30/2015	05/01/2015 10:12	05/01/2015 17:10	
	S-5	Initial	15050104-006	1035	W	55278	122346	04/30/2015	05/01/2015 10:12	05/01/2015 17:35	
	S-2	Initial	15050104-007	1035	W	55278	122346	04/30/2015	05/01/2015 10:12	05/01/2015 18:01	



Analytical Data Package Information Summary

Work Order(s): 15050104

Report Prepared For: Arc Environmental, Baltimore, MD

Project Name: Percontee

Project Manager: Christie Pulvino

Method	Client Sample Id	Analysis Type	Lab Sample Id	Analyst	Mtx	Prep Batch	Analytical Batch	Sampled	Prepared	Analyzed
SW-846 8015C	55278-2-BKS	BKS	55278-2-BKS	1035	W	55278	122346	-----	05/01/2015 10:12	05/01/2015 12:30
	55278-2-BLK	BLK	55278-2-BLK	1035	W	55278	122346	-----	05/01/2015 10:12	05/01/2015 11:38
	S-8 S	MS	15050104-001 S	1035	W	55278	122346	04/30/2015	05/01/2015 10:12	05/01/2015 19:18
	S-8 SD	MSD	15050104-001 SD	1035	W	55278	122346	04/30/2015	05/01/2015 10:12	05/01/2015 19:44
SW-846 8260 B	S-8	Initial	15050104-001	1011	W	55271	122336	04/30/2015	05/03/2015 09:37	05/03/2015 18:31
	S-7	Initial	15050104-002	1011	W	55271	122336	04/30/2015	05/03/2015 09:37	05/03/2015 19:06
	S-4	Initial	15050104-003	1011	W	55271	122336	04/30/2015	05/03/2015 09:37	05/03/2015 19:41
	S-3	Initial	15050104-004	1011	W	55271	122336	04/30/2015	05/03/2015 09:37	05/03/2015 20:16
	55271-1-BKS	BKS	55271-1-BKS	1011	W	55271	122336	-----	05/03/2015 09:37	05/03/2015 10:58
	55271-1-BLK	BLK	55271-1-BLK	1011	W	55271	122336	-----	05/03/2015 09:37	05/03/2015 12:42
	415-MG-W1 S	MS	15043023-005 S	1011	W	55271	122336	04/29/2015	05/03/2015 09:37	05/03/2015 14:27
	415-MG-W1 SD	MSD	15043023-005 SD	1011	W	55271	122336	04/29/2015	05/03/2015 09:37	05/03/2015 15:02
	S-6	Initial	15050104-005	1011	W	55273	122340	04/30/2015	05/03/2015 22:01	05/04/2015 05:36
	S-5	Initial	15050104-006	1011	W	55273	122340	04/30/2015	05/03/2015 22:01	05/04/2015 07:57
	S-2	Initial	15050104-007	1011	W	55273	122340	04/30/2015	05/03/2015 22:01	05/04/2015 08:31
	55273-1-BKS	BKS	55273-1-BKS	1011	W	55273	122340	-----	05/03/2015 22:01	05/03/2015 23:46
	55273-1-BLK	BLK	55273-1-BLK	1011	W	55273	122340	-----	05/03/2015 22:01	05/04/2015 00:55
	S-6 S	MS	15050104-005 S	1011	W	55273	122340	04/30/2015	05/03/2015 22:01	05/04/2015 06:11
	S-6 SD	MSD	15050104-005 SD	1011	W	55273	122340	04/30/2015	05/03/2015 22:01	05/04/2015 06:47
	SW-846 8270 C	S-8	Initial	15050104-001	1055	W	55305	122503	04/30/2015	05/05/2015 16:48
S-7		Initial	15050104-002	1055	W	55305	122503	04/30/2015	05/05/2015 16:48	05/08/2015 04:15
S-4		Initial	15050104-003	1055	W	55305	122503	04/30/2015	05/05/2015 16:48	05/08/2015 02:10
S-3		Initial	15050104-004	1055	W	55305	122503	04/30/2015	05/05/2015 16:48	05/08/2015 04:47
S-6		Initial	15050104-005	1055	W	55305	122503	04/30/2015	05/05/2015 16:48	05/08/2015 01:38
S-5		Initial	15050104-006	1055	W	55305	122503	04/30/2015	05/05/2015 16:48	05/08/2015 02:41
S-2		Initial	15050104-007	1055	W	55305	122503	04/30/2015	05/05/2015 16:48	05/08/2015 03:12
55305-1-BKS		BKS	55305-1-BKS	1055	W	55305	122503	-----	05/05/2015 16:48	05/08/2015 00:35
55305-1-BLK		BLK	55305-1-BLK	1055	W	55305	122503	-----	05/05/2015 16:48	05/08/2015 00:04



Analytical Data Package Information Summary

Work Order(s): 15050104

Report Prepared For: Arc Environmental, Baltimore, MD

Project Name: Percontee

Project Manager: Christie Pulvino

Method	Client Sample Id	Analysis Type	Lab Sample Id	Analyst	Mtx	Prep Batch	Analytical Batch	Sampled	Prepared	Analyzed
SW-846 8270 C	55305-1-BSD	BSD	55305-1-BSD	1055	W	55305	122503	-----	05/05/2015 16:48	05/08/2015 01:07
SW-846 8270 C	S-8	Initial	15050104-001	1055	W	55283	122519	04/30/2015	05/04/2015 14:51	05/08/2015 18:12
	S-4	Initial	15050104-003	1055	W	55283	122519	04/30/2015	05/04/2015 14:51	05/08/2015 18:42
	S-6	Initial	15050104-005	1055	W	55283	122519	04/30/2015	05/04/2015 14:51	05/08/2015 19:12
	55283-1-BKS	BKS	55283-1-BKS	1055	W	55283	122519	-----	05/04/2015 14:51	05/08/2015 20:40
	55283-1-BLK	BLK	55283-1-BLK	1055	W	55283	122519	-----	05/04/2015 14:51	05/08/2015 13:44
	55283-1-BSD	BSD	55283-1-BSD	1055	W	55283	122519	-----	05/04/2015 14:51	05/08/2015 21:10
	S-7	Initial	15050104-002	1055	W	55283	122544	04/30/2015	05/04/2015 14:51	05/10/2015 00:12
	S-3	Initial	15050104-004	1055	W	55283	122544	04/30/2015	05/04/2015 14:51	05/09/2015 23:43
	S-5	Initial	15050104-006	1055	W	55283	122544	04/30/2015	05/04/2015 14:51	05/09/2015 23:13
	S-2	Initial	15050104-007	1055	W	55283	122544	04/30/2015	05/04/2015 14:51	05/09/2015 22:43

PHASE SEPARATION SCIENCE, INC.

QC Summary 15050104

Arc Environmental Percontee

Analytical Method: SW-846 8015 C

Seq Number: 122373
PSS Sample ID: 15050104-001

Matrix: Surface Water

Prep Method: SW3510C
Date Prep: 05/04/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	58		37-136	%	05/04/15 20:19

Analytical Method: SW-846 8270 C

Seq Number: 122503
PSS Sample ID: 15050104-001

Matrix: Surface Water

Prep Method: SW3510C
Date Prep: 05/05/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	48	*	68-116	%	05/08/15 03:44
2-Fluorophenol	55	*	57-98	%	05/08/15 03:44
Nitrobenzene-d5	43	*	58-107	%	05/08/15 03:44
Phenol-d6	61		59-109	%	05/08/15 03:44
Terphenyl-D14	51	*	69-121	%	05/08/15 03:44
2,4,6-Tribromophenol	74		48-119	%	05/08/15 03:44

Analytical Method: SW-846 8270 C

Seq Number: 122519
PSS Sample ID: 15050104-001

Matrix: Surface Water

Prep Method: SW3510C
Date Prep: 05/04/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	66		40-106	%	05/08/15 18:12
Nitrobenzene-d5	72		36-105	%	05/08/15 18:12
Terphenyl-D14	81		50-120	%	05/08/15 18:12

Analytical Method: SW-846 8260 B

Seq Number: 122336
PSS Sample ID: 15050104-001

Matrix: Surface Water

Prep Method: SW5030B
Date Prep: 05/03/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	97		81-133	%	05/03/15 18:31
Dibromofluoromethane	105		84-110	%	05/03/15 18:31
Toluene-D8	105		94-109	%	05/03/15 18:31

Analytical Method: SW-846 8015C

Seq Number: 122346
PSS Sample ID: 15050104-001

Matrix: Surface Water

Prep Method: SW5030B
Date Prep: 05/01/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	67		65-111	%	05/01/15 15:28

PHASE SEPARATION SCIENCE, INC.

QC Summary 15050104

Arc Environmental Percontee

Analytical Method: SW-846 8015 C

Seq Number: 122373
PSS Sample ID: 15050104-002

Matrix: Surface Water

Prep Method: SW3510C
Date Prep: 05/04/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	67		37-136	%	05/05/15 01:29

Analytical Method: SW-846 8270 C

Seq Number: 122503
PSS Sample ID: 15050104-002

Matrix: Surface Water

Prep Method: SW3510C
Date Prep: 05/05/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	41	*	68-116	%	05/08/15 04:15
2-Fluorophenol	47	*	57-98	%	05/08/15 04:15
Nitrobenzene-d5	37	*	58-107	%	05/08/15 04:15
Phenol-d6	55	*	59-109	%	05/08/15 04:15
Terphenyl-D14	48	*	69-121	%	05/08/15 04:15
2,4,6-Tribromophenol	61		48-119	%	05/08/15 04:15

Analytical Method: SW-846 8270 C

Seq Number: 122544
PSS Sample ID: 15050104-002

Matrix: Surface Water

Prep Method: SW3510C
Date Prep: 05/04/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	60		40-106	%	05/10/15 00:12
Nitrobenzene-d5	67		36-105	%	05/10/15 00:12
Terphenyl-D14	79		50-120	%	05/10/15 00:12

Analytical Method: SW-846 8260 B

Seq Number: 122336
PSS Sample ID: 15050104-002

Matrix: Surface Water

Prep Method: SW5030B
Date Prep: 05/03/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	98		81-133	%	05/03/15 19:06
Dibromofluoromethane	105		84-110	%	05/03/15 19:06
Toluene-D8	104		94-109	%	05/03/15 19:06

Analytical Method: SW-846 8015C

Seq Number: 122346
PSS Sample ID: 15050104-002

Matrix: Surface Water

Prep Method: SW5030B
Date Prep: 05/01/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	67		65-111	%	05/01/15 15:53

PHASE SEPARATION SCIENCE, INC.

QC Summary 15050104

Arc Environmental Percontee

Analytical Method: SW-846 8015 C

Seq Number: 122373
PSS Sample ID: 15050104-003

Matrix: Surface Water

Prep Method: SW3510C
Date Prep: 05/04/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	75		37-136	%	05/04/15 23:25

Analytical Method: SW-846 8270 C

Seq Number: 122503
PSS Sample ID: 15050104-003

Matrix: Surface Water

Prep Method: SW3510C
Date Prep: 05/05/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	47	*	68-116	%	05/08/15 02:10
2-Fluorophenol	56	*	57-98	%	05/08/15 02:10
Nitrobenzene-d5	44	*	58-107	%	05/08/15 02:10
Phenol-d6	61		59-109	%	05/08/15 02:10
Terphenyl-D14	48	*	69-121	%	05/08/15 02:10
2,4,6-Tribromophenol	72		48-119	%	05/08/15 02:10

Analytical Method: SW-846 8270 C

Seq Number: 122519
PSS Sample ID: 15050104-003

Matrix: Surface Water

Prep Method: SW3510C
Date Prep: 05/04/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	62		40-106	%	05/08/15 18:42
Nitrobenzene-d5	64		36-105	%	05/08/15 18:42
Terphenyl-D14	78		50-120	%	05/08/15 18:42

Analytical Method: SW-846 8260 B

Seq Number: 122336
PSS Sample ID: 15050104-003

Matrix: Surface Water

Prep Method: SW5030B
Date Prep: 05/03/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	98		81-133	%	05/03/15 19:41
Dibromofluoromethane	106		84-110	%	05/03/15 19:41
Toluene-D8	105		94-109	%	05/03/15 19:41

Analytical Method: SW-846 8015C

Seq Number: 122346
PSS Sample ID: 15050104-003

Matrix: Surface Water

Prep Method: SW5030B
Date Prep: 05/01/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	68		65-111	%	05/01/15 16:19

PHASE SEPARATION SCIENCE, INC.

QC Summary 15050104

Arc Environmental Percentage

Analytical Method: SW-846 8015 C

Seq Number: 122373
PSS Sample ID: 15050104-004

Matrix: Surface Water

Prep Method: SW3510C
Date Prep: 05/04/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	85		37-136	%	05/05/15 02:32

Analytical Method: SW-846 8270 C

Seq Number: 122503
PSS Sample ID: 15050104-004

Matrix: Surface Water

Prep Method: SW3510C
Date Prep: 05/05/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	46	*	68-116	%	05/08/15 04:47
2-Fluorophenol	52	*	57-98	%	05/08/15 04:47
Nitrobenzene-d5	43	*	58-107	%	05/08/15 04:47
Phenol-d6	60		59-109	%	05/08/15 04:47
Terphenyl-D14	51	*	69-121	%	05/08/15 04:47
2,4,6-Tribromophenol	72		48-119	%	05/08/15 04:47

Analytical Method: SW-846 8270 C

Seq Number: 122544
PSS Sample ID: 15050104-004

Matrix: Surface Water

Prep Method: SW3510C
Date Prep: 05/04/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	64		40-106	%	05/09/15 23:43
Nitrobenzene-d5	66		36-105	%	05/09/15 23:43
Terphenyl-D14	81		50-120	%	05/09/15 23:43

Analytical Method: SW-846 8260 B

Seq Number: 122336
PSS Sample ID: 15050104-004

Matrix: Surface Water

Prep Method: SW5030B
Date Prep: 05/03/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	97		81-133	%	05/03/15 20:16
Dibromofluoromethane	105		84-110	%	05/03/15 20:16
Toluene-D8	105		94-109	%	05/03/15 20:16

Analytical Method: SW-846 8015C

Seq Number: 122346
PSS Sample ID: 15050104-004

Matrix: Surface Water

Prep Method: SW5030B
Date Prep: 05/01/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	69		65-111	%	05/01/15 16:44

PHASE SEPARATION SCIENCE, INC.

QC Summary 15050104

Arc Environmental Percontee

Analytical Method: SW-846 8015 C

Seq Number: 122373
PSS Sample ID: 15050104-005

Matrix: Surface Water

Prep Method: SW3510C
Date Prep: 05/04/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	88		37-136	%	05/04/15 20:19

Analytical Method: SW-846 8270 C

Seq Number: 122503
PSS Sample ID: 15050104-005

Matrix: Surface Water

Prep Method: SW3510C
Date Prep: 05/05/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	48	*	68-116	%	05/08/15 01:38
2-Fluorophenol	55	*	57-98	%	05/08/15 01:38
Nitrobenzene-d5	45	*	58-107	%	05/08/15 01:38
Phenol-d6	63		59-109	%	05/08/15 01:38
Terphenyl-D14	51	*	69-121	%	05/08/15 01:38
2,4,6-Tribromophenol	69		48-119	%	05/08/15 01:38

Analytical Method: SW-846 8270 C

Seq Number: 122519
PSS Sample ID: 15050104-005

Matrix: Surface Water

Prep Method: SW3510C
Date Prep: 05/04/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	57		40-106	%	05/08/15 19:12
Nitrobenzene-d5	58		36-105	%	05/08/15 19:12
Terphenyl-D14	66		50-120	%	05/08/15 19:12

Analytical Method: SW-846 8260 B

Seq Number: 122340
PSS Sample ID: 15050104-005

Matrix: Surface Water

Prep Method: SW5030B
Date Prep: 05/03/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	96		81-133	%	05/04/15 05:36
Dibromofluoromethane	107		84-110	%	05/04/15 05:36
Toluene-D8	105		94-109	%	05/04/15 05:36

Analytical Method: SW-846 8015C

Seq Number: 122346
PSS Sample ID: 15050104-005

Matrix: Surface Water

Prep Method: SW5030B
Date Prep: 05/01/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	67		65-111	%	05/01/15 17:10

PHASE SEPARATION SCIENCE, INC.

QC Summary 15050104

Arc Environmental Percentage

Analytical Method: SW-846 8015 C

Seq Number: 122373
PSS Sample ID: 15050104-006

Matrix: Surface Water

Prep Method: SW3510C
Date Prep: 05/04/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	89		37-136	%	05/04/15 23:25

Analytical Method: SW-846 8270 C

Seq Number: 122503
PSS Sample ID: 15050104-006

Matrix: Surface Water

Prep Method: SW3510C
Date Prep: 05/05/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	38	*	68-116	%	05/08/15 02:41
2-Fluorophenol	44	*	57-98	%	05/08/15 02:41
Nitrobenzene-d5	34	*	58-107	%	05/08/15 02:41
Phenol-d6	53	*	59-109	%	05/08/15 02:41
Terphenyl-D14	53	*	69-121	%	05/08/15 02:41
2,4,6-Tribromophenol	68		48-119	%	05/08/15 02:41

Analytical Method: SW-846 8270 C

Seq Number: 122544
PSS Sample ID: 15050104-006

Matrix: Surface Water

Prep Method: SW3510C
Date Prep: 05/04/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	52		40-106	%	05/09/15 23:13
Nitrobenzene-d5	53		36-105	%	05/09/15 23:13
Terphenyl-D14	84		50-120	%	05/09/15 23:13

Analytical Method: SW-846 8260 B

Seq Number: 122340
PSS Sample ID: 15050104-006

Matrix: Surface Water

Prep Method: SW5030B
Date Prep: 05/03/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	97		81-133	%	05/04/15 07:57
Dibromofluoromethane	106		84-110	%	05/04/15 07:57
Toluene-D8	105		94-109	%	05/04/15 07:57

Analytical Method: SW-846 8015C

Seq Number: 122346
PSS Sample ID: 15050104-006

Matrix: Surface Water

Prep Method: SW5030B
Date Prep: 05/01/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	67		65-111	%	05/01/15 17:35

PHASE SEPARATION SCIENCE, INC.

QC Summary 15050104

Arc Environmental Percontee

Analytical Method: SW-846 8015 C

Seq Number: 122373
PSS Sample ID: 15050104-007

Matrix: Surface Water

Prep Method: SW3510C
Date Prep: 05/04/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	92		37-136	%	05/05/15 02:32

Analytical Method: SW-846 8270 C

Seq Number: 122503
PSS Sample ID: 15050104-007

Matrix: Surface Water

Prep Method: SW3510C
Date Prep: 05/05/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	53	*	68-116	%	05/08/15 03:12
2-Fluorophenol	62		57-98	%	05/08/15 03:12
Nitrobenzene-d5	50	*	58-107	%	05/08/15 03:12
Phenol-d6	70		59-109	%	05/08/15 03:12
Terphenyl-D14	54	*	69-121	%	05/08/15 03:12
2,4,6-Tribromophenol	76		48-119	%	05/08/15 03:12

Analytical Method: SW-846 8270 C

Seq Number: 122544
PSS Sample ID: 15050104-007

Matrix: Surface Water

Prep Method: SW3510C
Date Prep: 05/04/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	64		40-106	%	05/09/15 22:43
Nitrobenzene-d5	70		36-105	%	05/09/15 22:43
Terphenyl-D14	85		50-120	%	05/09/15 22:43

Analytical Method: SW-846 8260 B

Seq Number: 122340
PSS Sample ID: 15050104-007

Matrix: Surface Water

Prep Method: SW5030B
Date Prep: 05/03/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	98		81-133	%	05/04/15 08:31
Dibromofluoromethane	106		84-110	%	05/04/15 08:31
Toluene-D8	105		94-109	%	05/04/15 08:31

Analytical Method: SW-846 8015C

Seq Number: 122346
PSS Sample ID: 15050104-007

Matrix: Surface Water

Prep Method: SW5030B
Date Prep: 05/01/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	68		65-111	%	05/01/15 18:01

PHASE SEPARATION SCIENCE, INC.

QC Summary 15050104

Arc Environmental Percontee

F = RPD exceeded the laboratory control limits

X = Recovery of MS, MSD or both outside of QC Criteria

H= Recovery of BS,BSD or both exceeded the laboratory control limits

L = Recovery of BS,BSD or both below the laboratory control limits

PHASE SEPARATION SCIENCE, INC.

QC Summary 15050104

Arc Environmental Percontee

Analytical Method: SW-846 6020 A

Seq Number: 122413

MB Sample Id: 55290-1-BLK

Matrix: Water

LCS Sample Id: 55290-1-BKS

Prep Method: SW3010A

Date Prep: 05/05/15

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Analysis Date	Flag
Antimony	<2.500	40.00	41.45	104	80-120	ug/L	05/05/15 14:43	
Arsenic	<0.5000	40.00	41.61	104	80-120	ug/L	05/05/15 14:43	
Beryllium	<0.5000	40.00	39.67	99	80-120	ug/L	05/05/15 14:43	
Cadmium	<0.5000	40.00	42.65	107	80-120	ug/L	05/05/15 14:43	
Chromium	<0.5000	40.00	40.63	102	80-120	ug/L	05/05/15 14:43	
Copper	<0.5000	40.00	38.91	97	80-120	ug/L	05/05/15 14:43	
Lead	<0.5000	40.00	39.75	99	80-120	ug/L	05/05/15 14:43	
Mercury	<0.1000	1.000	1.020	102	80-120	ug/L	05/05/15 14:43	
Nickel	<0.5000	40.00	41.45	104	80-120	ug/L	05/05/15 14:43	
Selenium	<0.5000	40.00	40.31	101	80-120	ug/L	05/05/15 14:43	
Silver	<0.5000	40.00	40.88	102	80-120	ug/L	05/05/15 14:43	
Thallium	<0.5000	40.00	38.95	97	80-120	ug/L	05/05/15 14:43	
Zinc	<10.00	40.00	43.98	110	80-120	ug/L	05/05/15 14:43	

Analytical Method: SW-846 8015 C

Seq Number: 122373

MB Sample Id: 55276-1-BLK

Matrix: Water

LCS Sample Id: 55276-1-BKS

Prep Method: SW3510C

Date Prep: 05/04/15

LCSD Sample Id: 55276-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
TPH-DRO (Diesel Range Organics)	<0.04000	1.000	1.076	108	1.182	118	61-119	9	20	mg/L	05/04/15 12:14	
Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units	Analysis Date	Flag		
o-Terphenyl	93		93		101		37-136	%	05/04/15 12:14			

PHASE SEPARATION SCIENCE, INC.

QC Summary 15050104

Arc Environmental Percontee

Analytical Method: SW-846 8270 C

Seq Number: 122519

MB Sample Id: 55283-1-BLK

Matrix: Water

LCS Sample Id: 55283-1-BKS

Prep Method: SW3510C

Date Prep: 05/04/15

LCSD Sample Id: 55283-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Acenaphthene	<0.1000	2.000	1.550	78	1.590	80	63-107	3	31	ug/L	05/08/15 20:40	
Acenaphthylene	<0.1000	2.000	1.450	73	1.510	76	53-106	4	25	ug/L	05/08/15 20:40	
Anthracene	<0.1000	2.000	1.570	79	1.620	81	57-112	3	25	ug/L	05/08/15 20:40	
Benzo(a)anthracene	<0.1000	2.000	1.660	83	1.700	85	47-116	2	25	ug/L	05/08/15 20:40	
Benzo(a)pyrene	<0.1000	2.000	1.620	81	1.660	83	64-104	2	25	ug/L	05/08/15 20:40	
Benzo(b)fluoranthene	<0.1000	2.000	2.010	101	2.040	102	49-123	1	25	ug/L	05/08/15 20:40	
Benzo(g,h,i)perylene	<0.1000	2.000	1.780	89	1.780	89	58-103	0	25	ug/L	05/08/15 20:40	
Benzo(k)fluoranthene	<0.1000	2.000	1.510	76	1.470	74	52-120	3	25	ug/L	05/08/15 20:40	
Chrysene	<0.1000	2.000	1.500	75	1.520	76	52-106	1	25	ug/L	05/08/15 20:40	
Dibenz(a,h)Anthracene	<0.1000	2.000	2.070	104	2.170	109	59-102	5	25	ug/L	05/08/15 20:40	H
Fluoranthene	<0.1000	2.000	1.500	75	1.740	87	60-109	15	25	ug/L	05/08/15 20:40	
Fluorene	<0.1000	2.000	1.500	75	1.560	78	61-108	4	25	ug/L	05/08/15 20:40	
Indeno(1,2,3-c,d)Pyrene	<0.1000	2.000	2.490	125	2.670	134	56-107	7	25	ug/L	05/08/15 20:40	H
2-Methylnaphthalene	<0.1000	2.000	1.450	73	1.490	75	60-106	3	25	ug/L	05/08/15 20:40	
Naphthalene	<0.1000	2.000	1.540	77	1.590	80	61-109	3	25	ug/L	05/08/15 20:40	
Phenanthrene	<0.1000	2.000	1.550	78	1.590	80	57-113	3	25	ug/L	05/08/15 20:40	
Pyrene	<0.1000	2.000	1.990	100	1.580	79	43-116	23	31	ug/L	05/08/15 20:40	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	65		69		73		40-106	%	05/08/15 20:40
Nitrobenzene-d5	70		69		73		36-105	%	05/08/15 20:40
Terphenyl-D14	78		90		76		50-120	%	05/08/15 20:40

PHASE SEPARATION SCIENCE, INC.

QC Summary 15050104

Arc Environmental Percontee

Analytical Method: SW-846 8270 C

Seq Number: 122503

MB Sample Id: 55305-1-BLK

Matrix: Water

LCS Sample Id: 55305-1-BKS

Prep Method: SW3510C

Date Prep: 05/05/15

LCSD Sample Id: 55305-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Acetophenone	<2.500	40.00	32.60	82	33.18	83	64-108	2	20	ug/L	05/08/15 00:35	
Caprolactam	<2.500	40.00	40.80	102	43.74	109	51-128	7	20	ug/L	05/08/15 00:35	
Biphenyl (Diphenyl)	<2.500	40.00	35.60	89	35.26	88	77-107	1	20	ug/L	05/08/15 00:35	
Butyl benzyl phthalate	<2.500	40.00	36.77	92	36.04	90	71-124	2	20	ug/L	05/08/15 00:35	
bis(2-chloroethoxy) methane	<2.500	40.00	34.12	85	34.53	86	56-105	1	20	ug/L	05/08/15 00:35	
bis(2-chloroethyl) ether	<0.5000	40.00	33.91	85	32.96	82	54-107	3	20	ug/L	05/08/15 00:35	
bis(2-chloroisopropyl) ether	<0.5000	40.00	40.62	102	39.27	98	41-120	3	20	ug/L	05/08/15 00:35	
bis(2-ethylhexyl) phthalate	<2.500	40.00	36.13	90	35.30	88	63-133	2	20	ug/L	05/08/15 00:35	
4-Bromophenylphenyl ether	<2.500	40.00	37.14	93	38.02	95	65-109	2	20	ug/L	05/08/15 00:35	
Di-n-butyl phthalate	<2.500	40.00	36.49	91	36.17	90	72-122	1	20	ug/L	05/08/15 00:35	
Carbazole	<2.500	40.00	37.99	95	37.72	94	60-116	1	20	ug/L	05/08/15 00:35	
4-Chloro-3-methyl phenol	<2.500	40.00	37.99	95	39.07	98	65-114	3	20	ug/L	05/08/15 00:35	
4-Chloroaniline	<5.000	40.00	37.27	93	38.77	97	71-103	4	20	ug/L	05/08/15 00:35	
2-Chloronaphthalene	<2.500	40.00	33.31	83	32.54	81	72-108	2	20	ug/L	05/08/15 00:35	
2-Chlorophenol	<2.000	40.00	33.31	83	32.49	81	68-99	2	20	ug/L	05/08/15 00:35	
4-Chlorophenyl phenyl ether	<2.500	40.00	39.91	100	38.12	95	66-110	5	20	ug/L	05/08/15 00:35	
Dibenzofuran	<2.500	40.00	36.32	91	35.34	88	72-108	3	20	ug/L	05/08/15 00:35	
3,3-Dichlorobenzidine	<0.5000	40.00	46.62	117	46.75	117	71-112	0	20	ug/L	05/08/15 00:35	H
2,4-Dichlorophenol	<2.500	40.00	35.78	89	36.53	91	71-104	2	20	ug/L	05/08/15 00:35	
Diethyl phthalate	<2.500	40.00	36.43	91	35.88	90	71-121	2	20	ug/L	05/08/15 00:35	
Dimethyl phthalate	<2.500	40.00	34.97	87	34.70	87	72-114	1	20	ug/L	05/08/15 00:35	
2,4-Dimethylphenol	<2.500	40.00	30.77	77	30.96	77	68-98	1	20	ug/L	05/08/15 00:35	
4,6-Dinitro-2-methyl phenol	<2.500	40.00	31.44	79	37.15	93	54-130	17	20	ug/L	05/08/15 00:35	
2,4-Dinitrophenol	<2.500	40.00	22.96	57	30.22	76	37-137	27	20	ug/L	05/08/15 00:35	F
2,4-Dinitrotoluene	<2.500	40.00	36.62	92	36.69	92	72-109	0	20	ug/L	05/08/15 00:35	
2,6-Dinitrotoluene	<1.000	40.00	36.37	91	35.75	89	72-107	2	20	ug/L	05/08/15 00:35	
Hexachlorobenzene	<0.5000	40.00	37.23	93	36.37	91	71-115	2	20	ug/L	05/08/15 00:35	
Hexachlorobutadiene	<2.500	40.00	33.84	85	33.81	85	71-102	0	20	ug/L	05/08/15 00:35	
Hexachlorocyclopentadiene	<2.500	40.00	21.42	54	24.20	61	46-134	12	20	ug/L	05/08/15 00:35	
Hexachloroethane	<1.000	40.00	34.19	85	32.79	82	63-107	4	20	ug/L	05/08/15 00:35	
Isophorone	<2.500	40.00	36.47	91	36.93	92	64-101	1	20	ug/L	05/08/15 00:35	
2-Methyl phenol	<2.500	40.00	33.89	85	33.48	84	69-103	1	20	ug/L	05/08/15 00:35	
3&4-Methylphenol	<2.500	40.00	34.29	86	33.88	85	61-115	1	20	ug/L	05/08/15 00:35	
4-Nitroaniline	<5.000	40.00	37.13	93	37.55	94	44-117	1	20	ug/L	05/08/15 00:35	
3-Nitroaniline	<2.500	40.00	37.12	93	36.16	90	61-106	3	20	ug/L	05/08/15 00:35	
2-Nitroaniline	<2.500	40.00	39.86	100	39.04	98	67-108	2	20	ug/L	05/08/15 00:35	
Nitrobenzene	<1.000	40.00	35.61	89	35.11	88	62-104	1	20	ug/L	05/08/15 00:35	
2-Nitrophenol	<2.500	40.00	33.47	84	33.45	84	68-111	0	20	ug/L	05/08/15 00:35	
4-Nitrophenol	<2.500	40.00	36.26	91	42.55	106	58-116	16	20	ug/L	05/08/15 00:35	
N-Nitrosodi-n-propyl amine	<0.5000	40.00	34.21	86	33.06	83	54-114	3	20	ug/L	05/08/15 00:35	
N-Nitrosodiphenylamine	<2.500	40.00	34.93	87	34.68	87	71-109	1	20	ug/L	05/08/15 00:35	
Di-n-octyl phthalate	<5.000	40.00	39.11	98	37.52	94	53-138	4	20	ug/L	05/08/15 00:35	
Pentachlorophenol	<2.000	40.00	42.05	105	44.21	111	66-121	5	20	ug/L	05/08/15 00:35	
Phenol	<2.500	40.00	33.01	83	32.49	81	65-113	2	20	ug/L	05/08/15 00:35	
Pyridine	<2.500	40.00	27.48	69	28.06	70	57-88	2	20	ug/L	05/08/15 00:35	
2,4,6-Trichlorophenol	<2.500	40.00	36.53	91	36.48	91	71-113	0	20	ug/L	05/08/15 00:35	
2,4,5-Trichlorophenol	<2.500	40.00	38.08	95	36.18	90	77-112	5	20	ug/L	05/08/15 00:35	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	48	*	50	*	46	*	68-116	%	05/08/15 00:35
2-Fluorophenol	56	*	67		67		57-98	%	05/08/15 00:35

PHASE SEPARATION SCIENCE, INC.

QC Summary 15050104

Arc Environmental Percontee

Analytical Method: SW-846 8270 C

Seq Number: 122503

MB Sample Id: 55305-1-BLK

Matrix: Water

LCS Sample Id: 55305-1-BKS

Prep Method: SW3510C

Date Prep: 05/05/15

LCSD Sample Id: 55305-1-BSD

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units	Analysis Date
Nitrobenzene-d5	43	*	49	*	50	*	58-107	%	05/08/15 00:35
Phenol-d6	63		72		71		59-109	%	05/08/15 00:35
Terphenyl-D14	50	*	53	*	53	*	69-121	%	05/08/15 00:35
2,4,6-Tribromophenol	68		81		81		48-119	%	05/08/15 00:35

Analytical Method: SW-846 8015C

Seq Number: 122346

MB Sample Id: 55278-2-BLK

Matrix: Water

LCS Sample Id: 55278-2-BKS

Prep Method: SW5030B

Date Prep: 05/01/15

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Analysis Date	Flag
TPH-GRO (Gasoline Range Organic)	<40.00	5000	5061	101	61-138	ug/L	05/01/15 12:30	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	68		75		65-111	%	05/01/15 12:30

Analytical Method: SW-846 8015C

Seq Number: 122346

Parent Sample Id: 15050104-001

Matrix: Surface Water

MS Sample Id: 15050104-001 S

Prep Method: SW5030B

Date Prep: 05/01/15

MSD Sample Id: 15050104-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
TPH-GRO (Gasoline Range Organic)	<40.00	5000	4238	85	4017	80	58-136	5	25	ug/L	05/01/15 19:18	

Surrogate	MS Result	MS Flag	MSD Result	MSD Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	72		73		65-111	%	05/01/15 19:18

PHASE SEPARATION SCIENCE, INC.

QC Summary 15050104

Arc Environmental Percontee

Analytical Method: SW-846 8260 B

Seq Number: 122336

MB Sample Id: 55271-1-BLK

Matrix: Water

LCS Sample Id: 55271-1-BKS

Prep Method: SW5030B

Date Prep: 05/03/15

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Analysis Date	Flag
Dichlorodifluoromethane	<0.5000	50.00	50.81	102	54-139	ug/L	05/03/15 10:58	
Chloromethane	<0.5000	50.00	47.24	94	62-131	ug/L	05/03/15 10:58	
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.5000	50.00	55.16	110	56-126	ug/L	05/03/15 10:58	
Vinyl Chloride	<0.5000	50.00	51.04	102	64-132	ug/L	05/03/15 10:58	
Bromomethane	<0.5000	50.00	54.60	109	40-147	ug/L	05/03/15 10:58	
Chloroethane	<0.5000	50.00	49.54	99	59-132	ug/L	05/03/15 10:58	
Acetone	<5.000	50.00	44.79	90	53-146	ug/L	05/03/15 10:58	
Cyclohexane	<5.000	50.00	52.47	105	46-150	ug/L	05/03/15 10:58	
Trichlorofluoromethane	<2.500	50.00	61.02	122	45-130	ug/L	05/03/15 10:58	
1,1-Dichloroethene	<0.5000	50.00	52.88	106	59-123	ug/L	05/03/15 10:58	
Methylene Chloride	<0.5000	50.00	48.46	97	61-126	ug/L	05/03/15 10:58	
trans-1,2-Dichloroethene	<0.5000	50.00	55.20	110	58-134	ug/L	05/03/15 10:58	
Methyl-t-butyl ether	<0.5000	50.00	32.16	64	30-168	ug/L	05/03/15 10:58	
1,1-Dichloroethane	<0.5000	50.00	53.75	108	51-136	ug/L	05/03/15 10:58	
2-Butanone	<5.000	50.00	42.77	86	56-133	ug/L	05/03/15 10:58	
cis-1,2-Dichloroethene	<0.5000	50.00	56.02	112	77-119	ug/L	05/03/15 10:58	
Bromochloromethane	<0.5000	50.00	53.86	108	71-122	ug/L	05/03/15 10:58	
Chloroform	<0.5000	50.00	54.24	108	71-118	ug/L	05/03/15 10:58	
1,1,1-Trichloroethane	<0.5000	50.00	55.21	110	66-133	ug/L	05/03/15 10:58	
1,2-Dichloroethane	<0.5000	50.00	53.61	107	64-130	ug/L	05/03/15 10:58	
Carbon Tetrachloride	<0.5000	50.00	53.69	107	74-127	ug/L	05/03/15 10:58	
Benzene	<0.5000	50.00	58.37	117	77-122	ug/L	05/03/15 10:58	
1,2-Dichloropropane	<0.5000	50.00	54.04	108	75-125	ug/L	05/03/15 10:58	
Methyl Acetate	<5.000	50.00	43.75	88	47-145	ug/L	05/03/15 10:58	
Methylcyclohexane	<5.000	50.00	57.77	116	61-155	ug/L	05/03/15 10:58	
Trichloroethene	<0.5000	50.00	56.00	112	72-127	ug/L	05/03/15 10:58	
Carbon Disulfide	<5.000	50.00	53.67	107	62-134	ug/L	05/03/15 10:58	
Bromodichloromethane	<0.5000	50.00	56.60	113	76-122	ug/L	05/03/15 10:58	
cis-1,3-Dichloropropene	<0.5000	50.00	53.10	106	74-123	ug/L	05/03/15 10:58	
4-Methyl-2-Pentanone	<2.500	50.00	43.64	87	45-145	ug/L	05/03/15 10:58	
trans-1,3-Dichloropropene	<0.5000	50.00	53.58	107	73-116	ug/L	05/03/15 10:58	
1,1,2-Trichloroethane	<0.5000	50.00	52.94	106	72-128	ug/L	05/03/15 10:58	
Toluene	<0.5000	50.00	56.96	114	77-123	ug/L	05/03/15 10:58	
2-Hexanone	<5.000	50.00	39.84	80	56-134	ug/L	05/03/15 10:58	
1,2-Dibromoethane	<0.5000	50.00	48.53	97	78-121	ug/L	05/03/15 10:58	
Dibromochloromethane	<0.5000	50.00	46.06	92	75-114	ug/L	05/03/15 10:58	
Bromoform	<2.500	50.00	44.59	89	69-115	ug/L	05/03/15 10:58	
Tetrachloroethene	<0.5000	50.00	56.73	113	78-113	ug/L	05/03/15 10:58	
Chlorobenzene	<0.5000	50.00	53.23	106	76-116	ug/L	05/03/15 10:58	
Ethylbenzene	<0.5000	50.00	53.80	108	79-122	ug/L	05/03/15 10:58	
m,p-Xylenes	<1.000	100	107.2	107	78-119	ug/L	05/03/15 10:58	
Styrene	<0.5000	50.00	54.21	108	73-118	ug/L	05/03/15 10:58	
1,1,2,2-Tetrachloroethane	<0.5000	50.00	46.55	93	71-126	ug/L	05/03/15 10:58	
o-Xylene	<0.5000	50.00	54.28	109	79-123	ug/L	05/03/15 10:58	
Isopropylbenzene	<0.5000	50.00	52.38	105	80-128	ug/L	05/03/15 10:58	
1,3-Dichlorobenzene	<0.5000	50.00	53.25	107	80-122	ug/L	05/03/15 10:58	
1,4-Dichlorobenzene	<0.5000	50.00	51.99	104	77-118	ug/L	05/03/15 10:58	
1,2-Dichlorobenzene	<0.5000	50.00	52.67	105	80-122	ug/L	05/03/15 10:58	
1,2-Dibromo-3-Chloropropane	<5.000	50.00	37.62	75	59-135	ug/L	05/03/15 10:58	
1,2,4-Trichlorobenzene	<0.5000	50.00	48.01	96	72-143	ug/L	05/03/15 10:58	
1,2,3-Trichlorobenzene	<0.5000	50.00	44.39	89	66-140	ug/L	05/03/15 10:58	

PHASE SEPARATION SCIENCE, INC.

QC Summary 15050104

Arc Environmental Percontee

Analytical Method: SW-846 8260 B

Seq Number: 122336

MB Sample Id: 55271-1-BLK

Matrix: Water

LCS Sample Id: 55271-1-BKS

Prep Method: SW5030B

Date Prep: 05/03/15

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	99		95		81-133	%	05/03/15 10:58
Dibromofluoromethane	104		104		84-110	%	05/03/15 10:58
Toluene-D8	104		103		94-109	%	05/03/15 10:58

PHASE SEPARATION SCIENCE, INC.

QC Summary 15050104

Arc Environmental
Percontee

Analytical Method: SW-846 8260 B

Seq Number: 122340

MB Sample Id: 55273-1-BLK

Matrix: Water

LCS Sample Id: 55273-1-BKS

Prep Method: SW5030B

Date Prep: 05/03/15

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Analysis Date	Flag
Dichlorodifluoromethane	<0.5000	50.00	50.06	100	54-139	ug/L	05/03/15 23:46	
Chloromethane	<0.5000	50.00	50.71	101	62-131	ug/L	05/03/15 23:46	
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.5000	50.00	56.66	113	56-126	ug/L	05/03/15 23:46	
Vinyl Chloride	<0.5000	50.00	55.30	111	64-132	ug/L	05/03/15 23:46	
Bromomethane	<0.5000	50.00	55.93	112	40-147	ug/L	05/03/15 23:46	
Chloroethane	<0.5000	50.00	51.76	104	59-132	ug/L	05/03/15 23:46	
Acetone	<5.000	50.00	50.32	101	53-146	ug/L	05/03/15 23:46	
Cyclohexane	<5.000	50.00	52.83	106	46-150	ug/L	05/03/15 23:46	
Trichlorofluoromethane	<2.500	50.00	61.53	123	45-130	ug/L	05/03/15 23:46	
1,1-Dichloroethene	<0.5000	50.00	54.26	109	59-123	ug/L	05/03/15 23:46	
Methylene Chloride	<0.5000	50.00	48.52	97	61-126	ug/L	05/03/15 23:46	
trans-1,2-Dichloroethene	<0.5000	50.00	55.67	111	58-134	ug/L	05/03/15 23:46	
Methyl-t-butyl ether	<0.5000	50.00	32.53	65	30-168	ug/L	05/03/15 23:46	
1,1-Dichloroethane	<0.5000	50.00	52.83	106	51-136	ug/L	05/03/15 23:46	
2-Butanone	<5.000	50.00	47.55	95	56-133	ug/L	05/03/15 23:46	
cis-1,2-Dichloroethene	<0.5000	50.00	55.35	111	77-119	ug/L	05/03/15 23:46	
Bromochloromethane	<0.5000	50.00	54.48	109	71-122	ug/L	05/03/15 23:46	
Chloroform	<0.5000	50.00	54.16	108	71-118	ug/L	05/03/15 23:46	
1,1,1-Trichloroethane	<0.5000	50.00	56.15	112	66-133	ug/L	05/03/15 23:46	
1,2-Dichloroethane	<0.5000	50.00	54.67	109	64-130	ug/L	05/03/15 23:46	
Carbon Tetrachloride	<0.5000	50.00	54.39	109	74-127	ug/L	05/03/15 23:46	
Benzene	<0.5000	50.00	57.59	115	77-122	ug/L	05/03/15 23:46	
1,2-Dichloropropane	<0.5000	50.00	54.50	109	75-125	ug/L	05/03/15 23:46	
Methyl Acetate	<5.000	50.00	45.93	92	47-145	ug/L	05/03/15 23:46	
Methylcyclohexane	<5.000	50.00	55.63	111	61-155	ug/L	05/03/15 23:46	
Trichloroethene	<0.5000	50.00	56.82	114	72-127	ug/L	05/03/15 23:46	
Carbon Disulfide	<5.000	50.00	54.40	109	62-134	ug/L	05/03/15 23:46	
Bromodichloromethane	<0.5000	50.00	57.53	115	76-122	ug/L	05/03/15 23:46	
cis-1,3-Dichloropropene	<0.5000	50.00	51.56	103	74-123	ug/L	05/03/15 23:46	
4-Methyl-2-Pentanone	<2.500	50.00	48.50	97	45-145	ug/L	05/03/15 23:46	
trans-1,3-Dichloropropene	<0.5000	50.00	53.05	106	73-116	ug/L	05/03/15 23:46	
1,1,2-Trichloroethane	<0.5000	50.00	55.99	112	72-128	ug/L	05/03/15 23:46	
Toluene	<0.5000	50.00	57.30	115	77-123	ug/L	05/03/15 23:46	
2-Hexanone	<5.000	50.00	46.19	92	56-134	ug/L	05/03/15 23:46	
1,2-Dibromoethane	<0.5000	50.00	49.37	99	78-121	ug/L	05/03/15 23:46	
Dibromochloromethane	<0.5000	50.00	46.18	92	75-114	ug/L	05/03/15 23:46	
Bromoform	<2.500	50.00	45.99	92	69-115	ug/L	05/03/15 23:46	
Tetrachloroethene	<0.5000	50.00	55.99	112	78-113	ug/L	05/03/15 23:46	
Chlorobenzene	<0.5000	50.00	51.35	103	76-116	ug/L	05/03/15 23:46	
Ethylbenzene	<0.5000	50.00	52.08	104	79-122	ug/L	05/03/15 23:46	
m,p-Xylenes	<1.000	100	103.3	103	78-119	ug/L	05/03/15 23:46	
Styrene	<0.5000	50.00	52.16	104	73-118	ug/L	05/03/15 23:46	
1,1,2,2-Tetrachloroethane	<0.5000	50.00	47.62	95	71-126	ug/L	05/03/15 23:46	
o-Xylene	<0.5000	50.00	52.40	105	79-123	ug/L	05/03/15 23:46	
Isopropylbenzene	<0.5000	50.00	50.76	102	80-128	ug/L	05/03/15 23:46	
1,3-Dichlorobenzene	<0.5000	50.00	50.72	101	80-122	ug/L	05/03/15 23:46	
1,4-Dichlorobenzene	<0.5000	50.00	50.08	100	77-118	ug/L	05/03/15 23:46	
1,2-Dichlorobenzene	<0.5000	50.00	51.69	103	80-122	ug/L	05/03/15 23:46	
1,2-Dibromo-3-Chloropropane	<5.000	50.00	41.55	83	59-135	ug/L	05/03/15 23:46	
1,2,4-Trichlorobenzene	<0.5000	50.00	47.98	96	72-143	ug/L	05/03/15 23:46	
1,2,3-Trichlorobenzene	<0.5000	50.00	45.58	91	66-140	ug/L	05/03/15 23:46	

PHASE SEPARATION SCIENCE, INC.

QC Summary 15050104

Arc Environmental Percontee

Analytical Method: SW-846 8260 B

Seq Number: 122340

MB Sample Id: 55273-1-BLK

Matrix: Water

LCS Sample Id: 55273-1-BKS

Prep Method: SW5030B

Date Prep: 05/03/15

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	97		95		81-133	%	05/03/15 23:46
Dibromofluoromethane	106		106		84-110	%	05/03/15 23:46
Toluene-D8	106		105		94-109	%	05/03/15 23:46

PHASE SEPARATION SCIENCE, INC.

QC Summary 15050104

Arc Environmental Percontee

Analytical Method: SW-846 8260 B

Seq Number: 122340

Parent Sample Id: 15050104-005

Matrix: Surface Water

MS Sample Id: 15050104-005 S

Prep Method: SW5030B

Date Prep: 05/03/15

MSD Sample Id: 15050104-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Dichlorodifluoromethane	<0.5000	50.00	45.67	91	47.05	94	47-159	3	25	ug/L	05/04/15 06:11	
Chloromethane	<0.5000	50.00	47.50	95	49.19	98	59-144	3	25	ug/L	05/04/15 06:11	
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.5000	50.00	56.43	113	54.05	108	47-139	4	25	ug/L	05/04/15 06:11	
Vinyl Chloride	<0.5000	50.00	51.72	103	53.81	108	60-146	4	25	ug/L	05/04/15 06:11	
Bromomethane	<0.5000	50.00	53.48	107	53.91	108	29-154	1	25	ug/L	05/04/15 06:11	
Chloroethane	<0.5000	50.00	51.01	102	51.27	103	40-150	1	25	ug/L	05/04/15 06:11	
Acetone	<5.000	50.00	51.29	103	52.64	105	41-161	3	25	ug/L	05/04/15 06:11	
Cyclohexane	<5.000	50.00	52.47	105	53.74	107	34-161	2	25	ug/L	05/04/15 06:11	
Trichlorofluoromethane	<2.500	50.00	61.63	123	61.58	123	37-147	0	25	ug/L	05/04/15 06:11	
1,1-Dichloroethene	<0.5000	50.00	53.49	107	54.66	109	50-136	2	25	ug/L	05/04/15 06:11	
Methylene Chloride	<0.5000	50.00	49.00	98	49.66	99	56-137	1	25	ug/L	05/04/15 06:11	
trans-1,2-Dichloroethene	<0.5000	50.00	54.89	110	56.68	113	54-144	3	25	ug/L	05/04/15 06:11	
Methyl-t-butyl ether	<0.5000	50.00	30.55	61	32.36	65	22-182	6	25	ug/L	05/04/15 06:11	
1,1-Dichloroethane	<0.5000	50.00	52.73	105	54.65	109	44-152	4	25	ug/L	05/04/15 06:11	
2-Butanone	<5.000	50.00	45.51	91	47.03	94	47-140	3	25	ug/L	05/04/15 06:11	
cis-1,2-Dichloroethene	<0.5000	50.00	54.26	109	56.50	113	76-127	4	25	ug/L	05/04/15 06:11	
Bromochloromethane	<0.5000	50.00	53.53	107	54.94	110	67-130	3	25	ug/L	05/04/15 06:11	
Chloroform	<0.5000	50.00	54.08	108	55.32	111	67-130	2	25	ug/L	05/04/15 06:11	
1,1,1-Trichloroethane	<0.5000	50.00	56.04	112	57.37	115	70-138	2	25	ug/L	05/04/15 06:11	
1,2-Dichloroethane	<0.5000	50.00	53.75	108	55.09	110	60-142	2	25	ug/L	05/04/15 06:11	
Carbon Tetrachloride	<0.5000	50.00	54.36	109	56.03	112	74-136	3	25	ug/L	05/04/15 06:11	
Benzene	<0.5000	50.00	57.98	116	59.00	118	75-132	2	25	ug/L	05/04/15 06:11	
1,2-Dichloropropane	<0.5000	50.00	54.23	108	54.92	110	70-139	1	25	ug/L	05/04/15 06:11	
Methyl Acetate	<5.000	50.00	36.78	74	37.70	75	37-143	2	25	ug/L	05/04/15 06:11	
Methylcyclohexane	<5.000	50.00	54.13	108	55.34	111	55-148	2	25	ug/L	05/04/15 06:11	
Trichloroethene	<0.5000	50.00	55.96	112	57.34	115	67-139	2	25	ug/L	05/04/15 06:11	
Carbon Disulfide	<5.000	50.00	54.54	109	56.02	112	59-146	3	25	ug/L	05/04/15 06:11	
Bromodichloromethane	<0.5000	50.00	57.32	115	58.35	117	69-134	2	25	ug/L	05/04/15 06:11	
cis-1,3-Dichloropropene	<0.5000	50.00	48.77	98	49.77	100	64-127	2	25	ug/L	05/04/15 06:11	
4-Methyl-2-Pentanone	<2.500	50.00	44.33	89	45.98	92	44-133	4	25	ug/L	05/04/15 06:11	
trans-1,3-Dichloropropene	<0.5000	50.00	50.56	101	51.43	103	62-123	2	25	ug/L	05/04/15 06:11	
1,1,2-Trichloroethane	<0.5000	50.00	56.27	113	56.57	113	65-143	1	25	ug/L	05/04/15 06:11	
Toluene	<0.5000	50.00	57.63	115	58.13	116	74-132	1	25	ug/L	05/04/15 06:11	
2-Hexanone	<5.000	50.00	44.01	88	44.77	90	50-130	2	25	ug/L	05/04/15 06:11	
1,2-Dibromoethane	<0.5000	50.00	46.96	94	49.00	98	72-126	4	25	ug/L	05/04/15 06:11	
Dibromochloromethane	<0.5000	50.00	44.49	89	46.01	92	73-114	3	25	ug/L	05/04/15 06:11	
Bromoform	<2.500	50.00	44.17	88	46.82	94	65-115	6	25	ug/L	05/04/15 06:11	
Tetrachloroethene	<0.5000	50.00	54.52	109	55.88	112	69-126	2	25	ug/L	05/04/15 06:11	
Chlorobenzene	<0.5000	50.00	50.69	101	51.95	104	78-115	2	25	ug/L	05/04/15 06:11	
Ethylbenzene	<0.5000	50.00	51.70	103	53.06	106	74-129	3	25	ug/L	05/04/15 06:11	
m,p-Xylenes	<1.000	100	102	102	104.9	105	78-119	3	25	ug/L	05/04/15 06:11	
Styrene	<0.5000	50.00	51.19	102	52.53	105	67-121	3	25	ug/L	05/04/15 06:11	
1,1,2,2-Tetrachloroethane	<0.5000	50.00	45.05	90	46.36	93	68-127	3	25	ug/L	05/04/15 06:11	
o-Xylene	<0.5000	50.00	51.67	103	53.42	107	80-123	3	25	ug/L	05/04/15 06:11	
Isopropylbenzene	<0.5000	50.00	47.97	96	49.97	100	72-130	4	25	ug/L	05/04/15 06:11	
1,3-Dichlorobenzene	<0.5000	50.00	47.58	95	49.26	99	73-117	3	25	ug/L	05/04/15 06:11	
1,4-Dichlorobenzene	<0.5000	50.00	47.08	94	48.58	97	72-111	3	25	ug/L	05/04/15 06:11	
1,2-Dichlorobenzene	<0.5000	50.00	48.20	96	50.05	100	73-117	4	25	ug/L	05/04/15 06:11	
1,2-Dibromo-3-Chloropropane	<5.000	50.00	37.58	75	40.40	81	45-125	7	25	ug/L	05/04/15 06:11	
1,2,4-Trichlorobenzene	<0.5000	50.00	42.09	84	45.52	91	31-135	8	25	ug/L	05/04/15 06:11	
1,2,3-Trichlorobenzene	<0.5000	50.00	41.11	82	44.18	88	9-139	7	25	ug/L	05/04/15 06:11	

PHASE SEPARATION SCIENCE, INC.

QC Summary 15050104

Arc Environmental Percontee

Analytical Method: SW-846 8260 B

Seq Number: 122340

Parent Sample Id: 15050104-005

Matrix: Surface Water

MS Sample Id: 15050104-005 S

Prep Method: SW5030B

Date Prep: 05/03/15

MSD Sample Id: 15050104-005 SD

Surrogate	MS Result	MS Flag	MSD Result	MSD Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	94		93		81-133	%	05/04/15 06:11
Dibromofluoromethane	107		106		84-110	%	05/04/15 06:11
Toluene-D8	107		106		94-109	%	05/04/15 06:11

F = RPD exceeded the laboratory control limits

X = Recovery of MS, MSD or both outside of QC Criteria

H= Recovery of BS,BSD or both exceeded the laboratory control limits

L = Recovery of BS,BSD or both below the laboratory control limits



SAMPLE CHAIN OF CUSTODY/AGREEMENT FORM

PHASE SEPARATION SCIENCE, INC.

www.phaseonline.com
email: info@phaseonline.com

1 CLIENT: Arc Environmental OFFICE LOC. Baltimore, MD					PSS Work Order #: <u>15050104</u> PAGE <u>1</u> OF <u> </u>																								
PROJECT MGR: Kyle Begey PHONE NO.: 410-659-9971					Matrix Codes: SW=Surface Wtr DW=Drinking Wtr GW=Ground Wtr WW=Waste Wtr O=Oil S=Soil WL=Waste Liquid WS=Waste Solid W=Wipe																								
EMAIL: kbegey@arcenvironmental.com FAX NO.: 410-962-1065					No. CONTAINERS	SAMPLE TYPE C = COMP G = GRAB	PPL Metals	SVOCs 8270	PAHs SIM	VOCs	GRO/DRO	Preservative Used ←	Analysis/Method Required ←	REMARKS ↓															
PROJECT NAME: Percontee PROJECT NO.:																													
SITE LOCATION: Silver Spring, MD P.O. NO.:																													
SAMPLERS: Ray Goodwin DW CERT NO.:																													
LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX (See Codes)	No.	CONTAINERS	PPL Metals	SVOCs 8270	PAHs SIM	VOCs	GRO/DRO																		
1	S-8	4/30/15	9:35A	Surface Water	10	G	x	x	x	x	x	Click to enter Remarks																	
2	S-7	↓	9:55A	Surface Water	10	G	x	x	x	x	x																		
3	S-4		10:30A	Surface Water	10	G	x	x	x	x	x																		
4	S-3		11:33A	Surface Water	10	G	x	x	x	x	x																		
5	S-6		12:35P	Surface Water	10	G	x	x	x	x	x																		
6	S-5		1:31P	Surface Water	10	G	x	x	x	x	x																		
7	S-2		3:32p	Surface Water	10	G	x	x	x	x	x																		
				Surface Water	10	G																							
			Surface Water	10	G																								
			Surface Water	10	G																								
5 Relinquished By: (1) <u>Ray Goodwin</u> Date <u>5/1/15</u> Time <u>10:34</u>					4 Received By: <u>D. Rivera</u>					Requested Turnaround Time <input checked="" type="checkbox"/> 5-Day <input type="checkbox"/> 3-Day <input type="checkbox"/> 2-Day <input type="checkbox"/> Next Day <input type="checkbox"/> Emergency <input type="checkbox"/> Other					# of Coolers: <u>2</u>														
Relinquished By: (2)					Date					Time					Received By:					Data Deliverables Required:					Custody Seal: <u>ABS</u>				
Relinquished By: (3)					Date					Time					Received By:					Ice Present: <u>PRES</u> Temp: <u>0/0°C</u> <u>NO FROZEN</u>									
Relinquished By: (4)					Date					Time					Received By:					Shipping Carrier: <u>CLIENT</u>									
Relinquished By: (4)					Date					Time					Received By:					Special Instructions:									

6630 Baltimore National Pike • Route 40 West • Baltimore, Maryland 21228 • (410) 747-8770 • (800) 932-9047 • Fax (410) 788-8723

The client (Client Name), by signing, or having client's agent sign, this "Sample Chain of Custody/Agreement Form", agrees to pay for the above requested services per the latest version of the Service Brochure or PSS-provided quotation including any and all attorney's or other reasonable fees if collection becomes necessary.



Phase Separation Science, Inc

Sample Receipt Checklist

Work Order #	15050104	Received By	Shirley Rivera
Client Name	Arc Environmental	Date Received	05/01/2015 10:44:03 AM
Project Name	Percontee	Delivered By	Client
Disposal Date	06/05/2015	Tracking No	Not Applicable
		Logged In By	Lynn Jackson

Shipping Container(s)

No. of Coolers 1

		Ice	Present
Custody Seal(s) Intact?	N/A	Temp (deg C)	0
Seal(s) Signed / Dated?	N/A	Temp Blank Present	No

Documentation

COC agrees with sample labels?	Yes	Sampler Name	<u>Ray Goodwin</u>
Chain of Custody	Yes	MD DW Cert. No.	<u>N/A</u>

Sample Container

Appropriate for Specified Analysis?	Yes	Custody Seal(s) Intact?	Not Applicable
Intact?	Yes	Seal(s) Signed / Dated	Not Applicable
Labeled and Labels Legible?	Yes		

Total No. of Samples Received 7

Total No. of Containers Received 70

Preservation

Metals	(pH<2)	Yes
Cyanides	(pH>12)	N/A
Sulfide	(pH>9)	N/A
TOC, COD, Phenols	(pH<2)	N/A
TOX, TKN, NH3, Total Phos	(pH<2)	N/A
VOC, BTEX (VOA Vials Rcvd Preserved)	(pH<2)	Yes
Do VOA vials have zero headspace?		Yes
624 VOC (Rcvd at least one unpreserved VOA vial)		N/A

Comments: (Any "No" response must be detailed in the comments section below.)

For any improper preservation conditions, list sample ID, preservative added (reagent ID number) below as well as documentation of any client notification as well as client instructions. Samples for pH, chlorine and dissolved oxygen should be analyzed as soon as possible, preferably in the field at the time of sampling. Samples which require thermal preservation shall be considered acceptable when received at a temperature above freezing to 6°C. Samples that are hand delivered on the day that they are collected may not meet these criteria but shall be considered acceptable if there is evidence that the chilling process has begun such as arrival on ice.

Sample(s) received at 0 degrees but no samples were frozen.

Samples Inspected/Checklist Completed By: Lynn Jackson Date: 05/01/2015

PM Review and Approval: _____ Date: _____

Analytical Report for
Arc Environmental
Certificate of Analysis No.: 15043018

Project Manager: Christie Pulvino
Project Name : Percontee



May 7, 2015
Phase Separation Science, Inc.
6630 Baltimore National Pike
Baltimore, MD 21228
Phone: (410) 747-8770
Fax: (410) 788-8723

OFFICES:
6630 BALTIMORE NATIONAL PIKE
ROUTE 40 WEST
BALTIMORE, MD 21228
410-747-8770
800-932-9047
FAX 410-788-8723

PHASE SEPARATION SCIENCE, INC.



May 7, 2015

Christie Pulvino
Arc Environmental
1311 Haubert Street
Baltimore, MD 21230

Reference: PSS Work Order(s) No: **15043018**
Project Name: Percontee
Project Location: N/A

Dear Christie Pulvino :

This report includes the analytical results from the analyses performed on the samples received under the project name referenced above and identified with the Phase Separation Science (PSS) Work Order(s) numbered **15043018**.

All work reported herein has been performed in accordance with current NELAP standards, referenced methodologies, PSS Standard Operating Procedures and the PSS Quality Assurance Manual unless otherwise noted in the Case Narrative Summary. PSS is limited in liability to the actual cost of the sample analysis done.

PSS reserves the right to return any unused samples, extracts or related solutions. Otherwise, the samples are scheduled for disposal, without any further notice, on June 4, 2015. This includes any samples that were received with a request to be held but lacked a specific hold period. It is your responsibility to provide a written request defining a specific disposal date if additional storage is required. Upon receipt, the request will be acknowledged by PSS, thus extending the storage period.

This report shall not be reproduced except in full, without the written approval of an authorized PSS representative. A copy of this report will be retained by PSS for at least 5 years, after which time it will be disposed of without further notice, unless prior arrangements have been made.

We thank you for selecting Phase Separation Science, Inc. to serve your analytical needs. If you have any questions concerning this report, do not hesitate to contact us at 410-747-8770 or info@phaseonline.com.

Sincerely,

Dan Prucnal
Laboratory Manager



Sample Summary

Client Name: Arc Environmental
Project Name: Percontee

Work Order Number(s): 15043018

The following samples were received under chain of custody by Phase Separation Science (PSS) on 04/30/2015 at 12:20 pm

Lab Sample Id	Sample Id	Matrix	Date/Time Collected
15043018-001	SVP1	AIR	04/29/15 16:00
15043018-002	SVP2	AIR	04/29/15 16:30

Please reference the Chain of Custody and Sample Receipt Checklist for specific container counts and preservatives. Any sample conditions not in compliance with sample acceptance criteria are described in Case Narrative Summary.

Notes:

1. The presence of a common laboratory contaminant such as methylene chloride may be considered a possible laboratory artifact. Where observed, appropriate consideration of data should be taken.
2. Unless otherwise noted in the case narrative, results are reported on a dry weight basis with the exception of pH, flashpoint, moisture, and paint filter test.
3. Drinking water samples collected for the purpose of compliance with SDWA may not be suitable for their intended use unless collected by a certified sampler [COMAR 26.08.05.07.C.2].
4. The analyses of 1,2-dibromo-3-chloropropane (DBCP) and 1,2-dibromoethane (EDB) by EPA 524.2 and calcium, magnesium, sodium and iron by EPA 200.8 are not currently promulgated for use in testing to meet the Safe Drinking Water Act and as such cannot be used for compliance purposes. The listings of the current promulgated methods for testing in compliance with the Safe Drinking Water Act can be found in the 40 CFR part 141.1, for the primary drinking water contaminants, and part 141.3, for the secondary drinking water contaminants.
5. Sample prepared under EPA 3550C with concentrations greater than 20 mg/Kg should employ the microtip extraction procedure if required to meet data quality objectives.
6. The analysis of acrolein by EPA 624 must be analyzed within three days of sampling unless pH is adjusted to 4-5 units [40 CFR part 136.3(e)].
7. Method 180.1, The Determination of Turbidity by Nephelometry, recommends samples over 40 NTU be diluted until the turbidity falls below 40 units. Routine samples over 40 NTU may not be diluted as long as the data quality objectives are not affected.
8. Alkalinity results analyzed by EPA 310.2 that are reported by dilution are estimated and are not in compliance with method requirements.

Standard Flags/Abbreviations:

- B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- C Results Pending Final Confirmation.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- Fail The result exceeds the regulatory level for Toxicity Characteristic (TCLP) as cited in 40 CFR 261.24 Table 1.
- J The target analyte was positively identified below the reporting limit but greater than the MDL.
- MDL This is the Laboratory Method Detection Limit which is equivalent to the Limit of Detection (LOD). The LOD is an estimate of the minimum amount of a substance that an analytical process can reliably detect. This value will remain constant across multiple similar instrumentation and among different analysts. An LOD is analyte and matrix specific.
- ND Not Detected at or above the reporting limit.
- RL PSS Reporting Limit.
- U Not detected.

Certifications:

NELAP Certifications: PA 68-03330, VA 460156
State Certifications: MD 179, WV 303
Regulated Soil Permit: P330-12-00268
NSWC USCG Accepted Laboratory
LDBE MWAA LD1997-0041-2015

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15043018

Arc Environmental, Baltimore, MD

May 7, 2015

Project Name: Percontee

Sample ID: SVP1 **Date/Time Sampled: 04/29/2015 16:00** **PSS Sample ID: 15043018-001**
Matrix: AIR **Date/Time Received: 04/30/2015 12:20**

VOCs in Air by GC/MS

Analytical Method: EPA TO-15

Preparation Method: TO-15P

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acetone	19	ug/M3	9.5		1	9.5	05/04/15	05/04/15 17:37	1014
Benzene	ND	ug/M3	0.64		1	0.64	05/04/15	05/04/15 17:37	1014
Benzyl Chloride	ND	ug/M3	1.0		1	1	05/04/15	05/04/15 17:37	1014
Bromodichloromethane	ND	ug/M3	1.3		1	1.3	05/04/15	05/04/15 17:37	1014
Bromoform	ND	ug/M3	2.1		1	2.1	05/04/15	05/04/15 17:37	1014
Bromomethane	ND	ug/M3	0.78		1	0.78	05/04/15	05/04/15 17:37	1014
1,3-Butadiene	ND	ug/M3	0.44		1	0.44	05/04/15	05/04/15 17:37	1014
2-Butanone (MEK)	2.4	ug/M3	1.5		1	1.5	05/04/15	05/04/15 17:37	1014
Carbon Disulfide	ND	ug/M3	3.1		1	3.1	05/04/15	05/04/15 17:37	1014
Carbon Tetrachloride	ND	ug/M3	1.3		1	1.3	05/04/15	05/04/15 17:37	1014
Chlorobenzene	ND	ug/M3	0.92		1	0.92	05/04/15	05/04/15 17:37	1014
Chloroethane	ND	ug/M3	0.53		1	0.53	05/04/15	05/04/15 17:37	1014
Chloroform	ND	ug/M3	0.98		1	0.98	05/04/15	05/04/15 17:37	1014
Chloromethane	1.7	ug/M3	0.41		1	0.41	05/04/15	05/04/15 17:37	1014
Allyl Chloride (3-Chloropropene)	ND	ug/M3	0.63		1	0.63	05/04/15	05/04/15 17:37	1014
Cyclohexane	ND	ug/M3	0.69		1	0.69	05/04/15	05/04/15 17:37	1014
Dibromochloromethane	ND	ug/M3	1.7		1	1.7	05/04/15	05/04/15 17:37	1014
1,2-Dibromoethane (EDB)	ND	ug/M3	1.5		1	1.5	05/04/15	05/04/15 17:37	1014
1,2-Dichlorobenzene	ND	ug/M3	1.2		1	1.2	05/04/15	05/04/15 17:37	1014
1,3-Dichlorobenzene	ND	ug/M3	1.2		1	1.2	05/04/15	05/04/15 17:37	1014
1,4-Dichlorobenzene	ND	ug/M3	1.2		1	1.2	05/04/15	05/04/15 17:37	1014
Dichlorodifluoromethane	2.7	ug/M3	0.99		1	0.99	05/04/15	05/04/15 17:37	1014
1,1-Dichloroethane	ND	ug/M3	0.81		1	0.81	05/04/15	05/04/15 17:37	1014
1,2-Dichloroethane	ND	ug/M3	0.81		1	0.81	05/04/15	05/04/15 17:37	1014
1,1-Dichloroethene	ND	ug/M3	0.79		1	0.79	05/04/15	05/04/15 17:37	1014
cis-1,2-Dichloroethene	ND	ug/M3	0.79		1	0.79	05/04/15	05/04/15 17:37	1014
trans-1,2-Dichloroethene	ND	ug/M3	0.79		1	0.79	05/04/15	05/04/15 17:37	1014
1,2-Dichloropropane	ND	ug/M3	0.92		1	0.92	05/04/15	05/04/15 17:37	1014
cis-1,3-Dichloropropene	ND	ug/M3	0.91		1	0.91	05/04/15	05/04/15 17:37	1014
trans-1,3-Dichloropropene	ND	ug/M3	0.91		1	0.91	05/04/15	05/04/15 17:37	1014

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15043018

Arc Environmental, Baltimore, MD

May 7, 2015

Project Name: Percontee

Sample ID: SVP1 **Date/Time Sampled: 04/29/2015 16:00** **PSS Sample ID: 15043018-001**
Matrix: AIR **Date/Time Received: 04/30/2015 12:20**

VOCs in Air by GC/MS

Analytical Method: EPA TO-15

Preparation Method: TO-15P

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
1,2-Dichlorotetrafluoroethane	ND	ug/M3	1.4		1	1.4	05/04/15	05/04/15 17:37	1014
1,4-Dioxane (P-Dioxane)	ND	ug/M3	3.6		1	3.6	05/04/15	05/04/15 17:37	1014
Ethyl Acetate	ND	ug/M3	0.72		1	0.72	05/04/15	05/04/15 17:37	1014
Ethylbenzene	ND	ug/M3	0.87		1	0.87	05/04/15	05/04/15 17:37	1014
4-Ethyltoluene	ND	ug/M3	0.98		1	0.98	05/04/15	05/04/15 17:37	1014
n-Heptane	ND	ug/M3	0.82		1	0.82	05/04/15	05/04/15 17:37	1014
Hexachlorobutadiene	ND	ug/M3	2.1		1	2.1	05/04/15	05/04/15 17:37	1014
n-Hexane	ND	ug/M3	14		1	14	05/04/15	05/04/15 17:37	1014
2-Hexanone	ND	ug/M3	2.0		1	2	05/04/15	05/04/15 17:37	1014
Isopropylbenzene	ND	ug/M3	0.98		1	0.98	05/04/15	05/04/15 17:37	1014
Methylene Chloride	ND	ug/M3	14		1	14	05/04/15	05/04/15 17:37	1014
4-Methyl-2-Pentanone	ND	ug/M3	2.0		1	2	05/04/15	05/04/15 17:37	1014
Methyl-t-butyl ether	ND	ug/M3	1.8		1	1.8	05/04/15	05/04/15 17:37	1014
Naphthalene	3.0	ug/M3	1.0		1	1	05/04/15	05/04/15 17:37	1014
Propylene	2.5	ug/M3	1.7		1	1.7	05/04/15	05/04/15 17:37	1014
n-Propylbenzene	ND	ug/M3	0.98		1	0.98	05/04/15	05/04/15 17:37	1014
Styrene	ND	ug/M3	4.3		1	4.3	05/04/15	05/04/15 17:37	1014
1,1,2,2-Tetrachloroethane	ND	ug/M3	1.4		1	1.4	05/04/15	05/04/15 17:37	1014
Tetrachloroethene	ND	ug/M3	1.4		1	1.4	05/04/15	05/04/15 17:37	1014
Tetrahydrofuran	ND	ug/M3	0.59		1	0.59	05/04/15	05/04/15 17:37	1014
Toluene	2.4	ug/M3	0.75		1	0.75	05/04/15	05/04/15 17:37	1014
1,2,4-Trichlorobenzene	ND	ug/M3	1.5		1	1.5	05/04/15	05/04/15 17:37	1014
1,1,1-Trichloroethane	ND	ug/M3	1.1		1	1.1	05/04/15	05/04/15 17:37	1014
1,1,2-Trichloroethane	ND	ug/M3	1.1		1	1.1	05/04/15	05/04/15 17:37	1014
Trichloroethene	ND	ug/M3	1.1		1	1.1	05/04/15	05/04/15 17:37	1014
Trichlorofluoromethane	1.5	ug/M3	1.1		1	1.1	05/04/15	05/04/15 17:37	1014
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	ug/M3	1.5		1	1.5	05/04/15	05/04/15 17:37	1014
1,2,4-Trimethylbenzene	5.0	ug/M3	0.98		1	0.98	05/04/15	05/04/15 17:37	1014
1,3,5-Trimethylbenzene	ND	ug/M3	0.98		1	0.98	05/04/15	05/04/15 17:37	1014
2,2,4-Trimethylpentane	ND	ug/M3	0.93		1	0.93	05/04/15	05/04/15 17:37	1014

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15043018

Arc Environmental, Baltimore, MD

May 7, 2015

Project Name: Percontee

Sample ID: SVP1	Date/Time Sampled: 04/29/2015 16:00	PSS Sample ID: 15043018-001
Matrix: AIR	Date/Time Received: 04/30/2015 12:20	

VOCs in Air by GC/MS

Analytical Method: EPA TO-15

Preparation Method: TO-15P

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Vinyl Acetate	ND	ug/M3	0.70		1	0.7	05/04/15	05/04/15 17:37	1014
Bromoethene	ND	ug/M3	0.87		1	0.87	05/04/15	05/04/15 17:37	1014
Vinyl Chloride	ND	ug/M3	0.51		1	0.51	05/04/15	05/04/15 17:37	1014
m,p-Xylenes	ND	ug/M3	1.7		1	1.7	05/04/15	05/04/15 17:37	1014
o-Xylene	ND	ug/M3	0.87		1	0.87	05/04/15	05/04/15 17:37	1014

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15043018

Arc Environmental, Baltimore, MD

May 7, 2015

Project Name: Percontee

Sample ID: SVP2 **Date/Time Sampled: 04/29/2015 16:30** **PSS Sample ID: 15043018-002**
Matrix: AIR **Date/Time Received: 04/30/2015 12:20**

VOCs in Air by GC/MS

Analytical Method: EPA TO-15

Preparation Method: TO-15P

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acetone	680	ug/M3	380		40	380	05/04/15	05/05/15 18:12	1014
Benzene	ND	ug/M3	0.64		1	0.64	05/04/15	05/04/15 18:31	1014
Benzyl Chloride	ND	ug/M3	1.0		1	1	05/04/15	05/04/15 18:31	1014
Bromodichloromethane	ND	ug/M3	1.3		1	1.3	05/04/15	05/04/15 18:31	1014
Bromoform	ND	ug/M3	2.1		1	2.1	05/04/15	05/04/15 18:31	1014
Bromomethane	ND	ug/M3	0.78		1	0.78	05/04/15	05/04/15 18:31	1014
1,3-Butadiene	ND	ug/M3	0.44		1	0.44	05/04/15	05/04/15 18:31	1014
2-Butanone (MEK)	89	ug/M3	1.5	E	1	1.5	05/04/15	05/04/15 18:31	1014
Carbon Disulfide	ND	ug/M3	3.1		1	3.1	05/04/15	05/04/15 18:31	1014
Carbon Tetrachloride	ND	ug/M3	1.3		1	1.3	05/04/15	05/04/15 18:31	1014
Chlorobenzene	ND	ug/M3	0.92		1	0.92	05/04/15	05/04/15 18:31	1014
Chloroethane	0.90	ug/M3	0.53		1	0.53	05/04/15	05/04/15 18:31	1014
Chloroform	8.4	ug/M3	0.98		1	0.98	05/04/15	05/04/15 18:31	1014
Chloromethane	ND	ug/M3	0.41		1	0.41	05/04/15	05/04/15 18:31	1014
Allyl Chloride (3-Chloropropene)	ND	ug/M3	0.63		1	0.63	05/04/15	05/04/15 18:31	1014
Cyclohexane	ND	ug/M3	0.69		1	0.69	05/04/15	05/04/15 18:31	1014
Dibromochloromethane	ND	ug/M3	1.7		1	1.7	05/04/15	05/04/15 18:31	1014
1,2-Dibromoethane (EDB)	ND	ug/M3	1.5		1	1.5	05/04/15	05/04/15 18:31	1014
1,2-Dichlorobenzene	ND	ug/M3	1.2		1	1.2	05/04/15	05/04/15 18:31	1014
1,3-Dichlorobenzene	ND	ug/M3	1.2		1	1.2	05/04/15	05/04/15 18:31	1014
1,4-Dichlorobenzene	ND	ug/M3	1.2		1	1.2	05/04/15	05/04/15 18:31	1014
Dichlorodifluoromethane	4.0	ug/M3	0.99		1	0.99	05/04/15	05/04/15 18:31	1014
1,1-Dichloroethane	ND	ug/M3	0.81		1	0.81	05/04/15	05/04/15 18:31	1014
1,2-Dichloroethane	ND	ug/M3	0.81		1	0.81	05/04/15	05/04/15 18:31	1014
1,1-Dichloroethene	ND	ug/M3	0.79		1	0.79	05/04/15	05/04/15 18:31	1014
cis-1,2-Dichloroethene	ND	ug/M3	0.79		1	0.79	05/04/15	05/04/15 18:31	1014
trans-1,2-Dichloroethene	ND	ug/M3	0.79		1	0.79	05/04/15	05/04/15 18:31	1014
1,2-Dichloropropane	ND	ug/M3	0.92		1	0.92	05/04/15	05/04/15 18:31	1014
cis-1,3-Dichloropropene	ND	ug/M3	0.91		1	0.91	05/04/15	05/04/15 18:31	1014
trans-1,3-Dichloropropene	ND	ug/M3	0.91		1	0.91	05/04/15	05/04/15 18:31	1014

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15043018

Arc Environmental, Baltimore, MD

May 7, 2015

Project Name: Percontee

Sample ID: SVP2 **Date/Time Sampled: 04/29/2015 16:30** **PSS Sample ID: 15043018-002**
Matrix: AIR **Date/Time Received: 04/30/2015 12:20**

VOCs in Air by GC/MS

Analytical Method: EPA TO-15

Preparation Method: TO-15P

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
1,2-Dichlorotetrafluoroethane	ND	ug/M3	1.4		1	1.4	05/04/15	05/04/15 18:31	1014
1,4-Dioxane (P-Dioxane)	ND	ug/M3	3.6		1	3.6	05/04/15	05/04/15 18:31	1014
Ethyl Acetate	ND	ug/M3	0.72		1	0.72	05/04/15	05/04/15 18:31	1014
Ethylbenzene	ND	ug/M3	0.87		1	0.87	05/04/15	05/04/15 18:31	1014
4-Ethyltoluene	ND	ug/M3	0.98		1	0.98	05/04/15	05/04/15 18:31	1014
n-Heptane	ND	ug/M3	0.82		1	0.82	05/04/15	05/04/15 18:31	1014
Hexachlorobutadiene	ND	ug/M3	2.1		1	2.1	05/04/15	05/04/15 18:31	1014
n-Hexane	ND	ug/M3	14		1	14	05/04/15	05/04/15 18:31	1014
2-Hexanone	ND	ug/M3	2.0		1	2	05/04/15	05/04/15 18:31	1014
Isopropylbenzene	ND	ug/M3	0.98		1	0.98	05/04/15	05/04/15 18:31	1014
Methylene Chloride	ND	ug/M3	14		1	14	05/04/15	05/04/15 18:31	1014
4-Methyl-2-Pentanone	ND	ug/M3	2.0		1	2	05/04/15	05/04/15 18:31	1014
Methyl-t-butyl ether	ND	ug/M3	1.8		1	1.8	05/04/15	05/04/15 18:31	1014
Naphthalene	2.4	ug/M3	1.0		1	1	05/04/15	05/04/15 18:31	1014
Propylene	21	ug/M3	1.7		1	1.7	05/04/15	05/04/15 18:31	1014
n-Propylbenzene	ND	ug/M3	0.98		1	0.98	05/04/15	05/04/15 18:31	1014
Styrene	ND	ug/M3	4.3		1	4.3	05/04/15	05/04/15 18:31	1014
1,1,2,2-Tetrachloroethane	ND	ug/M3	1.4		1	1.4	05/04/15	05/04/15 18:31	1014
Tetrachloroethene	ND	ug/M3	1.4		1	1.4	05/04/15	05/04/15 18:31	1014
Tetrahydrofuran	ND	ug/M3	0.59		1	0.59	05/04/15	05/04/15 18:31	1014
Toluene	4.4	ug/M3	0.75		1	0.75	05/04/15	05/04/15 18:31	1014
1,2,4-Trichlorobenzene	ND	ug/M3	1.5		1	1.5	05/04/15	05/04/15 18:31	1014
1,1,1-Trichloroethane	ND	ug/M3	1.1		1	1.1	05/04/15	05/04/15 18:31	1014
1,1,2-Trichloroethane	ND	ug/M3	1.1		1	1.1	05/04/15	05/04/15 18:31	1014
Trichloroethene	ND	ug/M3	1.1		1	1.1	05/04/15	05/04/15 18:31	1014
Trichlorofluoromethane	1.4	ug/M3	1.1		1	1.1	05/04/15	05/04/15 18:31	1014
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	ug/M3	1.5		1	1.5	05/04/15	05/04/15 18:31	1014
1,2,4-Trimethylbenzene	1.0	ug/M3	0.98		1	0.98	05/04/15	05/04/15 18:31	1014
1,3,5-Trimethylbenzene	ND	ug/M3	0.98		1	0.98	05/04/15	05/04/15 18:31	1014
2,2,4-Trimethylpentane	9.0	ug/M3	0.93		1	0.93	05/04/15	05/04/15 18:31	1014

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15043018

Arc Environmental, Baltimore, MD

May 7, 2015

Project Name: Percontee

Sample ID: SVP2 **Date/Time Sampled: 04/29/2015 16:30** **PSS Sample ID: 15043018-002**
Matrix: AIR **Date/Time Received: 04/30/2015 12:20**

VOCs in Air by GC/MS

Analytical Method: EPA TO-15

Preparation Method: TO-15P

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Vinyl Acetate	6.0	ug/M3	0.70		1	0.7	05/04/15	05/04/15 18:31	1014
Bromoethene	ND	ug/M3	0.87		1	0.87	05/04/15	05/04/15 18:31	1014
Vinyl Chloride	ND	ug/M3	0.51		1	0.51	05/04/15	05/04/15 18:31	1014
m,p-Xylenes	1.9	ug/M3	1.7		1	1.7	05/04/15	05/04/15 18:31	1014
o-Xylene	ND	ug/M3	0.87		1	0.87	05/04/15	05/04/15 18:31	1014



Case Narrative Summary

Client Name: Arc Environmental

Project Name: Percontee

Work Order Number(s): 15043018

Any holding time exceedances, deviations from the method specifications, regulatory requirements or variations to the procedures outlined in the PSS Quality Assurance Manual are outlined below.

The analyses of chlorine, pH, dissolved oxygen, temperature and sulfite for drinking water and non-potable samples tested for compliance have a maximum holding time of 15 minutes. As such, all laboratory analyses for these analytes exceed holding times.

Matrix spike and matrix spike duplicate analyses may not be performed due to insufficient sample quantity. In these instances, a laboratory control sample and laboratory control sample duplicate are analyzed unless otherwise noted or specified in the method.

Sample Receipt:

All sample receipt conditions were acceptable.

NELAP accreditation was held for all analyses performed unless noted below. See www.phaseonline.com for complete PSS scope of accreditation.



Analytical Data Package Information Summary

Work Order(s): 15043018

Report Prepared For: Arc Environmental, Baltimore, MD

Project Name: Percontee

Project Manager: Christie Pulvino

Method	Client Sample Id	Analysis Type	Lab Sample Id	Analyst	Mtx	Prep Batch	Analytical Batch	Sampled	Prepared	Analyzed
EPA TO-15	SVP1	Initial	15043018-001	1014	A	55293	122371	04/29/2015	05/04/2015 10:31	05/04/2015 17:37
	SVP2	Initial	15043018-002	1014	A	55293	122371	04/29/2015	05/04/2015 10:31	05/04/2015 18:31
	55293-1-BKS	BKS	55293-1-BKS	1014	A	55293	122371	-----	05/04/2015 10:31	05/04/2015 10:23
	55293-1-BLK	BLK	55293-1-BLK	1014	A	55293	122371	-----	05/04/2015 10:31	05/04/2015 16:43
	55293-1-BSD	BSD	55293-1-BSD	1014	A	55293	122371	-----	05/04/2015 10:31	05/04/2015 14:02
	55316-1-BKS	BKS	55316-1-BKS	1014	A	55316	122405	-----	05/05/2015 00:00	05/05/2015 14:45
	55316-1-BLK	BLK	55316-1-BLK	1014	A	55316	122405	-----	05/05/2015 00:00	05/05/2015 16:31
	55316-1-BSD	BSD	55316-1-BSD	1014	A	55316	122405	-----	05/05/2015 00:00	05/05/2015 15:37
	SVP2	Reanalysis	15043018-002	1014	A	55293	122405	04/29/2015	05/04/2015 10:31	05/05/2015 18:12

PHASE SEPARATION SCIENCE, INC.

QC Summary 15043018

Arc Environmental Percontee

Analytical Method: EPA TO-15
Seq Number: 122371
PSS Sample ID: 15043018-001

Prep Method: TO-15P
Date Prep: 05/04/2015

Matrix: Air

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	95		50-150	%	05/04/15 17:37

Analytical Method: EPA TO-15
Seq Number: 122371
PSS Sample ID: 15043018-002

Prep Method: TO-15P
Date Prep: 05/04/2015

Matrix: Air

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	99		50-150	%	05/04/15 18:31

F = RPD exceeded the laboratory control limits
X = Recovery of MS, MSD or both outside of QC Criteria
H = Recovery of BS, BSD or both exceeded the laboratory control limits
L = Recovery of BS, BSD or both below the laboratory control limits

PHASE SEPARATION SCIENCE, INC.

QC Summary 15043018

Arc Environmental Percontee

Analytical Method: EPA TO-15

Seq Number: 122371

MB Sample Id: 55293-1-BLK

Matrix: Air

LCS Sample Id: 55293-1-BKS

Prep Method: TO-15P

Date Prep: 05/04/15

LCSD Sample Id: 55293-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Acetone	<9.498	11.87	11.75	99	12.04	101	70-130	2	30	ug/M3	05/04/15 10:23	
Benzene	<0.6387	15.97	15.30	96	15.71	98	70-130	3	30	ug/M3	05/04/15 10:23	
Benzyl Chloride	<1.035	25.87	25.62	99	26.34	102	70-130	3	30	ug/M3	05/04/15 10:23	
Bromodichloromethane	<1.340	33.49	33.02	99	35.10	105	70-130	6	30	ug/M3	05/04/15 10:23	
Bromoform	<2.067	51.67	48.36	94	49.91	97	70-130	3	30	ug/M3	05/04/15 10:23	
Bromomethane	<0.7764	19.41	19.88	102	18.83	97	70-130	5	30	ug/M3	05/04/15 10:23	
1,3-Butadiene	<0.4423	11.06	12.56	114	11.68	106	70-130	7	30	ug/M3	05/04/15 10:23	
2-Butanone (MEK)	<1.474	14.74	15.33	104	16.04	109	70-130	5	30	ug/M3	05/04/15 10:23	
Carbon Disulfide	<3.113	15.56	14.63	94	16.34	105	70-130	11	30	ug/M3	05/04/15 10:23	
Carbon Tetrachloride	<1.258	31.45	32.20	102	33.21	106	70-130	3	30	ug/M3	05/04/15 10:23	
Chlorobenzene	<0.9204	23.01	20.80	90	21.54	94	70-130	3	30	ug/M3	05/04/15 10:23	
Chloroethane	<0.5276	13.19	14.16	107	13.22	100	70-130	7	30	ug/M3	05/04/15 10:23	
Chloroform	<0.9761	24.40	24.01	98	24.99	102	70-130	4	30	ug/M3	05/04/15 10:23	
Chloromethane	<0.4128	10.32	10.51	102	9.640	93	70-130	9	30	ug/M3	05/04/15 10:23	
Allyl Chloride (3-Chloropropene)	<0.6258	15.64	15.80	101	16.05	103	70-130	2	30	ug/M3	05/04/15 10:23	
Cyclohexane	<0.6881	17.20	18.03	105	18.55	108	70-130	3	30	ug/M3	05/04/15 10:23	
Dibromochloromethane	<1.703	42.58	42.24	99	44.37	104	70-130	5	30	ug/M3	05/04/15 10:23	
1,2-Dibromoethane (EDB)	<1.536	38.40	36.79	96	39.25	102	70-130	6	30	ug/M3	05/04/15 10:23	
1,2-Dichlorobenzene	<1.202	30.05	28.13	94	28.79	96	70-130	2	30	ug/M3	05/04/15 10:23	
1,3-Dichlorobenzene	<1.202	30.05	27.77	92	28.85	96	70-130	4	30	ug/M3	05/04/15 10:23	
1,4-Dichlorobenzene	<1.202	30.05	28.13	94	29.33	98	70-130	4	30	ug/M3	05/04/15 10:23	
Dichlorodifluoromethane	<0.9887	24.72	24.92	101	22.79	92	70-130	9	30	ug/M3	05/04/15 10:23	
1,1-Dichloroethane	<0.8092	20.23	19.70	97	20.35	101	70-130	3	30	ug/M3	05/04/15 10:23	
1,2-Dichloroethane	<0.8092	20.23	20.71	102	21.52	106	70-130	4	30	ug/M3	05/04/15 10:23	
1,1-Dichloroethene	<0.7926	19.82	20.01	101	20.01	101	70-130	0	30	ug/M3	05/04/15 10:23	
cis-1,2-Dichloroethene	<0.7926	19.82	20.33	103	20.97	106	70-130	3	30	ug/M3	05/04/15 10:23	
trans-1,2-Dichloroethene	<0.7926	19.82	20.13	102	20.57	104	70-130	2	30	ug/M3	05/04/15 10:23	
1,2-Dichloropropane	<0.9239	23.10	22.13	96	23.51	102	70-130	6	30	ug/M3	05/04/15 10:23	
cis-1,3-Dichloropropene	<0.9074	22.68	22.64	100	23.91	105	70-130	5	30	ug/M3	05/04/15 10:23	
trans-1,3-Dichloropropene	<0.9074	22.68	23.00	101	24.09	106	70-130	5	30	ug/M3	05/04/15 10:23	
1,2-Dichlorotetrafluoroethane	<1.398	34.94	35.01	100	31.80	91	70-130	10	30	ug/M3	05/04/15 10:23	
1,4-Dioxane (P-Dioxane)	<3.602	18.01	15.89	88	15.92	88	70-130	0	30	ug/M3	05/04/15 10:23	
Ethyl Acetate	<0.7204	18.01	17.54	97	18.48	103	70-130	5	30	ug/M3	05/04/15 10:23	
Ethylbenzene	<0.8680	21.70	20.92	96	21.53	99	70-130	3	30	ug/M3	05/04/15 10:23	
4-Ethyltoluene	<0.9827	24.57	24.13	98	24.86	101	70-130	3	30	ug/M3	05/04/15 10:23	
n-Heptane	<0.8193	20.48	20.61	101	21.51	105	70-130	4	30	ug/M3	05/04/15 10:23	
Hexachlorobutadiene	<2.132	53.30	50.11	94	51.28	96	70-130	2	30	ug/M3	05/04/15 10:23	
n-Hexane	<14.09	17.61	18.53	105	18.92	107	70-130	2	30	ug/M3	05/04/15 10:23	
2-Hexanone	<2.047	20.47	22.24	109	23.34	114	70-130	5	30	ug/M3	05/04/15 10:23	
Isopropylbenzene	<0.9827	24.57	23.83	97	24.27	99	70-130	2	30	ug/M3	05/04/15 10:23	
Methylene Chloride	<13.89	17.36	16.95	98	19.48	112	70-130	14	30	ug/M3	05/04/15 10:23	
4-Methyl-2-Pentanone	<2.047	20.47	21.95	107	23.09	113	70-130	5	30	ug/M3	05/04/15 10:23	
Methyl-t-butyl ether	<1.802	18.02	18.74	104	19.24	107	70-130	3	30	ug/M3	05/04/15 10:23	
Naphthalene	<1.048	26.20	25.36	97	25.62	98	70-130	1	30	ug/M3	05/04/15 10:23	
Propylene	<1.720	8.602	8.516	99	8.120	94	70-130	5	30	ug/M3	05/04/15 10:23	
n-Propylbenzene	<0.9828	24.57	24.37	99	24.52	100	70-130	1	30	ug/M3	05/04/15 10:23	
Styrene	<4.258	21.29	20.69	97	21.42	101	70-130	3	30	ug/M3	05/04/15 10:23	
1,1,1,2,2-Tetrachloroethane	<1.373	34.31	30.74	90	31.71	92	70-130	3	30	ug/M3	05/04/15 10:23	
Tetrachloroethene	<1.356	33.90	32.95	97	34.58	102	70-130	5	30	ug/M3	05/04/15 10:23	
Tetrahydrofuran	<0.5895	14.74	15.62	106	16.15	110	70-130	3	30	ug/M3	05/04/15 10:23	
Toluene	<0.7533	18.83	18.80	100	19.89	106	70-130	6	30	ug/M3	05/04/15 10:23	

PHASE SEPARATION SCIENCE, INC.

QC Summary 15043018

Arc Environmental Percontee

Analytical Method: EPA TO-15

Seq Number: 122371

MB Sample Id: 55293-1-BLK

Matrix: Air

LCS Sample Id: 55293-1-BKS

Prep Method: TO-15P

Date Prep: 05/04/15

LCSD Sample Id: 55293-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
1,2,4-Trichlorobenzene	<1.484	37.09	35.76	96	35.83	97	70-130	0	30	ug/M3	05/04/15 10:23	
1,1,1-Trichloroethane	<1.091	27.27	27.22	100	28.42	104	70-130	4	30	ug/M3	05/04/15 10:23	
1,1,2-Trichloroethane	<1.091	27.27	25.64	94	27.49	101	70-130	7	30	ug/M3	05/04/15 10:23	
Trichloroethene	<1.074	26.86	26.38	98	28.04	104	70-130	6	30	ug/M3	05/04/15 10:23	
Trichlorofluoromethane	<1.123	28.08	28.14	100	27.97	100	70-130	1	30	ug/M3	05/04/15 10:23	
1,1,2-Trichloro-1,2,2-Trifluoroethane	<1.532	38.31	36.70	96	37.54	98	70-130	2	30	ug/M3	05/04/15 10:23	
1,2,4-Trimethylbenzene	<0.9828	24.57	23.98	98	24.62	100	70-130	3	30	ug/M3	05/04/15 10:23	
1,3,5-Trimethylbenzene	<0.9828	24.57	23.83	97	24.47	100	70-130	3	30	ug/M3	05/04/15 10:23	
2,2,4-Trimethylpentane	<0.9339	23.35	23.54	101	25.36	109	70-130	7	30	ug/M3	05/04/15 10:23	
Vinyl Acetate	<0.7039	17.60	19.39	110	19.96	113	70-130	3	30	ug/M3	05/04/15 10:23	
Bromoethene	<0.8746	21.86	22.83	104	22.00	101	70-130	4	30	ug/M3	05/04/15 10:23	
Vinyl Chloride	<0.5110	12.78	13.75	108	12.03	94	70-130	13	30	ug/M3	05/04/15 10:23	
m,p-Xylenes	<1.736	43.41	41.50	96	42.88	99	70-130	3	30	ug/M3	05/04/15 10:23	
o-Xylene	<0.8681	21.70	20.53	95	21.44	99	70-130	4	30	ug/M3	05/04/15 10:23	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	90		94		96		50-150	%	05/04/15 10:23

Analytical Method: EPA TO-15

Seq Number: 122405

MB Sample Id: 55316-1-BLK

Matrix: Air

LCS Sample Id: 55316-1-BKS

Prep Method: TO-15P

Date Prep: 05/05/15

LCSD Sample Id: 55316-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Acetone	<9.498	11.87	10.59	89	10.80	91	70-130	2	30	ug/M3	05/05/15 14:45	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	97		102		102		50-150	%	05/05/15 14:45

F = RPD exceeded the laboratory control limits

X = Recovery of MS, MSD or both outside of QC Criteria

H = Recovery of BS,BSD or both exceeded the laboratory control limits

L = Recovery of BS,BSD or both below the laboratory control limits



TO-15 SAMPLE CHAIN OF CUSTODY/AGREEMENT FORM

PHASE SEPARATION SCIENCE, INC.

www.phaseonline.com
email: info@phaseonline.com

1 *CLIENT: <u>Arc Environmental</u> *OFFICE LOC.: _____ *PROJECT MGR: <u>Christ Pulvino</u> EMAIL: _____ *PHONE NO: () _____ *PROJECT NAME: <u>Percontee</u> PROJECT NO.: _____ SITE LOCATION: _____ P.O. NO.: _____ SAMPLER(S): <u>RAY GOODWIN</u>						PSS Work Order #: <u>15043018</u>				PAGE _____ OF _____																																																																																																																																																																																																			
2 <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:5%;">LAB #</th> <th style="width:20%;">*SAMPLE IDENTIFICATION</th> <th style="width:10%;">*DATE START</th> <th style="width:10%;">Time Start (24hr clock)</th> <th style="width:10%;">*DATE STOP</th> <th style="width:10%;">Time Start (24hr clock)</th> <th style="width:5%;">Can ID</th> <th style="width:5%;">Sample Reg. ID</th> <th style="width:5%;">Canister Pressure in field ("Hg) Start</th> <th style="width:5%;">Canister Pressure in field ("Hg) Stop</th> <th style="width:5%;">Incoming Canister Pressure ("Hg) Lab</th> <th style="width:5%;">Soil Gas / Subslab</th> <th style="width:5%;">Indoor / Ambient Air</th> <th style="width:5%;">TO-15 Full List</th> <th style="width:5%;">Special List</th> <th style="width:10%;">REMARKS</th> </tr> </thead> <tbody> <tr> <td></td> <td><u>SV P1</u></td> <td><u>4/28/15</u></td> <td><u>1600</u></td> <td><u>4/28/15</u></td> <td><u>1600</u></td> <td><u>3943</u></td> <td><u>4979</u></td> <td><u>30</u></td> <td><u>0</u></td> <td><u>1</u></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td><u>SV P2</u></td> <td><u>4/28/15</u></td> <td><u>1630</u></td> <td><u>4/28/15</u></td> <td><u>1630</u></td> <td><u>3935</u></td> <td><u>4981</u></td> <td><u>30</u></td> <td><u>0</u></td> <td><u>0</u></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>						LAB #	*SAMPLE IDENTIFICATION	*DATE START	Time Start (24hr clock)	*DATE STOP	Time Start (24hr clock)	Can ID	Sample Reg. ID	Canister Pressure in field ("Hg) Start	Canister Pressure in field ("Hg) Stop	Incoming Canister Pressure ("Hg) Lab	Soil Gas / Subslab	Indoor / Ambient Air	TO-15 Full List	Special List	REMARKS		<u>SV P1</u>	<u>4/28/15</u>	<u>1600</u>	<u>4/28/15</u>	<u>1600</u>	<u>3943</u>	<u>4979</u>	<u>30</u>	<u>0</u>	<u>1</u>							<u>SV P2</u>	<u>4/28/15</u>	<u>1630</u>	<u>4/28/15</u>	<u>1630</u>	<u>3935</u>	<u>4981</u>	<u>30</u>	<u>0</u>	<u>0</u>																																																																																																																																																						3 *Requested TAT (One TAT per COC) <input type="checkbox"/> 5-Day <input type="checkbox"/> 3-Day <input type="checkbox"/> 2-Day <input type="checkbox"/> Next Day <input type="checkbox"/> Emergency <input type="checkbox"/> Other						Shipping Carrier: <u>TTE</u>	
LAB #	*SAMPLE IDENTIFICATION	*DATE START	Time Start (24hr clock)	*DATE STOP	Time Start (24hr clock)	Can ID	Sample Reg. ID	Canister Pressure in field ("Hg) Start	Canister Pressure in field ("Hg) Stop	Incoming Canister Pressure ("Hg) Lab	Soil Gas / Subslab	Indoor / Ambient Air	TO-15 Full List	Special List	REMARKS																																																																																																																																																																																														
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4 Relinquished By: (1) <u>Ray Pulvino</u> Date: <u>4/29/15</u> Time: _____ Received By: _____ Relinquished By: (2) _____ Date: <u>4/29/15</u> Time: <u>1220</u> Received By: <u>B. Rivera</u> Relinquished By: (3) _____ Date: _____ Time: _____ Received By: _____ Relinquished By: (4) _____ Date: _____ Time: _____ Received By: _____						Special Instructions: _____																																																																																																																																																																																																							

6630 Baltimore National Pike • Route 40 West • Baltimore, Maryland 21228 • (410) 747-8770 • (800) 932-9047 • Fax (410) 788-8723
 The client (Client Name), by signing, or having client's agent sign, this "Sample Chain of Custody/Agreement Form", agrees to pay for the above requested services per the latest version of the Service Brochure or PSS-provided quotation including any and all attorney's or other reasonable fees if collection becomes necessary.



Phase Separation Science, Inc

Sample Receipt Checklist

Work Order #	15043018	Received By	Shirley Rivera
Client Name	Arc Environmental	Date Received	04/30/2015 12:20:00 PM
Project Name	Percontee	Delivered By	Trans Time Express
Disposal Date	06/04/2015	Tracking No	Not Applicable
		Logged In By	Rachel Davis

Shipping Container(s)

No. of Coolers 1

Custody Seal(s) Intact? N/A

Seal(s) Signed / Dated? N/A

Ice _____

Temp (deg C) _____

Temp Blank Present No

Documentation

COC agrees with sample labels? Yes

Chain of Custody Yes

Sampler Name Ray Goodwin

MD DW Cert. No. N/A

Sample Container

Appropriate for Specified Analysis? Yes

Intact? Yes

Labeled and Labels Legible? Yes

Custody Seal(s) Intact? Not Applicable

Seal(s) Signed / Dated Not Applicable

Total No. of Samples Received 2

Total No. of Containers Received 2

Preservation

Metals (pH<2) N/A

Cyanides (pH>12) N/A

Sulfide (pH>9) N/A

TOC, COD, Phenols (pH<2) N/A

TOX, TKN, NH3, Total Phos (pH<2) N/A

VOC, BTEX (VOA Vials Rcvd Preserved) (pH<2) N/A

Do VOA vials have zero headspace? N/A

624 VOC (Rcvd at least one unpreserved VOA vial) N/A

Comments: (Any "No" response must be detailed in the comments section below.)

For any improper preservation conditions, list sample ID, preservative added (reagent ID number) below as well as documentation of any client notification as well as client instructions. Samples for pH, chlorine and dissolved oxygen should be analyzed as soon as possible, preferably in the field at the time of sampling. Samples which require thermal preservation shall be considered acceptable when received at a temperature above freezing to 6°C. Samples that are hand delivered on the day that they are collected may not meet these criteria but shall be considered acceptable if there is evidence that the chilling process has begun such as arrival on ice.

Samples Inspected/Checklist Completed By:

Rachel Davis

Date: 04/30/2015

Rachel Davis

PM Review and Approval:

Shirley Rivera

Date: 04/30/2015

Shirley Rivera

Analytical Report for

Arc Environmental

Certificate of Analysis No.: 15050103

Project Manager: Christie Pulvino

Project Name : Percontee

Project Location: Silver Spring, MD



May 11, 2015

Phase Separation Science, Inc.

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PHASE SEPARATION SCIENCE, INC.



May 11, 2015

Christie Pulvino
Arc Environmental
1311 Haubert Street
Baltimore, MD 21230

Reference: PSS Work Order(s) No: **15050103**
Project Name: Percontee
Project Location: Silver Spring, MD

Dear Christie Pulvino :

This report includes the analytical results from the analyses performed on the samples received under the project name referenced above and identified with the Phase Separation Science (PSS) Work Order(s) numbered **15050103**.

All work reported herein has been performed in accordance with current NELAP standards, referenced methodologies, PSS Standard Operating Procedures and the PSS Quality Assurance Manual unless otherwise noted in the Case Narrative Summary. PSS is limited in liability to the actual cost of the sample analysis done.

PSS reserves the right to return any unused samples, extracts or related solutions. Otherwise, the samples are scheduled for disposal, without any further notice, on June 5, 2015. This includes any samples that were received with a request to be held but lacked a specific hold period. It is your responsibility to provide a written request defining a specific disposal date if additional storage is required. Upon receipt, the request will be acknowledged by PSS, thus extending the storage period.

This report shall not be reproduced except in full, without the written approval of an authorized PSS representative. A copy of this report will be retained by PSS for at least 5 years, after which time it will be disposed of without further notice, unless prior arrangements have been made.

We thank you for selecting Phase Separation Science, Inc. to serve your analytical needs. If you have any questions concerning this report, do not hesitate to contact us at 410-747-8770 or info@phaseonline.com.

Sincerely,

Dan Prucnal
Laboratory Manager



Sample Summary

Client Name: Arc Environmental
Project Name: Percontee

Work Order Number(s): 15050103

The following samples were received under chain of custody by Phase Separation Science (PSS) on 05/01/2015 at 10:41 am

Lab Sample Id	Sample Id	Matrix	Date/Time Collected
15050103-001	S-8	SOIL	04/30/15 09:35
15050103-002	S-7	SOIL	04/30/15 09:55
15050103-003	S-4	SOIL	04/30/15 10:30
15050103-004	S-3	SOIL	04/30/15 11:33
15050103-005	S-6	SOIL	04/30/15 12:35
15050103-006	S-5	SOIL	04/30/15 13:31
15050103-007	S-2	SOIL	04/30/15 15:32

Please reference the Chain of Custody and Sample Receipt Checklist for specific container counts and preservatives. Any sample conditions not in compliance with sample acceptance criteria are described in Case Narrative Summary.

Notes:

1. The presence of a common laboratory contaminant such as methylene chloride may be considered a possible laboratory artifact. Where observed, appropriate consideration of data should be taken.
2. Unless otherwise noted in the case narrative, results are reported on a dry weight basis with the exception of pH, flashpoint, moisture, and paint filter test.
3. Drinking water samples collected for the purpose of compliance with SDWA may not be suitable for their intended use unless collected by a certified sampler [COMAR 26.08.05.07.C.2].
4. The analyses of 1,2-dibromo-3-chloropropane (DBCP) and 1,2-dibromoethane (EDB) by EPA 524.2 and calcium, magnesium, sodium and iron by EPA 200.8 are not currently promulgated for use in testing to meet the Safe Drinking Water Act and as such cannot be used for compliance purposes. The listings of the current promulgated methods for testing in compliance with the Safe Drinking Water Act can be found in the 40 CFR part 141.1, for the primary drinking water contaminants, and part 141.3, for the secondary drinking water contaminants.
5. Sample prepared under EPA 3550C with concentrations greater than 20 mg/Kg should employ the microtip extraction procedure if required to meet data quality objectives.
6. The analysis of acrolein by EPA 624 must be analyzed within three days of sampling unless pH is adjusted to 4-5 units [40 CFR part 136.3(e)].
7. Method 180.1, The Determination of Turbidity by Nephelometry, recommends samples over 40 NTU be diluted until the turbidity falls below 40 units. Routine samples over 40 NTU may not be diluted as long as the data quality objectives are not affected.
8. Alkalinity results analyzed by EPA 310.2 that are reported by dilution are estimated and are not in compliance with method requirements.

Standard Flags/Abbreviations:

- B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- C Results Pending Final Confirmation.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- Fail The result exceeds the regulatory level for Toxicity Characteristic (TCLP) as cited in 40 CFR 261.24 Table 1.
- J The target analyte was positively identified below the reporting limit but greater than the MDL.
- MDL This is the Laboratory Method Detection Limit which is equivalent to the Limit of Detection (LOD). The LOD is an estimate of the minimum amount of a substance that an analytical process can reliably detect. This value will remain constant across multiple similar instrumentation and among different analysts. An LOD is analyte and matrix specific.
- ND Not Detected at or above the reporting limit.
- RL PSS Reporting Limit.
- U Not detected.

Certifications:

NELAP Certifications: PA 68-03330, VA 460156
State Certifications: MD 179, WV 303
Regulated Soil Permit: P330-12-00268
NSWC USCG Accepted Laboratory
LDBE MWAA LD1997-0041-2015

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15050103

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-8	Date/Time Sampled: 04/30/2015 09:35	PSS Sample ID: 15050103-001
Matrix: SOIL	Date/Time Received: 05/01/2015 10:41	% Solids: 76

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	mg/kg	2.3		1	1.1	05/01/15	05/04/15 18:03	1033
Arsenic	1.4	mg/kg	0.45		1	0.23	05/01/15	05/04/15 18:03	1033
Beryllium	ND	mg/kg	2.3		1	1.1	05/01/15	05/05/15 14:09	1033
Cadmium	ND	mg/kg	2.3		1	1.1	05/01/15	05/04/15 18:03	1033
Chromium	46	mg/kg	2.3		1	1.1	05/01/15	05/04/15 18:03	1033
Copper	15	mg/kg	2.3		1	1.1	05/01/15	05/04/15 18:03	1033
Lead	9.2	mg/kg	2.3		1	1.1	05/01/15	05/04/15 18:03	1033
Mercury	ND	mg/kg	0.090		1	0.045	05/01/15	05/05/15 14:09	1033
Nickel	60	mg/kg	2.3		1	1.1	05/01/15	05/04/15 18:03	1033
Selenium	ND	mg/kg	2.3		1	1.1	05/01/15	05/05/15 14:09	1033
Silver	ND	mg/kg	2.3		1	1.1	05/01/15	05/05/15 14:09	1033
Thallium	ND	mg/kg	0.45		1	0.23	05/01/15	05/04/15 18:03	1033
Zinc	44	mg/kg	9.0		1	4.5	05/01/15	05/04/15 18:03	1033

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: SW3550C

DF/HF - No. 2/diesel fuel and heavier fuel/oil patterns observed in sample.

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	42	mg/kg	13	DF	1	5.3	05/06/15	05/08/15 15:51	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/kg	130		1	65	05/01/15	05/01/15 14:59	1035

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15050103

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-8	Date/Time Sampled: 04/30/2015 09:35	PSS Sample ID: 15050103-001
Matrix: SOIL	Date/Time Received: 05/01/2015 10:41	% Solids: 76

Polychlorinated Biphenyls

Analytical Method: SW-846 8082 A

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
PCB-1016	ND	mg/kg	0.066		1	0.066	05/01/15	05/04/15 13:05	1029
PCB-1221	ND	mg/kg	0.066		1	0.066	05/01/15	05/04/15 13:05	1029
PCB-1232	ND	mg/kg	0.066		1	0.066	05/01/15	05/04/15 13:05	1029
PCB-1242	ND	mg/kg	0.066		1	0.066	05/01/15	05/04/15 13:05	1029
PCB-1248	ND	mg/kg	0.066		1	0.066	05/01/15	05/04/15 13:05	1029
PCB-1254	ND	mg/kg	0.066		1	0.066	05/01/15	05/04/15 13:05	1029
PCB-1260	ND	mg/kg	0.066		1	0.066	05/01/15	05/04/15 13:05	1029

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Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-8	Date/Time Sampled: 04/30/2015 09:35	PSS Sample ID: 15050103-001
Matrix: SOIL	Date/Time Received: 05/01/2015 10:41	% Solids: 76

TCL Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Dichlorodifluoromethane	ND	ug/kg	6.4		1	3.2	05/01/15	05/01/15 20:36	1011
Chloromethane	ND	ug/kg	6.4		1	3.2	05/01/15	05/01/15 20:36	1011
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	ug/kg	6.4		1	3.2	05/01/15	05/01/15 20:36	1011
Vinyl Chloride	ND	ug/kg	6.4		1	3.2	05/01/15	05/01/15 20:36	1011
Bromomethane	ND	ug/kg	6.4		1	3.2	05/01/15	05/01/15 20:36	1011
Chloroethane	ND	ug/kg	6.4		1	3.2	05/01/15	05/01/15 20:36	1011
Acetone	ND	ug/kg	25		1	13	05/01/15	05/01/15 20:36	1011
Cyclohexane	ND	ug/kg	25		1	13	05/01/15	05/01/15 20:36	1011
Trichlorofluoromethane	ND	ug/kg	6.4		1	3.2	05/01/15	05/01/15 20:36	1011
1,1-Dichloroethene	ND	ug/kg	6.4		1	3.2	05/01/15	05/01/15 20:36	1011
Methylene Chloride	ND	ug/kg	6.4		1	3.2	05/01/15	05/01/15 20:36	1011
trans-1,2-Dichloroethene	ND	ug/kg	6.4		1	3.2	05/01/15	05/01/15 20:36	1011
Methyl-t-butyl ether	ND	ug/kg	6.4		1	3.2	05/01/15	05/01/15 20:36	1011
1,1-Dichloroethane	ND	ug/kg	6.4		1	3.2	05/01/15	05/01/15 20:36	1011
2-Butanone	ND	ug/kg	25		1	13	05/01/15	05/01/15 20:36	1011
cis-1,2-Dichloroethene	ND	ug/kg	6.4		1	3.2	05/01/15	05/01/15 20:36	1011
Bromochloromethane	ND	ug/kg	6.4		1	3.2	05/01/15	05/01/15 20:36	1011
Chloroform	ND	ug/kg	6.4		1	3.2	05/01/15	05/01/15 20:36	1011
1,1,1-Trichloroethane	ND	ug/kg	6.4		1	3.2	05/01/15	05/01/15 20:36	1011
1,2-Dichloroethane	ND	ug/kg	6.4		1	3.2	05/01/15	05/01/15 20:36	1011
Carbon Tetrachloride	ND	ug/kg	6.4		1	3.2	05/01/15	05/01/15 20:36	1011
Benzene	ND	ug/kg	6.4		1	3.2	05/01/15	05/01/15 20:36	1011
1,2-Dichloropropane	ND	ug/kg	6.4		1	3.2	05/01/15	05/01/15 20:36	1011
Carbon Disulfide	ND	ug/kg	13		1	6.4	05/01/15	05/01/15 20:36	1011
Methylcyclohexane	ND	ug/kg	25		1	13	05/01/15	05/01/15 20:36	1011
Trichloroethene	ND	ug/kg	6.4		1	3.2	05/01/15	05/01/15 20:36	1011
Methyl Acetate	ND	ug/kg	25		1	13	05/01/15	05/01/15 20:36	1011
Bromodichloromethane	ND	ug/kg	6.4		1	3.2	05/01/15	05/01/15 20:36	1011
cis-1,3-Dichloropropene	ND	ug/kg	6.4		1	3.2	05/01/15	05/01/15 20:36	1011
4-Methyl-2-Pentanone	ND	ug/kg	25		1	13	05/01/15	05/01/15 20:36	1011

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15050103

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-8	Date/Time Sampled: 04/30/2015 09:35	PSS Sample ID: 15050103-001
Matrix: SOIL	Date/Time Received: 05/01/2015 10:41	% Solids: 76

TCL Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
trans-1,3-Dichloropropene	ND	ug/kg	6.4		1	3.2	05/01/15	05/01/15 20:36	1011
1,1,2-Trichloroethane	ND	ug/kg	6.4		1	3.2	05/01/15	05/01/15 20:36	1011
Toluene	ND	ug/kg	6.4		1	3.2	05/01/15	05/01/15 20:36	1011
2-Hexanone	ND	ug/kg	25		1	13	05/01/15	05/01/15 20:36	1011
1,2-Dibromoethane	ND	ug/kg	6.4		1	3.2	05/01/15	05/01/15 20:36	1011
Dibromochloromethane	ND	ug/kg	6.4		1	3.2	05/01/15	05/01/15 20:36	1011
Bromoform	ND	ug/kg	6.4		1	3.2	05/01/15	05/01/15 20:36	1011
Tetrachloroethene	ND	ug/kg	6.4		1	3.2	05/01/15	05/01/15 20:36	1011
Chlorobenzene	ND	ug/kg	6.4		1	3.2	05/01/15	05/01/15 20:36	1011
Ethylbenzene	ND	ug/kg	6.4		1	3.2	05/01/15	05/01/15 20:36	1011
m,p-Xylenes	ND	ug/kg	13		1	6.4	05/01/15	05/01/15 20:36	1011
Styrene	ND	ug/kg	6.4		1	3.2	05/01/15	05/01/15 20:36	1011
1,1,2,2-Tetrachloroethane	ND	ug/kg	6.4		1	3.2	05/01/15	05/01/15 20:36	1011
o-Xylene	ND	ug/kg	6.4		1	3.2	05/01/15	05/01/15 20:36	1011
Isopropylbenzene	ND	ug/kg	6.4		1	3.2	05/01/15	05/01/15 20:36	1011
1,3-Dichlorobenzene	ND	ug/kg	6.4		1	3.2	05/01/15	05/01/15 20:36	1011
1,4-Dichlorobenzene	ND	ug/kg	6.4		1	3.2	05/01/15	05/01/15 20:36	1011
1,2-Dichlorobenzene	ND	ug/kg	6.4		1	3.2	05/01/15	05/01/15 20:36	1011
1,2-Dibromo-3-Chloropropane	ND	ug/kg	51		1	25	05/01/15	05/01/15 20:36	1011
1,2,4-Trichlorobenzene	ND	ug/kg	6.4		1	3.2	05/01/15	05/01/15 20:36	1011
1,2,3-Trichlorobenzene	ND	ug/kg	6.4		1	3.2	05/01/15	05/01/15 20:36	1011

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May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-8	Date/Time Sampled: 04/30/2015 09:35	PSS Sample ID: 15050103-001
Matrix: SOIL	Date/Time Received: 05/01/2015 10:41	% Solids: 76

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/kg	44		10	44	05/05/15	05/10/15 00:42	1055
Acenaphthylene	ND	ug/kg	44		10	44	05/05/15	05/10/15 00:42	1055
Anthracene	ND	ug/kg	44		10	44	05/05/15	05/10/15 00:42	1055
Benzo(a)anthracene	ND	ug/kg	44		10	44	05/05/15	05/10/15 00:42	1055
Benzo(a)pyrene	ND	ug/kg	44		10	44	05/05/15	05/10/15 00:42	1055
Benzo(b)fluoranthene	110	ug/kg	44		10	44	05/05/15	05/10/15 00:42	1055
Benzo(g,h,i)perylene	ND	ug/kg	44		10	44	05/05/15	05/10/15 00:42	1055
Benzo(k)fluoranthene	ND	ug/kg	44		10	44	05/05/15	05/10/15 00:42	1055
Chrysene	ND	ug/kg	44		10	44	05/05/15	05/10/15 00:42	1055
Dibenz(a,h)Anthracene	ND	ug/kg	44		10	44	05/05/15	05/10/15 00:42	1055
Fluoranthene	57	ug/kg	44		10	44	05/05/15	05/10/15 00:42	1055
Fluorene	ND	ug/kg	44		10	44	05/05/15	05/10/15 00:42	1055
Indeno(1,2,3-c,d)Pyrene	230	ug/kg	44		10	44	05/05/15	05/10/15 00:42	1055
2-Methylnaphthalene	ND	ug/kg	44		10	44	05/05/15	05/10/15 00:42	1055
Naphthalene	ND	ug/kg	44		10	44	05/05/15	05/10/15 00:42	1055
Phenanthrene	ND	ug/kg	44		10	44	05/05/15	05/10/15 00:42	1055
Pyrene	48	ug/kg	44		10	44	05/05/15	05/10/15 00:42	1055

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May 11, 2015

Project Name: Percontee

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Sample ID: S-8	Date/Time Sampled: 04/30/2015 09:35	PSS Sample ID: 15050103-001
Matrix: SOIL	Date/Time Received: 05/01/2015 10:41	% Solids: 76

TCL Semivolatile Organic Compounds w/o PAHs Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acetophenone	ND	ug/kg	220		1	110	05/04/15	05/08/15 10:22	1055
Biphenyl (Diphenyl)	ND	ug/kg	220		1	110	05/04/15	05/08/15 10:22	1055
Butyl benzyl phthalate	ND	ug/kg	220		1	110	05/04/15	05/08/15 10:22	1055
bis(2-chloroethoxy) methane	ND	ug/kg	220		1	110	05/04/15	05/08/15 10:22	1055
bis(2-chloroethyl) ether	ND	ug/kg	220		1	110	05/04/15	05/08/15 10:22	1055
bis(2-chloroisopropyl) ether	ND	ug/kg	220		1	110	05/04/15	05/08/15 10:22	1055
bis(2-ethylhexyl) phthalate	ND	ug/kg	220		1	110	05/04/15	05/08/15 10:22	1055
4-Bromophenylphenyl ether	ND	ug/kg	220		1	110	05/04/15	05/08/15 10:22	1055
Di-n-butyl phthalate	ND	ug/kg	220		1	110	05/04/15	05/08/15 10:22	1055
Carbazole	ND	ug/kg	220		1	110	05/04/15	05/08/15 10:22	1055
4-Chloro-3-methylphenol	ND	ug/kg	220		1	110	05/04/15	05/08/15 10:22	1055
4-Chloroaniline	ND	ug/kg	220		1	220	05/04/15	05/08/15 10:22	1055
2-Chloronaphthalene	ND	ug/kg	220		1	110	05/04/15	05/08/15 10:22	1055
2-Chlorophenol	ND	ug/kg	220		1	110	05/04/15	05/08/15 10:22	1055
4-Chlorophenyl phenyl ether	ND	ug/kg	220		1	110	05/04/15	05/08/15 10:22	1055
Dibenzofuran	ND	ug/kg	220		1	110	05/04/15	05/08/15 10:22	1055
3,3-Dichlorobenzidine	ND	ug/kg	220		1	110	05/04/15	05/08/15 10:22	1055
2,4-Dichlorophenol	ND	ug/kg	220		1	110	05/04/15	05/08/15 10:22	1055
Diethyl phthalate	ND	ug/kg	220		1	110	05/04/15	05/08/15 10:22	1055
Dimethyl phthalate	ND	ug/kg	220		1	110	05/04/15	05/08/15 10:22	1055
2,4-Dimethylphenol	ND	ug/kg	220		1	110	05/04/15	05/08/15 10:22	1055
4,6-Dinitro-2-methyl phenol	ND	ug/kg	220		1	110	05/04/15	05/08/15 10:22	1055
2,4-Dinitrophenol	ND	ug/kg	440		1	220	05/04/15	05/08/15 10:22	1055
2,4-Dinitrotoluene	ND	ug/kg	220		1	110	05/04/15	05/08/15 10:22	1055
2,6-Dinitrotoluene	ND	ug/kg	220		1	110	05/04/15	05/08/15 10:22	1055
Hexachlorobenzene	ND	ug/kg	220		1	110	05/04/15	05/08/15 10:22	1055
Hexachlorobutadiene	ND	ug/kg	220		1	110	05/04/15	05/08/15 10:22	1055
Hexachlorocyclopentadiene	ND	ug/kg	220		1	110	05/04/15	05/08/15 10:22	1055
Hexachloroethane	ND	ug/kg	220		1	110	05/04/15	05/08/15 10:22	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15050103

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-8	Date/Time Sampled: 04/30/2015 09:35	PSS Sample ID: 15050103-001
Matrix: SOIL	Date/Time Received: 05/01/2015 10:41	% Solids: 76

TCL Semivolatile Organic Compounds w/o PAHs Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Isophorone	ND	ug/kg	220		1	110	05/04/15	05/08/15 10:22	1055
2-Methylphenol	ND	ug/kg	220		1	110	05/04/15	05/08/15 10:22	1055
3&4-Methylphenol	ND	ug/kg	220		1	110	05/04/15	05/08/15 10:22	1055
4-Nitroaniline	ND	ug/kg	220		1	220	05/04/15	05/08/15 10:22	1055
3-Nitroaniline	ND	ug/kg	220		1	110	05/04/15	05/08/15 10:22	1055
2-Nitroaniline	ND	ug/kg	220		1	110	05/04/15	05/08/15 10:22	1055
Nitrobenzene	ND	ug/kg	220		1	110	05/04/15	05/08/15 10:22	1055
2-Nitrophenol	ND	ug/kg	220		1	110	05/04/15	05/08/15 10:22	1055
4-Nitrophenol	ND	ug/kg	220		1	110	05/04/15	05/08/15 10:22	1055
N-Nitrosodi-n-Propylamine	ND	ug/kg	87		1	87	05/04/15	05/08/15 10:22	1055
N-Nitrosodiphenylamine	ND	ug/kg	220		1	110	05/04/15	05/08/15 10:22	1055
Di-n-octyl phthalate	ND	ug/kg	220		1	220	05/04/15	05/08/15 10:22	1055
Pentachlorophenol	ND	ug/kg	220		1	220	05/04/15	05/08/15 10:22	1055
Phenol	ND	ug/kg	220		1	110	05/04/15	05/08/15 10:22	1055
Atrazine	ND	ug/kg	220		1	110	05/04/15	05/08/15 10:22	1055
Pyridine	ND	ug/kg	220		1	110	05/04/15	05/08/15 10:22	1055
Caprolactam	ND	ug/kg	220		1	110	05/04/15	05/08/15 10:22	1055
2,4,6-Trichlorophenol	ND	ug/kg	220		1	110	05/04/15	05/08/15 10:22	1055
2,4,5-Trichlorophenol	ND	ug/kg	220		1	110	05/04/15	05/08/15 10:22	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15050103

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-7	Date/Time Sampled: 04/30/2015 09:55	PSS Sample ID: 15050103-002
Matrix: SOIL	Date/Time Received: 05/01/2015 10:41	% Solids: 64

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	mg/kg	3.3		1	1.6	05/01/15	05/04/15 18:09	1033
Arsenic	3.3	mg/kg	0.66		1	0.33	05/01/15	05/04/15 18:09	1033
Beryllium	ND	mg/kg	3.3		1	1.6	05/01/15	05/05/15 14:15	1033
Cadmium	ND	mg/kg	3.3		1	1.6	05/01/15	05/04/15 18:09	1033
Chromium	31	mg/kg	3.3		1	1.6	05/01/15	05/04/15 18:09	1033
Copper	17	mg/kg	3.3		1	1.6	05/01/15	05/04/15 18:09	1033
Lead	24	mg/kg	3.3		1	1.6	05/01/15	05/04/15 18:09	1033
Mercury	0.069	mg/kg	0.13	J	1	0.066	05/01/15	05/05/15 14:15	1033
Nickel	23	mg/kg	3.3		1	1.6	05/01/15	05/04/15 18:09	1033
Selenium	ND	mg/kg	3.3		1	1.6	05/01/15	05/05/15 14:15	1033
Silver	ND	mg/kg	3.3		1	1.6	05/01/15	05/05/15 14:15	1033
Thallium	ND	mg/kg	0.66		1	0.33	05/01/15	05/04/15 18:09	1033
Zinc	45	mg/kg	13		1	6.6	05/01/15	05/04/15 18:09	1033

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	ND	mg/kg	16		1	6.3	05/06/15	05/08/15 14:18	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/kg	150		1	76	05/01/15	05/01/15 15:27	1035

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15050103

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-7	Date/Time Sampled: 04/30/2015 09:55	PSS Sample ID: 15050103-002
Matrix: SOIL	Date/Time Received: 05/01/2015 10:41	% Solids: 64

Polychlorinated Biphenyls

Analytical Method: SW-846 8082 A

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
PCB-1016	ND	mg/kg	0.075		1	0.075	05/01/15	05/04/15 13:34	1029
PCB-1221	ND	mg/kg	0.075		1	0.075	05/01/15	05/04/15 13:34	1029
PCB-1232	ND	mg/kg	0.075		1	0.075	05/01/15	05/04/15 13:34	1029
PCB-1242	ND	mg/kg	0.075		1	0.075	05/01/15	05/04/15 13:34	1029
PCB-1248	ND	mg/kg	0.075		1	0.075	05/01/15	05/04/15 13:34	1029
PCB-1254	ND	mg/kg	0.075		1	0.075	05/01/15	05/04/15 13:34	1029
PCB-1260	ND	mg/kg	0.075		1	0.075	05/01/15	05/04/15 13:34	1029

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CERTIFICATE OF ANALYSIS

No: 15050103

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-7	Date/Time Sampled: 04/30/2015 09:55	PSS Sample ID: 15050103-002
Matrix: SOIL	Date/Time Received: 05/01/2015 10:41	% Solids: 64

TCL Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Dichlorodifluoromethane	ND	ug/kg	7.7		1	3.8	05/02/15	05/02/15 12:32	1011
Chloromethane	ND	ug/kg	7.7		1	3.8	05/02/15	05/02/15 12:32	1011
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	ug/kg	7.7		1	3.8	05/02/15	05/02/15 12:32	1011
Vinyl Chloride	ND	ug/kg	7.7		1	3.8	05/02/15	05/02/15 12:32	1011
Bromomethane	ND	ug/kg	7.7		1	3.8	05/02/15	05/02/15 12:32	1011
Chloroethane	ND	ug/kg	7.7		1	3.8	05/02/15	05/02/15 12:32	1011
Acetone	ND	ug/kg	31		1	15	05/02/15	05/02/15 12:32	1011
Cyclohexane	ND	ug/kg	31		1	15	05/02/15	05/02/15 12:32	1011
Trichlorofluoromethane	ND	ug/kg	7.7		1	3.8	05/02/15	05/02/15 12:32	1011
1,1-Dichloroethene	ND	ug/kg	7.7		1	3.8	05/02/15	05/02/15 12:32	1011
Methylene Chloride	ND	ug/kg	7.7		1	3.8	05/02/15	05/02/15 12:32	1011
trans-1,2-Dichloroethene	ND	ug/kg	7.7		1	3.8	05/02/15	05/02/15 12:32	1011
Methyl-t-butyl ether	ND	ug/kg	7.7		1	3.8	05/02/15	05/02/15 12:32	1011
1,1-Dichloroethane	ND	ug/kg	7.7		1	3.8	05/02/15	05/02/15 12:32	1011
2-Butanone	ND	ug/kg	31		1	15	05/02/15	05/02/15 12:32	1011
cis-1,2-Dichloroethene	ND	ug/kg	7.7		1	3.8	05/02/15	05/02/15 12:32	1011
Bromochloromethane	ND	ug/kg	7.7		1	3.8	05/02/15	05/02/15 12:32	1011
Chloroform	ND	ug/kg	7.7		1	3.8	05/02/15	05/02/15 12:32	1011
1,1,1-Trichloroethane	ND	ug/kg	7.7		1	3.8	05/02/15	05/02/15 12:32	1011
1,2-Dichloroethane	ND	ug/kg	7.7		1	3.8	05/02/15	05/02/15 12:32	1011
Carbon Tetrachloride	ND	ug/kg	7.7		1	3.8	05/02/15	05/02/15 12:32	1011
Benzene	ND	ug/kg	7.7		1	3.8	05/02/15	05/02/15 12:32	1011
1,2-Dichloropropane	ND	ug/kg	7.7		1	3.8	05/02/15	05/02/15 12:32	1011
Carbon Disulfide	ND	ug/kg	15		1	7.7	05/02/15	05/02/15 12:32	1011
Methylcyclohexane	ND	ug/kg	31		1	15	05/02/15	05/02/15 12:32	1011
Trichloroethene	ND	ug/kg	7.7		1	3.8	05/02/15	05/02/15 12:32	1011
Methyl Acetate	ND	ug/kg	31		1	15	05/02/15	05/02/15 12:32	1011
Bromodichloromethane	ND	ug/kg	7.7		1	3.8	05/02/15	05/02/15 12:32	1011
cis-1,3-Dichloropropene	ND	ug/kg	7.7		1	3.8	05/02/15	05/02/15 12:32	1011
4-Methyl-2-Pentanone	ND	ug/kg	31		1	15	05/02/15	05/02/15 12:32	1011

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15050103

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-7	Date/Time Sampled: 04/30/2015 09:55	PSS Sample ID: 15050103-002
Matrix: SOIL	Date/Time Received: 05/01/2015 10:41	% Solids: 64

TCL Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
trans-1,3-Dichloropropene	ND	ug/kg	7.7		1	3.8	05/02/15	05/02/15 12:32	1011
1,1,2-Trichloroethane	ND	ug/kg	7.7		1	3.8	05/02/15	05/02/15 12:32	1011
Toluene	ND	ug/kg	7.7		1	3.8	05/02/15	05/02/15 12:32	1011
2-Hexanone	ND	ug/kg	31		1	15	05/02/15	05/02/15 12:32	1011
1,2-Dibromoethane	ND	ug/kg	7.7		1	3.8	05/02/15	05/02/15 12:32	1011
Dibromochloromethane	ND	ug/kg	7.7		1	3.8	05/02/15	05/02/15 12:32	1011
Bromoform	ND	ug/kg	7.7		1	3.8	05/02/15	05/02/15 12:32	1011
Tetrachloroethene	ND	ug/kg	7.7		1	3.8	05/02/15	05/02/15 12:32	1011
Chlorobenzene	ND	ug/kg	7.7		1	3.8	05/02/15	05/02/15 12:32	1011
Ethylbenzene	ND	ug/kg	7.7		1	3.8	05/02/15	05/02/15 12:32	1011
m,p-Xylenes	ND	ug/kg	15		1	7.7	05/02/15	05/02/15 12:32	1011
Styrene	ND	ug/kg	7.7		1	3.8	05/02/15	05/02/15 12:32	1011
1,1,2,2-Tetrachloroethane	ND	ug/kg	7.7		1	3.8	05/02/15	05/02/15 12:32	1011
o-Xylene	ND	ug/kg	7.7		1	3.8	05/02/15	05/02/15 12:32	1011
Isopropylbenzene	ND	ug/kg	7.7		1	3.8	05/02/15	05/02/15 12:32	1011
1,3-Dichlorobenzene	ND	ug/kg	7.7		1	3.8	05/02/15	05/02/15 12:32	1011
1,4-Dichlorobenzene	ND	ug/kg	7.7		1	3.8	05/02/15	05/02/15 12:32	1011
1,2-Dichlorobenzene	ND	ug/kg	7.7		1	3.8	05/02/15	05/02/15 12:32	1011
1,2-Dibromo-3-Chloropropane	ND	ug/kg	61		1	31	05/02/15	05/02/15 12:32	1011
1,2,4-Trichlorobenzene	ND	ug/kg	7.7		1	3.8	05/02/15	05/02/15 12:32	1011
1,2,3-Trichlorobenzene	ND	ug/kg	7.7		1	3.8	05/02/15	05/02/15 12:32	1011

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15050103

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-7	Date/Time Sampled: 04/30/2015 09:55	PSS Sample ID: 15050103-002
Matrix: SOIL	Date/Time Received: 05/01/2015 10:41	% Solids: 64

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/kg	5.2		1	5.2	05/05/15	05/09/15 20:14	1055
Acenaphthylene	ND	ug/kg	5.2		1	5.2	05/05/15	05/09/15 20:14	1055
Anthracene	ND	ug/kg	5.2		1	5.2	05/05/15	05/09/15 20:14	1055
Benzo(a)anthracene	ND	ug/kg	5.2		1	5.2	05/05/15	05/09/15 20:14	1055
Benzo(a)pyrene	ND	ug/kg	5.2		1	5.2	05/05/15	05/09/15 20:14	1055
Benzo(b)fluoranthene	ND	ug/kg	5.2		1	5.2	05/05/15	05/09/15 20:14	1055
Benzo(g,h,i)perylene	ND	ug/kg	5.2		1	5.2	05/05/15	05/09/15 20:14	1055
Benzo(k)fluoranthene	ND	ug/kg	5.2		1	5.2	05/05/15	05/09/15 20:14	1055
Chrysene	ND	ug/kg	5.2		1	5.2	05/05/15	05/09/15 20:14	1055
Dibenz(a,h)Anthracene	ND	ug/kg	5.2		1	5.2	05/05/15	05/09/15 20:14	1055
Fluoranthene	5.2	ug/kg	5.2	J	1	5.2	05/05/15	05/09/15 20:14	1055
Fluorene	ND	ug/kg	5.2		1	5.2	05/05/15	05/09/15 20:14	1055
Indeno(1,2,3-c,d)Pyrene	12	ug/kg	5.2		1	5.2	05/05/15	05/09/15 20:14	1055
2-Methylnaphthalene	ND	ug/kg	5.2		1	5.2	05/05/15	05/09/15 20:14	1055
Naphthalene	ND	ug/kg	5.2		1	5.2	05/05/15	05/09/15 20:14	1055
Phenanthrene	ND	ug/kg	5.2		1	5.2	05/05/15	05/09/15 20:14	1055
Pyrene	ND	ug/kg	5.2		1	5.2	05/05/15	05/09/15 20:14	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15050103

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-7	Date/Time Sampled: 04/30/2015 09:55	PSS Sample ID: 15050103-002
Matrix: SOIL	Date/Time Received: 05/01/2015 10:41	% Solids: 64

TCL Semivolatile Organic Compounds w/o PAHs Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acetophenone	ND	ug/kg	260		1	130	05/04/15	05/07/15 22:10	1055
Biphenyl (Diphenyl)	ND	ug/kg	260		1	130	05/04/15	05/07/15 22:10	1055
Butyl benzyl phthalate	ND	ug/kg	260		1	130	05/04/15	05/07/15 22:10	1055
bis(2-chloroethoxy) methane	ND	ug/kg	260		1	130	05/04/15	05/07/15 22:10	1055
bis(2-chloroethyl) ether	ND	ug/kg	260		1	130	05/04/15	05/07/15 22:10	1055
bis(2-chloroisopropyl) ether	ND	ug/kg	260		1	130	05/04/15	05/07/15 22:10	1055
bis(2-ethylhexyl) phthalate	ND	ug/kg	260		1	130	05/04/15	05/07/15 22:10	1055
4-Bromophenylphenyl ether	ND	ug/kg	260		1	130	05/04/15	05/07/15 22:10	1055
Di-n-butyl phthalate	ND	ug/kg	260		1	130	05/04/15	05/07/15 22:10	1055
Carbazole	ND	ug/kg	260		1	130	05/04/15	05/07/15 22:10	1055
4-Chloro-3-methylphenol	ND	ug/kg	260		1	130	05/04/15	05/07/15 22:10	1055
4-Chloroaniline	ND	ug/kg	260		1	260	05/04/15	05/07/15 22:10	1055
2-Chloronaphthalene	ND	ug/kg	260		1	130	05/04/15	05/07/15 22:10	1055
2-Chlorophenol	ND	ug/kg	260		1	130	05/04/15	05/07/15 22:10	1055
4-Chlorophenyl phenyl ether	ND	ug/kg	260		1	130	05/04/15	05/07/15 22:10	1055
Dibenzofuran	ND	ug/kg	260		1	130	05/04/15	05/07/15 22:10	1055
3,3-Dichlorobenzidine	ND	ug/kg	260		1	130	05/04/15	05/07/15 22:10	1055
2,4-Dichlorophenol	ND	ug/kg	260		1	130	05/04/15	05/07/15 22:10	1055
Diethyl phthalate	ND	ug/kg	260		1	130	05/04/15	05/07/15 22:10	1055
Dimethyl phthalate	ND	ug/kg	260		1	130	05/04/15	05/07/15 22:10	1055
2,4-Dimethylphenol	ND	ug/kg	260		1	130	05/04/15	05/07/15 22:10	1055
4,6-Dinitro-2-methyl phenol	ND	ug/kg	260		1	130	05/04/15	05/07/15 22:10	1055
2,4-Dinitrophenol	ND	ug/kg	520		1	260	05/04/15	05/07/15 22:10	1055
2,4-Dinitrotoluene	ND	ug/kg	260		1	130	05/04/15	05/07/15 22:10	1055
2,6-Dinitrotoluene	ND	ug/kg	260		1	130	05/04/15	05/07/15 22:10	1055
Hexachlorobenzene	ND	ug/kg	260		1	130	05/04/15	05/07/15 22:10	1055
Hexachlorobutadiene	ND	ug/kg	260		1	130	05/04/15	05/07/15 22:10	1055
Hexachlorocyclopentadiene	ND	ug/kg	260		1	130	05/04/15	05/07/15 22:10	1055
Hexachloroethane	ND	ug/kg	260		1	130	05/04/15	05/07/15 22:10	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15050103

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-7 **Date/Time Sampled: 04/30/2015 09:55** **PSS Sample ID: 15050103-002**
Matrix: SOIL **Date/Time Received: 05/01/2015 10:41** **% Solids: 64**

TCL Semivolatile Organic Compounds w/o PAHs Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Isophorone	ND	ug/kg	260		1	130	05/04/15	05/07/15 22:10	1055
2-Methylphenol	ND	ug/kg	260		1	130	05/04/15	05/07/15 22:10	1055
3&4-Methylphenol	ND	ug/kg	260		1	130	05/04/15	05/07/15 22:10	1055
4-Nitroaniline	ND	ug/kg	260		1	260	05/04/15	05/07/15 22:10	1055
3-Nitroaniline	ND	ug/kg	260		1	130	05/04/15	05/07/15 22:10	1055
2-Nitroaniline	ND	ug/kg	260		1	130	05/04/15	05/07/15 22:10	1055
Nitrobenzene	ND	ug/kg	260		1	130	05/04/15	05/07/15 22:10	1055
2-Nitrophenol	ND	ug/kg	260		1	130	05/04/15	05/07/15 22:10	1055
4-Nitrophenol	ND	ug/kg	260		1	130	05/04/15	05/07/15 22:10	1055
N-Nitrosodi-n-Propylamine	ND	ug/kg	100		1	100	05/04/15	05/07/15 22:10	1055
N-Nitrosodiphenylamine	ND	ug/kg	260		1	130	05/04/15	05/07/15 22:10	1055
Di-n-octyl phthalate	ND	ug/kg	260		1	260	05/04/15	05/07/15 22:10	1055
Pentachlorophenol	ND	ug/kg	260		1	260	05/04/15	05/07/15 22:10	1055
Phenol	ND	ug/kg	260		1	130	05/04/15	05/07/15 22:10	1055
Atrazine	ND	ug/kg	260		1	130	05/04/15	05/07/15 22:10	1055
Pyridine	ND	ug/kg	260		1	130	05/04/15	05/07/15 22:10	1055
Caprolactam	ND	ug/kg	260		1	130	05/04/15	05/07/15 22:10	1055
2,4,6-Trichlorophenol	ND	ug/kg	260		1	130	05/04/15	05/07/15 22:10	1055
2,4,5-Trichlorophenol	ND	ug/kg	260		1	130	05/04/15	05/07/15 22:10	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15050103

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-4	Date/Time Sampled: 04/30/2015 10:30	PSS Sample ID: 15050103-003
Matrix: SOIL	Date/Time Received: 05/01/2015 10:41	% Solids: 76

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	mg/kg	2.4		1	1.2	05/01/15	05/04/15 18:15	1033
Arsenic	2.1	mg/kg	0.48		1	0.24	05/01/15	05/04/15 18:15	1033
Beryllium	ND	mg/kg	2.4		1	1.2	05/01/15	05/05/15 14:21	1033
Cadmium	ND	mg/kg	2.4		1	1.2	05/01/15	05/04/15 18:15	1033
Chromium	59	mg/kg	2.4		1	1.2	05/01/15	05/04/15 18:15	1033
Copper	17	mg/kg	2.4		1	1.2	05/01/15	05/04/15 18:15	1033
Lead	11	mg/kg	2.4		1	1.2	05/01/15	05/04/15 18:15	1033
Mercury	ND	mg/kg	0.095		1	0.048	05/01/15	05/05/15 14:21	1033
Nickel	58	mg/kg	2.4		1	1.2	05/01/15	05/04/15 18:15	1033
Selenium	ND	mg/kg	2.4		1	1.2	05/01/15	05/05/15 14:21	1033
Silver	ND	mg/kg	2.4		1	1.2	05/01/15	05/05/15 14:21	1033
Thallium	ND	mg/kg	0.48		1	0.24	05/01/15	05/04/15 18:15	1033
Zinc	33	mg/kg	9.5		1	4.8	05/01/15	05/04/15 18:15	1033

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	160	mg/kg	130		10	52	05/06/15	05/08/15 16:52	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/kg	130		1	65	05/01/15	05/01/15 15:57	1035

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Polychlorinated Biphenyls

Analytical Method: SW-846 8082 A

Preparation Method: SW3550C

		Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
PCB-1016		ND	mg/kg	0.066		1	0.066	05/01/15	05/04/15 14:03	1029
PCB-1221		ND	mg/kg	0.066		1	0.066	05/01/15	05/04/15 14:03	1029
PCB-1232		ND	mg/kg	0.066		1	0.066	05/01/15	05/04/15 14:03	1029
PCB-1242		ND	mg/kg	0.066		1	0.066	05/01/15	05/04/15 14:03	1029
PCB-1248		ND	mg/kg	0.066		1	0.066	05/01/15	05/04/15 14:03	1029
PCB-1254		ND	mg/kg	0.066		1	0.066	05/01/15	05/04/15 14:03	1029
PCB-1260		ND	mg/kg	0.066		1	0.066	05/01/15	05/04/15 14:03	1029

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Matrix: SOIL	Date/Time Received: 05/01/2015 10:41	% Solids: 76

TCL Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Dichlorodifluoromethane	ND	ug/kg	6.9		1	3.4	05/02/15	05/02/15 15:00	1011
Chloromethane	ND	ug/kg	6.9		1	3.4	05/02/15	05/02/15 15:00	1011
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	ug/kg	6.9		1	3.4	05/02/15	05/02/15 15:00	1011
Vinyl Chloride	ND	ug/kg	6.9		1	3.4	05/02/15	05/02/15 15:00	1011
Bromomethane	ND	ug/kg	6.9		1	3.4	05/02/15	05/02/15 15:00	1011
Chloroethane	ND	ug/kg	6.9		1	3.4	05/02/15	05/02/15 15:00	1011
Acetone	43	ug/kg	27		1	14	05/02/15	05/02/15 15:00	1011
Cyclohexane	ND	ug/kg	27		1	14	05/02/15	05/02/15 15:00	1011
Trichlorofluoromethane	ND	ug/kg	6.9		1	3.4	05/02/15	05/02/15 15:00	1011
1,1-Dichloroethene	ND	ug/kg	6.9		1	3.4	05/02/15	05/02/15 15:00	1011
Methylene Chloride	ND	ug/kg	6.9		1	3.4	05/02/15	05/02/15 15:00	1011
trans-1,2-Dichloroethene	ND	ug/kg	6.9		1	3.4	05/02/15	05/02/15 15:00	1011
Methyl-t-butyl ether	ND	ug/kg	6.9		1	3.4	05/02/15	05/02/15 15:00	1011
1,1-Dichloroethane	ND	ug/kg	6.9		1	3.4	05/02/15	05/02/15 15:00	1011
2-Butanone	ND	ug/kg	27		1	14	05/02/15	05/02/15 15:00	1011
cis-1,2-Dichloroethene	ND	ug/kg	6.9		1	3.4	05/02/15	05/02/15 15:00	1011
Bromochloromethane	ND	ug/kg	6.9		1	3.4	05/02/15	05/02/15 15:00	1011
Chloroform	ND	ug/kg	6.9		1	3.4	05/02/15	05/02/15 15:00	1011
1,1,1-Trichloroethane	ND	ug/kg	6.9		1	3.4	05/02/15	05/02/15 15:00	1011
1,2-Dichloroethane	ND	ug/kg	6.9		1	3.4	05/02/15	05/02/15 15:00	1011
Carbon Tetrachloride	ND	ug/kg	6.9		1	3.4	05/02/15	05/02/15 15:00	1011
Benzene	ND	ug/kg	6.9		1	3.4	05/02/15	05/02/15 15:00	1011
1,2-Dichloropropane	ND	ug/kg	6.9		1	3.4	05/02/15	05/02/15 15:00	1011
Carbon Disulfide	ND	ug/kg	14		1	6.9	05/02/15	05/02/15 15:00	1011
Methylcyclohexane	ND	ug/kg	27		1	14	05/02/15	05/02/15 15:00	1011
Trichloroethene	ND	ug/kg	6.9		1	3.4	05/02/15	05/02/15 15:00	1011
Methyl Acetate	ND	ug/kg	27		1	14	05/02/15	05/02/15 15:00	1011
Bromodichloromethane	ND	ug/kg	6.9		1	3.4	05/02/15	05/02/15 15:00	1011
cis-1,3-Dichloropropene	ND	ug/kg	6.9		1	3.4	05/02/15	05/02/15 15:00	1011
4-Methyl-2-Pentanone	ND	ug/kg	27		1	14	05/02/15	05/02/15 15:00	1011

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CERTIFICATE OF ANALYSIS

No: 15050103

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-4	Date/Time Sampled: 04/30/2015 10:30	PSS Sample ID: 15050103-003
Matrix: SOIL	Date/Time Received: 05/01/2015 10:41	% Solids: 76

TCL Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
trans-1,3-Dichloropropene	ND	ug/kg	6.9		1	3.4	05/02/15	05/02/15 15:00	1011
1,1,2-Trichloroethane	ND	ug/kg	6.9		1	3.4	05/02/15	05/02/15 15:00	1011
Toluene	ND	ug/kg	6.9		1	3.4	05/02/15	05/02/15 15:00	1011
2-Hexanone	ND	ug/kg	27		1	14	05/02/15	05/02/15 15:00	1011
1,2-Dibromoethane	ND	ug/kg	6.9		1	3.4	05/02/15	05/02/15 15:00	1011
Dibromochloromethane	ND	ug/kg	6.9		1	3.4	05/02/15	05/02/15 15:00	1011
Bromoform	ND	ug/kg	6.9		1	3.4	05/02/15	05/02/15 15:00	1011
Tetrachloroethene	ND	ug/kg	6.9		1	3.4	05/02/15	05/02/15 15:00	1011
Chlorobenzene	ND	ug/kg	6.9		1	3.4	05/02/15	05/02/15 15:00	1011
Ethylbenzene	ND	ug/kg	6.9		1	3.4	05/02/15	05/02/15 15:00	1011
m,p-Xylenes	ND	ug/kg	14		1	6.9	05/02/15	05/02/15 15:00	1011
Styrene	ND	ug/kg	6.9		1	3.4	05/02/15	05/02/15 15:00	1011
1,1,2,2-Tetrachloroethane	ND	ug/kg	6.9		1	3.4	05/02/15	05/02/15 15:00	1011
o-Xylene	ND	ug/kg	6.9		1	3.4	05/02/15	05/02/15 15:00	1011
Isopropylbenzene	ND	ug/kg	6.9		1	3.4	05/02/15	05/02/15 15:00	1011
1,3-Dichlorobenzene	ND	ug/kg	6.9		1	3.4	05/02/15	05/02/15 15:00	1011
1,4-Dichlorobenzene	ND	ug/kg	6.9		1	3.4	05/02/15	05/02/15 15:00	1011
1,2-Dichlorobenzene	ND	ug/kg	6.9		1	3.4	05/02/15	05/02/15 15:00	1011
1,2-Dibromo-3-Chloropropane	ND	ug/kg	55		1	27	05/02/15	05/02/15 15:00	1011
1,2,4-Trichlorobenzene	ND	ug/kg	6.9		1	3.4	05/02/15	05/02/15 15:00	1011
1,2,3-Trichlorobenzene	ND	ug/kg	6.9		1	3.4	05/02/15	05/02/15 15:00	1011

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Arc Environmental, Baltimore, MD

May 11, 2015

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Project Location: Silver Spring, MD

Sample ID: S-4	Date/Time Sampled: 04/30/2015 10:30	PSS Sample ID: 15050103-003
Matrix: SOIL	Date/Time Received: 05/01/2015 10:41	% Solids: 76

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/kg	44		10	44	05/05/15	05/10/15 01:12	1055
Acenaphthylene	ND	ug/kg	44		10	44	05/05/15	05/10/15 01:12	1055
Anthracene	ND	ug/kg	44		10	44	05/05/15	05/10/15 01:12	1055
Benzo(a)anthracene	ND	ug/kg	44		10	44	05/05/15	05/10/15 01:12	1055
Benzo(a)pyrene	ND	ug/kg	44		10	44	05/05/15	05/10/15 01:12	1055
Benzo(b)fluoranthene	83	ug/kg	44		10	44	05/05/15	05/10/15 01:12	1055
Benzo(g,h,i)perylene	ND	ug/kg	44		10	44	05/05/15	05/10/15 01:12	1055
Benzo(k)fluoranthene	ND	ug/kg	44		10	44	05/05/15	05/10/15 01:12	1055
Chrysene	ND	ug/kg	44		10	44	05/05/15	05/10/15 01:12	1055
Dibenz(a,h)Anthracene	ND	ug/kg	44		10	44	05/05/15	05/10/15 01:12	1055
Fluoranthene	66	ug/kg	44		10	44	05/05/15	05/10/15 01:12	1055
Fluorene	ND	ug/kg	44		10	44	05/05/15	05/10/15 01:12	1055
Indeno(1,2,3-c,d)Pyrene	140	ug/kg	44		10	44	05/05/15	05/10/15 01:12	1055
2-Methylnaphthalene	ND	ug/kg	44		10	44	05/05/15	05/10/15 01:12	1055
Naphthalene	ND	ug/kg	44		10	44	05/05/15	05/10/15 01:12	1055
Phenanthrene	ND	ug/kg	44		10	44	05/05/15	05/10/15 01:12	1055
Pyrene	61	ug/kg	44		10	44	05/05/15	05/10/15 01:12	1055

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TCL Semivolatile Organic Compounds w/o PAHs Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acetophenone	ND	ug/kg	2,200		10	1,100	05/04/15	05/08/15 07:24	1055
Biphenyl (Diphenyl)	ND	ug/kg	2,200		10	1,100	05/04/15	05/08/15 07:24	1055
Butyl benzyl phthalate	ND	ug/kg	2,200		10	1,100	05/04/15	05/08/15 07:24	1055
bis(2-chloroethoxy) methane	ND	ug/kg	2,200		10	1,100	05/04/15	05/08/15 07:24	1055
bis(2-chloroethyl) ether	ND	ug/kg	2,200		10	1,100	05/04/15	05/08/15 07:24	1055
bis(2-chloroisopropyl) ether	ND	ug/kg	2,200		10	1,100	05/04/15	05/08/15 07:24	1055
bis(2-ethylhexyl) phthalate	ND	ug/kg	2,200		10	1,100	05/04/15	05/08/15 07:24	1055
4-Bromophenylphenyl ether	ND	ug/kg	2,200		10	1,100	05/04/15	05/08/15 07:24	1055
Di-n-butyl phthalate	ND	ug/kg	2,200		10	1,100	05/04/15	05/08/15 07:24	1055
Carbazole	ND	ug/kg	2,200		10	1,100	05/04/15	05/08/15 07:24	1055
4-Chloro-3-methylphenol	ND	ug/kg	2,200		10	1,100	05/04/15	05/08/15 07:24	1055
4-Chloroaniline	ND	ug/kg	2,200		10	2,200	05/04/15	05/08/15 07:24	1055
2-Chloronaphthalene	ND	ug/kg	2,200		10	1,100	05/04/15	05/08/15 07:24	1055
2-Chlorophenol	ND	ug/kg	2,200		10	1,100	05/04/15	05/08/15 07:24	1055
4-Chlorophenyl phenyl ether	ND	ug/kg	2,200		10	1,100	05/04/15	05/08/15 07:24	1055
Dibenzofuran	ND	ug/kg	2,200		10	1,100	05/04/15	05/08/15 07:24	1055
3,3-Dichlorobenzidine	ND	ug/kg	2,200		10	1,100	05/04/15	05/08/15 07:24	1055
2,4-Dichlorophenol	ND	ug/kg	2,200		10	1,100	05/04/15	05/08/15 07:24	1055
Diethyl phthalate	ND	ug/kg	2,200		10	1,100	05/04/15	05/08/15 07:24	1055
Dimethyl phthalate	ND	ug/kg	2,200		10	1,100	05/04/15	05/08/15 07:24	1055
2,4-Dimethylphenol	ND	ug/kg	2,200		10	1,100	05/04/15	05/08/15 07:24	1055
4,6-Dinitro-2-methyl phenol	ND	ug/kg	2,200		10	1,100	05/04/15	05/08/15 07:24	1055
2,4-Dinitrophenol	ND	ug/kg	4,400		10	2,200	05/04/15	05/08/15 07:24	1055
2,4-Dinitrotoluene	ND	ug/kg	2,200		10	1,100	05/04/15	05/08/15 07:24	1055
2,6-Dinitrotoluene	ND	ug/kg	2,200		10	1,100	05/04/15	05/08/15 07:24	1055
Hexachlorobenzene	ND	ug/kg	2,200		10	1,100	05/04/15	05/08/15 07:24	1055
Hexachlorobutadiene	ND	ug/kg	2,200		10	1,100	05/04/15	05/08/15 07:24	1055
Hexachlorocyclopentadiene	ND	ug/kg	2,200		10	1,100	05/04/15	05/08/15 07:24	1055
Hexachloroethane	ND	ug/kg	2,200		10	1,100	05/04/15	05/08/15 07:24	1055

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May 11, 2015

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TCL Semivolatile Organic Compounds w/o PAHs Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Isophorone	ND	ug/kg	2,200		10	1,100	05/04/15	05/08/15 07:24	1055
2-Methylphenol	ND	ug/kg	2,200		10	1,100	05/04/15	05/08/15 07:24	1055
3&4-Methylphenol	ND	ug/kg	2,200		10	1,100	05/04/15	05/08/15 07:24	1055
4-Nitroaniline	ND	ug/kg	2,200		10	2,200	05/04/15	05/08/15 07:24	1055
3-Nitroaniline	ND	ug/kg	2,200		10	1,100	05/04/15	05/08/15 07:24	1055
2-Nitroaniline	ND	ug/kg	2,200		10	1,100	05/04/15	05/08/15 07:24	1055
Nitrobenzene	ND	ug/kg	2,200		10	1,100	05/04/15	05/08/15 07:24	1055
2-Nitrophenol	ND	ug/kg	2,200		10	1,100	05/04/15	05/08/15 07:24	1055
4-Nitrophenol	ND	ug/kg	2,200		10	1,100	05/04/15	05/08/15 07:24	1055
N-Nitrosodi-n-Propylamine	ND	ug/kg	870		10	870	05/04/15	05/08/15 07:24	1055
N-Nitrosodiphenylamine	ND	ug/kg	2,200		10	1,100	05/04/15	05/08/15 07:24	1055
Di-n-octyl phthalate	ND	ug/kg	2,200		10	2,200	05/04/15	05/08/15 07:24	1055
Pentachlorophenol	ND	ug/kg	2,200		10	2,200	05/04/15	05/08/15 07:24	1055
Phenol	ND	ug/kg	2,200		10	1,100	05/04/15	05/08/15 07:24	1055
Atrazine	ND	ug/kg	2,200		10	1,100	05/04/15	05/08/15 07:24	1055
Pyridine	ND	ug/kg	2,200		10	1,100	05/04/15	05/08/15 07:24	1055
Caprolactam	ND	ug/kg	2,200		10	1,100	05/04/15	05/08/15 07:24	1055
2,4,6-Trichlorophenol	ND	ug/kg	2,200		10	1,100	05/04/15	05/08/15 07:24	1055
2,4,5-Trichlorophenol	ND	ug/kg	2,200		10	1,100	05/04/15	05/08/15 07:24	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15050103

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-3	Date/Time Sampled: 04/30/2015 11:33	PSS Sample ID: 15050103-004
Matrix: SOIL	Date/Time Received: 05/01/2015 10:41	% Solids: 79

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	mg/kg	3.0		1	1.5	05/01/15	05/04/15 18:21	1033
Arsenic	2.7	mg/kg	0.61		1	0.3	05/01/15	05/04/15 18:21	1033
Beryllium	ND	mg/kg	3.0		1	1.5	05/01/15	05/05/15 14:51	1033
Cadmium	ND	mg/kg	3.0		1	1.5	05/01/15	05/04/15 18:21	1033
Chromium	82	mg/kg	3.0		1	1.5	05/01/15	05/04/15 18:21	1033
Copper	22	mg/kg	3.0		1	1.5	05/01/15	05/04/15 18:21	1033
Lead	13	mg/kg	3.0		1	1.5	05/01/15	05/04/15 18:21	1033
Mercury	ND	mg/kg	0.12		1	0.061	05/01/15	05/05/15 14:51	1033
Nickel	130	mg/kg	3.0		1	1.5	05/01/15	05/04/15 18:21	1033
Selenium	ND	mg/kg	3.0		1	1.5	05/01/15	05/05/15 14:51	1033
Silver	ND	mg/kg	3.0		1	1.5	05/01/15	05/05/15 14:51	1033
Thallium	ND	mg/kg	0.61		1	0.3	05/01/15	05/04/15 18:21	1033
Zinc	34	mg/kg	12		1	6.1	05/01/15	05/04/15 18:21	1033

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: SW3550C

DF/HF - No. 2/diesel fuel and heavier fuel/oil patterns observed in sample.

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	24	mg/kg	13	DF	1	5.1	05/06/15	05/08/15 14:49	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/kg	120		1	62	05/01/15	05/01/15 16:27	1035

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CERTIFICATE OF ANALYSIS

No: 15050103

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-3	Date/Time Sampled: 04/30/2015 11:33	PSS Sample ID: 15050103-004
Matrix: SOIL	Date/Time Received: 05/01/2015 10:41	% Solids: 79

Polychlorinated Biphenyls

Analytical Method: SW-846 8082 A

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
PCB-1016	ND	mg/kg	0.063		1	0.063	05/01/15	05/04/15 14:32	1029
PCB-1221	ND	mg/kg	0.063		1	0.063	05/01/15	05/04/15 14:32	1029
PCB-1232	ND	mg/kg	0.063		1	0.063	05/01/15	05/04/15 14:32	1029
PCB-1242	ND	mg/kg	0.063		1	0.063	05/01/15	05/04/15 14:32	1029
PCB-1248	ND	mg/kg	0.063		1	0.063	05/01/15	05/04/15 14:32	1029
PCB-1254	ND	mg/kg	0.063		1	0.063	05/01/15	05/04/15 14:32	1029
PCB-1260	ND	mg/kg	0.063		1	0.063	05/01/15	05/04/15 14:32	1029

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CERTIFICATE OF ANALYSIS

No: 15050103

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-3	Date/Time Sampled: 04/30/2015 11:33	PSS Sample ID: 15050103-004
Matrix: SOIL	Date/Time Received: 05/01/2015 10:41	% Solids: 79

TCL Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Dichlorodifluoromethane	ND	ug/kg	6.5		1	3.2	05/02/15	05/02/15 15:30	1011
Chloromethane	ND	ug/kg	6.5		1	3.2	05/02/15	05/02/15 15:30	1011
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	ug/kg	6.5		1	3.2	05/02/15	05/02/15 15:30	1011
Vinyl Chloride	ND	ug/kg	6.5		1	3.2	05/02/15	05/02/15 15:30	1011
Bromomethane	ND	ug/kg	6.5		1	3.2	05/02/15	05/02/15 15:30	1011
Chloroethane	ND	ug/kg	6.5		1	3.2	05/02/15	05/02/15 15:30	1011
Acetone	35	ug/kg	26		1	13	05/02/15	05/02/15 15:30	1011
Cyclohexane	ND	ug/kg	26		1	13	05/02/15	05/02/15 15:30	1011
Trichlorofluoromethane	ND	ug/kg	6.5		1	3.2	05/02/15	05/02/15 15:30	1011
1,1-Dichloroethene	ND	ug/kg	6.5		1	3.2	05/02/15	05/02/15 15:30	1011
Methylene Chloride	ND	ug/kg	6.5		1	3.2	05/02/15	05/02/15 15:30	1011
trans-1,2-Dichloroethene	ND	ug/kg	6.5		1	3.2	05/02/15	05/02/15 15:30	1011
Methyl-t-butyl ether	ND	ug/kg	6.5		1	3.2	05/02/15	05/02/15 15:30	1011
1,1-Dichloroethane	ND	ug/kg	6.5		1	3.2	05/02/15	05/02/15 15:30	1011
2-Butanone	ND	ug/kg	26		1	13	05/02/15	05/02/15 15:30	1011
cis-1,2-Dichloroethene	ND	ug/kg	6.5		1	3.2	05/02/15	05/02/15 15:30	1011
Bromochloromethane	ND	ug/kg	6.5		1	3.2	05/02/15	05/02/15 15:30	1011
Chloroform	ND	ug/kg	6.5		1	3.2	05/02/15	05/02/15 15:30	1011
1,1,1-Trichloroethane	ND	ug/kg	6.5		1	3.2	05/02/15	05/02/15 15:30	1011
1,2-Dichloroethane	ND	ug/kg	6.5		1	3.2	05/02/15	05/02/15 15:30	1011
Carbon Tetrachloride	ND	ug/kg	6.5		1	3.2	05/02/15	05/02/15 15:30	1011
Benzene	ND	ug/kg	6.5		1	3.2	05/02/15	05/02/15 15:30	1011
1,2-Dichloropropane	ND	ug/kg	6.5		1	3.2	05/02/15	05/02/15 15:30	1011
Carbon Disulfide	ND	ug/kg	13		1	6.5	05/02/15	05/02/15 15:30	1011
Methylcyclohexane	ND	ug/kg	26		1	13	05/02/15	05/02/15 15:30	1011
Trichloroethene	ND	ug/kg	6.5		1	3.2	05/02/15	05/02/15 15:30	1011
Methyl Acetate	ND	ug/kg	26		1	13	05/02/15	05/02/15 15:30	1011
Bromodichloromethane	ND	ug/kg	6.5		1	3.2	05/02/15	05/02/15 15:30	1011
cis-1,3-Dichloropropene	ND	ug/kg	6.5		1	3.2	05/02/15	05/02/15 15:30	1011
4-Methyl-2-Pentanone	ND	ug/kg	26		1	13	05/02/15	05/02/15 15:30	1011

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CERTIFICATE OF ANALYSIS

No: 15050103

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-3	Date/Time Sampled: 04/30/2015 11:33	PSS Sample ID: 15050103-004
Matrix: SOIL	Date/Time Received: 05/01/2015 10:41	% Solids: 79

TCL Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
trans-1,3-Dichloropropene	ND	ug/kg	6.5		1	3.2	05/02/15	05/02/15 15:30	1011
1,1,2-Trichloroethane	ND	ug/kg	6.5		1	3.2	05/02/15	05/02/15 15:30	1011
Toluene	27	ug/kg	6.5		1	3.2	05/02/15	05/02/15 15:30	1011
2-Hexanone	ND	ug/kg	26		1	13	05/02/15	05/02/15 15:30	1011
1,2-Dibromoethane	ND	ug/kg	6.5		1	3.2	05/02/15	05/02/15 15:30	1011
Dibromochloromethane	ND	ug/kg	6.5		1	3.2	05/02/15	05/02/15 15:30	1011
Bromoform	ND	ug/kg	6.5		1	3.2	05/02/15	05/02/15 15:30	1011
Tetrachloroethene	ND	ug/kg	6.5		1	3.2	05/02/15	05/02/15 15:30	1011
Chlorobenzene	ND	ug/kg	6.5		1	3.2	05/02/15	05/02/15 15:30	1011
Ethylbenzene	ND	ug/kg	6.5		1	3.2	05/02/15	05/02/15 15:30	1011
m,p-Xylenes	ND	ug/kg	13		1	6.5	05/02/15	05/02/15 15:30	1011
Styrene	ND	ug/kg	6.5		1	3.2	05/02/15	05/02/15 15:30	1011
1,1,2,2-Tetrachloroethane	ND	ug/kg	6.5		1	3.2	05/02/15	05/02/15 15:30	1011
o-Xylene	ND	ug/kg	6.5		1	3.2	05/02/15	05/02/15 15:30	1011
Isopropylbenzene	ND	ug/kg	6.5		1	3.2	05/02/15	05/02/15 15:30	1011
1,3-Dichlorobenzene	ND	ug/kg	6.5		1	3.2	05/02/15	05/02/15 15:30	1011
1,4-Dichlorobenzene	ND	ug/kg	6.5		1	3.2	05/02/15	05/02/15 15:30	1011
1,2-Dichlorobenzene	ND	ug/kg	6.5		1	3.2	05/02/15	05/02/15 15:30	1011
1,2-Dibromo-3-Chloropropane	ND	ug/kg	52		1	26	05/02/15	05/02/15 15:30	1011
1,2,4-Trichlorobenzene	ND	ug/kg	6.5		1	3.2	05/02/15	05/02/15 15:30	1011
1,2,3-Trichlorobenzene	ND	ug/kg	6.5		1	3.2	05/02/15	05/02/15 15:30	1011

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CERTIFICATE OF ANALYSIS

No: 15050103

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-3	Date/Time Sampled: 04/30/2015 11:33	PSS Sample ID: 15050103-004
Matrix: SOIL	Date/Time Received: 05/01/2015 10:41	% Solids: 79

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/kg	42		10	42	05/05/15	05/10/15 01:42	1055
Acenaphthylene	ND	ug/kg	42		10	42	05/05/15	05/10/15 01:42	1055
Anthracene	ND	ug/kg	42		10	42	05/05/15	05/10/15 01:42	1055
Benzo(a)anthracene	50	ug/kg	42		10	42	05/05/15	05/10/15 01:42	1055
Benzo(a)pyrene	46	ug/kg	42		10	42	05/05/15	05/10/15 01:42	1055
Benzo(b)fluoranthene	130	ug/kg	42		10	42	05/05/15	05/10/15 01:42	1055
Benzo(g,h,i)perylene	ND	ug/kg	42		10	42	05/05/15	05/10/15 01:42	1055
Benzo(k)fluoranthene	ND	ug/kg	42		10	42	05/05/15	05/10/15 01:42	1055
Chrysene	ND	ug/kg	42		10	42	05/05/15	05/10/15 01:42	1055
Dibenz(a,h)Anthracene	ND	ug/kg	42		10	42	05/05/15	05/10/15 01:42	1055
Fluoranthene	92	ug/kg	42		10	42	05/05/15	05/10/15 01:42	1055
Fluorene	ND	ug/kg	42		10	42	05/05/15	05/10/15 01:42	1055
Indeno(1,2,3-c,d)Pyrene	230	ug/kg	42		10	42	05/05/15	05/10/15 01:42	1055
2-Methylnaphthalene	ND	ug/kg	42		10	42	05/05/15	05/10/15 01:42	1055
Naphthalene	ND	ug/kg	42		10	42	05/05/15	05/10/15 01:42	1055
Phenanthrene	ND	ug/kg	42		10	42	05/05/15	05/10/15 01:42	1055
Pyrene	71	ug/kg	42		10	42	05/05/15	05/10/15 01:42	1055

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CERTIFICATE OF ANALYSIS

No: 15050103

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-3 **Date/Time Sampled: 04/30/2015 11:33** **PSS Sample ID: 15050103-004**
Matrix: SOIL **Date/Time Received: 05/01/2015 10:41** **% Solids: 79**

TCL Semivolatile Organic Compounds w/o PAHs Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acetophenone	ND	ug/kg	210		1	110	05/04/15	05/08/15 05:19	1055
Biphenyl (Diphenyl)	ND	ug/kg	210		1	110	05/04/15	05/08/15 05:19	1055
Butyl benzyl phthalate	ND	ug/kg	210		1	110	05/04/15	05/08/15 05:19	1055
bis(2-chloroethoxy) methane	ND	ug/kg	210		1	110	05/04/15	05/08/15 05:19	1055
bis(2-chloroethyl) ether	ND	ug/kg	210		1	110	05/04/15	05/08/15 05:19	1055
bis(2-chloroisopropyl) ether	ND	ug/kg	210		1	110	05/04/15	05/08/15 05:19	1055
bis(2-ethylhexyl) phthalate	ND	ug/kg	210		1	110	05/04/15	05/08/15 05:19	1055
4-Bromophenylphenyl ether	ND	ug/kg	210		1	110	05/04/15	05/08/15 05:19	1055
Di-n-butyl phthalate	ND	ug/kg	210		1	110	05/04/15	05/08/15 05:19	1055
Carbazole	ND	ug/kg	210		1	110	05/04/15	05/08/15 05:19	1055
4-Chloro-3-methylphenol	ND	ug/kg	210		1	110	05/04/15	05/08/15 05:19	1055
4-Chloroaniline	ND	ug/kg	210		1	210	05/04/15	05/08/15 05:19	1055
2-Chloronaphthalene	ND	ug/kg	210		1	110	05/04/15	05/08/15 05:19	1055
2-Chlorophenol	ND	ug/kg	210		1	110	05/04/15	05/08/15 05:19	1055
4-Chlorophenyl phenyl ether	ND	ug/kg	210		1	110	05/04/15	05/08/15 05:19	1055
Dibenzofuran	ND	ug/kg	210		1	110	05/04/15	05/08/15 05:19	1055
3,3-Dichlorobenzidine	ND	ug/kg	210		1	110	05/04/15	05/08/15 05:19	1055
2,4-Dichlorophenol	ND	ug/kg	210		1	110	05/04/15	05/08/15 05:19	1055
Diethyl phthalate	ND	ug/kg	210		1	110	05/04/15	05/08/15 05:19	1055
Dimethyl phthalate	ND	ug/kg	210		1	110	05/04/15	05/08/15 05:19	1055
2,4-Dimethylphenol	ND	ug/kg	210		1	110	05/04/15	05/08/15 05:19	1055
4,6-Dinitro-2-methyl phenol	ND	ug/kg	210		1	110	05/04/15	05/08/15 05:19	1055
2,4-Dinitrophenol	ND	ug/kg	430		1	210	05/04/15	05/08/15 05:19	1055
2,4-Dinitrotoluene	ND	ug/kg	210		1	110	05/04/15	05/08/15 05:19	1055
2,6-Dinitrotoluene	ND	ug/kg	210		1	110	05/04/15	05/08/15 05:19	1055
Hexachlorobenzene	ND	ug/kg	210		1	110	05/04/15	05/08/15 05:19	1055
Hexachlorobutadiene	ND	ug/kg	210		1	110	05/04/15	05/08/15 05:19	1055
Hexachlorocyclopentadiene	ND	ug/kg	210		1	110	05/04/15	05/08/15 05:19	1055
Hexachloroethane	ND	ug/kg	210		1	110	05/04/15	05/08/15 05:19	1055

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CERTIFICATE OF ANALYSIS

No: 15050103

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-3 **Date/Time Sampled: 04/30/2015 11:33** **PSS Sample ID: 15050103-004**
Matrix: SOIL **Date/Time Received: 05/01/2015 10:41** **% Solids: 79**

TCL Semivolatile Organic Compounds w/o PAHs Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Isophorone	ND	ug/kg	210		1	110	05/04/15	05/08/15 05:19	1055
2-Methylphenol	ND	ug/kg	210		1	110	05/04/15	05/08/15 05:19	1055
3&4-Methylphenol	ND	ug/kg	210		1	110	05/04/15	05/08/15 05:19	1055
4-Nitroaniline	ND	ug/kg	210		1	210	05/04/15	05/08/15 05:19	1055
3-Nitroaniline	ND	ug/kg	210		1	110	05/04/15	05/08/15 05:19	1055
2-Nitroaniline	ND	ug/kg	210		1	110	05/04/15	05/08/15 05:19	1055
Nitrobenzene	ND	ug/kg	210		1	110	05/04/15	05/08/15 05:19	1055
2-Nitrophenol	ND	ug/kg	210		1	110	05/04/15	05/08/15 05:19	1055
4-Nitrophenol	ND	ug/kg	210		1	110	05/04/15	05/08/15 05:19	1055
N-Nitrosodi-n-Propylamine	ND	ug/kg	85		1	85	05/04/15	05/08/15 05:19	1055
N-Nitrosodiphenylamine	ND	ug/kg	210		1	110	05/04/15	05/08/15 05:19	1055
Di-n-octyl phthalate	ND	ug/kg	210		1	210	05/04/15	05/08/15 05:19	1055
Pentachlorophenol	ND	ug/kg	210		1	210	05/04/15	05/08/15 05:19	1055
Phenol	ND	ug/kg	210		1	110	05/04/15	05/08/15 05:19	1055
Atrazine	ND	ug/kg	210		1	110	05/04/15	05/08/15 05:19	1055
Pyridine	ND	ug/kg	210		1	110	05/04/15	05/08/15 05:19	1055
Caprolactam	ND	ug/kg	210		1	110	05/04/15	05/08/15 05:19	1055
2,4,6-Trichlorophenol	ND	ug/kg	210		1	110	05/04/15	05/08/15 05:19	1055
2,4,5-Trichlorophenol	ND	ug/kg	210		1	110	05/04/15	05/08/15 05:19	1055

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CERTIFICATE OF ANALYSIS

No: 15050103

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-6	Date/Time Sampled: 04/30/2015 12:35	PSS Sample ID: 15050103-005
Matrix: SOIL	Date/Time Received: 05/01/2015 10:41	% Solids: 24

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	mg/kg	8.9		1	4.5	05/01/15	05/04/15 18:27	1033
Arsenic	9.0	mg/kg	1.8		1	0.89	05/01/15	05/04/15 18:27	1033
Beryllium	ND	mg/kg	8.9		1	4.5	05/01/15	05/05/15 14:57	1033
Cadmium	ND	mg/kg	8.9		1	4.5	05/01/15	05/04/15 18:27	1033
Chromium	20	mg/kg	8.9		1	4.5	05/01/15	05/04/15 18:27	1033
Copper	9.6	mg/kg	8.9		1	4.5	05/01/15	05/04/15 18:27	1033
Lead	13	mg/kg	8.9		1	4.5	05/01/15	05/04/15 18:27	1033
Mercury	0.35	mg/kg	0.36	J	1	0.18	05/01/15	05/07/15 12:31	1033
Nickel	13	mg/kg	8.9		1	4.5	05/01/15	05/04/15 18:27	1033
Selenium	ND	mg/kg	8.9		1	4.5	05/01/15	05/05/15 14:57	1033
Silver	ND	mg/kg	8.9		1	4.5	05/01/15	05/05/15 14:57	1033
Thallium	ND	mg/kg	1.8		1	0.89	05/01/15	05/04/15 18:27	1033
Zinc	22	mg/kg	36	J	1	18	05/01/15	05/04/15 18:27	1033

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	ND	mg/kg	41		1	17	05/06/15	05/08/15 13:17	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/kg	410		1	210	05/01/15	05/01/15 16:56	1035

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15050103

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-6	Date/Time Sampled: 04/30/2015 12:35	PSS Sample ID: 15050103-005
Matrix: SOIL	Date/Time Received: 05/01/2015 10:41	% Solids: 24

Polychlorinated Biphenyls

Analytical Method: SW-846 8082 A

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
PCB-1016	ND	mg/kg	0.21		1	0.21	05/01/15	05/04/15 15:02	1029
PCB-1221	ND	mg/kg	0.21		1	0.21	05/01/15	05/04/15 15:02	1029
PCB-1232	ND	mg/kg	0.21		1	0.21	05/01/15	05/04/15 15:02	1029
PCB-1242	ND	mg/kg	0.21		1	0.21	05/01/15	05/04/15 15:02	1029
PCB-1248	ND	mg/kg	0.21		1	0.21	05/01/15	05/04/15 15:02	1029
PCB-1254	ND	mg/kg	0.21		1	0.21	05/01/15	05/04/15 15:02	1029
PCB-1260	ND	mg/kg	0.21		1	0.21	05/01/15	05/04/15 15:02	1029

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CERTIFICATE OF ANALYSIS

No: 15050103

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-6	Date/Time Sampled: 04/30/2015 12:35	PSS Sample ID: 15050103-005
Matrix: SOIL	Date/Time Received: 05/01/2015 10:41	% Solids: 24

TCL Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Dichlorodifluoromethane	ND	ug/kg	21		1	11	05/04/15	05/04/15 13:31	1011
Chloromethane	ND	ug/kg	21		1	11	05/04/15	05/04/15 13:31	1011
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	ug/kg	21		1	11	05/04/15	05/04/15 13:31	1011
Vinyl Chloride	ND	ug/kg	21		1	11	05/04/15	05/04/15 13:31	1011
Bromomethane	ND	ug/kg	21		1	11	05/04/15	05/04/15 13:31	1011
Chloroethane	ND	ug/kg	21		1	11	05/04/15	05/04/15 13:31	1011
Acetone	ND	ug/kg	85		1	43	05/04/15	05/04/15 13:31	1011
Cyclohexane	ND	ug/kg	85		1	43	05/04/15	05/04/15 13:31	1011
Trichlorofluoromethane	ND	ug/kg	21		1	11	05/04/15	05/04/15 13:31	1011
1,1-Dichloroethene	ND	ug/kg	21		1	11	05/04/15	05/04/15 13:31	1011
Methylene Chloride	ND	ug/kg	21		1	11	05/04/15	05/04/15 13:31	1011
trans-1,2-Dichloroethene	ND	ug/kg	21		1	11	05/04/15	05/04/15 13:31	1011
Methyl-t-butyl ether	ND	ug/kg	21		1	11	05/04/15	05/04/15 13:31	1011
1,1-Dichloroethane	ND	ug/kg	21		1	11	05/04/15	05/04/15 13:31	1011
2-Butanone	ND	ug/kg	85		1	43	05/04/15	05/04/15 13:31	1011
cis-1,2-Dichloroethene	ND	ug/kg	21		1	11	05/04/15	05/04/15 13:31	1011
Bromochloromethane	ND	ug/kg	21		1	11	05/04/15	05/04/15 13:31	1011
Chloroform	ND	ug/kg	21		1	11	05/04/15	05/04/15 13:31	1011
1,1,1-Trichloroethane	ND	ug/kg	21		1	11	05/04/15	05/04/15 13:31	1011
1,2-Dichloroethane	ND	ug/kg	21		1	11	05/04/15	05/04/15 13:31	1011
Carbon Tetrachloride	ND	ug/kg	21		1	11	05/04/15	05/04/15 13:31	1011
Benzene	ND	ug/kg	21		1	11	05/04/15	05/04/15 13:31	1011
1,2-Dichloropropane	ND	ug/kg	21		1	11	05/04/15	05/04/15 13:31	1011
Carbon Disulfide	ND	ug/kg	43		1	21	05/04/15	05/04/15 13:31	1011
Methylcyclohexane	ND	ug/kg	85		1	43	05/04/15	05/04/15 13:31	1011
Trichloroethene	ND	ug/kg	21		1	11	05/04/15	05/04/15 13:31	1011
Methyl Acetate	ND	ug/kg	85		1	43	05/04/15	05/04/15 13:31	1011
Bromodichloromethane	ND	ug/kg	21		1	11	05/04/15	05/04/15 13:31	1011
cis-1,3-Dichloropropene	ND	ug/kg	21		1	11	05/04/15	05/04/15 13:31	1011
4-Methyl-2-Pentanone	ND	ug/kg	85		1	43	05/04/15	05/04/15 13:31	1011

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15050103

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-6	Date/Time Sampled: 04/30/2015 12:35	PSS Sample ID: 15050103-005
Matrix: SOIL	Date/Time Received: 05/01/2015 10:41	% Solids: 24

TCL Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
trans-1,3-Dichloropropene	ND	ug/kg	21		1	11	05/04/15	05/04/15 13:31	1011
1,1,2-Trichloroethane	ND	ug/kg	21		1	11	05/04/15	05/04/15 13:31	1011
Toluene	ND	ug/kg	21		1	11	05/04/15	05/04/15 13:31	1011
2-Hexanone	ND	ug/kg	85		1	43	05/04/15	05/04/15 13:31	1011
1,2-Dibromoethane	ND	ug/kg	21		1	11	05/04/15	05/04/15 13:31	1011
Dibromochloromethane	ND	ug/kg	21		1	11	05/04/15	05/04/15 13:31	1011
Bromoform	ND	ug/kg	21		1	11	05/04/15	05/04/15 13:31	1011
Tetrachloroethene	ND	ug/kg	21		1	11	05/04/15	05/04/15 13:31	1011
Chlorobenzene	ND	ug/kg	21		1	11	05/04/15	05/04/15 13:31	1011
Ethylbenzene	ND	ug/kg	21		1	11	05/04/15	05/04/15 13:31	1011
m,p-Xylenes	ND	ug/kg	43		1	21	05/04/15	05/04/15 13:31	1011
Styrene	ND	ug/kg	21		1	11	05/04/15	05/04/15 13:31	1011
1,1,2,2-Tetrachloroethane	ND	ug/kg	21		1	11	05/04/15	05/04/15 13:31	1011
o-Xylene	ND	ug/kg	21		1	11	05/04/15	05/04/15 13:31	1011
Isopropylbenzene	ND	ug/kg	21		1	11	05/04/15	05/04/15 13:31	1011
1,3-Dichlorobenzene	ND	ug/kg	21		1	11	05/04/15	05/04/15 13:31	1011
1,4-Dichlorobenzene	ND	ug/kg	21		1	11	05/04/15	05/04/15 13:31	1011
1,2-Dichlorobenzene	ND	ug/kg	21		1	11	05/04/15	05/04/15 13:31	1011
1,2-Dibromo-3-Chloropropane	ND	ug/kg	170		1	85	05/04/15	05/04/15 13:31	1011
1,2,4-Trichlorobenzene	ND	ug/kg	21		1	11	05/04/15	05/04/15 13:31	1011
1,2,3-Trichlorobenzene	ND	ug/kg	21		1	11	05/04/15	05/04/15 13:31	1011

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CERTIFICATE OF ANALYSIS

No: 15050103

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-6	Date/Time Sampled: 04/30/2015 12:35	PSS Sample ID: 15050103-005
Matrix: SOIL	Date/Time Received: 05/01/2015 10:41	% Solids: 24

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/kg	14		1	14	05/05/15	05/08/15 13:15	1055
Acenaphthylene	ND	ug/kg	14		1	14	05/05/15	05/08/15 13:15	1055
Anthracene	ND	ug/kg	14		1	14	05/05/15	05/08/15 13:15	1055
Benzo(a)anthracene	ND	ug/kg	14		1	14	05/05/15	05/08/15 13:15	1055
Benzo(a)pyrene	ND	ug/kg	14		1	14	05/05/15	05/08/15 13:15	1055
Benzo(b)fluoranthene	ND	ug/kg	14		1	14	05/05/15	05/08/15 13:15	1055
Benzo(g,h,i)perylene	ND	ug/kg	14		1	14	05/05/15	05/08/15 13:15	1055
Benzo(k)fluoranthene	ND	ug/kg	14		1	14	05/05/15	05/08/15 13:15	1055
Chrysene	ND	ug/kg	14		1	14	05/05/15	05/08/15 13:15	1055
Dibenz(a,h)Anthracene	ND	ug/kg	14		1	14	05/05/15	05/08/15 13:15	1055
Fluoranthene	ND	ug/kg	14		1	14	05/05/15	05/08/15 13:15	1055
Fluorene	ND	ug/kg	14		1	14	05/05/15	05/08/15 13:15	1055
Indeno(1,2,3-c,d)Pyrene	ND	ug/kg	14		1	14	05/05/15	05/08/15 13:15	1055
2-Methylnaphthalene	ND	ug/kg	14		1	14	05/05/15	05/08/15 13:15	1055
Naphthalene	ND	ug/kg	14		1	14	05/05/15	05/08/15 13:15	1055
Phenanthrene	ND	ug/kg	14		1	14	05/05/15	05/08/15 13:15	1055
Pyrene	ND	ug/kg	14		1	14	05/05/15	05/08/15 13:15	1055

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CERTIFICATE OF ANALYSIS

No: 15050103

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-6 **Date/Time Sampled: 04/30/2015 12:35** **PSS Sample ID: 15050103-005**
Matrix: SOIL **Date/Time Received: 05/01/2015 10:41** **% Solids: 24**

TCL Semivolatile Organic Compounds w/o PAHs Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acetophenone	ND	ug/kg	680		1	340	05/04/15	05/06/15 20:56	1055
Biphenyl (Diphenyl)	ND	ug/kg	680		1	340	05/04/15	05/06/15 20:56	1055
Butyl benzyl phthalate	ND	ug/kg	680		1	340	05/04/15	05/06/15 20:56	1055
bis(2-chloroethoxy) methane	ND	ug/kg	680		1	340	05/04/15	05/06/15 20:56	1055
bis(2-chloroethyl) ether	ND	ug/kg	680		1	340	05/04/15	05/06/15 20:56	1055
bis(2-chloroisopropyl) ether	ND	ug/kg	680		1	340	05/04/15	05/06/15 20:56	1055
bis(2-ethylhexyl) phthalate	ND	ug/kg	680		1	340	05/04/15	05/06/15 20:56	1055
4-Bromophenylphenyl ether	ND	ug/kg	680		1	340	05/04/15	05/06/15 20:56	1055
Di-n-butyl phthalate	ND	ug/kg	680		1	340	05/04/15	05/06/15 20:56	1055
Carbazole	ND	ug/kg	680		1	340	05/04/15	05/06/15 20:56	1055
4-Chloro-3-methylphenol	ND	ug/kg	680		1	340	05/04/15	05/06/15 20:56	1055
4-Chloroaniline	ND	ug/kg	680		1	680	05/04/15	05/06/15 20:56	1055
2-Chloronaphthalene	ND	ug/kg	680		1	340	05/04/15	05/06/15 20:56	1055
2-Chlorophenol	ND	ug/kg	680		1	340	05/04/15	05/06/15 20:56	1055
4-Chlorophenyl phenyl ether	ND	ug/kg	680		1	340	05/04/15	05/06/15 20:56	1055
Dibenzofuran	ND	ug/kg	680		1	340	05/04/15	05/06/15 20:56	1055
3,3-Dichlorobenzidine	ND	ug/kg	680		1	340	05/04/15	05/06/15 20:56	1055
2,4-Dichlorophenol	ND	ug/kg	680		1	340	05/04/15	05/06/15 20:56	1055
Diethyl phthalate	ND	ug/kg	680		1	340	05/04/15	05/06/15 20:56	1055
Dimethyl phthalate	ND	ug/kg	680		1	340	05/04/15	05/06/15 20:56	1055
2,4-Dimethylphenol	ND	ug/kg	680		1	340	05/04/15	05/06/15 20:56	1055
4,6-Dinitro-2-methyl phenol	ND	ug/kg	680		1	340	05/04/15	05/06/15 20:56	1055
2,4-Dinitrophenol	ND	ug/kg	1,400		1	680	05/04/15	05/06/15 20:56	1055
2,4-Dinitrotoluene	ND	ug/kg	680		1	340	05/04/15	05/06/15 20:56	1055
2,6-Dinitrotoluene	ND	ug/kg	680		1	340	05/04/15	05/06/15 20:56	1055
Hexachlorobenzene	ND	ug/kg	680		1	340	05/04/15	05/06/15 20:56	1055
Hexachlorobutadiene	ND	ug/kg	680		1	340	05/04/15	05/06/15 20:56	1055
Hexachlorocyclopentadiene	ND	ug/kg	680		1	340	05/04/15	05/06/15 20:56	1055
Hexachloroethane	ND	ug/kg	680		1	340	05/04/15	05/06/15 20:56	1055

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CERTIFICATE OF ANALYSIS

No: 15050103

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-6	Date/Time Sampled: 04/30/2015 12:35	PSS Sample ID: 15050103-005
Matrix: SOIL	Date/Time Received: 05/01/2015 10:41	% Solids: 24

TCL Semivolatile Organic Compounds w/o PAHs Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Isophorone	ND	ug/kg	680		1	340	05/04/15	05/06/15 20:56	1055
2-Methylphenol	ND	ug/kg	680		1	340	05/04/15	05/06/15 20:56	1055
3&4-Methylphenol	ND	ug/kg	680		1	340	05/04/15	05/06/15 20:56	1055
4-Nitroaniline	ND	ug/kg	680		1	680	05/04/15	05/06/15 20:56	1055
3-Nitroaniline	ND	ug/kg	680		1	340	05/04/15	05/06/15 20:56	1055
2-Nitroaniline	ND	ug/kg	680		1	340	05/04/15	05/06/15 20:56	1055
Nitrobenzene	ND	ug/kg	680		1	340	05/04/15	05/06/15 20:56	1055
2-Nitrophenol	ND	ug/kg	680		1	340	05/04/15	05/06/15 20:56	1055
4-Nitrophenol	ND	ug/kg	680		1	340	05/04/15	05/06/15 20:56	1055
N-Nitrosodi-n-Propylamine	ND	ug/kg	270		1	270	05/04/15	05/06/15 20:56	1055
N-Nitrosodiphenylamine	ND	ug/kg	680		1	340	05/04/15	05/06/15 20:56	1055
Di-n-octyl phthalate	ND	ug/kg	680		1	680	05/04/15	05/06/15 20:56	1055
Pentachlorophenol	ND	ug/kg	680		1	680	05/04/15	05/06/15 20:56	1055
Phenol	ND	ug/kg	680		1	340	05/04/15	05/06/15 20:56	1055
Atrazine	ND	ug/kg	680		1	340	05/04/15	05/06/15 20:56	1055
Pyridine	ND	ug/kg	680		1	340	05/04/15	05/06/15 20:56	1055
Caprolactam	ND	ug/kg	680		1	340	05/04/15	05/06/15 20:56	1055
2,4,6-Trichlorophenol	ND	ug/kg	680		1	340	05/04/15	05/06/15 20:56	1055
2,4,5-Trichlorophenol	ND	ug/kg	680		1	340	05/04/15	05/06/15 20:56	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15050103

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-5	Date/Time Sampled: 04/30/2015 13:31	PSS Sample ID: 15050103-006
Matrix: SOIL	Date/Time Received: 05/01/2015 10:41	% Solids: 70

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	mg/kg	3.3		1	1.6	05/01/15	05/04/15 18:33	1033
Arsenic	2.3	mg/kg	0.66		1	0.33	05/01/15	05/04/15 18:33	1033
Beryllium	ND	mg/kg	3.3		1	1.6	05/01/15	05/05/15 15:03	1033
Cadmium	ND	mg/kg	3.3		1	1.6	05/01/15	05/04/15 18:33	1033
Chromium	17	mg/kg	3.3		1	1.6	05/01/15	05/04/15 18:33	1033
Copper	30	mg/kg	3.3		1	1.6	05/01/15	05/04/15 18:33	1033
Lead	6.4	mg/kg	3.3		1	1.6	05/01/15	05/04/15 18:33	1033
Mercury	ND	mg/kg	0.13		1	0.066	05/01/15	05/05/15 15:03	1033
Nickel	4.9	mg/kg	3.3		1	1.6	05/01/15	05/04/15 18:33	1033
Selenium	ND	mg/kg	3.3		1	1.6	05/01/15	05/05/15 15:03	1033
Silver	ND	mg/kg	3.3		1	1.6	05/01/15	05/05/15 15:03	1033
Thallium	ND	mg/kg	0.66		1	0.33	05/01/15	05/04/15 18:33	1033
Zinc	9.7	mg/kg	13	J	1	6.6	05/01/15	05/04/15 18:33	1033

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	ND	mg/kg	14		1	5.7	05/06/15	05/08/15 13:48	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/kg	140		1	71	05/01/15	05/01/15 17:26	1035

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15050103

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-5	Date/Time Sampled: 04/30/2015 13:31	PSS Sample ID: 15050103-006
Matrix: SOIL	Date/Time Received: 05/01/2015 10:41	% Solids: 70

Polychlorinated Biphenyls

Analytical Method: SW-846 8082 A

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
PCB-1016	ND	mg/kg	0.072		1	0.072	05/01/15	05/04/15 15:31	1029
PCB-1221	ND	mg/kg	0.072		1	0.072	05/01/15	05/04/15 15:31	1029
PCB-1232	ND	mg/kg	0.072		1	0.072	05/01/15	05/04/15 15:31	1029
PCB-1242	ND	mg/kg	0.072		1	0.072	05/01/15	05/04/15 15:31	1029
PCB-1248	ND	mg/kg	0.072		1	0.072	05/01/15	05/04/15 15:31	1029
PCB-1254	ND	mg/kg	0.072		1	0.072	05/01/15	05/04/15 15:31	1029
PCB-1260	ND	mg/kg	0.072		1	0.072	05/01/15	05/04/15 15:31	1029

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CERTIFICATE OF ANALYSIS

No: 15050103

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-5	Date/Time Sampled: 04/30/2015 13:31	PSS Sample ID: 15050103-006
Matrix: SOIL	Date/Time Received: 05/01/2015 10:41	% Solids: 70

TCL Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Dichlorodifluoromethane	ND	ug/kg	7.3		1	3.7	05/04/15	05/04/15 15:58	1011
Chloromethane	ND	ug/kg	7.3		1	3.7	05/04/15	05/04/15 15:58	1011
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	ug/kg	7.3		1	3.7	05/04/15	05/04/15 15:58	1011
Vinyl Chloride	ND	ug/kg	7.3		1	3.7	05/04/15	05/04/15 15:58	1011
Bromomethane	ND	ug/kg	7.3		1	3.7	05/04/15	05/04/15 15:58	1011
Chloroethane	ND	ug/kg	7.3		1	3.7	05/04/15	05/04/15 15:58	1011
Acetone	ND	ug/kg	29		1	15	05/04/15	05/04/15 15:58	1011
Cyclohexane	ND	ug/kg	29		1	15	05/04/15	05/04/15 15:58	1011
Trichlorofluoromethane	ND	ug/kg	7.3		1	3.7	05/04/15	05/04/15 15:58	1011
1,1-Dichloroethene	ND	ug/kg	7.3		1	3.7	05/04/15	05/04/15 15:58	1011
Methylene Chloride	ND	ug/kg	7.3		1	3.7	05/04/15	05/04/15 15:58	1011
trans-1,2-Dichloroethene	ND	ug/kg	7.3		1	3.7	05/04/15	05/04/15 15:58	1011
Methyl-t-butyl ether	ND	ug/kg	7.3		1	3.7	05/04/15	05/04/15 15:58	1011
1,1-Dichloroethane	ND	ug/kg	7.3		1	3.7	05/04/15	05/04/15 15:58	1011
2-Butanone	ND	ug/kg	29		1	15	05/04/15	05/04/15 15:58	1011
cis-1,2-Dichloroethene	ND	ug/kg	7.3		1	3.7	05/04/15	05/04/15 15:58	1011
Bromochloromethane	ND	ug/kg	7.3		1	3.7	05/04/15	05/04/15 15:58	1011
Chloroform	ND	ug/kg	7.3		1	3.7	05/04/15	05/04/15 15:58	1011
1,1,1-Trichloroethane	ND	ug/kg	7.3		1	3.7	05/04/15	05/04/15 15:58	1011
1,2-Dichloroethane	ND	ug/kg	7.3		1	3.7	05/04/15	05/04/15 15:58	1011
Carbon Tetrachloride	ND	ug/kg	7.3		1	3.7	05/04/15	05/04/15 15:58	1011
Benzene	ND	ug/kg	7.3		1	3.7	05/04/15	05/04/15 15:58	1011
1,2-Dichloropropane	ND	ug/kg	7.3		1	3.7	05/04/15	05/04/15 15:58	1011
Carbon Disulfide	ND	ug/kg	15		1	7.3	05/04/15	05/04/15 15:58	1011
Methylcyclohexane	ND	ug/kg	29		1	15	05/04/15	05/04/15 15:58	1011
Trichloroethene	ND	ug/kg	7.3		1	3.7	05/04/15	05/04/15 15:58	1011
Methyl Acetate	ND	ug/kg	29		1	15	05/04/15	05/04/15 15:58	1011
Bromodichloromethane	ND	ug/kg	7.3		1	3.7	05/04/15	05/04/15 15:58	1011
cis-1,3-Dichloropropene	ND	ug/kg	7.3		1	3.7	05/04/15	05/04/15 15:58	1011
4-Methyl-2-Pentanone	ND	ug/kg	29		1	15	05/04/15	05/04/15 15:58	1011

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CERTIFICATE OF ANALYSIS

No: 15050103

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-5	Date/Time Sampled: 04/30/2015 13:31	PSS Sample ID: 15050103-006
Matrix: SOIL	Date/Time Received: 05/01/2015 10:41	% Solids: 70

TCL Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
trans-1,3-Dichloropropene	ND	ug/kg	7.3		1	3.7	05/04/15	05/04/15 15:58	1011
1,1,2-Trichloroethane	ND	ug/kg	7.3		1	3.7	05/04/15	05/04/15 15:58	1011
Toluene	ND	ug/kg	7.3		1	3.7	05/04/15	05/04/15 15:58	1011
2-Hexanone	ND	ug/kg	29		1	15	05/04/15	05/04/15 15:58	1011
1,2-Dibromoethane	ND	ug/kg	7.3		1	3.7	05/04/15	05/04/15 15:58	1011
Dibromochloromethane	ND	ug/kg	7.3		1	3.7	05/04/15	05/04/15 15:58	1011
Bromoform	ND	ug/kg	7.3		1	3.7	05/04/15	05/04/15 15:58	1011
Tetrachloroethene	ND	ug/kg	7.3		1	3.7	05/04/15	05/04/15 15:58	1011
Chlorobenzene	ND	ug/kg	7.3		1	3.7	05/04/15	05/04/15 15:58	1011
Ethylbenzene	ND	ug/kg	7.3		1	3.7	05/04/15	05/04/15 15:58	1011
m,p-Xylenes	ND	ug/kg	15		1	7.3	05/04/15	05/04/15 15:58	1011
Styrene	ND	ug/kg	7.3		1	3.7	05/04/15	05/04/15 15:58	1011
1,1,2,2-Tetrachloroethane	ND	ug/kg	7.3		1	3.7	05/04/15	05/04/15 15:58	1011
o-Xylene	ND	ug/kg	7.3		1	3.7	05/04/15	05/04/15 15:58	1011
Isopropylbenzene	ND	ug/kg	7.3		1	3.7	05/04/15	05/04/15 15:58	1011
1,3-Dichlorobenzene	ND	ug/kg	7.3		1	3.7	05/04/15	05/04/15 15:58	1011
1,4-Dichlorobenzene	ND	ug/kg	7.3		1	3.7	05/04/15	05/04/15 15:58	1011
1,2-Dichlorobenzene	ND	ug/kg	7.3		1	3.7	05/04/15	05/04/15 15:58	1011
1,2-Dibromo-3-Chloropropane	ND	ug/kg	59		1	29	05/04/15	05/04/15 15:58	1011
1,2,4-Trichlorobenzene	ND	ug/kg	7.3		1	3.7	05/04/15	05/04/15 15:58	1011
1,2,3-Trichlorobenzene	ND	ug/kg	7.3		1	3.7	05/04/15	05/04/15 15:58	1011

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Matrix: SOIL	Date/Time Received: 05/01/2015 10:41	% Solids: 70

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/kg	4.8		1	4.8	05/05/15	05/09/15 21:44	1055
Acenaphthylene	ND	ug/kg	4.8		1	4.8	05/05/15	05/09/15 21:44	1055
Anthracene	ND	ug/kg	4.8		1	4.8	05/05/15	05/09/15 21:44	1055
Benzo(a)anthracene	ND	ug/kg	4.8		1	4.8	05/05/15	05/09/15 21:44	1055
Benzo(a)pyrene	ND	ug/kg	4.8		1	4.8	05/05/15	05/09/15 21:44	1055
Benzo(b)fluoranthene	ND	ug/kg	4.8		1	4.8	05/05/15	05/09/15 21:44	1055
Benzo(g,h,i)perylene	ND	ug/kg	4.8		1	4.8	05/05/15	05/09/15 21:44	1055
Benzo(k)fluoranthene	ND	ug/kg	4.8		1	4.8	05/05/15	05/09/15 21:44	1055
Chrysene	ND	ug/kg	4.8		1	4.8	05/05/15	05/09/15 21:44	1055
Dibenz(a,h)Anthracene	ND	ug/kg	4.8		1	4.8	05/05/15	05/09/15 21:44	1055
Fluoranthene	ND	ug/kg	4.8		1	4.8	05/05/15	05/09/15 21:44	1055
Fluorene	ND	ug/kg	4.8		1	4.8	05/05/15	05/09/15 21:44	1055
Indeno(1,2,3-c,d)Pyrene	10	ug/kg	4.8		1	4.8	05/05/15	05/09/15 21:44	1055
2-Methylnaphthalene	ND	ug/kg	4.8		1	4.8	05/05/15	05/09/15 21:44	1055
Naphthalene	ND	ug/kg	4.8		1	4.8	05/05/15	05/09/15 21:44	1055
Phenanthrene	ND	ug/kg	4.8		1	4.8	05/05/15	05/09/15 21:44	1055
Pyrene	ND	ug/kg	4.8		1	4.8	05/05/15	05/09/15 21:44	1055

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CERTIFICATE OF ANALYSIS

No: 15050103

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-5	Date/Time Sampled: 04/30/2015 13:31	PSS Sample ID: 15050103-006
Matrix: SOIL	Date/Time Received: 05/01/2015 10:41	% Solids: 70

TCL Semivolatile Organic Compounds w/o PAHs Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acetophenone	ND	ug/kg	240		1	120	05/04/15	05/06/15 21:27	1055
Biphenyl (Diphenyl)	ND	ug/kg	240		1	120	05/04/15	05/06/15 21:27	1055
Butyl benzyl phthalate	ND	ug/kg	240		1	120	05/04/15	05/06/15 21:27	1055
bis(2-chloroethoxy) methane	ND	ug/kg	240		1	120	05/04/15	05/06/15 21:27	1055
bis(2-chloroethyl) ether	ND	ug/kg	240		1	120	05/04/15	05/06/15 21:27	1055
bis(2-chloroisopropyl) ether	ND	ug/kg	240		1	120	05/04/15	05/06/15 21:27	1055
bis(2-ethylhexyl) phthalate	ND	ug/kg	240		1	120	05/04/15	05/06/15 21:27	1055
4-Bromophenylphenyl ether	ND	ug/kg	240		1	120	05/04/15	05/06/15 21:27	1055
Di-n-butyl phthalate	ND	ug/kg	240		1	120	05/04/15	05/06/15 21:27	1055
Carbazole	ND	ug/kg	240		1	120	05/04/15	05/06/15 21:27	1055
4-Chloro-3-methylphenol	ND	ug/kg	240		1	120	05/04/15	05/06/15 21:27	1055
4-Chloroaniline	ND	ug/kg	240		1	240	05/04/15	05/06/15 21:27	1055
2-Chloronaphthalene	ND	ug/kg	240		1	120	05/04/15	05/06/15 21:27	1055
2-Chlorophenol	ND	ug/kg	240		1	120	05/04/15	05/06/15 21:27	1055
4-Chlorophenyl phenyl ether	ND	ug/kg	240		1	120	05/04/15	05/06/15 21:27	1055
Dibenzofuran	ND	ug/kg	240		1	120	05/04/15	05/06/15 21:27	1055
3,3-Dichlorobenzidine	ND	ug/kg	240		1	120	05/04/15	05/06/15 21:27	1055
2,4-Dichlorophenol	ND	ug/kg	240		1	120	05/04/15	05/06/15 21:27	1055
Diethyl phthalate	ND	ug/kg	240		1	120	05/04/15	05/06/15 21:27	1055
Dimethyl phthalate	ND	ug/kg	240		1	120	05/04/15	05/06/15 21:27	1055
2,4-Dimethylphenol	ND	ug/kg	240		1	120	05/04/15	05/06/15 21:27	1055
4,6-Dinitro-2-methyl phenol	ND	ug/kg	240		1	120	05/04/15	05/06/15 21:27	1055
2,4-Dinitrophenol	ND	ug/kg	470		1	240	05/04/15	05/06/15 21:27	1055
2,4-Dinitrotoluene	ND	ug/kg	240		1	120	05/04/15	05/06/15 21:27	1055
2,6-Dinitrotoluene	ND	ug/kg	240		1	120	05/04/15	05/06/15 21:27	1055
Hexachlorobenzene	ND	ug/kg	240		1	120	05/04/15	05/06/15 21:27	1055
Hexachlorobutadiene	ND	ug/kg	240		1	120	05/04/15	05/06/15 21:27	1055
Hexachlorocyclopentadiene	ND	ug/kg	240		1	120	05/04/15	05/06/15 21:27	1055
Hexachloroethane	ND	ug/kg	240		1	120	05/04/15	05/06/15 21:27	1055

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CERTIFICATE OF ANALYSIS

No: 15050103

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-5	Date/Time Sampled: 04/30/2015 13:31	PSS Sample ID: 15050103-006
Matrix: SOIL	Date/Time Received: 05/01/2015 10:41	% Solids: 70

TCL Semivolatile Organic Compounds w/o PAHs Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Isophorone	ND	ug/kg	240		1	120	05/04/15	05/06/15 21:27	1055
2-Methylphenol	ND	ug/kg	240		1	120	05/04/15	05/06/15 21:27	1055
3&4-Methylphenol	ND	ug/kg	240		1	120	05/04/15	05/06/15 21:27	1055
4-Nitroaniline	ND	ug/kg	240		1	240	05/04/15	05/06/15 21:27	1055
3-Nitroaniline	ND	ug/kg	240		1	120	05/04/15	05/06/15 21:27	1055
2-Nitroaniline	ND	ug/kg	240		1	120	05/04/15	05/06/15 21:27	1055
Nitrobenzene	ND	ug/kg	240		1	120	05/04/15	05/06/15 21:27	1055
2-Nitrophenol	ND	ug/kg	240		1	120	05/04/15	05/06/15 21:27	1055
4-Nitrophenol	ND	ug/kg	240		1	120	05/04/15	05/06/15 21:27	1055
N-Nitrosodi-n-Propylamine	ND	ug/kg	95		1	95	05/04/15	05/06/15 21:27	1055
N-Nitrosodiphenylamine	ND	ug/kg	240		1	120	05/04/15	05/06/15 21:27	1055
Di-n-octyl phthalate	ND	ug/kg	240		1	240	05/04/15	05/06/15 21:27	1055
Pentachlorophenol	ND	ug/kg	240		1	240	05/04/15	05/06/15 21:27	1055
Phenol	ND	ug/kg	240		1	120	05/04/15	05/06/15 21:27	1055
Atrazine	ND	ug/kg	240		1	120	05/04/15	05/06/15 21:27	1055
Pyridine	ND	ug/kg	240		1	120	05/04/15	05/06/15 21:27	1055
Caprolactam	ND	ug/kg	240		1	120	05/04/15	05/06/15 21:27	1055
2,4,6-Trichlorophenol	ND	ug/kg	240		1	120	05/04/15	05/06/15 21:27	1055
2,4,5-Trichlorophenol	ND	ug/kg	240		1	120	05/04/15	05/06/15 21:27	1055

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CERTIFICATE OF ANALYSIS

No: 15050103

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-2	Date/Time Sampled: 04/30/2015 15:32	PSS Sample ID: 15050103-007
Matrix: SOIL	Date/Time Received: 05/01/2015 10:41	% Solids: 51

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	mg/kg	4.4		1	2.2	05/01/15	05/04/15 18:39	1033
Arsenic	7.8	mg/kg	0.88		1	0.44	05/01/15	05/04/15 18:39	1033
Beryllium	ND	mg/kg	4.4		1	2.2	05/01/15	05/05/15 15:09	1033
Cadmium	ND	mg/kg	4.4		1	2.2	05/01/15	05/04/15 18:39	1033
Chromium	60	mg/kg	4.4		1	2.2	05/01/15	05/04/15 18:39	1033
Copper	25	mg/kg	4.4		1	2.2	05/01/15	05/04/15 18:39	1033
Lead	29	mg/kg	4.4		1	2.2	05/01/15	05/04/15 18:39	1033
Mercury	0.11	mg/kg	0.18	J	1	0.088	05/01/15	05/07/15 12:37	1033
Nickel	26	mg/kg	4.4		1	2.2	05/01/15	05/04/15 18:39	1033
Selenium	ND	mg/kg	4.4		1	2.2	05/01/15	05/05/15 15:09	1033
Silver	ND	mg/kg	4.4		1	2.2	05/01/15	05/05/15 15:09	1033
Thallium	ND	mg/kg	0.88		1	0.44	05/01/15	05/04/15 18:39	1033
Zinc	60	mg/kg	18		1	8.8	05/01/15	05/04/15 18:39	1033

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	ND	mg/kg	19		1	7.7	05/06/15	05/08/15 14:18	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/kg	190		1	97	05/01/15	05/01/15 17:56	1035

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15050103

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-2	Date/Time Sampled: 04/30/2015 15:32	PSS Sample ID: 15050103-007
Matrix: SOIL	Date/Time Received: 05/01/2015 10:41	% Solids: 51

Polychlorinated Biphenyls

Analytical Method: SW-846 8082 A

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
PCB-1016	ND	mg/kg	0.099		1	0.099	05/01/15	05/04/15 16:00	1029
PCB-1221	ND	mg/kg	0.099		1	0.099	05/01/15	05/04/15 16:00	1029
PCB-1232	ND	mg/kg	0.099		1	0.099	05/01/15	05/04/15 16:00	1029
PCB-1242	ND	mg/kg	0.099		1	0.099	05/01/15	05/04/15 16:00	1029
PCB-1248	ND	mg/kg	0.099		1	0.099	05/01/15	05/04/15 16:00	1029
PCB-1254	ND	mg/kg	0.099		1	0.099	05/01/15	05/04/15 16:00	1029
PCB-1260	ND	mg/kg	0.099		1	0.099	05/01/15	05/04/15 16:00	1029

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No: 15050103

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-2	Date/Time Sampled: 04/30/2015 15:32	PSS Sample ID: 15050103-007
Matrix: SOIL	Date/Time Received: 05/01/2015 10:41	% Solids: 51

TCL Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Dichlorodifluoromethane	ND	ug/kg	9.7		1	4.8	05/04/15	05/04/15 16:28	1011
Chloromethane	ND	ug/kg	9.7		1	4.8	05/04/15	05/04/15 16:28	1011
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	ug/kg	9.7		1	4.8	05/04/15	05/04/15 16:28	1011
Vinyl Chloride	ND	ug/kg	9.7		1	4.8	05/04/15	05/04/15 16:28	1011
Bromomethane	ND	ug/kg	9.7		1	4.8	05/04/15	05/04/15 16:28	1011
Chloroethane	ND	ug/kg	9.7		1	4.8	05/04/15	05/04/15 16:28	1011
Acetone	42	ug/kg	39		1	19	05/04/15	05/04/15 16:28	1011
Cyclohexane	ND	ug/kg	39		1	19	05/04/15	05/04/15 16:28	1011
Trichlorofluoromethane	ND	ug/kg	9.7		1	4.8	05/04/15	05/04/15 16:28	1011
1,1-Dichloroethene	ND	ug/kg	9.7		1	4.8	05/04/15	05/04/15 16:28	1011
Methylene Chloride	ND	ug/kg	9.7		1	4.8	05/04/15	05/04/15 16:28	1011
trans-1,2-Dichloroethene	ND	ug/kg	9.7		1	4.8	05/04/15	05/04/15 16:28	1011
Methyl-t-butyl ether	ND	ug/kg	9.7		1	4.8	05/04/15	05/04/15 16:28	1011
1,1-Dichloroethane	ND	ug/kg	9.7		1	4.8	05/04/15	05/04/15 16:28	1011
2-Butanone	ND	ug/kg	39		1	19	05/04/15	05/04/15 16:28	1011
cis-1,2-Dichloroethene	ND	ug/kg	9.7		1	4.8	05/04/15	05/04/15 16:28	1011
Bromochloromethane	ND	ug/kg	9.7		1	4.8	05/04/15	05/04/15 16:28	1011
Chloroform	ND	ug/kg	9.7		1	4.8	05/04/15	05/04/15 16:28	1011
1,1,1-Trichloroethane	ND	ug/kg	9.7		1	4.8	05/04/15	05/04/15 16:28	1011
1,2-Dichloroethane	ND	ug/kg	9.7		1	4.8	05/04/15	05/04/15 16:28	1011
Carbon Tetrachloride	ND	ug/kg	9.7		1	4.8	05/04/15	05/04/15 16:28	1011
Benzene	ND	ug/kg	9.7		1	4.8	05/04/15	05/04/15 16:28	1011
1,2-Dichloropropane	ND	ug/kg	9.7		1	4.8	05/04/15	05/04/15 16:28	1011
Carbon Disulfide	ND	ug/kg	19		1	9.7	05/04/15	05/04/15 16:28	1011
Methylcyclohexane	ND	ug/kg	39		1	19	05/04/15	05/04/15 16:28	1011
Trichloroethene	ND	ug/kg	9.7		1	4.8	05/04/15	05/04/15 16:28	1011
Methyl Acetate	ND	ug/kg	39		1	19	05/04/15	05/04/15 16:28	1011
Bromodichloromethane	ND	ug/kg	9.7		1	4.8	05/04/15	05/04/15 16:28	1011
cis-1,3-Dichloropropene	ND	ug/kg	9.7		1	4.8	05/04/15	05/04/15 16:28	1011
4-Methyl-2-Pentanone	ND	ug/kg	39		1	19	05/04/15	05/04/15 16:28	1011

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15050103

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-2	Date/Time Sampled: 04/30/2015 15:32	PSS Sample ID: 15050103-007
Matrix: SOIL	Date/Time Received: 05/01/2015 10:41	% Solids: 51

TCL Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
trans-1,3-Dichloropropene	ND	ug/kg	9.7		1	4.8	05/04/15	05/04/15 16:28	1011
1,1,2-Trichloroethane	ND	ug/kg	9.7		1	4.8	05/04/15	05/04/15 16:28	1011
Toluene	ND	ug/kg	9.7		1	4.8	05/04/15	05/04/15 16:28	1011
2-Hexanone	ND	ug/kg	39		1	19	05/04/15	05/04/15 16:28	1011
1,2-Dibromoethane	ND	ug/kg	9.7		1	4.8	05/04/15	05/04/15 16:28	1011
Dibromochloromethane	ND	ug/kg	9.7		1	4.8	05/04/15	05/04/15 16:28	1011
Bromoform	ND	ug/kg	9.7		1	4.8	05/04/15	05/04/15 16:28	1011
Tetrachloroethene	ND	ug/kg	9.7		1	4.8	05/04/15	05/04/15 16:28	1011
Chlorobenzene	ND	ug/kg	9.7		1	4.8	05/04/15	05/04/15 16:28	1011
Ethylbenzene	ND	ug/kg	9.7		1	4.8	05/04/15	05/04/15 16:28	1011
m,p-Xylenes	ND	ug/kg	19		1	9.7	05/04/15	05/04/15 16:28	1011
Styrene	ND	ug/kg	9.7		1	4.8	05/04/15	05/04/15 16:28	1011
1,1,2,2-Tetrachloroethane	ND	ug/kg	9.7		1	4.8	05/04/15	05/04/15 16:28	1011
o-Xylene	ND	ug/kg	9.7		1	4.8	05/04/15	05/04/15 16:28	1011
Isopropylbenzene	ND	ug/kg	9.7		1	4.8	05/04/15	05/04/15 16:28	1011
1,3-Dichlorobenzene	ND	ug/kg	9.7		1	4.8	05/04/15	05/04/15 16:28	1011
1,4-Dichlorobenzene	ND	ug/kg	9.7		1	4.8	05/04/15	05/04/15 16:28	1011
1,2-Dichlorobenzene	ND	ug/kg	9.7		1	4.8	05/04/15	05/04/15 16:28	1011
1,2-Dibromo-3-Chloropropane	ND	ug/kg	78		1	39	05/04/15	05/04/15 16:28	1011
1,2,4-Trichlorobenzene	ND	ug/kg	9.7		1	4.8	05/04/15	05/04/15 16:28	1011
1,2,3-Trichlorobenzene	ND	ug/kg	9.7		1	4.8	05/04/15	05/04/15 16:28	1011

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CERTIFICATE OF ANALYSIS

No: 15050103

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-2	Date/Time Sampled: 04/30/2015 15:32	PSS Sample ID: 15050103-007
Matrix: SOIL	Date/Time Received: 05/01/2015 10:41	% Solids: 51

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/kg	6.5		1	6.5	05/05/15	05/09/15 22:13	1055
Acenaphthylene	ND	ug/kg	6.5		1	6.5	05/05/15	05/09/15 22:13	1055
Anthracene	ND	ug/kg	6.5		1	6.5	05/05/15	05/09/15 22:13	1055
Benzo(a)anthracene	ND	ug/kg	6.5		1	6.5	05/05/15	05/09/15 22:13	1055
Benzo(a)pyrene	ND	ug/kg	6.5		1	6.5	05/05/15	05/09/15 22:13	1055
Benzo(b)fluoranthene	7.8	ug/kg	6.5		1	6.5	05/05/15	05/09/15 22:13	1055
Benzo(g,h,i)perylene	ND	ug/kg	6.5		1	6.5	05/05/15	05/09/15 22:13	1055
Benzo(k)fluoranthene	ND	ug/kg	6.5		1	6.5	05/05/15	05/09/15 22:13	1055
Chrysene	ND	ug/kg	6.5		1	6.5	05/05/15	05/09/15 22:13	1055
Dibenz(a,h)Anthracene	ND	ug/kg	6.5		1	6.5	05/05/15	05/09/15 22:13	1055
Fluoranthene	ND	ug/kg	6.5		1	6.5	05/05/15	05/09/15 22:13	1055
Fluorene	ND	ug/kg	6.5		1	6.5	05/05/15	05/09/15 22:13	1055
Indeno(1,2,3-c,d)Pyrene	18	ug/kg	6.5		1	6.5	05/05/15	05/09/15 22:13	1055
2-Methylnaphthalene	ND	ug/kg	6.5		1	6.5	05/05/15	05/09/15 22:13	1055
Naphthalene	ND	ug/kg	6.5		1	6.5	05/05/15	05/09/15 22:13	1055
Phenanthrene	ND	ug/kg	6.5		1	6.5	05/05/15	05/09/15 22:13	1055
Pyrene	ND	ug/kg	6.5		1	6.5	05/05/15	05/09/15 22:13	1055

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CERTIFICATE OF ANALYSIS

No: 15050103

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-2	Date/Time Sampled: 04/30/2015 15:32	PSS Sample ID: 15050103-007
Matrix: SOIL	Date/Time Received: 05/01/2015 10:41	% Solids: 51

TCL Semivolatile Organic Compounds w/o PAHs Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acetophenone	ND	ug/kg	330		1	160	05/04/15	05/06/15 21:59	1055
Biphenyl (Diphenyl)	ND	ug/kg	330		1	160	05/04/15	05/06/15 21:59	1055
Butyl benzyl phthalate	ND	ug/kg	330		1	160	05/04/15	05/06/15 21:59	1055
bis(2-chloroethoxy) methane	ND	ug/kg	330		1	160	05/04/15	05/06/15 21:59	1055
bis(2-chloroethyl) ether	ND	ug/kg	330		1	160	05/04/15	05/06/15 21:59	1055
bis(2-chloroisopropyl) ether	ND	ug/kg	330		1	160	05/04/15	05/06/15 21:59	1055
bis(2-ethylhexyl) phthalate	ND	ug/kg	330		1	160	05/04/15	05/06/15 21:59	1055
4-Bromophenylphenyl ether	ND	ug/kg	330		1	160	05/04/15	05/06/15 21:59	1055
Di-n-butyl phthalate	ND	ug/kg	330		1	160	05/04/15	05/06/15 21:59	1055
Carbazole	ND	ug/kg	330		1	160	05/04/15	05/06/15 21:59	1055
4-Chloro-3-methylphenol	ND	ug/kg	330		1	160	05/04/15	05/06/15 21:59	1055
4-Chloroaniline	ND	ug/kg	330		1	330	05/04/15	05/06/15 21:59	1055
2-Chloronaphthalene	ND	ug/kg	330		1	160	05/04/15	05/06/15 21:59	1055
2-Chlorophenol	ND	ug/kg	330		1	160	05/04/15	05/06/15 21:59	1055
4-Chlorophenyl phenyl ether	ND	ug/kg	330		1	160	05/04/15	05/06/15 21:59	1055
Dibenzofuran	ND	ug/kg	330		1	160	05/04/15	05/06/15 21:59	1055
3,3-Dichlorobenzidine	ND	ug/kg	330		1	160	05/04/15	05/06/15 21:59	1055
2,4-Dichlorophenol	ND	ug/kg	330		1	160	05/04/15	05/06/15 21:59	1055
Diethyl phthalate	ND	ug/kg	330		1	160	05/04/15	05/06/15 21:59	1055
Dimethyl phthalate	ND	ug/kg	330		1	160	05/04/15	05/06/15 21:59	1055
2,4-Dimethylphenol	ND	ug/kg	330		1	160	05/04/15	05/06/15 21:59	1055
4,6-Dinitro-2-methyl phenol	ND	ug/kg	330		1	160	05/04/15	05/06/15 21:59	1055
2,4-Dinitrophenol	ND	ug/kg	650		1	330	05/04/15	05/06/15 21:59	1055
2,4-Dinitrotoluene	ND	ug/kg	330		1	160	05/04/15	05/06/15 21:59	1055
2,6-Dinitrotoluene	ND	ug/kg	330		1	160	05/04/15	05/06/15 21:59	1055
Hexachlorobenzene	ND	ug/kg	330		1	160	05/04/15	05/06/15 21:59	1055
Hexachlorobutadiene	ND	ug/kg	330		1	160	05/04/15	05/06/15 21:59	1055
Hexachlorocyclopentadiene	ND	ug/kg	330		1	160	05/04/15	05/06/15 21:59	1055
Hexachloroethane	ND	ug/kg	330		1	160	05/04/15	05/06/15 21:59	1055

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CERTIFICATE OF ANALYSIS

No: 15050103

Arc Environmental, Baltimore, MD

May 11, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Sample ID: S-2	Date/Time Sampled: 04/30/2015 15:32	PSS Sample ID: 15050103-007
Matrix: SOIL	Date/Time Received: 05/01/2015 10:41	% Solids: 51

TCL Semivolatile Organic Compounds w/o PAHs Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Isophorone	ND	ug/kg	330		1	160	05/04/15	05/06/15 21:59	1055
2-Methylphenol	ND	ug/kg	330		1	160	05/04/15	05/06/15 21:59	1055
3&4-Methylphenol	ND	ug/kg	330		1	160	05/04/15	05/06/15 21:59	1055
4-Nitroaniline	ND	ug/kg	330		1	330	05/04/15	05/06/15 21:59	1055
3-Nitroaniline	ND	ug/kg	330		1	160	05/04/15	05/06/15 21:59	1055
2-Nitroaniline	ND	ug/kg	330		1	160	05/04/15	05/06/15 21:59	1055
Nitrobenzene	ND	ug/kg	330		1	160	05/04/15	05/06/15 21:59	1055
2-Nitrophenol	ND	ug/kg	330		1	160	05/04/15	05/06/15 21:59	1055
4-Nitrophenol	ND	ug/kg	330		1	160	05/04/15	05/06/15 21:59	1055
N-Nitrosodi-n-Propylamine	ND	ug/kg	130		1	130	05/04/15	05/06/15 21:59	1055
N-Nitrosodiphenylamine	ND	ug/kg	330		1	160	05/04/15	05/06/15 21:59	1055
Di-n-octyl phthalate	ND	ug/kg	330		1	330	05/04/15	05/06/15 21:59	1055
Pentachlorophenol	ND	ug/kg	330		1	330	05/04/15	05/06/15 21:59	1055
Phenol	ND	ug/kg	330		1	160	05/04/15	05/06/15 21:59	1055
Atrazine	ND	ug/kg	330		1	160	05/04/15	05/06/15 21:59	1055
Pyridine	ND	ug/kg	330		1	160	05/04/15	05/06/15 21:59	1055
Caprolactam	ND	ug/kg	330		1	160	05/04/15	05/06/15 21:59	1055
2,4,6-Trichlorophenol	ND	ug/kg	330		1	160	05/04/15	05/06/15 21:59	1055
2,4,5-Trichlorophenol	ND	ug/kg	330		1	160	05/04/15	05/06/15 21:59	1055



Case Narrative Summary

Client Name: Arc Environmental

Project Name: Percontee

Work Order Number(s): 15050103

Any holding time exceedances, deviations from the method specifications, regulatory requirements or variations to the procedures outlined in the PSS Quality Assurance Manual are outlined below.

The analyses of chlorine, pH, dissolved oxygen, temperature and sulfite for drinking water and non-potable samples tested for compliance have a maximum holding time of 15 minutes. As such, all laboratory analyses for these analytes exceed holding times.

Matrix spike and matrix spike duplicate analyses may not be performed due to insufficient sample quantity. In these instances, a laboratory control sample and laboratory control sample duplicate are analyzed unless otherwise noted or specified in the method.

Sample Receipt:

Sample(s) received at 0 degrees but no samples were frozen.

Analytical:

TCL Semivolatile Organic Compounds w/o PAHs

Batch: 122442

Surrogate exceedances identified; see surrogate summary form.

Laboratory control sample and/or laboratory control sample duplicate (LCS/LCSD) exceedances identified; see LCS summary form.

Batch: 122500

Surrogate exceedances identified; see surrogate summary form.

Batch: 122501

Surrogate exceedances identified; see surrogate summary form.

Sample required 10X dilution due to extracts being viscous and dark in color.

NELAP accreditation was held for all analyses performed unless noted below. See www.phaseonline.com for complete PSS scope of accreditation.



Analytical Data Package Information Summary

Work Order(s): 15050103

Report Prepared For: Arc Environmental, Baltimore, MD

Project Name: Percontee

Project Manager: Christie Pulvino

Method	Client Sample Id	Analysis Type	Lab Sample Id	Analyst	Mtx	Prep Batch	Analytical Batch	Sampled	Prepared	Analyzed
ASTM D2216 05	S-8	Initial	15050103-001	1051	S	122323	122323	04/30/2015	05/01/2015 15:47	05/01/2015 15:47
	S-7	Initial	15050103-002	1051	S	122323	122323	04/30/2015	05/01/2015 15:47	05/01/2015 15:47
	S-4	Initial	15050103-003	1051	S	122323	122323	04/30/2015	05/01/2015 15:47	05/01/2015 15:47
	S-3	Initial	15050103-004	1051	S	122323	122323	04/30/2015	05/01/2015 15:47	05/01/2015 15:47
	S-6	Initial	15050103-005	1051	S	122323	122323	04/30/2015	05/01/2015 15:47	05/01/2015 15:47
	S-5	Initial	15050103-006	1051	S	122323	122323	04/30/2015	05/01/2015 15:47	05/01/2015 15:47
	S-2	Initial	15050103-007	1051	S	122323	122323	04/30/2015	05/01/2015 15:47	05/01/2015 15:47
SW-846 6020 A	S-8	Initial	15050103-001	1033	S	55260	122370	04/30/2015	05/01/2015 14:57	05/04/2015 18:03
	S-7	Initial	15050103-002	1033	S	55260	122370	04/30/2015	05/01/2015 14:57	05/04/2015 18:09
	S-4	Initial	15050103-003	1033	S	55260	122370	04/30/2015	05/01/2015 14:57	05/04/2015 18:15
	S-3	Initial	15050103-004	1033	S	55260	122370	04/30/2015	05/01/2015 14:57	05/04/2015 18:21
	S-6	Initial	15050103-005	1033	S	55260	122370	04/30/2015	05/01/2015 14:57	05/04/2015 18:27
	S-5	Initial	15050103-006	1033	S	55260	122370	04/30/2015	05/01/2015 14:57	05/04/2015 18:33
	S-2	Initial	15050103-007	1033	S	55260	122370	04/30/2015	05/01/2015 14:57	05/04/2015 18:39
	55260-1-BKS	BKS	55260-1-BKS	1033	S	55260	122370	-----	05/01/2015 14:57	05/04/2015 16:27
	55260-1-BLK	BLK	55260-1-BLK	1033	S	55260	122370	-----	05/01/2015 14:57	05/04/2015 16:21
	5042803-01 S	MS	15042905-001 S	1033	S	55260	122370	04/24/2015	05/01/2015 14:57	05/04/2015 16:39
	5042803-01 SD	MSD	15042905-001 SD	1033	S	55260	122370	04/24/2015	05/01/2015 14:57	05/04/2015 16:45
	S-8	Reanalysis	15050103-001	1033	S	55260	122407	04/30/2015	05/01/2015 14:57	05/05/2015 14:09
	S-7	Reanalysis	15050103-002	1033	S	55260	122407	04/30/2015	05/01/2015 14:57	05/05/2015 14:15
	S-4	Reanalysis	15050103-003	1033	S	55260	122407	04/30/2015	05/01/2015 14:57	05/05/2015 14:21
	S-3	Reanalysis	15050103-004	1033	S	55260	122407	04/30/2015	05/01/2015 14:57	05/05/2015 14:51
	S-6	Reanalysis	15050103-005	1033	S	55260	122407	04/30/2015	05/01/2015 14:57	05/05/2015 14:57
	S-5	Reanalysis	15050103-006	1033	S	55260	122407	04/30/2015	05/01/2015 14:57	05/05/2015 15:03
	S-2	Reanalysis	15050103-007	1033	S	55260	122407	04/30/2015	05/01/2015 14:57	05/05/2015 15:09
	S-6	Reanalysis	15050103-005	1033	S	55260	122473	04/30/2015	05/01/2015 14:57	05/07/2015 12:31
	S-2	Reanalysis	15050103-007	1033	S	55260	122473	04/30/2015	05/01/2015 14:57	05/07/2015 12:37
SW-846 8015 C	55339-1-BKS	BKS	55339-1-BKS	1055	S	55339	122474	-----	05/06/2015 17:40	05/07/2015 14:09



Analytical Data Package Information Summary

Work Order(s): 15050103

Report Prepared For: Arc Environmental, Baltimore, MD

Project Name: Percontee

Project Manager: Christie Pulvino

Method	Client Sample Id	Analysis Type	Lab Sample Id	Analyst	Mtx	Prep Batch	Analytical Batch	Sampled	Prepared	Analyzed
SW-846 8015 C	55339-1-BLK	BLK	55339-1-BLK	1055	S	55339	122474	-----	05/06/2015 17:40	05/07/2015 12:36
	55339-1-BSD	BSD	55339-1-BSD	1055	S	55339	122474	-----	05/06/2015 17:40	05/07/2015 14:40
	S-8	Initial	15050103-001	1055	S	55339	122516	04/30/2015	05/06/2015 17:40	05/08/2015 15:51
	S-7	Initial	15050103-002	1055	S	55339	122516	04/30/2015	05/06/2015 17:40	05/08/2015 14:18
	S-3	Initial	15050103-004	1055	S	55339	122516	04/30/2015	05/06/2015 17:40	05/08/2015 14:49
	S-6	Initial	15050103-005	1055	S	55339	122516	04/30/2015	05/06/2015 17:40	05/08/2015 13:17
	S-5	Initial	15050103-006	1055	S	55339	122516	04/30/2015	05/06/2015 17:40	05/08/2015 13:48
	S-2	Initial	15050103-007	1055	S	55339	122516	04/30/2015	05/06/2015 17:40	05/08/2015 14:18
	Sample #1 S	MS	15050621-001 S	1055	S	55339	122516	05/06/2015	05/06/2015 17:40	05/08/2015 12:15
	Sample #1 SD	MSD	15050621-001 SD	1055	S	55339	122516	05/06/2015	05/06/2015 17:40	05/08/2015 12:46
	S-4	Initial	15050103-003	1055	S	55339	122521	04/30/2015	05/06/2015 17:40	05/08/2015 16:52
SW-846 8015C	S-8	Initial	15050103-001	1035	S	55275	122342	04/30/2015	05/01/2015 09:00	05/01/2015 14:59
	S-7	Initial	15050103-002	1035	S	55275	122342	04/30/2015	05/01/2015 09:00	05/01/2015 15:27
	S-4	Initial	15050103-003	1035	S	55275	122342	04/30/2015	05/01/2015 09:00	05/01/2015 15:57
	S-3	Initial	15050103-004	1035	S	55275	122342	04/30/2015	05/01/2015 09:00	05/01/2015 16:27
	S-6	Initial	15050103-005	1035	S	55275	122342	04/30/2015	05/01/2015 09:00	05/01/2015 16:56
	S-5	Initial	15050103-006	1035	S	55275	122342	04/30/2015	05/01/2015 09:00	05/01/2015 17:26
	S-2	Initial	15050103-007	1035	S	55275	122342	04/30/2015	05/01/2015 09:00	05/01/2015 17:56
	55275-2-BKS	BKS	55275-2-BKS	1035	S	55275	122342	-----	05/01/2015 09:00	05/01/2015 10:33
	55275-2-BLK	BLK	55275-2-BLK	1035	S	55275	122342	-----	05/01/2015 09:00	05/01/2015 10:05
	Area #1-S #1 S	MS	15043008-001 S	1035	S	55275	122342	04/27/2015	05/01/2015 09:00	05/01/2015 20:21
	Area #1-S #1 SD	MSD	15043008-001 SD	1035	S	55275	122342	04/27/2015	05/01/2015 09:00	05/01/2015 20:51
SW-846 8082 A	S-8	Initial	15050103-001	1029	S	55248	122379	04/30/2015	05/01/2015 10:11	05/04/2015 13:05
	S-7	Initial	15050103-002	1029	S	55248	122379	04/30/2015	05/01/2015 10:11	05/04/2015 13:34
	S-4	Initial	15050103-003	1029	S	55248	122379	04/30/2015	05/01/2015 10:11	05/04/2015 14:03
	S-3	Initial	15050103-004	1029	S	55248	122379	04/30/2015	05/01/2015 10:11	05/04/2015 14:32
	S-6	Initial	15050103-005	1029	S	55248	122379	04/30/2015	05/01/2015 10:11	05/04/2015 15:02
	S-5	Initial	15050103-006	1029	S	55248	122379	04/30/2015	05/01/2015 10:11	05/04/2015 15:31



Analytical Data Package Information Summary

Work Order(s): 15050103

Report Prepared For: Arc Environmental, Baltimore, MD

Project Name: Percontee

Project Manager: Christie Pulvino

Method	Client Sample Id	Analysis Type	Lab Sample Id	Analyst	Mtx	Prep Batch	Analytical Batch	Sampled	Prepared	Analyzed
SW-846 8082 A	S-2	Initial	15050103-007	1029	S	55248	122379	04/30/2015	05/01/2015 10:11	05/04/2015 16:00
	55248-1-BKS	BKS	55248-1-BKS	1029	S	55248	122379	-----	05/01/2015 10:11	05/04/2015 13:05
	55248-1-BLK	BLK	55248-1-BLK	1029	S	55248	122379	-----	05/01/2015 10:11	05/04/2015 12:36
	55248-1-BSD	BSD	55248-1-BSD	1029	S	55248	122379	-----	05/01/2015 10:11	05/04/2015 13:34
	ESI-WC S	MS	15043017-001 S	1029	S	55248	122379	04/28/2015	05/01/2015 10:11	05/04/2015 14:03
	ESI-WC SD	MSD	15043017-001 SD	1029	S	55248	122379	04/28/2015	05/01/2015 10:11	05/04/2015 14:32
SW-846 8260 B	S-8	Initial	15050103-001	1011	S	55264	122330	04/30/2015	05/01/2015 09:00	05/01/2015 20:36
	55264-1-BKS	BKS	55264-1-BKS	1011	S	55264	122330	-----	05/01/2015 09:00	05/01/2015 13:13
	55264-1-BLK	BLK	55264-1-BLK	1011	S	55264	122330	-----	05/01/2015 09:00	05/01/2015 12:43
	11417-E-Sidewall-6-166,61 S	MS	15043025-001 S	1011	S	55264	122330	04/29/2015	05/01/2015 09:00	05/01/2015 14:12
	11417-E-Sidewall-6-166,61 SD	MSD	15043025-001 SD	1011	S	55264	122330	04/29/2015	05/01/2015 09:00	05/01/2015 14:41
	S-7	Initial	15050103-002	1011	S	55281	122348	04/30/2015	05/02/2015 09:18	05/02/2015 12:32
	S-4	Initial	15050103-003	1011	S	55281	122348	04/30/2015	05/02/2015 09:18	05/02/2015 15:00
	S-3	Initial	15050103-004	1011	S	55281	122348	04/30/2015	05/02/2015 09:18	05/02/2015 15:30
	55281-1-BKS	BKS	55281-1-BKS	1011	S	55281	122348	-----	05/02/2015 09:18	05/02/2015 11:29
	55281-1-BLK	BLK	55281-1-BLK	1011	S	55281	122348	-----	05/02/2015 09:18	05/02/2015 10:59
	S-7 S	MS	15050103-002 S	1011	S	55281	122348	04/30/2015	05/02/2015 09:18	05/02/2015 13:01
	S-7 SD	MSD	15050103-002 SD	1011	S	55281	122348	04/30/2015	05/02/2015 09:18	05/02/2015 13:31
	S-6	Initial	15050103-005	1011	S	55286	122363	04/30/2015	05/04/2015 09:56	05/04/2015 13:31
	S-5	Initial	15050103-006	1011	S	55286	122363	04/30/2015	05/04/2015 09:56	05/04/2015 15:58
	S-2	Initial	15050103-007	1011	S	55286	122363	04/30/2015	05/04/2015 09:56	05/04/2015 16:28
	55286-1-BKS	BKS	55286-1-BKS	1011	S	55286	122363	-----	05/04/2015 09:56	05/04/2015 12:01
	55286-1-BLK	BLK	55286-1-BLK	1011	S	55286	122363	-----	05/04/2015 09:56	05/04/2015 11:32
	S-6 S	MS	15050103-005 S	1011	S	55286	122363	04/30/2015	05/04/2015 09:56	05/04/2015 14:01
	S-6 SD	MSD	15050103-005 SD	1011	S	55286	122363	04/30/2015	05/04/2015 09:56	05/04/2015 14:30
	SW-846 8270 C	S-6	Initial	15050103-005	1055	S	55279	122442	04/30/2015	05/04/2015 10:25
S-5		Initial	15050103-006	1055	S	55279	122442	04/30/2015	05/04/2015 10:25	05/06/2015 21:27



Analytical Data Package Information Summary

Work Order(s): 15050103

Report Prepared For: Arc Environmental, Baltimore, MD

Project Name: Percontee

Project Manager: Christie Pulvino

Method	Client Sample Id	Analysis Type	Lab Sample Id	Analyst	Mtx	Prep Batch	Analytical Batch	Sampled	Prepared	Analyzed	
SW-846 8270 C	S-2	Initial	15050103-007	1055	S	55279	122442	04/30/2015	05/04/2015 10:25	05/06/2015 21:59	
	55279-1-BKS	BKS	55279-1-BKS	1055	S	55279	122442	-----	05/04/2015 10:25	05/06/2015 12:32	
	55279-1-BLK	BLK	55279-1-BLK	1055	S	55279	122442	-----	05/04/2015 10:25	05/06/2015 12:01	
	55279-1-BSD	BSD	55279-1-BSD	1055	S	55279	122442	-----	05/04/2015 10:25	05/06/2015 13:03	
	11417-135,62-UST-14 S	MS	15043025-007 S	1055	S	55279	122442	04/29/2015	05/04/2015 10:25	05/06/2015 13:34	
	11417-135,62-UST-14 SD	MSD	15043025-007 SD	1055	S	55279	122442	04/29/2015	05/04/2015 10:25	05/06/2015 14:06	
	S-7	Initial	15050103-002	1055	S	55279	122500	04/30/2015	05/04/2015 10:25	05/07/2015 22:10	
	S-8	Initial	15050103-001	1055	S	55279	122501	04/30/2015	05/04/2015 10:25	05/08/2015 10:22	
	S-4	Initial	15050103-003	1055	S	55279	122501	04/30/2015	05/04/2015 10:25	05/08/2015 07:24	
	S-3	Initial	15050103-004	1055	S	55279	122501	04/30/2015	05/04/2015 10:25	05/08/2015 05:19	
	SW-846 8270 C	S-6	Initial	15050103-005	1055	S	55287	122545	04/30/2015	05/05/2015 09:12	05/08/2015 13:15
		55287-1-BKS	BKS	55287-1-BKS	1055	S	55287	122545	-----	05/05/2015 09:12	05/08/2015 19:41
		55287-1-BLK	BLK	55287-1-BLK	1055	S	55287	122545	-----	05/05/2015 09:12	05/08/2015 12:45
55287-1-BSD		BSD	55287-1-BSD	1055	S	55287	122545	-----	05/05/2015 09:12	05/08/2015 20:11	
S-8		Initial	15050103-001	1055	S	55287	122546	04/30/2015	05/05/2015 09:12	05/10/2015 00:42	
S-7		Initial	15050103-002	1055	S	55287	122546	04/30/2015	05/05/2015 09:12	05/09/2015 20:14	
S-4		Initial	15050103-003	1055	S	55287	122546	04/30/2015	05/05/2015 09:12	05/10/2015 01:12	
S-3		Initial	15050103-004	1055	S	55287	122546	04/30/2015	05/05/2015 09:12	05/10/2015 01:42	
S-5		Initial	15050103-006	1055	S	55287	122546	04/30/2015	05/05/2015 09:12	05/09/2015 21:44	
S-2		Initial	15050103-007	1055	S	55287	122546	04/30/2015	05/05/2015 09:12	05/09/2015 22:13	
S-7 S		MS	15050103-002 S	1055	S	55287	122546	04/30/2015	05/05/2015 09:12	05/09/2015 20:44	
S-7 SD		MSD	15050103-002 SD	1055	S	55287	122546	04/30/2015	05/05/2015 09:12	05/09/2015 21:14	

PHASE SEPARATION SCIENCE, INC.

QC Summary 15050103

Arc Environmental Percontee

Analytical Method: SW-846 8082 A

Seq Number: 122379
PSS Sample ID: 15050103-001

Prep Method: SW3550C
Date Prep: 05/01/2015

Matrix: Soil

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	58		11-150	%	05/04/15 13:05
Tetrachloro-m-xylene	67		12-158	%	05/04/15 13:05

Analytical Method: SW-846 8270 C

Seq Number: 122501
PSS Sample ID: 15050103-001

Prep Method: SW3550C
Date Prep: 05/04/2015

Matrix: Soil

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	58	*	60-131	%	05/08/15 10:22
2-Fluorophenol	66		45-108	%	05/08/15 10:22
Nitrobenzene-d5	52		42-131	%	05/08/15 10:22
Phenol-d6	76		48-124	%	05/08/15 10:22
Terphenyl-D14	58	*	59-137	%	05/08/15 10:22
2,4,6-Tribromophenol	89		46-129	%	05/08/15 10:22

Analytical Method: SW-846 8015 C

Seq Number: 122516
PSS Sample ID: 15050103-001

Prep Method: SW3550C
Date Prep: 05/06/2015

Matrix: Soil

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	59		42-129	%	05/08/15 15:51

Analytical Method: SW-846 8270 C

Seq Number: 122546
PSS Sample ID: 15050103-001

Prep Method: SW3550C
Date Prep: 05/05/2015

Matrix: Soil

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	70		51-109	%	05/10/15 00:42
Nitrobenzene-d5	70		48-111	%	05/10/15 00:42
Terphenyl-D14	90		45-137	%	05/10/15 00:42

PHASE SEPARATION SCIENCE, INC.

QC Summary 15050103

Arc Environmental Percontee

Analytical Method: SW-846 8260 B

Seq Number: 122330
PSS Sample ID: 15050103-001

Prep Method: SW5030
Date Prep: 05/01/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	101		80-125	%	05/01/15 20:36
Dibromofluoromethane	101		85-115	%	05/01/15 20:36
Toluene-D8	99		91-109	%	05/01/15 20:36

Analytical Method: SW-846 8015C

Seq Number: 122342
PSS Sample ID: 15050103-001

Prep Method: SW5030
Date Prep: 05/01/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	67		55-142	%	05/01/15 14:59

Analytical Method: SW-846 8082 A

Seq Number: 122379
PSS Sample ID: 15050103-002

Prep Method: SW3550C
Date Prep: 05/01/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	80		11-150	%	05/04/15 13:34
Tetrachloro-m-xylene	69		12-158	%	05/04/15 13:34

Analytical Method: SW-846 8270 C

Seq Number: 122500
PSS Sample ID: 15050103-002

Prep Method: SW3550C
Date Prep: 05/04/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	58	*	60-131	%	05/07/15 22:10
2-Fluorophenol	59		45-108	%	05/07/15 22:10
Nitrobenzene-d5	54		42-131	%	05/07/15 22:10
Phenol-d6	71		48-124	%	05/07/15 22:10
Terphenyl-D14	58	*	59-137	%	05/07/15 22:10
2,4,6-Tribromophenol	77		46-129	%	05/07/15 22:10

Analytical Method: SW-846 8015 C

Seq Number: 122516
PSS Sample ID: 15050103-002

Prep Method: SW3550C
Date Prep: 05/06/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	61		42-129	%	05/08/15 14:18

PHASE SEPARATION SCIENCE, INC.

QC Summary 15050103

Arc Environmental Percontee

Analytical Method: SW-846 8270 C

Seq Number: 122546
PSS Sample ID: 15050103-002

Prep Method: SW3550C
Date Prep: 05/05/2015

Matrix: Soil

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	58		51-109	%	05/09/15 20:14
Nitrobenzene-d5	67		48-111	%	05/09/15 20:14
Terphenyl-D14	73		45-137	%	05/09/15 20:14

Analytical Method: SW-846 8015C

Seq Number: 122342
PSS Sample ID: 15050103-002

Prep Method: SW5030
Date Prep: 05/01/2015

Matrix: Soil

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	68		55-142	%	05/01/15 15:27

Analytical Method: SW-846 8260 B

Seq Number: 122348
PSS Sample ID: 15050103-002

Prep Method: SW5030
Date Prep: 05/02/2015

Matrix: Soil

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	99		80-125	%	05/02/15 12:32
Dibromofluoromethane	101		85-115	%	05/02/15 12:32
Toluene-D8	98		91-109	%	05/02/15 12:32

Analytical Method: SW-846 8082 A

Seq Number: 122379
PSS Sample ID: 15050103-003

Prep Method: SW3550C
Date Prep: 05/01/2015

Matrix: Soil

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	54		11-150	%	05/04/15 14:03
Tetrachloro-m-xylene	61		12-158	%	05/04/15 14:03

PHASE SEPARATION SCIENCE, INC.

QC Summary 15050103

Arc Environmental Percontee

Analytical Method: SW-846 8270 C

Seq Number: 122501
PSS Sample ID: 15050103-003

Prep Method: SW3550C
Date Prep: 05/04/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	45	*	60-131	%	05/08/15 07:24
2-Fluorophenol	52		45-108	%	05/08/15 07:24
Nitrobenzene-d5	43		42-131	%	05/08/15 07:24
Phenol-d6	59		48-124	%	05/08/15 07:24
Terphenyl-D14	46	*	59-137	%	05/08/15 07:24
2,4,6-Tribromophenol	52		46-129	%	05/08/15 07:24

Analytical Method: SW-846 8015 C

Seq Number: 122521
PSS Sample ID: 15050103-003

Prep Method: SW3550C
Date Prep: 05/06/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	57		42-129	%	05/08/15 16:52

Analytical Method: SW-846 8270 C

Seq Number: 122546
PSS Sample ID: 15050103-003

Prep Method: SW3550C
Date Prep: 05/05/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	60		51-109	%	05/10/15 01:12
Nitrobenzene-d5	60		48-111	%	05/10/15 01:12
Terphenyl-D14	90		45-137	%	05/10/15 01:12

Analytical Method: SW-846 8015C

Seq Number: 122342
PSS Sample ID: 15050103-003

Prep Method: SW5030
Date Prep: 05/01/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	67		55-142	%	05/01/15 15:57

Analytical Method: SW-846 8260 B

Seq Number: 122348
PSS Sample ID: 15050103-003

Prep Method: SW5030
Date Prep: 05/02/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	99		80-125	%	05/02/15 15:00
Dibromofluoromethane	102		85-115	%	05/02/15 15:00
Toluene-D8	98		91-109	%	05/02/15 15:00

PHASE SEPARATION SCIENCE, INC.

QC Summary 15050103

Arc Environmental Percontee

Analytical Method: SW-846 8082 A

Seq Number: 122379
PSS Sample ID: 15050103-004

Matrix: Soil

Prep Method: SW3550C
Date Prep: 05/01/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	77		11-150	%	05/04/15 14:32
Tetrachloro-m-xylene	89		12-158	%	05/04/15 14:32

Analytical Method: SW-846 8270 C

Seq Number: 122501
PSS Sample ID: 15050103-004

Matrix: Soil

Prep Method: SW3550C
Date Prep: 05/04/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	53	*	60-131	%	05/08/15 05:19
2-Fluorophenol	58		45-108	%	05/08/15 05:19
Nitrobenzene-d5	48		42-131	%	05/08/15 05:19
Phenol-d6	70		48-124	%	05/08/15 05:19
Terphenyl-D14	55	*	59-137	%	05/08/15 05:19
2,4,6-Tribromophenol	79		46-129	%	05/08/15 05:19

Analytical Method: SW-846 8015 C

Seq Number: 122516
PSS Sample ID: 15050103-004

Matrix: Soil

Prep Method: SW3550C
Date Prep: 05/06/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	58		42-129	%	05/08/15 14:49

Analytical Method: SW-846 8270 C

Seq Number: 122546
PSS Sample ID: 15050103-004

Matrix: Soil

Prep Method: SW3550C
Date Prep: 05/05/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	60		51-109	%	05/10/15 01:42
Nitrobenzene-d5	60		48-111	%	05/10/15 01:42
Terphenyl-D14	80		45-137	%	05/10/15 01:42

Analytical Method: SW-846 8015C

Seq Number: 122342
PSS Sample ID: 15050103-004

Matrix: Soil

Prep Method: SW5030
Date Prep: 05/01/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	63		55-142	%	05/01/15 16:27

PHASE SEPARATION SCIENCE, INC.

QC Summary 15050103

Arc Environmental Percontee

Analytical Method: SW-846 8260 B

Seq Number: 122348
PSS Sample ID: 15050103-004

Matrix: Soil

Prep Method: SW5030
Date Prep: 05/02/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	105		80-125	%	05/02/15 15:30
Dibromofluoromethane	103		85-115	%	05/02/15 15:30
Toluene-D8	98		91-109	%	05/02/15 15:30

Analytical Method: SW-846 8082 A

Seq Number: 122379
PSS Sample ID: 15050103-005

Matrix: Soil

Prep Method: SW3550C
Date Prep: 05/01/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	60		11-150	%	05/04/15 15:02
Tetrachloro-m-xylene	64		12-158	%	05/04/15 15:02

Analytical Method: SW-846 8270 C

Seq Number: 122442
PSS Sample ID: 15050103-005

Matrix: Soil

Prep Method: SW3550C
Date Prep: 05/04/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	48	*	60-131	%	05/06/15 20:56
2-Fluorophenol	58		45-108	%	05/06/15 20:56
Nitrobenzene-d5	46		42-131	%	05/06/15 20:56
Phenol-d6	66		48-124	%	05/06/15 20:56
Terphenyl-D14	50	*	59-137	%	05/06/15 20:56
2,4,6-Tribromophenol	80		46-129	%	05/06/15 20:56

Analytical Method: SW-846 8015 C

Seq Number: 122516
PSS Sample ID: 15050103-005

Matrix: Soil

Prep Method: SW3550C
Date Prep: 05/06/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	57		42-129	%	05/08/15 13:17

PHASE SEPARATION SCIENCE, INC.

QC Summary 15050103

Arc Environmental Percontee

Analytical Method: SW-846 8270 C

Seq Number: 122545
PSS Sample ID: 15050103-005

Prep Method: SW3550C
Date Prep: 05/05/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	70		51-109	%	05/08/15 13:15
Nitrobenzene-d5	67		48-111	%	05/08/15 13:15
Terphenyl-D14	82		45-137	%	05/08/15 13:15

Analytical Method: SW-846 8015C

Seq Number: 122342
PSS Sample ID: 15050103-005

Prep Method: SW5030
Date Prep: 05/01/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	66		55-142	%	05/01/15 16:56

Analytical Method: SW-846 8260 B

Seq Number: 122363
PSS Sample ID: 15050103-005

Prep Method: SW5030
Date Prep: 05/04/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	99		80-125	%	05/04/15 13:31
Dibromofluoromethane	106		85-115	%	05/04/15 13:31
Toluene-D8	98		91-109	%	05/04/15 13:31

Analytical Method: SW-846 8082 A

Seq Number: 122379
PSS Sample ID: 15050103-006

Prep Method: SW3550C
Date Prep: 05/01/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	60		11-150	%	05/04/15 15:31
Tetrachloro-m-xylene	55		12-158	%	05/04/15 15:31

PHASE SEPARATION SCIENCE, INC.

QC Summary 15050103

Arc Environmental Percontee

Analytical Method: SW-846 8270 C

Seq Number: 122442
PSS Sample ID: 15050103-006

Matrix: Soil

Prep Method: SW3550C
Date Prep: 05/04/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	54	*	60-131	%	05/06/15 21:27
2-Fluorophenol	65		45-108	%	05/06/15 21:27
Nitrobenzene-d5	52		42-131	%	05/06/15 21:27
Phenol-d6	73		48-124	%	05/06/15 21:27
Terphenyl-D14	57	*	59-137	%	05/06/15 21:27
2,4,6-Tribromophenol	86		46-129	%	05/06/15 21:27

Analytical Method: SW-846 8015 C

Seq Number: 122516
PSS Sample ID: 15050103-006

Matrix: Soil

Prep Method: SW3550C
Date Prep: 05/06/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	60		42-129	%	05/08/15 13:48

Analytical Method: SW-846 8270 C

Seq Number: 122546
PSS Sample ID: 15050103-006

Matrix: Soil

Prep Method: SW3550C
Date Prep: 05/05/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	65		51-109	%	05/09/15 21:44
Nitrobenzene-d5	72		48-111	%	05/09/15 21:44
Terphenyl-D14	83		45-137	%	05/09/15 21:44

Analytical Method: SW-846 8015C

Seq Number: 122342
PSS Sample ID: 15050103-006

Matrix: Soil

Prep Method: SW5030
Date Prep: 05/01/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	67		55-142	%	05/01/15 17:26

Analytical Method: SW-846 8260 B

Seq Number: 122363
PSS Sample ID: 15050103-006

Matrix: Soil

Prep Method: SW5030
Date Prep: 05/04/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	100		80-125	%	05/04/15 15:58
Dibromofluoromethane	102		85-115	%	05/04/15 15:58
Toluene-D8	99		91-109	%	05/04/15 15:58

PHASE SEPARATION SCIENCE, INC.

QC Summary 15050103

Arc Environmental Percontee

Analytical Method: SW-846 8082 A

Seq Number: 122379
PSS Sample ID: 15050103-007

Matrix: Soil

Prep Method: SW3550C
Date Prep: 05/01/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	75		11-150	%	05/04/15 16:00
Tetrachloro-m-xylene	103		12-158	%	05/04/15 16:00

Analytical Method: SW-846 8270 C

Seq Number: 122442
PSS Sample ID: 15050103-007

Matrix: Soil

Prep Method: SW3550C
Date Prep: 05/04/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	50	*	60-131	%	05/06/15 21:59
2-Fluorophenol	61		45-108	%	05/06/15 21:59
Nitrobenzene-d5	48		42-131	%	05/06/15 21:59
Phenol-d6	69		48-124	%	05/06/15 21:59
Terphenyl-D14	55	*	59-137	%	05/06/15 21:59
2,4,6-Tribromophenol	86		46-129	%	05/06/15 21:59

Analytical Method: SW-846 8015 C

Seq Number: 122516
PSS Sample ID: 15050103-007

Matrix: Soil

Prep Method: SW3550C
Date Prep: 05/06/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	67		42-129	%	05/08/15 14:18

Analytical Method: SW-846 8270 C

Seq Number: 122546
PSS Sample ID: 15050103-007

Matrix: Soil

Prep Method: SW3550C
Date Prep: 05/05/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	63		51-109	%	05/09/15 22:13
Nitrobenzene-d5	69		48-111	%	05/09/15 22:13
Terphenyl-D14	80		45-137	%	05/09/15 22:13

Analytical Method: SW-846 8015C

Seq Number: 122342
PSS Sample ID: 15050103-007

Matrix: Soil

Prep Method: SW5030
Date Prep: 05/01/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	66		55-142	%	05/01/15 17:56

PHASE SEPARATION SCIENCE, INC.

QC Summary 15050103

Arc Environmental Percontee

Analytical Method: SW-846 8260 B

Seq Number: 122363

PSS Sample ID: 15050103-007

Matrix: Soil

Prep Method: SW5030

Date Prep: 05/04/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	99		80-125	%	05/04/15 16:28
Dibromofluoromethane	106		85-115	%	05/04/15 16:28
Toluene-D8	101		91-109	%	05/04/15 16:28

F = RPD exceeded the laboratory control limits

X = Recovery of MS, MSD or both outside of QC Criteria

H= Recovery of BS,BSD or both exceeded the laboratory control limits

L = Recovery of BS,BSD or both below the laboratory control limits

PHASE SEPARATION SCIENCE, INC.

QC Summary 15050103

Arc Environmental Percontee

Analytical Method: SW-846 6020 A

Seq Number: 122370

MB Sample Id: 55260-1-BLK

Matrix: Solid

LCS Sample Id: 55260-1-BKS

Prep Method: SW3050B

Date Prep: 05/01/15

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Analysis Date	Flag
Antimony	<1.203	19.25	21.99	114	80-120	mg/kg	05/04/15 16:27	
Arsenic	<0.2407	19.25	20.84	108	80-120	mg/kg	05/04/15 16:27	
Beryllium	<1.203	19.25	17.49	91	80-120	mg/kg	05/04/15 16:27	
Cadmium	<1.203	19.25	19.03	99	80-120	mg/kg	05/04/15 16:27	
Chromium	<1.203	19.25	21.26	110	80-120	mg/kg	05/04/15 16:27	
Copper	<1.203	19.25	21.28	111	80-120	mg/kg	05/04/15 16:27	
Lead	<1.203	19.25	20.73	108	80-120	mg/kg	05/04/15 16:27	
Mercury	<0.04813	0.4813	0.4958	103	80-120	mg/kg	05/04/15 16:27	
Nickel	<1.203	19.25	20.35	106	80-120	mg/kg	05/04/15 16:27	
Selenium	<1.203	19.25	18.43	96	80-120	mg/kg	05/04/15 16:27	
Silver	<1.203	19.25	18.98	99	80-120	mg/kg	05/04/15 16:27	
Thallium	<0.2407	19.25	19.13	99	80-120	mg/kg	05/04/15 16:27	
Zinc	<4.813	19.25	18.78	98	80-120	mg/kg	05/04/15 16:27	

Analytical Method: SW-846 8082 A

Seq Number: 122379

MB Sample Id: 55248-1-BLK

Matrix: Solid

LCS Sample Id: 55248-1-BKS

Prep Method: SW3550C

Date Prep: 05/01/15

LCSD Sample Id: 55248-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
PCB-1016	<0.05133	0.5133	0.3188	62	0.3578	73	62-136	12	25	mg/kg	05/04/15 13:05	
PCB-1260	<0.05133	0.5133	0.3948	77	0.3882	79	56-113	2	25	mg/kg	05/04/15 13:05	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	83		89		90		11-150	%	05/04/15 13:05
Tetrachloro-m-xylene	66		58		70		12-158	%	05/04/15 13:05

Analytical Method: SW-846 8015 C

Seq Number: 122474

MB Sample Id: 55339-1-BLK

Matrix: Solid

LCS Sample Id: 55339-1-BKS

Prep Method: SW3550C

Date Prep: 05/06/15

LCSD Sample Id: 55339-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
TPH-DRO (Diesel Range Organics)	5.904	33.69	31.36	93	34.53	104	56-117	10	25	mg/kg	05/07/15 14:09	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units	Analysis Date
o-Terphenyl	73		72		81		42-129	%	05/07/15 14:09

PHASE SEPARATION SCIENCE, INC.

QC Summary 15050103

Arc Environmental Percontee

Analytical Method: SW-846 8270 C

Seq Number: 122442

MB Sample Id: 55279-1-BLK

Matrix: Solid

LCS Sample Id: 55279-1-BKS

Prep Method: SW3550C

Date Prep: 05/04/15

LCSD Sample Id: 55279-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Acetophenone	<83.17	1331	1337	100	1103	84	61-114	19	25	ug/kg	05/06/15 12:32	
Biphenyl (Diphenyl)	<83.17	1331	1385	104	1137	86	79-107	20	25	ug/kg	05/06/15 12:32	
Butyl benzyl phthalate	<83.17	1331	1400	105	1172	89	67-125	18	25	ug/kg	05/06/15 12:32	
bis(2-chloroethoxy) methane	<83.17	1331	1353	102	1134	86	58-106	18	25	ug/kg	05/06/15 12:32	
bis(2-chloroethyl) ether	<83.17	1331	1301	98	1092	83	58-105	17	25	ug/kg	05/06/15 12:32	
bis(2-chloroisopropyl) ether	<83.17	1331	1481	111	1257	95	53-114	16	25	ug/kg	05/06/15 12:32	
bis(2-ethylhexyl) phthalate	<83.17	1331	1366	103	1158	88	54-137	16	25	ug/kg	05/06/15 12:32	
4-Bromophenylphenyl ether	<83.17	1331	1484	111	1231	93	65-110	19	25	ug/kg	05/06/15 12:32	H
Di-n-butyl phthalate	<83.17	1331	1398	105	1192	90	61-127	16	25	ug/kg	05/06/15 12:32	
Carbazole	<83.17	1331	1317	99	1240	94	45-121	6	25	ug/kg	05/06/15 12:32	
4-Chloro-3-methylphenol	<83.17	1331	1509	113	1279	97	70-113	16	25	ug/kg	05/06/15 12:32	
4-Chloroaniline	<166.3	1331	1421	107	1253	95	73-103	13	25	ug/kg	05/06/15 12:32	H
2-Chloronaphthalene	<83.17	1331	1259	95	1075	82	76-104	16	25	ug/kg	05/06/15 12:32	
2-Chlorophenol	<83.17	1331	1304	98	1064	81	69-97	20	25	ug/kg	05/06/15 12:32	H
4-Chlorophenyl phenyl ether	<83.17	1331	1501	113	1249	95	67-113	18	25	ug/kg	05/06/15 12:32	
Dibenzofuran	<83.17	1331	1366	103	1161	88	72-109	16	25	ug/kg	05/06/15 12:32	
3,3-Dichlorobenzidine	<83.17	1331	1818	137	1515	115	56-128	18	25	ug/kg	05/06/15 12:32	H
2,4-Dichlorophenol	<83.17	1331	1432	108	1187	90	75-101	19	25	ug/kg	05/06/15 12:32	H
Diethyl phthalate	<83.17	1331	1277	96	1147	87	69-120	11	25	ug/kg	05/06/15 12:32	
Dimethyl phthalate	<83.17	1331	1312	99	1112	84	64-119	17	25	ug/kg	05/06/15 12:32	
2,4-Dimethylphenol	<83.17	1331	1357	102	1080	82	66-98	23	25	ug/kg	05/06/15 12:32	H
4,6-Dinitro-2-methyl phenol	<83.17	1331	1825	137	1526	116	63-126	18	25	ug/kg	05/06/15 12:32	H
2,4-Dinitrophenol	<166.3	1331	1522	114	1294	98	56-123	16	25	ug/kg	05/06/15 12:32	
2,4-Dinitrotoluene	<83.17	1331	1407	106	1192	90	70-116	17	25	ug/kg	05/06/15 12:32	
2,6-Dinitrotoluene	<83.17	1331	1340	101	1172	89	72-112	13	25	ug/kg	05/06/15 12:32	
Hexachlorobenzene	<83.17	1331	1437	108	1219	92	72-112	16	25	ug/kg	05/06/15 12:32	
Hexachlorobutadiene	<83.17	1331	1310	98	1105	84	72-100	17	25	ug/kg	05/06/15 12:32	
Hexachlorocyclopentadiene	<83.17	1331	1339	101	1119	85	51-125	18	25	ug/kg	05/06/15 12:32	
Hexachloroethane	<83.17	1331	1315	99	1097	83	69-102	18	25	ug/kg	05/06/15 12:32	
Isophorone	<83.17	1331	1454	109	1211	92	71-96	18	25	ug/kg	05/06/15 12:32	H
2-Methylphenol	<83.17	1331	1351	102	1121	85	69-102	19	25	ug/kg	05/06/15 12:32	
3&4-Methylphenol	<83.17	1331	1346	101	1109	84	64-113	19	25	ug/kg	05/06/15 12:32	
4-Nitroaniline	<166.3	1331	1325	100	1217	92	41-121	8	25	ug/kg	05/06/15 12:32	
3-Nitroaniline	<83.17	1331	1297	97	1171	89	49-117	10	25	ug/kg	05/06/15 12:32	
2-Nitroaniline	<83.17	1331	1524	115	1285	97	71-109	17	25	ug/kg	05/06/15 12:32	H
Nitrobenzene	<83.17	1331	1406	106	1161	88	66-101	19	25	ug/kg	05/06/15 12:32	H
2-Nitrophenol	<83.17	1331	1332	100	1116	85	74-108	18	25	ug/kg	05/06/15 12:32	
4-Nitrophenol	<83.17	1331	1915	144	1612	122	58-125	17	25	ug/kg	05/06/15 12:32	H
N-Nitrosodi-n-Propylamine	<66.53	1331	1304	98	1118	85	58-110	15	25	ug/kg	05/06/15 12:32	
N-Nitrosodiphenylamine	<83.17	1331	1310	98	1123	85	70-109	15	25	ug/kg	05/06/15 12:32	
Di-n-octyl phthalate	<166.3	1331	1410	106	1186	90	63-122	17	25	ug/kg	05/06/15 12:32	
Pentachlorophenol	<166.3	1331	1787	134	1533	116	76-114	15	25	ug/kg	05/06/15 12:32	H
Phenol	<83.17	1331	1321	99	1095	83	69-109	19	25	ug/kg	05/06/15 12:32	
Atrazine	<83.17	1331	805.7	61	1046	79	69-131	26	25	ug/kg	05/06/15 12:32	LF
Pyridine	<83.17	1331	1322	99	1151	87	60-86	14	25	ug/kg	05/06/15 12:32	H
Caprolactam	<83.17	1331	1634	123	1355	103	59-129	19	25	ug/kg	05/06/15 12:32	
2,4,6-Trichlorophenol	<83.17	1331	1413	106	1201	91	75-111	16	25	ug/kg	05/06/15 12:32	
2,4,5-Trichlorophenol	<83.17	1331	1384	104	1206	91	81-112	14	25	ug/kg	05/06/15 12:32	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	58	*	49	*	48	*	60-131	%	05/06/15 12:32

PHASE SEPARATION SCIENCE, INC.

QC Summary 15050103

Arc Environmental Percontee

Analytical Method: SW-846 8270 C

Seq Number: 122442

MB Sample Id: 55279-1-BLK

Matrix: Solid

LCS Sample Id: 55279-1-BKS

Prep Method: SW3550C

Date Prep: 05/04/15

LCSD Sample Id: 55279-1-BSD

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units	Analysis Date
2-Fluorophenol	83		79		74		45-108	%	05/06/15 12:32
Nitrobenzene-d5	55		55		51		42-131	%	05/06/15 12:32
Phenol-d6	87		80		76		48-124	%	05/06/15 12:32
Terphenyl-D14	51	*	55	*	52	*	59-137	%	05/06/15 12:32
2,4,6-Tribromophenol	88		83		80		46-129	%	05/06/15 12:32

Analytical Method: SW-846 8270 C

Seq Number: 122545

MB Sample Id: 55287-1-BLK

Matrix: Solid

LCS Sample Id: 55287-1-BKS

Prep Method: SW3550C

Date Prep: 05/05/15

LCSD Sample Id: 55287-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Acenaphthene	<3.332	66.64	54.98	83	54.49	82	65-104	1	31	ug/kg	05/08/15 19:41	
Acenaphthylene	<3.332	66.64	53.65	81	52.16	78	59-105	3	25	ug/kg	05/08/15 19:41	
Anthracene	<3.332	66.64	56.98	86	55.48	83	52-121	3	25	ug/kg	05/08/15 19:41	
Benzo(a)anthracene	<3.332	66.64	63.31	95	59.80	90	47-114	6	25	ug/kg	05/08/15 19:41	
Benzo(a)pyrene	<3.332	66.64	58.31	88	57.48	87	57-111	1	25	ug/kg	05/08/15 19:41	
Benzo(b)fluoranthene	<3.332	66.64	77.64	117	74.42	112	47-123	4	25	ug/kg	05/08/15 19:41	
Benzo(g,h,i)perylene	<3.332	66.64	54.32	82	57.14	86	46-119	5	25	ug/kg	05/08/15 19:41	
Benzo(k)fluoranthene	<3.332	66.64	48.32	73	49.83	75	44-133	3	25	ug/kg	05/08/15 19:41	
Chrysene	<3.332	66.64	53.65	81	52.16	78	51-111	3	25	ug/kg	05/08/15 19:41	
Dibenz(a,h)Anthracene	<3.332	66.64	70.98	107	71.10	107	44-121	0	25	ug/kg	05/08/15 19:41	
Fluoranthene	<3.332	66.64	59.98	90	59.47	89	55-114	1	25	ug/kg	05/08/15 19:41	
Fluorene	<3.332	66.64	53.98	81	53.16	80	59-107	2	25	ug/kg	05/08/15 19:41	
Indeno(1,2,3-c,d)Pyrene	<3.332	66.64	93.64	141	90.37	136	42-123	4	25	ug/kg	05/08/15 19:41	H
2-Methylnaphthalene	<3.332	66.64	51.98	78	52.16	78	67-99	0	25	ug/kg	05/08/15 19:41	
Naphthalene	<3.332	66.64	54.65	82	54.49	82	61-108	0	25	ug/kg	05/08/15 19:41	
Phenanthrene	<3.332	66.64	55.31	83	54.49	82	50-122	1	25	ug/kg	05/08/15 19:41	
Pyrene	<3.332	66.64	57.98	87	57.14	86	45-118	1	31	ug/kg	05/08/15 19:41	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	72		75		75		51-109	%	05/08/15 19:41
Nitrobenzene-d5	77		80		77		48-111	%	05/08/15 19:41
Terphenyl-D14	85		86		83		45-137	%	05/08/15 19:41

PHASE SEPARATION SCIENCE, INC.

QC Summary 15050103

Arc Environmental Percontee

Analytical Method: SW-846 8270 C

Seq Number: 122546

Parent Sample Id: 15050103-002

Matrix: Soil

MS Sample Id: 15050103-002 S

Prep Method: SW3550C

Date Prep: 05/05/15

MSD Sample Id: 15050103-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Acenaphthene	<5.165	103.3	80.58	78	75.17	72	33-146	7	30	ug/kg	05/09/15 20:44	
Acenaphthylene	<5.165	103.3	77.48	75	72.58	70	23-154	7	30	ug/kg	05/09/15 20:44	
Anthracene	<5.165	103.3	82.64	80	75.69	73	24-155	9	30	ug/kg	05/09/15 20:44	
Benzo(a)anthracene	<5.165	103.3	99.69	97	93.83	90	6-165	6	30	ug/kg	05/09/15 20:44	
Benzo(a)pyrene	<5.165	103.3	88.33	86	79.32	76	10-200	11	30	ug/kg	05/09/15 20:44	
Benzo(b)fluoranthene	<5.165	103.3	125	121	128.6	124	10-186	3	30	ug/kg	05/09/15 20:44	
Benzo(g,h,i)perylene	<5.165	103.3	76.45	74	68.43	66	10-180	11	30	ug/kg	05/09/15 20:44	
Benzo(k)fluoranthene	<5.165	103.3	69.73	68	73.10	70	10-169	5	30	ug/kg	05/09/15 20:44	
Chrysene	<5.165	103.3	79.55	77	73.61	71	10-178	8	30	ug/kg	05/09/15 20:44	
Dibenz(a,h)Anthracene	<5.165	103.3	106.9	103	101.1	97	19-168	6	30	ug/kg	05/09/15 20:44	
Fluoranthene	5.198	103.3	96.59	88	96.94	88	10-200	0	30	ug/kg	05/09/15 20:44	
Fluorene	<5.165	103.3	80.58	78	76.21	73	9-162	6	30	ug/kg	05/09/15 20:44	
Indeno(1,2,3-c,d)Pyrene	12.48	103.3	144.6	128	139.5	122	10-178	4	30	ug/kg	05/09/15 20:44	
2-Methylnaphthalene	<5.165	103.3	79.55	77	77.24	74	17-162	3	30	ug/kg	05/09/15 20:44	
Naphthalene	<5.165	103.3	81.61	79	78.28	75	9-179	4	30	ug/kg	05/09/15 20:44	
Phenanthrene	<5.165	103.3	83.68	81	81.91	79	10-169	2	30	ug/kg	05/09/15 20:44	
Pyrene	<5.165	103.3	83.16	81	79.32	76	10-172	5	30	ug/kg	05/09/15 20:44	

Surrogate	MS Result	MS Flag	MSD Result	MSD Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	69		64		51-109	%	05/09/15 20:44
Nitrobenzene-d5	78		73		48-111	%	05/09/15 20:44
Terphenyl-D14	80		76		45-137	%	05/09/15 20:44

Analytical Method: SW-846 8015C

Seq Number: 122342

MB Sample Id: 55275-2-BLK

Matrix: Solid

LCS Sample Id: 55275-2-BKS

Prep Method: SW5030

Date Prep: 05/01/15

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Analysis Date	Flag
TPH-GRO (Gasoline Range Organic)	<48.64	4864	4147	85	60-112	ug/kg	05/01/15 10:33	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	66		80		55-142	%	05/01/15 10:33

PHASE SEPARATION SCIENCE, INC.

QC Summary 15050103

Arc Environmental
Percontee

Analytical Method: SW-846 8260 B

Seq Number: 122330

MB Sample Id: 55264-1-BLK

Matrix: Solid

LCS Sample Id: 55264-1-BKS

Prep Method: SW5030

Date Prep: 05/01/15

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Analysis Date	Flag
Dichlorodifluoromethane	<2.500	60.00	55.23	92	53-144	ug/kg	05/01/15 13:13	
Chloromethane	<2.500	60.00	57.29	95	62-143	ug/kg	05/01/15 13:13	
1,1,2-Trichloro-1,2,2-Trifluoroethane	<2.500	60.00	58.74	98	50-162	ug/kg	05/01/15 13:13	
Vinyl Chloride	<2.500	60.00	57.55	96	61-156	ug/kg	05/01/15 13:13	
Bromomethane	<2.500	60.00	65.91	110	45-199	ug/kg	05/01/15 13:13	
Chloroethane	<2.500	60.00	65.91	110	59-151	ug/kg	05/01/15 13:13	
Acetone	<10.00	60.00	50.67	84	24-197	ug/kg	05/01/15 13:13	
Cyclohexane	<10.00	60.00	63.29	105	50-148	ug/kg	05/01/15 13:13	
Trichlorofluoromethane	<2.500	60.00	60.12	100	54-175	ug/kg	05/01/15 13:13	
1,1-Dichloroethene	<2.500	60.00	62.24	104	60-154	ug/kg	05/01/15 13:13	
Methylene Chloride	<2.500	60.00	51.62	86	56-140	ug/kg	05/01/15 13:13	
trans-1,2-Dichloroethene	<2.500	60.00	59.26	99	60-153	ug/kg	05/01/15 13:13	
Methyl-t-butyl ether	<2.500	60.00	58.86	98	59-133	ug/kg	05/01/15 13:13	
1,1-Dichloroethane	<2.500	60.00	56.24	94	60-148	ug/kg	05/01/15 13:13	
2-Butanone	<10.00	60.00	50.74	85	35-173	ug/kg	05/01/15 13:13	
cis-1,2-Dichloroethene	<2.500	60.00	60.90	102	67-126	ug/kg	05/01/15 13:13	
Bromochloromethane	<2.500	60.00	59.54	99	64-121	ug/kg	05/01/15 13:13	
Chloroform	<2.500	60.00	59.93	100	65-126	ug/kg	05/01/15 13:13	
1,1,1-Trichloroethane	<2.500	60.00	59.79	100	60-145	ug/kg	05/01/15 13:13	
1,2-Dichloroethane	<2.500	60.00	58.97	98	62-127	ug/kg	05/01/15 13:13	
Carbon Tetrachloride	<2.500	60.00	56.22	94	55-152	ug/kg	05/01/15 13:13	
Benzene	<2.500	60.00	65.46	109	69-128	ug/kg	05/01/15 13:13	
1,2-Dichloropropane	<2.500	60.00	61.48	102	66-125	ug/kg	05/01/15 13:13	
Carbon Disulfide	<5.000	60.00	52.59	88	58-153	ug/kg	05/01/15 13:13	
Methylcyclohexane	<10.00	60.00	64.30	107	41-142	ug/kg	05/01/15 13:13	
Trichloroethene	<2.500	60.00	61.94	103	68-130	ug/kg	05/01/15 13:13	
Methyl Acetate	<10.00	60.00	56.17	94	47-151	ug/kg	05/01/15 13:13	
Bromodichloromethane	<2.500	60.00	61.71	103	60-125	ug/kg	05/01/15 13:13	
cis-1,3-Dichloropropene	<2.500	60.00	63.07	105	59-122	ug/kg	05/01/15 13:13	
4-Methyl-2-Pentanone	<10.00	60.00	42.61	71	22-173	ug/kg	05/01/15 13:13	
trans-1,3-Dichloropropene	<2.500	60.00	61.99	103	56-124	ug/kg	05/01/15 13:13	
1,1,2-Trichloroethane	<2.500	60.00	63.19	105	65-120	ug/kg	05/01/15 13:13	
Toluene	<2.500	60.00	64.00	107	66-127	ug/kg	05/01/15 13:13	
2-Hexanone	<10.00	60.00	44.35	74	30-175	ug/kg	05/01/15 13:13	
1,2-Dibromoethane	<2.500	60.00	60.23	100	64-123	ug/kg	05/01/15 13:13	
Dibromochloromethane	<2.500	60.00	60.71	101	55-128	ug/kg	05/01/15 13:13	
Bromoform	<2.500	60.00	65.17	109	46-128	ug/kg	05/01/15 13:13	
Tetrachloroethene	<2.500	60.00	63.11	105	55-145	ug/kg	05/01/15 13:13	
Chlorobenzene	<2.500	60.00	62.07	103	61-124	ug/kg	05/01/15 13:13	
Ethylbenzene	<2.500	60.00	63.66	106	58-130	ug/kg	05/01/15 13:13	
m,p-Xylenes	<5.000	120	128	107	60-131	ug/kg	05/01/15 13:13	
Styrene	<2.500	60.00	63.47	106	54-123	ug/kg	05/01/15 13:13	
1,1,2,2-Tetrachloroethane	<2.500	60.00	61.08	102	50-134	ug/kg	05/01/15 13:13	
o-Xylene	<2.500	60.00	63.97	107	60-126	ug/kg	05/01/15 13:13	
Isopropylbenzene	<2.500	60.00	61.61	103	52-130	ug/kg	05/01/15 13:13	
1,3-Dichlorobenzene	<2.500	60.00	62.32	104	42-123	ug/kg	05/01/15 13:13	
1,4-Dichlorobenzene	<2.500	60.00	63.20	105	40-121	ug/kg	05/01/15 13:13	
1,2-Dichlorobenzene	<2.500	60.00	64.72	108	38-128	ug/kg	05/01/15 13:13	
1,2-Dibromo-3-Chloropropane	<20.00	60.00	63.89	106	43-149	ug/kg	05/01/15 13:13	
1,2,4-Trichlorobenzene	<2.500	60.00	69.16	115	14-143	ug/kg	05/01/15 13:13	
1,2,3-Trichlorobenzene	<2.500	60.00	69.30	116	15-144	ug/kg	05/01/15 13:13	

PHASE SEPARATION SCIENCE, INC.

QC Summary 15050103

Arc Environmental Percontee

Analytical Method: SW-846 8260 B

Seq Number: 122330

MB Sample Id: 55264-1-BLK

Matrix: Solid

LCS Sample Id: 55264-1-BKS

Prep Method: SW5030

Date Prep: 05/01/15

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	101		97		80-125	%	05/01/15 13:13
Dibromofluoromethane	103		103		85-115	%	05/01/15 13:13
Toluene-D8	100		100		91-109	%	05/01/15 13:13

PHASE SEPARATION SCIENCE, INC.

QC Summary 15050103

Arc Environmental Percontee

Analytical Method: SW-846 8260 B

Seq Number: 122348

MB Sample Id: 55281-1-BLK

Matrix: Solid

LCS Sample Id: 55281-1-BKS

Prep Method: SW5030

Date Prep: 05/02/15

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Analysis Date	Flag
Dichlorodifluoromethane	<2.500	60.00	52.96	88	53-144	ug/kg	05/02/15 11:29	
Chloromethane	<2.500	60.00	56.27	94	62-143	ug/kg	05/02/15 11:29	
1,1,2-Trichloro-1,2,2-Trifluoroethane	<2.500	60.00	56.98	95	50-162	ug/kg	05/02/15 11:29	
Vinyl Chloride	<2.500	60.00	54.85	91	61-156	ug/kg	05/02/15 11:29	
Bromomethane	<2.500	60.00	66.35	111	45-199	ug/kg	05/02/15 11:29	
Chloroethane	<2.500	60.00	64.56	108	59-151	ug/kg	05/02/15 11:29	
Acetone	<10.00	60.00	63.29	105	24-197	ug/kg	05/02/15 11:29	
Cyclohexane	<10.00	60.00	62.34	104	50-148	ug/kg	05/02/15 11:29	
Trichlorofluoromethane	<2.500	60.00	58.03	97	54-175	ug/kg	05/02/15 11:29	
1,1-Dichloroethene	<2.500	60.00	60.25	100	60-154	ug/kg	05/02/15 11:29	
Methylene Chloride	<2.500	60.00	52.20	87	56-140	ug/kg	05/02/15 11:29	
trans-1,2-Dichloroethene	<2.500	60.00	59.07	98	60-153	ug/kg	05/02/15 11:29	
Methyl-t-butyl ether	<2.500	60.00	71.67	119	59-133	ug/kg	05/02/15 11:29	
1,1-Dichloroethane	<2.500	60.00	56.11	94	60-148	ug/kg	05/02/15 11:29	
2-Butanone	<10.00	60.00	62.98	105	35-173	ug/kg	05/02/15 11:29	
cis-1,2-Dichloroethene	<2.500	60.00	62.29	104	67-126	ug/kg	05/02/15 11:29	
Bromochloromethane	<2.500	60.00	59.88	100	64-121	ug/kg	05/02/15 11:29	
Chloroform	<2.500	60.00	59.90	100	65-126	ug/kg	05/02/15 11:29	
1,1,1-Trichloroethane	<2.500	60.00	58.70	98	60-145	ug/kg	05/02/15 11:29	
1,2-Dichloroethane	<2.500	60.00	58.36	97	62-127	ug/kg	05/02/15 11:29	
Carbon Tetrachloride	<2.500	60.00	55.27	92	55-152	ug/kg	05/02/15 11:29	
Benzene	<2.500	60.00	66.29	110	69-128	ug/kg	05/02/15 11:29	
1,2-Dichloropropane	<2.500	60.00	61.25	102	66-125	ug/kg	05/02/15 11:29	
Carbon Disulfide	<5.000	60.00	55.67	93	58-153	ug/kg	05/02/15 11:29	
Methylcyclohexane	<10.00	60.00	64.43	107	41-142	ug/kg	05/02/15 11:29	
Trichloroethene	<2.500	60.00	62.72	105	68-130	ug/kg	05/02/15 11:29	
Methyl Acetate	<10.00	60.00	55.84	93	47-151	ug/kg	05/02/15 11:29	
Bromodichloromethane	<2.500	60.00	61.99	103	60-125	ug/kg	05/02/15 11:29	
cis-1,3-Dichloropropene	<2.500	60.00	63.89	106	59-122	ug/kg	05/02/15 11:29	
4-Methyl-2-Pentanone	<10.00	60.00	59.24	99	22-173	ug/kg	05/02/15 11:29	
trans-1,3-Dichloropropene	<2.500	60.00	64.21	107	56-124	ug/kg	05/02/15 11:29	
1,1,2-Trichloroethane	<2.500	60.00	63.20	105	65-120	ug/kg	05/02/15 11:29	
Toluene	<2.500	60.00	64.33	107	66-127	ug/kg	05/02/15 11:29	
2-Hexanone	<10.00	60.00	59.21	99	30-175	ug/kg	05/02/15 11:29	
1,2-Dibromoethane	<2.500	60.00	58.68	98	64-123	ug/kg	05/02/15 11:29	
Dibromochloromethane	<2.500	60.00	60.45	101	55-128	ug/kg	05/02/15 11:29	
Bromoform	<2.500	60.00	63.86	106	46-128	ug/kg	05/02/15 11:29	
Tetrachloroethene	<2.500	60.00	62.22	104	55-145	ug/kg	05/02/15 11:29	
Chlorobenzene	<2.500	60.00	60.29	100	61-124	ug/kg	05/02/15 11:29	
Ethylbenzene	<2.500	60.00	62.87	105	58-130	ug/kg	05/02/15 11:29	
m,p-Xylenes	<5.000	120	125.3	104	60-131	ug/kg	05/02/15 11:29	
Styrene	<2.500	60.00	62.37	104	54-123	ug/kg	05/02/15 11:29	
1,1,2,2-Tetrachloroethane	<2.500	60.00	58.02	97	50-134	ug/kg	05/02/15 11:29	
o-Xylene	<2.500	60.00	63.30	106	60-126	ug/kg	05/02/15 11:29	
Isopropylbenzene	<2.500	60.00	58.80	98	52-130	ug/kg	05/02/15 11:29	
1,3-Dichlorobenzene	<2.500	60.00	60.66	101	42-123	ug/kg	05/02/15 11:29	
1,4-Dichlorobenzene	<2.500	60.00	60.14	100	40-121	ug/kg	05/02/15 11:29	
1,2-Dichlorobenzene	<2.500	60.00	62.02	103	38-128	ug/kg	05/02/15 11:29	
1,2-Dibromo-3-Chloropropane	<20.00	60.00	60.15	100	43-149	ug/kg	05/02/15 11:29	
1,2,4-Trichlorobenzene	<2.500	60.00	67.48	112	14-143	ug/kg	05/02/15 11:29	
1,2,3-Trichlorobenzene	<2.500	60.00	66.80	111	15-144	ug/kg	05/02/15 11:29	

PHASE SEPARATION SCIENCE, INC.

QC Summary 15050103

Arc Environmental Percontee

Analytical Method: SW-846 8260 B

Seq Number: 122348

MB Sample Id: 55281-1-BLK

Matrix: Solid

LCS Sample Id: 55281-1-BKS

Prep Method: SW5030

Date Prep: 05/02/15

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	100		97		80-125	%	05/02/15 11:29
Dibromofluoromethane	101		101		85-115	%	05/02/15 11:29
Toluene-D8	101		101		91-109	%	05/02/15 11:29

PHASE SEPARATION SCIENCE, INC.

QC Summary 15050103

Arc Environmental
Percontee

Analytical Method: SW-846 8260 B

Seq Number: 122363

MB Sample Id: 55286-1-BLK

Matrix: Solid

LCS Sample Id: 55286-1-BKS

Prep Method: SW5030

Date Prep: 05/04/15

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Analysis Date	Flag
Dichlorodifluoromethane	<2.500	60.00	46.93	78	53-144	ug/kg	05/04/15 12:01	
Chloromethane	<2.500	60.00	51.17	85	62-143	ug/kg	05/04/15 12:01	
1,1,2-Trichloro-1,2,2-Trifluoroethane	<2.500	60.00	56.02	93	50-162	ug/kg	05/04/15 12:01	
Vinyl Chloride	<2.500	60.00	51.61	86	61-156	ug/kg	05/04/15 12:01	
Bromomethane	<2.500	60.00	59.14	99	45-199	ug/kg	05/04/15 12:01	
Chloroethane	<2.500	60.00	57.94	97	59-151	ug/kg	05/04/15 12:01	
Acetone	<10.00	60.00	73.59	123	24-197	ug/kg	05/04/15 12:01	
Cyclohexane	<10.00	60.00	60.81	101	50-148	ug/kg	05/04/15 12:01	
Trichlorofluoromethane	<2.500	60.00	57.22	95	54-175	ug/kg	05/04/15 12:01	
1,1-Dichloroethene	<2.500	60.00	58.61	98	60-154	ug/kg	05/04/15 12:01	
Methylene Chloride	<2.500	60.00	49.69	83	56-140	ug/kg	05/04/15 12:01	
trans-1,2-Dichloroethene	<2.500	60.00	56.96	95	60-153	ug/kg	05/04/15 12:01	
Methyl-t-butyl ether	<2.500	60.00	69.13	115	59-133	ug/kg	05/04/15 12:01	
1,1-Dichloroethane	<2.500	60.00	54.55	91	60-148	ug/kg	05/04/15 12:01	
2-Butanone	<10.00	60.00	76.82	128	35-173	ug/kg	05/04/15 12:01	
cis-1,2-Dichloroethene	<2.500	60.00	61.84	103	67-126	ug/kg	05/04/15 12:01	
Bromochloromethane	<2.500	60.00	62.38	104	64-121	ug/kg	05/04/15 12:01	
Chloroform	<2.500	60.00	61.09	102	65-126	ug/kg	05/04/15 12:01	
1,1,1-Trichloroethane	<2.500	60.00	57.85	96	60-145	ug/kg	05/04/15 12:01	
1,2-Dichloroethane	<2.500	60.00	60.37	101	62-127	ug/kg	05/04/15 12:01	
Carbon Tetrachloride	<2.500	60.00	55.22	92	55-152	ug/kg	05/04/15 12:01	
Benzene	<2.500	60.00	66.24	110	69-128	ug/kg	05/04/15 12:01	
1,2-Dichloropropane	<2.500	60.00	62.70	105	66-125	ug/kg	05/04/15 12:01	
Carbon Disulfide	<5.000	60.00	52.48	87	58-153	ug/kg	05/04/15 12:01	
Methylcyclohexane	<10.00	60.00	63.99	107	41-142	ug/kg	05/04/15 12:01	
Trichloroethene	<2.500	60.00	62.55	104	68-130	ug/kg	05/04/15 12:01	
Methyl Acetate	<10.00	60.00	62.72	105	47-151	ug/kg	05/04/15 12:01	
Bromodichloromethane	<2.500	60.00	63.52	106	60-125	ug/kg	05/04/15 12:01	
cis-1,3-Dichloropropene	<2.500	60.00	64.31	107	59-122	ug/kg	05/04/15 12:01	
4-Methyl-2-Pentanone	<10.00	60.00	69.76	116	22-173	ug/kg	05/04/15 12:01	
trans-1,3-Dichloropropene	<2.500	60.00	64.29	107	56-124	ug/kg	05/04/15 12:01	
1,1,2-Trichloroethane	<2.500	60.00	65.24	109	65-120	ug/kg	05/04/15 12:01	
Toluene	<2.500	60.00	64.96	108	66-127	ug/kg	05/04/15 12:01	
2-Hexanone	<10.00	60.00	70.98	118	30-175	ug/kg	05/04/15 12:01	
1,2-Dibromoethane	<2.500	60.00	64.53	108	64-123	ug/kg	05/04/15 12:01	
Dibromochloromethane	<2.500	60.00	64.88	108	55-128	ug/kg	05/04/15 12:01	
Bromoform	<2.500	60.00	67.75	113	46-128	ug/kg	05/04/15 12:01	
Tetrachloroethene	<2.500	60.00	62.66	104	55-145	ug/kg	05/04/15 12:01	
Chlorobenzene	<2.500	60.00	65.35	109	61-124	ug/kg	05/04/15 12:01	
Ethylbenzene	<2.500	60.00	67.06	112	58-130	ug/kg	05/04/15 12:01	
m,p-Xylenes	<5.000	120	132.3	110	60-131	ug/kg	05/04/15 12:01	
Styrene	<2.500	60.00	65.55	109	54-123	ug/kg	05/04/15 12:01	
1,1,2,2-Tetrachloroethane	<2.500	60.00	63.55	106	50-134	ug/kg	05/04/15 12:01	
o-Xylene	<2.500	60.00	67.33	112	60-126	ug/kg	05/04/15 12:01	
Isopropylbenzene	<2.500	60.00	63.87	106	52-130	ug/kg	05/04/15 12:01	
1,3-Dichlorobenzene	<2.500	60.00	63.38	106	42-123	ug/kg	05/04/15 12:01	
1,4-Dichlorobenzene	<2.500	60.00	64.02	107	40-121	ug/kg	05/04/15 12:01	
1,2-Dichlorobenzene	<2.500	60.00	65.81	110	38-128	ug/kg	05/04/15 12:01	
1,2-Dibromo-3-Chloropropane	<20.00	60.00	65.17	109	43-149	ug/kg	05/04/15 12:01	
1,2,4-Trichlorobenzene	<2.500	60.00	68.36	114	14-143	ug/kg	05/04/15 12:01	
1,2,3-Trichlorobenzene	<2.500	60.00	66.79	111	15-144	ug/kg	05/04/15 12:01	

PHASE SEPARATION SCIENCE, INC.

QC Summary 15050103

Arc Environmental Percontee

Analytical Method: SW-846 8260 B

Seq Number: 122363

MB Sample Id: 55286-1-BLK

Matrix: Solid

LCS Sample Id: 55286-1-BKS

Prep Method: SW5030

Date Prep: 05/04/15

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	99		97		80-125	%	05/04/15 12:01
Dibromofluoromethane	101		101		85-115	%	05/04/15 12:01
Toluene-D8	100		97		91-109	%	05/04/15 12:01

PHASE SEPARATION SCIENCE, INC.

QC Summary 15050103

Arc Environmental Percontee

Analytical Method: SW-846 8260 B

Seq Number: 122348

Parent Sample Id: 15050103-002

Matrix: Soil

MS Sample Id: 15050103-002 S

Prep Method: SW5030

Date Prep: 05/02/15

MSD Sample Id: 15050103-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Dichlorodifluoromethane	<4.011	96.25	81.30	84	100.6	105	22-158	21	30	ug/kg	05/02/15 13:01	
Chloromethane	<4.011	96.25	80.31	83	97.72	102	42-133	20	30	ug/kg	05/02/15 13:01	
1,1,2-Trichloro-1,2,2-Trifluoroethane	<4.011	96.25	83.31	87	97.93	102	28-146	16	30	ug/kg	05/02/15 13:01	
Vinyl Chloride	<4.011	96.25	82.28	85	101.4	106	37-148	21	30	ug/kg	05/02/15 13:01	
Bromomethane	<4.011	96.25	85.20	89	102.5	107	33-149	18	30	ug/kg	05/02/15 13:01	
Chloroethane	<4.011	96.25	92.56	96	116.3	122	36-155	23	30	ug/kg	05/02/15 13:01	
Acetone	<16.04	96.25	107.3	111	104.4	109	32-162	3	30	ug/kg	05/02/15 13:01	
Cyclohexane	<16.04	96.25	80.10	83	88.04	92	34-133	9	30	ug/kg	05/02/15 13:01	
Trichlorofluoromethane	<4.011	96.25	87.17	91	108	113	30-155	21	30	ug/kg	05/02/15 13:01	
1,1-Dichloroethene	<4.011	96.25	91.39	95	110.4	115	39-139	19	30	ug/kg	05/02/15 13:01	
Methylene Chloride	<4.011	96.25	72.88	76	88.06	92	35-133	19	30	ug/kg	05/02/15 13:01	
trans-1,2-Dichloroethene	<4.011	96.25	86.32	90	102.3	107	38-137	17	30	ug/kg	05/02/15 13:01	
Methyl-t-butyl ether	<4.011	96.25	100.4	104	121.7	127	48-123	19	30	ug/kg	05/02/15 13:01	X
1,1-Dichloroethane	<4.011	96.25	81.17	84	97.77	102	37-136	19	30	ug/kg	05/02/15 13:01	
2-Butanone	<16.04	96.25	94.10	98	89.16	93	35-153	5	30	ug/kg	05/02/15 13:01	
cis-1,2-Dichloroethene	<4.011	96.25	84.75	88	104.5	109	41-122	21	30	ug/kg	05/02/15 13:01	
Bromochloromethane	<4.011	96.25	83.56	87	103.5	108	36-123	21	30	ug/kg	05/02/15 13:01	
Chloroform	<4.011	96.25	83.85	87	103.1	108	39-125	21	30	ug/kg	05/02/15 13:01	
1,1,1-Trichloroethane	<4.011	96.25	85.36	89	106.5	111	32-140	22	30	ug/kg	05/02/15 13:01	
1,2-Dichloroethane	<4.011	96.25	80.40	84	99.03	104	37-130	21	30	ug/kg	05/02/15 13:01	
Carbon Tetrachloride	<4.011	96.25	74.79	78	90.69	95	24-139	19	30	ug/kg	05/02/15 13:01	
Benzene	<4.011	96.25	90.97	95	111.8	117	42-125	21	30	ug/kg	05/02/15 13:01	
1,2-Dichloropropane	<4.011	96.25	82.87	86	100.1	105	41-122	19	30	ug/kg	05/02/15 13:01	
Carbon Disulfide	<8.021	96.25	67.46	70	87.45	91	26-143	26	30	ug/kg	05/02/15 13:01	
Methylcyclohexane	<16.04	96.25	66.85	69	61.72	65	15-135	8	30	ug/kg	05/02/15 13:01	
Trichloroethene	<4.011	96.25	86.61	90	105.5	110	39-127	20	30	ug/kg	05/02/15 13:01	
Methyl Acetate	<16.04	96.25	90.38	94	89.54	94	27-159	1	30	ug/kg	05/02/15 13:01	
Bromodichloromethane	<4.011	96.25	77.21	80	95.12	99	36-127	21	30	ug/kg	05/02/15 13:01	
cis-1,3-Dichloropropene	<4.011	96.25	77.07	80	92.04	96	34-120	18	30	ug/kg	05/02/15 13:01	
4-Methyl-2-Pentanone	<16.04	96.25	96.20	100	87.23	91	30-130	10	30	ug/kg	05/02/15 13:01	
trans-1,3-Dichloropropene	<4.011	96.25	78.64	82	93.35	98	30-126	17	30	ug/kg	05/02/15 13:01	
1,1,2-Trichloroethane	<4.011	96.25	85.83	89	103.9	109	43-122	19	30	ug/kg	05/02/15 13:01	
Toluene	<4.011	96.25	84.64	88	102.5	107	31-135	19	30	ug/kg	05/02/15 13:01	
2-Hexanone	<16.04	96.25	87.46	91	77.98	82	42-131	11	30	ug/kg	05/02/15 13:01	
1,2-Dibromoethane	<4.011	96.25	82.38	86	100.6	105	42-121	20	30	ug/kg	05/02/15 13:01	
Dibromochloromethane	<4.011	96.25	75.17	78	92.84	97	36-123	21	30	ug/kg	05/02/15 13:01	
Bromoform	<4.011	96.25	78.61	82	95.11	99	30-127	19	30	ug/kg	05/02/15 13:01	
Tetrachloroethene	<4.011	96.25	78.83	82	89.72	94	22-136	13	30	ug/kg	05/02/15 13:01	
Chlorobenzene	<4.011	96.25	78.00	81	92.65	97	30-125	17	30	ug/kg	05/02/15 13:01	
Ethylbenzene	<4.011	96.25	80.71	84	92.16	96	37-132	13	30	ug/kg	05/02/15 13:01	
m,p-Xylenes	<8.021	192.5	160.9	84	181.2	95	36-127	12	30	ug/kg	05/02/15 13:01	
Styrene	<4.011	96.25	74.58	77	87.39	91	26-132	16	30	ug/kg	05/02/15 13:01	
1,1,2,2-Tetrachloroethane	<4.011	96.25	83.10	86	97.43	102	42-127	16	30	ug/kg	05/02/15 13:01	
o-Xylene	<4.011	96.25	78.93	82	91.49	96	33-132	15	30	ug/kg	05/02/15 13:01	
Isopropylbenzene	<4.011	96.25	71.02	74	73.42	77	17-140	3	30	ug/kg	05/02/15 13:01	
1,3-Dichlorobenzene	<4.011	96.25	66.86	69	69.12	72	19-125	3	30	ug/kg	05/02/15 13:01	
1,4-Dichlorobenzene	<4.011	96.25	67.41	70	69.87	73	27-120	4	30	ug/kg	05/02/15 13:01	
1,2-Dichlorobenzene	<4.011	96.25	68.45	71	71.84	75	34-118	5	30	ug/kg	05/02/15 13:01	
1,2-Dibromo-3-Chloropropane	<32.08	96.25	86.85	90	98.79	103	42-142	13	30	ug/kg	05/02/15 13:01	
1,2,4-Trichlorobenzene	<4.011	96.25	54.25	56	46.13	48	25-123	16	30	ug/kg	05/02/15 13:01	
1,2,3-Trichlorobenzene	<4.011	96.25	54.05	56	46.52	49	17-136	15	30	ug/kg	05/02/15 13:01	

PHASE SEPARATION SCIENCE, INC.

QC Summary 15050103

Arc Environmental Percontee

Analytical Method: SW-846 8260 B

Seq Number: 122348

Parent Sample Id: 15050103-002

Matrix: Soil

MS Sample Id: 15050103-002 S

Prep Method: SW5030

Date Prep: 05/02/15

MSD Sample Id: 15050103-002 SD

Surrogate

	MS Result	MS Flag	MSD Result	MSD Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	98		98		80-125	%	05/02/15 13:01
Dibromofluoromethane	101		102		85-115	%	05/02/15 13:01
Toluene-D8	99		99		91-109	%	05/02/15 13:01

PHASE SEPARATION SCIENCE, INC.

QC Summary 15050103

Arc Environmental Percontee

Analytical Method: SW-846 8260 B

Seq Number: 122363

Parent Sample Id: 15050103-005

Matrix: Soil

MS Sample Id: 15050103-005 S

Prep Method: SW5030

Date Prep: 05/04/15

MSD Sample Id: 15050103-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Dichlorodifluoromethane	<10.27	246.5	217.5	88	251.3	96	22-158	14	30	ug/kg	05/04/15 14:01	
Chloromethane	<10.27	246.5	200.4	81	230.5	88	42-133	14	30	ug/kg	05/04/15 14:01	
1,1,2-Trichloro-1,2,2-Trifluoroethane	<10.27	246.5	185.2	75	234.3	90	28-146	23	30	ug/kg	05/04/15 14:01	
Vinyl Chloride	<10.27	246.5	200.3	81	224.6	86	37-148	11	30	ug/kg	05/04/15 14:01	
Bromomethane	<10.27	246.5	236.1	96	263	101	33-149	11	30	ug/kg	05/04/15 14:01	
Chloroethane	<10.27	246.5	233.6	95	259.1	99	36-155	10	30	ug/kg	05/04/15 14:01	
Acetone	<41.09	246.5	232.5	94	262.1	100	32-162	12	30	ug/kg	05/04/15 14:01	
Cyclohexane	<41.09	246.5	184	75	252	97	34-133	31	30	ug/kg	05/04/15 14:01	F
Trichlorofluoromethane	<10.27	246.5	208.5	85	242	93	30-155	15	30	ug/kg	05/04/15 14:01	
1,1-Dichloroethene	<10.27	246.5	209.1	85	248.3	95	39-139	17	30	ug/kg	05/04/15 14:01	
Methylene Chloride	<10.27	246.5	171	69	212.6	81	35-133	22	30	ug/kg	05/04/15 14:01	
trans-1,2-Dichloroethene	<10.27	246.5	201.6	82	242	93	38-137	18	30	ug/kg	05/04/15 14:01	
Methyl-t-butyl ether	<10.27	246.5	221.4	90	297	114	48-123	29	30	ug/kg	05/04/15 14:01	
1,1-Dichloroethane	<10.27	246.5	188.2	76	231.5	89	37-136	21	30	ug/kg	05/04/15 14:01	
2-Butanone	<41.09	246.5	230.4	93	259.4	99	35-153	12	30	ug/kg	05/04/15 14:01	
cis-1,2-Dichloroethene	<10.27	246.5	211.5	86	263.9	101	41-122	22	30	ug/kg	05/04/15 14:01	
Bromochloromethane	<10.27	246.5	210.3	85	277.7	106	36-123	28	30	ug/kg	05/04/15 14:01	
Chloroform	<10.27	246.5	202.5	82	257.2	99	39-125	24	30	ug/kg	05/04/15 14:01	
1,1,1-Trichloroethane	<10.27	246.5	200.1	81	247.5	95	32-140	21	30	ug/kg	05/04/15 14:01	
1,2-Dichloroethane	<10.27	246.5	201.1	82	266.4	102	37-130	28	30	ug/kg	05/04/15 14:01	
Carbon Tetrachloride	<10.27	246.5	184.7	75	233.3	89	24-139	23	30	ug/kg	05/04/15 14:01	
Benzene	<10.27	246.5	221.5	90	282.8	108	42-125	24	30	ug/kg	05/04/15 14:01	
1,2-Dichloropropane	<10.27	246.5	200.9	82	267.8	103	41-122	29	30	ug/kg	05/04/15 14:01	
Carbon Disulfide	<20.55	246.5	169.3	69	203.6	78	26-143	18	30	ug/kg	05/04/15 14:01	
Methylcyclohexane	<41.09	246.5	156.9	64	237	91	15-135	41	30	ug/kg	05/04/15 14:01	F
Trichloroethene	<10.27	246.5	203.4	83	260.9	100	39-127	25	30	ug/kg	05/04/15 14:01	
Methyl Acetate	<41.09	246.5	245.7	100	319.3	122	27-159	26	30	ug/kg	05/04/15 14:01	
Bromodichloromethane	<10.27	246.5	201.3	82	269.6	103	36-127	29	30	ug/kg	05/04/15 14:01	
cis-1,3-Dichloropropene	<10.27	246.5	203.5	83	278.4	107	34-120	31	30	ug/kg	05/04/15 14:01	F
4-Methyl-2-Pentanone	<41.09	246.5	205.5	83	249	95	30-130	19	30	ug/kg	05/04/15 14:01	
trans-1,3-Dichloropropene	<10.27	246.5	202.3	82	281.6	108	30-126	33	30	ug/kg	05/04/15 14:01	F
1,1,2-Trichloroethane	<10.27	246.5	208.5	85	294.5	113	43-122	34	30	ug/kg	05/04/15 14:01	F
Toluene	<10.27	246.5	203	82	281.7	108	31-135	32	30	ug/kg	05/04/15 14:01	F
2-Hexanone	<41.09	246.5	202.8	82	225.9	87	42-131	11	30	ug/kg	05/04/15 14:01	
1,2-Dibromoethane	<10.27	246.5	204.1	83	290.8	111	42-121	35	30	ug/kg	05/04/15 14:01	F
Dibromochloromethane	<10.27	246.5	194.7	79	280.5	107	36-123	36	30	ug/kg	05/04/15 14:01	F
Bromoform	<10.27	246.5	204.1	83	302.8	116	30-127	39	30	ug/kg	05/04/15 14:01	F
Tetrachloroethene	<10.27	246.5	188.4	76	259.7	100	22-136	32	30	ug/kg	05/04/15 14:01	F
Chlorobenzene	<10.27	246.5	182	74	270.1	103	30-125	39	30	ug/kg	05/04/15 14:01	F
Ethylbenzene	<10.27	246.5	183.4	74	277.8	106	37-132	41	30	ug/kg	05/04/15 14:01	F
m,p-Xylenes	<20.55	493.1	357.4	72	548.4	105	36-127	42	30	ug/kg	05/04/15 14:01	F
Styrene	<10.27	246.5	173.9	71	269.1	103	26-132	43	30	ug/kg	05/04/15 14:01	F
1,1,2,2-Tetrachloroethane	<10.27	246.5	196.9	80	296	113	42-127	40	30	ug/kg	05/04/15 14:01	F
o-Xylene	<10.27	246.5	178.4	72	273.4	105	33-132	42	30	ug/kg	05/04/15 14:01	F
Isopropylbenzene	<10.27	246.5	151.3	61	251.9	97	17-140	50	30	ug/kg	05/04/15 14:01	F
1,3-Dichlorobenzene	<10.27	246.5	143.7	58	242.6	93	19-125	51	30	ug/kg	05/04/15 14:01	F
1,4-Dichlorobenzene	<10.27	246.5	147.8	60	245	94	27-120	49	30	ug/kg	05/04/15 14:01	F
1,2-Dichlorobenzene	<10.27	246.5	146	59	248.4	95	34-118	52	30	ug/kg	05/04/15 14:01	F
1,2-Dibromo-3-Chloropropane	<82.18	246.5	190.8	77	308.8	118	42-142	47	30	ug/kg	05/04/15 14:01	F
1,2,4-Trichlorobenzene	<10.27	246.5	108.8	44	203.8	78	25-123	61	30	ug/kg	05/04/15 14:01	F
1,2,3-Trichlorobenzene	<10.27	246.5	104.2	42	196.6	75	17-136	61	30	ug/kg	05/04/15 14:01	F

PHASE SEPARATION SCIENCE, INC.

QC Summary 15050103

Arc Environmental Percontee

Analytical Method: SW-846 8260 B

Seq Number: 122363

Parent Sample Id: 15050103-005

Matrix: Soil

MS Sample Id: 15050103-005 S

Prep Method: SW5030

Date Prep: 05/04/15

MSD Sample Id: 15050103-005 SD

Surrogate	MS Result	MS Flag	MSD Result	MSD Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	96		99		80-125	%	05/04/15 14:01
Dibromofluoromethane	106		104		85-115	%	05/04/15 14:01
Toluene-D8	99		98		91-109	%	05/04/15 14:01

F = RPD exceeded the laboratory control limits

X = Recovery of MS, MSD or both outside of QC Criteria

H= Recovery of BS,BSD or both exceeded the laboratory control limits

L = Recovery of BS,BSD or both below the laboratory control limits



SAMPLE CHAIN OF CUSTODY/AGREEMENT FORM

PHASE SEPARATION SCIENCE, INC.

www.phaseonline.com

email: info@phaseonline.com

1 CLIENT: Arc Environmental OFFICE LOC. Baltimore, MD PROJECT MGR: Kyle Begey PHONE NO.: 410-659-9971 EMAIL: kbegey@arcenvironmental.com FAX NO.: 410-962-1065 PROJECT NAME: Percontee PROJECT NO.: SITE LOCATION: Silver Spring, MD P.O. NO.: SAMPLERS: Ray Goodwin DW CERT NO.:				PSS Work Order #: 15050103				PAGE 1 OF																					
				Matrix Codes: SW=Surface Wtr DW=Drinking Wtr GW=Ground Wtr WW=Waste Wtr O=Oil S=Soil WL=Waste Liquid WS=Waste Solid W= Wipe				No. C O N T A I N E R S	SAMPLE T Y P E C = C O M P G = G R A B	P P L M e t a l s	S V O C s 8 2 7 0	P A H s S I M	V O C s	G R O / D R O	P C B s	Preservative Used ←	← Analysis/ Method Required												
				REMARKS ↓																									
				LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME											MATRIX (See Codes)	No.	C	O	N	T	A	I	N	E	R	S
					S-8	4/30/15	9:35											Sediment	2	G	X	X	X	X	X	X			
	S-7		9:55	Sediment	2	G	X											X	X	X	X	X							
	S-4		10:30	Sediment	2	G	X	X	X	X	X	X																	
	S-3		11:33	Sediment	2	G	X	X	X	X	X	X																	
	S-6		12:35	Sediment	2	G	X	X	X	X	X	X																	
	S-5		1:31p	Sediment	2	G	X	X	X	X	X	X																	
	S-2		3:32p	Sediment	2	G	X	X	X	X	X	X																	
				Sediment	2	G																							
				Sediment	2	G																							
				Sediment	2	G																							

5 Relinquished By: (1) Ray Goodwin Date: 5/1/15 Time: 1034 Received By: D. Rivera Relinquished By: (2) Date Time Received By: Relinquished By: (3) Date Time Received By: Relinquished By: (4) Date Time Received By:				4 Requested Turnaround Time <input checked="" type="checkbox"/> 5-Day <input type="checkbox"/> 3-Day <input type="checkbox"/> 2-Day <input type="checkbox"/> Next Day <input type="checkbox"/> Emergency <input type="checkbox"/> Other				# of Coolers: 2	
				Data Deliverables Required:				Custody Seal: ABS	
				Special Instructions:				Ice Present: YES Temp: VOC NO FROZEN	
								Shipping Carrier: CLIENT	

6630 Baltimore National Pike • Route 40 West • Baltimore, Maryland 21228 • (410) 747-8770 • (800) 932-9047 • Fax (410) 788-8723

The client (Client Name), by signing, or having client's agent sign, this "Sample Chain of Custody/Agreement Form", agrees to pay for the above requested services per the latest version of the Service Brochure or PSS-provided quotation including any and all attorney's or other reasonable fees if collection becomes necessary.



Phase Separation Science, Inc

Sample Receipt Checklist

Work Order #	15050103	Received By	Shirley Rivera
Client Name	Arc Environmental	Date Received	05/01/2015 10:41:18 AM
Project Name	Percontee	Delivered By	Client
Disposal Date	06/05/2015	Tracking No	Not Applicable
		Logged In By	Lynn Jackson

Shipping Container(s)

No. of Coolers 1

		Ice	Present
Custody Seal(s) Intact?	N/A	Temp (deg C)	0
Seal(s) Signed / Dated?	N/A	Temp Blank Present	No

Documentation

COC agrees with sample labels?	Yes	Sampler Name	<u>Ray Goodwin</u>
Chain of Custody	Yes	MD DW Cert. No.	<u>N/A</u>

Sample Container

Appropriate for Specified Analysis?	Yes	Custody Seal(s) Intact?	Not Applicable
Intact?	Yes	Seal(s) Signed / Dated	Not Applicable
Labeled and Labels Legible?	Yes		

Total No. of Samples Received 7

Total No. of Containers Received 14

Preservation

Metals	(pH<2)	N/A
Cyanides	(pH>12)	N/A
Sulfide	(pH>9)	N/A
TOC, COD, Phenols	(pH<2)	N/A
TOX, TKN, NH3, Total Phos	(pH<2)	N/A
VOC, BTEX (VOA Vials Rcvd Preserved)	(pH<2)	N/A
Do VOA vials have zero headspace?		N/A
624 VOC (Rcvd at least one unpreserved VOA vial)		N/A

Comments: (Any "No" response must be detailed in the comments section below.)

For any improper preservation conditions, list sample ID, preservative added (reagent ID number) below as well as documentation of any client notification as well as client instructions. Samples for pH, chlorine and dissolved oxygen should be analyzed as soon as possible, preferably in the field at the time of sampling. Samples which require thermal preservation shall be considered acceptable when received at a temperature above freezing to 6°C. Samples that are hand delivered on the day that they are collected may not meet these criteria but shall be considered acceptable if there is evidence that the chilling process has begun such as arrival on ice.

Sample(s) received at 0 degrees but no samples were frozen.

Samples Inspected/Checklist Completed By:

Lynn Jackson

Date: 05/01/2015

PM Review and Approval:

Simon Crisp

Date: 05/04/2015

Analytical Report for

Arc Environmental

Certificate of Analysis No.: 15031808

Project Manager: Kyle Begey

Project Name : Percontee

Project Location: Silver Spring, MD

Project ID : 057-5



March 25, 2015

Phase Separation Science, Inc.

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PHASE SEPARATION SCIENCE, INC.



March 25, 2015

Kyle Begey
Arc Environmental
1311 Haubert Street
Baltimore, MD 21230

Reference: PSS Work Order(s) No: **15031808**
Project Name: Percontee
Project Location: Silver Spring, MD
Project ID.: 057-5

Dear Kyle Begey :

This report includes the analytical results from the analyses performed on the samples received under the project name referenced above and identified with the Phase Separation Science (PSS) Work Order(s) numbered **15031808**.

All work reported herein has been performed in accordance with current NELAP standards, referenced methodologies, PSS Standard Operating Procedures and the PSS Quality Assurance Manual unless otherwise noted in the Case Narrative Summary. PSS is limited in liability to the actual cost of the sample analysis done.

PSS reserves the right to return any unused samples, extracts or related solutions. Otherwise, the samples are scheduled for disposal, without any further notice, on April 22, 2015. This includes any samples that were received with a request to be held but lacked a specific hold period. It is your responsibility to provide a written request defining a specific disposal date if additional storage is required. Upon receipt, the request will be acknowledged by PSS, thus extending the storage period.

This report shall not be reproduced except in full, without the written approval of an authorized PSS representative. A copy of this report will be retained by PSS for at least 5 years, after which time it will be disposed of without further notice, unless prior arrangements have been made.

We thank you for selecting Phase Separation Science, Inc. to serve your analytical needs. If you have any questions concerning this report, do not hesitate to contact us at 410-747-8770 or info@phaseonline.com.

Sincerely,

Dan Prucnal

Laboratory Manager



Sample Summary

Client Name: Arc Environmental
Project Name: Percontee

Work Order Number(s): 15031808

Project ID: 057-5

The following samples were received under chain of custody by Phase Separation Science (PSS) on 03/18/2015 at 12:10 pm

Lab Sample Id	Sample Id	Matrix	Date/Time Collected
15031808-001	MW-8 0'-2'	SOIL	03/16/15 08:25
15031808-002	MW-8 4'-6'	SOIL	03/16/15 08:35

Please reference the Chain of Custody and Sample Receipt Checklist for specific container counts and preservatives. Any sample conditions not in compliance with sample acceptance criteria are described in Case Narrative Summary.

Notes:

1. The presence of a common laboratory contaminant such as methylene chloride may be considered a possible laboratory artifact. Where observed, appropriate consideration of data should be taken.
2. Unless otherwise noted in the case narrative, results are reported on a dry weight basis with the exception of pH, flashpoint, moisture, and paint filter test.
3. Drinking water samples collected for the purpose of compliance with SDWA may not be suitable for their intended use unless collected by a certified sampler [COMAR 26.08.05.07.C.2].
4. The analyses of 1,2-dibromo-3-chloropropane (DBCP) and 1,2-dibromoethane (EDB) by EPA 524.2 and calcium, magnesium, sodium and iron by EPA 200.8 are not currently promulgated for use in testing to meet the Safe Drinking Water Act and as such cannot be used for compliance purposes. The listings of the current promulgated methods for testing in compliance with the Safe Drinking Water Act can be found in the 40 CFR part 141.1, for the primary drinking water contaminants, and part 141.3, for the secondary drinking water contaminants.
5. Sample prepared under EPA 3550C with concentrations greater than 20 mg/Kg should employ the microtip extraction procedure if required to meet data quality objectives.
6. The analysis of acrolein by EPA 624 must be analyzed within three days of sampling unless pH is adjusted to 4-5 units [40 CFR part 136.3(e)].
7. Method 180.1, The Determination of Turbidity by Nephelometry, recommends samples over 40 NTU be diluted until the turbidity falls below 40 units. Routine samples over 40 NTU may not be diluted as long as the data quality objectives are not affected.
8. Alkalinity results analyzed by EPA 310.2 that are reported by dilution are estimated and are not in compliance with method requirements.

Standard Flags/Abbreviations:

- B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- C Results Pending Final Confirmation.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- Fail The result exceeds the regulatory level for Toxicity Characteristic (TCLP) as cited in 40 CFR 261.24 Table 1.
- J The target analyte was positively identified below the reporting limit but greater than the MDL.
- MDL This is the Laboratory Method Detection Limit which is equivalent to the Limit of Detection (LOD). The LOD is an estimate of the minimum amount of a substance that an analytical process can reliably detect. This value will remain constant across multiple similar instrumentation and among different analysts. An LOD is analyte and matrix specific.
- ND Not Detected at or above the reporting limit.
- RL PSS Reporting Limit.
- U Not detected.

Certifications:

NELAP Certifications: PA 68-03330, VA 460156
State Certifications: MD 179, WV 303
Regulated Soil Permit: P330-12-00268
NSWC USCG Accepted Laboratory
LDBE MWAA LD1997-0041-2015

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15031808

Arc Environmental, Baltimore, MD

March 25, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: MW-8 0'-2'	Date/Time Sampled: 03/16/2015 08:25	PSS Sample ID: 15031808-001
Matrix: SOIL	Date/Time Received: 03/18/2015 12:10	% Solids: 84

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	mg/kg	2.0		1	1	03/19/15	03/20/15 16:24	1033
Arsenic	2.8	mg/kg	0.40		1	0.2	03/19/15	03/20/15 16:24	1033
Beryllium	ND	mg/kg	2.0		1	1	03/19/15	03/20/15 16:24	1033
Cadmium	ND	mg/kg	2.0		1	1	03/19/15	03/20/15 16:24	1033
Chromium	57	mg/kg	2.0		1	1	03/19/15	03/20/15 16:24	1033
Copper	21	mg/kg	2.0		1	1	03/19/15	03/20/15 16:24	1033
Lead	32	mg/kg	2.0		1	1	03/19/15	03/20/15 16:24	1033
Mercury	0.068	mg/kg	0.080	J	1	0.04	03/19/15	03/20/15 16:24	1033
Nickel	80	mg/kg	2.0		1	1	03/19/15	03/20/15 16:24	1033
Selenium	ND	mg/kg	2.0		1	1	03/19/15	03/23/15 17:59	1033
Silver	ND	mg/kg	2.0		1	1	03/19/15	03/20/15 16:24	1033
Thallium	ND	mg/kg	0.40		1	0.2	03/19/15	03/20/15 16:24	1033
Zinc	47	mg/kg	8.0		1	4	03/19/15	03/23/15 17:59	1033

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: SW3550C

DF/HF - No. 2/diesel fuel and heavier fuel/oil patterns observed in sample.

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	22	mg/kg	12	DF	1	4.7	03/20/15	03/23/15 11:07	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	87	ug/kg	120	J	1	59	03/19/15	03/19/15 11:39	1035

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15031808

Arc Environmental, Baltimore, MD

March 25, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: MW-8 0'-2'	Date/Time Sampled: 03/16/2015 08:25	PSS Sample ID: 15031808-001
Matrix: SOIL	Date/Time Received: 03/18/2015 12:10	% Solids: 84

Polychlorinated Biphenyls

Analytical Method: SW-846 8082 A

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
PCB-1016	ND	mg/kg	0.059		1	0.059	03/20/15	03/23/15 10:35	1029
PCB-1221	ND	mg/kg	0.059		1	0.059	03/20/15	03/23/15 10:35	1029
PCB-1232	ND	mg/kg	0.059		1	0.059	03/20/15	03/23/15 10:35	1029
PCB-1242	ND	mg/kg	0.059		1	0.059	03/20/15	03/23/15 10:35	1029
PCB-1248	ND	mg/kg	0.059		1	0.059	03/20/15	03/23/15 10:35	1029
PCB-1254	ND	mg/kg	0.059		1	0.059	03/20/15	03/23/15 10:35	1029
PCB-1260	ND	mg/kg	0.059		1	0.059	03/20/15	03/23/15 10:35	1029

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/kg	79		20	79	03/22/15	03/25/15 01:50	1055
Acenaphthylene	ND	ug/kg	79		20	79	03/22/15	03/25/15 01:50	1055
Anthracene	ND	ug/kg	79		20	79	03/22/15	03/25/15 01:50	1055
Benzo(a)anthracene	150	ug/kg	79		20	79	03/22/15	03/25/15 01:50	1055
Benzo(a)pyrene	190	ug/kg	79		20	79	03/22/15	03/25/15 01:50	1055
Benzo(b)fluoranthene	ND	ug/kg	79		20	79	03/22/15	03/25/15 01:50	1055
Benzo(g,h,i)perylene	130	ug/kg	79		20	79	03/22/15	03/25/15 01:50	1055
Benzo(k)fluoranthene	450	ug/kg	79		20	79	03/22/15	03/25/15 01:50	1055
Chrysene	220	ug/kg	79		20	79	03/22/15	03/25/15 01:50	1055
Dibenz(a,h)Anthracene	ND	ug/kg	79		20	79	03/22/15	03/25/15 01:50	1055
Fluoranthene	300	ug/kg	79		20	79	03/22/15	03/25/15 01:50	1055
Fluorene	ND	ug/kg	79		20	79	03/22/15	03/25/15 01:50	1055
Indeno(1,2,3-c,d)Pyrene	130	ug/kg	79		20	79	03/22/15	03/25/15 01:50	1055
2-Methylnaphthalene	ND	ug/kg	79		20	79	03/22/15	03/25/15 01:50	1055
Naphthalene	ND	ug/kg	79		20	79	03/22/15	03/25/15 01:50	1055
Phenanthrene	140	ug/kg	79		20	79	03/22/15	03/25/15 01:50	1055
Pyrene	290	ug/kg	79		20	79	03/22/15	03/25/15 01:50	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15031808

Arc Environmental, Baltimore, MD

March 25, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: MW-8 0'-2'	Date/Time Sampled: 03/16/2015 08:25	PSS Sample ID: 15031808-001
Matrix: SOIL	Date/Time Received: 03/18/2015 12:10	% Solids: 84

TCL Semivolatile Organic Compounds w/o PAHs Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acetophenone	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:21	1055
Biphenyl (Diphenyl)	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:21	1055
Butyl benzyl phthalate	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:21	1055
bis(2-chloroethoxy) methane	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:21	1055
bis(2-chloroethyl) ether	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:21	1055
bis(2-chloroisopropyl) ether	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:21	1055
bis(2-ethylhexyl) phthalate	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:21	1055
4-Bromophenylphenyl ether	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:21	1055
Di-n-butyl phthalate	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:21	1055
Carbazole	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:21	1055
4-Chloro-3-methylphenol	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:21	1055
4-Chloroaniline	ND	ug/kg	2,000		10	2,000	03/19/15	03/24/15 05:21	1055
2-Chloronaphthalene	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:21	1055
2-Chlorophenol	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:21	1055
4-Chlorophenyl phenyl ether	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:21	1055
Dibenzofuran	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:21	1055
3,3-Dichlorobenzidine	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:21	1055
2,4-Dichlorophenol	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:21	1055
Diethyl phthalate	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:21	1055
Dimethyl phthalate	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:21	1055
2,4-Dimethylphenol	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:21	1055
4,6-Dinitro-2-methyl phenol	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:21	1055
2,4-Dinitrophenol	ND	ug/kg	4,000		10	2,000	03/19/15	03/24/15 05:21	1055
2,4-Dinitrotoluene	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:21	1055
2,6-Dinitrotoluene	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:21	1055
Hexachlorobenzene	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:21	1055
Hexachlorobutadiene	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:21	1055
Hexachlorocyclopentadiene	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:21	1055
Hexachloroethane	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:21	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15031808

Arc Environmental, Baltimore, MD

March 25, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: MW-8 0'-2'	Date/Time Sampled: 03/16/2015 08:25	PSS Sample ID: 15031808-001
Matrix: SOIL	Date/Time Received: 03/18/2015 12:10	% Solids: 84

TCL Semivolatile Organic Compounds w/o PAHs Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Isophorone	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:21	1055
2-Methylphenol	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:21	1055
3&4-Methylphenol	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:21	1055
4-Nitroaniline	ND	ug/kg	2,000		10	2,000	03/19/15	03/24/15 05:21	1055
3-Nitroaniline	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:21	1055
2-Nitroaniline	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:21	1055
Nitrobenzene	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:21	1055
2-Nitrophenol	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:21	1055
4-Nitrophenol	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:21	1055
N-Nitrosodi-n-Propylamine	ND	ug/kg	790		10	790	03/19/15	03/24/15 05:21	1055
N-Nitrosodiphenylamine	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:21	1055
Di-n-octyl phthalate	ND	ug/kg	2,000		10	2,000	03/19/15	03/24/15 05:21	1055
Pentachlorophenol	ND	ug/kg	2,000		10	2,000	03/19/15	03/24/15 05:21	1055
Phenol	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:21	1055
Atrazine	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:21	1055
Pyridine	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:21	1055
Caprolactam	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:21	1055
2,4,6-Trichlorophenol	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:21	1055
2,4,5-Trichlorophenol	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:21	1055

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CERTIFICATE OF ANALYSIS

No: 15031808
 Arc Environmental, Baltimore, MD
 March 25, 2015

Project Name: Percontee
 Project Location: Silver Spring, MD
 Project ID: 057-5

Sample ID: MW-8 4'-6' **Date/Time Sampled: 03/16/2015 08:35** **PSS Sample ID: 15031808-002**
Matrix: SOIL **Date/Time Received: 03/18/2015 12:10** **% Solids: 84**

PP Metals Analytical Method: SW-846 6020 A Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	mg/kg	2.9		1	1.4	03/19/15	03/20/15 16:30	1033
Arsenic	4.1	mg/kg	0.58		1	0.29	03/19/15	03/20/15 16:30	1033
Beryllium	ND	mg/kg	2.9		1	1.4	03/19/15	03/20/15 16:30	1033
Cadmium	ND	mg/kg	2.9		1	1.4	03/19/15	03/20/15 16:30	1033
Chromium	54	mg/kg	2.9		1	1.4	03/19/15	03/20/15 16:30	1033
Copper	32	mg/kg	2.9		1	1.4	03/19/15	03/20/15 16:30	1033
Lead	24	mg/kg	2.9		1	1.4	03/19/15	03/20/15 16:30	1033
Mercury	0.073	mg/kg	0.12	J	1	0.058	03/19/15	03/20/15 16:30	1033
Nickel	76	mg/kg	2.9		1	1.4	03/19/15	03/20/15 16:30	1033
Selenium	ND	mg/kg	2.9		1	1.4	03/19/15	03/23/15 18:05	1033
Silver	ND	mg/kg	2.9		1	1.4	03/19/15	03/20/15 16:30	1033
Thallium	ND	mg/kg	0.58		1	0.29	03/19/15	03/20/15 16:30	1033
Zinc	56	mg/kg	12		1	5.8	03/19/15	03/23/15 18:05	1033

Total Petroleum Hydrocarbons - DRO Analytical Method: SW-846 8015 C Preparation Method: SW3550C

DF/HF - No. 2/diesel fuel and heavier fuel/oil patterns observed in sample.

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	200	mg/kg	12	DF	1	4.7	03/20/15	03/23/15 11:07	1055

Total Petroleum Hydrocarbons-GRO Analytical Method: SW-846 8015C Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	72	ug/kg	120	J	1	60	03/19/15	03/19/15 12:09	1035

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15031808

Arc Environmental, Baltimore, MD

March 25, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: MW-8 4'-6'	Date/Time Sampled: 03/16/2015 08:35	PSS Sample ID: 15031808-002
Matrix: SOIL	Date/Time Received: 03/18/2015 12:10	% Solids: 84

Polychlorinated Biphenyls

Analytical Method: SW-846 8082 A

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
PCB-1016	ND	mg/kg	0.059		1	0.059	03/20/15	03/23/15 11:04	1029
PCB-1221	ND	mg/kg	0.059		1	0.059	03/20/15	03/23/15 11:04	1029
PCB-1232	ND	mg/kg	0.059		1	0.059	03/20/15	03/23/15 11:04	1029
PCB-1242	ND	mg/kg	0.059		1	0.059	03/20/15	03/23/15 11:04	1029
PCB-1248	ND	mg/kg	0.059		1	0.059	03/20/15	03/23/15 11:04	1029
PCB-1254	ND	mg/kg	0.059		1	0.059	03/20/15	03/23/15 11:04	1029
PCB-1260	ND	mg/kg	0.059		1	0.059	03/20/15	03/23/15 11:04	1029

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/kg	79		20	79	03/22/15	03/25/15 02:14	1055
Acenaphthylene	ND	ug/kg	79		20	79	03/22/15	03/25/15 02:14	1055
Anthracene	100	ug/kg	79		20	79	03/22/15	03/25/15 02:14	1055
Benzo(a)anthracene	250	ug/kg	79		20	79	03/22/15	03/25/15 02:14	1055
Benzo(a)pyrene	230	ug/kg	79		20	79	03/22/15	03/25/15 02:14	1055
Benzo(b)fluoranthene	ND	ug/kg	79		20	79	03/22/15	03/25/15 02:14	1055
Benzo(g,h,i)perylene	140	ug/kg	79		20	79	03/22/15	03/25/15 02:14	1055
Benzo(k)fluoranthene	610	ug/kg	79		20	79	03/22/15	03/25/15 02:14	1055
Chrysene	280	ug/kg	79		20	79	03/22/15	03/25/15 02:14	1055
Dibenz(a,h)Anthracene	ND	ug/kg	79		20	79	03/22/15	03/25/15 02:14	1055
Fluoranthene	470	ug/kg	79		20	79	03/22/15	03/25/15 02:14	1055
Fluorene	ND	ug/kg	79		20	79	03/22/15	03/25/15 02:14	1055
Indeno(1,2,3-c,d)Pyrene	170	ug/kg	79		20	79	03/22/15	03/25/15 02:14	1055
2-Methylnaphthalene	ND	ug/kg	79		20	79	03/22/15	03/25/15 02:14	1055
Naphthalene	ND	ug/kg	79		20	79	03/22/15	03/25/15 02:14	1055
Phenanthrene	280	ug/kg	79		20	79	03/22/15	03/25/15 02:14	1055
Pyrene	440	ug/kg	79		20	79	03/22/15	03/25/15 02:14	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15031808

Arc Environmental, Baltimore, MD

March 25, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: MW-8 4'-6'	Date/Time Sampled: 03/16/2015 08:35	PSS Sample ID: 15031808-002
Matrix: SOIL	Date/Time Received: 03/18/2015 12:10	% Solids: 84

TCL Semivolatile Organic Compounds w/o PAHs Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acetophenone	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:49	1055
Biphenyl (Diphenyl)	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:49	1055
Butyl benzyl phthalate	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:49	1055
bis(2-chloroethoxy) methane	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:49	1055
bis(2-chloroethyl) ether	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:49	1055
bis(2-chloroisopropyl) ether	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:49	1055
bis(2-ethylhexyl) phthalate	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:49	1055
4-Bromophenylphenyl ether	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:49	1055
Di-n-butyl phthalate	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:49	1055
Carbazole	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:49	1055
4-Chloro-3-methylphenol	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:49	1055
4-Chloroaniline	ND	ug/kg	2,000		10	2,000	03/19/15	03/24/15 05:49	1055
2-Chloronaphthalene	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:49	1055
2-Chlorophenol	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:49	1055
4-Chlorophenyl phenyl ether	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:49	1055
Dibenzofuran	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:49	1055
3,3-Dichlorobenzidine	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:49	1055
2,4-Dichlorophenol	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:49	1055
Diethyl phthalate	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:49	1055
Dimethyl phthalate	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:49	1055
2,4-Dimethylphenol	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:49	1055
4,6-Dinitro-2-methyl phenol	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:49	1055
2,4-Dinitrophenol	ND	ug/kg	3,900		10	2,000	03/19/15	03/24/15 05:49	1055
2,4-Dinitrotoluene	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:49	1055
2,6-Dinitrotoluene	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:49	1055
Hexachlorobenzene	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:49	1055
Hexachlorobutadiene	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:49	1055
Hexachlorocyclopentadiene	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:49	1055
Hexachloroethane	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:49	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15031808

Arc Environmental, Baltimore, MD

March 25, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: MW-8 4'-6'	Date/Time Sampled: 03/16/2015 08:35	PSS Sample ID: 15031808-002
Matrix: SOIL	Date/Time Received: 03/18/2015 12:10	% Solids: 84

TCL Semivolatile Organic Compounds w/o PAHs Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Isophorone	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:49	1055
2-Methylphenol	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:49	1055
3&4-Methylphenol	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:49	1055
4-Nitroaniline	ND	ug/kg	2,000		10	2,000	03/19/15	03/24/15 05:49	1055
3-Nitroaniline	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:49	1055
2-Nitroaniline	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:49	1055
Nitrobenzene	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:49	1055
2-Nitrophenol	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:49	1055
4-Nitrophenol	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:49	1055
N-Nitrosodi-n-Propylamine	ND	ug/kg	790		10	790	03/19/15	03/24/15 05:49	1055
N-Nitrosodiphenylamine	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:49	1055
Di-n-octyl phthalate	ND	ug/kg	2,000		10	2,000	03/19/15	03/24/15 05:49	1055
Pentachlorophenol	ND	ug/kg	2,000		10	2,000	03/19/15	03/24/15 05:49	1055
Phenol	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:49	1055
Atrazine	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:49	1055
Pyridine	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:49	1055
Caprolactam	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:49	1055
2,4,6-Trichlorophenol	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:49	1055
2,4,5-Trichlorophenol	ND	ug/kg	2,000		10	990	03/19/15	03/24/15 05:49	1055



Case Narrative Summary

Client Name: Arc Environmental

Project Name: Percontee

Work Order Number(s): 15031808

Project ID: 057-5

Any holding time exceedances, deviations from the method specifications, regulatory requirements or variations to the procedures outlined in the PSS Quality Assurance Manual are outlined below.

The analyses of chlorine, pH, dissolved oxygen, temperature and sulfite for drinking water and non-potable samples tested for compliance have a maximum holding time of 15 minutes. As such, all laboratory analyses for these analytes exceed holding times.

Matrix spike and matrix spike duplicate analyses may not be performed due to insufficient sample quantity. In these instances, a laboratory control sample and laboratory control sample duplicate are analyzed unless otherwise noted or specified in the method.

Sample Receipt:

Sample(s) received at 0 degrees but no samples were frozen.

Analytical:

Total Metals

Batch: 121246

Laboratory control sample and/or laboratory control sample duplicate (LCS/LCSD) exceedances identified; see LCS summary form.

Poly Aromatic Hydrocarbons by SIM

Batch: 121326

Nitrobenzene-d5 diluted out in samples -001 and -002.
Surrogate recoveries affected by sample dilution.

NELAP accreditation was held for all analyses performed unless noted below. See www.phaseonline.com for complete PSS scope of accreditation.



Analytical Data Package Information Summary

Work Order(s): 15031808

Report Prepared For: Arc Environmental, Baltimore, MD

Project Name: Percontee

Project Manager: Kyle Begey

Method	Client Sample Id	Analysis Type	Lab Sample Id	Analyst	Mtx	Prep Batch	Analytical Batch	Sampled	Prepared	Analyzed
ASTM D2216 05	MW-8 0'-2'	Initial	15031808-001	1051	S	121151	121151	03/16/2015	03/18/2015 17:53	03/18/2015 17:53
	MW-8 4'-6'	Initial	15031808-002	1051	S	121151	121151	03/16/2015	03/18/2015 17:53	03/18/2015 17:53
SW-846 6020 A	MW-8 0'-2'	Initial	15031808-001	1033	S	54636	121246	03/16/2015	03/19/2015 13:08	03/20/2015 16:24
	MW-8 4'-6'	Initial	15031808-002	1033	S	54636	121246	03/16/2015	03/19/2015 13:08	03/20/2015 16:30
	54636-1-BKS	BKS	54636-1-BKS	1033	S	54636	121246	-----	03/19/2015 13:08	03/20/2015 14:47
	54636-1-BLK	BLK	54636-1-BLK	1033	S	54636	121246	-----	03/19/2015 13:08	03/20/2015 14:41
	GTA-1 S	MS	15031717-001 S	1033	S	54636	121246	03/17/2015	03/19/2015 13:08	03/20/2015 14:59
	GTA-1 SD	MSD	15031717-001 SD	1033	S	54636	121246	03/17/2015	03/19/2015 13:08	03/20/2015 15:05
	54636-1-BKS	Reanalysis	54636-1-BKS	1033	S	54636	121285	-----	03/19/2015 13:08	03/23/2015 17:53
	MW-8 0'-2'	Reanalysis	15031808-001	1033	S	54636	121285	03/16/2015	03/19/2015 13:08	03/23/2015 17:59
	MW-8 4'-6'	Reanalysis	15031808-002	1033	S	54636	121285	03/16/2015	03/19/2015 13:08	03/23/2015 18:05
SW-846 8015 C	54655-1-BKS	BKS	54655-1-BKS	1055	S	54655	121249	-----	03/20/2015 15:04	03/23/2015 01:12
	54655-1-BLK	BLK	54655-1-BLK	1055	S	54655	121249	-----	03/20/2015 15:04	03/23/2015 00:49
	54655-1-BSD	BSD	54655-1-BSD	1055	S	54655	121249	-----	03/20/2015 15:04	03/23/2015 01:34
	18ft NE Sidewall S	MS	15031716-003 S	1055	S	54655	121249	03/16/2015	03/20/2015 15:04	03/23/2015 02:40
	18ft NE Sidewall SD	MSD	15031716-003 SD	1055	S	54655	121249	03/16/2015	03/20/2015 15:04	03/23/2015 03:02
	MW-8 0'-2'	Initial	15031808-001	1055	S	54655	121262	03/16/2015	03/20/2015 15:04	03/23/2015 11:07
	MW-8 4'-6'	Initial	15031808-002	1055	S	54655	121262	03/16/2015	03/20/2015 15:04	03/23/2015 11:07
SW-846 8015C	MW-8 0'-2'	Initial	15031808-001	1035	S	54633	121172	03/16/2015	03/19/2015 01:23	03/19/2015 11:39
	MW-8 4'-6'	Initial	15031808-002	1035	S	54633	121172	03/16/2015	03/19/2015 01:23	03/19/2015 12:09
	54633-2-BKS	BKS	54633-2-BKS	1035	S	54633	121172	-----	03/19/2015 01:23	03/19/2015 13:08
	54633-2-BLK	BLK	54633-2-BLK	1035	S	54633	121172	-----	03/19/2015 01:23	03/19/2015 03:50
	18ft NE Sidewall S	MS	15031716-003 S	1035	S	54633	121172	03/16/2015	03/19/2015 01:23	03/19/2015 11:09
	18ft NE Sidewall SD	MSD	15031716-003 SD	1035	S	54633	121172	03/16/2015	03/19/2015 01:23	03/19/2015 07:44
SW-846 8082 A	MW-8 0'-2'	Initial	15031808-001	1029	S	54643	121245	03/16/2015	03/20/2015 09:35	03/23/2015 10:35
	MW-8 4'-6'	Initial	15031808-002	1029	S	54643	121245	03/16/2015	03/20/2015 09:35	03/23/2015 11:04
	54643-1-BKS	BKS	54643-1-BKS	1029	S	54643	121245	-----	03/20/2015 09:35	03/20/2015 16:50



Analytical Data Package Information Summary

Work Order(s): 15031808

Report Prepared For: Arc Environmental, Baltimore, MD

Project Name: Percontee

Project Manager: Kyle Begey

Method	Client Sample Id	Analysis Type	Lab Sample Id	Analyst	Mtx	Prep Batch	Analytical Batch	Sampled	Prepared	Analyzed
SW-846 8082 A	54643-1-BLK	BLK	54643-1-BLK	1029	S	54643	121245	-----	03/20/2015 09:35	03/20/2015 16:21
	54643-1-BSD	BSD	54643-1-BSD	1029	S	54643	121245	-----	03/20/2015 09:35	03/20/2015 17:20
	S-1 S	MS	15031912-001 S	1029	S	54643	121245	03/19/2015	03/20/2015 09:35	03/20/2015 18:46
	S-1 SD	MSD	15031912-001 SD	1029	S	54643	121245	03/19/2015	03/20/2015 09:35	03/20/2015 18:17
SW-846 8270 C	54631-1-BKS	BKS	54631-1-BKS	1055	S	54631	121292	-----	03/19/2015 11:48	03/23/2015 18:17
	54631-1-BLK	BLK	54631-1-BLK	1055	S	54631	121292	-----	03/19/2015 11:48	03/23/2015 17:49
	54631-1-BSD	BSD	54631-1-BSD	1055	S	54631	121292	-----	03/19/2015 11:48	03/23/2015 18:45
	B17 28'-30' S	MS	15031810-003 S	1055	S	54631	121292	03/17/2015	03/19/2015 11:48	03/23/2015 19:40
	B17 28'-30' SD	MSD	15031810-003 SD	1055	S	54631	121292	03/17/2015	03/19/2015 11:48	03/23/2015 20:08
	MW-8 0'-2'	Initial	15031808-001	1055	S	54631	121293	03/16/2015	03/19/2015 11:48	03/24/2015 05:21
	MW-8 4'-6'	Initial	15031808-002	1055	S	54631	121293	03/16/2015	03/19/2015 11:48	03/24/2015 05:49
SW-846 8270 C	MW-8 0'-2'	Initial	15031808-001	1055	S	54662	121326	03/16/2015	03/22/2015 08:35	03/25/2015 01:50
	MW-8 4'-6'	Initial	15031808-002	1055	S	54662	121326	03/16/2015	03/22/2015 08:35	03/25/2015 02:14
	54662-1-BKS	BKS	54662-1-BKS	1055	S	54662	121326	-----	03/22/2015 08:35	03/24/2015 18:33
	54662-1-BLK	BLK	54662-1-BLK	1055	S	54662	121326	-----	03/22/2015 08:35	03/24/2015 18:09
	54662-1-BSD	BSD	54662-1-BSD	1055	S	54662	121326	-----	03/22/2015 08:35	03/24/2015 18:58
	B17 28'-30' S	MS	15031810-003 S	1055	S	54662	121326	03/17/2015	03/22/2015 08:35	03/24/2015 19:22
	B17 28'-30' SD	MSD	15031810-003 SD	1055	S	54662	121326	03/17/2015	03/22/2015 08:35	03/24/2015 19:46

PHASE SEPARATION SCIENCE, INC.

QC Summary 15031808

Arc Environmental Percontee

Analytical Method: SW-846 8082 A

Seq Number: 121245
PSS Sample ID: 15031808-001

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/20/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	37		11-150	%	03/23/15 10:35
Tetrachloro-m-xylene	58		12-158	%	03/23/15 10:35

Analytical Method: SW-846 8015 C

Seq Number: 121262
PSS Sample ID: 15031808-001

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/20/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	88		42-129	%	03/23/15 11:07

Analytical Method: SW-846 8270 C

Seq Number: 121293
PSS Sample ID: 15031808-001

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/19/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	84		60-131	%	03/24/15 05:21
2-Fluorophenol	48		45-108	%	03/24/15 05:21
Nitrobenzene-d5	70		42-131	%	03/24/15 05:21
Phenol-d6	54		48-124	%	03/24/15 05:21
Terphenyl-D14	94		59-137	%	03/24/15 05:21
2,4,6-Tribromophenol	69		46-129	%	03/24/15 05:21

Analytical Method: SW-846 8270 C

Seq Number: 121326
PSS Sample ID: 15031808-001

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/22/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	80		51-109	%	03/25/15 01:50
Nitrobenzene-d5	0	*	48-111	%	03/25/15 01:50
Terphenyl-D14	100		45-137	%	03/25/15 01:50

Analytical Method: SW-846 8015C

Seq Number: 121172
PSS Sample ID: 15031808-001

Matrix: Soil

Prep Method: SW5030
Date Prep: 03/19/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	86		55-142	%	03/19/15 11:39

PHASE SEPARATION SCIENCE, INC.

QC Summary 15031808

Arc Environmental Percontee

Analytical Method: SW-846 8082 A

Seq Number: 121245
PSS Sample ID: 15031808-002

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/20/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	58		11-150	%	03/23/15 11:04
Tetrachloro-m-xylene	69		12-158	%	03/23/15 11:04

Analytical Method: SW-846 8015 C

Seq Number: 121262
PSS Sample ID: 15031808-002

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/20/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	93		42-129	%	03/23/15 11:07

Analytical Method: SW-846 8270 C

Seq Number: 121293
PSS Sample ID: 15031808-002

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/19/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	93		60-131	%	03/24/15 05:49
2-Fluorophenol	54		45-108	%	03/24/15 05:49
Nitrobenzene-d5	71		42-131	%	03/24/15 05:49
Phenol-d6	55		48-124	%	03/24/15 05:49
Terphenyl-D14	103		59-137	%	03/24/15 05:49
2,4,6-Tribromophenol	93		46-129	%	03/24/15 05:49

Analytical Method: SW-846 8270 C

Seq Number: 121326
PSS Sample ID: 15031808-002

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/22/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	80		51-109	%	03/25/15 02:14
Nitrobenzene-d5	0	*	48-111	%	03/25/15 02:14
Terphenyl-D14	120		45-137	%	03/25/15 02:14

Analytical Method: SW-846 8015C

Seq Number: 121172
PSS Sample ID: 15031808-002

Matrix: Soil

Prep Method: SW5030
Date Prep: 03/19/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	85		55-142	%	03/19/15 12:09

PHASE SEPARATION SCIENCE, INC.

QC Summary 15031808

Arc Environmental Percontee

F = RPD exceeded the laboratory control limits

X = Recovery of MS, MSD or both outside of QC Criteria

H= Recovery of BS,BSD or both exceeded the laboratory control limits

L = Recovery of BS,BSD or both below the laboratory control limits

PHASE SEPARATION SCIENCE, INC.

QC Summary 15031808

Arc Environmental Percontee

Analytical Method: SW-846 6020 A

Seq Number: 121246

MB Sample Id: 54636-1-BLK

Matrix: Solid

LCS Sample Id: 54636-1-BKS

Prep Method: SW3050B

Date Prep: 03/19/15

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Analysis Date	Flag
Antimony	<1.183	18.92	17.98	95	80-120	mg/kg	03/20/15 14:47	
Arsenic	<0.2365	18.92	15.67	83	80-120	mg/kg	03/20/15 14:47	
Beryllium	<1.183	18.92	16.26	86	80-120	mg/kg	03/20/15 14:47	
Cadmium	<1.183	18.92	16.16	85	80-120	mg/kg	03/20/15 14:47	
Chromium	<1.183	18.92	16.21	86	80-120	mg/kg	03/20/15 14:47	
Copper	<1.183	18.92	16.23	86	80-120	mg/kg	03/20/15 14:47	
Lead	<1.183	18.92	15.88	84	80-120	mg/kg	03/20/15 14:47	
Mercury	0.04764	0.4731	0.3879	82	80-120	mg/kg	03/20/15 14:47	
Nickel	<1.183	18.92	16.23	86	80-120	mg/kg	03/20/15 14:47	
Selenium	<1.183	18.92	15.03	79	80-120	mg/kg	03/23/15 17:53	
Silver	<1.183	18.92	17.24	91	80-120	mg/kg	03/20/15 14:47	
Thallium	<0.2365	18.92	15.34	81	80-120	mg/kg	03/20/15 14:47	
Zinc	<4.731	18.92	15.98	84	80-120	mg/kg	03/23/15 17:53	

Analytical Method: SW-846 8082 A

Seq Number: 121245

MB Sample Id: 54643-1-BLK

Matrix: Solid

LCS Sample Id: 54643-1-BKS

Prep Method: SW3550C

Date Prep: 03/20/15

LCSD Sample Id: 54643-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
PCB-1016	<0.04965	0.4965	0.3260	66	0.2663	52	62-136	20	25	mg/kg	03/20/15 16:50	L
PCB-1260	<0.04965	0.4965	0.3461	70	0.2747	54	56-113	23	25	mg/kg	03/20/15 16:50	L

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	80		82		63		11-150	%	03/20/15 16:50
Tetrachloro-m-xylene	66		59		48		12-158	%	03/20/15 16:50

Analytical Method: SW-846 8015 C

Seq Number: 121249

MB Sample Id: 54655-1-BLK

Matrix: Solid

LCS Sample Id: 54655-1-BKS

Prep Method: SW3550C

Date Prep: 03/20/15

LCSD Sample Id: 54655-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
TPH-DRO (Diesel Range Organics)	<3.979	33.16	29.63	89	30.41	91	56-117	3	25	mg/kg	03/23/15 01:12	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units	Analysis Date
o-Terphenyl	84		89		90		42-129	%	03/23/15 01:12

PHASE SEPARATION SCIENCE, INC.

QC Summary 15031808

Arc Environmental Percontee

Analytical Method: SW-846 8270 C

Seq Number: 121292

MB Sample Id: 54631-1-BLK

Matrix: Solid

LCS Sample Id: 54631-1-BKS

Prep Method: SW3550C

Date Prep: 03/19/15

LCSD Sample Id: 54631-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Acetophenone	<83.17	1331	1296	97	1266	95	61-114	2	25	ug/kg	03/23/15 18:17	
Biphenyl (Diphenyl)	<83.17	1331	1200	90	1150	86	79-107	4	25	ug/kg	03/23/15 18:17	
Butyl benzyl phthalate	<83.17	1331	1415	106	1369	103	67-125	3	25	ug/kg	03/23/15 18:17	
bis(2-chloroethoxy) methane	<83.17	1331	1221	92	1202	90	58-106	2	25	ug/kg	03/23/15 18:17	
bis(2-chloroethyl) ether	<83.17	1331	1138	85	1112	83	58-105	2	25	ug/kg	03/23/15 18:17	
bis(2-chloroisopropyl) ether	<83.17	1331	1145	86	1104	83	53-114	4	25	ug/kg	03/23/15 18:17	
bis(2-ethylhexyl) phthalate	<83.17	1331	1408	106	1429	107	54-137	1	25	ug/kg	03/23/15 18:17	
4-Bromophenylphenyl ether	<83.17	1331	1394	105	1372	103	65-110	2	25	ug/kg	03/23/15 18:17	
Di-n-butyl phthalate	<83.17	1331	1326	100	1331	100	61-127	0	25	ug/kg	03/23/15 18:17	
Carbazole	<83.17	1331	1437	108	1436	108	45-121	0	25	ug/kg	03/23/15 18:17	
4-Chloro-3-methylphenol	<83.17	1331	1372	103	1324	99	70-113	4	25	ug/kg	03/23/15 18:17	
4-Chloroaniline	<166.3	1331	1465	110	1402	105	73-103	4	25	ug/kg	03/23/15 18:17	H
2-Chloronaphthalene	<83.17	1331	1220	92	1247	94	76-104	2	25	ug/kg	03/23/15 18:17	
2-Chlorophenol	<83.17	1331	1171	88	1138	85	69-97	3	25	ug/kg	03/23/15 18:17	
4-Chlorophenyl phenyl ether	<83.17	1331	1174	88	1179	89	67-113	0	25	ug/kg	03/23/15 18:17	
Dibenzofuran	<83.17	1331	1242	93	1254	94	72-109	1	25	ug/kg	03/23/15 18:17	
3,3-Dichlorobenzidine	<83.17	1331	1301	98	1300	98	56-128	0	25	ug/kg	03/23/15 18:17	
2,4-Dichlorophenol	<83.17	1331	1300	98	1273	96	75-101	2	25	ug/kg	03/23/15 18:17	
Diethyl phthalate	<83.17	1331	1161	87	1137	85	69-120	2	25	ug/kg	03/23/15 18:17	
Dimethyl phthalate	<83.17	1331	1127	85	1129	85	64-119	0	25	ug/kg	03/23/15 18:17	
2,4-Dimethylphenol	<83.17	1331	1270	95	1213	91	66-98	5	25	ug/kg	03/23/15 18:17	
4,6-Dinitro-2-methyl phenol	<83.17	1331	1298	98	1268	95	63-126	2	25	ug/kg	03/23/15 18:17	
2,4-Dinitrophenol	<166.3	1331	1101	83	1075	81	56-123	2	25	ug/kg	03/23/15 18:17	
2,4-Dinitrotoluene	<83.17	1331	1315	99	1299	98	70-116	1	25	ug/kg	03/23/15 18:17	
2,6-Dinitrotoluene	<83.17	1331	1294	97	1346	101	72-112	4	25	ug/kg	03/23/15 18:17	
Hexachlorobenzene	<83.17	1331	1353	102	1349	101	72-112	0	25	ug/kg	03/23/15 18:17	
Hexachlorobutadiene	<83.17	1331	1274	96	1227	92	72-100	4	25	ug/kg	03/23/15 18:17	
Hexachlorocyclopentadiene	<83.17	1331	1113	84	1143	86	51-125	3	25	ug/kg	03/23/15 18:17	
Hexachloroethane	<83.17	1331	1247	94	1195	90	69-102	4	25	ug/kg	03/23/15 18:17	
Isophorone	<83.17	1331	1340	101	1320	99	71-96	2	25	ug/kg	03/23/15 18:17	H
2-Methylphenol	<83.17	1331	1281	96	1232	92	69-102	4	25	ug/kg	03/23/15 18:17	
3&4-Methylphenol	<83.17	1331	1222	92	1207	91	64-113	1	25	ug/kg	03/23/15 18:17	
4-Nitroaniline	<166.3	1331	1298	98	1310	98	41-121	1	25	ug/kg	03/23/15 18:17	
3-Nitroaniline	<83.17	1331	1223	92	1183	89	49-117	3	25	ug/kg	03/23/15 18:17	
2-Nitroaniline	<83.17	1331	1302	98	1283	96	71-109	1	25	ug/kg	03/23/15 18:17	
Nitrobenzene	<83.17	1331	1245	94	1202	90	66-101	4	25	ug/kg	03/23/15 18:17	
2-Nitrophenol	<83.17	1331	1331	100	1263	95	74-108	5	25	ug/kg	03/23/15 18:17	
4-Nitrophenol	<83.17	1331	1154	87	1132	85	58-125	2	25	ug/kg	03/23/15 18:17	
N-Nitrosodi-n-Propylamine	<66.53	1331	1283	96	1258	94	58-110	2	25	ug/kg	03/23/15 18:17	
N-Nitrosodiphenylamine	<83.17	1331	1294	97	1269	95	70-109	2	25	ug/kg	03/23/15 18:17	
Di-n-octyl phthalate	<166.3	1331	1426	107	1429	107	63-122	0	25	ug/kg	03/23/15 18:17	
Pentachlorophenol	<166.3	1331	1274	96	1246	94	76-114	2	25	ug/kg	03/23/15 18:17	
Phenol	<83.17	1331	1090	82	1022	77	69-109	6	25	ug/kg	03/23/15 18:17	
Atrazine	<83.17	1331	6217	467	6543	491	69-131	5	25	ug/kg	03/23/15 18:17	H
Pyridine	<83.17	1331	954.8	72	886.2	67	60-86	7	25	ug/kg	03/23/15 18:17	
Caprolactam	<83.17	1331	1419	107	1337	100	59-129	6	25	ug/kg	03/23/15 18:17	
2,4,6-Trichlorophenol	<83.17	1331	1278	96	1303	98	75-111	2	25	ug/kg	03/23/15 18:17	
2,4,5-Trichlorophenol	<83.17	1331	1247	94	1283	96	81-112	3	25	ug/kg	03/23/15 18:17	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	98		90		95		60-131	%	03/23/15 18:17

PHASE SEPARATION SCIENCE, INC.

QC Summary 15031808

Arc Environmental Percontee

Analytical Method: SW-846 8270 C

Seq Number: 121292

MB Sample Id: 54631-1-BLK

Matrix: Solid

LCS Sample Id: 54631-1-BKS

Prep Method: SW3550C

Date Prep: 03/19/15

LCSD Sample Id: 54631-1-BSD

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units	Analysis Date
2-Fluorophenol	77		69		77		45-108	%	03/23/15 18:17
Nitrobenzene-d5	92		92		91		42-131	%	03/23/15 18:17
Phenol-d6	92		93		92		48-124	%	03/23/15 18:17
Terphenyl-D14	94		108		110		59-137	%	03/23/15 18:17
2,4,6-Tribromophenol	103		101		105		46-129	%	03/23/15 18:17

Analytical Method: SW-846 8270 C

Seq Number: 121326

MB Sample Id: 54662-1-BLK

Matrix: Solid

LCS Sample Id: 54662-1-BKS

Prep Method: SW3550C

Date Prep: 03/22/15

LCSD Sample Id: 54662-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Acenaphthene	<3.322	66.45	59.80	90	61.88	93	65-104	3	31	ug/kg	03/24/15 18:33	
Acenaphthylene	<3.322	66.45	49.50	74	52.56	79	59-105	6	25	ug/kg	03/24/15 18:33	
Anthracene	<3.322	66.45	61.13	92	63.87	96	52-121	4	25	ug/kg	03/24/15 18:33	
Benzo(a)anthracene	<3.322	66.45	58.47	88	62.21	94	47-114	6	25	ug/kg	03/24/15 18:33	
Benzo(a)pyrene	<3.322	66.45	58.80	88	63.54	96	57-111	8	25	ug/kg	03/24/15 18:33	
Benzo(b)fluoranthene	<3.322	66.45	48.50	73	54.56	82	47-123	12	25	ug/kg	03/24/15 18:33	
Benzo(g,h,i)perylene	<3.322	66.45	64.78	97	73.19	110	46-119	12	25	ug/kg	03/24/15 18:33	
Benzo(k)fluoranthene	<3.322	66.45	73.09	110	75.18	113	44-133	3	25	ug/kg	03/24/15 18:33	
Chrysene	<3.322	66.45	60.47	91	63.21	95	51-111	4	25	ug/kg	03/24/15 18:33	
Dibenz(a,h)Anthracene	<3.322	66.45	63.79	96	71.86	108	44-121	12	25	ug/kg	03/24/15 18:33	
Fluoranthene	<3.322	66.45	51.83	78	51.23	77	55-114	1	25	ug/kg	03/24/15 18:33	
Fluorene	<3.322	66.45	55.48	83	56.89	86	59-107	3	25	ug/kg	03/24/15 18:33	
Indeno(1,2,3-c,d)Pyrene	<3.322	66.45	66.78	100	72.19	109	42-123	8	25	ug/kg	03/24/15 18:33	
2-Methylnaphthalene	<3.322	66.45	54.15	81	52.23	79	67-99	4	25	ug/kg	03/24/15 18:33	
Naphthalene	<3.322	66.45	60.13	90	59.55	90	61-108	1	25	ug/kg	03/24/15 18:33	
Phenanthrene	<3.322	66.45	52.49	79	58.88	89	50-122	11	25	ug/kg	03/24/15 18:33	
Pyrene	<3.322	66.45	53.16	80	53.56	81	45-118	1	31	ug/kg	03/24/15 18:33	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	83		72		74		51-109	%	03/24/15 18:33
Nitrobenzene-d5	66		56		70		48-111	%	03/24/15 18:33
Terphenyl-D14	95		96		100		45-137	%	03/24/15 18:33

Analytical Method: SW-846 8015C

Seq Number: 121172

MB Sample Id: 54633-2-BLK

Matrix: Solid

LCS Sample Id: 54633-2-BKS

Prep Method: SW5030

Date Prep: 03/19/15

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Analysis Date	Flag
TPH-GRO (Gasoline Range Organic)	<50.00	5000	5446	109	60-112	ug/kg	03/19/15 13:08	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	84		101		55-142	%	03/19/15 13:08

PHASE SEPARATION SCIENCE, INC.

QC Summary 15031808

Arc Environmental Percontee

F = RPD exceeded the laboratory control limits

X = Recovery of MS, MSD or both outside of QC Criteria

H= Recovery of BS,BSD or both exceeded the laboratory control limits

L = Recovery of BS,BSD or both below the laboratory control limits



SAMPLE CHAIN OF CUSTODY/AGREEMENT FORM

PHASE SEPARATION SCIENCE, INC.

www.phaseonline.com
email: info@phaseonline.com

1 CLIENT: Arc Environmental OFFICE LOC. Baltimore, MD					PSS Work Order #: <u>15031808</u> PAGE <u>1</u> OF <u>1</u>									
PROJECT MGR: Kyle Begey PHONE NO.: 410-659-9971					Matrix Codes: SW=Surface Wtr DW=Drinking Wtr GW=Ground Wtr WW=Waste Wtr O=Oil S=Soil WL=Waste Liquid WS=Waste Solid W= Wipe									
EMAIL: kbegey@arcenvironmental.com FAX NO.: 410-962-1065					No. C O N T A I N E R S	SAMPLE TYPE C = COMP G = GRAB	PPI Metals	SVOCs (SIM)	VOCs 8260	GRO/DRO 8015	PCBs	Asbestos	Preservative Used ←	Analysis/ Method Required REMARKS ↓
PROJECT NAME: Percontee PROJECT NO.: 057-5														
SITE LOCATION: Silver Spring, MD P.O. NO.:														
SAMPLERS: Kyle Begey, Ray Goodwin and Christie Pulvino DW CERT NO.:														
2	LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX (See Codes)									
		MW-8 0'-2'	3/16/15	0835	S	2	G	X	X	X	X			Click to enter Remarks
		MW-8 4'-6'	3/16/18	0835	S	2	G	X	X	X	X			
5 Relinquished By: (1) <u>Kyle Begey</u> Date <u>3/18/15</u> Time <u>11:20</u> Received By: <u>Julien Golchano</u>					4 Requested Turnaround Time <input checked="" type="checkbox"/> 5-Day <input type="checkbox"/> 3-Day <input type="checkbox"/> 2-Day <input type="checkbox"/> Next Day <input type="checkbox"/> Emergency <input type="checkbox"/> Other					# of Coolers: <u>1</u> Custody Seal: <u>INTACT-COOLER</u> Ice Present: <u>PRES</u> Temp: <u>OC</u> <u>NO FROZ</u> Shipping Carrier: <u>TTE</u>				
Relinquished By: (2) <u>Julien Golchano</u> Date <u>3/18/15</u> Time <u>11:45</u> Received By: <u>TTE 123</u>					Data Deliverables Required:					Special Instructions: VCP Project with comparison to residential cleanup standards				
Relinquished By: (3) <u>TTE 123</u> Date <u>3/18</u> Time <u>12:10</u> Received By: <u>D. Rivera</u>					Relinquished By: (4)									

TEMP NOT FROZEN



Phase Separation Science, Inc

Sample Receipt Checklist

Work Order # 15031808 **Received By** Shirley Rivera
Client Name Arc Environmental **Date Received** 03/18/2015 12:10:00 PM
Project Name Percontee **Delivered By** Trans Time Express
Project Number 057-5 **Tracking No** Not Applicable
Disposal Date 04/22/2015 **Logged In By** Rachel Davis

Shipping Container(s)

No. of Coolers 1

	Ice	Present
Custody Seal(s) Intact?	Yes	Temp (deg C) 0
Seal(s) Signed / Dated?	Yes	Temp Blank Present No

Documentation

COC agrees with sample labels?	Yes	Sampler Name	<u>Kyle Begey</u>
Chain of Custody	Yes	MD DW Cert. No.	<u>N/A</u>

Sample Container

Appropriate for Specified Analysis?	Yes	Custody Seal(s) Intact?	Not Applicable
Intact?	Yes	Seal(s) Signed / Dated	Not Applicable
Labeled and Labels Legible?	Yes		

Total No. of Samples Received 2

Total No. of Containers Received 4

Preservation

Metals	(pH<2)	N/A
Cyanides	(pH>12)	N/A
Sulfide	(pH>9)	N/A
TOC, COD, Phenols	(pH<2)	N/A
TOX, TKN, NH3, Total Phos	(pH<2)	N/A
VOC, BTEX (VOA Vials Rcvd Preserved)	(pH<2)	N/A
Do VOA vials have zero headspace?		N/A
624 VOC (Rcvd at least one unpreserved VOA vial)		N/A

Comments: (Any "No" response must be detailed in the comments section below.)

For any improper preservation conditions, list sample ID, preservative added (reagent ID number) below as well as documentation of any client notification as well as client instructions. Samples for pH, chlorine and dissolved oxygen should be analyzed as soon as possible, preferably in the field at the time of sampling. Samples which require thermal preservation shall be considered acceptable when received at a temperature above freezing to 6°C. Samples that are hand delivered on the day that they are collected may not meet these criteria but shall be considered acceptable if there is evidence that the chilling process has begun such as arrival on ice.

Sample(s) received at 0 degrees but no samples were frozen.

Samples Inspected/Checklist Completed By:

Rachel Davis

Date: 03/18/2015

Rachel Davis

PM Review and Approval:

Lynn Jackson

Date: 03/19/2015

Lynn Jackson

Analytical Report for

Arc Environmental

Certificate of Analysis No.: 15031604

Project Manager: Kyle Begey

Project Name : Percontee

Project Location: Silver Spring, MD

Project ID : 057-5



April 1, 2015

Phase Separation Science, Inc.

6630 Baltimore National Pike

Baltimore, MD 21228

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PHASE SEPARATION SCIENCE, INC.



April 1, 2015

Kyle Begey
Arc Environmental
1311 Haubert Street
Baltimore, MD 21230

Reference: PSS Work Order(s) No: **15031604**
Project Name: Percontee
Project Location: Silver Spring, MD
Project ID.: 057-5

Dear Kyle Begey :

This report includes the analytical results from the analyses performed on the samples received under the project name referenced above and identified with the Phase Separation Science (PSS) Work Order(s) numbered **15031604**.

All work reported herein has been performed in accordance with current NELAP standards, referenced methodologies, PSS Standard Operating Procedures and the PSS Quality Assurance Manual unless otherwise noted in the Case Narrative Summary. PSS is limited in liability to the actual cost of the sample analysis done.

PSS reserves the right to return any unused samples, extracts or related solutions. Otherwise, the samples are scheduled for disposal, without any further notice, on April 20, 2015. This includes any samples that were received with a request to be held but lacked a specific hold period. It is your responsibility to provide a written request defining a specific disposal date if additional storage is required. Upon receipt, the request will be acknowledged by PSS, thus extending the storage period.

This report shall not be reproduced except in full, without the written approval of an authorized PSS representative. A copy of this report will be retained by PSS for at least 5 years, after which time it will be disposed of without further notice, unless prior arrangements have been made.

We thank you for selecting Phase Separation Science, Inc. to serve your analytical needs. If you have any questions concerning this report, do not hesitate to contact us at 410-747-8770 or info@phaseonline.com.

Sincerely,

Dan Prucnal
Laboratory Manager



Sample Summary

Client Name: Arc Environmental
Project Name: Percontee

Work Order Number(s): 15031604

Project ID: 057-5

The following samples were received under chain of custody by Phase Separation Science (PSS) on 03/16/2015 at 01:10 pm

Lab Sample Id	Sample Id	Matrix	Date/Time Collected
15031604-001	MW-7 0-2	SOIL	03/13/15 11:50
15031604-002	MW-7 4-6	SOIL	03/13/15 12:00

Please reference the Chain of Custody and Sample Receipt Checklist for specific container counts and preservatives. Any sample conditions not in compliance with sample acceptance criteria are described in Case Narrative Summary.

Notes:

1. The presence of a common laboratory contaminant such as methylene chloride may be considered a possible laboratory artifact. Where observed, appropriate consideration of data should be taken.
2. Unless otherwise noted in the case narrative, results are reported on a dry weight basis with the exception of pH, flashpoint, moisture, and paint filter test.
3. Drinking water samples collected for the purpose of compliance with SDWA may not be suitable for their intended use unless collected by a certified sampler [COMAR 26.08.05.07.C.2].
4. The analyses of 1,2-dibromo-3-chloropropane (DBCP) and 1,2-dibromoethane (EDB) by EPA 524.2 and calcium, magnesium, sodium and iron by EPA 200.8 are not currently promulgated for use in testing to meet the Safe Drinking Water Act and as such cannot be used for compliance purposes. The listings of the current promulgated methods for testing in compliance with the Safe Drinking Water Act can be found in the 40 CFR part 141.1, for the primary drinking water contaminants, and part 141.3, for the secondary drinking water contaminants.
5. Sample prepared under EPA 3550C with concentrations greater than 20 mg/Kg should employ the microtip extraction procedure if required to meet data quality objectives.
6. The analysis of acrolein by EPA 624 must be analyzed within three days of sampling unless pH is adjusted to 4-5 units [40 CFR part 136.3(e)].
7. Method 180.1, The Determination of Turbidity by Nephelometry, recommends samples over 40 NTU be diluted until the turbidity falls below 40 units. Routine samples over 40 NTU may not be diluted as long as the data quality objectives are not affected.
8. Alkalinity results analyzed by EPA 310.2 that are reported by dilution are estimated and are not in compliance with method requirements.

Standard Flags/Abbreviations:

- B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- C Results Pending Final Confirmation.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- Fail The result exceeds the regulatory level for Toxicity Characteristic (TCLP) as cited in 40 CFR 261.24 Table 1.
- J The target analyte was positively identified below the reporting limit but greater than the MDL.
- MDL This is the Laboratory Method Detection Limit which is equivalent to the Limit of Detection (LOD). The LOD is an estimate of the minimum amount of a substance that an analytical process can reliably detect. This value will remain constant across multiple similar instrumentation and among different analysts. An LOD is analyte and matrix specific.
- ND Not Detected at or above the reporting limit.
- RL PSS Reporting Limit.
- U Not detected.

Certifications:

NELAP Certifications: PA 68-03330, VA 460156
State Certifications: MD 179, WV 303
Regulated Soil Permit: P330-12-00268
NSWC USCG Accepted Laboratory
LDBE MWAA LD1997-0041-2015

OFFICES:
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 ROUTE 40 WEST
 BALTIMORE, MD 21228
 410-747-8770
 800-932-9047
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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15031604

Arc Environmental, Baltimore, MD

April 1, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: MW-7 0-2	Date/Time Sampled: 03/13/2015 11:50	PSS Sample ID: 15031604-001
Matrix: SOIL	Date/Time Received: 03/16/2015 13:10	% Solids: 84

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	mg/kg	2.4		1	1.2	03/17/15	03/18/15 14:28	1033
Arsenic	1.5	mg/kg	0.48		1	0.24	03/17/15	03/18/15 14:28	1033
Beryllium	ND	mg/kg	2.4		1	1.2	03/17/15	03/18/15 14:28	1033
Cadmium	ND	mg/kg	2.4		1	1.2	03/17/15	03/18/15 14:28	1033
Chromium	140	mg/kg	2.4		1	1.2	03/17/15	03/18/15 14:28	1033
Copper	26	mg/kg	2.4		1	1.2	03/17/15	03/18/15 14:28	1033
Lead	9.8	mg/kg	2.4		1	1.2	03/17/15	03/18/15 14:28	1033
Mercury	0.058	mg/kg	0.096	J	1	0.048	03/17/15	03/18/15 14:28	1033
Nickel	130	mg/kg	2.4		1	1.2	03/17/15	03/18/15 14:28	1033
Selenium	ND	mg/kg	2.4		1	1.2	03/17/15	03/18/15 14:28	1033
Silver	ND	mg/kg	2.4		1	1.2	03/17/15	03/18/15 14:28	1033
Thallium	0.50	mg/kg	0.48		1	0.24	03/17/15	03/18/15 14:28	1033
Zinc	44	mg/kg	9.6		1	4.8	03/17/15	03/18/15 14:28	1033

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	5.4	mg/kg	12	J	1	4.7	03/17/15	03/18/15 16:02	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/kg	120		1	59	03/17/15	03/17/15 17:38	1035

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15031604

Arc Environmental, Baltimore, MD

April 1, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: MW-7 0-2	Date/Time Sampled: 03/13/2015 11:50	PSS Sample ID: 15031604-001
Matrix: SOIL	Date/Time Received: 03/16/2015 13:10	% Solids: 84

Polychlorinated Biphenyls

Analytical Method: SW-846 8082 A

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
PCB-1016	ND	mg/kg	0.060		1	0.06	03/19/15	03/20/15 12:40	1029
PCB-1221	ND	mg/kg	0.060		1	0.06	03/19/15	03/20/15 12:40	1029
PCB-1232	ND	mg/kg	0.060		1	0.06	03/19/15	03/20/15 12:40	1029
PCB-1242	ND	mg/kg	0.060		1	0.06	03/19/15	03/20/15 12:40	1029
PCB-1248	ND	mg/kg	0.060		1	0.06	03/19/15	03/20/15 12:40	1029
PCB-1254	ND	mg/kg	0.060		1	0.06	03/19/15	03/20/15 12:40	1029
PCB-1260	ND	mg/kg	0.060		1	0.06	03/19/15	03/20/15 12:40	1029

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/kg	4.0		1	4	03/18/15	03/19/15 01:23	1055
Acenaphthylene	9.9	ug/kg	4.0		1	4	03/18/15	03/19/15 01:23	1055
Anthracene	9.9	ug/kg	4.0		1	4	03/18/15	03/19/15 01:23	1055
Benzo(a)anthracene	27	ug/kg	4.0		1	4	03/18/15	03/19/15 01:23	1055
Benzo(a)pyrene	32	ug/kg	4.0		1	4	03/18/15	03/19/15 01:23	1055
Benzo(b)fluoranthene	ND	ug/kg	4.0		1	4	03/18/15	03/19/15 01:23	1055
Benzo(g,h,i)perylene	19	ug/kg	4.0		1	4	03/18/15	03/19/15 01:23	1055
Benzo(k)fluoranthene	76	ug/kg	4.0		1	4	03/18/15	03/19/15 01:23	1055
Chrysene	32	ug/kg	4.0		1	4	03/18/15	03/19/15 01:23	1055
Dibenz(a,h)Anthracene	8.7	ug/kg	4.0		1	4	03/18/15	03/19/15 01:23	1055
Fluoranthene	49	ug/kg	4.0		1	4	03/18/15	03/19/15 01:23	1055
Fluorene	5.1	ug/kg	4.0		1	4	03/18/15	03/19/15 01:23	1055
Indeno(1,2,3-c,d)Pyrene	21	ug/kg	4.0		1	4	03/18/15	03/19/15 01:23	1055
2-Methylnaphthalene	ND	ug/kg	4.0		1	4	03/18/15	03/19/15 01:23	1055
Naphthalene	ND	ug/kg	4.0		1	4	03/18/15	03/19/15 01:23	1055
Phenanthrene	23	ug/kg	4.0		1	4	03/18/15	03/19/15 01:23	1055
Pyrene	51	ug/kg	4.0		1	4	03/18/15	03/19/15 01:23	1055

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CERTIFICATE OF ANALYSIS

No: 15031604

Arc Environmental, Baltimore, MD

April 1, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: MW-7 4-6	Date/Time Sampled: 03/13/2015 12:00	PSS Sample ID: 15031604-002
Matrix: SOIL	Date/Time Received: 03/16/2015 13:10	% Solids: 89

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	mg/kg	2.5		1	1.3	03/17/15	03/18/15 15:28	1033
Arsenic	2.7	mg/kg	0.51		1	0.25	03/17/15	03/18/15 15:28	1033
Beryllium	ND	mg/kg	2.5		1	1.3	03/17/15	03/18/15 15:28	1033
Cadmium	ND	mg/kg	2.5		1	1.3	03/17/15	03/18/15 15:28	1033
Chromium	54	mg/kg	2.5		1	1.3	03/17/15	03/18/15 15:28	1033
Copper	13	mg/kg	2.5		1	1.3	03/17/15	03/18/15 15:28	1033
Lead	7.1	mg/kg	2.5		1	1.3	03/17/15	03/18/15 15:28	1033
Mercury	0.064	mg/kg	0.10	J	1	0.051	03/17/15	03/18/15 15:28	1033
Nickel	41	mg/kg	2.5		1	1.3	03/17/15	03/18/15 15:28	1033
Selenium	ND	mg/kg	2.5		1	1.3	03/17/15	03/18/15 15:28	1033
Silver	ND	mg/kg	2.5		1	1.3	03/17/15	03/18/15 15:28	1033
Thallium	ND	mg/kg	0.51		1	0.25	03/17/15	03/18/15 15:28	1033
Zinc	22	mg/kg	10		1	5.1	03/17/15	03/18/15 15:28	1033

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	8.0	mg/kg	11	J	1	4.5	03/17/15	03/18/15 16:24	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/kg	110		1	56	03/16/15	03/17/15 18:07	1035

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CERTIFICATE OF ANALYSIS

No: 15031604

Arc Environmental, Baltimore, MD

April 1, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: MW-7 4-6	Date/Time Sampled: 03/13/2015 12:00	PSS Sample ID: 15031604-002
Matrix: SOIL	Date/Time Received: 03/16/2015 13:10	% Solids: 89

Polychlorinated Biphenyls

Analytical Method: SW-846 8082 A

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
PCB-1016	ND	mg/kg	0.054		1	0.054	03/20/15	03/20/15 19:15	1029
PCB-1221	ND	mg/kg	0.054		1	0.054	03/20/15	03/20/15 19:15	1029
PCB-1232	ND	mg/kg	0.054		1	0.054	03/20/15	03/20/15 19:15	1029
PCB-1242	ND	mg/kg	0.054		1	0.054	03/20/15	03/20/15 19:15	1029
PCB-1248	ND	mg/kg	0.054		1	0.054	03/20/15	03/20/15 19:15	1029
PCB-1254	ND	mg/kg	0.054		1	0.054	03/20/15	03/20/15 19:15	1029
PCB-1260	ND	mg/kg	0.054		1	0.054	03/20/15	03/20/15 19:15	1029

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Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: MW-7 4-6	Date/Time Sampled: 03/13/2015 12:00	PSS Sample ID: 15031604-002
Matrix: SOIL	Date/Time Received: 03/16/2015 13:10	% Solids: 89

TCL Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5035A

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Dichlorodifluoromethane	ND	ug/kg	5.5		1	2.8	03/20/15	03/20/15 16:26	1011
Chloromethane	ND	ug/kg	5.5		1	2.8	03/20/15	03/20/15 16:26	1011
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	ug/kg	5.5		1	2.8	03/20/15	03/20/15 16:26	1011
Vinyl Chloride	ND	ug/kg	5.5		1	2.8	03/20/15	03/20/15 16:26	1011
Bromomethane	ND	ug/kg	5.5		1	2.8	03/20/15	03/20/15 16:26	1011
Chloroethane	ND	ug/kg	5.5		1	2.8	03/20/15	03/20/15 16:26	1011
Acetone	84	ug/kg	22		1	11	03/20/15	03/20/15 16:26	1011
Cyclohexane	ND	ug/kg	22		1	11	03/20/15	03/20/15 16:26	1011
Trichlorofluoromethane	ND	ug/kg	5.5		1	2.8	03/20/15	03/20/15 16:26	1011
1,1-Dichloroethene	ND	ug/kg	5.5		1	2.8	03/20/15	03/20/15 16:26	1011
Methylene Chloride	ND	ug/kg	5.5		1	2.8	03/20/15	03/20/15 16:26	1011
trans-1,2-Dichloroethene	ND	ug/kg	5.5		1	2.8	03/20/15	03/20/15 16:26	1011
Methyl-t-butyl ether	ND	ug/kg	5.5		1	2.8	03/20/15	03/20/15 16:26	1011
1,1-Dichloroethane	ND	ug/kg	5.5		1	2.8	03/20/15	03/20/15 16:26	1011
2-Butanone	ND	ug/kg	22		1	11	03/20/15	03/20/15 16:26	1011
cis-1,2-Dichloroethene	ND	ug/kg	5.5		1	2.8	03/20/15	03/20/15 16:26	1011
Bromochloromethane	ND	ug/kg	5.5		1	2.8	03/20/15	03/20/15 16:26	1011
Chloroform	ND	ug/kg	5.5		1	2.8	03/20/15	03/20/15 16:26	1011
1,1,1-Trichloroethane	ND	ug/kg	5.5		1	2.8	03/20/15	03/20/15 16:26	1011
1,2-Dichloroethane	ND	ug/kg	5.5		1	2.8	03/20/15	03/20/15 16:26	1011
Carbon Tetrachloride	ND	ug/kg	5.5		1	2.8	03/20/15	03/20/15 16:26	1011
Benzene	ND	ug/kg	5.5		1	2.8	03/20/15	03/20/15 16:26	1011
1,2-Dichloropropane	ND	ug/kg	5.5		1	2.8	03/20/15	03/20/15 16:26	1011
Carbon Disulfide	ND	ug/kg	11		1	5.5	03/20/15	03/20/15 16:26	1011
Methylcyclohexane	ND	ug/kg	22		1	11	03/20/15	03/20/15 16:26	1011
Trichloroethene	ND	ug/kg	5.5		1	2.8	03/20/15	03/20/15 16:26	1011
Methyl Acetate	ND	ug/kg	22		1	11	03/20/15	03/20/15 16:26	1011
Bromodichloromethane	ND	ug/kg	5.5		1	2.8	03/20/15	03/20/15 16:26	1011
cis-1,3-Dichloropropene	ND	ug/kg	5.5		1	2.8	03/20/15	03/20/15 16:26	1011
4-Methyl-2-Pentanone	ND	ug/kg	22		1	11	03/20/15	03/20/15 16:26	1011

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CERTIFICATE OF ANALYSIS

No: 15031604

Arc Environmental, Baltimore, MD

April 1, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: MW-7 4-6	Date/Time Sampled: 03/13/2015 12:00	PSS Sample ID: 15031604-002
Matrix: SOIL	Date/Time Received: 03/16/2015 13:10	% Solids: 89

TCL Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5035A

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
trans-1,3-Dichloropropene	ND	ug/kg	5.5		1	2.8	03/20/15	03/20/15 16:26	1011
1,1,2-Trichloroethane	ND	ug/kg	5.5		1	2.8	03/20/15	03/20/15 16:26	1011
Toluene	ND	ug/kg	5.5		1	2.8	03/20/15	03/20/15 16:26	1011
2-Hexanone	ND	ug/kg	22		1	11	03/20/15	03/20/15 16:26	1011
1,2-Dibromoethane	ND	ug/kg	5.5		1	2.8	03/20/15	03/20/15 16:26	1011
Dibromochloromethane	ND	ug/kg	5.5		1	2.8	03/20/15	03/20/15 16:26	1011
Bromoform	ND	ug/kg	5.5		1	2.8	03/20/15	03/20/15 16:26	1011
Tetrachloroethene	ND	ug/kg	5.5		1	2.8	03/20/15	03/20/15 16:26	1011
Chlorobenzene	ND	ug/kg	5.5		1	2.8	03/20/15	03/20/15 16:26	1011
Ethylbenzene	ND	ug/kg	5.5		1	2.8	03/20/15	03/20/15 16:26	1011
m,p-Xylenes	ND	ug/kg	11		1	5.5	03/20/15	03/20/15 16:26	1011
Styrene	ND	ug/kg	5.5		1	2.8	03/20/15	03/20/15 16:26	1011
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.5		1	2.8	03/20/15	03/20/15 16:26	1011
o-Xylene	ND	ug/kg	5.5		1	2.8	03/20/15	03/20/15 16:26	1011
Isopropylbenzene	ND	ug/kg	5.5		1	2.8	03/20/15	03/20/15 16:26	1011
1,3-Dichlorobenzene	ND	ug/kg	5.5		1	2.8	03/20/15	03/20/15 16:26	1011
1,4-Dichlorobenzene	ND	ug/kg	5.5		1	2.8	03/20/15	03/20/15 16:26	1011
1,2-Dichlorobenzene	ND	ug/kg	5.5		1	2.8	03/20/15	03/20/15 16:26	1011
1,2-Dibromo-3-Chloropropane	ND	ug/kg	44		1	22	03/20/15	03/20/15 16:26	1011
1,2,4-Trichlorobenzene	ND	ug/kg	5.5		1	2.8	03/20/15	03/20/15 16:26	1011
1,2,3-Trichlorobenzene	ND	ug/kg	5.5		1	2.8	03/20/15	03/20/15 16:26	1011

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April 1, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: MW-7 4-6	Date/Time Sampled: 03/13/2015 12:00	PSS Sample ID: 15031604-002
Matrix: SOIL	Date/Time Received: 03/16/2015 13:10	% Solids: 89

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/kg	3.7		1	3.7	03/18/15	03/19/15 01:47	1055
Acenaphthylene	ND	ug/kg	3.7		1	3.7	03/18/15	03/19/15 01:47	1055
Anthracene	8.6	ug/kg	3.7		1	3.7	03/18/15	03/19/15 01:47	1055
Benzo(a)anthracene	27	ug/kg	3.7		1	3.7	03/18/15	03/19/15 01:47	1055
Benzo(a)pyrene	22	ug/kg	3.7		1	3.7	03/18/15	03/19/15 01:47	1055
Benzo(b)fluoranthene	27	ug/kg	3.7		1	3.7	03/18/15	03/19/15 01:47	1055
Benzo(g,h,i)perylene	13	ug/kg	3.7		1	3.7	03/18/15	03/19/15 01:47	1055
Benzo(k)fluoranthene	20	ug/kg	3.7		1	3.7	03/18/15	03/19/15 01:47	1055
Chrysene	29	ug/kg	3.7		1	3.7	03/18/15	03/19/15 01:47	1055
Dibenz(a,h)Anthracene	6.7	ug/kg	3.7		1	3.7	03/18/15	03/19/15 01:47	1055
Fluoranthene	54	ug/kg	3.7		1	3.7	03/18/15	03/19/15 01:47	1055
Fluorene	ND	ug/kg	3.7		1	3.7	03/18/15	03/19/15 01:47	1055
Indeno(1,2,3-c,d)Pyrene	15	ug/kg	3.7		1	3.7	03/18/15	03/19/15 01:47	1055
2-Methylnaphthalene	ND	ug/kg	3.7		1	3.7	03/18/15	03/19/15 01:47	1055
Naphthalene	ND	ug/kg	3.7		1	3.7	03/18/15	03/19/15 01:47	1055
Phenanthrene	45	ug/kg	3.7		1	3.7	03/18/15	03/19/15 01:47	1055
Pyrene	46	ug/kg	3.7		1	3.7	03/18/15	03/19/15 01:47	1055



Case Narrative Summary

Client Name: Arc Environmental

Project Name: Percontee

Work Order Number(s): 15031604

Project ID: 057-5

Any holding time exceedances, deviations from the method specifications, regulatory requirements or variations to the procedures outlined in the PSS Quality Assurance Manual are outlined below.

The analyses of chlorine, pH, dissolved oxygen, temperature and sulfite for drinking water and non-potable samples tested for compliance have a maximum holding time of 15 minutes. As such, all laboratory analyses for these analytes exceed holding times.

Matrix spike and matrix spike duplicate analyses may not be performed due to insufficient sample quantity. In these instances, a laboratory control sample and laboratory control sample duplicate are analyzed unless otherwise noted or specified in the method.

Sample Receipt:

All sample receipt conditions were acceptable.

Analytical:

RCRA Metals

Batch: 121136

Matrix spike and/or matrix spike duplicate (MS/MSD) exceedances identified; see MS summary form.

The concentration of the following analyte(s) in the reference sample was greater than four times the matrix spike concentration : chromium, nickel

NELAP accreditation was held for all analyses performed unless noted below. See www.phaseonline.com for complete PSS scope of accreditation.



Analytical Data Package Information Summary

Work Order(s): 15031604

Report Prepared For: Arc Environmental, Baltimore, MD

Project Name: Percontee

Project Manager: Kyle Begey

Method	Client Sample Id	Analysis Type	Lab Sample Id	Analyst	Mtx	Prep Batch	Analytical Batch	Sampled	Prepared	Analyzed
ASTM D2216 05	MW-7 0-2	Initial	15031604-001	1051	S	121061	121061	03/13/2015	03/16/2015 15:52	03/16/2015 15:52
	MW-7 4-6	Initial	15031604-002	1051	S	121061	121061	03/13/2015	03/16/2015 15:52	03/16/2015 15:52
SW-846 6020 A	MW-7 0-2	Initial	15031604-001	1033	S	54588	121136	03/13/2015	03/17/2015 16:05	03/18/2015 14:28
	MW-7 4-6	Initial	15031604-002	1033	S	54588	121136	03/13/2015	03/17/2015 16:05	03/18/2015 15:28
	54588-1-BKS	BKS	54588-1-BKS	1033	S	54588	121136	-----	03/17/2015 16:05	03/18/2015 14:22
	54588-1-BLK	BLK	54588-1-BLK	1033	S	54588	121136	-----	03/17/2015 16:05	03/18/2015 14:16
	MW-7 0-2 S	MS	15031604-001 S	1033	S	54588	121136	03/13/2015	03/17/2015 16:05	03/18/2015 14:40
	MW-7 0-2 SD	MSD	15031604-001 SD	1033	S	54588	121136	03/13/2015	03/17/2015 16:05	03/18/2015 14:46
SW-846 8015 C	54585-1-BKS	BKS	54585-1-BKS	10565	S	54585	121138	-----	03/17/2015 12:12	03/17/2015 17:59
	54585-1-BLK	BLK	54585-1-BLK	10565	S	54585	121138	-----	03/17/2015 12:12	03/17/2015 17:35
	54585-1-BSD	BSD	54585-1-BSD	10565	S	54585	121138	-----	03/17/2015 12:12	03/17/2015 18:22
	MW-33@26-27' S	MS	15031131-004 S	1055	S	54585	121138	03/11/2015	03/17/2015 12:12	03/17/2015 17:59
	MW-33@26-27' SD	MSD	15031131-004 SD	1055	S	54585	121138	03/11/2015	03/17/2015 12:12	03/17/2015 18:22
	MW-7 0-2	Initial	15031604-001	1055	S	54585	121150	03/13/2015	03/17/2015 12:12	03/18/2015 16:02
	MW-7 4-6	Initial	15031604-002	1055	S	54585	121150	03/13/2015	03/17/2015 12:12	03/18/2015 16:24
SW-846 8015C	MW-7 0-2	Initial	15031604-001	1035	S	54601	121119	03/13/2015	03/17/2015 13:40	03/17/2015 17:38
	54601-2-BKS	BKS	54601-2-BKS	1035	S	54601	121119	-----	03/17/2015 13:40	03/17/2015 15:40
	54601-2-BLK	BLK	54601-2-BLK	1035	S	54601	121119	-----	03/17/2015 13:40	03/17/2015 15:11
	031615-MoCo-MCL-N S	MS	15031615-001 S	1035	S	54601	121119	03/16/2015	03/17/2015 13:40	03/17/2015 22:03
	031615-MoCo-MCL-N SD	MSD	15031615-001 SD	1035	S	54601	121119	03/16/2015	03/17/2015 13:40	03/17/2015 22:32
	MW-7 4-6	Reanalysis	15031604-002	1035	S	54580	121119	03/13/2015	03/16/2015 08:38	03/17/2015 18:07
SW-846 8082 A	MW-7 0-2	Initial	15031604-001	1029	S	54637	121245	03/13/2015	03/19/2015 13:09	03/20/2015 12:40
	MW-7 4-6	Initial	15031604-002	1029	S	54643	121245	03/13/2015	03/20/2015 09:35	03/20/2015 19:15
	54637-1-BKS	BKS	54637-1-BKS	1029	S	54637	121245	-----	03/19/2015 13:09	03/20/2015 10:43
	54643-1-BKS	BKS	54643-1-BKS	1029	S	54643	121245	-----	03/20/2015 09:35	03/20/2015 16:50
	54637-1-BLK	BLK	54637-1-BLK	1029	S	54637	121245	-----	03/19/2015 13:09	03/20/2015 10:14



Analytical Data Package Information Summary

Work Order(s): 15031604

Report Prepared For: Arc Environmental, Baltimore, MD

Project Name: Percontee

Project Manager: Kyle Begey

Method	Client Sample Id	Analysis Type	Lab Sample Id	Analyst	Mtx	Prep Batch	Analytical Batch	Sampled	Prepared	Analyzed
SW-846 8082 A	54643-1-BLK	BLK	54643-1-BLK	1029	S	54643	121245	-----	03/20/2015 09:35	03/20/2015 16:21
	54637-1-BSD	BSD	54637-1-BSD	1029	S	54637	121245	-----	03/19/2015 13:09	03/20/2015 11:12
	54643-1-BSD	BSD	54643-1-BSD	1029	S	54643	121245	-----	03/20/2015 09:35	03/20/2015 17:20
	MW-7 0-2 S	MS	15031604-001 S	1029	S	54637	121245	03/13/2015	03/19/2015 13:09	03/20/2015 11:41
	S-1 S	MS	15031912-001 S	1029	S	54643	121245	03/19/2015	03/20/2015 09:35	03/20/2015 18:46
	MW-7 0-2 SD	MSD	15031604-001 SD	1029	S	54637	121245	03/13/2015	03/19/2015 13:09	03/20/2015 12:10
	S-1 SD	MSD	15031912-001 SD	1029	S	54643	121245	03/19/2015	03/20/2015 09:35	03/20/2015 18:17
SW-846 8260 B	MW-7 4-6	Initial	15031604-002	1011	S	54654	121211	03/13/2015	03/20/2015 09:47	03/20/2015 16:26
	54654-1-BKS	BKS	54654-1-BKS	1011	S	54654	121211	-----	03/20/2015 09:47	03/20/2015 12:49
	54654-1-BLK	BLK	54654-1-BLK	1011	S	54654	121211	-----	03/20/2015 09:47	03/20/2015 12:13
	031615-MoCo-MCL-N S	MS	15031615-001 S	1011	S	54654	121211	03/16/2015	03/20/2015 09:47	03/20/2015 13:55
	031615-MoCo-MCL-N SD	MSD	15031615-001 SD	1011	S	54654	121211	03/16/2015	03/20/2015 09:47	03/20/2015 14:28
SW-846 8270 C	MW-7 0-2	Initial	15031604-001	1055	S	54593	121187	03/13/2015	03/18/2015 09:22	03/19/2015 01:23
	MW-7 4-6	Initial	15031604-002	1055	S	54593	121187	03/13/2015	03/18/2015 09:22	03/19/2015 01:47
	54593-1-BKS	BKS	54593-1-BKS	1055	S	54593	121187	-----	03/18/2015 09:22	03/18/2015 20:56
	54593-1-BLK	BLK	54593-1-BLK	1055	S	54593	121187	-----	03/18/2015 09:22	03/18/2015 20:32
	54593-1-BSD	BSD	54593-1-BSD	1055	S	54593	121187	-----	03/18/2015 09:22	03/18/2015 21:20
	Gudelsky GAB S	MS	15031323-001 S	1055	S	54593	121187	03/13/2015	03/18/2015 09:22	03/18/2015 21:44
	Gudelsky GAB SD	MSD	15031323-001 SD	1055	S	54593	121187	03/13/2015	03/18/2015 09:22	03/18/2015 22:09

PHASE SEPARATION SCIENCE, INC.

QC Summary 15031604

Arc Environmental Percontee

Analytical Method: SW-846 8082 A

Seq Number: 121245
PSS Sample ID: 15031604-001

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/19/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	59		11-150	%	03/20/15 12:40
Tetrachloro-m-xylene	61		12-158	%	03/20/15 12:40

Analytical Method: SW-846 8015 C

Seq Number: 121150
PSS Sample ID: 15031604-001

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/17/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	97		42-129	%	03/18/15 16:02

Analytical Method: SW-846 8270 C

Seq Number: 121187
PSS Sample ID: 15031604-001

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/18/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	94		51-109	%	03/19/15 01:23
Nitrobenzene-d5	91		48-111	%	03/19/15 01:23
Terphenyl-D14	96		45-137	%	03/19/15 01:23

Analytical Method: SW-846 8015C

Seq Number: 121119
PSS Sample ID: 15031604-001

Matrix: Soil

Prep Method: SW5030
Date Prep: 03/17/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	86		55-142	%	03/17/15 17:38

Analytical Method: SW-846 8082 A

Seq Number: 121245
PSS Sample ID: 15031604-002

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/20/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	76		11-150	%	03/20/15 19:15
Tetrachloro-m-xylene	85		12-158	%	03/20/15 19:15

PHASE SEPARATION SCIENCE, INC.

QC Summary 15031604

Arc Environmental Percontee

Analytical Method: SW-846 8015 C

Seq Number: 121150
PSS Sample ID: 15031604-002

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/17/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	99		42-129	%	03/18/15 16:24

Analytical Method: SW-846 8270 C

Seq Number: 121187
PSS Sample ID: 15031604-002

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/18/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	94		51-109	%	03/19/15 01:47
Nitrobenzene-d5	82		48-111	%	03/19/15 01:47
Terphenyl-D14	104		45-137	%	03/19/15 01:47

Analytical Method: SW-846 8015C

Seq Number: 121078
PSS Sample ID: 15031604-002

Matrix: Soil

Prep Method: SW5030
Date Prep: 03/16/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	88		55-142	%	03/16/15 16:05

Analytical Method: SW-846 8260 B

Seq Number: 121211
PSS Sample ID: 15031604-002

Matrix: Soil

Prep Method: SW5035
Date Prep: 03/20/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	104		80-125	%	03/20/15 16:26
Dibromofluoromethane	105		85-115	%	03/20/15 16:26
Toluene-D8	100		91-109	%	03/20/15 16:26

F = RPD exceeded the laboratory control limits
X = Recovery of MS, MSD or both outside of QC Criteria
H = Recovery of BS,BSD or both exceeded the laboratory control limits
L = Recovery of BS,BSD or both below the laboratory control limits

PHASE SEPARATION SCIENCE, INC.

QC Summary 15031604

Arc Environmental Percontee

Analytical Method: SW-846 6020 A

Seq Number: 121136

MB Sample Id: 54588-1-BLK

Matrix: Solid

LCS Sample Id: 54588-1-BKS

Prep Method: SW3050B

Date Prep: 03/17/15

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Analysis Date	Flag
Antimony	<1.045	16.72	16.80	100	80-120	mg/kg	03/18/15 14:22	
Arsenic	<0.2090	16.72	17.32	104	80-120	mg/kg	03/18/15 14:22	
Beryllium	<1.045	16.72	16.16	97	80-120	mg/kg	03/18/15 14:22	
Cadmium	<1.045	16.72	16.67	100	80-120	mg/kg	03/18/15 14:22	
Chromium	<1.045	16.72	17.22	103	80-120	mg/kg	03/18/15 14:22	
Copper	<1.045	16.72	17.41	104	80-120	mg/kg	03/18/15 14:22	
Lead	<1.045	16.72	16.43	98	80-120	mg/kg	03/18/15 14:22	
Mercury	<0.04181	0.4181	0.3972	95	80-120	mg/kg	03/18/15 14:22	
Nickel	<1.045	16.72	17.38	104	80-120	mg/kg	03/18/15 14:22	
Selenium	<1.045	16.72	15.36	92	80-120	mg/kg	03/18/15 14:22	
Silver	<1.045	16.72	17.38	104	80-120	mg/kg	03/18/15 14:22	
Thallium	<0.2090	16.72	15.75	94	80-120	mg/kg	03/18/15 14:22	
Zinc	<4.181	16.72	16.22	97	80-120	mg/kg	03/18/15 14:22	

Analytical Method: SW-846 6020 A

Seq Number: 121136

Parent Sample Id: 15031604-001

Matrix: Soil

MS Sample Id: 15031604-001 S

Prep Method: SW3050B

Date Prep: 03/17/15

MSD Sample Id: 15031604-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Antimony	<1.393	22.29	9.274	42	7.610	36	75-125	20	30	mg/kg	03/18/15 14:40	X
Arsenic	1.523	22.29	19.38	80	18.38	81	75-125	5	30	mg/kg	03/18/15 14:40	
Beryllium	<1.393	22.29	19.58	88	18.44	88	75-125	6	30	mg/kg	03/18/15 14:40	
Cadmium	<1.393	22.29	22.63	102	21.30	102	75-125	6	30	mg/kg	03/18/15 14:40	
Chromium	136.8	22.29	170.8	153	159.5	109	75-125	7	30	mg/kg	03/18/15 14:40	X
Copper	26.09	22.29	47.52	96	48.48	107	75-125	2	30	mg/kg	03/18/15 14:40	
Lead	9.835	22.29	33.69	107	32.77	110	75-125	3	30	mg/kg	03/18/15 14:40	
Mercury	0.05765	0.5573	0.5796	94	0.5737	99	75-125	1	30	mg/kg	03/18/15 14:40	
Nickel	126.6	22.29	102.7	0	103.1	0	75-125	0	30	mg/kg	03/18/15 14:40	X
Selenium	<1.393	22.29	15.97	72	15.23	73	75-125	5	30	mg/kg	03/18/15 14:40	X
Silver	<1.393	22.29	23.42	105	22.30	107	75-125	5	30	mg/kg	03/18/15 14:40	
Thallium	0.4997	22.29	22.18	97	21.96	103	75-125	1	20	mg/kg	03/18/15 14:40	
Zinc	43.58	22.29	71.73	126	67.70	116	75-125	6	30	mg/kg	03/18/15 14:40	X

Analytical Method: SW-846 8082 A

Seq Number: 121245

MB Sample Id: 54637-1-BLK

Matrix: Solid

LCS Sample Id: 54637-1-BKS

Prep Method: SW3550C

Date Prep: 03/19/15

LCSD Sample Id: 54637-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
PCB-1016	<0.04990	0.4990	0.3878	78	0.4071	83	62-136	5	25	mg/kg	03/20/15 10:43	
PCB-1260	<0.04990	0.4990	0.4080	82	0.3918	79	56-113	4	25	mg/kg	03/20/15 10:43	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	87		96		91		11-150	%	03/20/15 10:43
Tetrachloro-m-xylene	76		67		80		12-158	%	03/20/15 10:43

PHASE SEPARATION SCIENCE, INC.

QC Summary 15031604

Arc Environmental Percontee

Analytical Method: SW-846 8082 A

Seq Number: 121245

MB Sample Id: 54643-1-BLK

Matrix: Solid

LCS Sample Id: 54643-1-BKS

Prep Method: SW3550C

Date Prep: 03/20/15

LCSD Sample Id: 54643-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
PCB-1016	<0.04965	0.4965	0.3260	66	0.2663	52	62-136	37	25	mg/kg	03/20/15 16:50	LF
PCB-1260	<0.04965	0.4965	0.3461	70	0.2747	54	56-113	39	25	mg/kg	03/20/15 16:50	LF

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	80		82		63		11-150	%	03/20/15 16:50
Tetrachloro-m-xylene	66		59		48		12-158	%	03/20/15 16:50

Analytical Method: SW-846 8082 A

Seq Number: 121245

Parent Sample Id: 15031604-001

Matrix: Soil

MS Sample Id: 15031604-001 S

Prep Method: SW3550C

Date Prep: 03/19/15

MSD Sample Id: 15031604-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
PCB-1016	<0.06000	0.6000	0.3935	66	0.5031	85	44-139	24	30	mg/kg	03/20/15 11:41	
PCB-1260	<0.06000	0.6000	0.3640	61	0.4556	77	19-114	22	30	mg/kg	03/20/15 11:41	

Surrogate	MS Result	MS Flag	MSD Result	MSD Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	68		77		11-150	%	03/20/15 11:41
Tetrachloro-m-xylene	62		76		12-158	%	03/20/15 11:41

Analytical Method: SW-846 8015 C

Seq Number: 121138

MB Sample Id: 54585-1-BLK

Matrix: Solid

LCS Sample Id: 54585-1-BKS

Prep Method: SW3550C

Date Prep: 03/17/15

LCSD Sample Id: 54585-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
TPH-DRO (Diesel Range Organics)	<3.979	33.16	32.17	97	31.09	94	56-117	3	25	mg/kg	03/17/15 17:59	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units	Analysis Date
o-Terphenyl	85		95		93		42-129	%	03/17/15 17:59

PHASE SEPARATION SCIENCE, INC.

QC Summary 15031604

Arc Environmental Percontee

Analytical Method: SW-846 8270 C

Seq Number: 121187

MB Sample Id: 54593-1-BLK

Matrix: Solid

LCS Sample Id: 54593-1-BKS

Prep Method: SW3550C

Date Prep: 03/18/15

LCSD Sample Id: 54593-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Acenaphthene	<3.327	66.53	58.22	88	61.51	93	65-104	5	31	ug/kg	03/18/15 20:56	
Acenaphthylene	<3.327	66.53	59.55	90	63.16	96	59-105	6	25	ug/kg	03/18/15 20:56	
Anthracene	<3.327	66.53	61.54	92	65.79	100	52-121	7	25	ug/kg	03/18/15 20:56	
Benzo(a)anthracene	<3.327	66.53	61.88	93	66.78	102	47-114	8	25	ug/kg	03/18/15 20:56	
Benzo(a)pyrene	<3.327	66.53	63.87	96	66.78	102	57-111	4	25	ug/kg	03/18/15 20:56	
Benzo(b)fluoranthene	<3.327	66.53	72.85	109	74.01	112	47-123	2	25	ug/kg	03/18/15 20:56	
Benzo(g,h,i)perylene	<3.327	66.53	64.87	98	68.75	104	46-119	6	25	ug/kg	03/18/15 20:56	
Benzo(k)fluoranthene	<3.327	66.53	55.22	83	58.55	89	44-133	6	25	ug/kg	03/18/15 20:56	
Chrysene	<3.327	66.53	60.88	92	69.08	105	51-111	13	25	ug/kg	03/18/15 20:56	
Dibenz(a,h)Anthracene	<3.327	66.53	64.20	96	67.11	102	44-121	4	25	ug/kg	03/18/15 20:56	
Fluoranthene	<3.327	66.53	59.88	90	62.50	95	55-114	4	25	ug/kg	03/18/15 20:56	
Fluorene	<3.327	66.53	54.56	82	58.55	89	59-107	7	25	ug/kg	03/18/15 20:56	
Indeno(1,2,3-c,d)Pyrene	<3.327	66.53	65.20	98	67.76	103	42-123	4	25	ug/kg	03/18/15 20:56	
2-Methylnaphthalene	<3.327	66.53	56.89	86	59.87	91	67-99	5	25	ug/kg	03/18/15 20:56	
Naphthalene	<3.327	66.53	60.21	91	63.16	96	61-108	5	25	ug/kg	03/18/15 20:56	
Phenanthrene	<3.327	66.53	56.55	85	60.20	92	50-122	6	25	ug/kg	03/18/15 20:56	
Pyrene	<3.327	66.53	65.20	98	66.12	101	45-118	1	31	ug/kg	03/18/15 20:56	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	104		104		105		51-109	%	03/18/15 20:56
Nitrobenzene-d5	90		87		92		48-111	%	03/18/15 20:56
Terphenyl-D14	110		109		110		45-137	%	03/18/15 20:56

Analytical Method: SW-846 8015C

Seq Number: 121119

MB Sample Id: 54601-2-BLK

Matrix: Solid

LCS Sample Id: 54601-2-BKS

Prep Method: SW5030

Date Prep: 03/17/15

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Analysis Date	Flag
TPH-GRO (Gasoline Range Organic)	<49.31	4931	4136	84	60-112	ug/kg	03/17/15 15:40	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	84		97		55-142	%	03/17/15 15:40

PHASE SEPARATION SCIENCE, INC.

QC Summary 15031604

Arc Environmental Percontee

Analytical Method: SW-846 8260 B

Seq Number: 121211

MB Sample Id: 54654-1-BLK

Matrix: Solid

LCS Sample Id: 54654-1-BKS

Prep Method: SW5030

Date Prep: 03/20/15

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Analysis Date	Flag
Dichlorodifluoromethane	<2.510	60.24	63.61	106	53-144	ug/kg	03/20/15 12:49	
Chloromethane	<2.510	60.24	63.24	105	62-143	ug/kg	03/20/15 12:49	
1,1,2-Trichloro-1,2,2-Trifluoroethane	<2.510	60.24	49.37	82	50-162	ug/kg	03/20/15 12:49	
Vinyl Chloride	<2.510	60.24	58.92	98	61-156	ug/kg	03/20/15 12:49	
Bromomethane	<2.510	60.24	73.35	122	45-199	ug/kg	03/20/15 12:49	
Chloroethane	<2.510	60.24	70.87	118	59-151	ug/kg	03/20/15 12:49	
Acetone	<10.04	60.24	68.57	114	24-197	ug/kg	03/20/15 12:49	
Cyclohexane	<10.04	60.24	50.56	84	50-148	ug/kg	03/20/15 12:49	
Trichlorofluoromethane	<2.510	60.24	59.20	98	54-175	ug/kg	03/20/15 12:49	
1,1-Dichloroethene	<2.510	60.24	67.26	112	60-154	ug/kg	03/20/15 12:49	
Methylene Chloride	<2.510	60.24	49.82	83	56-140	ug/kg	03/20/15 12:49	
trans-1,2-Dichloroethene	<2.510	60.24	56.00	93	60-153	ug/kg	03/20/15 12:49	
Methyl-t-butyl ether	<2.510	60.24	53.17	88	59-133	ug/kg	03/20/15 12:49	
1,1-Dichloroethane	<2.510	60.24	54.86	91	60-148	ug/kg	03/20/15 12:49	
2-Butanone	<10.04	60.24	60.10	100	35-173	ug/kg	03/20/15 12:49	
cis-1,2-Dichloroethene	<2.510	60.24	47.37	79	67-126	ug/kg	03/20/15 12:49	
Bromochloromethane	<2.510	60.24	45.13	75	64-121	ug/kg	03/20/15 12:49	
Chloroform	<2.510	60.24	52.81	88	65-126	ug/kg	03/20/15 12:49	
1,1,1-Trichloroethane	<2.510	60.24	56.13	93	60-145	ug/kg	03/20/15 12:49	
1,2-Dichloroethane	<2.510	60.24	54.26	90	62-127	ug/kg	03/20/15 12:49	
Carbon Tetrachloride	<2.510	60.24	52.63	87	55-152	ug/kg	03/20/15 12:49	
Benzene	<2.510	60.24	60.31	100	69-128	ug/kg	03/20/15 12:49	
1,2-Dichloropropane	<2.510	60.24	52.25	87	66-125	ug/kg	03/20/15 12:49	
Carbon Disulfide	<5.020	60.24	59.40	99	58-153	ug/kg	03/20/15 12:49	
Methylcyclohexane	<10.04	60.24	42.63	71	41-142	ug/kg	03/20/15 12:49	
Trichloroethene	<2.510	60.24	55.63	92	68-130	ug/kg	03/20/15 12:49	
Methyl Acetate	<10.04	60.24	62.66	104	47-151	ug/kg	03/20/15 12:49	
Bromodichloromethane	<2.510	60.24	55.07	91	60-125	ug/kg	03/20/15 12:49	
cis-1,3-Dichloropropene	<2.510	60.24	52.32	87	59-122	ug/kg	03/20/15 12:49	
4-Methyl-2-Pentanone	<10.04	60.24	46.98	78	22-173	ug/kg	03/20/15 12:49	
trans-1,3-Dichloropropene	<2.510	60.24	52.23	87	56-124	ug/kg	03/20/15 12:49	
1,1,2-Trichloroethane	<2.510	60.24	53.52	89	65-120	ug/kg	03/20/15 12:49	
Toluene	<2.510	60.24	55.94	93	66-127	ug/kg	03/20/15 12:49	
2-Hexanone	<10.04	60.24	60.70	101	30-175	ug/kg	03/20/15 12:49	
1,2-Dibromoethane	<2.510	60.24	54.14	90	64-123	ug/kg	03/20/15 12:49	
Dibromochloromethane	<2.510	60.24	53.94	90	55-128	ug/kg	03/20/15 12:49	
Bromoform	<2.510	60.24	52.49	87	46-128	ug/kg	03/20/15 12:49	
Tetrachloroethene	<2.510	60.24	50.40	84	55-145	ug/kg	03/20/15 12:49	
Chlorobenzene	<2.510	60.24	49.93	83	61-124	ug/kg	03/20/15 12:49	
Ethylbenzene	<2.510	60.24	51.78	86	58-130	ug/kg	03/20/15 12:49	
m,p-Xylenes	<5.020	120.5	99.13	82	60-131	ug/kg	03/20/15 12:49	
Styrene	<2.510	60.24	48.73	81	54-123	ug/kg	03/20/15 12:49	
1,1,2,2-Tetrachloroethane	<2.510	60.24	52.77	88	50-134	ug/kg	03/20/15 12:49	
o-Xylene	<2.510	60.24	51.05	85	60-126	ug/kg	03/20/15 12:49	
Isopropylbenzene	<2.510	60.24	48.74	81	52-130	ug/kg	03/20/15 12:49	
1,3-Dichlorobenzene	<2.510	60.24	41.83	69	42-123	ug/kg	03/20/15 12:49	
1,4-Dichlorobenzene	<2.510	60.24	42.67	71	40-121	ug/kg	03/20/15 12:49	
1,2-Dichlorobenzene	<2.510	60.24	42.17	70	38-128	ug/kg	03/20/15 12:49	
1,2-Dibromo-3-Chloropropane	<20.08	60.24	58.31	97	43-149	ug/kg	03/20/15 12:49	
1,2,4-Trichlorobenzene	<2.510	60.24	41.98	70	14-143	ug/kg	03/20/15 12:49	
1,2,3-Trichlorobenzene	<2.510	60.24	40.71	68	15-144	ug/kg	03/20/15 12:49	

PHASE SEPARATION SCIENCE, INC.

QC Summary 15031604

Arc Environmental Percontee

Analytical Method: SW-846 8260 B

Seq Number: 121211

MB Sample Id: 54654-1-BLK

Matrix: Solid

LCS Sample Id: 54654-1-BKS

Prep Method: SW5030

Date Prep: 03/20/15

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	109		103		80-125	%	03/20/15 12:49
Dibromofluoromethane	99		101		85-115	%	03/20/15 12:49
Toluene-D8	98		101		91-109	%	03/20/15 12:49

F = RPD exceeded the laboratory control limits

X = Recovery of MS, MSD or both outside of QC Criteria

H= Recovery of BS,BSD or both exceeded the laboratory control limits

L = Recovery of BS,BSD or both below the laboratory control limits



SAMPLE CHAIN OF CUSTODY/AGREEMENT FORM

PHASE SEPARATION SCIENCE, INC.

www.phaseonline.com
email: info@phaseonline.com

1 CLIENT: Arc Environmental OFFICE LOC. Baltimore, MD		PSS Work Order #: 15031604		PAGE 1 OF 1											
PROJECT MGR: Kyle Begey PHONE NO.: 410-659-9971		Matrix Codes: SW=Surface Wtr DW=Drinking Wtr GW=Ground Wtr WW=Waste Wtr O=Oil S=Soil WL=Waste Liquid WS=Waste Solid W= Wipe													
EMAIL: kbegey@arcenvironmental.com FAX NO.: 410-962-1065		No. CONTAINERS	SAMPLE TYPE	C = COMP	G = GRAB	Preservative Used ←									
PROJECT NAME: Percontee PROJECT NO.: 057-5							PPI Metals	SVOCs (SIM)	VOCs 8260	GRO/DRO 8015	PCBs	Asbestos	← Analysis/ Method Required		
SITE LOCATION: Silver Spring, MD P.O. NO.:															
SAMPLERS: Kyle Begey, Ray Goodwin and Christie Pulvino DW CERT NO.:															
2		REMARKS ↓		Click to enter Remarks											
LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX (See Codes)											
1	MW-7 0-2	3/13/15	1150	SO	2	G	X	X	X	X					
2	MW-7 4-6	3/13/15	1200	SO	6	G	X	X	X	X	X	NO			
5		4													
Relinquished By: (1) [Signature]		Date: 03/16/15	Time: 12:45	Received By: [Signature]		Requested Turnaround Time			# of Coolers: 1						
Relinquished By: (2) [Signature]		Date: 03/16/15	Time: 1310	Received By: [Signature]		<input checked="" type="checkbox"/> 5-Day <input type="checkbox"/> 3-Day <input type="checkbox"/> 2-Day <input type="checkbox"/> Next Day <input type="checkbox"/> Emergency <input type="checkbox"/> Other			Custody Seal: ABS						
Relinquished By: (3)		Date:	Time:	Received By:		Data Deliverables Required:			Ice Present: PRES Temp: 20c						
Relinquished By: (4)		Date:	Time:	Received By:		Special Instructions: VCP Project with comparison to residential cleanup standards NO asbestos analysts.									

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The client (Client Name), by signing, or having client's agent sign, this "Sample Chain of Custody/Agreement Form", agrees to pay for the above requested services per the latest version of the Service Brochure or PSS-provided quotation including any and all attorney's or other reasonable fees if collection becomes necessary.



Phase Separation Science, Inc

Sample Receipt Checklist

Work Order # 15031604 **Received By** Rachel Davis
Client Name Arc Environmental **Date Received** 03/16/2015 01:10:00 PM
Project Name Percontee **Delivered By** Trans Time Express
Project Number 057-5 **Tracking No** Not Applicable
Disposal Date 04/20/2015 **Logged In By** Rachel Davis

Shipping Container(s)

No. of Coolers 1

		Ice	Present
Custody Seal(s) Intact?	N/A	Temp (deg C)	2
Seal(s) Signed / Dated?	N/A	Temp Blank Present	No

Documentation

COC agrees with sample labels?	Yes	Sampler Name	<u>Kyle Begey</u>
Chain of Custody	Yes	MD DW Cert. No.	<u>N/A</u>

Sample Container

Appropriate for Specified Analysis?	Yes	Custody Seal(s) Intact?	Not Applicable
Intact?	Yes	Seal(s) Signed / Dated	Not Applicable
Labeled and Labels Legible?	Yes		

Total No. of Samples Received 2

Total No. of Containers Received 8

Preservation

Metals	(pH<2)	N/A
Cyanides	(pH>12)	N/A
Sulfide	(pH>9)	N/A
TOC, COD, Phenols	(pH<2)	N/A
TOX, TKN, NH3, Total Phos	(pH<2)	N/A
VOC, BTEX (VOA Vials Rcvd Preserved)	(pH<2)	N/A
Do VOA vials have zero headspace?		N/A
624 VOC (Rcvd at least one unpreserved VOA vial)		N/A

Comments: (Any "No" response must be detailed in the comments section below.)

For any improper preservation conditions, list sample ID, preservative added (reagent ID number) below as well as documentation of any client notification as well as client instructions. Samples for pH, chlorine and dissolved oxygen should be analyzed as soon as possible, preferably in the field at the time of sampling. Samples which require thermal preservation shall be considered acceptable when received at a temperature above freezing to 6°C. Samples that are hand delivered on the day that they are collected may not meet these criteria but shall be considered acceptable if there is evidence that the chilling process has begun such as arrival on ice.

Samples Inspected/Checklist Completed By:

Rachel Davis

Date: 03/16/2015

Rachel Davis

PM Review and Approval:

Shirley Rivera

Date: 03/17/2015

Shirley Rivera

Analytical Report for

Arc Environmental

Certificate of Analysis No.: 15033006

Project Manager: Christie Pulvino

Project Name : Percontee

Project Location: Silver Spring, MD

Project ID : 057-5



April 6, 2015

Phase Separation Science, Inc.

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PHASE SEPARATION SCIENCE, INC.



April 6, 2015

Christie Pulvino
Arc Environmental
1311 Haubert Street
Baltimore, MD 21230

Reference: PSS Work Order(s) No: **15033006**
Project Name: Percontee
Project Location: Silver Spring, MD
Project ID.: 057-5

Dear Christie Pulvino :

This report includes the analytical results from the analyses performed on the samples received under the project name referenced above and identified with the Phase Separation Science (PSS) Work Order(s) numbered **15033006**.

All work reported herein has been performed in accordance with current NELAP standards, referenced methodologies, PSS Standard Operating Procedures and the PSS Quality Assurance Manual unless otherwise noted in the Case Narrative Summary. PSS is limited in liability to the actual cost of the sample analysis done.

PSS reserves the right to return any unused samples, extracts or related solutions. Otherwise, the samples are scheduled for disposal, without any further notice, on May 4, 2015. This includes any samples that were received with a request to be held but lacked a specific hold period. It is your responsibility to provide a written request defining a specific disposal date if additional storage is required. Upon receipt, the request will be acknowledged by PSS, thus extending the storage period.

This report shall not be reproduced except in full, without the written approval of an authorized PSS representative. A copy of this report will be retained by PSS for at least 5 years, after which time it will be disposed of without further notice, unless prior arrangements have been made.

We thank you for selecting Phase Separation Science, Inc. to serve your analytical needs. If you have any questions concerning this report, do not hesitate to contact us at 410-747-8770 or info@phaseonline.com.

Sincerely,

A handwritten signature in black ink, appearing to read 'Cathy Thompson', written over a horizontal line.

Cathy Thompson
QA Officer



Sample Summary

Client Name: Arc Environmental
Project Name: Percontee

Work Order Number(s): 15033006

Project ID: 057-5

The following samples were received under chain of custody by Phase Separation Science (PSS) on 03/30/2015 at 12:15 pm

Lab Sample Id	Sample Id	Matrix	Date/Time Collected
15033006-001	MW-3 0'-2'	SOIL	03/26/15 07:45
15033006-002	MW-3 4'-6'	SOIL	03/26/15 07:55
15033006-003	B9 0'-2'	SOIL	03/26/15 13:50
15033006-004	B9 4'-6'	SOIL	03/26/15 14:00
15033006-005	MW-9 0'-2'	SOIL	03/27/15 07:45
15033006-006	MW-9 4'-6'	SOIL	03/27/15 08:00

Please reference the Chain of Custody and Sample Receipt Checklist for specific container counts and preservatives. Any sample conditions not in compliance with sample acceptance criteria are described in Case Narrative Summary.

Notes:

1. The presence of a common laboratory contaminant such as methylene chloride may be considered a possible laboratory artifact. Where observed, appropriate consideration of data should be taken.
2. Unless otherwise noted in the case narrative, results are reported on a dry weight basis with the exception of pH, flashpoint, moisture, and paint filter test.
3. Drinking water samples collected for the purpose of compliance with SDWA may not be suitable for their intended use unless collected by a certified sampler [COMAR 26.08.05.07.C.2].
4. The analyses of 1,2-dibromo-3-chloropropane (DBCP) and 1,2-dibromoethane (EDB) by EPA 524.2 and calcium, magnesium, sodium and iron by EPA 200.8 are not currently promulgated for use in testing to meet the Safe Drinking Water Act and as such cannot be used for compliance purposes. The listings of the current promulgated methods for testing in compliance with the Safe Drinking Water Act can be found in the 40 CFR part 141.1, for the primary drinking water contaminants, and part 141.3, for the secondary drinking water contaminants.
5. Sample prepared under EPA 3550C with concentrations greater than 20 mg/Kg should employ the microtip extraction procedure if required to meet data quality objectives.
6. The analysis of acrolein by EPA 624 must be analyzed within three days of sampling unless pH is adjusted to 4-5 units [40 CFR part 136.3(e)].
7. Method 180.1, The Determination of Turbidity by Nephelometry, recommends samples over 40 NTU be diluted until the turbidity falls below 40 units. Routine samples over 40 NTU may not be diluted as long as the data quality objectives are not affected.
8. Alkalinity results analyzed by EPA 310.2 that are reported by dilution are estimated and are not in compliance with method requirements.

Standard Flags/Abbreviations:

- B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- C Results Pending Final Confirmation.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- Fail The result exceeds the regulatory level for Toxicity Characteristic (TCLP) as cited in 40 CFR 261.24 Table 1.
- J The target analyte was positively identified below the reporting limit but greater than the MDL.
- MDL This is the Laboratory Method Detection Limit which is equivalent to the Limit of Detection (LOD). The LOD is an estimate of the minimum amount of a substance that an analytical process can reliably detect. This value will remain constant across multiple similar instrumentation and among different analysts. An LOD is analyte and matrix specific.
- ND Not Detected at or above the reporting limit.
- RL PSS Reporting Limit.
- U Not detected.

Certifications:

NELAP Certifications: PA 68-03330, VA 460156
State Certifications: MD 179, WV 303
Regulated Soil Permit: P330-12-00268
NSWC USCG Accepted Laboratory
LDBE MWAALD1997-0041-2015

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15033006

Arc Environmental, Baltimore, MD

April 6, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: MW-3 0'-2'	Date/Time Sampled: 03/26/2015 07:45	PSS Sample ID: 15033006-001
Matrix: SOIL	Date/Time Received: 03/30/2015 12:15	% Solids: 79

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	mg/kg	2.6		1	1.3	03/31/15	04/01/15 15:59	1033
Arsenic	5.0	mg/kg	0.53		1	0.26	03/31/15	04/01/15 15:59	1033
Beryllium	ND	mg/kg	2.6		1	1.3	03/31/15	04/01/15 15:59	1033
Cadmium	ND	mg/kg	2.6		1	1.3	03/31/15	04/01/15 15:59	1033
Chromium	46	mg/kg	2.6		1	1.3	03/31/15	04/01/15 15:59	1033
Copper	35	mg/kg	2.6		1	1.3	03/31/15	04/01/15 15:59	1033
Lead	16	mg/kg	2.6		1	1.3	03/31/15	04/01/15 15:59	1033
Mercury	0.075	mg/kg	0.11	J	1	0.053	03/31/15	04/01/15 15:59	1033
Nickel	22	mg/kg	2.6		1	1.3	03/31/15	04/01/15 15:59	1033
Selenium	ND	mg/kg	2.6		1	1.3	03/31/15	04/01/15 15:59	1033
Silver	ND	mg/kg	2.6		1	1.3	03/31/15	04/01/15 15:59	1033
Thallium	0.39	mg/kg	0.53	J	1	0.26	03/31/15	04/01/15 15:59	1033
Zinc	50	mg/kg	11		1	5.3	03/31/15	04/01/15 15:59	1033

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: SW3550C

DF/HF - No. 2/diesel fuel and heavier fuel/oil patterns observed in sample.

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	25	mg/kg	13	DF	1	5	04/02/15	04/03/15 17:10	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/kg	120		1	62	03/31/15	03/31/15 12:26	1035

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15033006

Arc Environmental, Baltimore, MD

April 6, 2015

Project Name: Percontee
 Project Location: Silver Spring, MD
 Project ID: 057-5

Sample ID: MW-3 0'-2' **Date/Time Sampled: 03/26/2015 07:45** **PSS Sample ID: 15033006-001**
Matrix: SOIL **Date/Time Received: 03/30/2015 12:15** **% Solids: 79**

Polychlorinated Biphenyls

Analytical Method: SW-846 8082 A

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
PCB-1016	ND	mg/kg	0.062		1	0.062	03/31/15	04/01/15 14:10	1044
PCB-1221	ND	mg/kg	0.062		1	0.062	03/31/15	04/01/15 14:10	1044
PCB-1232	ND	mg/kg	0.062		1	0.062	03/31/15	04/01/15 14:10	1044
PCB-1242	ND	mg/kg	0.062		1	0.062	03/31/15	04/01/15 14:10	1044
PCB-1248	ND	mg/kg	0.062		1	0.062	03/31/15	04/01/15 14:10	1044
PCB-1254	ND	mg/kg	0.062		1	0.062	03/31/15	04/01/15 14:10	1044
PCB-1260	ND	mg/kg	0.062		1	0.062	03/31/15	04/01/15 14:10	1044

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/kg	84		20	84	04/01/15	04/03/15 17:37	1055
Acenaphthylene	ND	ug/kg	84		20	84	04/01/15	04/03/15 17:37	1055
Anthracene	ND	ug/kg	84		20	84	04/01/15	04/03/15 17:37	1055
Benzo(a)anthracene	180	ug/kg	84		20	84	04/01/15	04/03/15 17:37	1055
Benzo(a)pyrene	240	ug/kg	84		20	84	04/01/15	04/03/15 17:37	1055
Benzo(b)fluoranthene	ND	ug/kg	84		20	84	04/01/15	04/03/15 17:37	1055
Benzo(g,h,i)perylene	170	ug/kg	84		20	84	04/01/15	04/03/15 17:37	1055
Benzo(k)fluoranthene	560	ug/kg	84		20	84	04/01/15	04/03/15 17:37	1055
Chrysene	230	ug/kg	84		20	84	04/01/15	04/03/15 17:37	1055
Dibenz(a,h)Anthracene	ND	ug/kg	84		20	84	04/01/15	04/03/15 17:37	1055
Fluoranthene	280	ug/kg	84		20	84	04/01/15	04/03/15 17:37	1055
Fluorene	ND	ug/kg	84		20	84	04/01/15	04/03/15 17:37	1055
Indeno(1,2,3-c,d)Pyrene	150	ug/kg	84		20	84	04/01/15	04/03/15 17:37	1055
2-Methylnaphthalene	ND	ug/kg	84		20	84	04/01/15	04/03/15 17:37	1055
Naphthalene	ND	ug/kg	84		20	84	04/01/15	04/03/15 17:37	1055
Phenanthrene	84	ug/kg	84	J	20	84	04/01/15	04/03/15 17:37	1055
Pyrene	310	ug/kg	84		20	84	04/01/15	04/03/15 17:37	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15033006

Arc Environmental, Baltimore, MD

April 6, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: MW-3 4'-6'	Date/Time Sampled: 03/26/2015 07:55	PSS Sample ID: 15033006-002
Matrix: SOIL	Date/Time Received: 03/30/2015 12:15	% Solids: 87

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	mg/kg	2.7		1	1.4	03/31/15	04/01/15 16:05	1033
Arsenic	3.1	mg/kg	0.55		1	0.27	03/31/15	04/01/15 16:05	1033
Beryllium	ND	mg/kg	2.7		1	1.4	03/31/15	04/01/15 16:05	1033
Cadmium	ND	mg/kg	2.7		1	1.4	03/31/15	04/01/15 16:05	1033
Chromium	61	mg/kg	2.7		1	1.4	03/31/15	04/01/15 16:05	1033
Copper	36	mg/kg	2.7		1	1.4	03/31/15	04/01/15 16:05	1033
Lead	17	mg/kg	2.7		1	1.4	03/31/15	04/01/15 16:05	1033
Mercury	0.067	mg/kg	0.11	J	1	0.055	03/31/15	04/01/15 16:05	1033
Nickel	46	mg/kg	2.7		1	1.4	03/31/15	04/01/15 16:05	1033
Selenium	ND	mg/kg	2.7		1	1.4	03/31/15	04/01/15 16:05	1033
Silver	ND	mg/kg	2.7		1	1.4	03/31/15	04/01/15 16:05	1033
Thallium	0.28	mg/kg	0.55	J	1	0.27	03/31/15	04/01/15 16:05	1033
Zinc	54	mg/kg	11		1	5.5	03/31/15	04/01/15 16:05	1033

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: SW3550C

DF/HF - No. 2/diesel fuel and heavier fuel/oil patterns observed in sample.

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	18	mg/kg	12	DF	1	4.7	04/02/15	04/03/15 15:04	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/kg	110		1	57	03/31/15	03/31/15 12:55	1035

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15033006

Arc Environmental, Baltimore, MD

April 6, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: MW-3 4'-6'	Date/Time Sampled: 03/26/2015 07:55	PSS Sample ID: 15033006-002
Matrix: SOIL	Date/Time Received: 03/30/2015 12:15	% Solids: 87

Polychlorinated Biphenyls

Analytical Method: SW-846 8082 A

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
PCB-1016	ND	mg/kg	0.057		1	0.057	03/31/15	04/01/15 17:05	1044
PCB-1221	ND	mg/kg	0.057		1	0.057	03/31/15	04/01/15 17:05	1044
PCB-1232	ND	mg/kg	0.057		1	0.057	03/31/15	04/01/15 17:05	1044
PCB-1242	ND	mg/kg	0.057		1	0.057	03/31/15	04/01/15 17:05	1044
PCB-1248	ND	mg/kg	0.057		1	0.057	03/31/15	04/01/15 17:05	1044
PCB-1254	ND	mg/kg	0.057		1	0.057	03/31/15	04/01/15 17:05	1044
PCB-1260	ND	mg/kg	0.057		1	0.057	03/31/15	04/01/15 17:05	1044

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/kg	76		20	76	04/01/15	04/03/15 16:05	1055
Acenaphthylene	ND	ug/kg	76		20	76	04/01/15	04/03/15 16:05	1055
Anthracene	120	ug/kg	76		20	76	04/01/15	04/03/15 16:05	1055
Benzo(a)anthracene	170	ug/kg	76		20	76	04/01/15	04/03/15 16:05	1055
Benzo(a)pyrene	110	ug/kg	76		20	76	04/01/15	04/03/15 16:05	1055
Benzo(b)fluoranthene	110	ug/kg	76		20	76	04/01/15	04/03/15 16:05	1055
Benzo(g,h,i)perylene	84	ug/kg	76		20	76	04/01/15	04/03/15 16:05	1055
Benzo(k)fluoranthene	99	ug/kg	76		20	76	04/01/15	04/03/15 16:05	1055
Chrysene	160	ug/kg	76		20	76	04/01/15	04/03/15 16:05	1055
Dibenz(a,h)Anthracene	ND	ug/kg	76		20	76	04/01/15	04/03/15 16:05	1055
Fluoranthene	340	ug/kg	76		20	76	04/01/15	04/03/15 16:05	1055
Fluorene	ND	ug/kg	76		20	76	04/01/15	04/03/15 16:05	1055
Indeno(1,2,3-c,d)Pyrene	ND	ug/kg	76		20	76	04/01/15	04/03/15 16:05	1055
2-Methylnaphthalene	ND	ug/kg	76		20	76	04/01/15	04/03/15 16:05	1055
Naphthalene	ND	ug/kg	76		20	76	04/01/15	04/03/15 16:05	1055
Phenanthrene	390	ug/kg	76		20	76	04/01/15	04/03/15 16:05	1055
Pyrene	300	ug/kg	76		20	76	04/01/15	04/03/15 16:05	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15033006

Arc Environmental, Baltimore, MD

April 6, 2015

Project Name: Percontee
 Project Location: Silver Spring, MD
 Project ID: 057-5

Sample ID: B9 0'-2'	Date/Time Sampled: 03/26/2015 13:50	PSS Sample ID: 15033006-003
Matrix: SOIL	Date/Time Received: 03/30/2015 12:15	% Solids: 85

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	mg/kg	2.6		1	1.3	03/31/15	04/01/15 16:11	1033
Arsenic	4.3	mg/kg	0.51		1	0.26	03/31/15	04/01/15 16:11	1033
Beryllium	ND	mg/kg	2.6		1	1.3	03/31/15	04/01/15 16:11	1033
Cadmium	ND	mg/kg	2.6		1	1.3	03/31/15	04/01/15 16:11	1033
Chromium	45	mg/kg	2.6		1	1.3	03/31/15	04/01/15 16:11	1033
Copper	17	mg/kg	2.6		1	1.3	03/31/15	04/01/15 16:11	1033
Lead	22	mg/kg	2.6		1	1.3	03/31/15	04/01/15 16:11	1033
Mercury	0.060	mg/kg	0.10	J	1	0.051	03/31/15	04/01/15 16:11	1033
Nickel	33	mg/kg	2.6		1	1.3	03/31/15	04/01/15 16:11	1033
Selenium	ND	mg/kg	2.6		1	1.3	03/31/15	04/01/15 16:11	1033
Silver	ND	mg/kg	2.6		1	1.3	03/31/15	04/01/15 16:11	1033
Thallium	ND	mg/kg	0.51		1	0.26	03/31/15	04/01/15 16:11	1033
Zinc	39	mg/kg	10		1	5.1	03/31/15	04/01/15 16:11	1033

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: SW3550C

DF/HF - No. 2/diesel fuel and heavier fuel/oil patterns observed in sample.

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	110	mg/kg	12	DF	1	4.7	04/02/15	04/03/15 17:48	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/kg	120		1	58	03/31/15	03/31/15 13:24	1035

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15033006

Arc Environmental, Baltimore, MD

April 6, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B9 0'-2'	Date/Time Sampled: 03/26/2015 13:50	PSS Sample ID: 15033006-003
Matrix: SOIL	Date/Time Received: 03/30/2015 12:15	% Solids: 85

Polychlorinated Biphenyls

Analytical Method: SW-846 8082 A

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
PCB-1016	ND	mg/kg	0.058		1	0.058	03/31/15	04/01/15 15:08	1044
PCB-1221	ND	mg/kg	0.058		1	0.058	03/31/15	04/01/15 15:08	1044
PCB-1232	ND	mg/kg	0.058		1	0.058	03/31/15	04/01/15 15:08	1044
PCB-1242	ND	mg/kg	0.058		1	0.058	03/31/15	04/01/15 15:08	1044
PCB-1248	ND	mg/kg	0.058		1	0.058	03/31/15	04/01/15 15:08	1044
PCB-1254	ND	mg/kg	0.058		1	0.058	03/31/15	04/01/15 15:08	1044
PCB-1260	ND	mg/kg	0.058		1	0.058	03/31/15	04/01/15 15:08	1044

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/kg	78		20	78	04/01/15	04/03/15 18:03	1055
Acenaphthylene	ND	ug/kg	78		20	78	04/01/15	04/03/15 18:03	1055
Anthracene	ND	ug/kg	78		20	78	04/01/15	04/03/15 18:03	1055
Benzo(a)anthracene	100	ug/kg	78		20	78	04/01/15	04/03/15 18:03	1055
Benzo(a)pyrene	110	ug/kg	78		20	78	04/01/15	04/03/15 18:03	1055
Benzo(b)fluoranthene	100	ug/kg	78		20	78	04/01/15	04/03/15 18:03	1055
Benzo(g,h,i)perylene	93	ug/kg	78		20	78	04/01/15	04/03/15 18:03	1055
Benzo(k)fluoranthene	93	ug/kg	78		20	78	04/01/15	04/03/15 18:03	1055
Chrysene	140	ug/kg	78		20	78	04/01/15	04/03/15 18:03	1055
Dibenz(a,h)Anthracene	ND	ug/kg	78		20	78	04/01/15	04/03/15 18:03	1055
Fluoranthene	190	ug/kg	78		20	78	04/01/15	04/03/15 18:03	1055
Fluorene	ND	ug/kg	78		20	78	04/01/15	04/03/15 18:03	1055
Indeno(1,2,3-c,d)Pyrene	ND	ug/kg	78		20	78	04/01/15	04/03/15 18:03	1055
2-Methylnaphthalene	ND	ug/kg	78		20	78	04/01/15	04/03/15 18:03	1055
Naphthalene	ND	ug/kg	78		20	78	04/01/15	04/03/15 18:03	1055
Phenanthrene	110	ug/kg	78		20	78	04/01/15	04/03/15 18:03	1055
Pyrene	190	ug/kg	78		20	78	04/01/15	04/03/15 18:03	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15033006

Arc Environmental, Baltimore, MD

April 6, 2015

Project Name: Percontee
 Project Location: Silver Spring, MD
 Project ID: 057-5

Sample ID: B9 4'-6'	Date/Time Sampled: 03/26/2015 14:00	PSS Sample ID: 15033006-004
Matrix: SOIL	Date/Time Received: 03/30/2015 12:15	% Solids: 87

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	mg/kg	2.6		1	1.3	03/31/15	04/01/15 16:18	1033
Arsenic	3.2	mg/kg	0.52		1	0.26	03/31/15	04/01/15 16:18	1033
Beryllium	ND	mg/kg	2.6		1	1.3	03/31/15	04/01/15 16:18	1033
Cadmium	ND	mg/kg	2.6		1	1.3	03/31/15	04/01/15 16:18	1033
Chromium	51	mg/kg	2.6		1	1.3	03/31/15	04/01/15 16:18	1033
Copper	120	mg/kg	2.6		1	1.3	03/31/15	04/01/15 16:18	1033
Lead	120	mg/kg	2.6		1	1.3	03/31/15	04/01/15 16:18	1033
Mercury	0.063	mg/kg	0.10	J	1	0.052	03/31/15	04/01/15 16:18	1033
Nickel	86	mg/kg	2.6		1	1.3	03/31/15	04/01/15 16:18	1033
Selenium	ND	mg/kg	2.6		1	1.3	03/31/15	04/01/15 16:18	1033
Silver	ND	mg/kg	2.6		1	1.3	03/31/15	04/01/15 16:18	1033
Thallium	ND	mg/kg	0.52		1	0.26	03/31/15	04/01/15 16:18	1033
Zinc	83	mg/kg	10		1	5.2	03/31/15	04/01/15 16:18	1033

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: SW3550C

DF/HF - No. 2/diesel fuel and heavier fuel/oil patterns observed in sample.

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	270	mg/kg	11	DF	1	4.5	04/02/15	04/03/15 17:48	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/kg	110		1	57	03/31/15	03/31/15 13:54	1035

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15033006

Arc Environmental, Baltimore, MD

April 6, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B9 4'-6'	Date/Time Sampled: 03/26/2015 14:00	PSS Sample ID: 15033006-004
Matrix: SOIL	Date/Time Received: 03/30/2015 12:15	% Solids: 87

Polychlorinated Biphenyls

Analytical Method: SW-846 8082 A

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
PCB-1016	ND	mg/kg	0.058		1	0.058	03/31/15	04/01/15 16:06	1044
PCB-1221	ND	mg/kg	0.058		1	0.058	03/31/15	04/01/15 16:06	1044
PCB-1232	ND	mg/kg	0.058		1	0.058	03/31/15	04/01/15 16:06	1044
PCB-1242	ND	mg/kg	0.058		1	0.058	03/31/15	04/01/15 16:06	1044
PCB-1248	ND	mg/kg	0.058		1	0.058	03/31/15	04/01/15 16:06	1044
PCB-1254	ND	mg/kg	0.058		1	0.058	03/31/15	04/01/15 16:06	1044
PCB-1260	ND	mg/kg	0.058		1	0.058	03/31/15	04/01/15 16:06	1044

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CERTIFICATE OF ANALYSIS

No: 15033006

Arc Environmental, Baltimore, MD

April 6, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B9 4'-6'	Date/Time Sampled: 03/26/2015 14:00	PSS Sample ID: 15033006-004
Matrix: SOIL	Date/Time Received: 03/30/2015 12:15	% Solids: 87

TCL Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5035A

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Dichlorodifluoromethane	ND	ug/kg	5.1		1	2.5	03/31/15	03/31/15 17:48	1011
Chloromethane	ND	ug/kg	5.1		1	2.5	03/31/15	03/31/15 17:48	1011
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	ug/kg	5.1		1	2.5	03/31/15	03/31/15 17:48	1011
Vinyl Chloride	ND	ug/kg	5.1		1	2.5	03/31/15	03/31/15 17:48	1011
Bromomethane	ND	ug/kg	5.1		1	2.5	03/31/15	03/31/15 17:48	1011
Chloroethane	ND	ug/kg	5.1		1	2.5	03/31/15	03/31/15 17:48	1011
Acetone	180	ug/kg	20		1	10	03/31/15	03/31/15 17:48	1011
Cyclohexane	ND	ug/kg	20		1	10	03/31/15	03/31/15 17:48	1011
Trichlorofluoromethane	ND	ug/kg	5.1		1	2.5	03/31/15	03/31/15 17:48	1011
1,1-Dichloroethene	ND	ug/kg	5.1		1	2.5	03/31/15	03/31/15 17:48	1011
Methylene Chloride	ND	ug/kg	5.1		1	2.5	03/31/15	03/31/15 17:48	1011
trans-1,2-Dichloroethene	ND	ug/kg	5.1		1	2.5	03/31/15	03/31/15 17:48	1011
Methyl-t-butyl ether	ND	ug/kg	5.1		1	2.5	03/31/15	03/31/15 17:48	1011
1,1-Dichloroethane	ND	ug/kg	5.1		1	2.5	03/31/15	03/31/15 17:48	1011
2-Butanone	19	ug/kg	20	J	1	10	03/31/15	03/31/15 17:48	1011
cis-1,2-Dichloroethene	ND	ug/kg	5.1		1	2.5	03/31/15	03/31/15 17:48	1011
Bromochloromethane	ND	ug/kg	5.1		1	2.5	03/31/15	03/31/15 17:48	1011
Chloroform	ND	ug/kg	5.1		1	2.5	03/31/15	03/31/15 17:48	1011
1,1,1-Trichloroethane	ND	ug/kg	5.1		1	2.5	03/31/15	03/31/15 17:48	1011
1,2-Dichloroethane	ND	ug/kg	5.1		1	2.5	03/31/15	03/31/15 17:48	1011
Carbon Tetrachloride	ND	ug/kg	5.1		1	2.5	03/31/15	03/31/15 17:48	1011
Benzene	ND	ug/kg	5.1		1	2.5	03/31/15	03/31/15 17:48	1011
1,2-Dichloropropane	ND	ug/kg	5.1		1	2.5	03/31/15	03/31/15 17:48	1011
Carbon Disulfide	5.6	ug/kg	10	J	1	5.1	03/31/15	03/31/15 17:48	1011
Methylcyclohexane	ND	ug/kg	20		1	10	03/31/15	03/31/15 17:48	1011
Trichloroethene	ND	ug/kg	5.1		1	2.5	03/31/15	03/31/15 17:48	1011
Methyl Acetate	ND	ug/kg	20		1	10	03/31/15	03/31/15 17:48	1011
Bromodichloromethane	ND	ug/kg	5.1		1	2.5	03/31/15	03/31/15 17:48	1011
cis-1,3-Dichloropropene	ND	ug/kg	5.1		1	2.5	03/31/15	03/31/15 17:48	1011
4-Methyl-2-Pentanone	ND	ug/kg	20		1	10	03/31/15	03/31/15 17:48	1011

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15033006

Arc Environmental, Baltimore, MD

April 6, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B9 4'-6'	Date/Time Sampled: 03/26/2015 14:00	PSS Sample ID: 15033006-004
Matrix: SOIL	Date/Time Received: 03/30/2015 12:15	% Solids: 87

TCL Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5035A

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
trans-1,3-Dichloropropene	ND	ug/kg	5.1		1	2.5	03/31/15	03/31/15 17:48	1011
1,1,2-Trichloroethane	ND	ug/kg	5.1		1	2.5	03/31/15	03/31/15 17:48	1011
Toluene	ND	ug/kg	5.1		1	2.5	03/31/15	03/31/15 17:48	1011
2-Hexanone	ND	ug/kg	20		1	10	03/31/15	03/31/15 17:48	1011
1,2-Dibromoethane	ND	ug/kg	5.1		1	2.5	03/31/15	03/31/15 17:48	1011
Dibromochloromethane	ND	ug/kg	5.1		1	2.5	03/31/15	03/31/15 17:48	1011
Bromoform	ND	ug/kg	5.1		1	2.5	03/31/15	03/31/15 17:48	1011
Tetrachloroethene	ND	ug/kg	5.1		1	2.5	03/31/15	03/31/15 17:48	1011
Chlorobenzene	ND	ug/kg	5.1		1	2.5	03/31/15	03/31/15 17:48	1011
Ethylbenzene	ND	ug/kg	5.1		1	2.5	03/31/15	03/31/15 17:48	1011
m,p-Xylenes	ND	ug/kg	10		1	5.1	03/31/15	03/31/15 17:48	1011
Styrene	ND	ug/kg	5.1		1	2.5	03/31/15	03/31/15 17:48	1011
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.1		1	2.5	03/31/15	03/31/15 17:48	1011
o-Xylene	ND	ug/kg	5.1		1	2.5	03/31/15	03/31/15 17:48	1011
Isopropylbenzene	ND	ug/kg	5.1		1	2.5	03/31/15	03/31/15 17:48	1011
1,3-Dichlorobenzene	ND	ug/kg	5.1		1	2.5	03/31/15	03/31/15 17:48	1011
1,4-Dichlorobenzene	ND	ug/kg	5.1		1	2.5	03/31/15	03/31/15 17:48	1011
1,2-Dichlorobenzene	ND	ug/kg	5.1		1	2.5	03/31/15	03/31/15 17:48	1011
1,2-Dibromo-3-Chloropropane	ND	ug/kg	40		1	20	03/31/15	03/31/15 17:48	1011
1,2,4-Trichlorobenzene	ND	ug/kg	5.1		1	2.5	03/31/15	03/31/15 17:48	1011
1,2,3-Trichlorobenzene	ND	ug/kg	5.1		1	2.5	03/31/15	03/31/15 17:48	1011

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15033006

Arc Environmental, Baltimore, MD

April 6, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B9 4'-6'	Date/Time Sampled: 03/26/2015 14:00	PSS Sample ID: 15033006-004
Matrix: SOIL	Date/Time Received: 03/30/2015 12:15	% Solids: 87

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/kg	75		20	75	04/01/15	04/03/15 17:11	1055
Acenaphthylene	ND	ug/kg	75		20	75	04/01/15	04/03/15 17:11	1055
Anthracene	91	ug/kg	75		20	75	04/01/15	04/03/15 17:11	1055
Benzo(a)anthracene	170	ug/kg	75		20	75	04/01/15	04/03/15 17:11	1055
Benzo(a)pyrene	170	ug/kg	75		20	75	04/01/15	04/03/15 17:11	1055
Benzo(b)fluoranthene	ND	ug/kg	75		20	75	04/01/15	04/03/15 17:11	1055
Benzo(g,h,i)perylene	150	ug/kg	75		20	75	04/01/15	04/03/15 17:11	1055
Benzo(k)fluoranthene	300	ug/kg	75		20	75	04/01/15	04/03/15 17:11	1055
Chrysene	200	ug/kg	75		20	75	04/01/15	04/03/15 17:11	1055
Dibenz(a,h)Anthracene	ND	ug/kg	75		20	75	04/01/15	04/03/15 17:11	1055
Fluoranthene	310	ug/kg	75		20	75	04/01/15	04/03/15 17:11	1055
Fluorene	ND	ug/kg	75		20	75	04/01/15	04/03/15 17:11	1055
Indeno(1,2,3-c,d)Pyrene	98	ug/kg	75		20	75	04/01/15	04/03/15 17:11	1055
2-Methylnaphthalene	ND	ug/kg	75		20	75	04/01/15	04/03/15 17:11	1055
Naphthalene	ND	ug/kg	75		20	75	04/01/15	04/03/15 17:11	1055
Phenanthrene	200	ug/kg	75		20	75	04/01/15	04/03/15 17:11	1055
Pyrene	300	ug/kg	75		20	75	04/01/15	04/03/15 17:11	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15033006

Arc Environmental, Baltimore, MD

April 6, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: MW-9 0'-2'	Date/Time Sampled: 03/27/2015 07:45	PSS Sample ID: 15033006-005
Matrix: SOIL	Date/Time Received: 03/30/2015 12:15	% Solids: 82

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	mg/kg	2.8		1	1.4	03/31/15	04/01/15 16:24	1033
Arsenic	6.1	mg/kg	0.56		1	0.28	03/31/15	04/01/15 16:24	1033
Beryllium	ND	mg/kg	2.8		1	1.4	03/31/15	04/01/15 16:24	1033
Cadmium	ND	mg/kg	2.8		1	1.4	03/31/15	04/01/15 16:24	1033
Chromium	40	mg/kg	2.8		1	1.4	03/31/15	04/01/15 16:24	1033
Copper	19	mg/kg	2.8		1	1.4	03/31/15	04/01/15 16:24	1033
Lead	17	mg/kg	2.8		1	1.4	03/31/15	04/01/15 16:24	1033
Mercury	0.072	mg/kg	0.11	J	1	0.056	03/31/15	04/01/15 16:24	1033
Nickel	45	mg/kg	2.8		1	1.4	03/31/15	04/01/15 16:24	1033
Selenium	ND	mg/kg	2.8		1	1.4	03/31/15	04/01/15 16:24	1033
Silver	ND	mg/kg	2.8		1	1.4	03/31/15	04/01/15 16:24	1033
Thallium	ND	mg/kg	0.56		1	0.28	03/31/15	04/01/15 16:24	1033
Zinc	48	mg/kg	11		1	5.6	03/31/15	04/01/15 16:24	1033

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	ND	mg/kg	20		1	8	04/02/15	04/03/15 15:04	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/kg	120		1	60	03/31/15	03/31/15 14:24	1035

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15033006

Arc Environmental, Baltimore, MD

April 6, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: MW-9 0'-2'	Date/Time Sampled: 03/27/2015 07:45	PSS Sample ID: 15033006-005
Matrix: SOIL	Date/Time Received: 03/30/2015 12:15	% Solids: 82

Polychlorinated Biphenyls

Analytical Method: SW-846 8082 A

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
PCB-1016	ND	mg/kg	0.060		1	0.06	03/31/15	04/01/15 15:37	1044
PCB-1221	ND	mg/kg	0.060		1	0.06	03/31/15	04/01/15 15:37	1044
PCB-1232	ND	mg/kg	0.060		1	0.06	03/31/15	04/01/15 15:37	1044
PCB-1242	ND	mg/kg	0.060		1	0.06	03/31/15	04/01/15 15:37	1044
PCB-1248	ND	mg/kg	0.060		1	0.06	03/31/15	04/01/15 15:37	1044
PCB-1254	ND	mg/kg	0.060		1	0.06	03/31/15	04/01/15 15:37	1044
PCB-1260	ND	mg/kg	0.060		1	0.06	03/31/15	04/01/15 15:37	1044

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	54	ug/kg	4.0		1	4	04/01/15	04/03/15 08:28	1055
Acenaphthylene	8.1	ug/kg	4.0		1	4	04/01/15	04/03/15 08:28	1055
Anthracene	120	ug/kg	4.0		1	4	04/01/15	04/03/15 08:28	1055
Benzo(a)anthracene	160	ug/kg	4.0		1	4	04/01/15	04/03/15 08:28	1055
Benzo(a)pyrene	140	ug/kg	4.0		1	4	04/01/15	04/03/15 08:28	1055
Benzo(b)fluoranthene	ND	ug/kg	4.0		1	4	04/01/15	04/03/15 08:28	1055
Benzo(g,h,i)perylene	81	ug/kg	4.0		1	4	04/01/15	04/03/15 08:28	1055
Benzo(k)fluoranthene	130	ug/kg	41		10	41	04/01/15	04/03/15 15:39	1055
Chrysene	170	ug/kg	4.0		1	4	04/01/15	04/03/15 08:28	1055
Dibenz(a,h)Anthracene	36	ug/kg	4.0		1	4	04/01/15	04/03/15 08:28	1055
Fluoranthene	ND	ug/kg	4.0		1	4	04/01/15	04/03/15 08:28	1055
Fluorene	50	ug/kg	4.0		1	4	04/01/15	04/03/15 08:28	1055
Indeno(1,2,3-c,d)Pyrene	69	ug/kg	4.0		1	4	04/01/15	04/03/15 08:28	1055
2-Methylnaphthalene	8.1	ug/kg	4.0		1	4	04/01/15	04/03/15 08:28	1055
Naphthalene	5.3	ug/kg	4.0		1	4	04/01/15	04/03/15 08:28	1055
Phenanthrene	ND	ug/kg	4.0		1	4	04/01/15	04/03/15 08:28	1055
Pyrene	410	ug/kg	41		10	41	04/01/15	04/03/15 15:39	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15033006

Arc Environmental, Baltimore, MD

April 6, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: MW-9 4'-6'	Date/Time Sampled: 03/27/2015 08:00	PSS Sample ID: 15033006-006
Matrix: SOIL	Date/Time Received: 03/30/2015 12:15	% Solids: 81

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	mg/kg	3.0		1	1.5	03/31/15	04/01/15 16:30	1033
Arsenic	3.0	mg/kg	0.60		1	0.3	03/31/15	04/01/15 16:30	1033
Beryllium	ND	mg/kg	3.0		1	1.5	03/31/15	04/01/15 16:30	1033
Cadmium	ND	mg/kg	3.0		1	1.5	03/31/15	04/01/15 16:30	1033
Chromium	66	mg/kg	3.0		1	1.5	03/31/15	04/01/15 16:30	1033
Copper	22	mg/kg	3.0		1	1.5	03/31/15	04/01/15 16:30	1033
Lead	13	mg/kg	3.0		1	1.5	03/31/15	04/01/15 16:30	1033
Mercury	0.064	mg/kg	0.12	J	1	0.06	03/31/15	04/01/15 16:30	1033
Nickel	63	mg/kg	3.0		1	1.5	03/31/15	04/01/15 16:30	1033
Selenium	ND	mg/kg	3.0		1	1.5	03/31/15	04/01/15 16:30	1033
Silver	ND	mg/kg	3.0		1	1.5	03/31/15	04/01/15 16:30	1033
Thallium	ND	mg/kg	0.60		1	0.3	03/31/15	04/01/15 16:30	1033
Zinc	43	mg/kg	12		1	6	03/31/15	04/01/15 16:30	1033

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: SW3550C

DF/HF - No. 2/diesel fuel and heavier fuel/oil patterns observed in sample.

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	28	mg/kg	12	DF	1	5	04/02/15	04/03/15 17:10	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/kg	120		1	60	03/31/15	03/31/15 14:53	1035

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15033006

Arc Environmental, Baltimore, MD

April 6, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: MW-9 4'-6'	Date/Time Sampled: 03/27/2015 08:00	PSS Sample ID: 15033006-006
Matrix: SOIL	Date/Time Received: 03/30/2015 12:15	% Solids: 81

Polychlorinated Biphenyls

Analytical Method: SW-846 8082 A

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
PCB-1016	ND	mg/kg	0.061		1	0.061	03/31/15	04/01/15 16:36	1044
PCB-1221	ND	mg/kg	0.061		1	0.061	03/31/15	04/01/15 16:36	1044
PCB-1232	ND	mg/kg	0.061		1	0.061	03/31/15	04/01/15 16:36	1044
PCB-1242	ND	mg/kg	0.061		1	0.061	03/31/15	04/01/15 16:36	1044
PCB-1248	ND	mg/kg	0.061		1	0.061	03/31/15	04/01/15 16:36	1044
PCB-1254	ND	mg/kg	0.061		1	0.061	03/31/15	04/01/15 16:36	1044
PCB-1260	ND	mg/kg	0.061		1	0.061	03/31/15	04/01/15 16:36	1044

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/kg	4.1		1	4.1	04/01/15	04/03/15 18:56	1055
Acenaphthylene	4.5	ug/kg	4.1		1	4.1	04/01/15	04/03/15 18:56	1055
Anthracene	4.9	ug/kg	4.1		1	4.1	04/01/15	04/03/15 18:56	1055
Benzo(a)anthracene	8.6	ug/kg	4.1		1	4.1	04/01/15	04/03/15 18:56	1055
Benzo(a)pyrene	13	ug/kg	4.1		1	4.1	04/01/15	04/03/15 18:56	1055
Benzo(b)fluoranthene	ND	ug/kg	4.1		1	4.1	04/01/15	04/03/15 18:56	1055
Benzo(g,h,i)perylene	19	ug/kg	4.1		1	4.1	04/01/15	04/03/15 18:56	1055
Benzo(k)fluoranthene	21	ug/kg	4.1		1	4.1	04/01/15	04/03/15 18:56	1055
Chrysene	12	ug/kg	4.1		1	4.1	04/01/15	04/03/15 18:56	1055
Dibenz(a,h)Anthracene	7.0	ug/kg	4.1		1	4.1	04/01/15	04/03/15 18:56	1055
Fluoranthene	20	ug/kg	4.1		1	4.1	04/01/15	04/03/15 18:56	1055
Fluorene	ND	ug/kg	4.1		1	4.1	04/01/15	04/03/15 18:56	1055
Indeno(1,2,3-c,d)Pyrene	9.9	ug/kg	4.1		1	4.1	04/01/15	04/03/15 18:56	1055
2-Methylnaphthalene	ND	ug/kg	4.1		1	4.1	04/01/15	04/03/15 18:56	1055
Naphthalene	ND	ug/kg	4.1		1	4.1	04/01/15	04/03/15 18:56	1055
Phenanthrene	18	ug/kg	4.1		1	4.1	04/01/15	04/03/15 18:56	1055
Pyrene	25	ug/kg	4.1		1	4.1	04/01/15	04/03/15 18:56	1055



Case Narrative Summary

Client Name: Arc Environmental

Project Name: Percontee

Work Order Number(s): 15033006

Project ID: 057-5

Any holding time exceedances, deviations from the method specifications, regulatory requirements or variations to the procedures outlined in the PSS Quality Assurance Manual are outlined below.

The analyses of chlorine, pH, dissolved oxygen, temperature and sulfite for drinking water and non-potable samples tested for compliance have a maximum holding time of 15 minutes. As such, all laboratory analyses for these analytes exceed holding times.

Matrix spike and matrix spike duplicate analyses may not be performed due to insufficient sample quantity. In these instances, a laboratory control sample and laboratory control sample duplicate are analyzed unless otherwise noted or specified in the method.

Sample Receipt:

Sample(s) received at 0 degrees but no samples were frozen.

Analytical:

RCRA Metals

Batch: 121542

Laboratory control sample and/or laboratory control sample duplicate (LCS/LCSD) exceedances identified; see LCS summary form.

Total Petroleum Hydrocarbons - DRO

Batch: 121627

The closing CCV showed a %D for DRO above QC limits.

Poly Aromatic Hydrocarbons by SIM

Batch: 121640

Laboratory control sample and/or laboratory control sample duplicate (LCS/LCSD) exceedances identified; see LCS summary form.

Matrix spike and/or matrix spike duplicate (MS/MSD) exceedances identified; see MS summary form. This is attributed to the nature of the sample matrix. The sample required reanalysis at a 1:10 dilution.

Surrogate exceedances identified; see surrogate summary form.

Batch: 121643

Surrogate recoveries affected by sample dilution.

Internal Standards fell below 50% due to sample matrix.

NELAP accreditation was held for all analyses performed unless noted below. See www.phaseonline.com for complete PSS scope of accreditation.



Analytical Data Package Information Summary

Work Order(s): 15033006

Report Prepared For: Arc Environmental, Baltimore, MD

Project Name: Percontee

Project Manager: Christie Pulvino

Method	Client Sample Id	Analysis Type	Lab Sample Id	Analyst	Mtx	Prep Batch	Analytical Batch	Sampled	Prepared	Analyzed
ASTM D2216 05	MW-3 0'-2'	Initial	15033006-001	1051	S	121469	121469	03/26/2015	03/30/2015 17:23	03/30/2015 17:23
	MW-3 4'-6'	Initial	15033006-002	1051	S	121469	121469	03/26/2015	03/30/2015 17:23	03/30/2015 17:23
	B9 0'-2'	Initial	15033006-003	1051	S	121469	121469	03/26/2015	03/30/2015 17:23	03/30/2015 17:23
	B9 4'-6'	Initial	15033006-004	1051	S	121469	121469	03/26/2015	03/30/2015 17:23	03/30/2015 17:23
	MW-9 0'-2'	Initial	15033006-005	1051	S	121469	121469	03/27/2015	03/30/2015 17:23	03/30/2015 17:23
	MW-9 4'-6'	Initial	15033006-006	1051	S	121469	121469	03/27/2015	03/30/2015 17:23	03/30/2015 17:23
SW-846 6020 A	MW-3 0'-2'	Initial	15033006-001	1033	S	54816	121542	03/26/2015	03/31/2015 15:10	04/01/2015 15:59
	MW-3 4'-6'	Initial	15033006-002	1033	S	54816	121542	03/26/2015	03/31/2015 15:10	04/01/2015 16:05
	B9 0'-2'	Initial	15033006-003	1033	S	54816	121542	03/26/2015	03/31/2015 15:10	04/01/2015 16:11
	B9 4'-6'	Initial	15033006-004	1033	S	54816	121542	03/26/2015	03/31/2015 15:10	04/01/2015 16:18
	MW-9 0'-2'	Initial	15033006-005	1033	S	54816	121542	03/27/2015	03/31/2015 15:10	04/01/2015 16:24
	MW-9 4'-6'	Initial	15033006-006	1033	S	54816	121542	03/27/2015	03/31/2015 15:10	04/01/2015 16:30
	54816-1-BKS	BKS	54816-1-BKS	1033	S	54816	121542	-----	03/31/2015 15:10	04/01/2015 14:28
	54816-1-BLK	BLK	54816-1-BLK	1033	S	54816	121542	-----	03/31/2015 15:10	04/01/2015 14:22
	MW2 0'-2' S	MS	15032625-001 S	1033	S	54816	121542	03/25/2015	03/31/2015 15:10	04/01/2015 14:40
	MW2 0'-2' SD	MSD	15032625-001 SD	1033	S	54816	121542	03/25/2015	03/31/2015 15:10	04/01/2015 14:46
SW-846 8015 C	54850-1-BKS	BKS	54850-1-BKS	1055	S	54850	121626	-----	04/02/2015 17:16	04/03/2015 00:19
	54850-1-BLK	BLK	54850-1-BLK	1055	S	54850	121626	-----	04/02/2015 17:16	04/02/2015 23:48
	54850-1-BSD	BSD	54850-1-BSD	1055	S	54850	121626	-----	04/02/2015 17:16	04/03/2015 00:50
	Dispenser S	MS	15033115-001 S	1055	S	54850	121626	03/11/2015	04/02/2015 17:16	04/03/2015 00:19
	Dispenser SD	MSD	15033115-001 SD	1055	S	54850	121626	03/11/2015	04/02/2015 17:16	04/03/2015 00:50
	MW-3 0'-2'	Initial	15033006-001	1055	S	54850	121627	03/26/2015	04/02/2015 17:16	04/03/2015 17:10
	MW-3 4'-6'	Initial	15033006-002	1055	S	54850	121627	03/26/2015	04/02/2015 17:16	04/03/2015 15:04
	B9 0'-2'	Initial	15033006-003	1055	S	54850	121627	03/26/2015	04/02/2015 17:16	04/03/2015 17:48
	B9 4'-6'	Initial	15033006-004	1055	S	54850	121627	03/26/2015	04/02/2015 17:16	04/03/2015 17:48
	MW-9 0'-2'	Initial	15033006-005	1055	S	54850	121627	03/27/2015	04/02/2015 17:16	04/03/2015 15:04
	MW-9 4'-6'	Initial	15033006-006	1055	S	54850	121627	03/27/2015	04/02/2015 17:16	04/03/2015 17:10
	SW-846 8015C	MW-3 0'-2'	Initial	15033006-001	1035	S	54820	121521	03/26/2015	03/31/2015 09:24



Analytical Data Package Information Summary

Work Order(s): 15033006

Report Prepared For: Arc Environmental, Baltimore, MD

Project Name: Percontee

Project Manager: Christie Pulvino

Method	Client Sample Id	Analysis Type	Lab Sample Id	Analyst	Mtx	Prep Batch	Analytical Batch	Sampled	Prepared	Analyzed
SW-846 8015C	MW-3 4'-6'	Initial	15033006-002	1035	S	54820	121521	03/26/2015	03/31/2015 09:24	03/31/2015 12:55
	B9 0'-2'	Initial	15033006-003	1035	S	54820	121521	03/26/2015	03/31/2015 09:24	03/31/2015 13:24
	B9 4'-6'	Initial	15033006-004	1035	S	54820	121521	03/26/2015	03/31/2015 09:24	03/31/2015 13:54
	MW-9 0'-2'	Initial	15033006-005	1035	S	54820	121521	03/27/2015	03/31/2015 09:24	03/31/2015 14:24
	MW-9 4'-6'	Initial	15033006-006	1035	S	54820	121521	03/27/2015	03/31/2015 09:24	03/31/2015 14:53
	54820-2-BKS	BKS	54820-2-BKS	1035	S	54820	121521	-----	03/31/2015 09:24	03/31/2015 10:57
	54820-2-BLK	BLK	54820-2-BLK	1035	S	54820	121521	-----	03/31/2015 09:24	03/31/2015 10:28
	MW-3 0'-2' S	MS	15033006-001 S	1035	S	54820	121521	03/26/2015	03/31/2015 09:24	03/31/2015 19:47
	MW-3 0'-2' SD	MSD	15033006-001 SD	1035	S	54820	121521	03/26/2015	03/31/2015 09:24	03/31/2015 20:17
SW-846 8082 A	54799-1-BKS	BKS	54799-1-BKS	1029	S	54799	121529	-----	03/31/2015 09:24	03/31/2015 16:04
	54799-1-BLK	BLK	54799-1-BLK	1029	S	54799	121529	-----	03/31/2015 09:24	03/31/2015 15:21
	54799-1-BSD	BSD	54799-1-BSD	1029	S	54799	121529	-----	03/31/2015 09:24	03/31/2015 16:33
	CS RR 1 S	MS	15033015-001 S	1029	S	54799	121529	03/30/2015	03/31/2015 09:24	03/31/2015 17:02
	CS RR 1 SD	MSD	15033015-001 SD	1029	S	54799	121529	03/30/2015	03/31/2015 09:24	03/31/2015 17:31
	MW-3 0'-2'	Initial	15033006-001	1044	S	54799	121602	03/26/2015	03/31/2015 09:24	04/01/2015 14:10
	MW-3 4'-6'	Initial	15033006-002	1044	S	54799	121602	03/26/2015	03/31/2015 09:24	04/01/2015 17:05
	B9 0'-2'	Initial	15033006-003	1044	S	54799	121602	03/26/2015	03/31/2015 09:24	04/01/2015 15:08
	B9 4'-6'	Initial	15033006-004	1044	S	54799	121602	03/26/2015	03/31/2015 09:24	04/01/2015 16:06
	MW-9 0'-2'	Initial	15033006-005	1044	S	54799	121602	03/27/2015	03/31/2015 09:24	04/01/2015 15:37
	MW-9 4'-6'	Initial	15033006-006	1044	S	54799	121602	03/27/2015	03/31/2015 09:24	04/01/2015 16:36
	SW-846 8260 B	B9 4'-6'	Initial	15033006-004	1011	S	54822	121515	03/26/2015	03/31/2015 08:47
54822-1-BKS		BKS	54822-1-BKS	1011	S	54822	121515	-----	03/31/2015 08:47	03/31/2015 13:03
54822-1-BLK		BLK	54822-1-BLK	1011	S	54822	121515	-----	03/31/2015 08:47	03/31/2015 10:54
101 Dickman Street S		MS	15033017-002 S	1011	S	54822	121515	03/30/2015	03/31/2015 08:47	03/31/2015 15:12
101 Dickman Street SD		MSD	15033017-002 SD	1011	S	54822	121515	03/30/2015	03/31/2015 08:47	03/31/2015 15:42
SW-846 8270 C	MW-9 0'-2'	Initial	15033006-005	1055	S	54828	121640	03/27/2015	04/01/2015 11:15	04/03/2015 08:28
	54828-1-BKS	BKS	54828-1-BKS	1055	S	54828	121640	-----	04/01/2015 11:15	04/03/2015 02:46



Analytical Data Package Information Summary

Work Order(s): 15033006

Report Prepared For: Arc Environmental, Baltimore, MD

Project Name: Percontee

Project Manager: Christie Pulvino

Method	Client Sample Id	Analysis Type	Lab Sample Id	Analyst	Mtx	Prep Batch	Analytical Batch	Sampled	Prepared	Analyzed
SW-846 8270 C	54828-1-BLK	BLK	54828-1-BLK	1055	S	54828	121640	-----	04/01/2015 11:15	04/03/2015 02:20
	54828-1-BSD	BSD	54828-1-BSD	1055	S	54828	121640	-----	04/01/2015 11:15	04/03/2015 03:13
	MW-9 0'-2' S	MS	15033006-005 S	1055	S	54828	121640	03/27/2015	04/01/2015 11:15	04/03/2015 08:54
	MW-9 0'-2' S	Reanalysis	15033006-005 S	1055	S	54828	121640	03/27/2015	04/01/2015 11:15	04/03/2015 08:54
	MW-9 0'-2' SD	MSD	15033006-005 SD	1055	S	54828	121640	03/27/2015	04/01/2015 11:15	04/03/2015 09:20
	MW-9 0'-2' SD	Reanalysis	15033006-005 SD	1055	S	54828	121640	03/27/2015	04/01/2015 11:15	04/03/2015 09:20
	MW-3 0'-2'	Initial	15033006-001	1055	S	54828	121643	03/26/2015	04/01/2015 11:15	04/03/2015 17:37
	MW-3 4'-6'	Initial	15033006-002	1055	S	54828	121643	03/26/2015	04/01/2015 11:15	04/03/2015 16:05
	B9 0'-2'	Initial	15033006-003	1055	S	54828	121643	03/26/2015	04/01/2015 11:15	04/03/2015 18:03
	B9 4'-6'	Initial	15033006-004	1055	S	54828	121643	03/26/2015	04/01/2015 11:15	04/03/2015 17:11
	MW-9 4'-6'	Initial	15033006-006	1055	S	54828	121643	03/27/2015	04/01/2015 11:15	04/03/2015 18:56
	MW-9 0'-2'	Reanalysis	15033006-005	1055	S	54828	121643	03/27/2015	04/01/2015 11:15	04/03/2015 15:39

PHASE SEPARATION SCIENCE, INC.

QC Summary 15033006

Arc Environmental Percontee

Analytical Method: SW-846 8082 A

Seq Number: 121602
PSS Sample ID: 15033006-001

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/31/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	68		11-150	%	04/01/15 14:10
Tetrachloro-m-xylene	65		12-158	%	04/01/15 14:10

Analytical Method: SW-846 8015 C

Seq Number: 121627
PSS Sample ID: 15033006-001

Matrix: Soil

Prep Method: SW3550C
Date Prep: 04/02/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	70		42-129	%	04/03/15 17:10

Analytical Method: SW-846 8270 C

Seq Number: 121643
PSS Sample ID: 15033006-001

Matrix: Soil

Prep Method: SW3550C
Date Prep: 04/01/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	100		51-109	%	04/03/15 17:37
Nitrobenzene-d5	80		48-111	%	04/03/15 17:37
Terphenyl-D14	100		45-137	%	04/03/15 17:37

Analytical Method: SW-846 8015C

Seq Number: 121521
PSS Sample ID: 15033006-001

Matrix: Soil

Prep Method: SW5030
Date Prep: 03/31/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	85		55-142	%	03/31/15 12:26

Analytical Method: SW-846 8082 A

Seq Number: 121602
PSS Sample ID: 15033006-002

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/31/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	75		11-150	%	04/01/15 17:05
Tetrachloro-m-xylene	72		12-158	%	04/01/15 17:05

PHASE SEPARATION SCIENCE, INC.

QC Summary 15033006

Arc Environmental Percontee

Analytical Method: SW-846 8015 C

Seq Number: 121627
PSS Sample ID: 15033006-002

Matrix: Soil

Prep Method: SW3550C
Date Prep: 04/02/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	80		42-129	%	04/03/15 15:04

Analytical Method: SW-846 8270 C

Seq Number: 121643
PSS Sample ID: 15033006-002

Matrix: Soil

Prep Method: SW3550C
Date Prep: 04/01/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	80		51-109	%	04/03/15 16:05
Nitrobenzene-d5	80		48-111	%	04/03/15 16:05
Terphenyl-D14	100		45-137	%	04/03/15 16:05

Analytical Method: SW-846 8015C

Seq Number: 121521
PSS Sample ID: 15033006-002

Matrix: Soil

Prep Method: SW5030
Date Prep: 03/31/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	85		55-142	%	03/31/15 12:55

Analytical Method: SW-846 8082 A

Seq Number: 121602
PSS Sample ID: 15033006-003

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/31/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	53		11-150	%	04/01/15 15:08
Tetrachloro-m-xylene	67		12-158	%	04/01/15 15:08

Analytical Method: SW-846 8015 C

Seq Number: 121627
PSS Sample ID: 15033006-003

Matrix: Soil

Prep Method: SW3550C
Date Prep: 04/02/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	73		42-129	%	04/03/15 17:48

PHASE SEPARATION SCIENCE, INC.

QC Summary 15033006

Arc Environmental Percontee

Analytical Method: SW-846 8270 C

Seq Number: 121643
PSS Sample ID: 15033006-003

Prep Method: SW3550C
Date Prep: 04/01/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	100		51-109	%	04/03/15 18:03
Nitrobenzene-d5	100		48-111	%	04/03/15 18:03
Terphenyl-D14	100		45-137	%	04/03/15 18:03

Analytical Method: SW-846 8015C

Seq Number: 121521
PSS Sample ID: 15033006-003

Prep Method: SW5030
Date Prep: 03/31/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	84		55-142	%	03/31/15 13:24

Analytical Method: SW-846 8082 A

Seq Number: 121602
PSS Sample ID: 15033006-004

Prep Method: SW3550C
Date Prep: 03/31/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	54		11-150	%	04/01/15 16:06
Tetrachloro-m-xylene	65		12-158	%	04/01/15 16:06

Analytical Method: SW-846 8015 C

Seq Number: 121627
PSS Sample ID: 15033006-004

Prep Method: SW3550C
Date Prep: 04/02/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	75		42-129	%	04/03/15 17:48

Analytical Method: SW-846 8270 C

Seq Number: 121643
PSS Sample ID: 15033006-004

Prep Method: SW3550C
Date Prep: 04/01/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	120	*	51-109	%	04/03/15 17:11
Nitrobenzene-d5	120	*	48-111	%	04/03/15 17:11
Terphenyl-D14	100		45-137	%	04/03/15 17:11

PHASE SEPARATION SCIENCE, INC.

QC Summary 15033006

Arc Environmental Percontee

Analytical Method: SW-846 8260 B

Seq Number: 121515
PSS Sample ID: 15033006-004

Matrix: Soil

Prep Method: SW5035
Date Prep: 03/31/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	100		80-125	%	03/31/15 17:48
Dibromofluoromethane	110		85-115	%	03/31/15 17:48
Toluene-D8	99		91-109	%	03/31/15 17:48

Analytical Method: SW-846 8015C

Seq Number: 121521
PSS Sample ID: 15033006-004

Matrix: Soil

Prep Method: SW5030
Date Prep: 03/31/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	84		55-142	%	03/31/15 13:54

Analytical Method: SW-846 8082 A

Seq Number: 121602
PSS Sample ID: 15033006-005

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/31/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	45		11-150	%	04/01/15 15:37
Tetrachloro-m-xylene	88		12-158	%	04/01/15 15:37

Analytical Method: SW-846 8015 C

Seq Number: 121627
PSS Sample ID: 15033006-005

Matrix: Soil

Prep Method: SW3550C
Date Prep: 04/02/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	75		42-129	%	04/03/15 15:04

Analytical Method: SW-846 8270 C

Seq Number: 121640
PSS Sample ID: 15033006-005

Matrix: Soil

Prep Method: SW3550C
Date Prep: 04/01/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	83		51-109	%	04/03/15 08:28
Nitrobenzene-d5	101		48-111	%	04/03/15 08:28
Terphenyl-D14	96		45-137	%	04/03/15 08:28

PHASE SEPARATION SCIENCE, INC.

QC Summary 15033006

Arc Environmental Percontee

Analytical Method: SW-846 8015C

Seq Number: 121521
PSS Sample ID: 15033006-005

Prep Method: SW5030
Date Prep: 03/31/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	85		55-142	%	03/31/15 14:24

Analytical Method: SW-846 8082 A

Seq Number: 121602
PSS Sample ID: 15033006-006

Prep Method: SW3550C
Date Prep: 03/31/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	59		11-150	%	04/01/15 16:36
Tetrachloro-m-xylene	74		12-158	%	04/01/15 16:36

Analytical Method: SW-846 8015 C

Seq Number: 121627
PSS Sample ID: 15033006-006

Prep Method: SW3550C
Date Prep: 04/02/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	68		42-129	%	04/03/15 17:10

Analytical Method: SW-846 8270 C

Seq Number: 121643
PSS Sample ID: 15033006-006

Prep Method: SW3550C
Date Prep: 04/01/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	81		51-109	%	04/03/15 18:56
Nitrobenzene-d5	86		48-111	%	04/03/15 18:56
Terphenyl-D14	93		45-137	%	04/03/15 18:56

Analytical Method: SW-846 8015C

Seq Number: 121521
PSS Sample ID: 15033006-006

Prep Method: SW5030
Date Prep: 03/31/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	87		55-142	%	03/31/15 14:53

F = RPD exceeded the laboratory control limits
X = Recovery of MS, MSD or both outside of QC Criteria
H = Recovery of BS,BSD or both exceeded the laboratory control limits
L = Recovery of BS,BSD or both below the laboratory control limits

PHASE SEPARATION SCIENCE, INC.

QC Summary 15033006

Arc Environmental Percontee

Analytical Method: SW-846 6020 A

Seq Number: 121542

MB Sample Id: 54816-1-BLK

Matrix: Solid

LCS Sample Id: 54816-1-BKS

Prep Method: SW3050B

Date Prep: 03/31/15

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Analysis Date	Flag
Antimony	<1.128	18.04	22.10	123	80-120	mg/kg	04/01/15 14:28	H
Arsenic	<0.2255	18.04	21.54	119	80-120	mg/kg	04/01/15 14:28	
Beryllium	<1.128	18.04	20.13	112	80-120	mg/kg	04/01/15 14:28	
Cadmium	<1.128	18.04	20.36	113	80-120	mg/kg	04/01/15 14:28	
Chromium	<1.128	18.04	23.01	128	80-120	mg/kg	04/01/15 14:28	H
Copper	<1.128	18.04	22.53	125	80-120	mg/kg	04/01/15 14:28	H
Lead	<1.128	18.04	19.27	107	80-120	mg/kg	04/01/15 14:28	
Mercury	<0.04510	0.4510	0.4600	102	80-120	mg/kg	04/01/15 14:28	
Nickel	<1.128	18.04	22.64	125	80-120	mg/kg	04/01/15 14:28	H
Selenium	<1.128	18.04	16.25	90	80-120	mg/kg	04/01/15 14:28	
Silver	<1.128	18.04	21.38	119	80-120	mg/kg	04/01/15 14:28	
Thallium	<0.2255	18.04	18.11	100	80-120	mg/kg	04/01/15 14:28	
Zinc	<4.510	18.04	20.07	111	80-120	mg/kg	04/01/15 14:28	

Analytical Method: SW-846 8082 A

Seq Number: 121529

MB Sample Id: 54799-1-BLK

Matrix: Solid

LCS Sample Id: 54799-1-BKS

Prep Method: SW3550C

Date Prep: 03/31/15

LCSD Sample Id: 54799-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
PCB-1016	<0.04985	0.4985	0.4478	90	0.4493	92	62-136	0	25	mg/kg	03/31/15 16:04	
PCB-1260	<0.04985	0.4985	0.4106	82	0.4470	92	56-113	8	25	mg/kg	03/31/15 16:04	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	102		97		105		11-150	%	03/31/15 16:04
Tetrachloro-m-xylene	83		83		86		12-158	%	03/31/15 16:04

Analytical Method: SW-846 8015 C

Seq Number: 121626

MB Sample Id: 54850-1-BLK

Matrix: Solid

LCS Sample Id: 54850-1-BKS

Prep Method: SW3550C

Date Prep: 04/02/15

LCSD Sample Id: 54850-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
TPH-DRO (Diesel Range Organics)	<4.011	33.42	32.06	96	31.92	95	56-117	0	25	mg/kg	04/03/15 00:19	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units	Analysis Date
o-Terphenyl	85		78		76		42-129	%	04/03/15 00:19

PHASE SEPARATION SCIENCE, INC.

QC Summary 15033006

Arc Environmental Percontee

Analytical Method: SW-846 8270 C

Seq Number: 121640

MB Sample Id: 54828-1-BLK

Matrix: Solid

LCS Sample Id: 54828-1-BKS

Prep Method: SW3550C

Date Prep: 04/01/15

LCSD Sample Id: 54828-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Acenaphthene	<3.318	66.36	48.44	73	52.63	79	65-104	8	31	ug/kg	04/03/15 02:46	
Acenaphthylene	<3.318	66.36	70.01	106	73.28	110	59-105	5	25	ug/kg	04/03/15 02:46	H
Anthracene	<3.318	66.36	61.38	92	68.29	103	52-121	11	25	ug/kg	04/03/15 02:46	
Benzo(a)anthracene	<3.318	66.36	58.73	89	61.96	93	47-114	5	25	ug/kg	04/03/15 02:46	
Benzo(a)pyrene	<3.318	66.36	59.39	89	61.63	93	57-111	4	25	ug/kg	04/03/15 02:46	
Benzo(b)fluoranthene	<3.318	66.36	48.77	73	49.63	74	47-123	2	25	ug/kg	04/03/15 02:46	
Benzo(g,h,i)perylene	<3.318	66.36	61.71	93	62.96	95	46-119	2	25	ug/kg	04/03/15 02:46	
Benzo(k)fluoranthene	<3.318	66.36	74.32	112	76.95	116	44-133	3	25	ug/kg	04/03/15 02:46	
Chrysene	<3.318	66.36	58.39	88	60.96	92	51-111	4	25	ug/kg	04/03/15 02:46	
Dibenz(a,h)Anthracene	<3.318	66.36	61.05	92	63.96	96	44-121	5	25	ug/kg	04/03/15 02:46	
Fluoranthene	<3.318	66.36	66.69	100	69.95	105	55-114	5	25	ug/kg	04/03/15 02:46	
Fluorene	<3.318	66.36	62.04	93	65.29	98	59-107	5	25	ug/kg	04/03/15 02:46	
Indeno(1,2,3-c,d)Pyrene	<3.318	66.36	60.72	92	62.96	95	42-123	4	25	ug/kg	04/03/15 02:46	
2-Methylnaphthalene	<3.318	66.36	54.08	81	60.96	92	67-99	12	25	ug/kg	04/03/15 02:46	
Naphthalene	<3.318	66.36	52.75	79	61.63	93	61-108	16	25	ug/kg	04/03/15 02:46	
Phenanthrene	<3.318	66.36	75.32	114	82.61	124	50-122	9	25	ug/kg	04/03/15 02:46	H
Pyrene	<3.318	66.36	57.73	87	60.29	90	45-118	4	31	ug/kg	04/03/15 02:46	
Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits		Units	Analysis Date		
2-Fluorobiphenyl	108		115	*	109		51-109		%	04/03/15 02:46		
Nitrobenzene-d5	126	*	122	*	114	*	48-111		%	04/03/15 02:46		
Terphenyl-D14	86		100		95		45-137		%	04/03/15 02:46		

PHASE SEPARATION SCIENCE, INC.

QC Summary 15033006

Arc Environmental Percontee

Analytical Method: SW-846 8270 C

Seq Number: 121640

Parent Sample Id: 15033006-005

Matrix: Soil

MS Sample Id: 15033006-005 S

Prep Method: SW3550C

Date Prep: 04/01/15

MSD Sample Id: 15033006-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Acenaphthene	54.18	81.19	65.36	14	66.75	16	33-146	2	30	ug/kg	04/03/15 08:54	X
Acenaphthylene	8.087	81.19	70.64	77	65.14	71	23-154	8	30	ug/kg	04/03/15 08:54	
Anthracene	122.9	81.19	94.59	0	87.25	0	24-155	8	30	ug/kg	04/03/15 08:54	X
Benzo(a)anthracene	159.7	81.19	94.18	0	79.21	0	6-165	17	30	ug/kg	04/03/15 08:54	X
Benzo(a)pyrene	139.9	81.19	92.56	0	82.43	0	10-200	12	30	ug/kg	04/03/15 08:54	X
Benzo(b)fluoranthene	<4.060	81.19	<4.060	0	95.70	119	10-186	200	30	ug/kg	04/03/15 08:54	XF
Benzo(g,h,i)perylene	80.87	81.19	88.50	9	83.23	3	10-180	6	30	ug/kg	04/03/15 08:54	X
Benzo(k)fluoranthene	351.4	81.19	241.5	0	61.12	0	10-169	119	30	ug/kg	04/03/15 08:54	XF
Chrysene	172.7	81.19	92.56	0	79.21	0	10-178	16	30	ug/kg	04/03/15 08:54	X
Dibenz(a,h)Anthracene	36.39	81.19	81.19	55	77.20	51	19-168	5	30	ug/kg	04/03/15 08:54	
Fluoranthene	<4.060	81.19	106.8	132	88.46	110	10-200	19	30	ug/kg	04/03/15 08:54	
Fluorene	50.14	81.19	72.67	28	72.78	28	9-162	0	30	ug/kg	04/03/15 08:54	
Indeno(1,2,3-c,d)Pyrene	69.14	81.19	81.60	15	75.19	8	10-178	8	30	ug/kg	04/03/15 08:54	X
2-Methylnaphthalene	8.087	81.19	69.42	76	69.96	77	17-162	1	30	ug/kg	04/03/15 08:54	
Naphthalene	5.257	81.19	69.83	80	69.56	80	9-179	0	30	ug/kg	04/03/15 08:54	
Phenanthrene	<4.060	81.19	112.5	139	100.1	124	10-169	12	30	ug/kg	04/03/15 08:54	
Pyrene	342.5	81.19	109.6	0	87.65	0	10-172	22	30	ug/kg	04/03/15 08:54	X

Surrogate	MS Result	MS Flag	MSD Result	MSD Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	73		81		51-109	%	04/03/15 08:54
Nitrobenzene-d5	73		68		48-111	%	04/03/15 08:54
Terphenyl-D14	101		102		45-137	%	04/03/15 08:54

Analytical Method: SW-846 8015C

Seq Number: 121521

MB Sample Id: 54820-2-BLK

Matrix: Solid

LCS Sample Id: 54820-2-BKS

Prep Method: SW5030

Date Prep: 03/31/15

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Analysis Date	Flag
TPH-GRO (Gasoline Range Organic)	<50.00	5000	4187	84	60-112	ug/kg	03/31/15 10:57	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	85		97		55-142	%	03/31/15 10:57

Analytical Method: SW-846 8015C

Seq Number: 121521

Parent Sample Id: 15033006-001

Matrix: Soil

MS Sample Id: 15033006-001 S

Prep Method: SW5030

Date Prep: 03/31/15

MSD Sample Id: 15033006-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
TPH-GRO (Gasoline Range Organic)	<62.42	6242	5979	96	6123	98	36-131	2	30	ug/kg	03/31/15 19:47	

Surrogate	MS Result	MS Flag	MSD Result	MSD Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	101		101		55-142	%	03/31/15 19:47

PHASE SEPARATION SCIENCE, INC.

QC Summary 15033006

Arc Environmental Percontee

Analytical Method: SW-846 8260 B

Seq Number: 121515

MB Sample Id: 54822-1-BLK

Matrix: Solid

LCS Sample Id: 54822-1-BKS

Prep Method: SW5030

Date Prep: 03/31/15

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Analysis Date	Flag
Dichlorodifluoromethane	<2.525	60.61	68.51	113	53-144	ug/kg	03/31/15 13:03	
Chloromethane	<2.525	60.61	75.06	124	62-143	ug/kg	03/31/15 13:03	
1,1,2-Trichloro-1,2,2-Trifluoroethane	<2.525	60.61	65.08	107	50-162	ug/kg	03/31/15 13:03	
Vinyl Chloride	<2.525	60.61	70.72	117	61-156	ug/kg	03/31/15 13:03	
Bromomethane	<2.525	60.61	89.85	148	45-199	ug/kg	03/31/15 13:03	
Chloroethane	<2.525	60.61	88.56	146	59-151	ug/kg	03/31/15 13:03	
Acetone	<10.10	60.61	61.23	101	24-197	ug/kg	03/31/15 13:03	
Cyclohexane	<10.10	60.61	65.79	109	50-148	ug/kg	03/31/15 13:03	
Trichlorofluoromethane	<2.525	60.61	76.24	126	54-175	ug/kg	03/31/15 13:03	
1,1-Dichloroethene	<2.525	60.61	82.70	136	60-154	ug/kg	03/31/15 13:03	
Methylene Chloride	<2.525	60.61	57.15	94	56-140	ug/kg	03/31/15 13:03	
trans-1,2-Dichloroethene	<2.525	60.61	68.46	113	60-153	ug/kg	03/31/15 13:03	
Methyl-t-butyl ether	<2.525	60.61	50.88	84	59-133	ug/kg	03/31/15 13:03	
1,1-Dichloroethane	<2.525	60.61	65.82	109	60-148	ug/kg	03/31/15 13:03	
2-Butanone	<10.10	60.61	51.56	85	35-173	ug/kg	03/31/15 13:03	
cis-1,2-Dichloroethene	<2.525	60.61	52.44	87	67-126	ug/kg	03/31/15 13:03	
Bromochloromethane	<2.525	60.61	48.32	80	64-121	ug/kg	03/31/15 13:03	
Chloroform	<2.525	60.61	56.88	94	65-126	ug/kg	03/31/15 13:03	
1,1,1-Trichloroethane	<2.525	60.61	62.37	103	60-145	ug/kg	03/31/15 13:03	
1,2-Dichloroethane	<2.525	60.61	55.95	92	62-127	ug/kg	03/31/15 13:03	
Carbon Tetrachloride	<2.525	60.61	61.02	101	55-152	ug/kg	03/31/15 13:03	
Benzene	<2.525	60.61	66.17	109	69-128	ug/kg	03/31/15 13:03	
1,2-Dichloropropane	<2.525	60.61	55.91	92	66-125	ug/kg	03/31/15 13:03	
Carbon Disulfide	<5.051	60.61	72.45	120	58-153	ug/kg	03/31/15 13:03	
Methylcyclohexane	<10.10	60.61	60.98	101	41-142	ug/kg	03/31/15 13:03	
Trichloroethene	<2.525	60.61	62.31	103	68-130	ug/kg	03/31/15 13:03	
Methyl Acetate	<10.10	60.61	71.27	118	47-151	ug/kg	03/31/15 13:03	
Bromodichloromethane	<2.525	60.61	56.92	94	60-125	ug/kg	03/31/15 13:03	
cis-1,3-Dichloropropene	<2.525	60.61	53.82	89	59-122	ug/kg	03/31/15 13:03	
4-Methyl-2-Pentanone	<10.10	60.61	43.06	71	22-173	ug/kg	03/31/15 13:03	
trans-1,3-Dichloropropene	<2.525	60.61	52.18	86	56-124	ug/kg	03/31/15 13:03	
1,1,2-Trichloroethane	<2.525	60.61	54.05	89	65-120	ug/kg	03/31/15 13:03	
Toluene	<2.525	60.61	62.37	103	66-127	ug/kg	03/31/15 13:03	
2-Hexanone	<10.10	60.61	49.21	81	30-175	ug/kg	03/31/15 13:03	
1,2-Dibromoethane	<2.525	60.61	55.31	91	64-123	ug/kg	03/31/15 13:03	
Dibromochloromethane	<2.525	60.61	55.49	92	55-128	ug/kg	03/31/15 13:03	
Bromoform	<2.525	60.61	54.71	90	46-128	ug/kg	03/31/15 13:03	
Tetrachloroethene	<2.525	60.61	62.61	103	55-145	ug/kg	03/31/15 13:03	
Chlorobenzene	<2.525	60.61	55.86	92	61-124	ug/kg	03/31/15 13:03	
Ethylbenzene	<2.525	60.61	60.40	100	58-130	ug/kg	03/31/15 13:03	
m,p-Xylenes	<5.051	121.2	117	97	60-131	ug/kg	03/31/15 13:03	
Styrene	<2.525	60.61	55.33	91	54-123	ug/kg	03/31/15 13:03	
1,1,2,2-Tetrachloroethane	<2.525	60.61	56.75	94	50-134	ug/kg	03/31/15 13:03	
o-Xylene	<2.525	60.61	57.18	94	60-126	ug/kg	03/31/15 13:03	
Isopropylbenzene	<2.525	60.61	58.34	96	52-130	ug/kg	03/31/15 13:03	
1,3-Dichlorobenzene	<2.525	60.61	50.14	83	42-123	ug/kg	03/31/15 13:03	
1,4-Dichlorobenzene	<2.525	60.61	51.63	85	40-121	ug/kg	03/31/15 13:03	
1,2-Dichlorobenzene	<2.525	60.61	50.63	84	38-128	ug/kg	03/31/15 13:03	
1,2-Dibromo-3-Chloropropane	<20.20	60.61	63.19	104	43-149	ug/kg	03/31/15 13:03	
1,2,4-Trichlorobenzene	<2.525	60.61	56.20	93	14-143	ug/kg	03/31/15 13:03	
1,2,3-Trichlorobenzene	<2.525	60.61	56.42	93	15-144	ug/kg	03/31/15 13:03	

PHASE SEPARATION SCIENCE, INC.

QC Summary 15033006

Arc Environmental Percontee

Analytical Method: SW-846 8260 B

Seq Number: 121515

MB Sample Id: 54822-1-BLK

Matrix: Solid

LCS Sample Id: 54822-1-BKS

Prep Method: SW5030

Date Prep: 03/31/15

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	108		98		80-125	%	03/31/15 13:03
Dibromofluoromethane	100		103		85-115	%	03/31/15 13:03
Toluene-D8	100		101		91-109	%	03/31/15 13:03

F = RPD exceeded the laboratory control limits

X = Recovery of MS, MSD or both outside of QC Criteria

H= Recovery of BS,BSD or both exceeded the laboratory control limits

L = Recovery of BS,BSD or both below the laboratory control limits



SAMPLE CHAIN OF CUSTODY/AGREEMENT FORM

PHASE SEPARATION SCIENCE, INC.

www.phaseonline.com
email: info@phaseonline.com

1 CLIENT: Arc Environmental		OFFICE LOC. Baltimore, MD		PSS Work Order #: 15033006				PAGE 1 OF 1							
PROJECT MGR: Kyle Begey		PHONE NO.: 410-659-9971		Matrix Codes: SW=Surface Wtr DW=Drinking Wtr GW=Ground Wtr WW=Waste Wtr O=Oil S=Soil WL=Waste Liquid WS=Waste Solid W= Wipe											
EMAIL: kbegey@arcenvironmental.com		FAX NO.: 410-962-1065		No. CONTAINERS	SAMPLE TYPE C = COMP G = GRAB	PPI Metals	SVOCs 8270	VOCs 8260	GRO/DRO 8015	PCBs	Asbestos	PAHs (SIM)	Preservative Used ←	← Analysis/Method Required	
PROJECT NAME: Percontee		PROJECT NO.: 057-5													
SITE LOCATION: Silver Spring, MD		P.O. NO.:													
SAMPLERS: Kyle Begey, Ray Goodwin and Christie Pulvino		DW CERT NO.:													
2															
LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX (See Codes)											REMARKS ↓
1	MW-3 0'-2'	3/26/15	0745	S	2	G	X		X	X	X				Click to enter Remarks
2	MW-3 4'-6'	3/26/15	0755	S	2	G	X		X	X	X				
3	B9 0'-2'	3/26/15	1350	S	2	G	X		X	X	X				
4	B9 4'-6'	3/26/15	1400	S	6	G	X	X	X	X	X				
5	MW-9 0'-2'	3/27/15	0745	S	2	G	X		X	X	X				
6	MW-9 4'-6'	3/27/15	0800	S	2	G	X		X	X	X				
5															
Relinquished By: (1)		Date	Time	Received By:		4 Requested Turnaround Time				# of Coolers:					
Kyle Begey		3/30/15		[Signature]		<input checked="" type="checkbox"/> 5-Day <input type="checkbox"/> 3-Day <input type="checkbox"/> 2-Day <input type="checkbox"/> Next Day <input type="checkbox"/> Emergency <input type="checkbox"/> Other				1					
Relinquished By: (2)		Date	Time	Received By:		Data Deliverables Required:				Custody Seal: ABS					
[Signature]		3/30/15	1215	S. Rivera						Ice Present: PRES Temp: 0°C NOT FROZEN					
Relinquished By: (3)		Date	Time	Received By:		Special Instructions:				Shipping Carrier: TFE					
						VCP Project with comparison to residential cleanup standards									
Relinquished By: (4)		Date	Time	Received By:											



Phase Separation Science, Inc

Sample Receipt Checklist

Work Order # 15033006 **Received By** Shirley Rivera
Client Name Arc Environmental **Date Received** 03/30/2015 12:15:00 PM
Project Name Percontee **Delivered By** Trans Time Express
Project Number 057-5 **Tracking No** Not Applicable
Disposal Date 05/04/2015 **Logged In By** Rachel Davis

Shipping Container(s)

No. of Coolers 1

		Ice	Present
Custody Seal(s) Intact?	N/A	Temp (deg C)	0
Seal(s) Signed / Dated?	N/A	Temp Blank Present	No

Documentation

COC agrees with sample labels?	Yes	Sampler Name	<u>Kyle Begey</u>
Chain of Custody	Yes	MD DW Cert. No.	<u>N/A</u>

Sample Container

Appropriate for Specified Analysis?	Yes	Custody Seal(s) Intact?	Not Applicable
Intact?	Yes	Seal(s) Signed / Dated	Not Applicable
Labeled and Labels Legible?	Yes		

Total No. of Samples Received 6

Total No. of Containers Received 16

Preservation

Metals	(pH<2)	N/A
Cyanides	(pH>12)	N/A
Sulfide	(pH>9)	N/A
TOC, COD, Phenols	(pH<2)	N/A
TOX, TKN, NH3, Total Phos	(pH<2)	N/A
VOC, BTEX (VOA Vials Rcvd Preserved)	(pH<2)	N/A
Do VOA vials have zero headspace?		N/A
624 VOC (Rcvd at least one unpreserved VOA vial)		N/A

Comments: (Any "No" response must be detailed in the comments section below.)

For any improper preservation conditions, list sample ID, preservative added (reagent ID number) below as well as documentation of any client notification as well as client instructions. Samples for pH, chlorine and dissolved oxygen should be analyzed as soon as possible, preferably in the field at the time of sampling. Samples which require thermal preservation shall be considered acceptable when received at a temperature above freezing to 6°C. Samples that are hand delivered on the day that they are collected may not meet these criteria but shall be considered acceptable if there is evidence that the chilling process has begun such as arrival on ice.

Sample(s) received at 0 degrees but no samples were frozen.

Samples Inspected/Checklist Completed By:

Rachel Davis

Date: 03/30/2015

Rachel Davis

PM Review and Approval:

Lynn Jackson

Date: 03/31/2015

Lynn Jackson

Analytical Report for

Arc Environmental

Certificate of Analysis No.: 15043027

Project Manager: Kyle Begey

Project Name : Percontee

Project Location: Silver Spring, MD

Project ID : 057-5



May 7, 2015

Phase Separation Science, Inc.

6630 Baltimore National Pike

Baltimore, MD 21228

Phone: (410) 747-8770

Fax: (410) 788-8723

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PHASE SEPARATION SCIENCE, INC.



May 7, 2015

Kyle Begey
Arc Environmental
1311 Haubert Street
Baltimore, MD 21230

Reference: PSS Work Order(s) No: **15043027**
Project Name: Percontee
Project Location: Silver Spring, MD
Project ID.: 057-5

Dear Kyle Begey :

This report includes the analytical results from the analyses performed on the samples received under the project name referenced above and identified with the Phase Separation Science (PSS) Work Order(s) numbered **15043027**.

All work reported herein has been performed in accordance with current NELAP standards, referenced methodologies, PSS Standard Operating Procedures and the PSS Quality Assurance Manual unless otherwise noted in the Case Narrative Summary. PSS is limited in liability to the actual cost of the sample analysis done.

PSS reserves the right to return any unused samples, extracts or related solutions. Otherwise, the samples are scheduled for disposal, without any further notice, on April 30, 2015. This includes any samples that were received with a request to be held but lacked a specific hold period. It is your responsibility to provide a written request defining a specific disposal date if additional storage is required. Upon receipt, the request will be acknowledged by PSS, thus extending the storage period.

This report shall not be reproduced except in full, without the written approval of an authorized PSS representative. A copy of this report will be retained by PSS for at least 5 years, after which time it will be disposed of without further notice, unless prior arrangements have been made.

We thank you for selecting Phase Separation Science, Inc. to serve your analytical needs. If you have any questions concerning this report, do not hesitate to contact us at 410-747-8770 or info@phaseonline.com.

Sincerely,

A handwritten signature in black ink, appearing to read 'Cathy Thompson', written over a horizontal line.

Cathy Thompson
QA Officer



Sample Summary

Client Name: Arc Environmental
Project Name: Percontee

Work Order Number(s): 15043027

Project ID: 057-5

The following samples were received under chain of custody by Phase Separation Science (PSS) on 03/26/2015 at 05:37 pm

Lab Sample Id	Sample Id	Matrix	Date/Time Collected
15043027-001	MW 2 4'-6'	SOIL	03/25/15 08:15

Please reference the Chain of Custody and Sample Receipt Checklist for specific container counts and preservatives. Any sample conditions not in compliance with sample acceptance criteria are described in Case Narrative Summary.

Notes:

1. The presence of a common laboratory contaminant such as methylene chloride may be considered a possible laboratory artifact. Where observed, appropriate consideration of data should be taken.
2. Unless otherwise noted in the case narrative, results are reported on a dry weight basis with the exception of pH, flashpoint, moisture, and paint filter test.
3. Drinking water samples collected for the purpose of compliance with SDWA may not be suitable for their intended use unless collected by a certified sampler [COMAR 26.08.05.07.C.2].
4. The analyses of 1,2-dibromo-3-chloropropane (DBCP) and 1,2-dibromoethane (EDB) by EPA 524.2 and calcium, magnesium, sodium and iron by EPA 200.8 are not currently promulgated for use in testing to meet the Safe Drinking Water Act and as such cannot be used for compliance purposes. The listings of the current promulgated methods for testing in compliance with the Safe Drinking Water Act can be found in the 40 CFR part 141.1, for the primary drinking water contaminants, and part 141.3, for the secondary drinking water contaminants.
5. Sample prepared under EPA 3550C with concentrations greater than 20 mg/Kg should employ the microtip extraction procedure if required to meet data quality objectives.
6. The analysis of acrolein by EPA 624 must be analyzed within three days of sampling unless pH is adjusted to 4-5 units [40 CFR part 136.3(e)].
7. Method 180.1, The Determination of Turbidity by Nephelometry, recommends samples over 40 NTU be diluted until the turbidity falls below 40 units. Routine samples over 40 NTU may not be diluted as long as the data quality objectives are not affected.
8. Alkalinity results analyzed by EPA 310.2 that are reported by dilution are estimated and are not in compliance with method requirements.

Standard Flags/Abbreviations:

- B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- C Results Pending Final Confirmation.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- Fail The result exceeds the regulatory level for Toxicity Characteristic (TCLP) as cited in 40 CFR 261.24 Table 1.
- J The target analyte was positively identified below the reporting limit but greater than the MDL.
- MDL This is the Laboratory Method Detection Limit which is equivalent to the Limit of Detection (LOD). The LOD is an estimate of the minimum amount of a substance that an analytical process can reliably detect. This value will remain constant across multiple similar instrumentation and among different analysts. An LOD is analyte and matrix specific.
- ND Not Detected at or above the reporting limit.
- RL PSS Reporting Limit.
- U Not detected.

Certifications:

NELAP Certifications: PA 68-03330, VA 460156
State Certifications: MD 179, WV 303
Regulated Soil Permit: P330-12-00268
NSWC USCG Accepted Laboratory
LDBE MWAA LD1997-0041-2015

OFFICES:
 6630 BALTIMORE NATIONAL PIKE
 ROUTE 40 WEST
 BALTIMORE, MD 21228
 410-747-8770
 800-932-9047
 FAX 410-788-8723

PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15043027

Arc Environmental, Baltimore, MD

May 7, 2015

Project Name: Percontee
 Project Location: Silver Spring, MD
 Project ID: 057-5

Sample ID: MW 2 4'-6'	Date/Time Sampled: 03/25/2015 08:15	PSS Sample ID: 15043027-001
Matrix: SOIL	Date/Time Received: 03/26/2015 17:37	% Solids: 84

Chromium, Hexavalent

Analytical Method: SW-846 7196 A

Preparation Method: SW3060A

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Chromium, Hexavalent	ND	mg/kg	1.2		1	1.2	05/06/15	05/07/15 13:44	1053



Case Narrative Summary

Client Name: Arc Environmental

Project Name: Percontee

Work Order Number(s): 15043027

Project ID: 057-5

Any holding time exceedances, deviations from the method specifications, regulatory requirements or variations to the procedures outlined in the PSS Quality Assurance Manual are outlined below.

The analyses of chlorine, pH, dissolved oxygen, temperature and sulfite for drinking water and non-potable samples tested for compliance have a maximum holding time of 15 minutes. As such, all laboratory analyses for these analytes exceed holding times.

Matrix spike and matrix spike duplicate analyses may not be performed due to insufficient sample quantity. In these instances, a laboratory control sample and laboratory control sample duplicate are analyzed unless otherwise noted or specified in the method.

Sample Receipt:

Refer to previous Work Order 15032625-002.

Analytical:

Chromium, Hexavalent

Batch: 122468

Matrix spike and/or matrix spike duplicate (MS/MSD) exceedances identified; see MS summary form.

The LCSD was not spiked and the LCS was spiked twice; as such the RPD exceeded control limits.

NELAP accreditation was held for all analyses performed unless noted below. See www.phaseonline.com for complete PSS scope of accreditation.



Analytical Data Package Information Summary

Work Order(s): 15043027

Report Prepared For: Arc Environmental, Baltimore, MD

Project Name: Percontee

Project Manager: Kyle Begey

Method	Client Sample Id	Analysis Type	Lab Sample Id	Analyst	Mtx	Prep Batch	Analytical Batch	Sampled	Prepared	Analyzed
SW-846 7196 A	MW 2 4'-6'	Initial	15043027-001	1053	S	55328	122468	03/25/2015	05/06/2015 14:51	05/07/2015 13:44
	55328-1-BKS	BKS	55328-1-BKS	1053	S	55328	122468	-----	05/06/2015 14:51	05/07/2015 13:37
	55328-1-BLK	BLK	55328-1-BLK	1053	S	55328	122468	-----	05/06/2015 14:51	05/07/2015 13:35
	55328-1-BSD	BSD	55328-1-BSD	1053	S	55328	122468	-----	05/06/2015 14:51	05/07/2015 13:39
	MW 2 4'-6' D	MD	15043027-001 D	1053	S	55328	122468	03/25/2015	05/06/2015 14:51	05/07/2015 13:47
	MW 2 4'-6' S	MS	15043027-001 S	1053	S	55328	122468	03/25/2015	05/06/2015 14:51	05/07/2015 13:50

PHASE SEPARATION SCIENCE, INC.

QC Summary 15043027

Arc Environmental Percontee

Analytical Method: SW-846 7196 A

Seq Number: 122468

MB Sample Id: 55328-1-BLK

Matrix: Solid

LCS Sample Id: 55328-1-BKS

Prep Method: SW3060A

Date Prep: 05/06/15

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Analysis Date	Flag
Chromium, Hexavalent	<1.011	10.11	8.848	88	80-120	mg/kg	05/07/15 13:37	

Analytical Method: SW-846 7196 A

Seq Number: 122468

Parent Sample Id: 15043027-001

Matrix: Soil

MD Sample Id: 15043027-001 D

Prep Method: SW3060A

Date Prep: 05/06/15

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Chromium, Hexavalent	<1.169	<1.169	0	20	mg/kg	05/07/15 13:47	U

Analytical Method: SW-846 7196 A

Seq Number: 122468

Parent Sample Id: 15043027-001

Matrix: Soil

MS Sample Id: 15043027-001 S

Prep Method: SW3060A

Date Prep: 05/06/15

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
Chromium, Hexavalent	<1.175	5.876	2.449	42	75-125	mg/kg	05/07/15 13:50	X

F = RPD exceeded the laboratory control limits

X = Recovery of MS, MSD or both outside of QC Criteria

H = Recovery of BS, BSD or both exceeded the laboratory control limits

L = Recovery of BS, BSD or both below the laboratory control limits



Phase Separation Science, Inc

Sample Receipt Checklist

Work Order # 15043027 **Received By** Rachel Davis
Client Name Arc Environmental **Date Received** 03/26/2015 05:37:00 PM
Project Name Percontee **Delivered By** Client
Project Number 057-5 **Tracking No** Not Applicable
Disposal Date 04/30/2015 **Logged In By** Rachel Davis

Shipping Container(s)

No. of Coolers 1

		Ice	Present
Custody Seal(s) Intact?	N/A	Temp (deg C)	4
Seal(s) Signed / Dated?	N/A	Temp Blank Present	No

Documentation

COC agrees with sample labels?	N/A	Sampler Name	<u>Kyle Begey</u>
Chain of Custody	N/A	MD DW Cert. No.	<u>N/A</u>

Sample Container

Appropriate for Specified Analysis?	N/A	Custody Seal(s) Intact?	Not Applicable
Intact?	N/A	Seal(s) Signed / Dated	Not Applicable
Labeled and Labels Legible?	N/A		

Total No. of Samples Received 1

Total No. of Containers Received 1

Preservation

Metals	(pH<2)	N/A
Cyanides	(pH>12)	N/A
Sulfide	(pH>9)	N/A
TOC, COD, Phenols	(pH<2)	N/A
TOX, TKN, NH3, Total Phos	(pH<2)	N/A
VOC, BTEX (VOA Vials Rcvd Preserved)	(pH<2)	N/A
Do VOA vials have zero headspace?		N/A
624 VOC (Rcvd at least one unpreserved VOA vial)		N/A

Comments: (Any "No" response must be detailed in the comments section below.)

For any improper preservation conditions, list sample ID, preservative added (reagent ID number) below as well as documentation of any client notification as well as client instructions. Samples for pH, chlorine and dissolved oxygen should be analyzed as soon as possible, preferably in the field at the time of sampling. Samples which require thermal preservation shall be considered acceptable when received at a temperature above freezing to 6°C. Samples that are hand delivered on the day that they are collected may not meet these criteria but shall be considered acceptable if there is evidence that the chilling process has begun such as arrival on ice.

Refer to previous Work Order 15032625-002.

Samples Inspected/Checklist Completed By:

Date: 04/30/2015

Rachel Davis

PM Review and Approval:

Date: 04/30/2015

Shirley Rivera

Analytical Report for

Arc Environmental

Certificate of Analysis No.: 15043028

Project Manager: Kyle Begey

Project Name : Percontee

Project Location: Silver Spring, MD

Project ID : 057-5



May 18, 2015

Phase Separation Science, Inc.

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PHASE SEPARATION SCIENCE, INC.



May 18, 2015

Kyle Begey
Arc Environmental
1311 Haubert Street
Baltimore, MD 21230

Reference: PSS Work Order(s) No: **15043028**
Project Name: Percontee
Project Location: Silver Spring, MD
Project ID.: 057-5

Dear Kyle Begey :

This report includes the analytical results from the analyses performed on the samples received under the project name referenced above and identified with the Phase Separation Science (PSS) Work Order(s) numbered **15043028**.

All work reported herein has been performed in accordance with current NELAP standards, referenced methodologies, PSS Standard Operating Procedures and the PSS Quality Assurance Manual unless otherwise noted in the Case Narrative Summary. PSS is limited in liability to the actual cost of the sample analysis done.

PSS reserves the right to return any unused samples, extracts or related solutions. Otherwise, the samples are scheduled for disposal, without any further notice, on April 30, 2015. This includes any samples that were received with a request to be held but lacked a specific hold period. It is your responsibility to provide a written request defining a specific disposal date if additional storage is required. Upon receipt, the request will be acknowledged by PSS, thus extending the storage period.

This report shall not be reproduced except in full, without the written approval of an authorized PSS representative. A copy of this report will be retained by PSS for at least 5 years, after which time it will be disposed of without further notice, unless prior arrangements have been made.

We thank you for selecting Phase Separation Science, Inc. to serve your analytical needs. If you have any questions concerning this report, do not hesitate to contact us at 410-747-8770 or info@phaseonline.com.

Sincerely,

Dan Prucnal
Laboratory Manager



Sample Summary

Client Name: Arc Environmental
Project Name: Percontee

Work Order Number(s): 15043028

Project ID: 057-5

The following samples were received under chain of custody by Phase Separation Science (PSS) on 03/26/2015 at 05:37 pm

Lab Sample Id	Sample Id	Matrix	Date/Time Collected
15043028-001	B8 4'-6'	SOIL	03/25/15 13:40

Please reference the Chain of Custody and Sample Receipt Checklist for specific container counts and preservatives. Any sample conditions not in compliance with sample acceptance criteria are described in Case Narrative Summary.

Notes:

1. The presence of a common laboratory contaminant such as methylene chloride may be considered a possible laboratory artifact. Where observed, appropriate consideration of data should be taken.
2. Unless otherwise noted in the case narrative, results are reported on a dry weight basis with the exception of pH, flashpoint, moisture, and paint filter test.
3. Drinking water samples collected for the purpose of compliance with SDWA may not be suitable for their intended use unless collected by a certified sampler [COMAR 26.08.05.07.C.2].
4. The analyses of 1,2-dibromo-3-chloropropane (DBCP) and 1,2-dibromoethane (EDB) by EPA 524.2 and calcium, magnesium, sodium and iron by EPA 200.8 are not currently promulgated for use in testing to meet the Safe Drinking Water Act and as such cannot be used for compliance purposes. The listings of the current promulgated methods for testing in compliance with the Safe Drinking Water Act can be found in the 40 CFR part 141.1, for the primary drinking water contaminants, and part 141.3, for the secondary drinking water contaminants.
5. Sample prepared under EPA 3550C with concentrations greater than 20 mg/Kg should employ the microtip extraction procedure if required to meet data quality objectives.
6. The analysis of acrolein by EPA 624 must be analyzed within three days of sampling unless pH is adjusted to 4-5 units [40 CFR part 136.3(e)].
7. Method 180.1, The Determination of Turbidity by Nephelometry, recommends samples over 40 NTU be diluted until the turbidity falls below 40 units. Routine samples over 40 NTU may not be diluted as long as the data quality objectives are not affected.
8. Alkalinity results analyzed by EPA 310.2 that are reported by dilution are estimated and are not in compliance with method requirements.

Standard Flags/Abbreviations:

- B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- C Results Pending Final Confirmation.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- Fail The result exceeds the regulatory level for Toxicity Characteristic (TCLP) as cited in 40 CFR 261.24 Table 1.
- J The target analyte was positively identified below the reporting limit but greater than the MDL.
- MDL This is the Laboratory Method Detection Limit which is equivalent to the Limit of Detection (LOD). The LOD is an estimate of the minimum amount of a substance that an analytical process can reliably detect. This value will remain constant across multiple similar instrumentation and among different analysts. An LOD is analyte and matrix specific.
- ND Not Detected at or above the reporting limit.
- RL PSS Reporting Limit.
- U Not detected.

Certifications:

NELAP Certifications: PA 68-03330, VA 460156
State Certifications: MD 179, WV 303
Regulated Soil Permit: P330-12-00268
NSWC USCG Accepted Laboratory
LDBE MWAA LD1997-0041-2015

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15043028

Arc Environmental, Baltimore, MD

May 18, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B8 4'-6' **Date/Time Sampled: 03/25/2015 13:40** **PSS Sample ID: 15043028-001**
Matrix: SOIL **Date/Time Received: 03/26/2015 17:37**

Mercury Speciation Analysis

Analytical Method: SW-846 3200

Mercury reported on a Percent Solids result of 75%.

	<u>Result</u>	<u>Units</u>	<u>RL</u>	<u>Flag</u>	<u>MDL</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Analyst</u>
Non-Extractable Semi-Mobile Mercury	0.124	mg/kg	0.0168		0.0168	05/18/15	05/18/15 14:23	4005



Case Narrative Summary

Client Name: Arc Environmental

Project Name: Percontee

Work Order Number(s): 15043028

Project ID: 057-5

Any holding time exceedances, deviations from the method specifications, regulatory requirements or variations to the procedures outlined in the PSS Quality Assurance Manual are outlined below.

The analyses of chlorine, pH, dissolved oxygen, temperature and sulfite for drinking water and non-potable samples tested for compliance have a maximum holding time of 15 minutes. As such, all laboratory analyses for these analytes exceed holding times.

Matrix spike and matrix spike duplicate analyses may not be performed due to insufficient sample quantity. In these instances, a laboratory control sample and laboratory control sample duplicate are analyzed unless otherwise noted or specified in the method.

Sample Receipt:

All sample receipt conditions were acceptable.

Analyses associated with analyst code 4005 were performed by Enviro-Chem Laboratories, Inc. - PA 68-04873

NELAP accreditation was held for all analyses performed unless noted below. See www.phaseonline.com for complete PSS scope of accreditation.

SW-846 3200



Analytical Data Package Information Summary

Work Order(s): 15043028

Report Prepared For: Arc Environmental, Baltimore, MD

Project Name: Percontee

Project Manager: Kyle Begey

Method	Client Sample Id	Analysis Type	Lab Sample Id	Analyst	Mtx	Prep Batch	Analytical Batch	Sampled	Prepared	Analyzed
SW-846 3200	B8 4'-6'	Initial	15043028-001	4005	S	122779	122779	03/25/2015	05/18/2015 14:23	05/18/2015 14:23



SAMPLE CHAIN OF CUSTODY/AGREEMENT FORM

PHASE SEPARATION SCIENCE, INC.

15043028

www.phaseonline.com
email: info@phaseonline.com

1 CLIENT: Arc Environmental OFFICE LOC. Baltimore, MD		PSS Work Order #: 15032625		PAGE 1 OF 1		
PROJECT MGR: Kyle Begey PHONE NO.: 410-659-9971		Matrix Codes: <small>SW=Surface Wtr DW=Drinking Wtr GW=Ground Wtr WW=Waste Wtr O=Oil S=Soil WL=Waste Liquid WS=Waste Solid W= Wipe</small>				
EMAIL: kbegey@arcenvironmental.com FAX NO.: 410-962-1065		No. C G GRAB CONTAINERS	SAMPLE TYPE C = COMP G = GRAB	PPI Metals SVOCs 8270 VOCs 8260 GRO/DRO 8015 PCBs Asbestos PAHs (SIM)	Preservative Used ←	
PROJECT NAME: Percontee PROJECT NO.: 057-5						Analysis/Method Required ←
SITE LOCATION: Silver Spring, MD P.O. NO.:						
SAMPLERS: Kyle Begey, Ray Goodwin and Christie Pulvino DW CERT NO.:						
2	3	4	5	6	7	
LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX (See Codes)	CONTAINERS	REMARKS ↓
1	MW 2 0'-2'	3/25/15	0405	S	2 G	X
2	MW 2 4'-6'	↓	0815	S	2 G	X
3	B8 0'-2'	↓	1330	S	2 G	X
4	B8 4'-6'	✓	1340	S	6 G	X
5 Relinquished By: (1) <i>[Signature]</i> Date: 3/26/15 Time: 17:37 Received By: <i>[Signature]</i>		4 Requested Turnaround Time <input checked="" type="checkbox"/> 5-Day <input type="checkbox"/> 3-Day <input type="checkbox"/> 2-Day <input type="checkbox"/> Next Day <input type="checkbox"/> Emergency <input type="checkbox"/> Other		# of Coolers: 1 Custody Seal: ABS		
Relinquished By: (2) _____ Date: _____ Time: _____ Received By: _____		Data Deliverables Required: _____		Ice Present: Pres Temp: 4°C Shipping Carrier: client		
Relinquished By: (3) _____ Date: _____ Time: _____ Received By: _____		Special Instructions: VCP Project with comparison to residential cleanup standards				
Relinquished By: (4) _____ Date: _____ Time: _____ Received By: _____						

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The client (Client Name), by signing, or having client's agent sign, this "Sample Chain of Custody/Agreement Form", agrees to pay for the above requested services per the latest version of the Service Brochure or PSS-provided quotation including any and all attorney's or other reasonable fees if collection becomes necessary.



Phase Separation Science, Inc

Sample Receipt Checklist

Work Order # 15043028 **Received By** Rachel Davis
Client Name Arc Environmental **Date Received** 03/26/2015 05:37:00 PM
Project Name Percontee **Delivered By** Client
Project Number 057-5 **Tracking No** Not Applicable
Disposal Date 04/30/2015 **Logged In By** Rachel Davis

Shipping Container(s)

No. of Coolers 1

		Ice	Present
Custody Seal(s) Intact?	N/A	Temp (deg C)	4
Seal(s) Signed / Dated?	N/A	Temp Blank Present	No

Documentation

COC agrees with sample labels?	N/A	Sampler Name	<u>Kyle Begey</u>
Chain of Custody	N/A	MD DW Cert. No.	<u>N/A</u>

Sample Container

Appropriate for Specified Analysis?	N/A	Custody Seal(s) Intact?	Not Applicable
Intact?	N/A	Seal(s) Signed / Dated	Not Applicable
Labeled and Labels Legible?	N/A		

Total No. of Samples Received 1

Total No. of Containers Received 1

Preservation

Metals	(pH<2)	N/A
Cyanides	(pH>12)	N/A
Sulfide	(pH>9)	N/A
TOC, COD, Phenols	(pH<2)	N/A
TOX, TKN, NH3, Total Phos	(pH<2)	N/A
VOC, BTEX (VOA Vials Rcvd Preserved)	(pH<2)	N/A
Do VOA vials have zero headspace?		N/A
624 VOC (Rcvd at least one unpreserved VOA vial)		N/A

Comments: (Any "No" response must be detailed in the comments section below.)

For any improper preservation conditions, list sample ID, preservative added (reagent ID number) below as well as documentation of any client notification as well as client instructions. Samples for pH, chlorine and dissolved oxygen should be analyzed as soon as possible, preferably in the field at the time of sampling. Samples which require thermal preservation shall be considered acceptable when received at a temperature above freezing to 6°C. Samples that are hand delivered on the day that they are collected may not meet these criteria but shall be considered acceptable if there is evidence that the chilling process has begun such as arrival on ice.

Samples Inspected/Checklist Completed By:

Rachel Davis

Date: 04/30/2015

Rachel Davis

PM Review and Approval:

Shirley Rivera

Date: 04/30/2015

Shirley Rivera

Analytical Report for

Arc Environmental

Certificate of Analysis No.: 15032528

Project Manager: Kyle Begey

Project Name : Percontee

Project Location: Silver Spring, MD

Project ID : 057-5



April 3, 2015

Phase Separation Science, Inc.

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PHASE SEPARATION SCIENCE, INC.



April 3, 2015

Kyle Begey
Arc Environmental
1311 Haubert Street
Baltimore, MD 21230

Reference: PSS Work Order(s) No: **15032528**
Project Name: Percontee
Project Location: Silver Spring, MD
Project ID.: 057-5

Dear Kyle Begey :

This report includes the analytical results from the analyses performed on the samples received under the project name referenced above and identified with the Phase Separation Science (PSS) Work Order(s) numbered **15032528**.

All work reported herein has been performed in accordance with current NELAP standards, referenced methodologies, PSS Standard Operating Procedures and the PSS Quality Assurance Manual unless otherwise noted in the Case Narrative Summary. PSS is limited in liability to the actual cost of the sample analysis done.

PSS reserves the right to return any unused samples, extracts or related solutions. Otherwise, the samples are scheduled for disposal, without any further notice, on April 29, 2015. This includes any samples that were received with a request to be held but lacked a specific hold period. It is your responsibility to provide a written request defining a specific disposal date if additional storage is required. Upon receipt, the request will be acknowledged by PSS, thus extending the storage period.

This report shall not be reproduced except in full, without the written approval of an authorized PSS representative. A copy of this report will be retained by PSS for at least 5 years, after which time it will be disposed of without further notice, unless prior arrangements have been made.

We thank you for selecting Phase Separation Science, Inc. to serve your analytical needs. If you have any questions concerning this report, do not hesitate to contact us at 410-747-8770 or info@phaseonline.com.

Sincerely,

Dan Prucnal
Laboratory Manager



Sample Summary

Client Name: Arc Environmental
Project Name: Percontee

Work Order Number(s): 15032528

Project ID: 057-5

The following samples were received under chain of custody by Phase Separation Science (PSS) on 03/25/2015 at 03:25 pm

Lab Sample Id	Sample Id	Matrix	Date/Time Collected
15032528-001	MW-6 5-7	SOIL	03/23/15 08:00
15032528-002	MW-6 0-2	SOIL	03/23/15 07:30
15032528-003	MW-6a 0-2	SOIL	03/23/15 07:30
15032528-004	B21 0-2	SOIL	03/24/15 11:56
15032528-005	B21 4-7	SOIL	03/24/15 12:00

Please reference the Chain of Custody and Sample Receipt Checklist for specific container counts and preservatives. Any sample conditions not in compliance with sample acceptance criteria are described in Case Narrative Summary.

Notes:

1. The presence of a common laboratory contaminant such as methylene chloride may be considered a possible laboratory artifact. Where observed, appropriate consideration of data should be taken.
2. Unless otherwise noted in the case narrative, results are reported on a dry weight basis with the exception of pH, flashpoint, moisture, and paint filter test.
3. Drinking water samples collected for the purpose of compliance with SDWA may not be suitable for their intended use unless collected by a certified sampler [COMAR 26.08.05.07.C.2].
4. The analyses of 1,2-dibromo-3-chloropropane (DBCP) and 1,2-dibromoethane (EDB) by EPA 524.2 and calcium, magnesium, sodium and iron by EPA 200.8 are not currently promulgated for use in testing to meet the Safe Drinking Water Act and as such cannot be used for compliance purposes. The listings of the current promulgated methods for testing in compliance with the Safe Drinking Water Act can be found in the 40 CFR part 141.1, for the primary drinking water contaminants, and part 141.3, for the secondary drinking water contaminants.
5. Sample prepared under EPA 3550C with concentrations greater than 20 mg/Kg should employ the microtip extraction procedure if required to meet data quality objectives.
6. The analysis of acrolein by EPA 624 must be analyzed within three days of sampling unless pH is adjusted to 4-5 units [40 CFR part 136.3(e)].
7. Method 180.1, The Determination of Turbidity by Nephelometry, recommends samples over 40 NTU be diluted until the turbidity falls below 40 units. Routine samples over 40 NTU may not be diluted as long as the data quality objectives are not affected.
8. Alkalinity results analyzed by EPA 310.2 that are reported by dilution are estimated and are not in compliance with method requirements.

Standard Flags/Abbreviations:

- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- C** Results Pending Final Confirmation.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- Fail** The result exceeds the regulatory level for Toxicity Characteristic (TCLP) as cited in 40 CFR 261.24 Table 1.
- J** The target analyte was positively identified below the reporting limit but greater than the MDL.
- MDL** This is the Laboratory Method Detection Limit which is equivalent to the Limit of Detection (LOD). The LOD is an estimate of the minimum amount of a substance that an analytical process can reliably detect. This value will remain constant across multiple similar instrumentation and among different analysts. An LOD is analyte and matrix specific.
- ND** Not Detected at or above the reporting limit.
- RL** PSS Reporting Limit.
- U** Not detected.

Certifications:

NELAP Certifications: PA 68-03330, VA 460156
State Certifications: MD 179, WV 303
Regulated Soil Permit: P330-12-00268
NSWC USCG Accepted Laboratory
LDBE MWAA LD1997-0041-2015

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15032528

Arc Environmental, Baltimore, MD

April 3, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: MW-6 5-7	Date/Time Sampled: 03/23/2015 08:00	PSS Sample ID: 15032528-001
Matrix: SOIL	Date/Time Received: 03/25/2015 15:25	% Solids: 90

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	mg/kg	2.5		1	1.3	03/26/15	03/27/15 19:11	1033
Arsenic	4.2	mg/kg	0.51		1	0.25	03/26/15	03/27/15 19:11	1033
Beryllium	ND	mg/kg	2.5		1	1.3	03/26/15	03/27/15 19:11	1033
Cadmium	ND	mg/kg	2.5		1	1.3	03/26/15	03/27/15 19:11	1033
Chromium	18	mg/kg	2.5		1	1.3	03/26/15	03/27/15 19:11	1033
Copper	5.6	mg/kg	2.5		1	1.3	03/26/15	03/27/15 19:11	1033
Lead	4.3	mg/kg	2.5		1	1.3	03/26/15	03/27/15 19:11	1033
Mercury	ND	mg/kg	0.10		1	0.051	03/26/15	03/27/15 19:11	1033
Nickel	4.0	mg/kg	2.5		1	1.3	03/26/15	03/27/15 19:11	1033
Selenium	ND	mg/kg	2.5		1	1.3	03/26/15	03/27/15 19:11	1033
Silver	ND	mg/kg	2.5		1	1.3	03/26/15	03/30/15 14:53	1033
Thallium	ND	mg/kg	0.51		1	0.25	03/26/15	03/27/15 19:11	1033
Zinc	8.2	mg/kg	10	J	1	5.1	03/26/15	03/30/15 14:53	1033

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	ND	mg/kg	11		1	4.5	03/30/15	03/30/15 23:50	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/kg	110		1	55	03/26/15	03/26/15 19:06	1035

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15032528

Arc Environmental, Baltimore, MD

April 3, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: MW-6 5-7	Date/Time Sampled: 03/23/2015 08:00	PSS Sample ID: 15032528-001
Matrix: SOIL	Date/Time Received: 03/25/2015 15:25	% Solids: 90

Polychlorinated Biphenyls

Analytical Method: SW-846 8082 A

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
PCB-1016	ND	mg/kg	0.056		1	0.056	03/25/15	03/27/15 02:29	1029
PCB-1221	ND	mg/kg	0.056		1	0.056	03/25/15	03/27/15 02:29	1029
PCB-1232	ND	mg/kg	0.056		1	0.056	03/25/15	03/27/15 02:29	1029
PCB-1242	ND	mg/kg	0.056		1	0.056	03/25/15	03/27/15 02:29	1029
PCB-1248	ND	mg/kg	0.056		1	0.056	03/25/15	03/27/15 02:29	1029
PCB-1254	ND	mg/kg	0.056		1	0.056	03/25/15	03/27/15 02:29	1029
PCB-1260	ND	mg/kg	0.056		1	0.056	03/25/15	03/27/15 02:29	1029

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15032528

Arc Environmental, Baltimore, MD

April 3, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: MW-6 5-7	Date/Time Sampled: 03/23/2015 08:00	PSS Sample ID: 15032528-001
Matrix: SOIL	Date/Time Received: 03/25/2015 15:25	% Solids: 90

TCL Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5035A

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Dichlorodifluoromethane	ND	ug/kg	6.5		1	3.2	03/27/15	03/27/15 16:47	1011
Chloromethane	ND	ug/kg	6.5		1	3.2	03/27/15	03/27/15 16:47	1011
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	ug/kg	6.5		1	3.2	03/27/15	03/27/15 16:47	1011
Vinyl Chloride	ND	ug/kg	6.5		1	3.2	03/27/15	03/27/15 16:47	1011
Bromomethane	ND	ug/kg	6.5		1	3.2	03/27/15	03/27/15 16:47	1011
Chloroethane	ND	ug/kg	6.5		1	3.2	03/27/15	03/27/15 16:47	1011
Acetone	ND	ug/kg	26		1	13	03/27/15	03/27/15 16:47	1011
Cyclohexane	ND	ug/kg	26		1	13	03/27/15	03/27/15 16:47	1011
Trichlorofluoromethane	ND	ug/kg	6.5		1	3.2	03/27/15	03/27/15 16:47	1011
1,1-Dichloroethene	ND	ug/kg	6.5		1	3.2	03/27/15	03/27/15 16:47	1011
Methylene Chloride	ND	ug/kg	6.5		1	3.2	03/27/15	03/27/15 16:47	1011
trans-1,2-Dichloroethene	ND	ug/kg	6.5		1	3.2	03/27/15	03/27/15 16:47	1011
Methyl-t-butyl ether	ND	ug/kg	6.5		1	3.2	03/27/15	03/27/15 16:47	1011
1,1-Dichloroethane	ND	ug/kg	6.5		1	3.2	03/27/15	03/27/15 16:47	1011
2-Butanone	ND	ug/kg	26		1	13	03/27/15	03/27/15 16:47	1011
cis-1,2-Dichloroethene	ND	ug/kg	6.5		1	3.2	03/27/15	03/27/15 16:47	1011
Bromochloromethane	ND	ug/kg	6.5		1	3.2	03/27/15	03/27/15 16:47	1011
Chloroform	ND	ug/kg	6.5		1	3.2	03/27/15	03/27/15 16:47	1011
1,1,1-Trichloroethane	ND	ug/kg	6.5		1	3.2	03/27/15	03/27/15 16:47	1011
1,2-Dichloroethane	ND	ug/kg	6.5		1	3.2	03/27/15	03/27/15 16:47	1011
Carbon Tetrachloride	ND	ug/kg	6.5		1	3.2	03/27/15	03/27/15 16:47	1011
Benzene	ND	ug/kg	6.5		1	3.2	03/27/15	03/27/15 16:47	1011
1,2-Dichloropropane	ND	ug/kg	6.5		1	3.2	03/27/15	03/27/15 16:47	1011
Carbon Disulfide	ND	ug/kg	13		1	6.5	03/27/15	03/27/15 16:47	1011
Methylcyclohexane	ND	ug/kg	26		1	13	03/27/15	03/27/15 16:47	1011
Trichloroethene	ND	ug/kg	6.5		1	3.2	03/27/15	03/27/15 16:47	1011
Methyl Acetate	ND	ug/kg	26		1	13	03/27/15	03/27/15 16:47	1011
Bromodichloromethane	ND	ug/kg	6.5		1	3.2	03/27/15	03/27/15 16:47	1011
cis-1,3-Dichloropropene	ND	ug/kg	6.5		1	3.2	03/27/15	03/27/15 16:47	1011
4-Methyl-2-Pentanone	ND	ug/kg	26		1	13	03/27/15	03/27/15 16:47	1011

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15032528

Arc Environmental, Baltimore, MD

April 3, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: MW-6 5-7	Date/Time Sampled: 03/23/2015 08:00	PSS Sample ID: 15032528-001
Matrix: SOIL	Date/Time Received: 03/25/2015 15:25	% Solids: 90

TCL Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5035A

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
trans-1,3-Dichloropropene	ND	ug/kg	6.5		1	3.2	03/27/15	03/27/15 16:47	1011
1,1,2-Trichloroethane	ND	ug/kg	6.5		1	3.2	03/27/15	03/27/15 16:47	1011
Toluene	ND	ug/kg	6.5		1	3.2	03/27/15	03/27/15 16:47	1011
2-Hexanone	ND	ug/kg	26		1	13	03/27/15	03/27/15 16:47	1011
1,2-Dibromoethane	ND	ug/kg	6.5		1	3.2	03/27/15	03/27/15 16:47	1011
Dibromochloromethane	ND	ug/kg	6.5		1	3.2	03/27/15	03/27/15 16:47	1011
Bromoform	ND	ug/kg	6.5		1	3.2	03/27/15	03/27/15 16:47	1011
Tetrachloroethene	ND	ug/kg	6.5		1	3.2	03/27/15	03/27/15 16:47	1011
Chlorobenzene	ND	ug/kg	6.5		1	3.2	03/27/15	03/27/15 16:47	1011
Ethylbenzene	ND	ug/kg	6.5		1	3.2	03/27/15	03/27/15 16:47	1011
m,p-Xylenes	ND	ug/kg	13		1	6.5	03/27/15	03/27/15 16:47	1011
Styrene	ND	ug/kg	6.5		1	3.2	03/27/15	03/27/15 16:47	1011
1,1,2,2-Tetrachloroethane	ND	ug/kg	6.5		1	3.2	03/27/15	03/27/15 16:47	1011
o-Xylene	ND	ug/kg	6.5		1	3.2	03/27/15	03/27/15 16:47	1011
Isopropylbenzene	ND	ug/kg	6.5		1	3.2	03/27/15	03/27/15 16:47	1011
1,3-Dichlorobenzene	ND	ug/kg	6.5		1	3.2	03/27/15	03/27/15 16:47	1011
1,4-Dichlorobenzene	ND	ug/kg	6.5		1	3.2	03/27/15	03/27/15 16:47	1011
1,2-Dichlorobenzene	ND	ug/kg	6.5		1	3.2	03/27/15	03/27/15 16:47	1011
1,2-Dibromo-3-Chloropropane	ND	ug/kg	52		1	26	03/27/15	03/27/15 16:47	1011
1,2,4-Trichlorobenzene	ND	ug/kg	6.5		1	3.2	03/27/15	03/27/15 16:47	1011
1,2,3-Trichlorobenzene	ND	ug/kg	6.5		1	3.2	03/27/15	03/27/15 16:47	1011

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15032528

Arc Environmental, Baltimore, MD

April 3, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: MW-6 5-7	Date/Time Sampled: 03/23/2015 08:00	PSS Sample ID: 15032528-001
Matrix: SOIL	Date/Time Received: 03/25/2015 15:25	% Solids: 90

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/kg	3.7		1	3.7	03/27/15	04/03/15 01:01	1055
Acenaphthylene	ND	ug/kg	3.7		1	3.7	03/27/15	04/03/15 01:01	1055
Anthracene	ND	ug/kg	3.7		1	3.7	03/27/15	04/03/15 01:01	1055
Benzo(a)anthracene	ND	ug/kg	3.7		1	3.7	03/27/15	04/03/15 01:01	1055
Benzo(a)pyrene	ND	ug/kg	3.7		1	3.7	03/27/15	04/03/15 01:01	1055
Benzo(b)fluoranthene	ND	ug/kg	3.7		1	3.7	03/27/15	04/03/15 01:01	1055
Benzo(g,h,i)perylene	ND	ug/kg	3.7		1	3.7	03/27/15	04/03/15 01:01	1055
Benzo(k)fluoranthene	ND	ug/kg	3.7		1	3.7	03/27/15	04/03/15 01:01	1055
Chrysene	ND	ug/kg	3.7		1	3.7	03/27/15	04/03/15 01:01	1055
Dibenz(a,h)Anthracene	ND	ug/kg	3.7		1	3.7	03/27/15	04/03/15 01:01	1055
Fluoranthene	ND	ug/kg	3.7		1	3.7	03/27/15	04/03/15 01:01	1055
Fluorene	ND	ug/kg	3.7		1	3.7	03/27/15	04/03/15 01:01	1055
Indeno(1,2,3-c,d)Pyrene	ND	ug/kg	3.7		1	3.7	03/27/15	04/03/15 01:01	1055
2-Methylnaphthalene	ND	ug/kg	3.7		1	3.7	03/27/15	04/03/15 01:01	1055
Naphthalene	ND	ug/kg	3.7		1	3.7	03/27/15	04/03/15 01:01	1055
Phenanthrene	ND	ug/kg	3.7		1	3.7	03/27/15	04/03/15 01:01	1055
Pyrene	ND	ug/kg	3.7		1	3.7	03/27/15	04/03/15 01:01	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15032528

Arc Environmental, Baltimore, MD

April 3, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: MW-6 0-2	Date/Time Sampled: 03/23/2015 07:30	PSS Sample ID: 15032528-002
Matrix: SOIL	Date/Time Received: 03/25/2015 15:25	% Solids: 94

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	mg/kg	1.9		1	0.93	03/26/15	03/27/15 19:41	1033
Arsenic	3.3	mg/kg	0.37		1	0.19	03/26/15	03/27/15 19:41	1033
Beryllium	ND	mg/kg	1.9		1	0.93	03/26/15	03/27/15 19:41	1033
Cadmium	ND	mg/kg	1.9		1	0.93	03/26/15	03/27/15 19:41	1033
Chromium	26	mg/kg	1.9		1	0.93	03/26/15	03/27/15 19:41	1033
Copper	14	mg/kg	1.9		1	0.93	03/26/15	03/27/15 19:41	1033
Lead	5.8	mg/kg	1.9		1	0.93	03/26/15	03/27/15 19:41	1033
Mercury	ND	mg/kg	0.075		1	0.037	03/26/15	03/27/15 19:41	1033
Nickel	27	mg/kg	1.9		1	0.93	03/26/15	03/27/15 19:41	1033
Selenium	ND	mg/kg	1.9		1	0.93	03/26/15	03/27/15 19:41	1033
Silver	ND	mg/kg	1.9		1	0.93	03/26/15	03/30/15 14:59	1033
Thallium	ND	mg/kg	0.37		1	0.19	03/26/15	03/27/15 19:41	1033
Zinc	17	mg/kg	7.5		1	3.7	03/26/15	03/30/15 14:59	1033

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: SW3550C

DF/HF - No. 2/diesel fuel and heavier fuel/oil patterns observed in sample.

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	750	mg/kg	110	DF	10	43	03/30/15	03/31/15 04:53	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	400	ug/kg	100		1	52	03/26/15	03/26/15 19:36	1035

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15032528

Arc Environmental, Baltimore, MD

April 3, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: MW-6 0-2	Date/Time Sampled: 03/23/2015 07:30	PSS Sample ID: 15032528-002
Matrix: SOIL	Date/Time Received: 03/25/2015 15:25	% Solids: 94

Polychlorinated Biphenyls

Analytical Method: SW-846 8082 A

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
PCB-1016	ND	mg/kg	0.054		1	0.054	03/25/15	03/27/15 02:58	1029
PCB-1221	ND	mg/kg	0.054		1	0.054	03/25/15	03/27/15 02:58	1029
PCB-1232	ND	mg/kg	0.054		1	0.054	03/25/15	03/27/15 02:58	1029
PCB-1242	ND	mg/kg	0.054		1	0.054	03/25/15	03/27/15 02:58	1029
PCB-1248	ND	mg/kg	0.054		1	0.054	03/25/15	03/27/15 02:58	1029
PCB-1254	ND	mg/kg	0.054		1	0.054	03/25/15	03/27/15 02:58	1029
PCB-1260	ND	mg/kg	0.054		1	0.054	03/25/15	03/27/15 02:58	1029

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	110	ug/kg	71		20	71	03/27/15	04/03/15 07:35	1055
Acenaphthylene	ND	ug/kg	71		20	71	03/27/15	04/03/15 07:35	1055
Anthracene	ND	ug/kg	71		20	71	03/27/15	04/03/15 07:35	1055
Benzo(a)anthracene	ND	ug/kg	71		20	71	03/27/15	04/03/15 07:35	1055
Benzo(a)pyrene	ND	ug/kg	71		20	71	03/27/15	04/03/15 07:35	1055
Benzo(b)fluoranthene	ND	ug/kg	71		20	71	03/27/15	04/03/15 07:35	1055
Benzo(g,h,i)perylene	ND	ug/kg	71		20	71	03/27/15	04/03/15 07:35	1055
Benzo(k)fluoranthene	ND	ug/kg	71		20	71	03/27/15	04/03/15 07:35	1055
Chrysene	92	ug/kg	71		20	71	03/27/15	04/03/15 07:35	1055
Dibenz(a,h)Anthracene	ND	ug/kg	71		20	71	03/27/15	04/03/15 07:35	1055
Fluoranthene	ND	ug/kg	71		20	71	03/27/15	04/03/15 07:35	1055
Fluorene	150	ug/kg	71		20	71	03/27/15	04/03/15 07:35	1055
Indeno(1,2,3-c,d)Pyrene	ND	ug/kg	71		20	71	03/27/15	04/03/15 07:35	1055
2-Methylnaphthalene	390	ug/kg	71		20	71	03/27/15	04/03/15 07:35	1055
Naphthalene	ND	ug/kg	71		20	71	03/27/15	04/03/15 07:35	1055
Phenanthrene	340	ug/kg	71		20	71	03/27/15	04/03/15 07:35	1055
Pyrene	120	ug/kg	71		20	71	03/27/15	04/03/15 07:35	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15032528

Arc Environmental, Baltimore, MD

April 3, 2015

Project Name: Percontee
 Project Location: Silver Spring, MD
 Project ID: 057-5

Sample ID: MW-6a 0-2	Date/Time Sampled: 03/23/2015 07:30	PSS Sample ID: 15032528-003
Matrix: SOIL	Date/Time Received: 03/25/2015 15:25	% Solids: 94

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	mg/kg	2.3		1	1.1	03/26/15	03/27/15 19:47	1033
Arsenic	3.8	mg/kg	0.46		1	0.23	03/26/15	03/27/15 19:47	1033
Beryllium	ND	mg/kg	2.3		1	1.1	03/26/15	03/27/15 19:47	1033
Cadmium	ND	mg/kg	2.3		1	1.1	03/26/15	03/27/15 19:47	1033
Chromium	25	mg/kg	2.3		1	1.1	03/26/15	03/27/15 19:47	1033
Copper	18	mg/kg	2.3		1	1.1	03/26/15	03/27/15 19:47	1033
Lead	6.1	mg/kg	2.3		1	1.1	03/26/15	03/27/15 19:47	1033
Mercury	ND	mg/kg	0.091		1	0.046	03/26/15	03/27/15 19:47	1033
Nickel	26	mg/kg	2.3		1	1.1	03/26/15	03/27/15 19:47	1033
Selenium	ND	mg/kg	2.3		1	1.1	03/26/15	03/27/15 19:47	1033
Silver	ND	mg/kg	2.3		1	1.1	03/26/15	03/30/15 15:05	1033
Thallium	0.24	mg/kg	0.46	J	1	0.23	03/26/15	03/27/15 19:47	1033
Zinc	13	mg/kg	9.1		1	4.6	03/26/15	03/30/15 15:05	1033

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: SW3550C

DF/HF - No. 2/diesel fuel and heavier fuel/oil patterns observed in sample.

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	830	mg/kg	110	DF	10	42	03/30/15	03/31/15 04:53	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	470	ug/kg	110		1	53	03/26/15	03/26/15 20:05	1035

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15032528

Arc Environmental, Baltimore, MD

April 3, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: MW-6a 0-2	Date/Time Sampled: 03/23/2015 07:30	PSS Sample ID: 15032528-003
Matrix: SOIL	Date/Time Received: 03/25/2015 15:25	% Solids: 94

Polychlorinated Biphenyls

Analytical Method: SW-846 8082 A

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
PCB-1016	ND	mg/kg	0.053		1	0.053	03/25/15	03/27/15 02:58	1029
PCB-1221	ND	mg/kg	0.053		1	0.053	03/25/15	03/27/15 02:58	1029
PCB-1232	ND	mg/kg	0.053		1	0.053	03/25/15	03/27/15 02:58	1029
PCB-1242	ND	mg/kg	0.053		1	0.053	03/25/15	03/27/15 02:58	1029
PCB-1248	ND	mg/kg	0.053		1	0.053	03/25/15	03/27/15 02:58	1029
PCB-1254	ND	mg/kg	0.053		1	0.053	03/25/15	03/27/15 02:58	1029
PCB-1260	ND	mg/kg	0.053		1	0.053	03/25/15	03/27/15 02:58	1029

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	170	ug/kg	72		20	72	03/27/15	04/03/15 06:43	1055
Acenaphthylene	ND	ug/kg	72		20	72	03/27/15	04/03/15 06:43	1055
Anthracene	ND	ug/kg	72		20	72	03/27/15	04/03/15 06:43	1055
Benzo(a)anthracene	ND	ug/kg	72		20	72	03/27/15	04/03/15 06:43	1055
Benzo(a)pyrene	ND	ug/kg	72		20	72	03/27/15	04/03/15 06:43	1055
Benzo(b)fluoranthene	ND	ug/kg	72		20	72	03/27/15	04/03/15 06:43	1055
Benzo(g,h,i)perylene	ND	ug/kg	72		20	72	03/27/15	04/03/15 06:43	1055
Benzo(k)fluoranthene	ND	ug/kg	72		20	72	03/27/15	04/03/15 06:43	1055
Chrysene	86	ug/kg	72		20	72	03/27/15	04/03/15 06:43	1055
Dibenz(a,h)Anthracene	ND	ug/kg	72		20	72	03/27/15	04/03/15 06:43	1055
Fluoranthene	ND	ug/kg	72		20	72	03/27/15	04/03/15 06:43	1055
Fluorene	240	ug/kg	72		20	72	03/27/15	04/03/15 06:43	1055
Indeno(1,2,3-c,d)Pyrene	ND	ug/kg	72		20	72	03/27/15	04/03/15 06:43	1055
2-Methylnaphthalene	500	ug/kg	72		20	72	03/27/15	04/03/15 06:43	1055
Naphthalene	ND	ug/kg	72		20	72	03/27/15	04/03/15 06:43	1055
Phenanthrene	560	ug/kg	72		20	72	03/27/15	04/03/15 06:43	1055
Pyrene	190	ug/kg	72		20	72	03/27/15	04/03/15 06:43	1055

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CERTIFICATE OF ANALYSIS

No: 15032528

Arc Environmental, Baltimore, MD

April 3, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B21 0-2	Date/Time Sampled: 03/24/2015 11:56	PSS Sample ID: 15032528-004
Matrix: SOIL	Date/Time Received: 03/25/2015 15:25	% Solids: 87

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	mg/kg	2.0		1	0.98	03/26/15	03/27/15 19:54	1033
Arsenic	2.8	mg/kg	0.39		1	0.2	03/26/15	03/27/15 19:54	1033
Beryllium	ND	mg/kg	2.0		1	0.98	03/26/15	03/27/15 19:54	1033
Cadmium	ND	mg/kg	2.0		1	0.98	03/26/15	03/27/15 19:54	1033
Chromium	48	mg/kg	2.0		1	0.98	03/26/15	03/27/15 19:54	1033
Copper	23	mg/kg	2.0		1	0.98	03/26/15	03/27/15 19:54	1033
Lead	23	mg/kg	2.0		1	0.98	03/26/15	03/27/15 19:54	1033
Mercury	0.064	mg/kg	0.078	J	1	0.039	03/26/15	03/27/15 19:54	1033
Nickel	37	mg/kg	2.0		1	0.98	03/26/15	03/27/15 19:54	1033
Selenium	ND	mg/kg	2.0		1	0.98	03/26/15	03/27/15 19:54	1033
Silver	ND	mg/kg	2.0		1	0.98	03/26/15	03/30/15 15:11	1033
Thallium	0.20	mg/kg	0.39	J	1	0.2	03/26/15	03/27/15 19:54	1033
Zinc	51	mg/kg	7.8		1	3.9	03/26/15	03/30/15 15:11	1033

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: SW3550C

DF/HF - No. 2/diesel fuel and heavier fuel/oil patterns observed in sample.

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	12	mg/kg	12	DF	1	4.7	03/30/15	04/01/15 12:12	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/kg	110		1	57	03/26/15	03/26/15 20:35	1035

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15032528

Arc Environmental, Baltimore, MD

April 3, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B21 0-2	Date/Time Sampled: 03/24/2015 11:56	PSS Sample ID: 15032528-004
Matrix: SOIL	Date/Time Received: 03/25/2015 15:25	% Solids: 87

Polychlorinated Biphenyls

Analytical Method: SW-846 8082 A

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
PCB-1016	ND	mg/kg	0.058		1	0.058	03/25/15	03/27/15 03:26	1029
PCB-1221	ND	mg/kg	0.058		1	0.058	03/25/15	03/27/15 03:26	1029
PCB-1232	ND	mg/kg	0.058		1	0.058	03/25/15	03/27/15 03:26	1029
PCB-1242	ND	mg/kg	0.058		1	0.058	03/25/15	03/27/15 03:26	1029
PCB-1248	ND	mg/kg	0.058		1	0.058	03/25/15	03/27/15 03:26	1029
PCB-1254	ND	mg/kg	0.058		1	0.058	03/25/15	03/27/15 03:26	1029
PCB-1260	ND	mg/kg	0.058		1	0.058	03/25/15	03/27/15 03:26	1029

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/kg	38		10	38	03/27/15	04/03/15 05:24	1055
Acenaphthylene	45	ug/kg	38		10	38	03/27/15	04/03/15 05:24	1055
Anthracene	75	ug/kg	38		10	38	03/27/15	04/03/15 05:24	1055
Benzo(a)anthracene	180	ug/kg	38		10	38	03/27/15	04/03/15 05:24	1055
Benzo(a)pyrene	170	ug/kg	38		10	38	03/27/15	04/03/15 05:24	1055
Benzo(b)fluoranthene	ND	ug/kg	38		10	38	03/27/15	04/03/15 05:24	1055
Benzo(g,h,i)perylene	110	ug/kg	38		10	38	03/27/15	04/03/15 05:24	1055
Benzo(k)fluoranthene	340	ug/kg	38		10	38	03/27/15	04/03/15 05:24	1055
Chrysene	180	ug/kg	38		10	38	03/27/15	04/03/15 05:24	1055
Dibenz(a,h)Anthracene	57	ug/kg	38		10	38	03/27/15	04/03/15 05:24	1055
Fluoranthene	290	ug/kg	38		10	38	03/27/15	04/03/15 05:24	1055
Fluorene	ND	ug/kg	38		10	38	03/27/15	04/03/15 05:24	1055
Indeno(1,2,3-c,d)Pyrene	98	ug/kg	38		10	38	03/27/15	04/03/15 05:24	1055
2-Methylnaphthalene	ND	ug/kg	38		10	38	03/27/15	04/03/15 05:24	1055
Naphthalene	ND	ug/kg	38		10	38	03/27/15	04/03/15 05:24	1055
Phenanthrene	210	ug/kg	38		10	38	03/27/15	04/03/15 05:24	1055
Pyrene	280	ug/kg	38		10	38	03/27/15	04/03/15 05:24	1055

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CERTIFICATE OF ANALYSIS

No: 15032528

Arc Environmental, Baltimore, MD

April 3, 2015

Project Name: Percontee
 Project Location: Silver Spring, MD
 Project ID: 057-5

Sample ID: B21 0-2	Date/Time Sampled: 03/24/2015 11:56	PSS Sample ID: 15032528-004
Matrix: SOIL	Date/Time Received: 03/25/2015 15:25	% Solids: 87

TCL Semivolatile Organic Compounds w/o PAHs Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acetophenone	ND	ug/kg	190		1	95	03/26/15	03/30/15 11:12	1055
Biphenyl (Diphenyl)	ND	ug/kg	190		1	95	03/26/15	03/30/15 11:12	1055
Butyl benzyl phthalate	ND	ug/kg	190		1	95	03/26/15	03/30/15 11:12	1055
bis(2-chloroethoxy) methane	ND	ug/kg	190		1	95	03/26/15	03/30/15 11:12	1055
bis(2-chloroethyl) ether	ND	ug/kg	190		1	95	03/26/15	03/30/15 11:12	1055
bis(2-chloroisopropyl) ether	ND	ug/kg	190		1	95	03/26/15	03/30/15 11:12	1055
bis(2-ethylhexyl) phthalate	ND	ug/kg	190		1	95	03/26/15	03/30/15 11:12	1055
4-Bromophenylphenyl ether	ND	ug/kg	190		1	95	03/26/15	03/30/15 11:12	1055
Di-n-butyl phthalate	170	ug/kg	190	J	1	95	03/26/15	03/30/15 11:12	1055
Carbazole	ND	ug/kg	190		1	95	03/26/15	03/30/15 11:12	1055
4-Chloro-3-methylphenol	ND	ug/kg	190		1	95	03/26/15	03/30/15 11:12	1055
4-Chloroaniline	ND	ug/kg	190		1	190	03/26/15	03/30/15 11:12	1055
2-Chloronaphthalene	ND	ug/kg	190		1	95	03/26/15	03/30/15 11:12	1055
2-Chlorophenol	ND	ug/kg	190		1	95	03/26/15	03/30/15 11:12	1055
4-Chlorophenyl phenyl ether	ND	ug/kg	190		1	95	03/26/15	03/30/15 11:12	1055
Dibenzofuran	ND	ug/kg	190		1	95	03/26/15	03/30/15 11:12	1055
3,3-Dichlorobenzidine	ND	ug/kg	190		1	95	03/26/15	03/30/15 11:12	1055
2,4-Dichlorophenol	ND	ug/kg	190		1	95	03/26/15	03/30/15 11:12	1055
Diethyl phthalate	ND	ug/kg	190		1	95	03/26/15	03/30/15 11:12	1055
Dimethyl phthalate	ND	ug/kg	190		1	95	03/26/15	03/30/15 11:12	1055
2,4-Dimethylphenol	ND	ug/kg	190		1	95	03/26/15	03/30/15 11:12	1055
4,6-Dinitro-2-methyl phenol	ND	ug/kg	190		1	95	03/26/15	03/30/15 11:12	1055
2,4-Dinitrophenol	ND	ug/kg	380		1	190	03/26/15	03/30/15 11:12	1055
2,4-Dinitrotoluene	ND	ug/kg	190		1	95	03/26/15	03/30/15 11:12	1055
2,6-Dinitrotoluene	ND	ug/kg	190		1	95	03/26/15	03/30/15 11:12	1055
Hexachlorobenzene	ND	ug/kg	190		1	95	03/26/15	03/30/15 11:12	1055
Hexachlorobutadiene	ND	ug/kg	190		1	95	03/26/15	03/30/15 11:12	1055
Hexachlorocyclopentadiene	ND	ug/kg	190		1	95	03/26/15	03/30/15 11:12	1055
Hexachloroethane	ND	ug/kg	190		1	95	03/26/15	03/30/15 11:12	1055

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CERTIFICATE OF ANALYSIS

No: 15032528

Arc Environmental, Baltimore, MD

April 3, 2015

Project Name: Percontee
 Project Location: Silver Spring, MD
 Project ID: 057-5

Sample ID: B21 0-2	Date/Time Sampled: 03/24/2015 11:56	PSS Sample ID: 15032528-004
Matrix: SOIL	Date/Time Received: 03/25/2015 15:25	% Solids: 87

TCL Semivolatile Organic Compounds w/o PAHs Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Isophorone	ND	ug/kg	190		1	95	03/26/15	03/30/15 11:12	1055
2-Methylphenol	ND	ug/kg	190		1	95	03/26/15	03/30/15 11:12	1055
3&4-Methylphenol	ND	ug/kg	190		1	95	03/26/15	03/30/15 11:12	1055
4-Nitroaniline	ND	ug/kg	190		1	190	03/26/15	03/30/15 11:12	1055
3-Nitroaniline	ND	ug/kg	190		1	95	03/26/15	03/30/15 11:12	1055
2-Nitroaniline	ND	ug/kg	190		1	95	03/26/15	03/30/15 11:12	1055
Nitrobenzene	ND	ug/kg	190		1	95	03/26/15	03/30/15 11:12	1055
2-Nitrophenol	ND	ug/kg	190		1	95	03/26/15	03/30/15 11:12	1055
4-Nitrophenol	ND	ug/kg	190		1	95	03/26/15	03/30/15 11:12	1055
N-Nitrosodi-n-Propylamine	ND	ug/kg	76		1	76	03/26/15	03/30/15 11:12	1055
N-Nitrosodiphenylamine	ND	ug/kg	190		1	95	03/26/15	03/30/15 11:12	1055
Di-n-octyl phthalate	ND	ug/kg	190		1	190	03/26/15	03/30/15 11:12	1055
Pentachlorophenol	ND	ug/kg	190		1	190	03/26/15	03/30/15 11:12	1055
Phenol	ND	ug/kg	190		1	95	03/26/15	03/30/15 11:12	1055
Atrazine	ND	ug/kg	190		1	95	03/26/15	03/30/15 11:12	1055
Pyridine	ND	ug/kg	190		1	95	03/26/15	03/30/15 11:12	1055
Caprolactam	ND	ug/kg	190		1	95	03/26/15	03/30/15 11:12	1055
2,4,6-Trichlorophenol	ND	ug/kg	190		1	95	03/26/15	03/30/15 11:12	1055
2,4,5-Trichlorophenol	ND	ug/kg	190		1	95	03/26/15	03/30/15 11:12	1055

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CERTIFICATE OF ANALYSIS

No: 15032528

Arc Environmental, Baltimore, MD

April 3, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B21 4-7	Date/Time Sampled: 03/24/2015 12:00	PSS Sample ID: 15032528-005
Matrix: SOIL	Date/Time Received: 03/25/2015 15:25	% Solids: 86

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	mg/kg	2.3		1	1.2	03/26/15	03/27/15 20:00	1033
Arsenic	2.6	mg/kg	0.47		1	0.23	03/26/15	03/27/15 20:00	1033
Beryllium	ND	mg/kg	2.3		1	1.2	03/26/15	03/27/15 20:00	1033
Cadmium	ND	mg/kg	2.3		1	1.2	03/26/15	03/27/15 20:00	1033
Chromium	38	mg/kg	2.3		1	1.2	03/26/15	03/27/15 20:00	1033
Copper	21	mg/kg	2.3		1	1.2	03/26/15	03/27/15 20:00	1033
Lead	13	mg/kg	2.3		1	1.2	03/26/15	03/27/15 20:00	1033
Mercury	ND	mg/kg	0.094		1	0.047	03/26/15	03/27/15 20:00	1033
Nickel	36	mg/kg	2.3		1	1.2	03/26/15	03/27/15 20:00	1033
Selenium	ND	mg/kg	2.3		1	1.2	03/26/15	03/27/15 20:00	1033
Silver	ND	mg/kg	2.3		1	1.2	03/26/15	03/30/15 15:17	1033
Thallium	ND	mg/kg	0.47		1	0.23	03/26/15	03/27/15 20:00	1033
Zinc	32	mg/kg	9.4		1	4.7	03/26/15	03/30/15 15:17	1033

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	8.3	mg/kg	12	J	1	4.7	03/30/15	03/31/15 03:43	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/kg	110		1	57	03/26/15	03/26/15 21:04	1035

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CERTIFICATE OF ANALYSIS

No: 15032528

Arc Environmental, Baltimore, MD

April 3, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B21 4-7	Date/Time Sampled: 03/24/2015 12:00	PSS Sample ID: 15032528-005
Matrix: SOIL	Date/Time Received: 03/25/2015 15:25	% Solids: 86

Polychlorinated Biphenyls

Analytical Method: SW-846 8082 A

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
PCB-1016	ND	mg/kg	0.058		1	0.058	03/25/15	03/27/15 03:26	1029
PCB-1221	ND	mg/kg	0.058		1	0.058	03/25/15	03/27/15 03:26	1029
PCB-1232	ND	mg/kg	0.058		1	0.058	03/25/15	03/27/15 03:26	1029
PCB-1242	ND	mg/kg	0.058		1	0.058	03/25/15	03/27/15 03:26	1029
PCB-1248	ND	mg/kg	0.058		1	0.058	03/25/15	03/27/15 03:26	1029
PCB-1254	ND	mg/kg	0.058		1	0.058	03/25/15	03/27/15 03:26	1029
PCB-1260	ND	mg/kg	0.058		1	0.058	03/25/15	03/27/15 03:26	1029

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/kg	39		10	39	03/27/15	04/03/15 04:05	1055
Acenaphthylene	ND	ug/kg	39		10	39	03/27/15	04/03/15 04:05	1055
Anthracene	ND	ug/kg	39		10	39	03/27/15	04/03/15 04:05	1055
Benzo(a)anthracene	ND	ug/kg	39		10	39	03/27/15	04/03/15 04:05	1055
Benzo(a)pyrene	ND	ug/kg	39		10	39	03/27/15	04/03/15 04:05	1055
Benzo(b)fluoranthene	ND	ug/kg	39		10	39	03/27/15	04/03/15 04:05	1055
Benzo(g,h,i)perylene	ND	ug/kg	39		10	39	03/27/15	04/03/15 04:05	1055
Benzo(k)fluoranthene	ND	ug/kg	39		10	39	03/27/15	04/03/15 04:05	1055
Chrysene	ND	ug/kg	39		10	39	03/27/15	04/03/15 04:05	1055
Dibenz(a,h)Anthracene	ND	ug/kg	39		10	39	03/27/15	04/03/15 04:05	1055
Fluoranthene	47	ug/kg	39		10	39	03/27/15	04/03/15 04:05	1055
Fluorene	ND	ug/kg	39		10	39	03/27/15	04/03/15 04:05	1055
Indeno(1,2,3-c,d)Pyrene	ND	ug/kg	39		10	39	03/27/15	04/03/15 04:05	1055
2-Methylnaphthalene	ND	ug/kg	39		10	39	03/27/15	04/03/15 04:05	1055
Naphthalene	ND	ug/kg	39		10	39	03/27/15	04/03/15 04:05	1055
Phenanthrene	43	ug/kg	39		10	39	03/27/15	04/03/15 04:05	1055
Pyrene	ND	ug/kg	39		10	39	03/27/15	04/03/15 04:05	1055

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CERTIFICATE OF ANALYSIS

No: 15032528

Arc Environmental, Baltimore, MD

April 3, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B21 4-7	Date/Time Sampled: 03/24/2015 12:00	PSS Sample ID: 15032528-005
Matrix: SOIL	Date/Time Received: 03/25/2015 15:25	% Solids: 86

TCL Semivolatile Organic Compounds w/o PAHs Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acetophenone	ND	ug/kg	190		1	96	03/26/15	03/31/15 05:09	1055
Biphenyl (Diphenyl)	ND	ug/kg	190		1	96	03/26/15	03/31/15 05:09	1055
Butyl benzyl phthalate	ND	ug/kg	190		1	96	03/26/15	03/31/15 05:09	1055
bis(2-chloroethoxy) methane	ND	ug/kg	190		1	96	03/26/15	03/31/15 05:09	1055
bis(2-chloroethyl) ether	ND	ug/kg	190		1	96	03/26/15	03/31/15 05:09	1055
bis(2-chloroisopropyl) ether	ND	ug/kg	190		1	96	03/26/15	03/31/15 05:09	1055
bis(2-ethylhexyl) phthalate	ND	ug/kg	190		1	96	03/26/15	03/31/15 05:09	1055
4-Bromophenylphenyl ether	ND	ug/kg	190		1	96	03/26/15	03/31/15 05:09	1055
Di-n-butyl phthalate	130	ug/kg	190	J	1	96	03/26/15	03/31/15 05:09	1055
Carbazole	ND	ug/kg	190		1	96	03/26/15	03/31/15 05:09	1055
4-Chloro-3-methylphenol	ND	ug/kg	190		1	96	03/26/15	03/31/15 05:09	1055
4-Chloroaniline	ND	ug/kg	190		1	190	03/26/15	03/31/15 05:09	1055
2-Chloronaphthalene	ND	ug/kg	190		1	96	03/26/15	03/31/15 05:09	1055
2-Chlorophenol	ND	ug/kg	190		1	96	03/26/15	03/31/15 05:09	1055
4-Chlorophenyl phenyl ether	ND	ug/kg	190		1	96	03/26/15	03/31/15 05:09	1055
Dibenzofuran	ND	ug/kg	190		1	96	03/26/15	03/31/15 05:09	1055
3,3-Dichlorobenzidine	ND	ug/kg	190		1	96	03/26/15	03/31/15 05:09	1055
2,4-Dichlorophenol	ND	ug/kg	190		1	96	03/26/15	03/31/15 05:09	1055
Diethyl phthalate	ND	ug/kg	190		1	96	03/26/15	03/31/15 05:09	1055
Dimethyl phthalate	ND	ug/kg	190		1	96	03/26/15	03/31/15 05:09	1055
2,4-Dimethylphenol	ND	ug/kg	190		1	96	03/26/15	03/31/15 05:09	1055
4,6-Dinitro-2-methyl phenol	ND	ug/kg	190		1	96	03/26/15	03/31/15 05:09	1055
2,4-Dinitrophenol	ND	ug/kg	390		1	190	03/26/15	03/31/15 05:09	1055
2,4-Dinitrotoluene	ND	ug/kg	190		1	96	03/26/15	03/31/15 05:09	1055
2,6-Dinitrotoluene	ND	ug/kg	190		1	96	03/26/15	03/31/15 05:09	1055
Hexachlorobenzene	ND	ug/kg	190		1	96	03/26/15	03/31/15 05:09	1055
Hexachlorobutadiene	ND	ug/kg	190		1	96	03/26/15	03/31/15 05:09	1055
Hexachlorocyclopentadiene	ND	ug/kg	190		1	96	03/26/15	03/31/15 05:09	1055
Hexachloroethane	ND	ug/kg	190		1	96	03/26/15	03/31/15 05:09	1055

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CERTIFICATE OF ANALYSIS

No: 15032528

Arc Environmental, Baltimore, MD

April 3, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B21 4-7	Date/Time Sampled: 03/24/2015 12:00	PSS Sample ID: 15032528-005
Matrix: SOIL	Date/Time Received: 03/25/2015 15:25	% Solids: 86

TCL Semivolatile Organic Compounds w/o PAHs Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Isophorone	ND	ug/kg	190		1	96	03/26/15	03/31/15 05:09	1055
2-Methylphenol	ND	ug/kg	190		1	96	03/26/15	03/31/15 05:09	1055
3&4-Methylphenol	ND	ug/kg	190		1	96	03/26/15	03/31/15 05:09	1055
4-Nitroaniline	ND	ug/kg	190		1	190	03/26/15	03/31/15 05:09	1055
3-Nitroaniline	ND	ug/kg	190		1	96	03/26/15	03/31/15 05:09	1055
2-Nitroaniline	ND	ug/kg	190		1	96	03/26/15	03/31/15 05:09	1055
Nitrobenzene	ND	ug/kg	190		1	96	03/26/15	03/31/15 05:09	1055
2-Nitrophenol	ND	ug/kg	190		1	96	03/26/15	03/31/15 05:09	1055
4-Nitrophenol	ND	ug/kg	190		1	96	03/26/15	03/31/15 05:09	1055
N-Nitrosodi-n-Propylamine	ND	ug/kg	77		1	77	03/26/15	03/31/15 05:09	1055
N-Nitrosodiphenylamine	ND	ug/kg	190		1	96	03/26/15	03/31/15 05:09	1055
Di-n-octyl phthalate	ND	ug/kg	190		1	190	03/26/15	03/31/15 05:09	1055
Pentachlorophenol	ND	ug/kg	190		1	190	03/26/15	03/31/15 05:09	1055
Phenol	ND	ug/kg	190		1	96	03/26/15	03/31/15 05:09	1055
Atrazine	ND	ug/kg	190		1	96	03/26/15	03/31/15 05:09	1055
Pyridine	ND	ug/kg	190		1	96	03/26/15	03/31/15 05:09	1055
Caprolactam	ND	ug/kg	190		1	96	03/26/15	03/31/15 05:09	1055
2,4,6-Trichlorophenol	ND	ug/kg	190		1	96	03/26/15	03/31/15 05:09	1055
2,4,5-Trichlorophenol	ND	ug/kg	190		1	96	03/26/15	03/31/15 05:09	1055



EMSL Analytical, Inc.

10768 Baltimore Avenue, Beltsville, MD 20705

Phone/Fax: (301) 937-5700 / (301) 937-5701

<http://www.EMSL.com>

beltsvillelab@emsl.com

EMSL Order: 191503424

CustomerID: PHAS52

CustomerPO:

ProjectID:

Attn: **Simon Crisp**
Phase Separation Science, Inc.
6630 Baltimore National Pike
Route 40 West
Baltimore, MD 21228

Phone: (410) 747-8770
Fax: (410) 788-8723
Received: 03/26/15 1:10 PM
Analysis Date: 3/27/2015
Collected: 3/24/2015

Project: 15032528

Test Report: Qualitative asbestos analysis of soils using the EPA 600/R-93/116 method

Sample	Description	Appearance	Result	Notes
15032528-004 191503424-0001	B21 0-2		None Detected	

Analyst(s)
George Malone (1)

Joe Centifonti, Laboratory Manager
or other approved signatory

EMSL recommends that soil samples reported as "ND" be tested by the EPA Screening Method/Qualitative. The above report relates only to the items tested. This report may not be reproduced, except in full, without written approval by EMSL Analytical, Inc. The above test must not be used by the client to claim product endorsement by NVLAP nor any agency of the United States Government. The test results contained within this report meet the requirements of NELAC unless otherwise noted. Samples received in good condition unless otherwise noted.
Samples analyzed by EMSL Analytical, Inc. Beltsville, MD

Initial report from 03/30/2015 06:25:36



Case Narrative Summary

Client Name: Arc Environmental

Project Name: Percontee

Work Order Number(s): 15032528

Project ID: 057-5

Any holding time exceedances, deviations from the method specifications, regulatory requirements or variations to the procedures outlined in the PSS Quality Assurance Manual are outlined below.

The analyses of chlorine, pH, dissolved oxygen, temperature and sulfite for drinking water and non-potable samples tested for compliance have a maximum holding time of 15 minutes. As such, all laboratory analyses for these analytes exceed holding times.

Matrix spike and matrix spike duplicate analyses may not be performed due to insufficient sample quantity. In these instances, a laboratory control sample and laboratory control sample duplicate are analyzed unless otherwise noted or specified in the method.

Sample Receipt:

All sample receipt conditions were acceptable.

Analytical:

Total Petroleum Hydrocarbons - DRO

Batch: 121510

Closing CCV on rear column showed a %D for Terphenyl-d14 at 22.6%. QC limit is 20%.

Batch: 121526

Surrogate recoveries affected by sample dilution.

Poly Aromatic Hydrocarbons by SIM

Batch: 121601

Surrogate recoveries affected by sample dilution.

Surrogate recoveries affected by sample matrix.

Laboratory control sample and/or laboratory control sample duplicate (LCS/LCSD) exceedances identified; see LCS summary form.

Matrix spike and/or matrix spike duplicate (MS/MSD) exceedances identified; see MS summary form.

TCL Semivolatile Organic Compounds w/o PAHs

Batch: 121502

Laboratory control sample and/or laboratory control sample duplicate (LCS/LCSD) exceedances identified; see LCS summary form.

Batch: 121441

Laboratory control sample and/or laboratory control sample duplicate (LCS/LCSD) exceedances identified; see LCS summary form.

NELAP accreditation was held for all analyses performed unless noted below. See www.phaseonline.com for complete PSS scope of accreditation.



Analytical Data Package Information Summary

Work Order(s): 15032528

Report Prepared For: Arc Environmental, Baltimore, MD

Project Name: Percontee

Project Manager: Kyle Begey

Method	Client Sample Id	Analysis Type	Lab Sample Id	Analyst	Mtx	Prep Batch	Analytical Batch	Sampled	Prepared	Analyzed
ASTM D2216 05	MW-6 5-7	Initial	15032528-001	1051	S	121331	121331	03/23/2015	03/25/2015 16:51	03/25/2015 16:51
	MW-6 0-2	Initial	15032528-002	1051	S	121331	121331	03/23/2015	03/25/2015 16:51	03/25/2015 16:51
	MW-6a 0-2	Initial	15032528-003	1051	S	121331	121331	03/23/2015	03/25/2015 16:51	03/25/2015 16:51
	B21 0-2	Initial	15032528-004	1051	S	121331	121331	03/24/2015	03/25/2015 16:51	03/25/2015 16:51
	B21 4-7	Initial	15032528-005	1051	S	121331	121331	03/24/2015	03/25/2015 16:51	03/25/2015 16:51
SW-846 6020 A	MW-6 5-7	Initial	15032528-001	1033	S	54750	121439	03/23/2015	03/26/2015 14:08	03/27/2015 19:11
	MW-6 0-2	Initial	15032528-002	1033	S	54750	121439	03/23/2015	03/26/2015 14:08	03/27/2015 19:41
	MW-6a 0-2	Initial	15032528-003	1033	S	54750	121439	03/23/2015	03/26/2015 14:08	03/27/2015 19:47
	B21 0-2	Initial	15032528-004	1033	S	54750	121439	03/24/2015	03/26/2015 14:08	03/27/2015 19:54
	B21 4-7	Initial	15032528-005	1033	S	54750	121439	03/24/2015	03/26/2015 14:08	03/27/2015 20:00
	54750-1-BKS	BKS	54750-1-BKS	1033	S	54750	121439	-----	03/26/2015 14:08	03/27/2015 17:10
	54750-1-BLK	BLK	54750-1-BLK	1033	S	54750	121439	-----	03/26/2015 14:08	03/27/2015 17:04
	B20 0-2 S	MS	15032311-001 S	1033	S	54750	121439	03/19/2015	03/26/2015 14:08	03/27/2015 17:22
	B20 0-2 SD	MSD	15032311-001 SD	1033	S	54750	121439	03/19/2015	03/26/2015 14:08	03/27/2015 17:28
	MW-6 5-7	Reanalysis	15032528-001	1033	S	54750	121464	03/23/2015	03/26/2015 14:08	03/30/2015 14:53
	MW-6 0-2	Reanalysis	15032528-002	1033	S	54750	121464	03/23/2015	03/26/2015 14:08	03/30/2015 14:59
	MW-6a 0-2	Reanalysis	15032528-003	1033	S	54750	121464	03/23/2015	03/26/2015 14:08	03/30/2015 15:05
	B21 0-2	Reanalysis	15032528-004	1033	S	54750	121464	03/24/2015	03/26/2015 14:08	03/30/2015 15:11
	B21 4-7	Reanalysis	15032528-005	1033	S	54750	121464	03/24/2015	03/26/2015 14:08	03/30/2015 15:17
SW-846 8015 C	MW-6 5-7	Initial	15032528-001	1055	S	54797	121510	03/23/2015	03/30/2015 17:07	03/30/2015 23:50
	MW-6 0-2	Initial	15032528-002	1055	S	54797	121510	03/23/2015	03/30/2015 17:07	03/31/2015 04:53
	MW-6a 0-2	Initial	15032528-003	1055	S	54797	121510	03/23/2015	03/30/2015 17:07	03/31/2015 04:53
	B21 4-7	Initial	15032528-005	1055	S	54797	121510	03/24/2015	03/30/2015 17:07	03/31/2015 03:43
	54797-1-BKS	BKS	54797-1-BKS	1055	S	54797	121510	-----	03/30/2015 17:07	03/30/2015 23:03
	54797-1-BLK7	BLK	54797-1-BLK7	1055	S	54797	121510	-----	03/30/2015 17:07	03/30/2015 22:40
	54797-1-BSD	BSD	54797-1-BSD	1055	S	54797	121510	-----	03/30/2015 17:07	03/30/2015 23:27
	143190119 S	MS	15032503-001 S	1055	S	54797	121510	03/10/2015	03/30/2015 17:07	03/31/2015 01:47
	143190119 SD	MSD	15032503-001 SD	1055	S	54797	121510	03/10/2015	03/30/2015 17:07	03/31/2015 02:10



Analytical Data Package Information Summary

Work Order(s): 15032528

Report Prepared For: Arc Environmental, Baltimore, MD

Project Name: Percontee

Project Manager: Kyle Begey

Method	Client Sample Id	Analysis Type	Lab Sample Id	Analyst	Mtx	Prep Batch	Analytical Batch	Sampled	Prepared	Analyzed
SW-846 8015 C	B21 0-2	Initial	15032528-004	1055	S	54797	121526	03/24/2015	03/30/2015 17:07	04/01/2015 12:12
SW-846 8015C	MW-6 5-7	Initial	15032528-001	1035	S	54764	121396	03/23/2015	03/26/2015 10:39	03/26/2015 19:06
	MW-6 0-2	Initial	15032528-002	1035	S	54764	121396	03/23/2015	03/26/2015 10:39	03/26/2015 19:36
	MW-6a 0-2	Initial	15032528-003	1035	S	54764	121396	03/23/2015	03/26/2015 10:39	03/26/2015 20:05
	B21 0-2	Initial	15032528-004	1035	S	54764	121396	03/24/2015	03/26/2015 10:39	03/26/2015 20:35
	B21 4-7	Initial	15032528-005	1035	S	54764	121396	03/24/2015	03/26/2015 10:39	03/26/2015 21:04
	54764-2-BKS	BKS	54764-2-BKS	1035	S	54764	121396	-----	03/26/2015 10:39	03/26/2015 12:14
	54764-2-BLK	BLK	54764-2-BLK	1035	S	54764	121396	-----	03/26/2015 10:39	03/26/2015 11:45
	B1 6-7 S	MS	15032520-001 S	1035	S	54764	121396	03/24/2015	03/26/2015 10:39	03/26/2015 21:34
	B1 6-7 SD	MSD	15032520-001 SD	1035	S	54764	121396	03/24/2015	03/26/2015 10:39	03/26/2015 22:03
SW-846 8082 A	MW-6 5-7	Initial	15032528-001	1029	S	54717	121398	03/23/2015	03/25/2015 09:30	03/27/2015 02:29
	MW-6 0-2	Initial	15032528-002	1029	S	54717	121398	03/23/2015	03/25/2015 09:30	03/27/2015 02:58
	MW-6a 0-2	Initial	15032528-003	1029	S	54717	121398	03/23/2015	03/25/2015 09:30	03/27/2015 02:58
	B21 0-2	Initial	15032528-004	1029	S	54717	121398	03/24/2015	03/25/2015 09:30	03/27/2015 03:26
	B21 4-7	Initial	15032528-005	1029	S	54717	121398	03/24/2015	03/25/2015 09:30	03/27/2015 03:26
	54717-1-BKS	BKS	54717-1-BKS	1029	S	54717	121398	-----	03/25/2015 09:30	03/26/2015 22:08
	54717-1-BLK	BLK	54717-1-BLK	1029	S	54717	121398	-----	03/25/2015 09:30	03/26/2015 21:11
	54717-1-BSD	BSD	54717-1-BSD	1029	S	54717	121398	-----	03/25/2015 09:30	03/26/2015 22:37
	B20 0-2 S	MS	15032311-001 S	1029	S	54717	121398	03/19/2015	03/25/2015 09:30	03/26/2015 23:06
	B20 0-2 SD	MSD	15032311-001 SD	1029	S	54717	121398	03/19/2015	03/25/2015 09:30	03/26/2015 23:35
SW-846 8260 B	MW-6 5-7	Initial	15032528-001	1011	S	54765	121402	03/23/2015	03/27/2015 10:06	03/27/2015 16:47
	54765-1-BKS	BKS	54765-1-BKS	1011	S	54765	121402	-----	03/27/2015 10:06	03/27/2015 12:16
	54765-1-BLK	BLK	54765-1-BLK	1011	S	54765	121402	-----	03/27/2015 10:06	03/27/2015 11:46
	GTA-CS1 S	MS	15032612-001 S	1011	S	54765	121402	03/25/2015	03/27/2015 10:06	03/27/2015 15:18
	GTA-CS1 SD	MSD	15032612-001 SD	1011	S	54765	121402	03/25/2015	03/27/2015 10:06	03/27/2015 15:48
SW-846 8270 C	B21 0-2	Initial	15032528-004	1055	S	54739	121502	03/24/2015	03/26/2015 10:15	03/30/2015 11:12
	54739-1-BKS	BKS	54739-1-BKS	1055	S	54739	121502	-----	03/26/2015 10:15	03/30/2015 14:18



Analytical Data Package Information Summary

Work Order(s): 15032528

Report Prepared For: Arc Environmental, Baltimore, MD

Project Name: Percontee

Project Manager: Kyle Begey

Method	Client Sample Id	Analysis Type	Lab Sample Id	Analyst	Mtx	Prep Batch	Analytical Batch	Sampled	Prepared	Analyzed
SW-846 8270 C	54739-1-BLK	BLK	54739-1-BLK	1055	S	54739	121502	-----	03/26/2015 10:15	03/30/2015 12:45
	54739-1-BSD	BSD	54739-1-BSD	1055	S	54739	121502	-----	03/26/2015 10:15	03/30/2015 14:49
	11457-PEX8-3/15 S	MS	15032511-004 S	1055	S	54739	121502	03/25/2015	03/26/2015 10:15	03/30/2015 15:20
	11457-PEX8-3/15 SD	MSD	15032511-004 SD	1055	S	54739	121502	03/25/2015	03/26/2015 10:15	03/30/2015 15:51
	B21 4-7	Initial	15032528-005	1055	S	54739	121503	03/24/2015	03/26/2015 10:15	03/31/2015 05:09
SW-846 8270 C	MW-6 5-7	Initial	15032528-001	1055	S	54757	121601	03/23/2015	03/27/2015 09:18	04/03/2015 01:01
	MW-6 0-2	Initial	15032528-002	1055	S	54757	121601	03/23/2015	03/27/2015 09:18	04/03/2015 07:35
	MW-6a 0-2	Initial	15032528-003	1055	S	54757	121601	03/23/2015	03/27/2015 09:18	04/03/2015 06:43
	B21 0-2	Initial	15032528-004	1055	S	54757	121601	03/24/2015	03/27/2015 09:18	04/03/2015 05:24
	B21 4-7	Initial	15032528-005	1055	S	54757	121601	03/24/2015	03/27/2015 09:18	04/03/2015 04:05
	54757-1-BKS	BKS	54757-1-BKS	1055	S	54757	121601	-----	03/27/2015 09:18	04/03/2015 00:09
	54757-1-BLK	BLK	54757-1-BLK	1055	S	54757	121601	-----	03/27/2015 09:18	04/02/2015 23:43
	54757-1-BSD	BSD	54757-1-BSD	1055	S	54757	121601	-----	03/27/2015 09:18	04/03/2015 00:35
	MW-6 5-7 S	MS	15032528-001 S	1055	S	54757	121601	03/23/2015	03/27/2015 09:18	04/03/2015 01:27
	MW-6 5-7 SD	MSD	15032528-001 SD	1055	S	54757	121601	03/23/2015	03/27/2015 09:18	04/03/2015 01:54

PHASE SEPARATION SCIENCE, INC.

QC Summary 15032528

Arc Environmental Percontee

Analytical Method: SW-846 8082 A

Seq Number: 121398
PSS Sample ID: 15032528-001

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/25/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	107		11-150	%	03/27/15 02:29
Tetrachloro-m-xylene	75		12-158	%	03/27/15 02:29

Analytical Method: SW-846 8015 C

Seq Number: 121510
PSS Sample ID: 15032528-001

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/30/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	72		42-129	%	03/30/15 23:50

Analytical Method: SW-846 8270 C

Seq Number: 121601
PSS Sample ID: 15032528-001

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/27/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	99		51-109	%	04/03/15 01:01
Nitrobenzene-d5	100		48-111	%	04/03/15 01:01
Terphenyl-D14	86		45-137	%	04/03/15 01:01

Analytical Method: SW-846 8015C

Seq Number: 121396
PSS Sample ID: 15032528-001

Matrix: Soil

Prep Method: SW5030
Date Prep: 03/26/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	85		55-142	%	03/26/15 19:06

Analytical Method: SW-846 8260 B

Seq Number: 121402
PSS Sample ID: 15032528-001

Matrix: Soil

Prep Method: SW5035
Date Prep: 03/27/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	105		80-125	%	03/27/15 16:47
Dibromofluoromethane	102		85-115	%	03/27/15 16:47
Toluene-D8	100		91-109	%	03/27/15 16:47

PHASE SEPARATION SCIENCE, INC.

QC Summary 15032528

Arc Environmental Percontee

Analytical Method: SW-846 8082 A

Seq Number: 121398
PSS Sample ID: 15032528-002

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/25/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	48		11-150	%	03/27/15 02:58
Tetrachloro-m-xylene	51		12-158	%	03/27/15 02:58

Analytical Method: SW-846 8015 C

Seq Number: 121510
PSS Sample ID: 15032528-002

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/30/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	68		42-129	%	03/31/15 04:53

Analytical Method: SW-846 8270 C

Seq Number: 121601
PSS Sample ID: 15032528-002

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/27/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	140	*	51-109	%	04/03/15 07:35
Nitrobenzene-d5	320	*	48-111	%	04/03/15 07:35
Terphenyl-D14	120		45-137	%	04/03/15 07:35

Analytical Method: SW-846 8015C

Seq Number: 121396
PSS Sample ID: 15032528-002

Matrix: Soil

Prep Method: SW5030
Date Prep: 03/26/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	83		55-142	%	03/26/15 19:36

Analytical Method: SW-846 8082 A

Seq Number: 121398
PSS Sample ID: 15032528-003

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/25/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	54		11-150	%	03/27/15 02:58
Tetrachloro-m-xylene	50		12-158	%	03/27/15 02:58

PHASE SEPARATION SCIENCE, INC.

QC Summary 15032528

Arc Environmental Percontee

Analytical Method: SW-846 8015 CSeq Number: 121510
PSS Sample ID: 15032528-003

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/30/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	95		42-129	%	03/31/15 04:53

Analytical Method: SW-846 8270 CSeq Number: 121601
PSS Sample ID: 15032528-003

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/27/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	160	*	51-109	%	04/03/15 06:43
Nitrobenzene-d5	400	*	48-111	%	04/03/15 06:43
Terphenyl-D14	100		45-137	%	04/03/15 06:43

Analytical Method: SW-846 8015CSeq Number: 121396
PSS Sample ID: 15032528-003

Matrix: Soil

Prep Method: SW5030
Date Prep: 03/26/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	81		55-142	%	03/26/15 20:05

Analytical Method: SW-846 8082 ASeq Number: 121398
PSS Sample ID: 15032528-004

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/25/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	61		11-150	%	03/27/15 03:26
Tetrachloro-m-xylene	78		12-158	%	03/27/15 03:26

Analytical Method: SW-846 8270 CSeq Number: 121502
PSS Sample ID: 15032528-004

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/26/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	101		60-131	%	03/30/15 11:12
2-Fluorophenol	63		45-108	%	03/30/15 11:12
Nitrobenzene-d5	87		42-131	%	03/30/15 11:12
Phenol-d6	86		48-124	%	03/30/15 11:12
Terphenyl-D14	91		59-137	%	03/30/15 11:12
2,4,6-Tribromophenol	101		46-129	%	03/30/15 11:12

PHASE SEPARATION SCIENCE, INC.

QC Summary 15032528

Arc Environmental Percontee

Analytical Method: SW-846 8015 C

Seq Number: 121526
PSS Sample ID: 15032528-004

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/30/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	40	*	42-129	%	04/01/15 12:12

Analytical Method: SW-846 8270 C

Seq Number: 121601
PSS Sample ID: 15032528-004

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/27/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	140	*	51-109	%	04/03/15 05:24
Nitrobenzene-d5	110		48-111	%	04/03/15 05:24
Terphenyl-D14	120		45-137	%	04/03/15 05:24

Analytical Method: SW-846 8015C

Seq Number: 121396
PSS Sample ID: 15032528-004

Matrix: Soil

Prep Method: SW5030
Date Prep: 03/26/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	86		55-142	%	03/26/15 20:35

Analytical Method: SW-846 8082 A

Seq Number: 121398
PSS Sample ID: 15032528-005

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/25/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	62		11-150	%	03/27/15 03:26
Tetrachloro-m-xylene	72		12-158	%	03/27/15 03:26

Analytical Method: SW-846 8270 C

Seq Number: 121503
PSS Sample ID: 15032528-005

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/26/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	95		60-131	%	03/31/15 05:09
2-Fluorophenol	51		45-108	%	03/31/15 05:09
Nitrobenzene-d5	84		42-131	%	03/31/15 05:09
Phenol-d6	73		48-124	%	03/31/15 05:09
Terphenyl-D14	88		59-137	%	03/31/15 05:09
2,4,6-Tribromophenol	78		46-129	%	03/31/15 05:09

PHASE SEPARATION SCIENCE, INC.

QC Summary 15032528

Arc Environmental Percontee

Analytical Method: SW-846 8015 C

Seq Number: 121510
PSS Sample ID: 15032528-005

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/30/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	64		42-129	%	03/31/15 03:43

Analytical Method: SW-846 8270 C

Seq Number: 121601
PSS Sample ID: 15032528-005

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/27/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	100		51-109	%	04/03/15 04:05
Nitrobenzene-d5	100		48-111	%	04/03/15 04:05
Terphenyl-D14	90		45-137	%	04/03/15 04:05

Analytical Method: SW-846 8015C

Seq Number: 121396
PSS Sample ID: 15032528-005

Matrix: Soil

Prep Method: SW5030
Date Prep: 03/26/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	86		55-142	%	03/26/15 21:04

F = RPD exceeded the laboratory control limits
X = Recovery of MS, MSD or both outside of QC Criteria
H= Recovery of BS,BSD or both exceeded the laboratory control limits
L = Recovery of BS,BSD or both below the laboratory control limits

PHASE SEPARATION SCIENCE, INC.

QC Summary 15032528

Arc Environmental Percontee

Analytical Method: SW-846 6020 A

Seq Number: 121439

MB Sample Id: 54750-1-BLK

Matrix: Solid

LCS Sample Id: 54750-1-BKS

Prep Method: SW3050B

Date Prep: 03/26/15

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Analysis Date	Flag
Antimony	<1.055	16.88	16.50	98	80-120	mg/kg	03/27/15 17:10	
Arsenic	<0.2110	16.88	15.71	93	80-120	mg/kg	03/27/15 17:10	
Beryllium	<1.055	16.88	14.17	84	80-120	mg/kg	03/27/15 17:10	
Cadmium	<1.055	16.88	15.39	91	80-120	mg/kg	03/27/15 17:10	
Chromium	<1.055	16.88	16.20	96	80-120	mg/kg	03/27/15 17:10	
Copper	<1.055	16.88	15.68	93	80-120	mg/kg	03/27/15 17:10	
Lead	<1.055	16.88	15.25	90	80-120	mg/kg	03/27/15 17:10	
Mercury	<0.04221	0.4221	0.3672	87	80-120	mg/kg	03/27/15 17:10	
Nickel	<1.055	16.88	16.29	97	80-120	mg/kg	03/27/15 17:10	
Selenium	<1.055	16.88	14.29	85	80-120	mg/kg	03/27/15 17:10	
Silver	<1.055	16.88	15.92	94	80-120	mg/kg	03/27/15 17:10	
Thallium	<0.2110	16.88	14.53	86	80-120	mg/kg	03/27/15 17:10	
Zinc	<4.221	16.88	11.23	67	80-120	mg/kg	03/27/15 17:10	L

Analytical Method: SW-846 8082 A

Seq Number: 121398

MB Sample Id: 54717-1-BLK

Matrix: Solid

LCS Sample Id: 54717-1-BKS

Prep Method: SW3550C

Date Prep: 03/25/15

LCSD Sample Id: 54717-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
PCB-1016	<0.05123	0.5123	0.4542	89	0.4681	91	62-136	3	25	mg/kg	03/26/15 22:08	
PCB-1260	<0.05123	0.5123	0.4625	90	0.4377	86	56-113	6	25	mg/kg	03/26/15 22:08	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	105		110		105		11-150	%	03/26/15 22:08
Tetrachloro-m-xylene	87		93		86		12-158	%	03/26/15 22:08

Analytical Method: SW-846 8015 C

Seq Number: 121510

MB Sample Id: 54797-1-BLK

Matrix: Solid

LCS Sample Id: 54797-1-BKS

Prep Method: SW3550C

Date Prep: 03/30/15

LCSD Sample Id: 54797-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
TPH-DRO (Diesel Range Organics)	27.50	32.80	27.50	84	26.59	79	56-117	3	25	mg/kg	03/30/15 23:03	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units	Analysis Date
o-Terphenyl	60		65		61		42-129	%	03/30/15 23:03

PHASE SEPARATION SCIENCE, INC.

QC Summary 15032528

Arc Environmental Percontee

Analytical Method: SW-846 8270 C

Seq Number: 121502

MB Sample Id: 54739-1-BLK

Matrix: Solid

LCS Sample Id: 54739-1-BKS

Prep Method: SW3550C

Date Prep: 03/26/15

LCSD Sample Id: 54739-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Acetophenone	<83.11	1330	1272	96	1251	94	61-114	2	25	ug/kg	03/30/15 14:18	
Biphenyl (Diphenyl)	<83.11	1330	1157	87	1274	96	79-107	10	25	ug/kg	03/30/15 14:18	
Butyl benzyl phthalate	<83.11	1330	1085	82	1091	82	67-125	1	25	ug/kg	03/30/15 14:18	
bis(2-chloroethoxy) methane	<83.11	1330	1174	88	1183	89	58-106	1	25	ug/kg	03/30/15 14:18	
bis(2-chloroethyl) ether	<83.11	1330	1163	87	1138	86	58-105	2	25	ug/kg	03/30/15 14:18	
bis(2-chloroisopropyl) ether	<83.11	1330	1104	83	1100	83	53-114	0	25	ug/kg	03/30/15 14:18	
bis(2-ethylhexyl) phthalate	<83.11	1330	1067	80	1078	81	54-137	1	25	ug/kg	03/30/15 14:18	
4-Bromophenylphenyl ether	<83.11	1330	1172	88	1148	86	65-110	2	25	ug/kg	03/30/15 14:18	
Di-n-butyl phthalate	<83.11	1330	1135	85	1190	90	61-127	5	25	ug/kg	03/30/15 14:18	
Carbazole	<83.11	1330	1440	108	1496	113	45-121	4	25	ug/kg	03/30/15 14:18	
4-Chloro-3-methylphenol	<83.11	1330	1185	89	1207	91	70-113	2	25	ug/kg	03/30/15 14:18	
4-Chloroaniline	<166.2	1330	1246	94	1279	96	73-103	3	25	ug/kg	03/30/15 14:18	
2-Chloronaphthalene	<83.11	1330	1261	95	1302	98	76-104	3	25	ug/kg	03/30/15 14:18	
2-Chlorophenol	<83.11	1330	1135	85	1118	84	69-97	2	25	ug/kg	03/30/15 14:18	
4-Chlorophenyl phenyl ether	<83.11	1330	1146	86	1181	89	67-113	3	25	ug/kg	03/30/15 14:18	
Dibenzofuran	<83.11	1330	1209	91	1256	95	72-109	4	25	ug/kg	03/30/15 14:18	
3,3-Dichlorobenzidine	<83.11	1330	1410	106	1499	113	56-128	6	25	ug/kg	03/30/15 14:18	
2,4-Dichlorophenol	<83.11	1330	1176	88	1168	88	75-101	1	25	ug/kg	03/30/15 14:18	
Diethyl phthalate	<83.11	1330	1264	95	1254	94	69-120	1	25	ug/kg	03/30/15 14:18	
Dimethyl phthalate	<83.11	1330	1262	95	1188	89	64-119	6	25	ug/kg	03/30/15 14:18	
2,4-Dimethylphenol	<83.11	1330	1052	79	1027	77	66-98	2	25	ug/kg	03/30/15 14:18	
4,6-Dinitro-2-methyl phenol	<83.11	1330	1378	104	1242	94	63-126	10	25	ug/kg	03/30/15 14:18	
2,4-Dinitrophenol	<166.2	1330	1396	105	1114	84	56-123	22	25	ug/kg	03/30/15 14:18	
2,4-Dinitrotoluene	<83.11	1330	1384	104	1353	102	70-116	2	25	ug/kg	03/30/15 14:18	
2,6-Dinitrotoluene	<83.11	1330	1318	99	1262	95	72-112	4	25	ug/kg	03/30/15 14:18	
Hexachlorobenzene	<83.11	1330	1196	90	1203	91	72-112	1	25	ug/kg	03/30/15 14:18	
Hexachlorobutadiene	<83.11	1330	1133	85	1119	84	72-100	1	25	ug/kg	03/30/15 14:18	
Hexachlorocyclopentadiene	<83.11	1330	960.8	72	779.8	59	51-125	21	25	ug/kg	03/30/15 14:18	
Hexachloroethane	<83.11	1330	1053	79	1070	81	69-102	2	25	ug/kg	03/30/15 14:18	
Isophorone	<83.11	1330	1292	97	1291	97	71-96	0	25	ug/kg	03/30/15 14:18	H
2-Methylphenol	<83.11	1330	1197	90	1163	88	69-102	3	25	ug/kg	03/30/15 14:18	
3&4-Methylphenol	<83.11	1330	1184	89	1211	91	64-113	2	25	ug/kg	03/30/15 14:18	
4-Nitroaniline	<166.2	1330	2101	158	1934	146	41-121	8	25	ug/kg	03/30/15 14:18	H
3-Nitroaniline	<83.11	1330	1399	105	1414	106	49-117	1	25	ug/kg	03/30/15 14:18	
2-Nitroaniline	<83.11	1330	1328	100	1247	94	71-109	6	25	ug/kg	03/30/15 14:18	
Nitrobenzene	<83.11	1330	1150	86	1133	85	66-101	1	25	ug/kg	03/30/15 14:18	
2-Nitrophenol	<83.11	1330	1160	87	1132	85	74-108	2	25	ug/kg	03/30/15 14:18	
4-Nitrophenol	<83.11	1330	1386	104	1351	102	58-125	3	25	ug/kg	03/30/15 14:18	
N-Nitrosodi-n-Propylamine	<66.49	1330	1240	93	1305	98	58-110	5	25	ug/kg	03/30/15 14:18	
N-Nitrosodiphenylamine	<83.11	1330	1164	88	1192	90	70-109	2	25	ug/kg	03/30/15 14:18	
Di-n-octyl phthalate	<166.2	1330	1008	76	1051	79	63-122	4	25	ug/kg	03/30/15 14:18	
Pentachlorophenol	<166.2	1330	1242	93	1182	89	76-114	5	25	ug/kg	03/30/15 14:18	
Phenol	<83.11	1330	1166	88	1174	88	69-109	1	25	ug/kg	03/30/15 14:18	
Atrazine	<83.11	1330	6064	456	6457	486	69-131	6	25	ug/kg	03/30/15 14:18	H
Pyridine	<83.11	1330	975.1	73	895.7	67	60-86	8	25	ug/kg	03/30/15 14:18	
Caprolactam	<83.11	1330	1239	93	1284	97	59-129	4	25	ug/kg	03/30/15 14:18	
2,4,6-Trichlorophenol	<83.11	1330	1214	91	1149	87	75-111	6	25	ug/kg	03/30/15 14:18	
2,4,5-Trichlorophenol	<83.11	1330	1237	93	1246	94	81-112	1	25	ug/kg	03/30/15 14:18	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	103		98		93		60-131	%	03/30/15 14:18

PHASE SEPARATION SCIENCE, INC.

QC Summary 15032528

Arc Environmental Percontee

Analytical Method: SW-846 8270 C

Seq Number: 121502

MB Sample Id: 54739-1-BLK

Matrix: Solid

LCS Sample Id: 54739-1-BKS

Prep Method: SW3550C

Date Prep: 03/26/15

LCSD Sample Id: 54739-1-BSD

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units	Analysis Date
2-Fluorophenol	82		81		73		45-108	%	03/30/15 14:18
Nitrobenzene-d5	94		91		83		42-131	%	03/30/15 14:18
Phenol-d6	93		99		90		48-124	%	03/30/15 14:18
Terphenyl-D14	82		89		88		59-137	%	03/30/15 14:18
2,4,6-Tribromophenol	105		112		105		46-129	%	03/30/15 14:18

Analytical Method: SW-846 8270 C

Seq Number: 121601

MB Sample Id: 54757-1-BLK

Matrix: Solid

LCS Sample Id: 54757-1-BKS

Prep Method: SW3550C

Date Prep: 03/27/15

LCSD Sample Id: 54757-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Acenaphthene	<3.327	66.53	57.55	87	54.93	83	65-104	5	31	ug/kg	04/03/15 00:09	
Acenaphthylene	<3.327	66.53	77.84	117	75.23	113	59-105	3	25	ug/kg	04/03/15 00:09	H
Anthracene	<3.327	66.53	72.85	109	63.25	95	52-121	14	25	ug/kg	04/03/15 00:09	
Benzo(a)anthracene	<3.327	66.53	66.20	100	63.25	95	47-114	5	25	ug/kg	04/03/15 00:09	
Benzo(a)pyrene	<3.327	66.53	64.54	97	63.91	96	57-111	1	25	ug/kg	04/03/15 00:09	
Benzo(b)fluoranthene	<3.327	66.53	80.84	122	74.23	111	47-123	9	25	ug/kg	04/03/15 00:09	
Benzo(g,h,i)perylene	<3.327	66.53	65.20	98	64.91	97	46-119	0	25	ug/kg	04/03/15 00:09	
Benzo(k)fluoranthene	<3.327	66.53	48.24	73	46.60	70	44-133	3	25	ug/kg	04/03/15 00:09	
Chrysene	<3.327	66.53	66.53	100	63.58	95	51-111	5	25	ug/kg	04/03/15 00:09	
Dibenz(a,h)Anthracene	<3.327	66.53	66.20	100	65.25	98	44-121	1	25	ug/kg	04/03/15 00:09	
Fluoranthene	<3.327	66.53	76.51	115	68.58	103	55-114	11	25	ug/kg	04/03/15 00:09	H
Fluorene	<3.327	66.53	65.20	98	63.91	96	59-107	2	25	ug/kg	04/03/15 00:09	
Indeno(1,2,3-c,d)Pyrene	<3.327	66.53	65.20	98	64.58	97	42-123	1	25	ug/kg	04/03/15 00:09	
2-Methylnaphthalene	<3.327	66.53	65.54	99	63.58	95	67-99	3	25	ug/kg	04/03/15 00:09	
Naphthalene	<3.327	66.53	67.53	102	60.25	90	61-108	11	25	ug/kg	04/03/15 00:09	
Phenanthrene	<3.327	66.53	91.15	137	73.57	110	50-122	21	25	ug/kg	04/03/15 00:09	H
Pyrene	<3.327	66.53	64.54	97	59.92	90	45-118	7	31	ug/kg	04/03/15 00:09	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	115	*	109		118	*	51-109	%	04/03/15 00:09
Nitrobenzene-d5	111		114	*	136	*	48-111	%	04/03/15 00:09
Terphenyl-D14	96		99		101		45-137	%	04/03/15 00:09

PHASE SEPARATION SCIENCE, INC.

QC Summary 15032528

Arc Environmental Percontee

Analytical Method: SW-846 8270 C

Seq Number: 121601

Parent Sample Id: 15032528-001

Matrix: Soil

MS Sample Id: 15032528-001 S

Prep Method: SW3550C

Date Prep: 03/27/15

MSD Sample Id: 15032528-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Acenaphthene	<3.687	73.73	58.62	80	59.85	81	33-146	2	30	ug/kg	04/03/15 01:27	
Acenaphthylene	<3.687	73.73	76.31	103	80.78	110	23-154	6	30	ug/kg	04/03/15 01:27	
Anthracene	<3.687	73.73	68.94	94	72.70	99	24-155	5	30	ug/kg	04/03/15 01:27	
Benzo(a)anthracene	<3.687	73.73	68.57	93	67.20	92	6-165	2	30	ug/kg	04/03/15 01:27	
Benzo(a)pyrene	<3.687	73.73	67.09	91	67.56	92	10-200	1	30	ug/kg	04/03/15 01:27	
Benzo(b)fluoranthene	<3.687	73.73	89.95	122	58.02	79	10-186	43	30	ug/kg	04/03/15 01:27	F
Benzo(g,h,i)perylene	<3.687	73.73	72.99	99	73.07	99	10-180	0	30	ug/kg	04/03/15 01:27	
Benzo(k)fluoranthene	<3.687	73.73	49.03	66	91.06	124	10-169	60	30	ug/kg	04/03/15 01:27	F
Chrysene	<3.687	73.73	69.31	94	68.66	93	10-178	1	30	ug/kg	04/03/15 01:27	
Dibenz(a,h)Anthracene	<3.687	73.73	74.10	101	74.54	101	19-168	1	30	ug/kg	04/03/15 01:27	
Fluoranthene	<3.687	73.73	76.68	104	78.95	108	10-200	3	30	ug/kg	04/03/15 01:27	
Fluorene	<3.687	73.73	70.04	95	72.34	99	9-162	3	30	ug/kg	04/03/15 01:27	
Indeno(1,2,3-c,d)Pyrene	<3.687	73.73	72.99	99	73.07	99	10-178	0	30	ug/kg	04/03/15 01:27	
2-Methylnaphthalene	<3.687	73.73	65.99	90	67.20	92	17-162	2	30	ug/kg	04/03/15 01:27	
Naphthalene	<3.687	73.73	65.62	89	68.30	93	9-179	4	30	ug/kg	04/03/15 01:27	
Phenanthrene	<3.687	73.73	87.00	118	90.33	123	10-169	4	30	ug/kg	04/03/15 01:27	
Pyrene	<3.687	73.73	68.57	93	67.20	92	10-172	2	30	ug/kg	04/03/15 01:27	

Surrogate	MS Result	MS Flag	MSD Result	MSD Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	108		108		51-109	%	04/03/15 01:27
Nitrobenzene-d5	117	*	130	*	48-111	%	04/03/15 01:27
Terphenyl-D14	102		94		45-137	%	04/03/15 01:27

Analytical Method: SW-846 8015C

Seq Number: 121396

MB Sample Id: 54764-2-BLK

Matrix: Solid

LCS Sample Id: 54764-2-BKS

Prep Method: SW5030

Date Prep: 03/26/15

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Analysis Date	Flag
TPH-GRO (Gasoline Range Organic)	51.25	4931	3860	78	60-112	ug/kg	03/26/15 12:14	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	80		97		55-142	%	03/26/15 12:14

PHASE SEPARATION SCIENCE, INC.

QC Summary 15032528

Arc Environmental Percontee

Analytical Method: SW-846 8260 B

Seq Number: 121402

MB Sample Id: 54765-1-BLK

Matrix: Solid

LCS Sample Id: 54765-1-BKS

Prep Method: SW5030

Date Prep: 03/27/15

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Analysis Date	Flag
Dichlorodifluoromethane	<2.515	60.36	70.95	118	53-144	ug/kg	03/27/15 12:16	
Chloromethane	<2.515	60.36	67.85	112	62-143	ug/kg	03/27/15 12:16	
1,1,2-Trichloro-1,2,2-Trifluoroethane	<2.515	60.36	61.89	103	50-162	ug/kg	03/27/15 12:16	
Vinyl Chloride	<2.515	60.36	64.73	107	61-156	ug/kg	03/27/15 12:16	
Bromomethane	<2.515	60.36	80.27	133	45-199	ug/kg	03/27/15 12:16	
Chloroethane	<2.515	60.36	77.93	129	59-151	ug/kg	03/27/15 12:16	
Acetone	<10.06	60.36	76.89	127	24-197	ug/kg	03/27/15 12:16	
Cyclohexane	<10.06	60.36	63.54	105	50-148	ug/kg	03/27/15 12:16	
Trichlorofluoromethane	<2.515	60.36	71.91	119	54-175	ug/kg	03/27/15 12:16	
1,1-Dichloroethene	<2.515	60.36	75.30	125	60-154	ug/kg	03/27/15 12:16	
Methylene Chloride	<2.515	60.36	53.13	88	56-140	ug/kg	03/27/15 12:16	
trans-1,2-Dichloroethene	<2.515	60.36	62.62	104	60-153	ug/kg	03/27/15 12:16	
Methyl-t-butyl ether	<2.515	60.36	52.69	87	59-133	ug/kg	03/27/15 12:16	
1,1-Dichloroethane	<2.515	60.36	61.29	102	60-148	ug/kg	03/27/15 12:16	
2-Butanone	<10.06	60.36	75.18	125	35-173	ug/kg	03/27/15 12:16	
cis-1,2-Dichloroethene	<2.515	60.36	53.15	88	67-126	ug/kg	03/27/15 12:16	
Bromochloromethane	<2.515	60.36	48.91	81	64-121	ug/kg	03/27/15 12:16	
Chloroform	<2.515	60.36	58.24	96	65-126	ug/kg	03/27/15 12:16	
1,1,1-Trichloroethane	<2.515	60.36	63.30	105	60-145	ug/kg	03/27/15 12:16	
1,2-Dichloroethane	<2.515	60.36	56.80	94	62-127	ug/kg	03/27/15 12:16	
Carbon Tetrachloride	<2.515	60.36	60.96	101	55-152	ug/kg	03/27/15 12:16	
Benzene	<2.515	60.36	66.91	111	69-128	ug/kg	03/27/15 12:16	
1,2-Dichloropropane	<2.515	60.36	56.12	93	66-125	ug/kg	03/27/15 12:16	
Carbon Disulfide	<5.030	60.36	73.38	122	58-153	ug/kg	03/27/15 12:16	
Methylcyclohexane	<10.06	60.36	55.72	92	41-142	ug/kg	03/27/15 12:16	
Trichloroethene	<2.515	60.36	63.75	106	68-130	ug/kg	03/27/15 12:16	
Methyl Acetate	<10.06	60.36	65.14	108	47-151	ug/kg	03/27/15 12:16	
Bromodichloromethane	<2.515	60.36	57.12	95	60-125	ug/kg	03/27/15 12:16	
cis-1,3-Dichloropropene	<2.515	60.36	54.83	91	59-122	ug/kg	03/27/15 12:16	
4-Methyl-2-Pentanone	<10.06	60.36	62.05	103	22-173	ug/kg	03/27/15 12:16	
trans-1,3-Dichloropropene	<2.515	60.36	54.01	89	56-124	ug/kg	03/27/15 12:16	
1,1,2-Trichloroethane	<2.515	60.36	54.85	91	65-120	ug/kg	03/27/15 12:16	
Toluene	<2.515	60.36	63.22	105	66-127	ug/kg	03/27/15 12:16	
2-Hexanone	<10.06	60.36	75.22	125	30-175	ug/kg	03/27/15 12:16	
1,2-Dibromoethane	<2.515	60.36	53.05	88	64-123	ug/kg	03/27/15 12:16	
Dibromochloromethane	<2.515	60.36	53.85	89	55-128	ug/kg	03/27/15 12:16	
Bromoform	<2.515	60.36	52.53	87	46-128	ug/kg	03/27/15 12:16	
Tetrachloroethene	<2.515	60.36	60.44	100	55-145	ug/kg	03/27/15 12:16	
Chlorobenzene	<2.515	60.36	52.70	87	61-124	ug/kg	03/27/15 12:16	
Ethylbenzene	<2.515	60.36	57.17	95	58-130	ug/kg	03/27/15 12:16	
m,p-Xylenes	<5.030	120.7	108.3	90	60-131	ug/kg	03/27/15 12:16	
Styrene	<2.515	60.36	51.71	86	54-123	ug/kg	03/27/15 12:16	
1,1,2,2-Tetrachloroethane	<2.515	60.36	53.61	89	50-134	ug/kg	03/27/15 12:16	
o-Xylene	<2.515	60.36	55.11	91	60-126	ug/kg	03/27/15 12:16	
Isopropylbenzene	<2.515	60.36	54.54	90	52-130	ug/kg	03/27/15 12:16	
1,3-Dichlorobenzene	<2.515	60.36	45.84	76	42-123	ug/kg	03/27/15 12:16	
1,4-Dichlorobenzene	<2.515	60.36	46.37	77	40-121	ug/kg	03/27/15 12:16	
1,2-Dichlorobenzene	<2.515	60.36	46.31	77	38-128	ug/kg	03/27/15 12:16	
1,2-Dibromo-3-Chloropropane	<20.12	60.36	58.55	97	43-149	ug/kg	03/27/15 12:16	
1,2,4-Trichlorobenzene	<2.515	60.36	47.73	79	14-143	ug/kg	03/27/15 12:16	
1,2,3-Trichlorobenzene	<2.515	60.36	46.35	77	15-144	ug/kg	03/27/15 12:16	

PHASE SEPARATION SCIENCE, INC.

QC Summary 15032528

Arc Environmental Percontee

Analytical Method: SW-846 8260 B

Seq Number: 121402

MB Sample Id: 54765-1-BLK

Matrix: Solid

LCS Sample Id: 54765-1-BKS

Prep Method: SW5030

Date Prep: 03/27/15

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	106		101		80-125	%	03/27/15 12:16
Dibromofluoromethane	100		102		85-115	%	03/27/15 12:16
Toluene-D8	101		103		91-109	%	03/27/15 12:16

F = RPD exceeded the laboratory control limits

X = Recovery of MS, MSD or both outside of QC Criteria

H= Recovery of BS,BSD or both exceeded the laboratory control limits

L = Recovery of BS,BSD or both below the laboratory control limits



Phase Separation Science, Inc

Sample Receipt Checklist

Work Order # 15032528 **Received By** Rachel Davis
Client Name Arc Environmental **Date Received** 03/25/2015 03:25:00 PM
Project Name Percontee **Delivered By** Trans Time Express
Project Number 057-5 **Tracking No** Not Applicable
Disposal Date 04/29/2015 **Logged In By** Rachel Davis

Shipping Container(s)

No. of Coolers 1

		Ice	Present
Custody Seal(s) Intact?	N/A	Temp (deg C)	1
Seal(s) Signed / Dated?	N/A	Temp Blank Present	No

Documentation

COC agrees with sample labels?	Yes	Sampler Name	<u>Kyle Begey</u>
Chain of Custody	Yes	MD DW Cert. No.	<u>N/A</u>

Sample Container

Appropriate for Specified Analysis?	Yes	Custody Seal(s) Intact?	Not Applicable
Intact?	Yes	Seal(s) Signed / Dated	Not Applicable
Labeled and Labels Legible?	Yes		

Total No. of Samples Received 5

Total No. of Containers Received 15

Preservation

Metals	(pH<2)	N/A
Cyanides	(pH>12)	N/A
Sulfide	(pH>9)	N/A
TOC, COD, Phenols	(pH<2)	N/A
TOX, TKN, NH3, Total Phos	(pH<2)	N/A
VOC, BTEX (VOA Vials Rcvd Preserved)	(pH<2)	N/A
Do VOA vials have zero headspace?		N/A
624 VOC (Rcvd at least one unpreserved VOA vial)		N/A

Comments: (Any "No" response must be detailed in the comments section below.)

For any improper preservation conditions, list sample ID, preservative added (reagent ID number) below as well as documentation of any client notification as well as client instructions. Samples for pH, chlorine and dissolved oxygen should be analyzed as soon as possible, preferably in the field at the time of sampling. Samples which require thermal preservation shall be considered acceptable when received at a temperature above freezing to 6°C. Samples that are hand delivered on the day that they are collected may not meet these criteria but shall be considered acceptable if there is evidence that the chilling process has begun such as arrival on ice.

Samples Inspected/Checklist Completed By:

Rachel Davis

Date: 03/25/2015

Rachel Davis

PM Review and Approval:

Lynn Jackson

Date: 03/26/2015

Lynn Jackson

Analytical Report for

Arc Environmental

Certificate of Analysis No.: 15032311

Project Manager: Kyle Begey

Project Name : Percontee

Project Location: Silver Spring, MD

Project ID : 057-5



March 30, 2015

Phase Separation Science, Inc.

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PHASE SEPARATION SCIENCE, INC.



March 30, 2015

Kyle Begey
Arc Environmental
1311 Haubert Street
Baltimore, MD 21230

Reference: PSS Work Order(s) No: **15032311**
Project Name: Percontee
Project Location: Silver Spring, MD
Project ID.: 057-5

Dear Kyle Begey :

This report includes the analytical results from the analyses performed on the samples received under the project name referenced above and identified with the Phase Separation Science (PSS) Work Order(s) numbered **15032311**.

All work reported herein has been performed in accordance with current NELAP standards, referenced methodologies, PSS Standard Operating Procedures and the PSS Quality Assurance Manual unless otherwise noted in the Case Narrative Summary. PSS is limited in liability to the actual cost of the sample analysis done.

PSS reserves the right to return any unused samples, extracts or related solutions. Otherwise, the samples are scheduled for disposal, without any further notice, on April 27, 2015. This includes any samples that were received with a request to be held but lacked a specific hold period. It is your responsibility to provide a written request defining a specific disposal date if additional storage is required. Upon receipt, the request will be acknowledged by PSS, thus extending the storage period.

This report shall not be reproduced except in full, without the written approval of an authorized PSS representative. A copy of this report will be retained by PSS for at least 5 years, after which time it will be disposed of without further notice, unless prior arrangements have been made.

We thank you for selecting Phase Separation Science, Inc. to serve your analytical needs. If you have any questions concerning this report, do not hesitate to contact us at 410-747-8770 or info@phaseonline.com.

Sincerely,

Cathy Thompson
QA Officer



Sample Summary

Client Name: Arc Environmental
Project Name: Percontee

Work Order Number(s): 15032311

Project ID: 057-5

The following samples were received under chain of custody by Phase Separation Science (PSS) on 03/23/2015 at 12:35 pm

Lab Sample Id	Sample Id	Matrix	Date/Time Collected
15032311-001	B20 0-2	SOIL	03/19/15 11:00
15032311-002	B20 4-6	SOIL	03/19/15 11:15
15032311-003	B20 A 0-2	SOIL	03/19/15 14:00

Please reference the Chain of Custody and Sample Receipt Checklist for specific container counts and preservatives. Any sample conditions not in compliance with sample acceptance criteria are described in Case Narrative Summary.

Notes:

1. The presence of a common laboratory contaminant such as methylene chloride may be considered a possible laboratory artifact. Where observed, appropriate consideration of data should be taken.
2. Unless otherwise noted in the case narrative, results are reported on a dry weight basis with the exception of pH, flashpoint, moisture, and paint filter test.
3. Drinking water samples collected for the purpose of compliance with SDWA may not be suitable for their intended use unless collected by a certified sampler [COMAR 26.08.05.07.C.2].
4. The analyses of 1,2-dibromo-3-chloropropane (DBCP) and 1,2-dibromoethane (EDB) by EPA 524.2 and calcium, magnesium, sodium and iron by EPA 200.8 are not currently promulgated for use in testing to meet the Safe Drinking Water Act and as such cannot be used for compliance purposes. The listings of the current promulgated methods for testing in compliance with the Safe Drinking Water Act can be found in the 40 CFR part 141.1, for the primary drinking water contaminants, and part 141.3, for the secondary drinking water contaminants.
5. Sample prepared under EPA 3550C with concentrations greater than 20 mg/Kg should employ the microtip extraction procedure if required to meet data quality objectives.
6. The analysis of acrolein by EPA 624 must be analyzed within three days of sampling unless pH is adjusted to 4-5 units [40 CFR part 136.3(e)].
7. Method 180.1, The Determination of Turbidity by Nephelometry, recommends samples over 40 NTU be diluted until the turbidity falls below 40 units. Routine samples over 40 NTU may not be diluted as long as the data quality objectives are not affected.
8. Alkalinity results analyzed by EPA 310.2 that are reported by dilution are estimated and are not in compliance with method requirements.

Standard Flags/Abbreviations:

- B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- C Results Pending Final Confirmation.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- Fail The result exceeds the regulatory level for Toxicity Characteristic (TCLP) as cited in 40 CFR 261.24 Table 1.
- J The target analyte was positively identified below the reporting limit but greater than the MDL.
- MDL This is the Laboratory Method Detection Limit which is equivalent to the Limit of Detection (LOD). The LOD is an estimate of the minimum amount of a substance that an analytical process can reliably detect. This value will remain constant across multiple similar instrumentation and among different analysts. An LOD is analyte and matrix specific.
- ND Not Detected at or above the reporting limit.
- RL PSS Reporting Limit.
- U Not detected.

Certifications:

NELAP Certifications: PA 68-03330, VA 460156
State Certifications: MD 179, WV 303
Regulated Soil Permit: P330-12-00268
NSWC USCG Accepted Laboratory
LDBE MWAA LD1997-0041-2015

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15032311

Arc Environmental, Baltimore, MD

March 30, 2015

Project Name: Percontee
 Project Location: Silver Spring, MD
 Project ID: 057-5

D R A F T

Sample ID: B20 0-2	Date/Time Sampled: 03/19/2015 11:00	PSS Sample ID: 15032311-001
Matrix: SOIL	Date/Time Received: 03/23/2015 12:35	% Solids: 89

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	mg/kg	2.8		1	1.4	03/26/15	03/27/15 17:16	1033
Arsenic	3.1	mg/kg	0.55		1	0.28	03/26/15	03/27/15 17:16	1033
Beryllium	ND	mg/kg	2.8		1	1.4	03/26/15	03/27/15 17:16	1033
Cadmium	ND	mg/kg	2.8		1	1.4	03/26/15	03/27/15 17:16	1033
Chromium	23	mg/kg	2.8		1	1.4	03/26/15	03/27/15 17:16	1033
Copper	11	mg/kg	2.8		1	1.4	03/26/15	03/27/15 17:16	1033
Lead	6.9	mg/kg	2.8		1	1.4	03/26/15	03/27/15 17:16	1033
Mercury	0.072	mg/kg	0.11	J	1	0.055	03/26/15	03/27/15 17:16	1033
Nickel	8.4	mg/kg	2.8		1	1.4	03/26/15	03/27/15 17:16	1033
Selenium	ND	mg/kg	2.8		1	1.4	03/26/15	03/27/15 17:16	1033
Silver	ND	mg/kg	2.8		1	1.4	03/26/15	03/30/15 13:23	1033
Thallium	ND	mg/kg	0.55		1	0.28	03/26/15	03/27/15 17:16	1033
Zinc	78	mg/kg	11		1	5.5	03/26/15	03/30/15 13:23	1033

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	46	mg/kg	11		1	4.5	03/24/15	03/26/15 02:49	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/kg	110		1	56	03/24/15	03/24/15 16:16	1035

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15032311

Arc Environmental, Baltimore, MD

March 30, 2015

Project Name: Percontee
 Project Location: Silver Spring, MD
 Project ID: 057-5

D R A F T

Sample ID: B20 0-2	Date/Time Sampled: 03/19/2015 11:00	PSS Sample ID: 15032311-001
Matrix: SOIL	Date/Time Received: 03/23/2015 12:35	% Solids: 89

Polychlorinated Biphenyls

Analytical Method: SW-846 8082 A

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
PCB-1016	ND	mg/kg	0.055		1	0.055	03/25/15	03/27/15 00:04	1029
PCB-1221	ND	mg/kg	0.055		1	0.055	03/25/15	03/27/15 00:04	1029
PCB-1232	ND	mg/kg	0.055		1	0.055	03/25/15	03/27/15 00:04	1029
PCB-1242	ND	mg/kg	0.055		1	0.055	03/25/15	03/27/15 00:04	1029
PCB-1248	ND	mg/kg	0.055		1	0.055	03/25/15	03/27/15 00:04	1029
PCB-1254	ND	mg/kg	0.055		1	0.055	03/25/15	03/27/15 00:04	1029
PCB-1260	ND	mg/kg	0.055		1	0.055	03/25/15	03/27/15 00:04	1029

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CERTIFICATE OF ANALYSIS

No: 15032311

Arc Environmental, Baltimore, MD

March 30, 2015

Project Name: Percontee
 Project Location: Silver Spring, MD
 Project ID: 057-5

D R A F T

Sample ID: B20 0-2	Date/Time Sampled: 03/19/2015 11:00	PSS Sample ID: 15032311-001
Matrix: SOIL	Date/Time Received: 03/23/2015 12:35	% Solids: 89

TCL Semivolatile Organic Compounds w/o PAHs Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

Pending Confirmation

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acetophenone	ND	ug/kg	190		1	94	03/26/15	03/28/15 15:55	1055
Biphenyl (Diphenyl)	ND	ug/kg	190		1	94	03/26/15	03/28/15 15:55	1055
Butyl benzyl phthalate	ND	ug/kg	190		1	94	03/26/15	03/28/15 15:55	1055
bis(2-chloroethoxy) methane	ND	ug/kg	190		1	94	03/26/15	03/28/15 15:55	1055
bis(2-chloroethyl) ether	ND	ug/kg	190		1	94	03/26/15	03/28/15 15:55	1055
bis(2-chloroisopropyl) ether	ND	ug/kg	190		1	94	03/26/15	03/28/15 15:55	1055
bis(2-ethylhexyl) phthalate	ND	ug/kg	190		1	94	03/26/15	03/28/15 15:55	1055
4-Bromophenylphenyl ether	ND	ug/kg	190		1	94	03/26/15	03/28/15 15:55	1055
Di-n-butyl phthalate	ND	ug/kg	190		1	94	03/26/15	03/28/15 15:55	1055
Carbazole	ND	ug/kg	190		1	94	03/26/15	03/28/15 15:55	1055
4-Chloro-3-methylphenol	ND	ug/kg	190		1	94	03/26/15	03/28/15 15:55	1055
4-Chloroaniline	ND	ug/kg	190		1	190	03/26/15	03/28/15 15:55	1055
2-Chloronaphthalene	ND	ug/kg	190		1	94	03/26/15	03/28/15 15:55	1055
2-Chlorophenol	ND	ug/kg	190		1	94	03/26/15	03/28/15 15:55	1055
4-Chlorophenyl phenyl ether	ND	ug/kg	190		1	94	03/26/15	03/28/15 15:55	1055
Dibenzofuran	ND	ug/kg	190		1	94	03/26/15	03/28/15 15:55	1055
3,3-Dichlorobenzidine	ND	ug/kg	190		1	94	03/26/15	03/28/15 15:55	1055
2,4-Dichlorophenol	ND	ug/kg	190		1	94	03/26/15	03/28/15 15:55	1055
Diethyl phthalate	ND	ug/kg	190		1	94	03/26/15	03/28/15 15:55	1055
Dimethyl phthalate	ND	ug/kg	190		1	94	03/26/15	03/28/15 15:55	1055
2,4-Dimethylphenol	ND	ug/kg	190		1	94	03/26/15	03/28/15 15:55	1055
4,6-Dinitro-2-methyl phenol	ND	ug/kg	190		1	94	03/26/15	03/28/15 15:55	1055
2,4-Dinitrophenol	ND	ug/kg	370		1	190	03/26/15	03/28/15 15:55	1055
2,4-Dinitrotoluene	ND	ug/kg	190		1	94	03/26/15	03/28/15 15:55	1055
2,6-Dinitrotoluene	ND	ug/kg	190		1	94	03/26/15	03/28/15 15:55	1055
Hexachlorobenzene	ND	ug/kg	190		1	94	03/26/15	03/28/15 15:55	1055
Hexachlorobutadiene	ND	ug/kg	190		1	94	03/26/15	03/28/15 15:55	1055
Hexachlorocyclopentadiene	ND	ug/kg	190		1	94	03/26/15	03/28/15 15:55	1055
Hexachloroethane	ND	ug/kg	190		1	94	03/26/15	03/28/15 15:55	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15032311

Arc Environmental, Baltimore, MD

March 30, 2015

Project Name: Percontee
 Project Location: Silver Spring, MD
 Project ID: 057-5

D R A F T

Sample ID: B20 0-2	Date/Time Sampled: 03/19/2015 11:00	PSS Sample ID: 15032311-001
Matrix: SOIL	Date/Time Received: 03/23/2015 12:35	% Solids: 89

TCL Semivolatile Organic Compounds w/o PAHs Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

Pending Confirmation

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Isophorone	ND	ug/kg	190		1	94	03/26/15	03/28/15 15:55	1055
2-Methylphenol	ND	ug/kg	190		1	94	03/26/15	03/28/15 15:55	1055
3&4-Methylphenol	ND	ug/kg	190		1	94	03/26/15	03/28/15 15:55	1055
4-Nitroaniline	ND	ug/kg	190		1	190	03/26/15	03/28/15 15:55	1055
3-Nitroaniline	ND	ug/kg	190		1	94	03/26/15	03/28/15 15:55	1055
2-Nitroaniline	ND	ug/kg	190		1	94	03/26/15	03/28/15 15:55	1055
Nitrobenzene	ND	ug/kg	190		1	94	03/26/15	03/28/15 15:55	1055
2-Nitrophenol	ND	ug/kg	190		1	94	03/26/15	03/28/15 15:55	1055
4-Nitrophenol	ND	ug/kg	190		1	94	03/26/15	03/28/15 15:55	1055
N-Nitrosodi-n-Propylamine	ND	ug/kg	75		1	75	03/26/15	03/28/15 15:55	1055
N-Nitrosodiphenylamine	ND	ug/kg	190		1	94	03/26/15	03/28/15 15:55	1055
Di-n-octyl phthalate	ND	ug/kg	190		1	190	03/26/15	03/28/15 15:55	1055
Pentachlorophenol	ND	ug/kg	190		1	190	03/26/15	03/28/15 15:55	1055
Phenol	ND	ug/kg	190		1	94	03/26/15	03/28/15 15:55	1055
Atrazine	ND	ug/kg	190		1	94	03/26/15	03/28/15 15:55	1055
Pyridine	ND	ug/kg	190		1	94	03/26/15	03/28/15 15:55	1055
Caprolactam	ND	ug/kg	190		1	94	03/26/15	03/28/15 15:55	1055
2,4,6-Trichlorophenol	ND	ug/kg	190		1	94	03/26/15	03/28/15 15:55	1055
2,4,5-Trichlorophenol	ND	ug/kg	190		1	94	03/26/15	03/28/15 15:55	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15032311
 Arc Environmental, Baltimore, MD
 March 30, 2015

Project Name: Percontee
 Project Location: Silver Spring, MD
 Project ID: 057-5

D R A F T

Sample ID: B20 4-6 **Date/Time Sampled: 03/19/2015 11:15** **PSS Sample ID: 15032311-002**
Matrix: SOIL **Date/Time Received: 03/23/2015 12:35** **% Solids: 85**

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	mg/kg	2.4		1	1.2	03/26/15	03/27/15 17:46	1033
Arsenic	5.1	mg/kg	0.49		1	0.24	03/26/15	03/27/15 17:46	1033
Beryllium	ND	mg/kg	2.4		1	1.2	03/26/15	03/27/15 17:46	1033
Cadmium	ND	mg/kg	2.4		1	1.2	03/26/15	03/27/15 17:46	1033
Chromium	28	mg/kg	2.4		1	1.2	03/26/15	03/27/15 17:46	1033
Copper	6.4	mg/kg	2.4		1	1.2	03/26/15	03/27/15 17:46	1033
Lead	7.5	mg/kg	2.4		1	1.2	03/26/15	03/27/15 17:46	1033
Mercury	0.061	mg/kg	0.097	J	1	0.049	03/26/15	03/27/15 17:46	1033
Nickel	3.3	mg/kg	2.4		1	1.2	03/26/15	03/27/15 17:46	1033
Selenium	ND	mg/kg	2.4		1	1.2	03/26/15	03/27/15 17:46	1033
Silver	ND	mg/kg	2.4		1	1.2	03/26/15	03/30/15 13:29	1033
Thallium	ND	mg/kg	0.49		1	0.24	03/26/15	03/27/15 17:46	1033
Zinc	5.7	mg/kg	9.7	J	1	4.9	03/26/15	03/30/15 13:29	1033

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	5.4	mg/kg	12	J	1	4.7	03/24/15	03/26/15 02:26	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/kg	120		1	58	03/24/15	03/24/15 16:45	1035

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CERTIFICATE OF ANALYSIS

No: 15032311

Arc Environmental, Baltimore, MD

March 30, 2015

Project Name: Percontee
 Project Location: Silver Spring, MD
 Project ID: 057-5

D R A F T

Sample ID: B20 4-6	Date/Time Sampled: 03/19/2015 11:15	PSS Sample ID: 15032311-002
Matrix: SOIL	Date/Time Received: 03/23/2015 12:35	% Solids: 85

Polychlorinated Biphenyls

Analytical Method: SW-846 8082 A

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
PCB-1016	ND	mg/kg	0.059		1	0.059	03/25/15	03/27/15 00:33	1029
PCB-1221	ND	mg/kg	0.059		1	0.059	03/25/15	03/27/15 00:33	1029
PCB-1232	ND	mg/kg	0.059		1	0.059	03/25/15	03/27/15 00:33	1029
PCB-1242	ND	mg/kg	0.059		1	0.059	03/25/15	03/27/15 00:33	1029
PCB-1248	ND	mg/kg	0.059		1	0.059	03/25/15	03/27/15 00:33	1029
PCB-1254	ND	mg/kg	0.059		1	0.059	03/25/15	03/27/15 00:33	1029
PCB-1260	ND	mg/kg	0.059		1	0.059	03/25/15	03/27/15 00:33	1029

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CERTIFICATE OF ANALYSIS

No: 15032311

Arc Environmental, Baltimore, MD

March 30, 2015

Project Name: Percontee
 Project Location: Silver Spring, MD
 Project ID: 057-5

D R A F T

Sample ID: B20 4-6 **Date/Time Sampled: 03/19/2015 11:15** **PSS Sample ID: 15032311-002**
Matrix: SOIL **Date/Time Received: 03/23/2015 12:35** **% Solids: 85**

TCL Semivolatile Organic Compounds w/o PAHs Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

Pending Confirmation

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acetophenone	ND	ug/kg	200		1	98	03/26/15	03/28/15 16:26	1055
Biphenyl (Diphenyl)	ND	ug/kg	200		1	98	03/26/15	03/28/15 16:26	1055
Butyl benzyl phthalate	ND	ug/kg	200		1	98	03/26/15	03/28/15 16:26	1055
bis(2-chloroethoxy) methane	ND	ug/kg	200		1	98	03/26/15	03/28/15 16:26	1055
bis(2-chloroethyl) ether	ND	ug/kg	200		1	98	03/26/15	03/28/15 16:26	1055
bis(2-chloroisopropyl) ether	ND	ug/kg	200		1	98	03/26/15	03/28/15 16:26	1055
bis(2-ethylhexyl) phthalate	ND	ug/kg	200		1	98	03/26/15	03/28/15 16:26	1055
4-Bromophenylphenyl ether	ND	ug/kg	200		1	98	03/26/15	03/28/15 16:26	1055
Di-n-butyl phthalate	ND	ug/kg	200		1	98	03/26/15	03/28/15 16:26	1055
Carbazole	ND	ug/kg	200		1	98	03/26/15	03/28/15 16:26	1055
4-Chloro-3-methylphenol	ND	ug/kg	200		1	98	03/26/15	03/28/15 16:26	1055
4-Chloroaniline	ND	ug/kg	200		1	200	03/26/15	03/28/15 16:26	1055
2-Chloronaphthalene	ND	ug/kg	200		1	98	03/26/15	03/28/15 16:26	1055
2-Chlorophenol	ND	ug/kg	200		1	98	03/26/15	03/28/15 16:26	1055
4-Chlorophenyl phenyl ether	ND	ug/kg	200		1	98	03/26/15	03/28/15 16:26	1055
Dibenzofuran	ND	ug/kg	200		1	98	03/26/15	03/28/15 16:26	1055
3,3-Dichlorobenzidine	ND	ug/kg	200		1	98	03/26/15	03/28/15 16:26	1055
2,4-Dichlorophenol	ND	ug/kg	200		1	98	03/26/15	03/28/15 16:26	1055
Diethyl phthalate	ND	ug/kg	200		1	98	03/26/15	03/28/15 16:26	1055
Dimethyl phthalate	ND	ug/kg	200		1	98	03/26/15	03/28/15 16:26	1055
2,4-Dimethylphenol	ND	ug/kg	200		1	98	03/26/15	03/28/15 16:26	1055
4,6-Dinitro-2-methyl phenol	ND	ug/kg	200		1	98	03/26/15	03/28/15 16:26	1055
2,4-Dinitrophenol	ND	ug/kg	390		1	200	03/26/15	03/28/15 16:26	1055
2,4-Dinitrotoluene	ND	ug/kg	200		1	98	03/26/15	03/28/15 16:26	1055
2,6-Dinitrotoluene	ND	ug/kg	200		1	98	03/26/15	03/28/15 16:26	1055
Hexachlorobenzene	ND	ug/kg	200		1	98	03/26/15	03/28/15 16:26	1055
Hexachlorobutadiene	ND	ug/kg	200		1	98	03/26/15	03/28/15 16:26	1055
Hexachlorocyclopentadiene	ND	ug/kg	200		1	98	03/26/15	03/28/15 16:26	1055
Hexachloroethane	ND	ug/kg	200		1	98	03/26/15	03/28/15 16:26	1055

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CERTIFICATE OF ANALYSIS

No: 15032311

Arc Environmental, Baltimore, MD

March 30, 2015

Project Name: Percontee
 Project Location: Silver Spring, MD
 Project ID: 057-5

D R A F T

Sample ID: B20 4-6	Date/Time Sampled: 03/19/2015 11:15	PSS Sample ID: 15032311-002
Matrix: SOIL	Date/Time Received: 03/23/2015 12:35	% Solids: 85

TCL Semivolatile Organic Compounds w/o Analytical Method: SW-846 8270 C
 PAHs

Preparation Method: SW3550C

Pending Confirmation

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Isophorone	ND	ug/kg	200		1	98	03/26/15	03/28/15 16:26	1055
2-Methylphenol	ND	ug/kg	200		1	98	03/26/15	03/28/15 16:26	1055
3&4-Methylphenol	ND	ug/kg	200		1	98	03/26/15	03/28/15 16:26	1055
4-Nitroaniline	ND	ug/kg	200		1	200	03/26/15	03/28/15 16:26	1055
3-Nitroaniline	ND	ug/kg	200		1	98	03/26/15	03/28/15 16:26	1055
2-Nitroaniline	ND	ug/kg	200		1	98	03/26/15	03/28/15 16:26	1055
Nitrobenzene	ND	ug/kg	200		1	98	03/26/15	03/28/15 16:26	1055
2-Nitrophenol	ND	ug/kg	200		1	98	03/26/15	03/28/15 16:26	1055
4-Nitrophenol	ND	ug/kg	200		1	98	03/26/15	03/28/15 16:26	1055
N-Nitrosodi-n-Propylamine	ND	ug/kg	78		1	78	03/26/15	03/28/15 16:26	1055
N-Nitrosodiphenylamine	ND	ug/kg	200		1	98	03/26/15	03/28/15 16:26	1055
Di-n-octyl phthalate	ND	ug/kg	200		1	200	03/26/15	03/28/15 16:26	1055
Pentachlorophenol	ND	ug/kg	200		1	200	03/26/15	03/28/15 16:26	1055
Phenol	ND	ug/kg	200		1	98	03/26/15	03/28/15 16:26	1055
Atrazine	ND	ug/kg	200		1	98	03/26/15	03/28/15 16:26	1055
Pyridine	ND	ug/kg	200		1	98	03/26/15	03/28/15 16:26	1055
Caprolactam	ND	ug/kg	200		1	98	03/26/15	03/28/15 16:26	1055
2,4,6-Trichlorophenol	ND	ug/kg	200		1	98	03/26/15	03/28/15 16:26	1055
2,4,5-Trichlorophenol	ND	ug/kg	200		1	98	03/26/15	03/28/15 16:26	1055

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CERTIFICATE OF ANALYSIS

No: 15032311

Arc Environmental, Baltimore, MD

March 30, 2015

Project Name: Percontee
 Project Location: Silver Spring, MD
 Project ID: 057-5

D R A F T

Sample ID: B20 A 0-2	Date/Time Sampled: 03/19/2015 14:00	PSS Sample ID: 15032311-003
Matrix: SOIL	Date/Time Received: 03/23/2015 12:35	% Solids: 91

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	mg/kg	2.0		1	1	03/26/15	03/27/15 17:52	1033
Arsenic	2.9	mg/kg	0.40		1	0.2	03/26/15	03/27/15 17:52	1033
Beryllium	ND	mg/kg	2.0		1	1	03/26/15	03/27/15 17:52	1033
Cadmium	ND	mg/kg	2.0		1	1	03/26/15	03/27/15 17:52	1033
Chromium	22	mg/kg	2.0		1	1	03/26/15	03/27/15 17:52	1033
Copper	8.7	mg/kg	2.0		1	1	03/26/15	03/27/15 17:52	1033
Lead	5.6	mg/kg	2.0		1	1	03/26/15	03/27/15 17:52	1033
Mercury	0.051	mg/kg	0.081	J	1	0.04	03/26/15	03/27/15 17:52	1033
Nickel	8.7	mg/kg	2.0		1	1	03/26/15	03/27/15 17:52	1033
Selenium	ND	mg/kg	2.0		1	1	03/26/15	03/27/15 17:52	1033
Silver	ND	mg/kg	2.0		1	1	03/26/15	03/30/15 13:35	1033
Thallium	ND	mg/kg	0.40		1	0.2	03/26/15	03/27/15 17:52	1033
Zinc	58	mg/kg	8.1		1	4	03/26/15	03/30/15 13:35	1033

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	43	mg/kg	11		1	4.4	03/24/15	03/26/15 03:36	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/kg	110		1	54	03/24/15	03/24/15 17:15	1035

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CERTIFICATE OF ANALYSIS

No: 15032311

Arc Environmental, Baltimore, MD

March 30, 2015

Project Name: Percontee
 Project Location: Silver Spring, MD
 Project ID: 057-5

D R A F T

Sample ID: B20 A 0-2	Date/Time Sampled: 03/19/2015 14:00	PSS Sample ID: 15032311-003
Matrix: SOIL	Date/Time Received: 03/23/2015 12:35	% Solids: 91

Polychlorinated Biphenyls

Analytical Method: SW-846 8082 A

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
PCB-1016	ND	mg/kg	0.054		1	0.054	03/25/15	03/27/15 01:02	1029
PCB-1221	ND	mg/kg	0.054		1	0.054	03/25/15	03/27/15 01:02	1029
PCB-1232	ND	mg/kg	0.054		1	0.054	03/25/15	03/27/15 01:02	1029
PCB-1242	ND	mg/kg	0.054		1	0.054	03/25/15	03/27/15 01:02	1029
PCB-1248	ND	mg/kg	0.054		1	0.054	03/25/15	03/27/15 01:02	1029
PCB-1254	ND	mg/kg	0.054		1	0.054	03/25/15	03/27/15 01:02	1029
PCB-1260	ND	mg/kg	0.054		1	0.054	03/25/15	03/27/15 01:02	1029

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D R A F T

Sample ID: B20 A 0-2 **Date/Time Sampled: 03/19/2015 14:00** **PSS Sample ID: 15032311-003**
Matrix: SOIL **Date/Time Received: 03/23/2015 12:35** **% Solids: 91**

TCL Semivolatile Organic Compounds w/o PAHs Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

Pending Confirmation

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acetophenone	ND	ug/kg	180		1	91	03/26/15	03/28/15 21:35	1055
Biphenyl (Diphenyl)	ND	ug/kg	180		1	91	03/26/15	03/28/15 21:35	1055
Butyl benzyl phthalate	ND	ug/kg	180		1	91	03/26/15	03/28/15 21:35	1055
bis(2-chloroethoxy) methane	ND	ug/kg	180		1	91	03/26/15	03/28/15 21:35	1055
bis(2-chloroethyl) ether	ND	ug/kg	180		1	91	03/26/15	03/28/15 21:35	1055
bis(2-chloroisopropyl) ether	ND	ug/kg	180		1	91	03/26/15	03/28/15 21:35	1055
bis(2-ethylhexyl) phthalate	ND	ug/kg	180		1	91	03/26/15	03/28/15 21:35	1055
4-Bromophenylphenyl ether	ND	ug/kg	180		1	91	03/26/15	03/28/15 21:35	1055
Di-n-butyl phthalate	ND	ug/kg	180		1	91	03/26/15	03/28/15 21:35	1055
Carbazole	ND	ug/kg	180		1	91	03/26/15	03/28/15 21:35	1055
4-Chloro-3-methylphenol	ND	ug/kg	180		1	91	03/26/15	03/28/15 21:35	1055
4-Chloroaniline	ND	ug/kg	180		1	180	03/26/15	03/28/15 21:35	1055
2-Chloronaphthalene	ND	ug/kg	180		1	91	03/26/15	03/28/15 21:35	1055
2-Chlorophenol	ND	ug/kg	180		1	91	03/26/15	03/28/15 21:35	1055
4-Chlorophenyl phenyl ether	ND	ug/kg	180		1	91	03/26/15	03/28/15 21:35	1055
Dibenzofuran	ND	ug/kg	180		1	91	03/26/15	03/28/15 21:35	1055
3,3-Dichlorobenzidine	ND	ug/kg	180		1	91	03/26/15	03/28/15 21:35	1055
2,4-Dichlorophenol	ND	ug/kg	180		1	91	03/26/15	03/28/15 21:35	1055
Diethyl phthalate	ND	ug/kg	180		1	91	03/26/15	03/28/15 21:35	1055
Dimethyl phthalate	ND	ug/kg	180		1	91	03/26/15	03/28/15 21:35	1055
2,4-Dimethylphenol	ND	ug/kg	180		1	91	03/26/15	03/28/15 21:35	1055
4,6-Dinitro-2-methyl phenol	ND	ug/kg	180		1	91	03/26/15	03/28/15 21:35	1055
2,4-Dinitrophenol	ND	ug/kg	360		1	180	03/26/15	03/28/15 21:35	1055
2,4-Dinitrotoluene	ND	ug/kg	180		1	91	03/26/15	03/28/15 21:35	1055
2,6-Dinitrotoluene	ND	ug/kg	180		1	91	03/26/15	03/28/15 21:35	1055
Hexachlorobenzene	ND	ug/kg	180		1	91	03/26/15	03/28/15 21:35	1055
Hexachlorobutadiene	ND	ug/kg	180		1	91	03/26/15	03/28/15 21:35	1055
Hexachlorocyclopentadiene	ND	ug/kg	180		1	91	03/26/15	03/28/15 21:35	1055
Hexachloroethane	ND	ug/kg	180		1	91	03/26/15	03/28/15 21:35	1055

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CERTIFICATE OF ANALYSIS

No: 15032311

Arc Environmental, Baltimore, MD

March 30, 2015

Project Name: Percontee
 Project Location: Silver Spring, MD
 Project ID: 057-5

D R A F T

Sample ID: B20 A 0-2 **Date/Time Sampled: 03/19/2015 14:00** **PSS Sample ID: 15032311-003**
Matrix: SOIL **Date/Time Received: 03/23/2015 12:35** **% Solids: 91**

TCL Semivolatile Organic Compounds w/o PAHs Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

Pending Confirmation

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Isophorone	ND	ug/kg	180		1	91	03/26/15	03/28/15 21:35	1055
2-Methylphenol	ND	ug/kg	180		1	91	03/26/15	03/28/15 21:35	1055
3&4-Methylphenol	ND	ug/kg	180		1	91	03/26/15	03/28/15 21:35	1055
4-Nitroaniline	ND	ug/kg	180		1	180	03/26/15	03/28/15 21:35	1055
3-Nitroaniline	ND	ug/kg	180		1	91	03/26/15	03/28/15 21:35	1055
2-Nitroaniline	ND	ug/kg	180		1	91	03/26/15	03/28/15 21:35	1055
Nitrobenzene	ND	ug/kg	180		1	91	03/26/15	03/28/15 21:35	1055
2-Nitrophenol	ND	ug/kg	180		1	91	03/26/15	03/28/15 21:35	1055
4-Nitrophenol	ND	ug/kg	180		1	91	03/26/15	03/28/15 21:35	1055
N-Nitrosodi-n-Propylamine	ND	ug/kg	73		1	73	03/26/15	03/28/15 21:35	1055
N-Nitrosodiphenylamine	ND	ug/kg	180		1	91	03/26/15	03/28/15 21:35	1055
Di-n-octyl phthalate	ND	ug/kg	180		1	180	03/26/15	03/28/15 21:35	1055
Pentachlorophenol	ND	ug/kg	180		1	180	03/26/15	03/28/15 21:35	1055
Phenol	ND	ug/kg	180		1	91	03/26/15	03/28/15 21:35	1055
Atrazine	ND	ug/kg	180		1	91	03/26/15	03/28/15 21:35	1055
Pyridine	ND	ug/kg	180		1	91	03/26/15	03/28/15 21:35	1055
Caprolactam	ND	ug/kg	180		1	91	03/26/15	03/28/15 21:35	1055
2,4,6-Trichlorophenol	ND	ug/kg	180		1	91	03/26/15	03/28/15 21:35	1055
2,4,5-Trichlorophenol	ND	ug/kg	180		1	91	03/26/15	03/28/15 21:35	1055



Case Narrative Summary

Client Name: Arc Environmental

Project Name: Percontee

Work Order Number(s): 15032311

Project ID: 057-5

Any holding time exceedances, deviations from the method specifications, regulatory requirements or variations to the procedures outlined in the PSS Quality Assurance Manual are outlined below.

The analyses of chlorine, pH, dissolved oxygen, temperature and sulfite for drinking water and non-potable samples tested for compliance have a maximum holding time of 15 minutes. As such, all laboratory analyses for these analytes exceed holding times.

Matrix spike and matrix spike duplicate analyses may not be performed due to insufficient sample quantity. In these instances, a laboratory control sample and laboratory control sample duplicate are analyzed unless otherwise noted or specified in the method.

Sample Receipt:

Sample(s) received at 0 degrees but no samples were frozen.

General Comments:

Report is draft for SVOA confirmation.

Analytical:

TCL Semivolatile Organic Compounds w/o PAHs

Batch: 121441

Laboratory control sample and/or laboratory control sample duplicate (LCS/LCSD) exceedances identified; see LCS summary form.

NELAP accreditation was held for all analyses performed unless noted below. See www.phaseonline.com for complete PSS scope of accreditation.



Analytical Data Package Information Summary

Work Order(s): 15032311

Report Prepared For: Arc Environmental, Baltimore, MD

Project Name: Percontee

Project Manager: Kyle Begey

Method	Client Sample Id	Analysis Type	Lab Sample Id	Analyst	Mtx	Prep Batch	Analytical Batch	Sampled	Prepared	Analyzed
ASTM D2216 05	B20 0-2	Initial	15032311-001	1051	S	121267	121267	03/19/2015	03/23/2015 16:12	03/23/2015 16:12
	B20 4-6	Initial	15032311-002	1051	S	121267	121267	03/19/2015	03/23/2015 16:12	03/23/2015 16:12
	B20 A 0-2	Initial	15032311-003	1051	S	121267	121267	03/19/2015	03/23/2015 16:12	03/23/2015 16:12
SW-846 6020 A	B20 0-2	Initial	15032311-001	1033	S	54750	121439	03/19/2015	03/26/2015 14:08	03/27/2015 17:16
	B20 4-6	Initial	15032311-002	1033	S	54750	121439	03/19/2015	03/26/2015 14:08	03/27/2015 17:46
	B20 A 0-2	Initial	15032311-003	1033	S	54750	121439	03/19/2015	03/26/2015 14:08	03/27/2015 17:52
	54750-1-BKS	BKS	54750-1-BKS	1033	S	54750	121439	-----	03/26/2015 14:08	03/27/2015 17:10
	54750-1-BLK	BLK	54750-1-BLK	1033	S	54750	121439	-----	03/26/2015 14:08	03/27/2015 17:04
	B20 0-2 S	MS	15032311-001 S	1033	S	54750	121439	03/19/2015	03/26/2015 14:08	03/27/2015 17:22
	B20 0-2 SD	MSD	15032311-001 SD	1033	S	54750	121439	03/19/2015	03/26/2015 14:08	03/27/2015 17:28
	B20 0-2	Reanalysis	15032311-001	1033	S	54750	121464	03/19/2015	03/26/2015 14:08	03/30/2015 13:23
	B20 4-6	Reanalysis	15032311-002	1033	S	54750	121464	03/19/2015	03/26/2015 14:08	03/30/2015 13:29
	B20 A 0-2	Reanalysis	15032311-003	1033	S	54750	121464	03/19/2015	03/26/2015 14:08	03/30/2015 13:35
SW-846 8015 C	B20 0-2	Initial	15032311-001	1055	S	54716	121379	03/19/2015	03/24/2015 17:15	03/26/2015 02:49
	B20 4-6	Initial	15032311-002	1055	S	54716	121379	03/19/2015	03/24/2015 17:15	03/26/2015 02:26
	B20 A 0-2	Initial	15032311-003	1055	S	54716	121379	03/19/2015	03/24/2015 17:15	03/26/2015 03:36
	54716-1-BKS	BKS	54716-1-BKS	1055	S	54716	121379	-----	03/24/2015 17:15	03/26/2015 00:53
	54716-1-BLK	BLK	54716-1-BLK	1055	S	54716	121379	-----	03/24/2015 17:15	03/26/2015 00:29
	54716-1-BSD	BSD	54716-1-BSD	1055	S	54716	121379	-----	03/24/2015 17:15	03/26/2015 01:16
	ONE-59 S	MS	15032019-001 S	1055	S	54716	121379	03/19/2015	03/24/2015 17:15	03/26/2015 02:03
	ONE-59 SD	MSD	15032019-001 SD	1055	S	54716	121379	03/19/2015	03/24/2015 17:15	03/26/2015 02:26
SW-846 8015 C	B20 0-2	Initial	15032311-001	1035	S	54730	121315	03/19/2015	03/24/2015 10:53	03/24/2015 16:16
	B20 4-6	Initial	15032311-002	1035	S	54730	121315	03/19/2015	03/24/2015 10:53	03/24/2015 16:45
	B20 A 0-2	Initial	15032311-003	1035	S	54730	121315	03/19/2015	03/24/2015 10:53	03/24/2015 17:15
	54730-2-BKS	BKS	54730-2-BKS	1035	S	54730	121315	-----	03/24/2015 10:53	03/24/2015 15:17
	54730-2-BLK	BLK	54730-2-BLK	1035	S	54730	121315	-----	03/24/2015 10:53	03/24/2015 13:20
	B20 0-2 S	MS	15032311-001 S	1035	S	54730	121315	03/19/2015	03/24/2015 10:53	03/24/2015 20:41
	B20 0-2 SD	MSD	15032311-001 SD	1035	S	54730	121315	03/19/2015	03/24/2015 10:53	03/24/2015 21:10



Analytical Data Package Information Summary

Work Order(s): 15032311

Report Prepared For: Arc Environmental, Baltimore, MD

Project Name: Percontee

Project Manager: Kyle Begey

Method	Client Sample Id	Analysis Type	Lab Sample Id	Analyst	Mtx	Prep Batch	Analytical Batch	Sampled	Prepared	Analyzed
SW-846 8082 A	B20 0-2	Initial	15032311-001	1029	S	54717	121398	03/19/2015	03/25/2015 09:30	03/27/2015 00:04
	B20 4-6	Initial	15032311-002	1029	S	54717	121398	03/19/2015	03/25/2015 09:30	03/27/2015 00:33
	B20 A 0-2	Initial	15032311-003	1029	S	54717	121398	03/19/2015	03/25/2015 09:30	03/27/2015 01:02
	54717-1-BKS	BKS	54717-1-BKS	1029	S	54717	121398	-----	03/25/2015 09:30	03/26/2015 22:08
	54717-1-BLK	BLK	54717-1-BLK	1029	S	54717	121398	-----	03/25/2015 09:30	03/26/2015 21:11
	54717-1-BSD	BSD	54717-1-BSD	1029	S	54717	121398	-----	03/25/2015 09:30	03/26/2015 22:37
	B20 0-2 S	MS	15032311-001 S	1029	S	54717	121398	03/19/2015	03/25/2015 09:30	03/26/2015 23:06
	B20 0-2 SD	MSD	15032311-001 SD	1029	S	54717	121398	03/19/2015	03/25/2015 09:30	03/26/2015 23:35
SW-846 8270 C	B20 0-2	Initial	15032311-001	1055	S	54739	121441	03/19/2015	03/26/2015 10:15	03/28/2015 15:55
	B20 4-6	Initial	15032311-002	1055	S	54739	121441	03/19/2015	03/26/2015 10:15	03/28/2015 16:26
	B20 A 0-2	Initial	15032311-003	1055	S	54739	121441	03/19/2015	03/26/2015 10:15	03/28/2015 21:35
	54739-1-BKS	BKS	54739-1-BKS	1055	S	54739	121441	-----	03/26/2015 10:15	03/28/2015 13:20
	54739-1-BLK	BLK	54739-1-BLK	1055	S	54739	121441	-----	03/26/2015 10:15	03/28/2015 12:48
	54739-1-BSD	BSD	54739-1-BSD	1055	S	54739	121441	-----	03/26/2015 10:15	03/28/2015 13:51
	11457-PEX8-3/15 S	MS	15032511-004 S	1055	S	54739	121441	03/25/2015	03/26/2015 10:15	03/28/2015 14:22
	11457-PEX8-3/15 SD	MSD	15032511-004 SD	1055	S	54739	121441	03/25/2015	03/26/2015 10:15	03/28/2015 14:53

PHASE SEPARATION SCIENCE, INC.

QC Summary 15032311

Arc Environmental Percontee

Analytical Method: SW-846 8082 A

Seq Number: 121398
PSS Sample ID: 15032311-001

Prep Method: SW3550C
Date Prep: 03/25/2015

Matrix: Soil

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	80		11-150	%	03/27/15 00:04
Tetrachloro-m-xylene	67		12-158	%	03/27/15 00:04

Draft

Analytical Method: SW-846 8015 C

Seq Number: 121379
PSS Sample ID: 15032311-001

Prep Method: SW3550C
Date Prep: 03/24/2015

Matrix: Soil

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	86		42-129	%	03/26/15 02:49

Analytical Method: SW-846 8270 C

Seq Number: 121441
PSS Sample ID: 15032311-001

Prep Method: SW3550C
Date Prep: 03/26/2015

Matrix: Soil

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	90		60-131	%	03/28/15 15:55
2-Fluorophenol	57		45-108	%	03/28/15 15:55
Nitrobenzene-d5	77		42-131	%	03/28/15 15:55
Phenol-d6	76		48-124	%	03/28/15 15:55
Terphenyl-D14	82		59-137	%	03/28/15 15:55
2,4,6-Tribromophenol	82		46-129	%	03/28/15 15:55

Analytical Method: SW-846 8015C

Seq Number: 121315
PSS Sample ID: 15032311-001

Prep Method: SW5030
Date Prep: 03/24/2015

Matrix: Soil

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	85		55-142	%	03/24/15 16:16

Analytical Method: SW-846 8082 A

Seq Number: 121398
PSS Sample ID: 15032311-002

Prep Method: SW3550C
Date Prep: 03/25/2015

Matrix: Soil

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	110		11-150	%	03/27/15 00:33
Tetrachloro-m-xylene	70		12-158	%	03/27/15 00:33

PHASE SEPARATION SCIENCE, INC.

QC Summary 15032311

Arc Environmental Percontee

Analytical Method: SW-846 8015 C

Seq Number: 121379
PSS Sample ID: 15032311-002

Prep Method: SW3550C
Date Prep: 03/24/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	88		42-129	%	03/26/15 02:26

Draft

Analytical Method: SW-846 8270 C

Seq Number: 121441
PSS Sample ID: 15032311-002

Prep Method: SW3550C
Date Prep: 03/26/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	96		60-131	%	03/28/15 16:26
2-Fluorophenol	69		45-108	%	03/28/15 16:26
Nitrobenzene-d5	85		42-131	%	03/28/15 16:26
Phenol-d6	87		48-124	%	03/28/15 16:26
Terphenyl-D14	87		59-137	%	03/28/15 16:26
2,4,6-Tribromophenol	93		46-129	%	03/28/15 16:26

Analytical Method: SW-846 8015C

Seq Number: 121315
PSS Sample ID: 15032311-002

Prep Method: SW5030
Date Prep: 03/24/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	85		55-142	%	03/24/15 16:45

Analytical Method: SW-846 8082 A

Seq Number: 121398
PSS Sample ID: 15032311-003

Prep Method: SW3550C
Date Prep: 03/25/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	60		11-150	%	03/27/15 01:02
Tetrachloro-m-xylene	32		12-158	%	03/27/15 01:02

Analytical Method: SW-846 8015 C

Seq Number: 121379
PSS Sample ID: 15032311-003

Prep Method: SW3550C
Date Prep: 03/24/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	94		42-129	%	03/26/15 03:36

PHASE SEPARATION SCIENCE, INC.

QC Summary 15032311

Arc Environmental Percontee

Analytical Method: SW-846 8270 C

Seq Number: 121441

PSS Sample ID: 15032311-003

Prep Method: SW3550C

Date Prep: 03/26/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	95		60-131	%	03/28/15 21:35
2-Fluorophenol	55		45-108	%	03/28/15 21:35
Nitrobenzene-d5	81		42-131	%	03/28/15 21:35
Phenol-d6	78		48-124	%	03/28/15 21:35
Terphenyl-D14	79		59-137	%	03/28/15 21:35
2,4,6-Tribromophenol	86		46-129	%	03/28/15 21:35

Draft

Analytical Method: SW-846 8015C

Seq Number: 121315

PSS Sample ID: 15032311-003

Prep Method: SW5030

Date Prep: 03/24/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	84		55-142	%	03/24/15 17:15

F = RPD exceeded the laboratory control limits

X = Recovery of MS, MSD or both outside of QC Criteria

H= Recovery of BS,BSD or both exceeded the laboratory control limits

L = Recovery of BS,BSD or both below the laboratory control limits

PHASE SEPARATION SCIENCE, INC.

QC Summary 15032311

Arc Environmental Percontee

Analytical Method: SW-846 6020 A

Seq Number: 121439

MB Sample Id: 54750-1-BLK

Matrix: Solid

LCS Sample Id: 54750-1-BKS

Prep Method: SW3050B

Date Prep: 03/26/15

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Analysis Date	Flag
Antimony	<1.055	16.88	16.50	98	80-120	mg/kg	03/27/15 17:10	
Arsenic	<0.2110	16.88	15.71	93	80-120	mg/kg	03/27/15 17:10	
Beryllium	<1.055	16.88	14.17	84	80-120	mg/kg	03/27/15 17:10	
Cadmium	<1.055	16.88	15.39	91	80-120	mg/kg	03/27/15 17:10	
Chromium	<1.055	16.88	16.20	96	80-120	mg/kg	03/27/15 17:10	
Copper	<1.055	16.88	15.68	93	80-120	mg/kg	03/27/15 17:10	
Lead	<1.055	16.88	15.25	90	80-120	mg/kg	03/27/15 17:10	
Mercury	<0.04221	0.4221	0.3672	87	80-120	mg/kg	03/27/15 17:10	
Nickel	<1.055	16.88	16.29	97	80-120	mg/kg	03/27/15 17:10	
Selenium	<1.055	16.88	14.29	85	80-120	mg/kg	03/27/15 17:10	
Silver	<1.055	16.88	15.92	94	80-120	mg/kg	03/27/15 17:10	
Thallium	<0.2110	16.88	14.53	86	80-120	mg/kg	03/27/15 17:10	
Zinc	<4.221	16.88	11.23	67	80-120	mg/kg	03/27/15 17:10	L

Analytical Method: SW-846 6020 A

Seq Number: 121439

Parent Sample Id: 15032311-001

Matrix: Soil

MS Sample Id: 15032311-001 S

Prep Method: SW3050B

Date Prep: 03/26/15

MSD Sample Id: 15032311-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Antimony	<1.331	21.30	15.21	71	15.86	72	75-125	4	30	mg/kg	03/27/15 17:22	X
Arsenic	3.114	21.30	20.56	82	21.22	82	75-125	3	30	mg/kg	03/27/15 17:22	
Beryllium	<1.331	21.30	17.73	83	18.36	84	75-125	3	30	mg/kg	03/27/15 17:22	
Cadmium	<1.331	21.30	19.21	90	19.93	91	75-125	4	30	mg/kg	03/27/15 17:22	
Chromium	22.61	21.30	42.48	93	44.14	98	75-125	4	30	mg/kg	03/27/15 17:22	
Copper	10.74	21.30	27.20	77	29.47	85	75-125	8	30	mg/kg	03/27/15 17:22	
Lead	6.904	21.30	26.80	93	28.82	100	75-125	7	30	mg/kg	03/27/15 17:22	
Mercury	0.07191	0.5326	0.5006	80	0.5275	83	75-125	5	30	mg/kg	03/27/15 17:22	
Nickel	8.430	21.30	26.98	87	28.89	93	75-125	7	30	mg/kg	03/27/15 17:22	
Selenium	<1.331	21.30	17.09	80	18.04	82	75-125	5	30	mg/kg	03/27/15 17:22	
Silver	<1.331	21.30	19.52	92	20.31	92	75-125	4	30	mg/kg	03/27/15 17:22	
Thallium	<0.2663	21.30	17.97	84	15.91	72	75-125	12	20	mg/kg	03/27/15 17:22	X
Zinc	66.38	21.30	91.87	120	74.12	35	75-125	21	30	mg/kg	03/27/15 17:22	X

Analytical Method: SW-846 8082 A

Seq Number: 121398

MB Sample Id: 54717-1-BLK

Matrix: Solid

LCS Sample Id: 54717-1-BKS

Prep Method: SW3550C

Date Prep: 03/25/15

LCSD Sample Id: 54717-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
PCB-1016	<0.05123	0.5123	0.4542	89	0.4681	91	62-136	3	25	mg/kg	03/26/15 22:08	
PCB-1260	<0.05123	0.5123	0.4625	90	0.4377	86	56-113	6	25	mg/kg	03/26/15 22:08	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	105		110		105		11-150	%	03/26/15 22:08
Tetrachloro-m-xylene	87		93		86		12-158	%	03/26/15 22:08

PHASE SEPARATION SCIENCE, INC.

QC Summary 15032311

Arc Environmental Percontee

Analytical Method: SW-846 8082 A

Seq Number: 121398

Parent Sample Id: 15032311-001

Matrix: Soil

MS Sample Id: 15032311-001 S

Prep Method: SW3550C

Date Prep: 03/25/15

MSD Sample Id: 15032311-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
PCB-1016	<0.05768	0.5768	0.4264	74	0.4550	81	44-139	6	30	mg/kg	03/26/15 23:06	
PCB-1260	<0.05768	0.5768	0.4204	73	0.4382	78	19-114	4	30	mg/kg	03/26/15 23:06	

Surrogate	MS Result	MS Flag	MSD Result	MSD Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	86		90		11-150	%	03/26/15 23:06
Tetrachloro-m-xylene	76		80		12-158	%	03/26/15 23:06

Analytical Method: SW-846 8015 C

Seq Number: 121379

MB Sample Id: 54716-1-BLK

Matrix: Solid

LCS Sample Id: 54716-1-BKS

Prep Method: SW3550C

Date Prep: 03/24/15

LCSD Sample Id: 54716-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
TPH-DRO (Diesel Range Organics)	<4.012	33.43	28.63	86	31.61	95	56-117	10	25	mg/kg	03/26/15 00:53	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units	Analysis Date
o-Terphenyl	72		75		85		42-129	%	03/26/15 00:53

PHASE SEPARATION SCIENCE, INC.

QC Summary 15032311

Arc Environmental Percontee

Analytical Method: SW-846 8270 C

Seq Number: 121441

MB Sample Id: 54739-1-BLK

Matrix: Solid

LCS Sample Id: 54739-1-BKS

Prep Method: SW3550C

Date Prep: 03/26/15

LCSD Sample Id: 54739-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Acetophenone	<83.11	1330	1269	95	1260	95	61-114	1	25	ug/kg	03/28/15 13:20	
Biphenyl (Diphenyl)	<83.11	1330	1128	85	1231	93	79-107	9	25	ug/kg	03/28/15 13:20	
Butyl benzyl phthalate	<83.11	1330	1120	84	1096	83	67-125	2	25	ug/kg	03/28/15 13:20	
bis(2-chloroethoxy) methane	<83.11	1330	1125	85	1184	89	58-106	5	25	ug/kg	03/28/15 13:20	
bis(2-chloroethyl) ether	<83.11	1330	1151	87	1143	86	58-105	1	25	ug/kg	03/28/15 13:20	
bis(2-chloroisopropyl) ether	<83.11	1330	1118	84	1135	85	53-114	2	25	ug/kg	03/28/15 13:20	
bis(2-ethylhexyl) phthalate	<83.11	1330	1086	82	1084	82	54-137	0	25	ug/kg	03/28/15 13:20	
4-Bromophenylphenyl ether	<83.11	1330	1161	87	1130	85	65-110	3	25	ug/kg	03/28/15 13:20	
Di-n-butyl phthalate	<83.11	1330	1198	90	1297	98	61-127	8	25	ug/kg	03/28/15 13:20	
Carbazole	<83.11	1330	1548	116	1572	118	45-121	2	25	ug/kg	03/28/15 13:20	
4-Chloro-3-methylphenol	<83.11	1330	1172	88	1195	90	70-113	2	25	ug/kg	03/28/15 13:20	
4-Chloroaniline	<166.2	1330	1338	101	1333	100	73-103	0	25	ug/kg	03/28/15 13:20	
2-Chloronaphthalene	<83.11	1330	1254	94	1280	96	76-104	2	25	ug/kg	03/28/15 13:20	
2-Chlorophenol	<83.11	1330	1132	85	1147	86	69-97	1	25	ug/kg	03/28/15 13:20	
4-Chlorophenyl phenyl ether	<83.11	1330	1119	84	1137	86	67-113	2	25	ug/kg	03/28/15 13:20	
Dibenzofuran	<83.11	1330	1205	91	1225	92	72-109	2	25	ug/kg	03/28/15 13:20	
3,3-Dichlorobenzidine	<83.11	1330	1392	105	1409	106	56-128	1	25	ug/kg	03/28/15 13:20	
2,4-Dichlorophenol	<83.11	1330	1159	87	1160	87	75-101	0	25	ug/kg	03/28/15 13:20	
Diethyl phthalate	<83.11	1330	1264	95	1208	91	69-120	5	25	ug/kg	03/28/15 13:20	
Dimethyl phthalate	<83.11	1330	1251	94	1175	88	64-119	6	25	ug/kg	03/28/15 13:20	
2,4-Dimethylphenol	<83.11	1330	1098	83	1071	81	66-98	2	25	ug/kg	03/28/15 13:20	
4,6-Dinitro-2-methyl phenol	<83.11	1330	1550	117	1546	116	63-126	0	25	ug/kg	03/28/15 13:20	
2,4-Dinitrophenol	<166.2	1330	1581	119	1434	108	56-123	10	25	ug/kg	03/28/15 13:20	
2,4-Dinitrotoluene	<83.11	1330	1394	105	1346	101	70-116	4	25	ug/kg	03/28/15 13:20	
2,6-Dinitrotoluene	<83.11	1330	1322	99	1276	96	72-112	4	25	ug/kg	03/28/15 13:20	
Hexachlorobenzene	<83.11	1330	1207	91	1242	94	72-112	3	25	ug/kg	03/28/15 13:20	
Hexachlorobutadiene	<83.11	1330	1112	84	1102	83	72-100	1	25	ug/kg	03/28/15 13:20	
Hexachlorocyclopentadiene	<83.11	1330	1429	107	1328	100	51-125	7	25	ug/kg	03/28/15 13:20	
Hexachloroethane	<83.11	1330	1078	81	1101	83	69-102	2	25	ug/kg	03/28/15 13:20	
Isophorone	<83.11	1330	1275	96	1244	94	71-96	2	25	ug/kg	03/28/15 13:20	
2-Methylphenol	<83.11	1330	1196	90	1187	89	69-102	1	25	ug/kg	03/28/15 13:20	
3&4-Methylphenol	<83.11	1330	1205	91	1228	92	64-113	2	25	ug/kg	03/28/15 13:20	
4-Nitroaniline	<166.2	1330	2224	167	1983	149	41-121	11	25	ug/kg	03/28/15 13:20	H
3-Nitroaniline	<83.11	1330	1417	107	1444	109	49-117	2	25	ug/kg	03/28/15 13:20	
2-Nitroaniline	<83.11	1330	1299	98	1289	97	71-109	1	25	ug/kg	03/28/15 13:20	
Nitrobenzene	<83.11	1330	1119	84	1124	85	66-101	0	25	ug/kg	03/28/15 13:20	
2-Nitrophenol	<83.11	1330	1184	89	1143	86	74-108	4	25	ug/kg	03/28/15 13:20	
4-Nitrophenol	<83.11	1330	1576	118	1525	115	58-125	3	25	ug/kg	03/28/15 13:20	
N-Nitrosodi-n-Propylamine	<66.49	1330	1241	93	1322	100	58-110	6	25	ug/kg	03/28/15 13:20	
N-Nitrosodiphenylamine	<83.11	1330	1173	88	1218	92	70-109	4	25	ug/kg	03/28/15 13:20	
Di-n-octyl phthalate	<166.2	1330	997.3	75	1046	79	63-122	5	25	ug/kg	03/28/15 13:20	
Pentachlorophenol	<166.2	1330	1365	103	1323	100	76-114	3	25	ug/kg	03/28/15 13:20	
Phenol	<83.11	1330	1206	91	1221	92	69-109	1	25	ug/kg	03/28/15 13:20	
Atrazine	<83.11	1330	6310	474	6488	489	69-131	3	25	ug/kg	03/28/15 13:20	H
Pyridine	<83.11	1330	1058	80	1022	77	60-86	3	25	ug/kg	03/28/15 13:20	
Caprolactam	<83.11	1330	1224	92	1277	96	59-129	4	25	ug/kg	03/28/15 13:20	
2,4,6-Trichlorophenol	<83.11	1330	1227	92	1187	89	75-111	3	25	ug/kg	03/28/15 13:20	
2,4,5-Trichlorophenol	<83.11	1330	1223	92	1227	92	81-112	0	25	ug/kg	03/28/15 13:20	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	105		96		92		60-131	%	03/28/15 13:20

PHASE SEPARATION SCIENCE, INC.

QC Summary 15032311

Arc Environmental Percontee

Analytical Method: SW-846 8270 C

Seq Number: 121441

MB Sample Id: 54739-1-BLK

Matrix: Solid

LCS Sample Id: 54739-1-BKS

Prep Method: SW3550C

Date Prep: 03/26/15

LCSD Sample Id: 54739-1-BSD

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units	Analysis Date
2-Fluorophenol	83		83		76		45-108	%	03/28/15 13:20
Nitrobenzene-d5	87		90		82		42-131	%	03/28/15 13:20
Phenol-d6	94		100		94		48-124	%	03/28/15 13:20
Terphenyl-D14	83		90		87		59-137	%	03/28/15 13:20
2,4,6-Tribromophenol	103		110		101		46-129	%	03/28/15 13:20

Draft

Analytical Method: SW-846 8015C

Seq Number: 121315

MB Sample Id: 54730-2-BLK

Matrix: Solid

LCS Sample Id: 54730-2-BKS

Prep Method: SW5030

Date Prep: 03/24/15

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Analysis Date	Flag
TPH-GRO (Gasoline Range Organic)	<49.31	4931	3864	78	60-112	ug/kg	03/24/15 15:17	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	83		96		55-142	%	03/24/15 15:17

Analytical Method: SW-846 8015C

Seq Number: 121315

Parent Sample Id: 15032311-001

Matrix: Soil

MS Sample Id: 15032311-001 S

Prep Method: SW5030

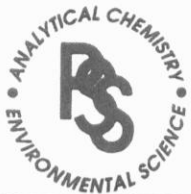
Date Prep: 03/24/15

MSD Sample Id: 15032311-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
TPH-GRO (Gasoline Range Organic)	<56.07	5607	4217	75	4740	84	36-131	12	30	ug/kg	03/24/15 20:41	

Surrogate	MS Result	MS Flag	MSD Result	MSD Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	97		98		55-142	%	03/24/15 20:41

F = RPD exceeded the laboratory control limits
X = Recovery of MS, MSD or both outside of QC Criteria
H= Recovery of BS,BSD or both exceeded the laboratory control limits
L = Recovery of BS,BSD or both below the laboratory control limits



SAMPLE CHAIN OF CUSTODY/AGREEMENT FORM

PHASE SEPARATION SCIENCE, INC.

www.phaseonline.com
email: info@phaseonline.com

1 CLIENT: Arc Environmental		OFFICE LOC. Baltimore, MD		PSS Work Order #: 15032311			PAGE 1 OF 1								
PROJECT MGR: Kyle Begey		PHONE NO.: 410-659-9971		Matrix Codes: SW=Surface Wtr DW=Drinking Wtr GW=Ground Wtr WW=Waste Wtr O=Oil S=Soil WL=Waste Liquid WS=Waste Solid W= Wipe											
EMAIL: kbegey@arcenvironmental.com		FAX NO.: 410-962-1065		No. CONTAINERS	SAMPLE TYPE C = COMP G = GRAB	PPI Metals	SVOCs 8270	VOCs 8260	GRO/DRO 8015	PCBs	Asbestos	PAHs (SIM)	Preservative Used ←	← Analysis/Method Required	
PROJECT NAME: Percontee		PROJECT NO.: 057-5													
SITE LOCATION: Silver Spring, MD		P.O. NO.:													
SAMPLERS: Kyle Begey, Ray Goodwin and Christie Pulvino		DW CERT NO.:													
2 LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX (See Codes)										REMARKS ↓	
1	B-20 O-2	3/19/15	1100	So	2	9	X	X	X	X					Click to enter Remarks
2	B-20 4-6	↓	1115	↓	↓	↓	X	X	X	X					
3	B-20 A O-2	↓	1400	↓	↓	↓	X	X	X	X					
5 Relinquished By: (1)		Date	Time	Received By:		4 Requested Turnaround Time			# of Coolers:						
		3/23	11:40			<input checked="" type="checkbox"/> 5-Day	<input type="checkbox"/> 3-Day	<input type="checkbox"/> 2-Day	Custody Seal: ABS						
Relinquished By: (2)		Date	Time	Received By:		<input type="checkbox"/> Next Day	<input type="checkbox"/> Emergency	<input type="checkbox"/> Other	Data Deliverables Required:			Ice Present: PRES Temp: 0°C NOT FROZEN			
		3/23	1235						Shipping Carrier: TFE						
Relinquished By: (3)		Date	Time	Received By:		Special Instructions:									
						VCP Project with comparison to residential cleanup standards									
Relinquished By: (4)		Date	Time	Received By:											

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The client (Client Name), by signing, or having client's agent sign, this "Sample Chain of Custody/Agreement Form", agrees to pay for the above requested services per the latest version of the Service Brochure or PSS-provided quotation including any and all attorney's or other reasonable fees if collection becomes necessary.



Phase Separation Science, Inc

Sample Receipt Checklist

Work Order # 15032311 **Received By** Rachel Davis
Client Name Arc Environmental **Date Received** 03/23/2015 12:35:00 PM
Project Name Percontee **Delivered By** Trans Time Express
Project Number 057-5 **Tracking No** Not Applicable
Disposal Date 04/27/2015 **Logged In By** Rachel Davis

Shipping Container(s)

No. of Coolers 1

		Ice	Present
Custody Seal(s) Intact?	N/A	Temp (deg C)	0
Seal(s) Signed / Dated?	N/A	Temp Blank Present	No

Documentation

COC agrees with sample labels?	Yes	Sampler Name	<u>Kyle Begey</u>
Chain of Custody	Yes	MD DW Cert. No.	<u>N/A</u>

Sample Container

Appropriate for Specified Analysis?	Yes	Custody Seal(s) Intact?	Not Applicable
Intact?	Yes	Seal(s) Signed / Dated	Not Applicable
Labeled and Labels Legible?	Yes		

Total No. of Samples Received 3

Total No. of Containers Received 6

Preservation

Metals	(pH<2)	N/A
Cyanides	(pH>12)	N/A
Sulfide	(pH>9)	N/A
TOC, COD, Phenols	(pH<2)	N/A
TOX, TKN, NH3, Total Phos	(pH<2)	N/A
VOC, BTEX (VOA Vials Rcvd Preserved)	(pH<2)	N/A
Do VOA vials have zero headspace?		N/A
624 VOC (Rcvd at least one unpreserved VOA vial)		N/A

Comments: (Any "No" response must be detailed in the comments section below.)

For any improper preservation conditions, list sample ID, preservative added (reagent ID number) below as well as documentation of any client notification as well as client instructions. Samples for pH, chlorine and dissolved oxygen should be analyzed as soon as possible, preferably in the field at the time of sampling. Samples which require thermal preservation shall be considered acceptable when received at a temperature above freezing to 6°C. Samples that are hand delivered on the day that they are collected may not meet these criteria but shall be considered acceptable if there is evidence that the chilling process has begun such as arrival on ice.

Sample(s) received at 0 degrees but no samples were frozen.

Samples Inspected/Checklist Completed By:

Rachel Davis

Date: 03/23/2015

Rachel Davis

PM Review and Approval:

Shirley Rivera

Date: 03/25/2015

Shirley Rivera

Analytical Report for

Arc Environmental

Certificate of Analysis No.: 15031810

Project Manager: Kyle Begey

Project Name : Percontee

Project Location: Silver Spring, MD

Project ID : 057-5



March 25, 2015

Phase Separation Science, Inc.

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PHASE SEPARATION SCIENCE, INC.



March 25, 2015

Kyle Begey
Arc Environmental
1311 Haubert Street
Baltimore, MD 21230

Reference: PSS Work Order(s) No: **15031810**
Project Name: Percontee
Project Location: Silver Spring, MD
Project ID.: 057-5

Dear Kyle Begey :

This report includes the analytical results from the analyses performed on the samples received under the project name referenced above and identified with the Phase Separation Science (PSS) Work Order(s) numbered **15031810**.

All work reported herein has been performed in accordance with current NELAP standards, referenced methodologies, PSS Standard Operating Procedures and the PSS Quality Assurance Manual unless otherwise noted in the Case Narrative Summary. PSS is limited in liability to the actual cost of the sample analysis done.

PSS reserves the right to return any unused samples, extracts or related solutions. Otherwise, the samples are scheduled for disposal, without any further notice, on April 22, 2015. This includes any samples that were received with a request to be held but lacked a specific hold period. It is your responsibility to provide a written request defining a specific disposal date if additional storage is required. Upon receipt, the request will be acknowledged by PSS, thus extending the storage period.

This report shall not be reproduced except in full, without the written approval of an authorized PSS representative. A copy of this report will be retained by PSS for at least 5 years, after which time it will be disposed of without further notice, unless prior arrangements have been made.

We thank you for selecting Phase Separation Science, Inc. to serve your analytical needs. If you have any questions concerning this report, do not hesitate to contact us at 410-747-8770 or info@phaseonline.com.

Sincerely,

Dan Prucnal
Laboratory Manager



Sample Summary

Client Name: Arc Environmental
Project Name: Percontee

Work Order Number(s): 15031810

Project ID: 057-5

The following samples were received under chain of custody by Phase Separation Science (PSS) on 03/18/2015 at 12:10 pm

Lab Sample Id	Sample Id	Matrix	Date/Time Collected
15031810-001	B17 0'-2'	SOIL	03/17/15 08:30
15031810-002	B17 4'-6'	SOIL	03/17/15 08:35
15031810-003	B17 28'-30'	SOIL	03/17/15 09:25
15031810-004	B19 0'-2'	SOIL	03/17/15 11:30
15031810-005	B19 4'-6'	SOIL	03/17/15 11:35

Please reference the Chain of Custody and Sample Receipt Checklist for specific container counts and preservatives. Any sample conditions not in compliance with sample acceptance criteria are described in Case Narrative Summary.

Notes:

1. The presence of a common laboratory contaminant such as methylene chloride may be considered a possible laboratory artifact. Where observed, appropriate consideration of data should be taken.
2. Unless otherwise noted in the case narrative, results are reported on a dry weight basis with the exception of pH, flashpoint, moisture, and paint filter test.
3. Drinking water samples collected for the purpose of compliance with SDWA may not be suitable for their intended use unless collected by a certified sampler [COMAR 26.08.05.07.C.2].
4. The analyses of 1,2-dibromo-3-chloropropane (DBCP) and 1,2-dibromoethane (EDB) by EPA 524.2 and calcium, magnesium, sodium and iron by EPA 200.8 are not currently promulgated for use in testing to meet the Safe Drinking Water Act and as such cannot be used for compliance purposes. The listings of the current promulgated methods for testing in compliance with the Safe Drinking Water Act can be found in the 40 CFR part 141.1, for the primary drinking water contaminants, and part 141.3, for the secondary drinking water contaminants.
5. Sample prepared under EPA 3550C with concentrations greater than 20 mg/Kg should employ the microtip extraction procedure if required to meet data quality objectives.
6. The analysis of acrolein by EPA 624 must be analyzed within three days of sampling unless pH is adjusted to 4-5 units [40 CFR part 136.3(e)].
7. Method 180.1, The Determination of Turbidity by Nephelometry, recommends samples over 40 NTU be diluted until the turbidity falls below 40 units. Routine samples over 40 NTU may not be diluted as long as the data quality objectives are not affected.
8. Alkalinity results analyzed by EPA 310.2 that are reported by dilution are estimated and are not in compliance with method requirements.

Standard Flags/Abbreviations:

- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- C** Results Pending Final Confirmation.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- Fail** The result exceeds the regulatory level for Toxicity Characteristic (TCLP) as cited in 40 CFR 261.24 Table 1.
- J** The target analyte was positively identified below the reporting limit but greater than the MDL.
- MDL** This is the Laboratory Method Detection Limit which is equivalent to the Limit of Detection (LOD). The LOD is an estimate of the minimum amount of a substance that an analytical process can reliably detect. This value will remain constant across multiple similar instrumentation and among different analysts. An LOD is analyte and matrix specific.
- ND** Not Detected at or above the reporting limit.
- RL** PSS Reporting Limit.
- U** Not detected.

Certifications:

NELAP Certifications: PA 68-03330, VA 460156
State Certifications: MD 179, WV 303
Regulated Soil Permit: P330-12-00268
NSWC USCG Accepted Laboratory
LDBE MWAA LD1997-0041-2015

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15031810

Arc Environmental, Baltimore, MD

March 25, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B17 0'-2'	Date/Time Sampled: 03/17/2015 08:30	PSS Sample ID: 15031810-001
Matrix: SOIL	Date/Time Received: 03/18/2015 12:10	% Solids: 82

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	mg/kg	2.6		1	1.3	03/19/15	03/20/15 16:36	1033
Arsenic	3.7	mg/kg	0.52		1	0.26	03/19/15	03/20/15 16:36	1033
Beryllium	ND	mg/kg	2.6		1	1.3	03/19/15	03/20/15 16:36	1033
Cadmium	ND	mg/kg	2.6		1	1.3	03/19/15	03/20/15 16:36	1033
Chromium	31	mg/kg	2.6		1	1.3	03/19/15	03/20/15 16:36	1033
Copper	16	mg/kg	2.6		1	1.3	03/19/15	03/20/15 16:36	1033
Lead	40	mg/kg	2.6		1	1.3	03/19/15	03/20/15 16:36	1033
Mercury	0.071	mg/kg	0.10	J	1	0.052	03/19/15	03/20/15 16:36	1033
Nickel	18	mg/kg	2.6		1	1.3	03/19/15	03/20/15 16:36	1033
Selenium	ND	mg/kg	2.6		1	1.3	03/19/15	03/23/15 18:11	1033
Silver	ND	mg/kg	2.6		1	1.3	03/19/15	03/20/15 16:36	1033
Thallium	ND	mg/kg	0.52		1	0.26	03/19/15	03/20/15 16:36	1033
Zinc	49	mg/kg	10		1	5.2	03/19/15	03/23/15 18:11	1033

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: SW3550C

DF/HF - No. 2/diesel fuel and heavier fuel/oil patterns observed in sample.

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	11	mg/kg	12	J	1	4.8	03/23/15	03/23/15 17:49	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/kg	120		1	60	03/19/15	03/19/15 17:03	1035

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15031810

Arc Environmental, Baltimore, MD

March 25, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B17 0'-2'	Date/Time Sampled: 03/17/2015 08:30	PSS Sample ID: 15031810-001
Matrix: SOIL	Date/Time Received: 03/18/2015 12:10	% Solids: 82

Polychlorinated Biphenyls

Analytical Method: SW-846 8082 A

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
PCB-1016	ND	mg/kg	0.061		1	0.061	03/20/15	03/23/15 11:33	1029
PCB-1221	ND	mg/kg	0.061		1	0.061	03/20/15	03/23/15 11:33	1029
PCB-1232	ND	mg/kg	0.061		1	0.061	03/20/15	03/23/15 11:33	1029
PCB-1242	ND	mg/kg	0.061		1	0.061	03/20/15	03/23/15 11:33	1029
PCB-1248	ND	mg/kg	0.061		1	0.061	03/20/15	03/23/15 11:33	1029
PCB-1254	ND	mg/kg	0.061		1	0.061	03/20/15	03/23/15 11:33	1029
PCB-1260	ND	mg/kg	0.061		1	0.061	03/20/15	03/23/15 11:33	1029

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/kg	40		10	40	03/22/15	03/25/15 01:01	1055
Acenaphthylene	ND	ug/kg	40		10	40	03/22/15	03/25/15 01:01	1055
Anthracene	44	ug/kg	40		10	40	03/22/15	03/25/15 01:01	1055
Benzo(a)anthracene	89	ug/kg	40		10	40	03/22/15	03/25/15 01:01	1055
Benzo(a)pyrene	110	ug/kg	40		10	40	03/22/15	03/25/15 01:01	1055
Benzo(b)fluoranthene	ND	ug/kg	40		10	40	03/22/15	03/25/15 01:01	1055
Benzo(g,h,i)perylene	77	ug/kg	40		10	40	03/22/15	03/25/15 01:01	1055
Benzo(k)fluoranthene	260	ug/kg	40		10	40	03/22/15	03/25/15 01:01	1055
Chrysene	130	ug/kg	40		10	40	03/22/15	03/25/15 01:01	1055
Dibenz(a,h)Anthracene	ND	ug/kg	40		10	40	03/22/15	03/25/15 01:01	1055
Fluoranthene	200	ug/kg	40		10	40	03/22/15	03/25/15 01:01	1055
Fluorene	ND	ug/kg	40		10	40	03/22/15	03/25/15 01:01	1055
Indeno(1,2,3-c,d)Pyrene	81	ug/kg	40		10	40	03/22/15	03/25/15 01:01	1055
2-Methylnaphthalene	ND	ug/kg	40		10	40	03/22/15	03/25/15 01:01	1055
Naphthalene	ND	ug/kg	40		10	40	03/22/15	03/25/15 01:01	1055
Phenanthrene	97	ug/kg	40		10	40	03/22/15	03/25/15 01:01	1055
Pyrene	170	ug/kg	40		10	40	03/22/15	03/25/15 01:01	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15031810

Arc Environmental, Baltimore, MD

March 25, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B17 0'-2'	Date/Time Sampled: 03/17/2015 08:30	PSS Sample ID: 15031810-001
Matrix: SOIL	Date/Time Received: 03/18/2015 12:10	% Solids: 82

TCL Semivolatile Organic Compounds w/o PAHs Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acetophenone	ND	ug/kg	200		1	100	03/19/15	03/24/15 03:03	1055
Biphenyl (Diphenyl)	ND	ug/kg	200		1	100	03/19/15	03/24/15 03:03	1055
Butyl benzyl phthalate	ND	ug/kg	200		1	100	03/19/15	03/24/15 03:03	1055
bis(2-chloroethoxy) methane	ND	ug/kg	200		1	100	03/19/15	03/24/15 03:03	1055
bis(2-chloroethyl) ether	ND	ug/kg	200		1	100	03/19/15	03/24/15 03:03	1055
bis(2-chloroisopropyl) ether	ND	ug/kg	200		1	100	03/19/15	03/24/15 03:03	1055
bis(2-ethylhexyl) phthalate	ND	ug/kg	200		1	100	03/19/15	03/24/15 03:03	1055
4-Bromophenylphenyl ether	ND	ug/kg	200		1	100	03/19/15	03/24/15 03:03	1055
Di-n-butyl phthalate	ND	ug/kg	200		1	100	03/19/15	03/24/15 03:03	1055
Carbazole	440	ug/kg	200		1	100	03/19/15	03/24/15 03:03	1055
4-Chloro-3-methylphenol	ND	ug/kg	200		1	100	03/19/15	03/24/15 03:03	1055
4-Chloroaniline	ND	ug/kg	200		1	200	03/19/15	03/24/15 03:03	1055
2-Chloronaphthalene	ND	ug/kg	200		1	100	03/19/15	03/24/15 03:03	1055
2-Chlorophenol	ND	ug/kg	200		1	100	03/19/15	03/24/15 03:03	1055
4-Chlorophenyl phenyl ether	ND	ug/kg	200		1	100	03/19/15	03/24/15 03:03	1055
Dibenzofuran	ND	ug/kg	200		1	100	03/19/15	03/24/15 03:03	1055
3,3-Dichlorobenzidine	ND	ug/kg	200		1	100	03/19/15	03/24/15 03:03	1055
2,4-Dichlorophenol	ND	ug/kg	200		1	100	03/19/15	03/24/15 03:03	1055
Diethyl phthalate	ND	ug/kg	200		1	100	03/19/15	03/24/15 03:03	1055
Dimethyl phthalate	ND	ug/kg	200		1	100	03/19/15	03/24/15 03:03	1055
2,4-Dimethylphenol	ND	ug/kg	200		1	100	03/19/15	03/24/15 03:03	1055
4,6-Dinitro-2-methyl phenol	ND	ug/kg	200		1	100	03/19/15	03/24/15 03:03	1055
2,4-Dinitrophenol	ND	ug/kg	400		1	200	03/19/15	03/24/15 03:03	1055
2,4-Dinitrotoluene	ND	ug/kg	200		1	100	03/19/15	03/24/15 03:03	1055
2,6-Dinitrotoluene	ND	ug/kg	200		1	100	03/19/15	03/24/15 03:03	1055
Hexachlorobenzene	ND	ug/kg	200		1	100	03/19/15	03/24/15 03:03	1055
Hexachlorobutadiene	ND	ug/kg	200		1	100	03/19/15	03/24/15 03:03	1055
Hexachlorocyclopentadiene	ND	ug/kg	200		1	100	03/19/15	03/24/15 03:03	1055
Hexachloroethane	ND	ug/kg	200		1	100	03/19/15	03/24/15 03:03	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15031810

Arc Environmental, Baltimore, MD

March 25, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B17 0'-2'	Date/Time Sampled: 03/17/2015 08:30	PSS Sample ID: 15031810-001
Matrix: SOIL	Date/Time Received: 03/18/2015 12:10	% Solids: 82

TCL Semivolatile Organic Compounds w/o PAHs Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Isophorone	ND	ug/kg	200		1	100	03/19/15	03/24/15 03:03	1055
2-Methylphenol	ND	ug/kg	200		1	100	03/19/15	03/24/15 03:03	1055
3&4-Methylphenol	ND	ug/kg	200		1	100	03/19/15	03/24/15 03:03	1055
4-Nitroaniline	ND	ug/kg	200		1	200	03/19/15	03/24/15 03:03	1055
3-Nitroaniline	ND	ug/kg	200		1	100	03/19/15	03/24/15 03:03	1055
2-Nitroaniline	ND	ug/kg	200		1	100	03/19/15	03/24/15 03:03	1055
Nitrobenzene	ND	ug/kg	200		1	100	03/19/15	03/24/15 03:03	1055
2-Nitrophenol	ND	ug/kg	200		1	100	03/19/15	03/24/15 03:03	1055
4-Nitrophenol	ND	ug/kg	200		1	100	03/19/15	03/24/15 03:03	1055
N-Nitrosodi-n-Propylamine	ND	ug/kg	81		1	81	03/19/15	03/24/15 03:03	1055
N-Nitrosodiphenylamine	ND	ug/kg	200		1	100	03/19/15	03/24/15 03:03	1055
Di-n-octyl phthalate	ND	ug/kg	200		1	200	03/19/15	03/24/15 03:03	1055
Pentachlorophenol	ND	ug/kg	200		1	200	03/19/15	03/24/15 03:03	1055
Phenol	ND	ug/kg	200		1	100	03/19/15	03/24/15 03:03	1055
Atrazine	ND	ug/kg	200		1	100	03/19/15	03/24/15 03:03	1055
Pyridine	ND	ug/kg	200		1	100	03/19/15	03/24/15 03:03	1055
Caprolactam	ND	ug/kg	200		1	100	03/19/15	03/24/15 03:03	1055
2,4,6-Trichlorophenol	ND	ug/kg	200		1	100	03/19/15	03/24/15 03:03	1055
2,4,5-Trichlorophenol	ND	ug/kg	200		1	100	03/19/15	03/24/15 03:03	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15031810

Arc Environmental, Baltimore, MD

March 25, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B17 4'-6'	Date/Time Sampled: 03/17/2015 08:35	PSS Sample ID: 15031810-002
Matrix: SOIL	Date/Time Received: 03/18/2015 12:10	% Solids: 84

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	2.5	mg/kg	2.8	J	1	1.4	03/19/15	03/20/15 16:42	1033
Arsenic	4.0	mg/kg	0.55		1	0.28	03/19/15	03/20/15 16:42	1033
Beryllium	ND	mg/kg	2.8		1	1.4	03/19/15	03/20/15 16:42	1033
Cadmium	ND	mg/kg	2.8		1	1.4	03/19/15	03/20/15 16:42	1033
Chromium	34	mg/kg	2.8		1	1.4	03/19/15	03/20/15 16:42	1033
Copper	22	mg/kg	2.8		1	1.4	03/19/15	03/20/15 16:42	1033
Lead	32	mg/kg	2.8		1	1.4	03/19/15	03/20/15 16:42	1033
Mercury	0.11	mg/kg	0.11		1	0.055	03/19/15	03/20/15 16:42	1033
Nickel	31	mg/kg	2.8		1	1.4	03/19/15	03/20/15 16:42	1033
Selenium	ND	mg/kg	2.8		1	1.4	03/19/15	03/23/15 18:17	1033
Silver	ND	mg/kg	2.8		1	1.4	03/19/15	03/20/15 16:42	1033
Thallium	ND	mg/kg	0.55		1	0.28	03/19/15	03/20/15 16:42	1033
Zinc	57	mg/kg	11		1	5.5	03/19/15	03/23/15 18:17	1033

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: SW3550C

DF/HF - No. 2/diesel fuel and heavier fuel/oil patterns observed in sample.

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	26	mg/kg	12	DF	1	4.7	03/23/15	03/23/15 21:10	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/kg	120		1	58	03/19/15	03/19/15 17:33	1035

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15031810

Arc Environmental, Baltimore, MD

March 25, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B17 4'-6'	Date/Time Sampled: 03/17/2015 08:35	PSS Sample ID: 15031810-002
Matrix: SOIL	Date/Time Received: 03/18/2015 12:10	% Solids: 84

Polychlorinated Biphenyls

Analytical Method: SW-846 8082 A

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
PCB-1016	ND	mg/kg	0.060		1	0.06	03/20/15	03/23/15 12:02	1029
PCB-1221	ND	mg/kg	0.060		1	0.06	03/20/15	03/23/15 12:02	1029
PCB-1232	ND	mg/kg	0.060		1	0.06	03/20/15	03/23/15 12:02	1029
PCB-1242	ND	mg/kg	0.060		1	0.06	03/20/15	03/23/15 12:02	1029
PCB-1248	ND	mg/kg	0.060		1	0.06	03/20/15	03/23/15 12:02	1029
PCB-1254	ND	mg/kg	0.060		1	0.06	03/20/15	03/23/15 12:02	1029
PCB-1260	ND	mg/kg	0.060		1	0.06	03/20/15	03/23/15 12:02	1029

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CERTIFICATE OF ANALYSIS

No: 15031810

Arc Environmental, Baltimore, MD

March 25, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B17 4'-6'	Date/Time Sampled: 03/17/2015 08:35	PSS Sample ID: 15031810-002
Matrix: SOIL	Date/Time Received: 03/18/2015 12:10	% Solids: 84

TCL Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5035A

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Dichlorodifluoromethane	ND	ug/kg	6.0		1	3	03/23/15	03/23/15 13:08	1011
Chloromethane	ND	ug/kg	6.0		1	3	03/23/15	03/23/15 13:08	1011
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	ug/kg	6.0		1	3	03/23/15	03/23/15 13:08	1011
Vinyl Chloride	ND	ug/kg	6.0		1	3	03/23/15	03/23/15 13:08	1011
Bromomethane	ND	ug/kg	6.0		1	3	03/23/15	03/23/15 13:08	1011
Chloroethane	ND	ug/kg	6.0		1	3	03/23/15	03/23/15 13:08	1011
Acetone	130	ug/kg	24		1	12	03/23/15	03/23/15 13:08	1011
Cyclohexane	ND	ug/kg	24		1	12	03/23/15	03/23/15 13:08	1011
Trichlorofluoromethane	ND	ug/kg	6.0		1	3	03/23/15	03/23/15 13:08	1011
1,1-Dichloroethene	ND	ug/kg	6.0		1	3	03/23/15	03/23/15 13:08	1011
Methylene Chloride	ND	ug/kg	6.0		1	3	03/23/15	03/23/15 13:08	1011
trans-1,2-Dichloroethene	ND	ug/kg	6.0		1	3	03/23/15	03/23/15 13:08	1011
Methyl-t-butyl ether	ND	ug/kg	6.0		1	3	03/23/15	03/23/15 13:08	1011
1,1-Dichloroethane	ND	ug/kg	6.0		1	3	03/23/15	03/23/15 13:08	1011
2-Butanone	ND	ug/kg	24		1	12	03/23/15	03/23/15 13:08	1011
cis-1,2-Dichloroethene	ND	ug/kg	6.0		1	3	03/23/15	03/23/15 13:08	1011
Bromochloromethane	ND	ug/kg	6.0		1	3	03/23/15	03/23/15 13:08	1011
Chloroform	ND	ug/kg	6.0		1	3	03/23/15	03/23/15 13:08	1011
1,1,1-Trichloroethane	ND	ug/kg	6.0		1	3	03/23/15	03/23/15 13:08	1011
1,2-Dichloroethane	ND	ug/kg	6.0		1	3	03/23/15	03/23/15 13:08	1011
Carbon Tetrachloride	ND	ug/kg	6.0		1	3	03/23/15	03/23/15 13:08	1011
Benzene	ND	ug/kg	6.0		1	3	03/23/15	03/23/15 13:08	1011
1,2-Dichloropropane	ND	ug/kg	6.0		1	3	03/23/15	03/23/15 13:08	1011
Carbon Disulfide	ND	ug/kg	12		1	6	03/23/15	03/23/15 13:08	1011
Methylcyclohexane	ND	ug/kg	24		1	12	03/23/15	03/23/15 13:08	1011
Trichloroethene	ND	ug/kg	6.0		1	3	03/23/15	03/23/15 13:08	1011
Methyl Acetate	ND	ug/kg	24		1	12	03/23/15	03/23/15 13:08	1011
Bromodichloromethane	ND	ug/kg	6.0		1	3	03/23/15	03/23/15 13:08	1011
cis-1,3-Dichloropropene	ND	ug/kg	6.0		1	3	03/23/15	03/23/15 13:08	1011
4-Methyl-2-Pentanone	ND	ug/kg	24		1	12	03/23/15	03/23/15 13:08	1011

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15031810

Arc Environmental, Baltimore, MD

March 25, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B17 4'-6'	Date/Time Sampled: 03/17/2015 08:35	PSS Sample ID: 15031810-002
Matrix: SOIL	Date/Time Received: 03/18/2015 12:10	% Solids: 84

TCL Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5035A

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
trans-1,3-Dichloropropene	ND	ug/kg	6.0		1	3	03/23/15	03/23/15 13:08	1011
1,1,2-Trichloroethane	ND	ug/kg	6.0		1	3	03/23/15	03/23/15 13:08	1011
Toluene	ND	ug/kg	6.0		1	3	03/23/15	03/23/15 13:08	1011
2-Hexanone	ND	ug/kg	24		1	12	03/23/15	03/23/15 13:08	1011
1,2-Dibromoethane	ND	ug/kg	6.0		1	3	03/23/15	03/23/15 13:08	1011
Dibromochloromethane	ND	ug/kg	6.0		1	3	03/23/15	03/23/15 13:08	1011
Bromoform	ND	ug/kg	6.0		1	3	03/23/15	03/23/15 13:08	1011
Tetrachloroethene	ND	ug/kg	6.0		1	3	03/23/15	03/23/15 13:08	1011
Chlorobenzene	ND	ug/kg	6.0		1	3	03/23/15	03/23/15 13:08	1011
Ethylbenzene	ND	ug/kg	6.0		1	3	03/23/15	03/23/15 13:08	1011
m,p-Xylenes	ND	ug/kg	12		1	6	03/23/15	03/23/15 13:08	1011
Styrene	ND	ug/kg	6.0		1	3	03/23/15	03/23/15 13:08	1011
1,1,2,2-Tetrachloroethane	ND	ug/kg	6.0		1	3	03/23/15	03/23/15 13:08	1011
o-Xylene	ND	ug/kg	6.0		1	3	03/23/15	03/23/15 13:08	1011
Isopropylbenzene	ND	ug/kg	6.0		1	3	03/23/15	03/23/15 13:08	1011
1,3-Dichlorobenzene	ND	ug/kg	6.0		1	3	03/23/15	03/23/15 13:08	1011
1,4-Dichlorobenzene	ND	ug/kg	6.0		1	3	03/23/15	03/23/15 13:08	1011
1,2-Dichlorobenzene	ND	ug/kg	6.0		1	3	03/23/15	03/23/15 13:08	1011
1,2-Dibromo-3-Chloropropane	ND	ug/kg	48		1	24	03/23/15	03/23/15 13:08	1011
1,2,4-Trichlorobenzene	ND	ug/kg	6.0		1	3	03/23/15	03/23/15 13:08	1011
1,2,3-Trichlorobenzene	ND	ug/kg	6.0		1	3	03/23/15	03/23/15 13:08	1011

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CERTIFICATE OF ANALYSIS

No: 15031810

Arc Environmental, Baltimore, MD

March 25, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B17 4'-6'	Date/Time Sampled: 03/17/2015 08:35	PSS Sample ID: 15031810-002
Matrix: SOIL	Date/Time Received: 03/18/2015 12:10	% Solids: 84

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/kg	80		20	80	03/22/15	03/25/15 03:02	1055
Acenaphthylene	ND	ug/kg	80		20	80	03/22/15	03/25/15 03:02	1055
Anthracene	ND	ug/kg	80		20	80	03/22/15	03/25/15 03:02	1055
Benzo(a)anthracene	ND	ug/kg	80		20	80	03/22/15	03/25/15 03:02	1055
Benzo(a)pyrene	ND	ug/kg	80		20	80	03/22/15	03/25/15 03:02	1055
Benzo(b)fluoranthene	ND	ug/kg	80		20	80	03/22/15	03/25/15 03:02	1055
Benzo(g,h,i)perylene	ND	ug/kg	80		20	80	03/22/15	03/25/15 03:02	1055
Benzo(k)fluoranthene	180	ug/kg	80		20	80	03/22/15	03/25/15 03:02	1055
Chrysene	80	ug/kg	80	J	20	80	03/22/15	03/25/15 03:02	1055
Dibenz(a,h)Anthracene	ND	ug/kg	80		20	80	03/22/15	03/25/15 03:02	1055
Fluoranthene	96	ug/kg	80		20	80	03/22/15	03/25/15 03:02	1055
Fluorene	ND	ug/kg	80		20	80	03/22/15	03/25/15 03:02	1055
Indeno(1,2,3-c,d)Pyrene	ND	ug/kg	80		20	80	03/22/15	03/25/15 03:02	1055
2-Methylnaphthalene	ND	ug/kg	80		20	80	03/22/15	03/25/15 03:02	1055
Naphthalene	ND	ug/kg	80		20	80	03/22/15	03/25/15 03:02	1055
Phenanthrene	ND	ug/kg	80		20	80	03/22/15	03/25/15 03:02	1055
Pyrene	96	ug/kg	80		20	80	03/22/15	03/25/15 03:02	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15031810

Arc Environmental, Baltimore, MD

March 25, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B17 4'-6'	Date/Time Sampled: 03/17/2015 08:35	PSS Sample ID: 15031810-002
Matrix: SOIL	Date/Time Received: 03/18/2015 12:10	% Solids: 84

TCL Semivolatile Organic Compounds w/o PAHs Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acetophenone	ND	ug/kg	200		1	99	03/19/15	03/24/15 03:58	1055
Biphenyl (Diphenyl)	ND	ug/kg	200		1	99	03/19/15	03/24/15 03:58	1055
Butyl benzyl phthalate	ND	ug/kg	200		1	99	03/19/15	03/24/15 03:58	1055
bis(2-chloroethoxy) methane	ND	ug/kg	200		1	99	03/19/15	03/24/15 03:58	1055
bis(2-chloroethyl) ether	ND	ug/kg	200		1	99	03/19/15	03/24/15 03:58	1055
bis(2-chloroisopropyl) ether	ND	ug/kg	200		1	99	03/19/15	03/24/15 03:58	1055
bis(2-ethylhexyl) phthalate	ND	ug/kg	200		1	99	03/19/15	03/24/15 03:58	1055
4-Bromophenylphenyl ether	ND	ug/kg	200		1	99	03/19/15	03/24/15 03:58	1055
Di-n-butyl phthalate	ND	ug/kg	200		1	99	03/19/15	03/24/15 03:58	1055
Carbazole	ND	ug/kg	200		1	99	03/19/15	03/24/15 03:58	1055
4-Chloro-3-methylphenol	ND	ug/kg	200		1	99	03/19/15	03/24/15 03:58	1055
4-Chloroaniline	ND	ug/kg	200		1	200	03/19/15	03/24/15 03:58	1055
2-Chloronaphthalene	ND	ug/kg	200		1	99	03/19/15	03/24/15 03:58	1055
2-Chlorophenol	ND	ug/kg	200		1	99	03/19/15	03/24/15 03:58	1055
4-Chlorophenyl phenyl ether	ND	ug/kg	200		1	99	03/19/15	03/24/15 03:58	1055
Dibenzofuran	ND	ug/kg	200		1	99	03/19/15	03/24/15 03:58	1055
3,3-Dichlorobenzidine	ND	ug/kg	200		1	99	03/19/15	03/24/15 03:58	1055
2,4-Dichlorophenol	ND	ug/kg	200		1	99	03/19/15	03/24/15 03:58	1055
Diethyl phthalate	ND	ug/kg	200		1	99	03/19/15	03/24/15 03:58	1055
Dimethyl phthalate	ND	ug/kg	200		1	99	03/19/15	03/24/15 03:58	1055
2,4-Dimethylphenol	ND	ug/kg	200		1	99	03/19/15	03/24/15 03:58	1055
4,6-Dinitro-2-methyl phenol	ND	ug/kg	200		1	99	03/19/15	03/24/15 03:58	1055
2,4-Dinitrophenol	ND	ug/kg	400		1	200	03/19/15	03/24/15 03:58	1055
2,4-Dinitrotoluene	ND	ug/kg	200		1	99	03/19/15	03/24/15 03:58	1055
2,6-Dinitrotoluene	ND	ug/kg	200		1	99	03/19/15	03/24/15 03:58	1055
Hexachlorobenzene	ND	ug/kg	200		1	99	03/19/15	03/24/15 03:58	1055
Hexachlorobutadiene	ND	ug/kg	200		1	99	03/19/15	03/24/15 03:58	1055
Hexachlorocyclopentadiene	ND	ug/kg	200		1	99	03/19/15	03/24/15 03:58	1055
Hexachloroethane	ND	ug/kg	200		1	99	03/19/15	03/24/15 03:58	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15031810
 Arc Environmental, Baltimore, MD
 March 25, 2015

Project Name: Percontee
 Project Location: Silver Spring, MD
 Project ID: 057-5

Sample ID: B17 4'-6' **Date/Time Sampled: 03/17/2015 08:35** **PSS Sample ID: 15031810-002**
Matrix: SOIL **Date/Time Received: 03/18/2015 12:10** **% Solids: 84**

TCL Semivolatile Organic Compounds w/o PAHs Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Isophorone	ND	ug/kg	200		1	99	03/19/15	03/24/15 03:58	1055
2-Methylphenol	ND	ug/kg	200		1	99	03/19/15	03/24/15 03:58	1055
3&4-Methylphenol	ND	ug/kg	200		1	99	03/19/15	03/24/15 03:58	1055
4-Nitroaniline	ND	ug/kg	200		1	200	03/19/15	03/24/15 03:58	1055
3-Nitroaniline	ND	ug/kg	200		1	99	03/19/15	03/24/15 03:58	1055
2-Nitroaniline	ND	ug/kg	200		1	99	03/19/15	03/24/15 03:58	1055
Nitrobenzene	ND	ug/kg	200		1	99	03/19/15	03/24/15 03:58	1055
2-Nitrophenol	ND	ug/kg	200		1	99	03/19/15	03/24/15 03:58	1055
4-Nitrophenol	ND	ug/kg	200		1	99	03/19/15	03/24/15 03:58	1055
N-Nitrosodi-n-Propylamine	ND	ug/kg	79		1	79	03/19/15	03/24/15 03:58	1055
N-Nitrosodiphenylamine	ND	ug/kg	200		1	99	03/19/15	03/24/15 03:58	1055
Di-n-octyl phthalate	ND	ug/kg	200		1	200	03/19/15	03/24/15 03:58	1055
Pentachlorophenol	ND	ug/kg	200		1	200	03/19/15	03/24/15 03:58	1055
Phenol	ND	ug/kg	200		1	99	03/19/15	03/24/15 03:58	1055
Atrazine	ND	ug/kg	200		1	99	03/19/15	03/24/15 03:58	1055
Pyridine	ND	ug/kg	200		1	99	03/19/15	03/24/15 03:58	1055
Caprolactam	ND	ug/kg	200		1	99	03/19/15	03/24/15 03:58	1055
2,4,6-Trichlorophenol	ND	ug/kg	200		1	99	03/19/15	03/24/15 03:58	1055
2,4,5-Trichlorophenol	ND	ug/kg	200		1	99	03/19/15	03/24/15 03:58	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15031810

Arc Environmental, Baltimore, MD

March 25, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B17 28'-30'	Date/Time Sampled: 03/17/2015 09:25	PSS Sample ID: 15031810-003
Matrix: SOIL	Date/Time Received: 03/18/2015 12:10	% Solids: 81

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	mg/kg	2.9		1	1.4	03/19/15	03/20/15 16:48	1033
Arsenic	0.87	mg/kg	0.58		1	0.29	03/19/15	03/20/15 16:48	1033
Beryllium	ND	mg/kg	2.9		1	1.4	03/19/15	03/20/15 16:48	1033
Cadmium	ND	mg/kg	2.9		1	1.4	03/19/15	03/20/15 16:48	1033
Chromium	11	mg/kg	2.9		1	1.4	03/19/15	03/20/15 16:48	1033
Copper	5.4	mg/kg	2.9		1	1.4	03/19/15	03/20/15 16:48	1033
Lead	4.7	mg/kg	2.9		1	1.4	03/19/15	03/20/15 16:48	1033
Mercury	ND	mg/kg	0.12		1	0.058	03/19/15	03/20/15 16:48	1033
Nickel	2.3	mg/kg	2.9	J	1	1.4	03/19/15	03/20/15 16:48	1033
Selenium	ND	mg/kg	2.9		1	1.4	03/19/15	03/23/15 18:23	1033
Silver	ND	mg/kg	2.9		1	1.4	03/19/15	03/20/15 16:48	1033
Thallium	ND	mg/kg	0.58		1	0.29	03/19/15	03/20/15 16:48	1033
Zinc	6.5	mg/kg	12	J	1	5.8	03/19/15	03/23/15 18:23	1033

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	ND	mg/kg	12		1	4.9	03/23/15	03/23/15 16:43	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/kg	120		1	61	03/19/15	03/19/15 18:02	1035

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15031810

Arc Environmental, Baltimore, MD

March 25, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B17 28'-30'	Date/Time Sampled: 03/17/2015 09:25	PSS Sample ID: 15031810-003
Matrix: SOIL	Date/Time Received: 03/18/2015 12:10	% Solids: 81

Polychlorinated Biphenyls

Analytical Method: SW-846 8082 A

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
PCB-1016	ND	mg/kg	0.061		1	0.061	03/20/15	03/23/15 12:31	1029
PCB-1221	ND	mg/kg	0.061		1	0.061	03/20/15	03/23/15 12:31	1029
PCB-1232	ND	mg/kg	0.061		1	0.061	03/20/15	03/23/15 12:31	1029
PCB-1242	ND	mg/kg	0.061		1	0.061	03/20/15	03/23/15 12:31	1029
PCB-1248	ND	mg/kg	0.061		1	0.061	03/20/15	03/23/15 12:31	1029
PCB-1254	ND	mg/kg	0.061		1	0.061	03/20/15	03/23/15 12:31	1029
PCB-1260	ND	mg/kg	0.061		1	0.061	03/20/15	03/23/15 12:31	1029

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/kg	4.1		1	4.1	03/22/15	03/24/15 20:11	1055
Acenaphthylene	ND	ug/kg	4.1		1	4.1	03/22/15	03/24/15 20:11	1055
Anthracene	ND	ug/kg	4.1		1	4.1	03/22/15	03/24/15 20:11	1055
Benzo(a)anthracene	ND	ug/kg	4.1		1	4.1	03/22/15	03/24/15 20:11	1055
Benzo(a)pyrene	ND	ug/kg	4.1		1	4.1	03/22/15	03/24/15 20:11	1055
Benzo(b)fluoranthene	ND	ug/kg	4.1		1	4.1	03/22/15	03/24/15 20:11	1055
Benzo(g,h,i)perylene	ND	ug/kg	4.1		1	4.1	03/22/15	03/24/15 20:11	1055
Benzo(k)fluoranthene	ND	ug/kg	4.1		1	4.1	03/22/15	03/24/15 20:11	1055
Chrysene	ND	ug/kg	4.1		1	4.1	03/22/15	03/24/15 20:11	1055
Dibenz(a,h)Anthracene	ND	ug/kg	4.1		1	4.1	03/22/15	03/24/15 20:11	1055
Fluoranthene	ND	ug/kg	4.1		1	4.1	03/22/15	03/24/15 20:11	1055
Fluorene	ND	ug/kg	4.1		1	4.1	03/22/15	03/24/15 20:11	1055
Indeno(1,2,3-c,d)Pyrene	ND	ug/kg	4.1		1	4.1	03/22/15	03/24/15 20:11	1055
2-Methylnaphthalene	ND	ug/kg	4.1		1	4.1	03/22/15	03/24/15 20:11	1055
Naphthalene	ND	ug/kg	4.1		1	4.1	03/22/15	03/24/15 20:11	1055
Phenanthrene	ND	ug/kg	4.1		1	4.1	03/22/15	03/24/15 20:11	1055
Pyrene	ND	ug/kg	4.1		1	4.1	03/22/15	03/24/15 20:11	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15031810

Arc Environmental, Baltimore, MD

March 25, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B17 28'-30'	Date/Time Sampled: 03/17/2015 09:25	PSS Sample ID: 15031810-003
Matrix: SOIL	Date/Time Received: 03/18/2015 12:10	% Solids: 81

TCL Semivolatile Organic Compounds w/o PAHs Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acetophenone	ND	ug/kg	210		1	100	03/19/15	03/23/15 20:36	1055
Biphenyl (Diphenyl)	ND	ug/kg	210		1	100	03/19/15	03/23/15 20:36	1055
Butyl benzyl phthalate	ND	ug/kg	210		1	100	03/19/15	03/23/15 20:36	1055
bis(2-chloroethoxy) methane	ND	ug/kg	210		1	100	03/19/15	03/23/15 20:36	1055
bis(2-chloroethyl) ether	ND	ug/kg	210		1	100	03/19/15	03/23/15 20:36	1055
bis(2-chloroisopropyl) ether	ND	ug/kg	210		1	100	03/19/15	03/23/15 20:36	1055
bis(2-ethylhexyl) phthalate	ND	ug/kg	210		1	100	03/19/15	03/23/15 20:36	1055
4-Bromophenylphenyl ether	ND	ug/kg	210		1	100	03/19/15	03/23/15 20:36	1055
Di-n-butyl phthalate	ND	ug/kg	210		1	100	03/19/15	03/23/15 20:36	1055
Carbazole	ND	ug/kg	210		1	100	03/19/15	03/23/15 20:36	1055
4-Chloro-3-methylphenol	ND	ug/kg	210		1	100	03/19/15	03/23/15 20:36	1055
4-Chloroaniline	ND	ug/kg	210		1	210	03/19/15	03/23/15 20:36	1055
2-Chloronaphthalene	ND	ug/kg	210		1	100	03/19/15	03/23/15 20:36	1055
2-Chlorophenol	ND	ug/kg	210		1	100	03/19/15	03/23/15 20:36	1055
4-Chlorophenyl phenyl ether	ND	ug/kg	210		1	100	03/19/15	03/23/15 20:36	1055
Dibenzofuran	ND	ug/kg	210		1	100	03/19/15	03/23/15 20:36	1055
3,3-Dichlorobenzidine	ND	ug/kg	210		1	100	03/19/15	03/23/15 20:36	1055
2,4-Dichlorophenol	ND	ug/kg	210		1	100	03/19/15	03/23/15 20:36	1055
Diethyl phthalate	ND	ug/kg	210		1	100	03/19/15	03/23/15 20:36	1055
Dimethyl phthalate	ND	ug/kg	210		1	100	03/19/15	03/23/15 20:36	1055
2,4-Dimethylphenol	ND	ug/kg	210		1	100	03/19/15	03/23/15 20:36	1055
4,6-Dinitro-2-methyl phenol	ND	ug/kg	210		1	100	03/19/15	03/23/15 20:36	1055
2,4-Dinitrophenol	ND	ug/kg	410		1	210	03/19/15	03/23/15 20:36	1055
2,4-Dinitrotoluene	ND	ug/kg	210		1	100	03/19/15	03/23/15 20:36	1055
2,6-Dinitrotoluene	ND	ug/kg	210		1	100	03/19/15	03/23/15 20:36	1055
Hexachlorobenzene	ND	ug/kg	210		1	100	03/19/15	03/23/15 20:36	1055
Hexachlorobutadiene	ND	ug/kg	210		1	100	03/19/15	03/23/15 20:36	1055
Hexachlorocyclopentadiene	ND	ug/kg	210		1	100	03/19/15	03/23/15 20:36	1055
Hexachloroethane	ND	ug/kg	210		1	100	03/19/15	03/23/15 20:36	1055

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CERTIFICATE OF ANALYSIS

No: 15031810

Arc Environmental, Baltimore, MD

March 25, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B17 28'-30'	Date/Time Sampled: 03/17/2015 09:25	PSS Sample ID: 15031810-003
Matrix: SOIL	Date/Time Received: 03/18/2015 12:10	% Solids: 81

TCL Semivolatile Organic Compounds w/o PAHs Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Isophorone	ND	ug/kg	210		1	100	03/19/15	03/23/15 20:36	1055
2-Methylphenol	ND	ug/kg	210		1	100	03/19/15	03/23/15 20:36	1055
3&4-Methylphenol	ND	ug/kg	210		1	100	03/19/15	03/23/15 20:36	1055
4-Nitroaniline	ND	ug/kg	210		1	210	03/19/15	03/23/15 20:36	1055
3-Nitroaniline	ND	ug/kg	210		1	100	03/19/15	03/23/15 20:36	1055
2-Nitroaniline	ND	ug/kg	210		1	100	03/19/15	03/23/15 20:36	1055
Nitrobenzene	ND	ug/kg	210		1	100	03/19/15	03/23/15 20:36	1055
2-Nitrophenol	ND	ug/kg	210		1	100	03/19/15	03/23/15 20:36	1055
4-Nitrophenol	ND	ug/kg	210		1	100	03/19/15	03/23/15 20:36	1055
N-Nitrosodi-n-Propylamine	ND	ug/kg	82		1	82	03/19/15	03/23/15 20:36	1055
N-Nitrosodiphenylamine	ND	ug/kg	210		1	100	03/19/15	03/23/15 20:36	1055
Di-n-octyl phthalate	ND	ug/kg	210		1	210	03/19/15	03/23/15 20:36	1055
Pentachlorophenol	ND	ug/kg	210		1	210	03/19/15	03/23/15 20:36	1055
Phenol	ND	ug/kg	210		1	100	03/19/15	03/23/15 20:36	1055
Atrazine	ND	ug/kg	210		1	100	03/19/15	03/23/15 20:36	1055
Pyridine	ND	ug/kg	210		1	100	03/19/15	03/23/15 20:36	1055
Caprolactam	ND	ug/kg	210		1	100	03/19/15	03/23/15 20:36	1055
2,4,6-Trichlorophenol	ND	ug/kg	210		1	100	03/19/15	03/23/15 20:36	1055
2,4,5-Trichlorophenol	ND	ug/kg	210		1	100	03/19/15	03/23/15 20:36	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15031810

Arc Environmental, Baltimore, MD

March 25, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B19 0'-2'	Date/Time Sampled: 03/17/2015 11:30	PSS Sample ID: 15031810-004
Matrix: SOIL	Date/Time Received: 03/18/2015 12:10	% Solids: 87

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	mg/kg	2.5		1	1.2	03/19/15	03/20/15 17:18	1033
Arsenic	1.7	mg/kg	0.50		1	0.25	03/19/15	03/20/15 17:18	1033
Beryllium	1.4	mg/kg	2.5	J	1	1.2	03/19/15	03/20/15 17:18	1033
Cadmium	ND	mg/kg	2.5		1	1.2	03/19/15	03/20/15 17:18	1033
Chromium	57	mg/kg	2.5		1	1.2	03/19/15	03/20/15 17:18	1033
Copper	26	mg/kg	2.5		1	1.2	03/19/15	03/20/15 17:18	1033
Lead	12	mg/kg	2.5		1	1.2	03/19/15	03/20/15 17:18	1033
Mercury	ND	mg/kg	0.10		1	0.05	03/19/15	03/23/15 18:29	1033
Nickel	33	mg/kg	2.5		1	1.2	03/19/15	03/20/15 17:18	1033
Selenium	ND	mg/kg	2.5		1	1.2	03/19/15	03/23/15 18:29	1033
Silver	ND	mg/kg	2.5		1	1.2	03/19/15	03/20/15 17:18	1033
Thallium	0.34	mg/kg	0.50	J	1	0.25	03/19/15	03/20/15 17:18	1033
Zinc	39	mg/kg	10		1	5	03/19/15	03/23/15 18:29	1033

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: SW3550C

DF/HF - No. 2/diesel fuel and heavier fuel/oil patterns observed in sample.

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	19	mg/kg	11	DF	1	4.5	03/23/15	03/23/15 21:10	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/kg	110		1	56	03/19/15	03/19/15 18:32	1035

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15031810

Arc Environmental, Baltimore, MD

March 25, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B19 0'-2'	Date/Time Sampled: 03/17/2015 11:30	PSS Sample ID: 15031810-004
Matrix: SOIL	Date/Time Received: 03/18/2015 12:10	% Solids: 87

Polychlorinated Biphenyls

Analytical Method: SW-846 8082 A

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
PCB-1016	ND	mg/kg	0.058		1	0.058	03/20/15	03/23/15 13:06	1029
PCB-1221	ND	mg/kg	0.058		1	0.058	03/20/15	03/23/15 13:06	1029
PCB-1232	ND	mg/kg	0.058		1	0.058	03/20/15	03/23/15 13:06	1029
PCB-1242	ND	mg/kg	0.058		1	0.058	03/20/15	03/23/15 13:06	1029
PCB-1248	ND	mg/kg	0.058		1	0.058	03/20/15	03/23/15 13:06	1029
PCB-1254	ND	mg/kg	0.058		1	0.058	03/20/15	03/23/15 13:06	1029
PCB-1260	ND	mg/kg	0.058		1	0.058	03/20/15	03/23/15 13:06	1029

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/kg	3.8		1	3.8	03/22/15	03/24/15 20:35	1055
Acenaphthylene	ND	ug/kg	3.8		1	3.8	03/22/15	03/24/15 20:35	1055
Anthracene	ND	ug/kg	3.8		1	3.8	03/22/15	03/24/15 20:35	1055
Benzo(a)anthracene	ND	ug/kg	3.8		1	3.8	03/22/15	03/24/15 20:35	1055
Benzo(a)pyrene	ND	ug/kg	3.8		1	3.8	03/22/15	03/24/15 20:35	1055
Benzo(b)fluoranthene	ND	ug/kg	3.8		1	3.8	03/22/15	03/24/15 20:35	1055
Benzo(g,h,i)perylene	ND	ug/kg	3.8		1	3.8	03/22/15	03/24/15 20:35	1055
Benzo(k)fluoranthene	ND	ug/kg	3.8		1	3.8	03/22/15	03/24/15 20:35	1055
Chrysene	ND	ug/kg	3.8		1	3.8	03/22/15	03/24/15 20:35	1055
Dibenz(a,h)Anthracene	ND	ug/kg	3.8		1	3.8	03/22/15	03/24/15 20:35	1055
Fluoranthene	ND	ug/kg	3.8		1	3.8	03/22/15	03/24/15 20:35	1055
Fluorene	ND	ug/kg	3.8		1	3.8	03/22/15	03/24/15 20:35	1055
Indeno(1,2,3-c,d)Pyrene	ND	ug/kg	3.8		1	3.8	03/22/15	03/24/15 20:35	1055
2-Methylnaphthalene	ND	ug/kg	3.8		1	3.8	03/22/15	03/24/15 20:35	1055
Naphthalene	ND	ug/kg	3.8		1	3.8	03/22/15	03/24/15 20:35	1055
Phenanthrene	ND	ug/kg	3.8		1	3.8	03/22/15	03/24/15 20:35	1055
Pyrene	ND	ug/kg	3.8		1	3.8	03/22/15	03/24/15 20:35	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15031810

Arc Environmental, Baltimore, MD

March 25, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B19 0'-2'	Date/Time Sampled: 03/17/2015 11:30	PSS Sample ID: 15031810-004
Matrix: SOIL	Date/Time Received: 03/18/2015 12:10	% Solids: 87

TCL Semivolatile Organic Compounds w/o PAHs Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acetophenone	ND	ug/kg	1,900		10	970	03/19/15	03/24/15 04:53	1055
Biphenyl (Diphenyl)	ND	ug/kg	1,900		10	970	03/19/15	03/24/15 04:53	1055
Butyl benzyl phthalate	ND	ug/kg	1,900		10	970	03/19/15	03/24/15 04:53	1055
bis(2-chloroethoxy) methane	ND	ug/kg	1,900		10	970	03/19/15	03/24/15 04:53	1055
bis(2-chloroethyl) ether	ND	ug/kg	1,900		10	970	03/19/15	03/24/15 04:53	1055
bis(2-chloroisopropyl) ether	ND	ug/kg	1,900		10	970	03/19/15	03/24/15 04:53	1055
bis(2-ethylhexyl) phthalate	ND	ug/kg	1,900		10	970	03/19/15	03/24/15 04:53	1055
4-Bromophenylphenyl ether	ND	ug/kg	1,900		10	970	03/19/15	03/24/15 04:53	1055
Di-n-butyl phthalate	ND	ug/kg	1,900		10	970	03/19/15	03/24/15 04:53	1055
Carbazole	ND	ug/kg	1,900		10	970	03/19/15	03/24/15 04:53	1055
4-Chloro-3-methylphenol	ND	ug/kg	1,900		10	970	03/19/15	03/24/15 04:53	1055
4-Chloroaniline	ND	ug/kg	1,900		10	1,900	03/19/15	03/24/15 04:53	1055
2-Chloronaphthalene	ND	ug/kg	1,900		10	970	03/19/15	03/24/15 04:53	1055
2-Chlorophenol	ND	ug/kg	1,900		10	970	03/19/15	03/24/15 04:53	1055
4-Chlorophenyl phenyl ether	ND	ug/kg	1,900		10	970	03/19/15	03/24/15 04:53	1055
Dibenzofuran	ND	ug/kg	1,900		10	970	03/19/15	03/24/15 04:53	1055
3,3-Dichlorobenzidine	ND	ug/kg	1,900		10	970	03/19/15	03/24/15 04:53	1055
2,4-Dichlorophenol	ND	ug/kg	1,900		10	970	03/19/15	03/24/15 04:53	1055
Diethyl phthalate	ND	ug/kg	1,900		10	970	03/19/15	03/24/15 04:53	1055
Dimethyl phthalate	ND	ug/kg	1,900		10	970	03/19/15	03/24/15 04:53	1055
2,4-Dimethylphenol	ND	ug/kg	1,900		10	970	03/19/15	03/24/15 04:53	1055
4,6-Dinitro-2-methyl phenol	ND	ug/kg	1,900		10	970	03/19/15	03/24/15 04:53	1055
2,4-Dinitrophenol	ND	ug/kg	3,900		10	1,900	03/19/15	03/24/15 04:53	1055
2,4-Dinitrotoluene	ND	ug/kg	1,900		10	970	03/19/15	03/24/15 04:53	1055
2,6-Dinitrotoluene	ND	ug/kg	1,900		10	970	03/19/15	03/24/15 04:53	1055
Hexachlorobenzene	ND	ug/kg	1,900		10	970	03/19/15	03/24/15 04:53	1055
Hexachlorobutadiene	ND	ug/kg	1,900		10	970	03/19/15	03/24/15 04:53	1055
Hexachlorocyclopentadiene	ND	ug/kg	1,900		10	970	03/19/15	03/24/15 04:53	1055
Hexachloroethane	ND	ug/kg	1,900		10	970	03/19/15	03/24/15 04:53	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15031810

Arc Environmental, Baltimore, MD

March 25, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B19 0'-2' **Date/Time Sampled: 03/17/2015 11:30** **PSS Sample ID: 15031810-004**
Matrix: SOIL **Date/Time Received: 03/18/2015 12:10** **% Solids: 87**

TCL Semivolatile Organic Compounds w/o PAHs Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Isophorone	ND	ug/kg	1,900		10	970	03/19/15	03/24/15 04:53	1055
2-Methylphenol	ND	ug/kg	1,900		10	970	03/19/15	03/24/15 04:53	1055
3&4-Methylphenol	ND	ug/kg	1,900		10	970	03/19/15	03/24/15 04:53	1055
4-Nitroaniline	ND	ug/kg	1,900		10	1,900	03/19/15	03/24/15 04:53	1055
3-Nitroaniline	ND	ug/kg	1,900		10	970	03/19/15	03/24/15 04:53	1055
2-Nitroaniline	ND	ug/kg	1,900		10	970	03/19/15	03/24/15 04:53	1055
Nitrobenzene	ND	ug/kg	1,900		10	970	03/19/15	03/24/15 04:53	1055
2-Nitrophenol	ND	ug/kg	1,900		10	970	03/19/15	03/24/15 04:53	1055
4-Nitrophenol	ND	ug/kg	1,900		10	970	03/19/15	03/24/15 04:53	1055
N-Nitrosodi-n-Propylamine	ND	ug/kg	780		10	780	03/19/15	03/24/15 04:53	1055
N-Nitrosodiphenylamine	ND	ug/kg	1,900		10	970	03/19/15	03/24/15 04:53	1055
Di-n-octyl phthalate	ND	ug/kg	1,900		10	1,900	03/19/15	03/24/15 04:53	1055
Pentachlorophenol	ND	ug/kg	1,900		10	1,900	03/19/15	03/24/15 04:53	1055
Phenol	ND	ug/kg	1,900		10	970	03/19/15	03/24/15 04:53	1055
Atrazine	ND	ug/kg	1,900		10	970	03/19/15	03/24/15 04:53	1055
Pyridine	ND	ug/kg	1,900		10	970	03/19/15	03/24/15 04:53	1055
Caprolactam	ND	ug/kg	1,900		10	970	03/19/15	03/24/15 04:53	1055
2,4,6-Trichlorophenol	ND	ug/kg	1,900		10	970	03/19/15	03/24/15 04:53	1055
2,4,5-Trichlorophenol	ND	ug/kg	1,900		10	970	03/19/15	03/24/15 04:53	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15031810

Arc Environmental, Baltimore, MD

March 25, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B19 4'-6'	Date/Time Sampled: 03/17/2015 11:35	PSS Sample ID: 15031810-005
Matrix: SOIL	Date/Time Received: 03/18/2015 12:10	% Solids: 83

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	mg/kg	3.0		1	1.5	03/19/15	03/20/15 17:24	1033
Arsenic	2.6	mg/kg	0.60		1	0.3	03/19/15	03/20/15 17:24	1033
Beryllium	ND	mg/kg	3.0		1	1.5	03/19/15	03/20/15 17:24	1033
Cadmium	ND	mg/kg	3.0		1	1.5	03/19/15	03/20/15 17:24	1033
Chromium	16	mg/kg	3.0		1	1.5	03/19/15	03/20/15 17:24	1033
Copper	7.1	mg/kg	3.0		1	1.5	03/19/15	03/20/15 17:24	1033
Lead	9.1	mg/kg	3.0		1	1.5	03/19/15	03/20/15 17:24	1033
Mercury	0.061	mg/kg	0.12	J	1	0.06	03/19/15	03/23/15 18:35	1033
Nickel	8.1	mg/kg	3.0		1	1.5	03/19/15	03/20/15 17:24	1033
Selenium	ND	mg/kg	3.0		1	1.5	03/19/15	03/23/15 18:35	1033
Silver	ND	mg/kg	3.0		1	1.5	03/19/15	03/20/15 17:24	1033
Thallium	ND	mg/kg	0.60		1	0.3	03/19/15	03/20/15 17:24	1033
Zinc	19	mg/kg	12		1	6	03/19/15	03/23/15 18:35	1033

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	5.4	mg/kg	12	J	1	4.8	03/23/15	03/23/15 18:34	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/kg	120		1	60	03/19/15	03/19/15 19:01	1035

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15031810

Arc Environmental, Baltimore, MD

March 25, 2015

Project Name: Percontee
 Project Location: Silver Spring, MD
 Project ID: 057-5

Sample ID: B19 4'-6' **Date/Time Sampled: 03/17/2015 11:35** **PSS Sample ID: 15031810-005**
Matrix: SOIL **Date/Time Received: 03/18/2015 12:10** **% Solids: 83**

Polychlorinated Biphenyls

Analytical Method: SW-846 8082 A

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
PCB-1016	ND	mg/kg	0.060		1	0.06	03/20/15	03/23/15 13:35	1029
PCB-1221	ND	mg/kg	0.060		1	0.06	03/20/15	03/23/15 13:35	1029
PCB-1232	ND	mg/kg	0.060		1	0.06	03/20/15	03/23/15 13:35	1029
PCB-1242	ND	mg/kg	0.060		1	0.06	03/20/15	03/23/15 13:35	1029
PCB-1248	ND	mg/kg	0.060		1	0.06	03/20/15	03/23/15 13:35	1029
PCB-1254	ND	mg/kg	0.060		1	0.06	03/20/15	03/23/15 13:35	1029
PCB-1260	ND	mg/kg	0.060		1	0.06	03/20/15	03/23/15 13:35	1029

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/kg	4.0		1	4	03/22/15	03/24/15 20:59	1055
Acenaphthylene	ND	ug/kg	4.0		1	4	03/22/15	03/24/15 20:59	1055
Anthracene	ND	ug/kg	4.0		1	4	03/22/15	03/24/15 20:59	1055
Benzo(a)anthracene	ND	ug/kg	4.0		1	4	03/22/15	03/24/15 20:59	1055
Benzo(a)pyrene	ND	ug/kg	4.0		1	4	03/22/15	03/24/15 20:59	1055
Benzo(b)fluoranthene	ND	ug/kg	4.0		1	4	03/22/15	03/24/15 20:59	1055
Benzo(g,h,i)perylene	ND	ug/kg	4.0		1	4	03/22/15	03/24/15 20:59	1055
Benzo(k)fluoranthene	ND	ug/kg	4.0		1	4	03/22/15	03/24/15 20:59	1055
Chrysene	ND	ug/kg	4.0		1	4	03/22/15	03/24/15 20:59	1055
Dibenz(a,h)Anthracene	ND	ug/kg	4.0		1	4	03/22/15	03/24/15 20:59	1055
Fluoranthene	ND	ug/kg	4.0		1	4	03/22/15	03/24/15 20:59	1055
Fluorene	ND	ug/kg	4.0		1	4	03/22/15	03/24/15 20:59	1055
Indeno(1,2,3-c,d)Pyrene	ND	ug/kg	4.0		1	4	03/22/15	03/24/15 20:59	1055
2-Methylnaphthalene	ND	ug/kg	4.0		1	4	03/22/15	03/24/15 20:59	1055
Naphthalene	ND	ug/kg	4.0		1	4	03/22/15	03/24/15 20:59	1055
Phenanthrene	ND	ug/kg	4.0		1	4	03/22/15	03/24/15 20:59	1055
Pyrene	ND	ug/kg	4.0		1	4	03/22/15	03/24/15 20:59	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15031810

Arc Environmental, Baltimore, MD

March 25, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B19 4'-6'	Date/Time Sampled: 03/17/2015 11:35	PSS Sample ID: 15031810-005
Matrix: SOIL	Date/Time Received: 03/18/2015 12:10	% Solids: 83

TCL Semivolatile Organic Compounds w/o PAHs Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acetophenone	ND	ug/kg	200		1	100	03/19/15	03/24/15 02:08	1055
Biphenyl (Diphenyl)	ND	ug/kg	200		1	100	03/19/15	03/24/15 02:08	1055
Butyl benzyl phthalate	ND	ug/kg	200		1	100	03/19/15	03/24/15 02:08	1055
bis(2-chloroethoxy) methane	ND	ug/kg	200		1	100	03/19/15	03/24/15 02:08	1055
bis(2-chloroethyl) ether	ND	ug/kg	200		1	100	03/19/15	03/24/15 02:08	1055
bis(2-chloroisopropyl) ether	ND	ug/kg	200		1	100	03/19/15	03/24/15 02:08	1055
bis(2-ethylhexyl) phthalate	ND	ug/kg	200		1	100	03/19/15	03/24/15 02:08	1055
4-Bromophenylphenyl ether	ND	ug/kg	200		1	100	03/19/15	03/24/15 02:08	1055
Di-n-butyl phthalate	ND	ug/kg	200		1	100	03/19/15	03/24/15 02:08	1055
Carbazole	ND	ug/kg	200		1	100	03/19/15	03/24/15 02:08	1055
4-Chloro-3-methylphenol	ND	ug/kg	200		1	100	03/19/15	03/24/15 02:08	1055
4-Chloroaniline	ND	ug/kg	200		1	200	03/19/15	03/24/15 02:08	1055
2-Chloronaphthalene	ND	ug/kg	200		1	100	03/19/15	03/24/15 02:08	1055
2-Chlorophenol	ND	ug/kg	200		1	100	03/19/15	03/24/15 02:08	1055
4-Chlorophenyl phenyl ether	ND	ug/kg	200		1	100	03/19/15	03/24/15 02:08	1055
Dibenzofuran	ND	ug/kg	200		1	100	03/19/15	03/24/15 02:08	1055
3,3-Dichlorobenzidine	ND	ug/kg	200		1	100	03/19/15	03/24/15 02:08	1055
2,4-Dichlorophenol	ND	ug/kg	200		1	100	03/19/15	03/24/15 02:08	1055
Diethyl phthalate	ND	ug/kg	200		1	100	03/19/15	03/24/15 02:08	1055
Dimethyl phthalate	ND	ug/kg	200		1	100	03/19/15	03/24/15 02:08	1055
2,4-Dimethylphenol	ND	ug/kg	200		1	100	03/19/15	03/24/15 02:08	1055
4,6-Dinitro-2-methyl phenol	ND	ug/kg	200		1	100	03/19/15	03/24/15 02:08	1055
2,4-Dinitrophenol	ND	ug/kg	400		1	200	03/19/15	03/24/15 02:08	1055
2,4-Dinitrotoluene	ND	ug/kg	200		1	100	03/19/15	03/24/15 02:08	1055
2,6-Dinitrotoluene	ND	ug/kg	200		1	100	03/19/15	03/24/15 02:08	1055
Hexachlorobenzene	ND	ug/kg	200		1	100	03/19/15	03/24/15 02:08	1055
Hexachlorobutadiene	ND	ug/kg	200		1	100	03/19/15	03/24/15 02:08	1055
Hexachlorocyclopentadiene	ND	ug/kg	200		1	100	03/19/15	03/24/15 02:08	1055
Hexachloroethane	ND	ug/kg	200		1	100	03/19/15	03/24/15 02:08	1055

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CERTIFICATE OF ANALYSIS

No: 15031810

Arc Environmental, Baltimore, MD

March 25, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B19 4'-6'	Date/Time Sampled: 03/17/2015 11:35	PSS Sample ID: 15031810-005
Matrix: SOIL	Date/Time Received: 03/18/2015 12:10	% Solids: 83

TCL Semivolatile Organic Compounds w/o PAHs Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Isophorone	ND	ug/kg	200		1	100	03/19/15	03/24/15 02:08	1055
2-Methylphenol	ND	ug/kg	200		1	100	03/19/15	03/24/15 02:08	1055
3&4-Methylphenol	ND	ug/kg	200		1	100	03/19/15	03/24/15 02:08	1055
4-Nitroaniline	ND	ug/kg	200		1	200	03/19/15	03/24/15 02:08	1055
3-Nitroaniline	ND	ug/kg	200		1	100	03/19/15	03/24/15 02:08	1055
2-Nitroaniline	ND	ug/kg	200		1	100	03/19/15	03/24/15 02:08	1055
Nitrobenzene	ND	ug/kg	200		1	100	03/19/15	03/24/15 02:08	1055
2-Nitrophenol	ND	ug/kg	200		1	100	03/19/15	03/24/15 02:08	1055
4-Nitrophenol	ND	ug/kg	200		1	100	03/19/15	03/24/15 02:08	1055
N-Nitrosodi-n-Propylamine	ND	ug/kg	80		1	80	03/19/15	03/24/15 02:08	1055
N-Nitrosodiphenylamine	ND	ug/kg	200		1	100	03/19/15	03/24/15 02:08	1055
Di-n-octyl phthalate	ND	ug/kg	200		1	200	03/19/15	03/24/15 02:08	1055
Pentachlorophenol	ND	ug/kg	200		1	200	03/19/15	03/24/15 02:08	1055
Phenol	ND	ug/kg	200		1	100	03/19/15	03/24/15 02:08	1055
Atrazine	ND	ug/kg	200		1	100	03/19/15	03/24/15 02:08	1055
Pyridine	ND	ug/kg	200		1	100	03/19/15	03/24/15 02:08	1055
Caprolactam	ND	ug/kg	200		1	100	03/19/15	03/24/15 02:08	1055
2,4,6-Trichlorophenol	ND	ug/kg	200		1	100	03/19/15	03/24/15 02:08	1055
2,4,5-Trichlorophenol	ND	ug/kg	200		1	100	03/19/15	03/24/15 02:08	1055



Case Narrative Summary

Client Name: Arc Environmental

Project Name: Percontee

Work Order Number(s): 15031810

Project ID: 057-5

Any holding time exceedances, deviations from the method specifications, regulatory requirements or variations to the procedures outlined in the PSS Quality Assurance Manual are outlined below.

The analyses of chlorine, pH, dissolved oxygen, temperature and sulfite for drinking water and non-potable samples tested for compliance have a maximum holding time of 15 minutes. As such, all laboratory analyses for these analytes exceed holding times.

Matrix spike and matrix spike duplicate analyses may not be performed due to insufficient sample quantity. In these instances, a laboratory control sample and laboratory control sample duplicate are analyzed unless otherwise noted or specified in the method.

Sample Receipt:

Sample(s) received at 0 degrees but no samples were frozen.

Analytical:

Total Metals

Batch: 121246

Laboratory control sample and/or laboratory control sample duplicate (LCS/LCSD) exceedances identified; see LCS summary form.

Poly Aromatic Hydrocarbons by SIM

Batch: 121326

Nitrobenzene-d5 diluted out in samples -001 and -002.
Surrogate recoveries affected by sample dilution.

TCL Semivolatile Organic Compounds w/o PAHs

Batch: 121292

Laboratory control sample and/or laboratory control sample duplicate (LCS/LCSD) exceedances identified; see LCS summary form.
Matrix spike and/or matrix spike duplicate (MS/MSD) exceedances identified; see MS summary form.

NELAP accreditation was held for all analyses performed unless noted below. See www.phaseonline.com for complete PSS scope of accreditation.



Analytical Data Package Information Summary

Work Order(s): 15031810

Report Prepared For: Arc Environmental, Baltimore, MD

Project Name: Percontee

Project Manager: Kyle Begey

Method	Client Sample Id	Analysis Type	Lab Sample Id	Analyst	Mtx	Prep Batch	Analytical Batch	Sampled	Prepared	Analyzed
ASTM D2216 05	B17 0'-2'	Initial	15031810-001	1051	S	121151	121151	03/17/2015	03/18/2015 17:53	03/18/2015 17:53
	B17 4'-6'	Initial	15031810-002	1051	S	121151	121151	03/17/2015	03/18/2015 17:53	03/18/2015 17:53
	B17 28'-30'	Initial	15031810-003	1051	S	121151	121151	03/17/2015	03/18/2015 17:53	03/18/2015 17:53
	B19 0'-2'	Initial	15031810-004	1051	S	121151	121151	03/17/2015	03/18/2015 17:53	03/18/2015 17:53
	B19 4'-6'	Initial	15031810-005	1051	S	121151	121151	03/17/2015	03/18/2015 17:53	03/18/2015 17:53
SW-846 6020 A	B17 0'-2'	Initial	15031810-001	1033	S	54636	121246	03/17/2015	03/19/2015 13:08	03/20/2015 16:36
	B17 4'-6'	Initial	15031810-002	1033	S	54636	121246	03/17/2015	03/19/2015 13:08	03/20/2015 16:42
	B17 28'-30'	Initial	15031810-003	1033	S	54636	121246	03/17/2015	03/19/2015 13:08	03/20/2015 16:48
	B19 0'-2'	Initial	15031810-004	1033	S	54636	121246	03/17/2015	03/19/2015 13:08	03/20/2015 17:18
	B19 4'-6'	Initial	15031810-005	1033	S	54636	121246	03/17/2015	03/19/2015 13:08	03/20/2015 17:24
	54636-1-BKS	BKS	54636-1-BKS	1033	S	54636	121246	-----	03/19/2015 13:08	03/20/2015 14:47
	54636-1-BLK	BLK	54636-1-BLK	1033	S	54636	121246	-----	03/19/2015 13:08	03/20/2015 14:41
	GTA-1 S	MS	15031717-001 S	1033	S	54636	121246	03/17/2015	03/19/2015 13:08	03/20/2015 14:59
	GTA-1 SD	MSD	15031717-001 SD	1033	S	54636	121246	03/17/2015	03/19/2015 13:08	03/20/2015 15:05
	54636-1-BKS	Reanalysis	54636-1-BKS	1033	S	54636	121285	-----	03/19/2015 13:08	03/23/2015 17:53
	B17 0'-2'	Reanalysis	15031810-001	1033	S	54636	121285	03/17/2015	03/19/2015 13:08	03/23/2015 18:11
	B17 4'-6'	Reanalysis	15031810-002	1033	S	54636	121285	03/17/2015	03/19/2015 13:08	03/23/2015 18:17
	B17 28'-30'	Reanalysis	15031810-003	1033	S	54636	121285	03/17/2015	03/19/2015 13:08	03/23/2015 18:23
	B19 0'-2'	Reanalysis	15031810-004	1033	S	54636	121285	03/17/2015	03/19/2015 13:08	03/23/2015 18:29
	B19 4'-6'	Reanalysis	15031810-005	1033	S	54636	121285	03/17/2015	03/19/2015 13:08	03/23/2015 18:35
SW-846 8015 C	B17 0'-2'	Initial	15031810-001	1055	S	54682	121279	03/17/2015	03/23/2015 10:34	03/23/2015 17:49
	B17 4'-6'	Initial	15031810-002	1055	S	54682	121279	03/17/2015	03/23/2015 10:34	03/23/2015 21:10
	B17 28'-30'	Initial	15031810-003	1055	S	54682	121279	03/17/2015	03/23/2015 10:34	03/23/2015 16:43
	B19 0'-2'	Initial	15031810-004	1055	S	54682	121279	03/17/2015	03/23/2015 10:34	03/23/2015 21:10
	B19 4'-6'	Initial	15031810-005	1055	S	54682	121279	03/17/2015	03/23/2015 10:34	03/23/2015 18:34
	54682-1-BKS	BKS	54682-1-BKS	1055	S	54682	121279	-----	03/23/2015 10:34	03/23/2015 15:14
	54682-1-BLK	BLK	54682-1-BLK	1055	S	54682	121279	-----	03/23/2015 10:34	03/23/2015 14:51
	54682-1-BSD	BSD	54682-1-BSD	1055	S	54682	121279	-----	03/23/2015 10:34	03/23/2015 15:36



Analytical Data Package Information Summary

Work Order(s): 15031810

Report Prepared For: Arc Environmental, Baltimore, MD

Project Name: Percontee

Project Manager: Kyle Begey

Method	Client Sample Id	Analysis Type	Lab Sample Id	Analyst	Mtx	Prep Batch	Analytical Batch	Sampled	Prepared	Analyzed
SW-846 8015 C	SB-2/8-10' S	MS	15031815-002 S	1055	S	54682	121279	03/17/2015	03/23/2015 10:34	03/23/2015 15:59
	SB-2/8-10' SD	MSD	15031815-002 SD	1055	S	54682	121279	03/17/2015	03/23/2015 10:34	03/23/2015 16:21
SW-846 8015C	B17 0'-2'	Initial	15031810-001	1035	S	54650	121198	03/17/2015	03/19/2015 14:06	03/19/2015 17:03
	B17 4'-6'	Initial	15031810-002	1035	S	54650	121198	03/17/2015	03/19/2015 14:06	03/19/2015 17:33
	B17 28'-30'	Initial	15031810-003	1035	S	54650	121198	03/17/2015	03/19/2015 14:06	03/19/2015 18:02
	B19 0'-2'	Initial	15031810-004	1035	S	54650	121198	03/17/2015	03/19/2015 14:06	03/19/2015 18:32
	B19 4'-6'	Initial	15031810-005	1035	S	54650	121198	03/17/2015	03/19/2015 14:06	03/19/2015 19:01
	54650-2-BKS	BKS	54650-2-BKS	1035	S	54650	121198	-----	03/19/2015 14:06	03/19/2015 16:04
	54650-2-BLK	BLK	54650-2-BLK	1035	S	54650	121198	-----	03/19/2015 14:06	03/19/2015 15:34
	B19 4'-6' S	MS	15031810-005 S	1035	S	54650	121198	03/17/2015	03/19/2015 14:06	03/19/2015 20:29
	B19 4'-6' SD	MSD	15031810-005 SD	1035	S	54650	121198	03/17/2015	03/19/2015 14:06	03/19/2015 20:58
SW-846 8082 A	B17 0'-2'	Initial	15031810-001	1029	S	54643	121245	03/17/2015	03/20/2015 09:35	03/23/2015 11:33
	B17 4'-6'	Initial	15031810-002	1029	S	54643	121245	03/17/2015	03/20/2015 09:35	03/23/2015 12:02
	B17 28'-30'	Initial	15031810-003	1029	S	54643	121245	03/17/2015	03/20/2015 09:35	03/23/2015 12:31
	B19 0'-2'	Initial	15031810-004	1029	S	54643	121245	03/17/2015	03/20/2015 09:35	03/23/2015 13:06
	B19 4'-6'	Initial	15031810-005	1029	S	54643	121245	03/17/2015	03/20/2015 09:35	03/23/2015 13:35
	54643-1-BKS	BKS	54643-1-BKS	1029	S	54643	121245	-----	03/20/2015 09:35	03/20/2015 16:50
	54643-1-BLK	BLK	54643-1-BLK	1029	S	54643	121245	-----	03/20/2015 09:35	03/20/2015 16:21
	54643-1-BSD	BSD	54643-1-BSD	1029	S	54643	121245	-----	03/20/2015 09:35	03/20/2015 17:20
	S-1 S	MS	15031912-001 S	1029	S	54643	121245	03/19/2015	03/20/2015 09:35	03/20/2015 18:46
	S-1 SD	MSD	15031912-001 SD	1029	S	54643	121245	03/19/2015	03/20/2015 09:35	03/20/2015 18:17
SW-846 8260 B	B17 4'-6'	Initial	15031810-002	1011	S	54689	121263	03/17/2015	03/23/2015 09:40	03/23/2015 13:08
	54689-1-BKS	BKS	54689-1-BKS	1011	S	54689	121263	-----	03/23/2015 09:40	03/23/2015 11:58
	54689-1-BLK	BLK	54689-1-BLK	1011	S	54689	121263	-----	03/23/2015 09:40	03/23/2015 11:29
	Stockpile S	MS	15031902-001 S	1011	S	54689	121263	03/18/2015	03/23/2015 09:40	03/23/2015 15:36
	Stockpile SD	MSD	15031902-001 SD	1011	S	54689	121263	03/18/2015	03/23/2015 09:40	03/23/2015 16:06
SW-846 8270 C	B17 28'-30'	Initial	15031810-003	1055	S	54631	121292	03/17/2015	03/19/2015 11:48	03/23/2015 20:36



Analytical Data Package Information Summary

Work Order(s): 15031810

Report Prepared For: Arc Environmental, Baltimore, MD

Project Name: Percontee

Project Manager: Kyle Begey

Method	Client Sample Id	Analysis Type	Lab Sample Id	Analyst	Mtx	Prep Batch	Analytical Batch	Sampled	Prepared	Analyzed
SW-846 8270 C	54631-1-BKS	BKS	54631-1-BKS	1055	S	54631	121292	-----	03/19/2015 11:48	03/23/2015 18:17
	54631-1-BLK	BLK	54631-1-BLK	1055	S	54631	121292	-----	03/19/2015 11:48	03/23/2015 17:49
	54631-1-BSD	BSD	54631-1-BSD	1055	S	54631	121292	-----	03/19/2015 11:48	03/23/2015 18:45
	B17 28'-30' S	MS	15031810-003 S	1055	S	54631	121292	03/17/2015	03/19/2015 11:48	03/23/2015 19:40
	B17 28'-30' SD	MSD	15031810-003 SD	1055	S	54631	121292	03/17/2015	03/19/2015 11:48	03/23/2015 20:08
	B17 0'-2'	Initial	15031810-001	1055	S	54631	121293	03/17/2015	03/19/2015 11:48	03/24/2015 03:03
	B17 4'-6'	Initial	15031810-002	1055	S	54631	121293	03/17/2015	03/19/2015 11:48	03/24/2015 03:58
	B19 0'-2'	Initial	15031810-004	1055	S	54631	121293	03/17/2015	03/19/2015 11:48	03/24/2015 04:53
	B19 4'-6'	Initial	15031810-005	1055	S	54631	121293	03/17/2015	03/19/2015 11:48	03/24/2015 02:08
SW-846 8270 C	B17 0'-2'	Initial	15031810-001	1055	S	54662	121326	03/17/2015	03/22/2015 08:35	03/25/2015 01:01
	B17 4'-6'	Initial	15031810-002	1055	S	54662	121326	03/17/2015	03/22/2015 08:35	03/25/2015 03:02
	B17 28'-30'	Initial	15031810-003	1055	S	54662	121326	03/17/2015	03/22/2015 08:35	03/24/2015 20:11
	B19 0'-2'	Initial	15031810-004	1055	S	54662	121326	03/17/2015	03/22/2015 08:35	03/24/2015 20:35
	B19 4'-6'	Initial	15031810-005	1055	S	54662	121326	03/17/2015	03/22/2015 08:35	03/24/2015 20:59
	54662-1-BKS	BKS	54662-1-BKS	1055	S	54662	121326	-----	03/22/2015 08:35	03/24/2015 18:33
	54662-1-BLK	BLK	54662-1-BLK	1055	S	54662	121326	-----	03/22/2015 08:35	03/24/2015 18:09
	54662-1-BSD	BSD	54662-1-BSD	1055	S	54662	121326	-----	03/22/2015 08:35	03/24/2015 18:58
	B17 28'-30' S	MS	15031810-003 S	1055	S	54662	121326	03/17/2015	03/22/2015 08:35	03/24/2015 19:22
	B17 28'-30' SD	MSD	15031810-003 SD	1055	S	54662	121326	03/17/2015	03/22/2015 08:35	03/24/2015 19:46

PHASE SEPARATION SCIENCE, INC.

QC Summary 15031810

Arc Environmental Percentage

Analytical Method: SW-846 8082 A

Seq Number: 121245
PSS Sample ID: 15031810-001

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/20/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	56		11-150	%	03/23/15 11:33
Tetrachloro-m-xylene	67		12-158	%	03/23/15 11:33

Analytical Method: SW-846 8015 C

Seq Number: 121279
PSS Sample ID: 15031810-001

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/23/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	86		42-129	%	03/23/15 17:49

Analytical Method: SW-846 8270 C

Seq Number: 121293
PSS Sample ID: 15031810-001

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/19/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	94		60-131	%	03/24/15 03:03
2-Fluorophenol	65		45-108	%	03/24/15 03:03
Nitrobenzene-d5	84		42-131	%	03/24/15 03:03
Phenol-d6	75		48-124	%	03/24/15 03:03
Terphenyl-D14	99		59-137	%	03/24/15 03:03
2,4,6-Tribromophenol	100		46-129	%	03/24/15 03:03

Analytical Method: SW-846 8270 C

Seq Number: 121326
PSS Sample ID: 15031810-001

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/22/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	90		51-109	%	03/25/15 01:01
Nitrobenzene-d5	0	*	48-111	%	03/25/15 01:01
Terphenyl-D14	120		45-137	%	03/25/15 01:01

Analytical Method: SW-846 8015C

Seq Number: 121198
PSS Sample ID: 15031810-001

Matrix: Soil

Prep Method: SW5030
Date Prep: 03/19/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	84		55-142	%	03/19/15 17:03

PHASE SEPARATION SCIENCE, INC.

QC Summary 15031810

Arc Environmental Percontee

Analytical Method: SW-846 8082 A

Seq Number: 121245
PSS Sample ID: 15031810-002

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/20/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	52		11-150	%	03/23/15 12:02
Tetrachloro-m-xylene	53		12-158	%	03/23/15 12:02

Analytical Method: SW-846 8015 C

Seq Number: 121279
PSS Sample ID: 15031810-002

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/23/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	70		42-129	%	03/23/15 21:10

Analytical Method: SW-846 8270 C

Seq Number: 121293
PSS Sample ID: 15031810-002

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/19/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	90		60-131	%	03/24/15 03:58
2-Fluorophenol	62		45-108	%	03/24/15 03:58
Nitrobenzene-d5	82		42-131	%	03/24/15 03:58
Phenol-d6	69		48-124	%	03/24/15 03:58
Terphenyl-D14	102		59-137	%	03/24/15 03:58
2,4,6-Tribromophenol	104		46-129	%	03/24/15 03:58

Analytical Method: SW-846 8270 C

Seq Number: 121326
PSS Sample ID: 15031810-002

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/22/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	80		51-109	%	03/25/15 03:02
Nitrobenzene-d5	0	*	48-111	%	03/25/15 03:02
Terphenyl-D14	100		45-137	%	03/25/15 03:02

Analytical Method: SW-846 8015C

Seq Number: 121198
PSS Sample ID: 15031810-002

Matrix: Soil

Prep Method: SW5030
Date Prep: 03/19/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	84		55-142	%	03/19/15 17:33

PHASE SEPARATION SCIENCE, INC.

QC Summary 15031810

Arc Environmental Percontee

Analytical Method: SW-846 8260 B

Seq Number: 121263
PSS Sample ID: 15031810-002

Prep Method: SW5035
Date Prep: 03/23/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	103		80-125	%	03/23/15 13:08
Dibromofluoromethane	102		85-115	%	03/23/15 13:08
Toluene-D8	100		91-109	%	03/23/15 13:08

Analytical Method: SW-846 8082 A

Seq Number: 121245
PSS Sample ID: 15031810-003

Prep Method: SW3550C
Date Prep: 03/20/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	78		11-150	%	03/23/15 12:31
Tetrachloro-m-xylene	69		12-158	%	03/23/15 12:31

Analytical Method: SW-846 8015 C

Seq Number: 121279
PSS Sample ID: 15031810-003

Prep Method: SW3550C
Date Prep: 03/23/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	95		42-129	%	03/23/15 16:43

Analytical Method: SW-846 8270 C

Seq Number: 121292
PSS Sample ID: 15031810-003

Prep Method: SW3550C
Date Prep: 03/19/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	90		60-131	%	03/23/15 20:36
2-Fluorophenol	56		45-108	%	03/23/15 20:36
Nitrobenzene-d5	83		42-131	%	03/23/15 20:36
Phenol-d6	82		48-124	%	03/23/15 20:36
Terphenyl-D14	98		59-137	%	03/23/15 20:36
2,4,6-Tribromophenol	96		46-129	%	03/23/15 20:36

PHASE SEPARATION SCIENCE, INC.

QC Summary 15031810

Arc Environmental Percontee

Analytical Method: SW-846 8270 C

Seq Number: 121326
PSS Sample ID: 15031810-003

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/22/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	82		51-109	%	03/24/15 20:11
Nitrobenzene-d5	74		48-111	%	03/24/15 20:11
Terphenyl-D14	96		45-137	%	03/24/15 20:11

Analytical Method: SW-846 8015C

Seq Number: 121198
PSS Sample ID: 15031810-003

Matrix: Soil

Prep Method: SW5030
Date Prep: 03/19/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	66		55-142	%	03/19/15 18:02

Analytical Method: SW-846 8082 A

Seq Number: 121245
PSS Sample ID: 15031810-004

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/20/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	69		11-150	%	03/23/15 13:06
Tetrachloro-m-xylene	77		12-158	%	03/23/15 13:06

Analytical Method: SW-846 8015 C

Seq Number: 121279
PSS Sample ID: 15031810-004

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/23/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	88		42-129	%	03/23/15 21:10

Analytical Method: SW-846 8270 C

Seq Number: 121293
PSS Sample ID: 15031810-004

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/19/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	82		60-131	%	03/24/15 04:53
2-Fluorophenol	53		45-108	%	03/24/15 04:53
Nitrobenzene-d5	66		42-131	%	03/24/15 04:53
Phenol-d6	51		48-124	%	03/24/15 04:53
Terphenyl-D14	98		59-137	%	03/24/15 04:53
2,4,6-Tribromophenol	77		46-129	%	03/24/15 04:53

PHASE SEPARATION SCIENCE, INC.

QC Summary 15031810

Arc Environmental Percontee

Analytical Method: SW-846 8270 C

Seq Number: 121326
PSS Sample ID: 15031810-004

Prep Method: SW3550C
Date Prep: 03/22/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	75		51-109	%	03/24/15 20:35
Nitrobenzene-d5	50		48-111	%	03/24/15 20:35
Terphenyl-D14	102		45-137	%	03/24/15 20:35

Analytical Method: SW-846 8015C

Seq Number: 121198
PSS Sample ID: 15031810-004

Prep Method: SW5030
Date Prep: 03/19/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	85		55-142	%	03/19/15 18:32

Analytical Method: SW-846 8082 A

Seq Number: 121245
PSS Sample ID: 15031810-005

Prep Method: SW3550C
Date Prep: 03/20/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	60		11-150	%	03/23/15 13:35
Tetrachloro-m-xylene	72		12-158	%	03/23/15 13:35

Analytical Method: SW-846 8015 C

Seq Number: 121279
PSS Sample ID: 15031810-005

Prep Method: SW3550C
Date Prep: 03/23/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	85		42-129	%	03/23/15 18:34

Analytical Method: SW-846 8270 C

Seq Number: 121293
PSS Sample ID: 15031810-005

Prep Method: SW3550C
Date Prep: 03/19/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	89		60-131	%	03/24/15 02:08
2-Fluorophenol	60		45-108	%	03/24/15 02:08
Nitrobenzene-d5	83		42-131	%	03/24/15 02:08
Phenol-d6	72		48-124	%	03/24/15 02:08
Terphenyl-D14	99		59-137	%	03/24/15 02:08
2,4,6-Tribromophenol	99		46-129	%	03/24/15 02:08

PHASE SEPARATION SCIENCE, INC.

QC Summary 15031810

Arc Environmental Percontee

Analytical Method: SW-846 8270 C

Seq Number: 121326
PSS Sample ID: 15031810-005

Prep Method: SW3550C
Date Prep: 03/22/2015

Matrix: Soil

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	79		51-109	%	03/24/15 20:59
Nitrobenzene-d5	60		48-111	%	03/24/15 20:59
Terphenyl-D14	101		45-137	%	03/24/15 20:59

Analytical Method: SW-846 8015C

Seq Number: 121198
PSS Sample ID: 15031810-005

Prep Method: SW5030
Date Prep: 03/19/2015

Matrix: Soil

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	85		55-142	%	03/19/15 19:01

F = RPD exceeded the laboratory control limits
X = Recovery of MS, MSD or both outside of QC Criteria
H= Recovery of BS,BSD or both exceeded the laboratory control limits
L = Recovery of BS,BSD or both below the laboratory control limits

PHASE SEPARATION SCIENCE, INC.

QC Summary 15031810

Arc Environmental Percontee

Analytical Method: SW-846 6020 A

Seq Number: 121246

MB Sample Id: 54636-1-BLK

Matrix: Solid

LCS Sample Id: 54636-1-BKS

Prep Method: SW3050B

Date Prep: 03/19/15

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Analysis Date	Flag
Antimony	<1.183	18.92	17.98	95	80-120	mg/kg	03/20/15 14:47	
Arsenic	<0.2365	18.92	15.67	83	80-120	mg/kg	03/20/15 14:47	
Beryllium	<1.183	18.92	16.26	86	80-120	mg/kg	03/20/15 14:47	
Cadmium	<1.183	18.92	16.16	85	80-120	mg/kg	03/20/15 14:47	
Chromium	<1.183	18.92	16.21	86	80-120	mg/kg	03/20/15 14:47	
Copper	<1.183	18.92	16.23	86	80-120	mg/kg	03/20/15 14:47	
Lead	<1.183	18.92	15.88	84	80-120	mg/kg	03/20/15 14:47	
Mercury	0.04764	0.4731	0.3879	82	80-120	mg/kg	03/20/15 14:47	
Nickel	<1.183	18.92	16.23	86	80-120	mg/kg	03/20/15 14:47	
Selenium	<1.183	18.92	15.03	79	80-120	mg/kg	03/23/15 17:53	
Silver	<1.183	18.92	17.24	91	80-120	mg/kg	03/20/15 14:47	
Thallium	<0.2365	18.92	15.34	81	80-120	mg/kg	03/20/15 14:47	
Zinc	<4.731	18.92	15.98	84	80-120	mg/kg	03/23/15 17:53	

Analytical Method: SW-846 6020 A

Seq Number: 121285

REBLK Sample Id: 54636-1-BLK

Matrix: Solid

LCS Sample Id: 54636-1-BKS

Prep Method: SW3050B

Date Prep: 03/19/15

Parameter	REBLK Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Analysis Date	Flag
Mercury	0.04764	0.4731	0.4258	90	75-125	mg/kg	03/23/15 17:53	

Analytical Method: SW-846 8082 A

Seq Number: 121245

MB Sample Id: 54643-1-BLK

Matrix: Solid

LCS Sample Id: 54643-1-BKS

Prep Method: SW3550C

Date Prep: 03/20/15

LCSD Sample Id: 54643-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
PCB-1016	<0.04965	0.4965	0.3260	66	0.2663	52	62-136	20	25	mg/kg	03/20/15 16:50	L
PCB-1260	<0.04965	0.4965	0.3461	70	0.2747	54	56-113	23	25	mg/kg	03/20/15 16:50	L

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	80		82		63		11-150	%	03/20/15 16:50
Tetrachloro-m-xylene	66		59		48		12-158	%	03/20/15 16:50

PHASE SEPARATION SCIENCE, INC.

QC Summary 15031810

Arc Environmental Percontee

Analytical Method: SW-846 8015 C

Seq Number: 121279

MB Sample Id: 54682-1-BLK

Matrix: Solid

LCS Sample Id: 54682-1-BKS

Prep Method: SW3550C

Date Prep: 03/23/15

LCSD Sample Id: 54682-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
TPH-DRO (Diesel Range Organics)	<3.954	32.95	31.69	96	29.34	89	56-117	8	25	mg/kg	03/23/15 15:14	
Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units	Analysis Date			
o-Terphenyl	89		95		88		42-129	%	03/23/15 15:14			

PHASE SEPARATION SCIENCE, INC.

QC Summary 15031810

Arc Environmental Percontee

Analytical Method: SW-846 8270 C

Seq Number: 121292

MB Sample Id: 54631-1-BLK

Matrix: Solid

LCS Sample Id: 54631-1-BKS

Prep Method: SW3550C

Date Prep: 03/19/15

LCSD Sample Id: 54631-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Acetophenone	<83.17	1331	1296	97	1266	95	61-114	2	25	ug/kg	03/23/15 18:17	
Biphenyl (Diphenyl)	<83.17	1331	1200	90	1150	86	79-107	4	25	ug/kg	03/23/15 18:17	
Butyl benzyl phthalate	<83.17	1331	1415	106	1369	103	67-125	3	25	ug/kg	03/23/15 18:17	
bis(2-chloroethoxy) methane	<83.17	1331	1221	92	1202	90	58-106	2	25	ug/kg	03/23/15 18:17	
bis(2-chloroethyl) ether	<83.17	1331	1138	85	1112	83	58-105	2	25	ug/kg	03/23/15 18:17	
bis(2-chloroisopropyl) ether	<83.17	1331	1145	86	1104	83	53-114	4	25	ug/kg	03/23/15 18:17	
bis(2-ethylhexyl) phthalate	<83.17	1331	1408	106	1429	107	54-137	1	25	ug/kg	03/23/15 18:17	
4-Bromophenylphenyl ether	<83.17	1331	1394	105	1372	103	65-110	2	25	ug/kg	03/23/15 18:17	
Di-n-butyl phthalate	<83.17	1331	1326	100	1331	100	61-127	0	25	ug/kg	03/23/15 18:17	
Carbazole	<83.17	1331	1437	108	1436	108	45-121	0	25	ug/kg	03/23/15 18:17	
4-Chloro-3-methylphenol	<83.17	1331	1372	103	1324	99	70-113	4	25	ug/kg	03/23/15 18:17	
4-Chloroaniline	<166.3	1331	1465	110	1402	105	73-103	4	25	ug/kg	03/23/15 18:17	H
2-Chloronaphthalene	<83.17	1331	1220	92	1247	94	76-104	2	25	ug/kg	03/23/15 18:17	
2-Chlorophenol	<83.17	1331	1171	88	1138	85	69-97	3	25	ug/kg	03/23/15 18:17	
4-Chlorophenyl phenyl ether	<83.17	1331	1174	88	1179	89	67-113	0	25	ug/kg	03/23/15 18:17	
Dibenzofuran	<83.17	1331	1242	93	1254	94	72-109	1	25	ug/kg	03/23/15 18:17	
3,3-Dichlorobenzidine	<83.17	1331	1301	98	1300	98	56-128	0	25	ug/kg	03/23/15 18:17	
2,4-Dichlorophenol	<83.17	1331	1300	98	1273	96	75-101	2	25	ug/kg	03/23/15 18:17	
Diethyl phthalate	<83.17	1331	1161	87	1137	85	69-120	2	25	ug/kg	03/23/15 18:17	
Dimethyl phthalate	<83.17	1331	1127	85	1129	85	64-119	0	25	ug/kg	03/23/15 18:17	
2,4-Dimethylphenol	<83.17	1331	1270	95	1213	91	66-98	5	25	ug/kg	03/23/15 18:17	
4,6-Dinitro-2-methyl phenol	<83.17	1331	1298	98	1268	95	63-126	2	25	ug/kg	03/23/15 18:17	
2,4-Dinitrophenol	<166.3	1331	1101	83	1075	81	56-123	2	25	ug/kg	03/23/15 18:17	
2,4-Dinitrotoluene	<83.17	1331	1315	99	1299	98	70-116	1	25	ug/kg	03/23/15 18:17	
2,6-Dinitrotoluene	<83.17	1331	1294	97	1346	101	72-112	4	25	ug/kg	03/23/15 18:17	
Hexachlorobenzene	<83.17	1331	1353	102	1349	101	72-112	0	25	ug/kg	03/23/15 18:17	
Hexachlorobutadiene	<83.17	1331	1274	96	1227	92	72-100	4	25	ug/kg	03/23/15 18:17	
Hexachlorocyclopentadiene	<83.17	1331	1113	84	1143	86	51-125	3	25	ug/kg	03/23/15 18:17	
Hexachloroethane	<83.17	1331	1247	94	1195	90	69-102	4	25	ug/kg	03/23/15 18:17	
Isophorone	<83.17	1331	1340	101	1320	99	71-96	2	25	ug/kg	03/23/15 18:17	H
2-Methylphenol	<83.17	1331	1281	96	1232	92	69-102	4	25	ug/kg	03/23/15 18:17	
3&4-Methylphenol	<83.17	1331	1222	92	1207	91	64-113	1	25	ug/kg	03/23/15 18:17	
4-Nitroaniline	<166.3	1331	1298	98	1310	98	41-121	1	25	ug/kg	03/23/15 18:17	
3-Nitroaniline	<83.17	1331	1223	92	1183	89	49-117	3	25	ug/kg	03/23/15 18:17	
2-Nitroaniline	<83.17	1331	1302	98	1283	96	71-109	1	25	ug/kg	03/23/15 18:17	
Nitrobenzene	<83.17	1331	1245	94	1202	90	66-101	4	25	ug/kg	03/23/15 18:17	
2-Nitrophenol	<83.17	1331	1331	100	1263	95	74-108	5	25	ug/kg	03/23/15 18:17	
4-Nitrophenol	<83.17	1331	1154	87	1132	85	58-125	2	25	ug/kg	03/23/15 18:17	
N-Nitrosodi-n-Propylamine	<66.53	1331	1283	96	1258	94	58-110	2	25	ug/kg	03/23/15 18:17	
N-Nitrosodiphenylamine	<83.17	1331	1294	97	1269	95	70-109	2	25	ug/kg	03/23/15 18:17	
Di-n-octyl phthalate	<166.3	1331	1426	107	1429	107	63-122	0	25	ug/kg	03/23/15 18:17	
Pentachlorophenol	<166.3	1331	1274	96	1246	94	76-114	2	25	ug/kg	03/23/15 18:17	
Phenol	<83.17	1331	1090	82	1022	77	69-109	6	25	ug/kg	03/23/15 18:17	
Atrazine	<83.17	1331	6217	467	6543	491	69-131	5	25	ug/kg	03/23/15 18:17	H
Pyridine	<83.17	1331	954.8	72	886.2	67	60-86	7	25	ug/kg	03/23/15 18:17	
Caprolactam	<83.17	1331	1419	107	1337	100	59-129	6	25	ug/kg	03/23/15 18:17	
2,4,6-Trichlorophenol	<83.17	1331	1278	96	1303	98	75-111	2	25	ug/kg	03/23/15 18:17	
2,4,5-Trichlorophenol	<83.17	1331	1247	94	1283	96	81-112	3	25	ug/kg	03/23/15 18:17	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	98		90		95		60-131	%	03/23/15 18:17

PHASE SEPARATION SCIENCE, INC.

QC Summary 15031810

Arc Environmental Percontee

Analytical Method: SW-846 8270 C

Seq Number: 121292

MB Sample Id: 54631-1-BLK

Matrix: Solid

LCS Sample Id: 54631-1-BKS

Prep Method: SW3550C

Date Prep: 03/19/15

LCSD Sample Id: 54631-1-BSD

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units	Analysis Date
2-Fluorophenol	77		69		77		45-108	%	03/23/15 18:17
Nitrobenzene-d5	92		92		91		42-131	%	03/23/15 18:17
Phenol-d6	92		93		92		48-124	%	03/23/15 18:17
Terphenyl-D14	94		108		110		59-137	%	03/23/15 18:17
2,4,6-Tribromophenol	103		101		105		46-129	%	03/23/15 18:17

Analytical Method: SW-846 8270 C

Seq Number: 121326

MB Sample Id: 54662-1-BLK

Matrix: Solid

LCS Sample Id: 54662-1-BKS

Prep Method: SW3550C

Date Prep: 03/22/15

LCSD Sample Id: 54662-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Acenaphthene	<3.322	66.45	59.80	90	61.88	93	65-104	3	31	ug/kg	03/24/15 18:33	
Acenaphthylene	<3.322	66.45	49.50	74	52.56	79	59-105	6	25	ug/kg	03/24/15 18:33	
Anthracene	<3.322	66.45	61.13	92	63.87	96	52-121	4	25	ug/kg	03/24/15 18:33	
Benzo(a)anthracene	<3.322	66.45	58.47	88	62.21	94	47-114	6	25	ug/kg	03/24/15 18:33	
Benzo(a)pyrene	<3.322	66.45	58.80	88	63.54	96	57-111	8	25	ug/kg	03/24/15 18:33	
Benzo(b)fluoranthene	<3.322	66.45	48.50	73	54.56	82	47-123	12	25	ug/kg	03/24/15 18:33	
Benzo(g,h,i)perylene	<3.322	66.45	64.78	97	73.19	110	46-119	12	25	ug/kg	03/24/15 18:33	
Benzo(k)fluoranthene	<3.322	66.45	73.09	110	75.18	113	44-133	3	25	ug/kg	03/24/15 18:33	
Chrysene	<3.322	66.45	60.47	91	63.21	95	51-111	4	25	ug/kg	03/24/15 18:33	
Dibenz(a,h)Anthracene	<3.322	66.45	63.79	96	71.86	108	44-121	12	25	ug/kg	03/24/15 18:33	
Fluoranthene	<3.322	66.45	51.83	78	51.23	77	55-114	1	25	ug/kg	03/24/15 18:33	
Fluorene	<3.322	66.45	55.48	83	56.89	86	59-107	3	25	ug/kg	03/24/15 18:33	
Indeno(1,2,3-c,d)Pyrene	<3.322	66.45	66.78	100	72.19	109	42-123	8	25	ug/kg	03/24/15 18:33	
2-Methylnaphthalene	<3.322	66.45	54.15	81	52.23	79	67-99	4	25	ug/kg	03/24/15 18:33	
Naphthalene	<3.322	66.45	60.13	90	59.55	90	61-108	1	25	ug/kg	03/24/15 18:33	
Phenanthrene	<3.322	66.45	52.49	79	58.88	89	50-122	11	25	ug/kg	03/24/15 18:33	
Pyrene	<3.322	66.45	53.16	80	53.56	81	45-118	1	31	ug/kg	03/24/15 18:33	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	83		72		74		51-109	%	03/24/15 18:33
Nitrobenzene-d5	66		56		70		48-111	%	03/24/15 18:33
Terphenyl-D14	95		96		100		45-137	%	03/24/15 18:33

PHASE SEPARATION SCIENCE, INC.

QC Summary 15031810

Arc Environmental Percontee

Analytical Method: SW-846 8270 C

Seq Number: 121292

Parent Sample Id: 15031810-003

Matrix: Soil

MS Sample Id: 15031810-003 S

Prep Method: SW3550C

Date Prep: 03/19/15

MSD Sample Id: 15031810-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Acetophenone	<102.2	1635	1537	94	1497	91	58-110	3	30	ug/kg	03/23/15 19:40	
Biphenyl (Diphenyl)	<102.2	1635	1377	84	1340	82	76-103	3	30	ug/kg	03/23/15 19:40	
Butyl benzyl phthalate	<102.2	1635	1689	103	1618	99	66-119	4	30	ug/kg	03/23/15 19:40	
bis(2-chloroethoxy) methane	<102.2	1635	1436	88	1399	85	52-103	3	30	ug/kg	03/23/15 19:40	
bis(2-chloroethyl) ether	<102.2	1635	1350	83	1335	82	54-102	1	30	ug/kg	03/23/15 19:40	
bis(2-chloroisopropyl) ether	<102.2	1635	1365	83	1321	81	48-110	3	30	ug/kg	03/23/15 19:40	
bis(2-ethylhexyl) phthalate	<102.2	1635	1716	105	1646	100	56-128	4	30	ug/kg	03/23/15 19:40	
4-Bromophenylphenyl ether	<102.2	1635	1656	101	1599	98	63-105	4	30	ug/kg	03/23/15 19:40	
Di-n-butyl phthalate	<102.2	1635	1704	104	1647	101	60-120	3	30	ug/kg	03/23/15 19:40	
Carbazole	<102.2	1635	1731	106	1760	107	55-111	2	30	ug/kg	03/23/15 19:40	
4-Chloro-3-methylphenol	<102.2	1635	1593	97	1548	95	68-107	3	30	ug/kg	03/23/15 19:40	
4-Chloroaniline	<204.4	1635	1658	101	1592	97	68-97	4	30	ug/kg	03/23/15 19:40	X
2-Chloronaphthalene	<102.2	1635	1432	88	1383	84	73-98	3	30	ug/kg	03/23/15 19:40	
2-Chlorophenol	<102.2	1635	1385	85	1353	83	65-93	2	30	ug/kg	03/23/15 19:40	
4-Chlorophenyl phenyl ether	<102.2	1635	1369	84	1318	80	63-107	4	30	ug/kg	03/23/15 19:40	
Dibenzofuran	<102.2	1635	1463	89	1434	88	71-101	2	30	ug/kg	03/23/15 19:40	
3,3-Dichlorobenzidine	<102.2	1635	1546	95	1604	98	55-127	4	30	ug/kg	03/23/15 19:40	
2,4-Dichlorophenol	<102.2	1635	1495	91	1461	89	71-96	2	30	ug/kg	03/23/15 19:40	
Diethyl phthalate	<102.2	1635	1400	86	1368	84	68-115	2	30	ug/kg	03/23/15 19:40	
Dimethyl phthalate	<102.2	1635	1412	86	1348	82	65-111	5	30	ug/kg	03/23/15 19:40	
2,4-Dimethylphenol	<102.2	1635	1060	65	1052	64	60-95	1	30	ug/kg	03/23/15 19:40	
4,6-Dinitro-2-methyl phenol	<102.2	1635	1556	95	1558	95	61-131	0	30	ug/kg	03/23/15 19:40	
2,4-Dinitrophenol	<204.4	1635	1353	83	1273	78	48-135	6	30	ug/kg	03/23/15 19:40	
2,4-Dinitrotoluene	<102.2	1635	1622	99	1554	95	69-109	4	30	ug/kg	03/23/15 19:40	
2,6-Dinitrotoluene	<102.2	1635	1606	98	1569	96	71-104	2	30	ug/kg	03/23/15 19:40	
Hexachlorobenzene	<102.2	1635	1671	102	1613	98	70-107	4	30	ug/kg	03/23/15 19:40	
Hexachlorobutadiene	<102.2	1635	1449	89	1429	87	68-94	1	30	ug/kg	03/23/15 19:40	
Hexachlorocyclopentadiene	<102.2	1635	1326	81	1244	76	55-118	6	30	ug/kg	03/23/15 19:40	
Hexachloroethane	<102.2	1635	1457	89	1443	88	62-100	1	30	ug/kg	03/23/15 19:40	
Isophorone	<102.2	1635	1567	96	1527	93	63-94	3	30	ug/kg	03/23/15 19:40	X
2-Methylphenol	<102.2	1635	1480	91	1426	87	65-99	4	30	ug/kg	03/23/15 19:40	
3&4-Methylphenol	<102.2	1635	1449	89	1380	84	65-104	5	30	ug/kg	03/23/15 19:40	
4-Nitroaniline	<204.4	1635	1547	95	1539	94	34-117	1	30	ug/kg	03/23/15 19:40	
3-Nitroaniline	<102.2	1635	1490	91	1511	92	46-115	1	30	ug/kg	03/23/15 19:40	
2-Nitroaniline	<102.2	1635	1541	94	1520	93	66-106	1	30	ug/kg	03/23/15 19:40	
Nitrobenzene	<102.2	1635	1434	88	1423	87	62-96	1	30	ug/kg	03/23/15 19:40	
2-Nitrophenol	<102.2	1635	1533	94	1422	87	71-102	8	30	ug/kg	03/23/15 19:40	
4-Nitrophenol	<102.2	1635	1375	84	1270	78	60-121	8	30	ug/kg	03/23/15 19:40	
N-Nitrosodi-n-Propylamine	<81.76	1635	1507	92	1447	88	55-105	4	30	ug/kg	03/23/15 19:40	
N-Nitrosodiphenylamine	<102.2	1635	1555	95	1567	96	68-105	1	30	ug/kg	03/23/15 19:40	
Di-n-octyl phthalate	<204.4	1635	1714	105	1649	101	57-124	4	30	ug/kg	03/23/15 19:40	
Pentachlorophenol	<204.4	1635	1554	95	1495	91	74-115	4	30	ug/kg	03/23/15 19:40	
Phenol	<102.2	1635	1354	83	1189	73	70-99	13	30	ug/kg	03/23/15 19:40	
Atrazine	<102.2	1635	8183	500	8069	493	72-118	1	30	ug/kg	03/23/15 19:40	X
Pyridine	<102.2	1635	1077	66	1020	62	55-81	5	30	ug/kg	03/23/15 19:40	
Caprolactam	<102.2	1635	1689	103	1647	101	33-133	3	30	ug/kg	03/23/15 19:40	
2,4,6-Trichlorophenol	<102.2	1635	1535	94	1421	87	72-106	8	30	ug/kg	03/23/15 19:40	
2,4,5-Trichlorophenol	<102.2	1635	1535	94	1432	87	78-106	7	30	ug/kg	03/23/15 19:40	

Surrogate	MS Result	MS Flag	MSD Result	MSD Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	93		94		60-131	%	03/23/15 19:40

PHASE SEPARATION SCIENCE, INC.

QC Summary 15031810

Arc Environmental Percontee

Analytical Method: SW-846 8270 C

 Seq Number: 121292
 Parent Sample Id: 15031810-003

 Matrix: Soil
 MS Sample Id: 15031810-003 S

 Prep Method: SW3550C
 Date Prep: 03/19/15
 MSD Sample Id: 15031810-003 SD

Surrogate	MS Result	MS Flag	MSD Result	MSD Flag	Limits	Units	Analysis Date
2-Fluorophenol	69		69		45-108	%	03/23/15 19:40
Nitrobenzene-d5	89		96		42-131	%	03/23/15 19:40
Phenol-d6	92		94		48-124	%	03/23/15 19:40
Terphenyl-D14	107		115		59-137	%	03/23/15 19:40
2,4,6-Tribromophenol	106		111		46-129	%	03/23/15 19:40

Analytical Method: SW-846 8270 C

 Seq Number: 121326
 Parent Sample Id: 15031810-003

 Matrix: Soil
 MS Sample Id: 15031810-003 S

 Prep Method: SW3550C
 Date Prep: 03/22/15
 MSD Sample Id: 15031810-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Acenaphthene	<4.081	81.62	73.05	90	69.02	85	33-146	6	30	ug/kg	03/24/15 19:22	
Acenaphthylene	<4.081	81.62	62.03	76	59.68	74	23-154	4	30	ug/kg	03/24/15 19:22	
Anthracene	<4.081	81.62	78.77	97	67.39	83	24-155	16	30	ug/kg	03/24/15 19:22	
Benzo(a)anthracene	<4.081	81.62	73.46	90	65.36	81	6-165	12	30	ug/kg	03/24/15 19:22	
Benzo(a)pyrene	<4.081	81.62	78.36	96	67.80	84	10-200	14	30	ug/kg	03/24/15 19:22	
Benzo(b)fluoranthene	<4.081	81.62	57.95	71	53.99	66	10-186	7	30	ug/kg	03/24/15 19:22	
Benzo(g,h,i)perylene	<4.081	81.62	87.34	107	74.29	92	10-180	16	30	ug/kg	03/24/15 19:22	
Benzo(k)fluoranthene	<4.081	81.62	104.5	128	94.59	117	10-169	10	30	ug/kg	03/24/15 19:22	
Chrysene	<4.081	81.62	82.03	101	78.35	97	10-178	5	30	ug/kg	03/24/15 19:22	
Dibenz(a,h)Anthracene	<4.081	81.62	91.01	112	70.64	87	19-168	25	30	ug/kg	03/24/15 19:22	
Fluoranthene	<4.081	81.62	63.26	78	62.93	78	10-200	1	30	ug/kg	03/24/15 19:22	
Fluorene	<4.081	81.62	64.48	79	63.33	78	9-162	2	30	ug/kg	03/24/15 19:22	
Indeno(1,2,3-c,d)Pyrene	<4.081	81.62	84.89	104	60.49	75	10-178	34	30	ug/kg	03/24/15 19:22	F
2-Methylnaphthalene	<4.081	81.62	63.67	78	66.99	83	17-162	5	30	ug/kg	03/24/15 19:22	
Naphthalene	<4.081	81.62	67.75	83	67.80	84	9-179	0	30	ug/kg	03/24/15 19:22	
Phenanthrene	<4.081	81.62	66.12	81	65.77	81	10-169	1	30	ug/kg	03/24/15 19:22	
Pyrene	<4.081	81.62	64.48	79	65.36	81	10-172	1	30	ug/kg	03/24/15 19:22	

Surrogate	MS Result	MS Flag	MSD Result	MSD Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	70		84		51-109	%	03/24/15 19:22
Nitrobenzene-d5	69		67		48-111	%	03/24/15 19:22
Terphenyl-D14	89		103		45-137	%	03/24/15 19:22

Analytical Method: SW-846 8015C

 Seq Number: 121198
 MB Sample Id: 54650-2-BLK

 Matrix: Solid
 LCS Sample Id: 54650-2-BKS

 Prep Method: SW5030
 Date Prep: 03/19/15

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Analysis Date	Flag
TPH-GRO (Gasoline Range Organic)	<48.92	4892	3922	80	60-112	ug/kg	03/19/15 16:04	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	83		96		55-142	%	03/19/15 16:04

PHASE SEPARATION SCIENCE, INC.

QC Summary 15031810

Arc Environmental Percontee

Analytical Method: SW-846 8015C

Seq Number: 121198

Parent Sample Id: 15031810-005

Matrix: Soil

MS Sample Id: 15031810-005 S

Prep Method: SW5030

Date Prep: 03/19/15

MSD Sample Id: 15031810-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
TPH-GRO (Gasoline Range Organic)	<60.00	6000	5420	90	4784	80	36-131	12	30	ug/kg	03/19/15 20:29	
Surrogate			MS Result	MS Flag	MSD Result	MSD Flag	Limits			Units	Analysis Date	
a,a,a-Trifluorotoluene			99		98		55-142			%	03/19/15 20:29	

PHASE SEPARATION SCIENCE, INC.

QC Summary 15031810

Arc Environmental Percontee

Analytical Method: SW-846 8260 B

Seq Number: 121263

MB Sample Id: 54689-1-BLK

Matrix: Solid

LCS Sample Id: 54689-1-BKS

Prep Method: SW5030

Date Prep: 03/23/15

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Analysis Date	Flag
Dichlorodifluoromethane	<2.510	60.24	58.72	97	53-144	ug/kg	03/23/15 11:58	
Chloromethane	<2.510	60.24	69.45	115	62-143	ug/kg	03/23/15 11:58	
1,1,2-Trichloro-1,2,2-Trifluoroethane	<2.510	60.24	60.99	101	50-162	ug/kg	03/23/15 11:58	
Vinyl Chloride	<2.510	60.24	64.63	107	61-156	ug/kg	03/23/15 11:58	
Bromomethane	<2.510	60.24	85.19	141	45-199	ug/kg	03/23/15 11:58	
Chloroethane	<2.510	60.24	82.43	137	59-151	ug/kg	03/23/15 11:58	
Acetone	<10.04	60.24	77.18	128	24-197	ug/kg	03/23/15 11:58	
Cyclohexane	<10.04	60.24	55.06	91	50-148	ug/kg	03/23/15 11:58	
Trichlorofluoromethane	<2.510	60.24	69.72	116	54-175	ug/kg	03/23/15 11:58	
1,1-Dichloroethene	<2.510	60.24	75.94	126	60-154	ug/kg	03/23/15 11:58	
Methylene Chloride	<2.510	60.24	55.78	93	56-140	ug/kg	03/23/15 11:58	
trans-1,2-Dichloroethene	<2.510	60.24	64.33	107	60-153	ug/kg	03/23/15 11:58	
Methyl-t-butyl ether	<2.510	60.24	44.48	74	59-133	ug/kg	03/23/15 11:58	
1,1-Dichloroethane	<2.510	60.24	63.70	106	60-148	ug/kg	03/23/15 11:58	
2-Butanone	<10.04	60.24	65.35	108	35-173	ug/kg	03/23/15 11:58	
cis-1,2-Dichloroethene	<2.510	60.24	49.92	83	67-126	ug/kg	03/23/15 11:58	
Bromochloromethane	<2.510	60.24	46.76	78	64-121	ug/kg	03/23/15 11:58	
Chloroform	<2.510	60.24	55.59	92	65-126	ug/kg	03/23/15 11:58	
1,1,1-Trichloroethane	<2.510	60.24	58.67	97	60-145	ug/kg	03/23/15 11:58	
1,2-Dichloroethane	<2.510	60.24	55.07	91	62-127	ug/kg	03/23/15 11:58	
Carbon Tetrachloride	<2.510	60.24	56.06	93	55-152	ug/kg	03/23/15 11:58	
Benzene	<2.510	60.24	61.96	103	69-128	ug/kg	03/23/15 11:58	
1,2-Dichloropropane	<2.510	60.24	54.75	91	66-125	ug/kg	03/23/15 11:58	
Carbon Disulfide	<5.020	60.24	65.73	109	58-153	ug/kg	03/23/15 11:58	
Methylcyclohexane	<10.04	60.24	48.25	80	41-142	ug/kg	03/23/15 11:58	
Trichloroethene	<2.510	60.24	58.22	97	68-130	ug/kg	03/23/15 11:58	
Methyl Acetate	<10.04	60.24	67.04	111	47-151	ug/kg	03/23/15 11:58	
Bromodichloromethane	<2.510	60.24	55.20	92	60-125	ug/kg	03/23/15 11:58	
cis-1,3-Dichloropropene	<2.510	60.24	51.26	85	59-122	ug/kg	03/23/15 11:58	
4-Methyl-2-Pentanone	<10.04	60.24	47.49	79	22-173	ug/kg	03/23/15 11:58	
trans-1,3-Dichloropropene	<2.510	60.24	50.65	84	56-124	ug/kg	03/23/15 11:58	
1,1,2-Trichloroethane	<2.510	60.24	55.21	92	65-120	ug/kg	03/23/15 11:58	
Toluene	<2.510	60.24	59.91	99	66-127	ug/kg	03/23/15 11:58	
2-Hexanone	<10.04	60.24	63.33	105	30-175	ug/kg	03/23/15 11:58	
1,2-Dibromoethane	<2.510	60.24	49.33	82	64-123	ug/kg	03/23/15 11:58	
Dibromochloromethane	<2.510	60.24	50.11	83	55-128	ug/kg	03/23/15 11:58	
Bromoform	<2.510	60.24	49.61	82	46-128	ug/kg	03/23/15 11:58	
Tetrachloroethene	<2.510	60.24	55.50	92	55-145	ug/kg	03/23/15 11:58	
Chlorobenzene	<2.510	60.24	48.35	80	61-124	ug/kg	03/23/15 11:58	
Ethylbenzene	<2.510	60.24	50.33	84	58-130	ug/kg	03/23/15 11:58	
m,p-Xylenes	<5.020	120.5	99.10	82	60-131	ug/kg	03/23/15 11:58	
Styrene	<2.510	60.24	47.09	78	54-123	ug/kg	03/23/15 11:58	
1,1,2,2-Tetrachloroethane	<2.510	60.24	51.91	86	50-134	ug/kg	03/23/15 11:58	
o-Xylene	<2.510	60.24	49.51	82	60-126	ug/kg	03/23/15 11:58	
Isopropylbenzene	<2.510	60.24	47.26	78	52-130	ug/kg	03/23/15 11:58	
1,3-Dichlorobenzene	<2.510	60.24	40.54	67	42-123	ug/kg	03/23/15 11:58	
1,4-Dichlorobenzene	<2.510	60.24	41.34	69	40-121	ug/kg	03/23/15 11:58	
1,2-Dichlorobenzene	<2.510	60.24	41.32	69	38-128	ug/kg	03/23/15 11:58	
1,2-Dibromo-3-Chloropropane	<20.08	60.24	53.31	88	43-149	ug/kg	03/23/15 11:58	
1,2,4-Trichlorobenzene	<2.510	60.24	40.22	67	14-143	ug/kg	03/23/15 11:58	
1,2,3-Trichlorobenzene	<2.510	60.24	40.57	67	15-144	ug/kg	03/23/15 11:58	

PHASE SEPARATION SCIENCE, INC.

QC Summary 15031810

Arc Environmental Percontee

Analytical Method: SW-846 8260 B

Seq Number: 121263

MB Sample Id: 54689-1-BLK

Matrix: Solid

LCS Sample Id: 54689-1-BKS

Prep Method: SW5030

Date Prep: 03/23/15

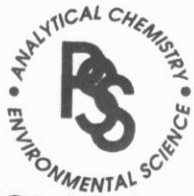
Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	103		99		80-125	%	03/23/15 11:58
Dibromofluoromethane	103		103		85-115	%	03/23/15 11:58
Toluene-D8	104		106		91-109	%	03/23/15 11:58

F = RPD exceeded the laboratory control limits

X = Recovery of MS, MSD or both outside of QC Criteria

H= Recovery of BS,BSD or both exceeded the laboratory control limits

L = Recovery of BS,BSD or both below the laboratory control limits



SAMPLE CHAIN OF CUSTODY/AGREEMENT FORM

PHASE SEPARATION SCIENCE, INC.

www.phaseonline.com
email: info@phaseonline.com

1 CLIENT: Arc Environmental		OFFICE LOC. Baltimore, MD		PSS Work Order #: 15031810				PAGE 1 OF 1														
PROJECT MGR: Kyle Begey		PHONE NO.: 410-659-9971		Matrix Codes: SW=Surface Wtr DW=Drinking Wrt GW=Ground Wtr WW=Waste Wtr O=Oil S=Soil WL=Waste Liquid WS=Waste Solid W= Wipe																		
EMAIL: kbegey@arcenvironmental.com		FAX NO.: 410-962-1065		No. CONTAINERS	SAMPLE TYPE C = COMP G = GRAB	PPI Metals	SVOCs (SIM)	VOCs 8260	GRO/DRO 8015	PCBs	Asbestos								Preservative Used ←			
PROJECT NAME: Percontee		PROJECT NO.: 057-5																		Analysis/ Method Required		
SITE LOCATION: Silver Spring, MD		P.O. NO.:																				
SAMPLERS: Kyle Begey, Ray Goodwin and Christie Pulvino DW CERT NO.:																						
2 LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX (See Codes)																REMARKS ↓		
	B17 0'-2'	3/17/15	0830	S	2	G	X	X	X	X											Click to enter Remarks	
	B17 4'-6'	↓	0835	S	6	G	X	X	X	X												
	B17 28'-30'		0925	S	2	G	X	X	X	X												
	B19 0'-2'		1130	S	2	G	X	X	X	X												
	B19 4'-6'		1135	S	2	G	X	X	X	X												
5 Relinquished By: (1) <i>Kyle Begey</i>		Date	Time	Received By:		4 Requested Turnaround Time				# of Coolers:												
		3/18/15	11:20	<i>Julien Golchane</i>		<input checked="" type="checkbox"/> 5-Day <input type="checkbox"/> 3-Day <input type="checkbox"/> 2-Day <input type="checkbox"/> Next Day <input type="checkbox"/> Emergency <input type="checkbox"/> Other				1												
Relinquished By: (2) <i>Julien Golchane</i>		Date	Time	Received By:		Data Deliverables Required:				Custody Seal: <i>INTACT-COOLER</i>												
		3/18/15	11:4	<i>DB 123</i>						Ice Present: <i>PRES</i> Temp: <i>0°C</i> <small>NOT PROB</small>												
Relinquished By: (3) <i>DB 123</i>		Date	Time	Received By:		Special Instructions: VCP Project with comparison to residential cleanup standards																
		3/18/15	12:00	<i>D. Rivera</i>																		
Relinquished By: (4)		Date	Time	Received By:		Shipping Carrier: <i>TTE</i>																



Phase Separation Science, Inc

Sample Receipt Checklist

Work Order # 15031810 **Received By** Shirley Rivera
Client Name Arc Environmental **Date Received** 03/18/2015 12:10:00 PM
Project Name Percontee **Delivered By** Trans Time Express
Project Number 057-5 **Tracking No** Not Applicable
Disposal Date 04/22/2015 **Logged In By** Rachel Davis

Shipping Container(s)

No. of Coolers 1

	Ice	Present
Custody Seal(s) Intact?	Yes	Temp (deg C) 0
Seal(s) Signed / Dated?	Yes	Temp Blank Present No

Documentation

COC agrees with sample labels?	Yes	Sampler Name	<u>Kyle Begey</u>
Chain of Custody	Yes	MD DW Cert. No.	<u>N/A</u>

Sample Container

Appropriate for Specified Analysis?	Yes	Custody Seal(s) Intact?	Not Applicable
Intact?	Yes	Seal(s) Signed / Dated	Not Applicable
Labeled and Labels Legible?	Yes		

Total No. of Samples Received 5

Total No. of Containers Received 14

Preservation

Metals	(pH<2)	N/A
Cyanides	(pH>12)	N/A
Sulfide	(pH>9)	N/A
TOC, COD, Phenols	(pH<2)	N/A
TOX, TKN, NH3, Total Phos	(pH<2)	N/A
VOC, BTEX (VOA Vials Rcvd Preserved)	(pH<2)	N/A
Do VOA vials have zero headspace?		N/A
624 VOC (Rcvd at least one unpreserved VOA vial)		N/A

Comments: (Any "No" response must be detailed in the comments section below.)

For any improper preservation conditions, list sample ID, preservative added (reagent ID number) below as well as documentation of any client notification as well as client instructions. Samples for pH, chlorine and dissolved oxygen should be analyzed as soon as possible, preferably in the field at the time of sampling. Samples which require thermal preservation shall be considered acceptable when received at a temperature above freezing to 6°C. Samples that are hand delivered on the day that they are collected may not meet these criteria but shall be considered acceptable if there is evidence that the chilling process has begun such as arrival on ice.

Sample(s) received at 0 degrees but no samples were frozen.

Samples Inspected/Checklist Completed By:

Rachel Davis

Date: 03/18/2015

Rachel Davis

PM Review and Approval:

Lynn Jackson

Date: 03/18/2015

Lynn Jackson

Analytical Report for

Arc Environmental

Certificate of Analysis No.: 15031307

Project Manager: Kyle Begey

Project Name : Percontee

Project Location: Silver Spring, MD

Project ID : 057-5



March 30, 2015

Phase Separation Science, Inc.

6630 Baltimore National Pike

Baltimore, MD 21228

Phone: (410) 747-8770

Fax: (410) 788-8723

OFFICES:
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ROUTE 40 WEST
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PHASE SEPARATION SCIENCE, INC.



March 30, 2015

Kyle Begey
Arc Environmental
1311 Haubert Street
Baltimore, MD 21230

Reference: PSS Work Order(s) No: **15031307**
Project Name: Percontee
Project Location: Silver Spring, MD
Project ID.: 057-5

Dear Kyle Begey :

This report includes the analytical results from the analyses performed on the samples received under the project name referenced above and identified with the Phase Separation Science (PSS) Work Order(s) numbered **15031307**.

All work reported herein has been performed in accordance with current NELAP standards, referenced methodologies, PSS Standard Operating Procedures and the PSS Quality Assurance Manual unless otherwise noted in the Case Narrative Summary. PSS is limited in liability to the actual cost of the sample analysis done.

PSS reserves the right to return any unused samples, extracts or related solutions. Otherwise, the samples are scheduled for disposal, without any further notice, on April 17, 2015. This includes any samples that were received with a request to be held but lacked a specific hold period. It is your responsibility to provide a written request defining a specific disposal date if additional storage is required. Upon receipt, the request will be acknowledged by PSS, thus extending the storage period.

This report shall not be reproduced except in full, without the written approval of an authorized PSS representative. A copy of this report will be retained by PSS for at least 5 years, after which time it will be disposed of without further notice, unless prior arrangements have been made.

We thank you for selecting Phase Separation Science, Inc. to serve your analytical needs. If you have any questions concerning this report, do not hesitate to contact us at 410-747-8770 or info@phaseonline.com.

Sincerely,

Dan Prucnal

Laboratory Manager



Sample Summary
Client Name: Arc Environmental
Project Name: Percontee

Work Order Number(s): 15031307

Project ID: 057-5

The following samples were received under chain of custody by Phase Separation Science (PSS) on 03/13/2015 at 11:00 am

Lab Sample Id	Sample Id	Matrix	Date/Time Collected
15031307-001	B16 0-2	SOIL	03/11/15 00:00
15031307-002	B16 4-6	SOIL	03/11/15 00:00
15031307-003	B18 0-2	SOIL	03/12/15 00:00
15031307-004	B18 4-6	SOIL	03/12/15 00:00
15031307-005	B18 45-47	SOIL	03/12/15 00:00
15031307-006	MW5-0-2	SOIL	03/12/15 00:00
15031307-007	MW5-4-6	SOIL	03/12/15 00:00

Please reference the Chain of Custody and Sample Receipt Checklist for specific container counts and preservatives. Any sample conditions not in compliance with sample acceptance criteria are described in Case Narrative Summary.

Notes:

1. The presence of a common laboratory contaminant such as methylene chloride may be considered a possible laboratory artifact. Where observed, appropriate consideration of data should be taken.
2. Unless otherwise noted in the case narrative, results are reported on a dry weight basis with the exception of pH, flashpoint, moisture, and paint filter test.
3. Drinking water samples collected for the purpose of compliance with SDWA may not be suitable for their intended use unless collected by a certified sampler [COMAR 26.08.05.07.C.2].
4. The analyses of 1,2-dibromo-3-chloropropane (DBCP) and 1,2-dibromoethane (EDB) by EPA 524.2 and calcium, magnesium, sodium and iron by EPA 200.8 are not currently promulgated for use in testing to meet the Safe Drinking Water Act and as such cannot be used for compliance purposes. The listings of the current promulgated methods for testing in compliance with the Safe Drinking Water Act can be found in the 40 CFR part 141.1, for the primary drinking water contaminants, and part 141.3, for the secondary drinking water contaminants.
5. Sample prepared under EPA 3550C with concentrations greater than 20 mg/Kg should employ the microtip extraction procedure if required to meet data quality objectives.
6. The analysis of acrolein by EPA 624 must be analyzed within three days of sampling unless pH is adjusted to 4-5 units [40 CFR part 136.3(e)].
7. Method 180.1, The Determination of Turbidity by Nephelometry, recommends samples over 40 NTU be diluted until the turbidity falls below 40 units. Routine samples over 40 NTU may not be diluted as long as the data quality objectives are not affected.
8. Alkalinity results analyzed by EPA 310.2 that are reported by dilution are estimated and are not in compliance with method requirements.

Standard Flags/Abbreviations:

- B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- C Results Pending Final Confirmation.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- Fail The result exceeds the regulatory level for Toxicity Characteristic (TCLP) as cited in 40 CFR 261.24 Table 1.
- J The target analyte was positively identified below the reporting limit but greater than the MDL.
- MDL This is the Laboratory Method Detection Limit which is equivalent to the Limit of Detection (LOD). The LOD is an estimate of the minimum amount of a substance that an analytical process can reliably detect. This value will remain constant across multiple similar instrumentation and among different analysts. An LOD is analyte and matrix specific.
- ND Not Detected at or above the reporting limit.
- RL PSS Reporting Limit.
- U Not detected.

Certifications:

NELAP Certifications: PA 68-03330, VA 460156
State Certifications: MD 179, WV 303
Regulated Soil Permit: P330-12-00268
NSWC USCG Accepted Laboratory
LDBE MWAA LD1997-0041-2015

OFFICES:
 6630 BALTIMORE NATIONAL PIKE
 ROUTE 40 WEST
 BALTIMORE, MD 21228
 410-747-8770
 800-932-9047
 FAX 410-788-8723

PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15031307

Arc Environmental, Baltimore, MD

March 30, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B16 0-2	Date/Time Sampled: 03/11/2015 00:00	PSS Sample ID: 15031307-001
Matrix: SOIL	Date/Time Received: 03/13/2015 11:00	% Solids: 88

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	mg/kg	2.3		1	1.2	03/16/15	03/17/15 14:52	1033
Arsenic	2.3	mg/kg	0.46		1	0.23	03/16/15	03/17/15 14:52	1033
Beryllium	ND	mg/kg	2.3		1	1.2	03/16/15	03/17/15 14:52	1033
Cadmium	ND	mg/kg	2.3		1	1.2	03/16/15	03/17/15 14:52	1033
Chromium	180	mg/kg	2.3		1	1.2	03/16/15	03/17/15 14:52	1033
Copper	15	mg/kg	2.3		1	1.2	03/16/15	03/17/15 14:52	1033
Lead	4.3	mg/kg	2.3		1	1.2	03/16/15	03/17/15 14:52	1033
Mercury	ND	mg/kg	0.093		1	0.046	03/16/15	03/17/15 14:52	1033
Nickel	350	mg/kg	23		10	12	03/16/15	03/18/15 13:39	1033
Selenium	ND	mg/kg	2.3		1	1.2	03/16/15	03/17/15 14:52	1033
Silver	ND	mg/kg	2.3		1	1.2	03/16/15	03/17/15 14:52	1033
Thallium	ND	mg/kg	0.46		1	0.23	03/16/15	03/17/15 14:52	1033
Zinc	20	mg/kg	9.3		1	4.6	03/16/15	03/17/15 14:52	1033

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	130	mg/kg	12		1	4.6	03/18/15	03/19/15 19:42	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/kg	110		1	55	03/16/15	03/16/15 13:07	1035

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15031307

Arc Environmental, Baltimore, MD

March 30, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B16 0-2	Date/Time Sampled: 03/11/2015 00:00	PSS Sample ID: 15031307-001
Matrix: SOIL	Date/Time Received: 03/13/2015 11:00	% Solids: 88

Polychlorinated Biphenyls

Analytical Method: SW-846 8082 A

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
PCB-1016	ND	mg/kg	0.055		1	0.055	03/17/15	03/18/15 13:19	1029
PCB-1221	ND	mg/kg	0.055		1	0.055	03/17/15	03/18/15 13:19	1029
PCB-1232	ND	mg/kg	0.055		1	0.055	03/17/15	03/18/15 13:19	1029
PCB-1242	ND	mg/kg	0.055		1	0.055	03/17/15	03/18/15 13:19	1029
PCB-1248	ND	mg/kg	0.055		1	0.055	03/17/15	03/18/15 13:19	1029
PCB-1254	ND	mg/kg	0.055		1	0.055	03/17/15	03/18/15 13:19	1029
PCB-1260	ND	mg/kg	0.055		1	0.055	03/17/15	03/18/15 13:19	1029

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/kg	37		10	37	03/18/15	03/19/15 03:24	1055
Acenaphthylene	ND	ug/kg	37		10	37	03/18/15	03/19/15 03:24	1055
Anthracene	ND	ug/kg	37		10	37	03/18/15	03/19/15 03:24	1055
Benzo(a)anthracene	ND	ug/kg	37		10	37	03/18/15	03/19/15 03:24	1055
Benzo(a)pyrene	49	ug/kg	37		10	37	03/18/15	03/19/15 03:24	1055
Benzo(b)fluoranthene	ND	ug/kg	37		10	37	03/18/15	03/19/15 03:24	1055
Benzo(g,h,i)perylene	41	ug/kg	37		10	37	03/18/15	03/19/15 03:24	1055
Benzo(k)fluoranthene	110	ug/kg	37		10	37	03/18/15	03/19/15 03:24	1055
Chrysene	97	ug/kg	37		10	37	03/18/15	03/19/15 03:24	1055
Dibenz(a,h)Anthracene	ND	ug/kg	37		10	37	03/18/15	03/19/15 03:24	1055
Fluoranthene	41	ug/kg	37		10	37	03/18/15	03/19/15 03:24	1055
Fluorene	ND	ug/kg	37		10	37	03/18/15	03/19/15 03:24	1055
Indeno(1,2,3-c,d)Pyrene	ND	ug/kg	37		10	37	03/18/15	03/19/15 03:24	1055
2-Methylnaphthalene	ND	ug/kg	37		10	37	03/18/15	03/19/15 03:24	1055
Naphthalene	ND	ug/kg	37		10	37	03/18/15	03/19/15 03:24	1055
Phenanthrene	ND	ug/kg	37		10	37	03/18/15	03/19/15 03:24	1055
Pyrene	75	ug/kg	37		10	37	03/18/15	03/19/15 03:24	1055

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CERTIFICATE OF ANALYSIS

No: 15031307

Arc Environmental, Baltimore, MD

March 30, 2015

Project Name: Percontee
 Project Location: Silver Spring, MD
 Project ID: 057-5

Sample ID: B16 4-6	Date/Time Sampled: 03/11/2015 00:00	PSS Sample ID: 15031307-002
Matrix: SOIL	Date/Time Received: 03/13/2015 11:00	% Solids: 85

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	mg/kg	2.3		1	1.2	03/16/15	03/17/15 15:22	1033
Arsenic	3.2	mg/kg	0.46		1	0.23	03/16/15	03/17/15 15:22	1033
Beryllium	ND	mg/kg	2.3		1	1.2	03/16/15	03/17/15 15:22	1033
Cadmium	ND	mg/kg	2.3		1	1.2	03/16/15	03/17/15 15:22	1033
Chromium	49	mg/kg	2.3		1	1.2	03/16/15	03/17/15 15:22	1033
Copper	22	mg/kg	2.3		1	1.2	03/16/15	03/17/15 15:22	1033
Lead	33	mg/kg	2.3		1	1.2	03/16/15	03/17/15 15:22	1033
Mercury	0.074	mg/kg	0.092	J	1	0.046	03/16/15	03/17/15 15:22	1033
Nickel	39	mg/kg	2.3		1	1.2	03/16/15	03/17/15 15:22	1033
Selenium	ND	mg/kg	2.3		1	1.2	03/16/15	03/17/15 15:22	1033
Silver	ND	mg/kg	2.3		1	1.2	03/16/15	03/17/15 15:22	1033
Thallium	ND	mg/kg	0.46		1	0.23	03/16/15	03/17/15 15:22	1033
Zinc	43	mg/kg	9.2		1	4.6	03/16/15	03/17/15 15:22	1033

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	59	mg/kg	12		1	4.7	03/18/15	03/19/15 20:04	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	120	ug/kg	120	J	1	58	03/13/15	03/13/15 19:20	1035

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CERTIFICATE OF ANALYSIS

No: 15031307

Arc Environmental, Baltimore, MD

March 30, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B16 4-6	Date/Time Sampled: 03/11/2015 00:00	PSS Sample ID: 15031307-002
Matrix: SOIL	Date/Time Received: 03/13/2015 11:00	% Solids: 85

Polychlorinated Biphenyls

Analytical Method: SW-846 8082 A

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
PCB-1016	ND	mg/kg	0.057		1	0.057	03/17/15	03/18/15 14:16	1029
PCB-1221	ND	mg/kg	0.057		1	0.057	03/17/15	03/18/15 14:16	1029
PCB-1232	ND	mg/kg	0.057		1	0.057	03/17/15	03/18/15 14:16	1029
PCB-1242	ND	mg/kg	0.057		1	0.057	03/17/15	03/18/15 14:16	1029
PCB-1248	ND	mg/kg	0.057		1	0.057	03/17/15	03/18/15 14:16	1029
PCB-1254	ND	mg/kg	0.057		1	0.057	03/17/15	03/18/15 14:16	1029
PCB-1260	ND	mg/kg	0.057		1	0.057	03/17/15	03/18/15 14:16	1029

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CERTIFICATE OF ANALYSIS

No: 15031307

Arc Environmental, Baltimore, MD

March 30, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B16 4-6	Date/Time Sampled: 03/11/2015 00:00	PSS Sample ID: 15031307-002
Matrix: SOIL	Date/Time Received: 03/13/2015 11:00	% Solids: 85

TCL Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5035A

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Dichlorodifluoromethane	ND	ug/kg	5.8		1	2.9	03/17/15	03/17/15 13:48	1011
Chloromethane	ND	ug/kg	5.8		1	2.9	03/17/15	03/17/15 13:48	1011
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	ug/kg	5.8		1	2.9	03/17/15	03/17/15 13:48	1011
Vinyl Chloride	ND	ug/kg	5.8		1	2.9	03/17/15	03/17/15 13:48	1011
Bromomethane	ND	ug/kg	5.8		1	2.9	03/17/15	03/17/15 13:48	1011
Chloroethane	ND	ug/kg	5.8		1	2.9	03/17/15	03/17/15 13:48	1011
Acetone	94	ug/kg	23		1	12	03/17/15	03/17/15 13:48	1011
Cyclohexane	ND	ug/kg	23		1	12	03/17/15	03/17/15 13:48	1011
Trichlorofluoromethane	ND	ug/kg	5.8		1	2.9	03/17/15	03/17/15 13:48	1011
1,1-Dichloroethene	ND	ug/kg	5.8		1	2.9	03/17/15	03/17/15 13:48	1011
Methylene Chloride	ND	ug/kg	5.8		1	2.9	03/17/15	03/17/15 13:48	1011
trans-1,2-Dichloroethene	ND	ug/kg	5.8		1	2.9	03/17/15	03/17/15 13:48	1011
Methyl-t-butyl ether	ND	ug/kg	5.8		1	2.9	03/17/15	03/17/15 13:48	1011
1,1-Dichloroethane	ND	ug/kg	5.8		1	2.9	03/17/15	03/17/15 13:48	1011
2-Butanone	ND	ug/kg	23		1	12	03/17/15	03/17/15 13:48	1011
cis-1,2-Dichloroethene	ND	ug/kg	5.8		1	2.9	03/17/15	03/17/15 13:48	1011
Bromochloromethane	ND	ug/kg	5.8		1	2.9	03/17/15	03/17/15 13:48	1011
Chloroform	ND	ug/kg	5.8		1	2.9	03/17/15	03/17/15 13:48	1011
1,1,1-Trichloroethane	ND	ug/kg	5.8		1	2.9	03/17/15	03/17/15 13:48	1011
1,2-Dichloroethane	ND	ug/kg	5.8		1	2.9	03/17/15	03/17/15 13:48	1011
Carbon Tetrachloride	ND	ug/kg	5.8		1	2.9	03/17/15	03/17/15 13:48	1011
Benzene	ND	ug/kg	5.8		1	2.9	03/17/15	03/17/15 13:48	1011
1,2-Dichloropropane	ND	ug/kg	5.8		1	2.9	03/17/15	03/17/15 13:48	1011
Carbon Disulfide	ND	ug/kg	12		1	5.8	03/17/15	03/17/15 13:48	1011
Methylcyclohexane	ND	ug/kg	23		1	12	03/17/15	03/17/15 13:48	1011
Trichloroethene	ND	ug/kg	5.8		1	2.9	03/17/15	03/17/15 13:48	1011
Methyl Acetate	ND	ug/kg	23		1	12	03/17/15	03/17/15 13:48	1011
Bromodichloromethane	ND	ug/kg	5.8		1	2.9	03/17/15	03/17/15 13:48	1011
cis-1,3-Dichloropropene	ND	ug/kg	5.8		1	2.9	03/17/15	03/17/15 13:48	1011
4-Methyl-2-Pentanone	ND	ug/kg	23		1	12	03/17/15	03/17/15 13:48	1011

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CERTIFICATE OF ANALYSIS

No: 15031307

Arc Environmental, Baltimore, MD

March 30, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B16 4-6	Date/Time Sampled: 03/11/2015 00:00	PSS Sample ID: 15031307-002
Matrix: SOIL	Date/Time Received: 03/13/2015 11:00	% Solids: 85

TCL Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5035A

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
trans-1,3-Dichloropropene	ND	ug/kg	5.8		1	2.9	03/17/15	03/17/15 13:48	1011
1,1,2-Trichloroethane	ND	ug/kg	5.8		1	2.9	03/17/15	03/17/15 13:48	1011
Toluene	ND	ug/kg	5.8		1	2.9	03/17/15	03/17/15 13:48	1011
2-Hexanone	ND	ug/kg	23		1	12	03/17/15	03/17/15 13:48	1011
1,2-Dibromoethane	ND	ug/kg	5.8		1	2.9	03/17/15	03/17/15 13:48	1011
Dibromochloromethane	ND	ug/kg	5.8		1	2.9	03/17/15	03/17/15 13:48	1011
Bromoform	ND	ug/kg	5.8		1	2.9	03/17/15	03/17/15 13:48	1011
Tetrachloroethene	ND	ug/kg	5.8		1	2.9	03/17/15	03/17/15 13:48	1011
Chlorobenzene	ND	ug/kg	5.8		1	2.9	03/17/15	03/17/15 13:48	1011
Ethylbenzene	ND	ug/kg	5.8		1	2.9	03/17/15	03/17/15 13:48	1011
m,p-Xylenes	ND	ug/kg	12		1	5.8	03/17/15	03/17/15 13:48	1011
Styrene	ND	ug/kg	5.8		1	2.9	03/17/15	03/17/15 13:48	1011
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.8		1	2.9	03/17/15	03/17/15 13:48	1011
o-Xylene	ND	ug/kg	5.8		1	2.9	03/17/15	03/17/15 13:48	1011
Isopropylbenzene	ND	ug/kg	5.8		1	2.9	03/17/15	03/17/15 13:48	1011
1,3-Dichlorobenzene	ND	ug/kg	5.8		1	2.9	03/17/15	03/17/15 13:48	1011
1,4-Dichlorobenzene	ND	ug/kg	5.8		1	2.9	03/17/15	03/17/15 13:48	1011
1,2-Dichlorobenzene	ND	ug/kg	5.8		1	2.9	03/17/15	03/17/15 13:48	1011
1,2-Dibromo-3-Chloropropane	ND	ug/kg	47		1	23	03/17/15	03/17/15 13:48	1011
1,2,4-Trichlorobenzene	ND	ug/kg	5.8		1	2.9	03/17/15	03/17/15 13:48	1011
1,2,3-Trichlorobenzene	ND	ug/kg	5.8		1	2.9	03/17/15	03/17/15 13:48	1011

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CERTIFICATE OF ANALYSIS

No: 15031307

Arc Environmental, Baltimore, MD

March 30, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B16 4-6	Date/Time Sampled: 03/11/2015 00:00	PSS Sample ID: 15031307-002
Matrix: SOIL	Date/Time Received: 03/13/2015 11:00	% Solids: 85

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/kg	39		10	39	03/18/15	03/19/15 02:11	1055
Acenaphthylene	51	ug/kg	39		10	39	03/18/15	03/19/15 02:11	1055
Anthracene	ND	ug/kg	39		10	39	03/18/15	03/19/15 02:11	1055
Benzo(a)anthracene	110	ug/kg	39		10	39	03/18/15	03/19/15 02:11	1055
Benzo(a)pyrene	140	ug/kg	39		10	39	03/18/15	03/19/15 02:11	1055
Benzo(b)fluoranthene	120	ug/kg	39		10	39	03/18/15	03/19/15 02:11	1055
Benzo(g,h,i)perylene	78	ug/kg	39		10	39	03/18/15	03/19/15 02:11	1055
Benzo(k)fluoranthene	90	ug/kg	39		10	39	03/18/15	03/19/15 02:11	1055
Chrysene	130	ug/kg	39		10	39	03/18/15	03/19/15 02:11	1055
Dibenz(a,h)Anthracene	ND	ug/kg	39		10	39	03/18/15	03/19/15 02:11	1055
Fluoranthene	140	ug/kg	39		10	39	03/18/15	03/19/15 02:11	1055
Fluorene	ND	ug/kg	39		10	39	03/18/15	03/19/15 02:11	1055
Indeno(1,2,3-c,d)Pyrene	82	ug/kg	39		10	39	03/18/15	03/19/15 02:11	1055
2-Methylnaphthalene	ND	ug/kg	39		10	39	03/18/15	03/19/15 02:11	1055
Naphthalene	ND	ug/kg	39		10	39	03/18/15	03/19/15 02:11	1055
Phenanthrene	74	ug/kg	39		10	39	03/18/15	03/19/15 02:11	1055
Pyrene	220	ug/kg	39		10	39	03/18/15	03/19/15 02:11	1055

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CERTIFICATE OF ANALYSIS

No: 15031307

Arc Environmental, Baltimore, MD

March 30, 2015

Project Name: Percontee
 Project Location: Silver Spring, MD
 Project ID: 057-5

Sample ID: B18 0-2	Date/Time Sampled: 03/12/2015 00:00	PSS Sample ID: 15031307-003
Matrix: SOIL	Date/Time Received: 03/13/2015 11:00	% Solids: 81

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	mg/kg	2.4		1	1.2	03/16/15	03/17/15 15:28	1033
Arsenic	3.2	mg/kg	0.47		1	0.24	03/16/15	03/17/15 15:28	1033
Beryllium	ND	mg/kg	2.4		1	1.2	03/16/15	03/17/15 15:28	1033
Cadmium	ND	mg/kg	2.4		1	1.2	03/16/15	03/17/15 15:28	1033
Chromium	33	mg/kg	2.4		1	1.2	03/16/15	03/17/15 15:28	1033
Copper	13	mg/kg	2.4		1	1.2	03/16/15	03/17/15 15:28	1033
Lead	7.8	mg/kg	2.4		1	1.2	03/16/15	03/17/15 15:28	1033
Mercury	0.20	mg/kg	0.094		1	0.047	03/16/15	03/17/15 15:28	1033
Nickel	19	mg/kg	2.4		1	1.2	03/16/15	03/17/15 15:28	1033
Selenium	ND	mg/kg	2.4		1	1.2	03/16/15	03/17/15 15:28	1033
Silver	ND	mg/kg	2.4		1	1.2	03/16/15	03/17/15 15:28	1033
Thallium	ND	mg/kg	0.47		1	0.24	03/16/15	03/17/15 15:28	1033
Zinc	40	mg/kg	9.4		1	4.7	03/16/15	03/17/15 15:28	1033

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	8.2	mg/kg	12	J	1	4.9	03/18/15	03/19/15 19:20	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	81	ug/kg	120	J	1	61	03/13/15	03/13/15 19:50	1035

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15031307

Arc Environmental, Baltimore, MD

March 30, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B18 0-2	Date/Time Sampled: 03/12/2015 00:00	PSS Sample ID: 15031307-003
Matrix: SOIL	Date/Time Received: 03/13/2015 11:00	% Solids: 81

Polychlorinated Biphenyls

Analytical Method: SW-846 8082 A

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
PCB-1016	ND	mg/kg	0.059		1	0.059	03/17/15	03/19/15 11:22	1029
PCB-1221	ND	mg/kg	0.059		1	0.059	03/17/15	03/19/15 11:22	1029
PCB-1232	ND	mg/kg	0.059		1	0.059	03/17/15	03/19/15 11:22	1029
PCB-1242	ND	mg/kg	0.059		1	0.059	03/17/15	03/19/15 11:22	1029
PCB-1248	ND	mg/kg	0.059		1	0.059	03/17/15	03/19/15 11:22	1029
PCB-1254	ND	mg/kg	0.059		1	0.059	03/17/15	03/19/15 11:22	1029
PCB-1260	ND	mg/kg	0.059		1	0.059	03/17/15	03/19/15 11:22	1029

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/kg	4.1		1	4.1	03/18/15	03/19/15 00:58	1055
Acenaphthylene	ND	ug/kg	4.1		1	4.1	03/18/15	03/19/15 00:58	1055
Anthracene	4.5	ug/kg	4.1		1	4.1	03/18/15	03/19/15 00:58	1055
Benzo(a)anthracene	15	ug/kg	4.1		1	4.1	03/18/15	03/19/15 00:58	1055
Benzo(a)pyrene	16	ug/kg	4.1		1	4.1	03/18/15	03/19/15 00:58	1055
Benzo(b)fluoranthene	12	ug/kg	4.1		1	4.1	03/18/15	03/19/15 00:58	1055
Benzo(g,h,i)perylene	9.0	ug/kg	4.1		1	4.1	03/18/15	03/19/15 00:58	1055
Benzo(k)fluoranthene	16	ug/kg	4.1		1	4.1	03/18/15	03/19/15 00:58	1055
Chrysene	18	ug/kg	4.1		1	4.1	03/18/15	03/19/15 00:58	1055
Dibenz(a,h)Anthracene	4.5	ug/kg	4.1		1	4.1	03/18/15	03/19/15 00:58	1055
Fluoranthene	28	ug/kg	4.1		1	4.1	03/18/15	03/19/15 00:58	1055
Fluorene	ND	ug/kg	4.1		1	4.1	03/18/15	03/19/15 00:58	1055
Indeno(1,2,3-c,d)Pyrene	9.9	ug/kg	4.1		1	4.1	03/18/15	03/19/15 00:58	1055
2-Methylnaphthalene	ND	ug/kg	4.1		1	4.1	03/18/15	03/19/15 00:58	1055
Naphthalene	ND	ug/kg	4.1		1	4.1	03/18/15	03/19/15 00:58	1055
Phenanthrene	17	ug/kg	4.1		1	4.1	03/18/15	03/19/15 00:58	1055
Pyrene	30	ug/kg	4.1		1	4.1	03/18/15	03/19/15 00:58	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15031307

Arc Environmental, Baltimore, MD

March 30, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B18 4-6	Date/Time Sampled: 03/12/2015 00:00	PSS Sample ID: 15031307-004
Matrix: SOIL	Date/Time Received: 03/13/2015 11:00	% Solids: 71

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	mg/kg	3.3		1	1.7	03/16/15	03/17/15 15:34	1033
Arsenic	4.3	mg/kg	0.66		1	0.33	03/16/15	03/17/15 15:34	1033
Beryllium	ND	mg/kg	3.3		1	1.7	03/16/15	03/17/15 15:34	1033
Cadmium	ND	mg/kg	3.3		1	1.7	03/16/15	03/17/15 15:34	1033
Chromium	34	mg/kg	3.3		1	1.7	03/16/15	03/17/15 15:34	1033
Copper	9.7	mg/kg	3.3		1	1.7	03/16/15	03/17/15 15:34	1033
Lead	13	mg/kg	3.3		1	1.7	03/16/15	03/17/15 15:34	1033
Mercury	0.076	mg/kg	0.13	J	1	0.066	03/16/15	03/17/15 15:34	1033
Nickel	12	mg/kg	3.3		1	1.7	03/16/15	03/17/15 15:34	1033
Selenium	ND	mg/kg	3.3		1	1.7	03/16/15	03/17/15 15:34	1033
Silver	ND	mg/kg	3.3		1	1.7	03/16/15	03/17/15 15:34	1033
Thallium	ND	mg/kg	0.66		1	0.33	03/16/15	03/17/15 15:34	1033
Zinc	27	mg/kg	13		1	6.6	03/16/15	03/17/15 15:34	1033

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	9.2	mg/kg	14	J	1	5.6	03/18/15	03/19/15 18:58	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	71	ug/kg	140	J	1	69	03/13/15	03/13/15 20:19	1035

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15031307

Arc Environmental, Baltimore, MD

March 30, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B18 4-6	Date/Time Sampled: 03/12/2015 00:00	PSS Sample ID: 15031307-004
Matrix: SOIL	Date/Time Received: 03/13/2015 11:00	% Solids: 71

Polychlorinated Biphenyls

Analytical Method: SW-846 8082 A

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
PCB-1016	ND	mg/kg	0.067		1	0.067	03/17/15	03/18/15 14:46	1029
PCB-1221	ND	mg/kg	0.067		1	0.067	03/17/15	03/18/15 14:46	1029
PCB-1232	ND	mg/kg	0.067		1	0.067	03/17/15	03/18/15 14:46	1029
PCB-1242	ND	mg/kg	0.067		1	0.067	03/17/15	03/18/15 14:46	1029
PCB-1248	ND	mg/kg	0.067		1	0.067	03/17/15	03/18/15 14:46	1029
PCB-1254	ND	mg/kg	0.067		1	0.067	03/17/15	03/18/15 14:46	1029
PCB-1260	ND	mg/kg	0.067		1	0.067	03/17/15	03/18/15 14:46	1029

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/kg	4.6		1	4.6	03/18/15	03/19/15 00:10	1055
Acenaphthylene	ND	ug/kg	4.6		1	4.6	03/18/15	03/19/15 00:10	1055
Anthracene	ND	ug/kg	4.6		1	4.6	03/18/15	03/19/15 00:10	1055
Benzo(a)anthracene	ND	ug/kg	4.6		1	4.6	03/18/15	03/19/15 00:10	1055
Benzo(a)pyrene	ND	ug/kg	4.6		1	4.6	03/18/15	03/19/15 00:10	1055
Benzo(b)fluoranthene	ND	ug/kg	4.6		1	4.6	03/18/15	03/19/15 00:10	1055
Benzo(g,h,i)perylene	ND	ug/kg	4.6		1	4.6	03/18/15	03/19/15 00:10	1055
Benzo(k)fluoranthene	ND	ug/kg	4.6		1	4.6	03/18/15	03/19/15 00:10	1055
Chrysene	ND	ug/kg	4.6		1	4.6	03/18/15	03/19/15 00:10	1055
Dibenz(a,h)Anthracene	ND	ug/kg	4.6		1	4.6	03/18/15	03/19/15 00:10	1055
Fluoranthene	ND	ug/kg	4.6		1	4.6	03/18/15	03/19/15 00:10	1055
Fluorene	ND	ug/kg	4.6		1	4.6	03/18/15	03/19/15 00:10	1055
Indeno(1,2,3-c,d)Pyrene	ND	ug/kg	4.6		1	4.6	03/18/15	03/19/15 00:10	1055
2-Methylnaphthalene	ND	ug/kg	4.6		1	4.6	03/18/15	03/19/15 00:10	1055
Naphthalene	ND	ug/kg	4.6		1	4.6	03/18/15	03/19/15 00:10	1055
Phenanthrene	ND	ug/kg	4.6		1	4.6	03/18/15	03/19/15 00:10	1055
Pyrene	ND	ug/kg	4.6		1	4.6	03/18/15	03/19/15 00:10	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15031307

Arc Environmental, Baltimore, MD

March 30, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B18 45-47	Date/Time Sampled: 03/12/2015 00:00	PSS Sample ID: 15031307-005
Matrix: SOIL	Date/Time Received: 03/13/2015 11:00	% Solids: 92

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	mg/kg	2.3		1	1.1	03/16/15	03/17/15 15:40	1033
Arsenic	0.83	mg/kg	0.45		1	0.23	03/16/15	03/17/15 15:40	1033
Beryllium	ND	mg/kg	2.3		1	1.1	03/16/15	03/17/15 15:40	1033
Cadmium	ND	mg/kg	2.3		1	1.1	03/16/15	03/17/15 15:40	1033
Chromium	8.8	mg/kg	2.3		1	1.1	03/16/15	03/17/15 15:40	1033
Copper	1.9	mg/kg	2.3	J	1	1.1	03/16/15	03/17/15 15:40	1033
Lead	2.0	mg/kg	2.3	J	1	1.1	03/16/15	03/17/15 15:40	1033
Mercury	ND	mg/kg	0.090		1	0.045	03/16/15	03/17/15 15:40	1033
Nickel	1.5	mg/kg	2.3	J	1	1.1	03/16/15	03/17/15 15:40	1033
Selenium	ND	mg/kg	2.3		1	1.1	03/16/15	03/17/15 15:40	1033
Silver	ND	mg/kg	2.3		1	1.1	03/16/15	03/17/15 15:40	1033
Thallium	ND	mg/kg	0.45		1	0.23	03/16/15	03/17/15 15:40	1033
Zinc	ND	mg/kg	9.0		1	4.5	03/16/15	03/17/15 15:40	1033

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	10	mg/kg	11	J	1	4.3	03/18/15	03/19/15 17:07	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/kg	110		1	54	03/16/15	03/16/15 13:37	1035

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15031307

Arc Environmental, Baltimore, MD

March 30, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B18 45-47	Date/Time Sampled: 03/12/2015 00:00	PSS Sample ID: 15031307-005
Matrix: SOIL	Date/Time Received: 03/13/2015 11:00	% Solids: 92

Polychlorinated Biphenyls

Analytical Method: SW-846 8082 A

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
PCB-1016	ND	mg/kg	0.053		1	0.053	03/17/15	03/18/15 13:19	1029
PCB-1221	ND	mg/kg	0.053		1	0.053	03/17/15	03/18/15 13:19	1029
PCB-1232	ND	mg/kg	0.053		1	0.053	03/17/15	03/18/15 13:19	1029
PCB-1242	ND	mg/kg	0.053		1	0.053	03/17/15	03/18/15 13:19	1029
PCB-1248	ND	mg/kg	0.053		1	0.053	03/17/15	03/18/15 13:19	1029
PCB-1254	ND	mg/kg	0.053		1	0.053	03/17/15	03/18/15 13:19	1029
PCB-1260	ND	mg/kg	0.053		1	0.053	03/17/15	03/18/15 13:19	1029

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/kg	3.6		1	3.6	03/18/15	03/19/15 00:34	1055
Acenaphthylene	ND	ug/kg	3.6		1	3.6	03/18/15	03/19/15 00:34	1055
Anthracene	ND	ug/kg	3.6		1	3.6	03/18/15	03/19/15 00:34	1055
Benzo(a)anthracene	ND	ug/kg	3.6		1	3.6	03/18/15	03/19/15 00:34	1055
Benzo(a)pyrene	ND	ug/kg	3.6		1	3.6	03/18/15	03/19/15 00:34	1055
Benzo(b)fluoranthene	ND	ug/kg	3.6		1	3.6	03/18/15	03/19/15 00:34	1055
Benzo(g,h,i)perylene	ND	ug/kg	3.6		1	3.6	03/18/15	03/19/15 00:34	1055
Benzo(k)fluoranthene	ND	ug/kg	3.6		1	3.6	03/18/15	03/19/15 00:34	1055
Chrysene	ND	ug/kg	3.6		1	3.6	03/18/15	03/19/15 00:34	1055
Dibenz(a,h)Anthracene	ND	ug/kg	3.6		1	3.6	03/18/15	03/19/15 00:34	1055
Fluoranthene	ND	ug/kg	3.6		1	3.6	03/18/15	03/19/15 00:34	1055
Fluorene	ND	ug/kg	3.6		1	3.6	03/18/15	03/19/15 00:34	1055
Indeno(1,2,3-c,d)Pyrene	ND	ug/kg	3.6		1	3.6	03/18/15	03/19/15 00:34	1055
2-Methylnaphthalene	ND	ug/kg	3.6		1	3.6	03/18/15	03/19/15 00:34	1055
Naphthalene	ND	ug/kg	3.6		1	3.6	03/18/15	03/19/15 00:34	1055
Phenanthrene	ND	ug/kg	3.6		1	3.6	03/18/15	03/19/15 00:34	1055
Pyrene	ND	ug/kg	3.6		1	3.6	03/18/15	03/19/15 00:34	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15031307

Arc Environmental, Baltimore, MD

March 30, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: MW5-0-2	Date/Time Sampled: 03/12/2015 00:00	PSS Sample ID: 15031307-006
Matrix: SOIL	Date/Time Received: 03/13/2015 11:00	% Solids: 88

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	mg/kg	2.6		1	1.3	03/16/15	03/17/15 15:46	1033
Arsenic	3.6	mg/kg	0.52		1	0.26	03/16/15	03/17/15 15:46	1033
Beryllium	ND	mg/kg	2.6		1	1.3	03/16/15	03/17/15 15:46	1033
Cadmium	ND	mg/kg	2.6		1	1.3	03/16/15	03/17/15 15:46	1033
Chromium	58	mg/kg	2.6		1	1.3	03/16/15	03/17/15 15:46	1033
Copper	26	mg/kg	2.6		1	1.3	03/16/15	03/17/15 15:46	1033
Lead	22	mg/kg	2.6		1	1.3	03/16/15	03/17/15 15:46	1033
Mercury	0.071	mg/kg	0.10	J	1	0.052	03/16/15	03/17/15 15:46	1033
Nickel	38	mg/kg	2.6		1	1.3	03/16/15	03/17/15 15:46	1033
Selenium	ND	mg/kg	2.6		1	1.3	03/16/15	03/17/15 15:46	1033
Silver	ND	mg/kg	2.6		1	1.3	03/16/15	03/17/15 15:46	1033
Thallium	ND	mg/kg	0.52		1	0.26	03/16/15	03/17/15 15:46	1033
Zinc	49	mg/kg	10		1	5.2	03/16/15	03/17/15 15:46	1033

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: SW3550C

DF/HF - No. 2/diesel fuel and heavier fuel/oil patterns observed in sample.

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	36	mg/kg	12	DF	1	4.6	03/18/15	03/19/15 20:04	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/kg	110		1	56	03/16/15	03/16/15 14:06	1035

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15031307

Arc Environmental, Baltimore, MD

March 30, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: MW5-0-2	Date/Time Sampled: 03/12/2015 00:00	PSS Sample ID: 15031307-006
Matrix: SOIL	Date/Time Received: 03/13/2015 11:00	% Solids: 88

Polychlorinated Biphenyls

Analytical Method: SW-846 8082 A

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
PCB-1016	ND	mg/kg	0.055		1	0.055	03/17/15	03/19/15 11:51	1029
PCB-1221	ND	mg/kg	0.055		1	0.055	03/17/15	03/19/15 11:51	1029
PCB-1232	ND	mg/kg	0.055		1	0.055	03/17/15	03/19/15 11:51	1029
PCB-1242	ND	mg/kg	0.055		1	0.055	03/17/15	03/19/15 11:51	1029
PCB-1248	ND	mg/kg	0.055		1	0.055	03/17/15	03/19/15 11:51	1029
PCB-1254	ND	mg/kg	0.055		1	0.055	03/17/15	03/19/15 11:51	1029
PCB-1260	ND	mg/kg	0.055		1	0.055	03/17/15	03/19/15 11:51	1029

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/kg	38		10	38	03/18/15	03/20/15 18:11	1055
Acenaphthylene	ND	ug/kg	38		10	38	03/18/15	03/20/15 18:11	1055
Anthracene	ND	ug/kg	38		10	38	03/18/15	03/20/15 18:11	1055
Benzo(a)anthracene	72	ug/kg	38		10	38	03/18/15	03/20/15 18:11	1055
Benzo(a)pyrene	83	ug/kg	38		10	38	03/18/15	03/20/15 18:11	1055
Benzo(b)fluoranthene	80	ug/kg	38		10	38	03/18/15	03/20/15 18:11	1055
Benzo(g,h,i)perylene	91	ug/kg	38		10	38	03/18/15	03/20/15 18:11	1055
Benzo(k)fluoranthene	64	ug/kg	38		10	38	03/18/15	03/20/15 18:11	1055
Chrysene	99	ug/kg	38		10	38	03/18/15	03/20/15 18:11	1055
Dibenz(a,h)Anthracene	68	ug/kg	38		10	38	03/18/15	03/20/15 18:11	1055
Fluoranthene	180	ug/kg	38		10	38	03/18/15	03/20/15 18:11	1055
Fluorene	ND	ug/kg	38		10	38	03/18/15	03/20/15 18:11	1055
Indeno(1,2,3-c,d)Pyrene	91	ug/kg	38		10	38	03/18/15	03/20/15 18:11	1055
2-Methylnaphthalene	ND	ug/kg	38		10	38	03/18/15	03/20/15 18:11	1055
Naphthalene	ND	ug/kg	38		10	38	03/18/15	03/20/15 18:11	1055
Phenanthrene	64	ug/kg	38		10	38	03/18/15	03/20/15 18:11	1055
Pyrene	140	ug/kg	38		10	38	03/18/15	03/20/15 18:11	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15031307

Arc Environmental, Baltimore, MD

March 30, 2015

Project Name: Percontee
 Project Location: Silver Spring, MD
 Project ID: 057-5

Sample ID: MW5-4-6	Date/Time Sampled: 03/12/2015 00:00	PSS Sample ID: 15031307-007
Matrix: SOIL	Date/Time Received: 03/13/2015 11:00	% Solids: 88

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	mg/kg	2.6		1	1.3	03/16/15	03/17/15 16:16	1033
Arsenic	3.3	mg/kg	0.52		1	0.26	03/16/15	03/17/15 16:16	1033
Beryllium	ND	mg/kg	2.6		1	1.3	03/16/15	03/17/15 16:16	1033
Cadmium	ND	mg/kg	2.6		1	1.3	03/16/15	03/17/15 16:16	1033
Chromium	92	mg/kg	2.6		1	1.3	03/16/15	03/17/15 16:16	1033
Copper	26	mg/kg	2.6		1	1.3	03/16/15	03/17/15 16:16	1033
Lead	23	mg/kg	2.6		1	1.3	03/16/15	03/17/15 16:16	1033
Mercury	0.055	mg/kg	0.10	J	1	0.052	03/16/15	03/17/15 16:16	1033
Nickel	89	mg/kg	2.6		1	1.3	03/16/15	03/17/15 16:16	1033
Selenium	ND	mg/kg	2.6		1	1.3	03/16/15	03/17/15 16:16	1033
Silver	ND	mg/kg	2.6		1	1.3	03/16/15	03/17/15 16:16	1033
Thallium	ND	mg/kg	0.52		1	0.26	03/16/15	03/17/15 16:16	1033
Zinc	46	mg/kg	10		1	5.2	03/16/15	03/17/15 16:16	1033

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: SW3550C

DF/HF - No. 2/diesel fuel and heavier fuel/oil patterns observed in sample.

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	130	mg/kg	11	DF	1	4.5	03/18/15	03/19/15 20:27	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/kg	110		1	57	03/16/15	03/16/15 14:35	1035

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15031307

Arc Environmental, Baltimore, MD

March 30, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: MW5-4-6	Date/Time Sampled: 03/12/2015 00:00	PSS Sample ID: 15031307-007
Matrix: SOIL	Date/Time Received: 03/13/2015 11:00	% Solids: 88

Polychlorinated Biphenyls

Analytical Method: SW-846 8082 A

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
PCB-1016	ND	mg/kg	0.056		1	0.056	03/17/15	03/19/15 12:20	1029
PCB-1221	ND	mg/kg	0.056		1	0.056	03/17/15	03/19/15 12:20	1029
PCB-1232	ND	mg/kg	0.056		1	0.056	03/17/15	03/19/15 12:20	1029
PCB-1242	ND	mg/kg	0.056		1	0.056	03/17/15	03/19/15 12:20	1029
PCB-1248	ND	mg/kg	0.056		1	0.056	03/17/15	03/19/15 12:20	1029
PCB-1254	ND	mg/kg	0.056		1	0.056	03/17/15	03/19/15 12:20	1029
PCB-1260	ND	mg/kg	0.056		1	0.056	03/17/15	03/19/15 12:20	1029

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CERTIFICATE OF ANALYSIS

No: 15031307

Arc Environmental, Baltimore, MD

March 30, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: MW5-4-6	Date/Time Sampled: 03/12/2015 00:00	PSS Sample ID: 15031307-007
Matrix: SOIL	Date/Time Received: 03/13/2015 11:00	% Solids: 88

TCL Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5035A

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Dichlorodifluoromethane	ND	ug/kg	5.3		1	2.7	03/17/15	03/17/15 14:18	1011
Chloromethane	ND	ug/kg	5.3		1	2.7	03/17/15	03/17/15 14:18	1011
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	ug/kg	5.3		1	2.7	03/17/15	03/17/15 14:18	1011
Vinyl Chloride	ND	ug/kg	5.3		1	2.7	03/17/15	03/17/15 14:18	1011
Bromomethane	ND	ug/kg	5.3		1	2.7	03/17/15	03/17/15 14:18	1011
Chloroethane	ND	ug/kg	5.3		1	2.7	03/17/15	03/17/15 14:18	1011
Acetone	49	ug/kg	21		1	11	03/17/15	03/17/15 14:18	1011
Cyclohexane	ND	ug/kg	21		1	11	03/17/15	03/17/15 14:18	1011
Trichlorofluoromethane	ND	ug/kg	5.3		1	2.7	03/17/15	03/17/15 14:18	1011
1,1-Dichloroethene	ND	ug/kg	5.3		1	2.7	03/17/15	03/17/15 14:18	1011
Methylene Chloride	ND	ug/kg	5.3		1	2.7	03/17/15	03/17/15 14:18	1011
trans-1,2-Dichloroethene	ND	ug/kg	5.3		1	2.7	03/17/15	03/17/15 14:18	1011
Methyl-t-butyl ether	ND	ug/kg	5.3		1	2.7	03/17/15	03/17/15 14:18	1011
1,1-Dichloroethane	ND	ug/kg	5.3		1	2.7	03/17/15	03/17/15 14:18	1011
2-Butanone	ND	ug/kg	21		1	11	03/17/15	03/17/15 14:18	1011
cis-1,2-Dichloroethene	ND	ug/kg	5.3		1	2.7	03/17/15	03/17/15 14:18	1011
Bromochloromethane	ND	ug/kg	5.3		1	2.7	03/17/15	03/17/15 14:18	1011
Chloroform	ND	ug/kg	5.3		1	2.7	03/17/15	03/17/15 14:18	1011
1,1,1-Trichloroethane	ND	ug/kg	5.3		1	2.7	03/17/15	03/17/15 14:18	1011
1,2-Dichloroethane	ND	ug/kg	5.3		1	2.7	03/17/15	03/17/15 14:18	1011
Carbon Tetrachloride	ND	ug/kg	5.3		1	2.7	03/17/15	03/17/15 14:18	1011
Benzene	ND	ug/kg	5.3		1	2.7	03/17/15	03/17/15 14:18	1011
1,2-Dichloropropane	ND	ug/kg	5.3		1	2.7	03/17/15	03/17/15 14:18	1011
Carbon Disulfide	ND	ug/kg	11		1	5.3	03/17/15	03/17/15 14:18	1011
Methylcyclohexane	ND	ug/kg	21		1	11	03/17/15	03/17/15 14:18	1011
Trichloroethene	ND	ug/kg	5.3		1	2.7	03/17/15	03/17/15 14:18	1011
Methyl Acetate	ND	ug/kg	21		1	11	03/17/15	03/17/15 14:18	1011
Bromodichloromethane	ND	ug/kg	5.3		1	2.7	03/17/15	03/17/15 14:18	1011
cis-1,3-Dichloropropene	ND	ug/kg	5.3		1	2.7	03/17/15	03/17/15 14:18	1011
4-Methyl-2-Pentanone	ND	ug/kg	21		1	11	03/17/15	03/17/15 14:18	1011

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15031307

Arc Environmental, Baltimore, MD

March 30, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: MW5-4-6	Date/Time Sampled: 03/12/2015 00:00	PSS Sample ID: 15031307-007
Matrix: SOIL	Date/Time Received: 03/13/2015 11:00	% Solids: 88

TCL Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5035A

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
trans-1,3-Dichloropropene	ND	ug/kg	5.3		1	2.7	03/17/15	03/17/15 14:18	1011
1,1,2-Trichloroethane	ND	ug/kg	5.3		1	2.7	03/17/15	03/17/15 14:18	1011
Toluene	ND	ug/kg	5.3		1	2.7	03/17/15	03/17/15 14:18	1011
2-Hexanone	ND	ug/kg	21		1	11	03/17/15	03/17/15 14:18	1011
1,2-Dibromoethane	ND	ug/kg	5.3		1	2.7	03/17/15	03/17/15 14:18	1011
Dibromochloromethane	ND	ug/kg	5.3		1	2.7	03/17/15	03/17/15 14:18	1011
Bromoform	ND	ug/kg	5.3		1	2.7	03/17/15	03/17/15 14:18	1011
Tetrachloroethene	ND	ug/kg	5.3		1	2.7	03/17/15	03/17/15 14:18	1011
Chlorobenzene	ND	ug/kg	5.3		1	2.7	03/17/15	03/17/15 14:18	1011
Ethylbenzene	ND	ug/kg	5.3		1	2.7	03/17/15	03/17/15 14:18	1011
m,p-Xylenes	ND	ug/kg	11		1	5.3	03/17/15	03/17/15 14:18	1011
Styrene	ND	ug/kg	5.3		1	2.7	03/17/15	03/17/15 14:18	1011
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.3		1	2.7	03/17/15	03/17/15 14:18	1011
o-Xylene	ND	ug/kg	5.3		1	2.7	03/17/15	03/17/15 14:18	1011
Isopropylbenzene	ND	ug/kg	5.3		1	2.7	03/17/15	03/17/15 14:18	1011
1,3-Dichlorobenzene	ND	ug/kg	5.3		1	2.7	03/17/15	03/17/15 14:18	1011
1,4-Dichlorobenzene	ND	ug/kg	5.3		1	2.7	03/17/15	03/17/15 14:18	1011
1,2-Dichlorobenzene	ND	ug/kg	5.3		1	2.7	03/17/15	03/17/15 14:18	1011
1,2-Dibromo-3-Chloropropane	ND	ug/kg	43		1	21	03/17/15	03/17/15 14:18	1011
1,2,4-Trichlorobenzene	ND	ug/kg	5.3		1	2.7	03/17/15	03/17/15 14:18	1011
1,2,3-Trichlorobenzene	ND	ug/kg	5.3		1	2.7	03/17/15	03/17/15 14:18	1011

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CERTIFICATE OF ANALYSIS

No: 15031307

Arc Environmental, Baltimore, MD

March 30, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: MW5-4-6	Date/Time Sampled: 03/12/2015 00:00	PSS Sample ID: 15031307-007
Matrix: SOIL	Date/Time Received: 03/13/2015 11:00	% Solids: 88

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	580	ug/kg	38		10	38	03/18/15	03/19/15 02:59	1055
Acenaphthylene	110	ug/kg	38		10	38	03/18/15	03/19/15 02:59	1055
Anthracene	920	ug/kg	38		10	38	03/18/15	03/19/15 02:59	1055
Benzo(a)anthracene	1,300	ug/kg	38		10	38	03/18/15	03/19/15 02:59	1055
Benzo(a)pyrene	1,000	ug/kg	38		10	38	03/18/15	03/19/15 02:59	1055
Benzo(b)fluoranthene	ND	ug/kg	38		10	38	03/18/15	03/19/15 02:59	1055
Benzo(g,h,i)perylene	440	ug/kg	38		10	38	03/18/15	03/19/15 02:59	1055
Benzo(k)fluoranthene	2,500	ug/kg	150		40	150	03/18/15	03/20/15 19:00	1055
Chrysene	1,400	ug/kg	38		10	38	03/18/15	03/19/15 02:59	1055
Dibenz(a,h)Anthracene	290	ug/kg	38		10	38	03/18/15	03/19/15 02:59	1055
Fluoranthene	2,500	ug/kg	150		40	150	03/18/15	03/20/15 19:00	1055
Fluorene	590	ug/kg	38		10	38	03/18/15	03/19/15 02:59	1055
Indeno(1,2,3-c,d)Pyrene	570	ug/kg	38		10	38	03/18/15	03/19/15 02:59	1055
2-Methylnaphthalene	190	ug/kg	38		10	38	03/18/15	03/19/15 02:59	1055
Naphthalene	180	ug/kg	38		10	38	03/18/15	03/19/15 02:59	1055
Phenanthrene	2,800	ug/kg	150		40	150	03/18/15	03/20/15 19:00	1055
Pyrene	2,400	ug/kg	150		40	150	03/18/15	03/20/15 19:00	1055



Case Narrative Summary

Client Name: Arc Environmental

Project Name: Percontee

Work Order Number(s): 15031307

Project ID: 057-5

Any holding time exceedances, deviations from the method specifications, regulatory requirements or variations to the procedures outlined in the PSS Quality Assurance Manual are outlined below.

The analyses of chlorine, pH, dissolved oxygen, temperature and sulfite for drinking water and non-potable samples tested for compliance have a maximum holding time of 15 minutes. As such, all laboratory analyses for these analytes exceed holding times.

Matrix spike and matrix spike duplicate analyses may not be performed due to insufficient sample quantity. In these instances, a laboratory control sample and laboratory control sample duplicate are analyzed unless otherwise noted or specified in the method.

Sample Receipt:

All sample receipt conditions were acceptable.

Analytical:

Total Metals

Batch: 121099

Matrix spike and/or matrix spike duplicate (MS/MSD) exceedances identified; see MS summary form.

The concentration of the following analyte(s) in the reference sample was greater than four times the matrix spike concentration : chromium, nickel

Interference check had a selenium recovery of 79% and a zinc recovery of 79%. Limits are 80-120%.

NELAP accreditation was held for all analyses performed unless noted below. See www.phaseonline.com for complete PSS scope of accreditation.



Analytical Data Package Information Summary

Work Order(s): 15031307

Report Prepared For: Arc Environmental, Baltimore, MD

Project Name: Percontee

Project Manager: Kyle Begey

Method	Client Sample Id	Analysis Type	Lab Sample Id	Analyst	Mtx	Prep Batch	Analytical Batch	Sampled	Prepared	Analyzed
ASTM D2216 05	B16 0-2	Initial	15031307-001	1051	S	121018	121018	03/11/2015	03/13/2015 15:13	03/13/2015 15:13
	B16 4-6	Initial	15031307-002	1051	S	121018	121018	03/11/2015	03/13/2015 15:13	03/13/2015 15:13
	B18 0-2	Initial	15031307-003	1051	S	121018	121018	03/12/2015	03/13/2015 15:13	03/13/2015 15:13
	B18 4-6	Initial	15031307-004	1051	S	121018	121018	03/12/2015	03/13/2015 15:13	03/13/2015 15:13
	B18 45-47	Initial	15031307-005	1051	S	121018	121018	03/12/2015	03/13/2015 15:13	03/13/2015 15:13
	MW5-0-2	Initial	15031307-006	1051	S	121018	121018	03/12/2015	03/13/2015 15:13	03/13/2015 15:13
	MW5-4-6	Initial	15031307-007	1051	S	121018	121018	03/12/2015	03/13/2015 15:13	03/13/2015 15:13
SW-846 6020 A	B16 0-2	Initial	15031307-001	1033	S	54563	121099	03/11/2015	03/16/2015 15:48	03/17/2015 14:52
	B16 4-6	Initial	15031307-002	1033	S	54563	121099	03/11/2015	03/16/2015 15:48	03/17/2015 15:22
	B18 0-2	Initial	15031307-003	1033	S	54563	121099	03/12/2015	03/16/2015 15:48	03/17/2015 15:28
	B18 4-6	Initial	15031307-004	1033	S	54563	121099	03/12/2015	03/16/2015 15:48	03/17/2015 15:34
	B18 45-47	Initial	15031307-005	1033	S	54563	121099	03/12/2015	03/16/2015 15:48	03/17/2015 15:40
	MW5-0-2	Initial	15031307-006	1033	S	54563	121099	03/12/2015	03/16/2015 15:48	03/17/2015 15:46
	MW5-4-6	Initial	15031307-007	1033	S	54563	121099	03/12/2015	03/16/2015 15:48	03/17/2015 16:16
	54563-1-BKS	BKS	54563-1-BKS	1033	S	54563	121099	-----	03/16/2015 15:48	03/17/2015 14:09
	54563-1-BLK	BLK	54563-1-BLK	1033	S	54563	121099	-----	03/16/2015 15:48	03/17/2015 14:03
	B16 0-2 S	MS	15031307-001 S	1033	S	54563	121099	03/11/2015	03/16/2015 15:48	03/17/2015 14:58
	B16 0-2 S	Reanalysis	15031307-001 S	1033	S	54563	121099	03/11/2015	03/16/2015 15:48	03/17/2015 14:58
	B16 0-2 SD	MSD	15031307-001 SD	1033	S	54563	121099	03/11/2015	03/16/2015 15:48	03/17/2015 15:04
	B16 0-2 SD	Reanalysis	15031307-001 SD	1033	S	54563	121099	03/11/2015	03/16/2015 15:48	03/17/2015 15:04
	B16 0-2	Reanalysis	15031307-001	1033	S	54563	121161	03/11/2015	03/16/2015 15:48	03/18/2015 13:39
	SW-846 8015 C	54616-1-BKS	BKS	54616-1-BKS	1055	S	54616	121184	-----	03/18/2015 17:19
54616-1-BLK		BLK	54616-1-BLK	1055	S	54616	121184	-----	03/18/2015 17:19	03/19/2015 11:58
54616-1-BSD		BSD	54616-1-BSD	1055	S	54616	121184	-----	03/18/2015 17:19	03/19/2015 11:35
B-2 (1.0'-1.5') S		MS	15031316-002 S	1055	S	54616	121184	03/12/2015	03/18/2015 17:19	03/19/2015 12:20
B-2 (1.0'-1.5') SD		MSD	15031316-002 SD	1055	S	54616	121184	03/12/2015	03/18/2015 17:19	03/19/2015 12:42
B16 0-2		Initial	15031307-001	1055	S	54616	121190	03/11/2015	03/18/2015 17:19	03/19/2015 19:42
B16 4-6		Initial	15031307-002	1055	S	54616	121190	03/11/2015	03/18/2015 17:19	03/19/2015 20:04



Analytical Data Package Information Summary

Work Order(s): 15031307

Report Prepared For: Arc Environmental, Baltimore, MD

Project Name: Percontee

Project Manager: Kyle Begey

Method	Client Sample Id	Analysis Type	Lab Sample Id	Analyst	Mtx	Prep Batch	Analytical Batch	Sampled	Prepared	Analyzed
SW-846 8015 C	B18 0-2	Initial	15031307-003	1055	S	54616	121190	03/12/2015	03/18/2015 17:19	03/19/2015 19:20
	B18 4-6	Initial	15031307-004	1055	S	54616	121190	03/12/2015	03/18/2015 17:19	03/19/2015 18:58
	B18 45-47	Initial	15031307-005	1055	S	54616	121190	03/12/2015	03/18/2015 17:19	03/19/2015 17:07
	MW5-0-2	Initial	15031307-006	1055	S	54616	121190	03/12/2015	03/18/2015 17:19	03/19/2015 20:04
	MW5-4-6	Initial	15031307-007	1055	S	54616	121190	03/12/2015	03/18/2015 17:19	03/19/2015 20:27
SW-846 8015C	B16 4-6	Initial	15031307-002	1035	S	54558	121047	03/11/2015	03/13/2015 09:26	03/13/2015 19:20
	B18 0-2	Initial	15031307-003	1035	S	54558	121047	03/12/2015	03/13/2015 09:26	03/13/2015 19:50
	B18 4-6	Initial	15031307-004	1035	S	54558	121047	03/12/2015	03/13/2015 09:26	03/13/2015 20:19
	54558-2-BKS	BKS	54558-2-BKS	1035	S	54558	121047	-----	03/13/2015 09:26	03/13/2015 11:01
	54558-2-BLK	BLK	54558-2-BLK	1035	S	54558	121047	-----	03/13/2015 09:26	03/13/2015 10:32
	B-3-S-6-18.5-20.0 S	MS	15031204-003 S	1035	S	54558	121047	03/11/2015	03/13/2015 09:26	03/13/2015 14:26
	B-3-S-6-18.5-20.0 SD	MSD	15031204-003 SD	1035	S	54558	121047	03/11/2015	03/13/2015 09:26	03/13/2015 14:55
	B16 0-2	Initial	15031307-001	1035	S	54580	121078	03/11/2015	03/16/2015 08:38	03/16/2015 13:07
	B18 45-47	Initial	15031307-005	1035	S	54580	121078	03/12/2015	03/16/2015 08:38	03/16/2015 13:37
	MW5-0-2	Initial	15031307-006	1035	S	54580	121078	03/12/2015	03/16/2015 08:38	03/16/2015 14:06
	MW5-4-6	Initial	15031307-007	1035	S	54580	121078	03/12/2015	03/16/2015 08:38	03/16/2015 14:35
	54580-2-BKS	BKS	54580-2-BKS	1035	S	54580	121078	-----	03/16/2015 08:38	03/16/2015 11:09
	54580-2-BLK	BLK	54580-2-BLK	1035	S	54580	121078	-----	03/16/2015 08:38	03/16/2015 10:40
	MW-7 4-6 S	MS	15031604-002 S	1035	S	54580	121078	03/13/2015	03/16/2015 08:38	03/16/2015 18:32
	MW-7 4-6 SD	MSD	15031604-002 SD	1035	S	54580	121078	03/13/2015	03/16/2015 08:38	03/16/2015 19:01
SW-846 8082 A	B16 0-2	Initial	15031307-001	1029	S	54587	121130	03/11/2015	03/17/2015 13:44	03/18/2015 13:19
	B16 4-6	Initial	15031307-002	1029	S	54587	121130	03/11/2015	03/17/2015 13:44	03/18/2015 14:16
	B18 0-2	Initial	15031307-003	1029	S	54587	121130	03/12/2015	03/17/2015 13:44	03/19/2015 11:22
	B18 4-6	Initial	15031307-004	1029	S	54587	121130	03/12/2015	03/17/2015 13:44	03/18/2015 14:46
	B18 45-47	Initial	15031307-005	1029	S	54587	121130	03/12/2015	03/17/2015 13:44	03/18/2015 13:19
	MW5-0-2	Initial	15031307-006	1029	S	54587	121130	03/12/2015	03/17/2015 13:44	03/19/2015 11:51
	MW5-4-6	Initial	15031307-007	1029	S	54587	121130	03/12/2015	03/17/2015 13:44	03/19/2015 12:20
	54587-1-BKS	BKS	54587-1-BKS	1029	S	54587	121130	-----	03/17/2015 13:44	03/18/2015 12:21



Analytical Data Package Information Summary

Work Order(s): 15031307

Report Prepared For: Arc Environmental, Baltimore, MD

Project Name: Percontee

Project Manager: Kyle Begey

Method	Client Sample Id	Analysis Type	Lab Sample Id	Analyst	Mtx	Prep Batch	Analytical Batch	Sampled	Prepared	Analyzed
SW-846 8082 A	54587-1-BLK	BLK	54587-1-BLK	1029	S	54587	121130	-----	03/17/2015 13:44	03/18/2015 11:52
	54587-1-BSD	BSD	54587-1-BSD	1029	S	54587	121130	-----	03/17/2015 13:44	03/18/2015 12:50
	B18 45-47 S	MS	15031307-005 S	1029	S	54587	121130	03/12/2015	03/17/2015 13:44	03/18/2015 12:21
	B18 45-47 SD	MSD	15031307-005 SD	1029	S	54587	121130	03/12/2015	03/17/2015 13:44	03/18/2015 12:50
SW-846 8260 B	B16 4-6	Initial	15031307-002	1011	S	54594	121110	03/11/2015	03/17/2015 04:16	03/17/2015 13:48
	MW5-4-6	Initial	15031307-007	1011	S	54594	121110	03/12/2015	03/17/2015 04:16	03/17/2015 14:18
	54594-1-BKS	BKS	54594-1-BKS	1011	S	54594	121110	-----	03/17/2015 04:16	03/17/2015 07:42
	54594-1-BLK	BLK	54594-1-BLK	1011	S	54594	121110	-----	03/17/2015 04:16	03/17/2015 07:13
	11417-171, 108-8' S	MS	15031321-005 S	1011	S	54594	121110	03/12/2015	03/17/2015 04:16	03/17/2015 08:42
	11417-171, 108-8' SD	MSD	15031321-005 SD	1011	S	54594	121110	03/12/2015	03/17/2015 04:16	03/17/2015 09:11
SW-846 8270 C	B16 0-2	Initial	15031307-001	1055	S	54593	121187	03/11/2015	03/18/2015 09:22	03/19/2015 03:24
	B16 4-6	Initial	15031307-002	1055	S	54593	121187	03/11/2015	03/18/2015 09:22	03/19/2015 02:11
	B18 0-2	Initial	15031307-003	1055	S	54593	121187	03/12/2015	03/18/2015 09:22	03/19/2015 00:58
	B18 4-6	Initial	15031307-004	1055	S	54593	121187	03/12/2015	03/18/2015 09:22	03/19/2015 00:10
	B18 45-47	Initial	15031307-005	1055	S	54593	121187	03/12/2015	03/18/2015 09:22	03/19/2015 00:34
	MW5-4-6	Initial	15031307-007	1055	S	54593	121187	03/12/2015	03/18/2015 09:22	03/19/2015 02:59
	54593-1-BKS	BKS	54593-1-BKS	1055	S	54593	121187	-----	03/18/2015 09:22	03/18/2015 20:56
	54593-1-BLK	BLK	54593-1-BLK	1055	S	54593	121187	-----	03/18/2015 09:22	03/18/2015 20:32
	54593-1-BSD	BSD	54593-1-BSD	1055	S	54593	121187	-----	03/18/2015 09:22	03/18/2015 21:20
	Gudelsky GAB S	MS	15031323-001 S	1055	S	54593	121187	03/13/2015	03/18/2015 09:22	03/18/2015 21:44
	Gudelsky GAB SD	MSD	15031323-001 SD	1055	S	54593	121187	03/13/2015	03/18/2015 09:22	03/18/2015 22:09
	MW5-0-2	Initial	15031307-006	1055	S	54593	121311	03/12/2015	03/18/2015 09:22	03/20/2015 18:11
	MW5-4-6	Reanalysis	15031307-007	1055	S	54593	121311	03/12/2015	03/18/2015 09:22	03/20/2015 19:00

PHASE SEPARATION SCIENCE, INC.

QC Summary 15031307

Arc Environmental Percontee

Analytical Method: SW-846 8082 A

Seq Number: 121130
PSS Sample ID: 15031307-001

Prep Method: SW3550C
Date Prep: 03/17/2015

Matrix: Soil

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	74		11-150	%	03/18/15 13:19
Tetrachloro-m-xylene	79		12-158	%	03/18/15 13:19

Analytical Method: SW-846 8270 C

Seq Number: 121187
PSS Sample ID: 15031307-001

Prep Method: SW3550C
Date Prep: 03/18/2015

Matrix: Soil

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	90		51-109	%	03/19/15 03:24
Nitrobenzene-d5	80		48-111	%	03/19/15 03:24
Terphenyl-D14	110		45-137	%	03/19/15 03:24

Analytical Method: SW-846 8015 C

Seq Number: 121190
PSS Sample ID: 15031307-001

Prep Method: SW3550C
Date Prep: 03/18/2015

Matrix: Soil

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	53		42-129	%	03/19/15 19:42

Analytical Method: SW-846 8015C

Seq Number: 121078
PSS Sample ID: 15031307-001

Prep Method: SW5030
Date Prep: 03/16/2015

Matrix: Soil

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	86		55-142	%	03/16/15 13:07

Analytical Method: SW-846 8082 A

Seq Number: 121130
PSS Sample ID: 15031307-002

Prep Method: SW3550C
Date Prep: 03/17/2015

Matrix: Soil

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	89		11-150	%	03/18/15 14:16
Tetrachloro-m-xylene	102		12-158	%	03/18/15 14:16

PHASE SEPARATION SCIENCE, INC.

QC Summary 15031307

Arc Environmental Percontee

Analytical Method: SW-846 8270 C

Seq Number: 121187
PSS Sample ID: 15031307-002

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/18/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	90		51-109	%	03/19/15 02:11
Nitrobenzene-d5	80		48-111	%	03/19/15 02:11
Terphenyl-D14	100		45-137	%	03/19/15 02:11

Analytical Method: SW-846 8015 C

Seq Number: 121190
PSS Sample ID: 15031307-002

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/18/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	80		42-129	%	03/19/15 20:04

Analytical Method: SW-846 8015C

Seq Number: 121047
PSS Sample ID: 15031307-002

Matrix: Soil

Prep Method: SW5030
Date Prep: 03/13/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	88		55-142	%	03/13/15 19:20

Analytical Method: SW-846 8260 B

Seq Number: 121110
PSS Sample ID: 15031307-002

Matrix: Soil

Prep Method: SW5035
Date Prep: 03/17/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	105		80-125	%	03/17/15 13:48
Dibromofluoromethane	107		85-115	%	03/17/15 13:48
Toluene-D8	101		91-109	%	03/17/15 13:48

Analytical Method: SW-846 8082 A

Seq Number: 121130
PSS Sample ID: 15031307-003

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/17/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	100		11-150	%	03/19/15 11:22
Tetrachloro-m-xylene	99		12-158	%	03/19/15 11:22

PHASE SEPARATION SCIENCE, INC.

QC Summary 15031307

Arc Environmental Percontee

Analytical Method: SW-846 8270 C

Seq Number: 121187
PSS Sample ID: 15031307-003

Prep Method: SW3550C
Date Prep: 03/18/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	92		51-109	%	03/19/15 00:58
Nitrobenzene-d5	79		48-111	%	03/19/15 00:58
Terphenyl-D14	94		45-137	%	03/19/15 00:58

Analytical Method: SW-846 8015 C

Seq Number: 121190
PSS Sample ID: 15031307-003

Prep Method: SW3550C
Date Prep: 03/18/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	87		42-129	%	03/19/15 19:20

Analytical Method: SW-846 8015C

Seq Number: 121047
PSS Sample ID: 15031307-003

Prep Method: SW5030
Date Prep: 03/13/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	87		55-142	%	03/13/15 19:50

Analytical Method: SW-846 8082 A

Seq Number: 121130
PSS Sample ID: 15031307-004

Prep Method: SW3550C
Date Prep: 03/17/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	111		11-150	%	03/18/15 14:46
Tetrachloro-m-xylene	94		12-158	%	03/18/15 14:46

Analytical Method: SW-846 8270 C

Seq Number: 121187
PSS Sample ID: 15031307-004

Prep Method: SW3550C
Date Prep: 03/18/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	92		51-109	%	03/19/15 00:10
Nitrobenzene-d5	80		48-111	%	03/19/15 00:10
Terphenyl-D14	101		45-137	%	03/19/15 00:10

PHASE SEPARATION SCIENCE, INC.

QC Summary 15031307

Arc Environmental Percontee

Analytical Method: SW-846 8015 C

Seq Number: 121190
PSS Sample ID: 15031307-004

Prep Method: SW3550C
Date Prep: 03/18/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	78		42-129	%	03/19/15 18:58

Analytical Method: SW-846 8015C

Seq Number: 121047
PSS Sample ID: 15031307-004

Prep Method: SW5030
Date Prep: 03/13/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	87		55-142	%	03/13/15 20:19

Analytical Method: SW-846 8082 A

Seq Number: 121130
PSS Sample ID: 15031307-005

Prep Method: SW3550C
Date Prep: 03/17/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	110		11-150	%	03/18/15 13:19
Tetrachloro-m-xylene	95		12-158	%	03/18/15 13:19

Analytical Method: SW-846 8270 C

Seq Number: 121187
PSS Sample ID: 15031307-005

Prep Method: SW3550C
Date Prep: 03/18/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	90		51-109	%	03/19/15 00:34
Nitrobenzene-d5	75		48-111	%	03/19/15 00:34
Terphenyl-D14	94		45-137	%	03/19/15 00:34

Analytical Method: SW-846 8015 C

Seq Number: 121190
PSS Sample ID: 15031307-005

Prep Method: SW3550C
Date Prep: 03/18/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	73		42-129	%	03/19/15 17:07

PHASE SEPARATION SCIENCE, INC.

QC Summary 15031307

Arc Environmental Percontee

Analytical Method: SW-846 8015C

Seq Number: 121078
PSS Sample ID: 15031307-005

Prep Method: SW5030
Date Prep: 03/16/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	87		55-142	%	03/16/15 13:37

Analytical Method: SW-846 8082 A

Seq Number: 121130
PSS Sample ID: 15031307-006

Prep Method: SW3550C
Date Prep: 03/17/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	101		11-150	%	03/19/15 11:51
Tetrachloro-m-xylene	105		12-158	%	03/19/15 11:51

Analytical Method: SW-846 8015 C

Seq Number: 121190
PSS Sample ID: 15031307-006

Prep Method: SW3550C
Date Prep: 03/18/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	85		42-129	%	03/19/15 20:04

Analytical Method: SW-846 8270 C

Seq Number: 121311
PSS Sample ID: 15031307-006

Prep Method: SW3550C
Date Prep: 03/18/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	80		51-109	%	03/20/15 18:11
Nitrobenzene-d5	50		48-111	%	03/20/15 18:11
Terphenyl-D14	100		45-137	%	03/20/15 18:11

Analytical Method: SW-846 8015C

Seq Number: 121078
PSS Sample ID: 15031307-006

Prep Method: SW5030
Date Prep: 03/16/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	87		55-142	%	03/16/15 14:06

PHASE SEPARATION SCIENCE, INC.

QC Summary 15031307

Arc Environmental Percontee

Analytical Method: SW-846 8082 A

Seq Number: 121130
PSS Sample ID: 15031307-007

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/17/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	96		11-150	%	03/19/15 12:20
Tetrachloro-m-xylene	91		12-158	%	03/19/15 12:20

Analytical Method: SW-846 8270 C

Seq Number: 121187
PSS Sample ID: 15031307-007

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/18/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	90		51-109	%	03/19/15 02:59
Nitrobenzene-d5	90		48-111	%	03/19/15 02:59
Terphenyl-D14	120		45-137	%	03/19/15 02:59

Analytical Method: SW-846 8015 C

Seq Number: 121190
PSS Sample ID: 15031307-007

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/18/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	53		42-129	%	03/19/15 20:27

Analytical Method: SW-846 8015C

Seq Number: 121078
PSS Sample ID: 15031307-007

Matrix: Soil

Prep Method: SW5030
Date Prep: 03/16/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	87		55-142	%	03/16/15 14:35

Analytical Method: SW-846 8260 B

Seq Number: 121110
PSS Sample ID: 15031307-007

Matrix: Soil

Prep Method: SW5035
Date Prep: 03/17/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	104		80-125	%	03/17/15 14:18
Dibromofluoromethane	108		85-115	%	03/17/15 14:18
Toluene-D8	101		91-109	%	03/17/15 14:18

F = RPD exceeded the laboratory control limits
X = Recovery of MS, MSD or both outside of QC Criteria
H = Recovery of BS, BSD or both exceeded the laboratory control limits
L = Recovery of BS, BSD or both below the laboratory control limits

PHASE SEPARATION SCIENCE, INC.

QC Summary 15031307

Arc Environmental Percontee

Analytical Method: SW-846 6020 A

Seq Number: 121099

MB Sample Id: 54563-1-BLK

Matrix: Solid

LCS Sample Id: 54563-1-BKS

Prep Method: SW3050B

Date Prep: 03/16/15

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Analysis Date	Flag
Antimony	<1.249	19.98	21.61	108	80-120	mg/kg	03/17/15 14:09	
Arsenic	<0.2497	19.98	19.48	97	80-120	mg/kg	03/17/15 14:09	
Beryllium	<1.249	19.98	18.51	93	80-120	mg/kg	03/17/15 14:09	
Cadmium	<1.249	19.98	18.49	93	80-120	mg/kg	03/17/15 14:09	
Chromium	<1.249	19.98	19.69	99	80-120	mg/kg	03/17/15 14:09	
Copper	<1.249	19.98	19.63	98	80-120	mg/kg	03/17/15 14:09	
Lead	<1.249	19.98	19.30	97	80-120	mg/kg	03/17/15 14:09	
Mercury	<0.04994	0.4994	0.4445	89	80-120	mg/kg	03/17/15 14:09	
Nickel	<1.249	19.98	19.69	99	80-120	mg/kg	03/17/15 14:09	
Selenium	<1.249	19.98	17.00	85	80-120	mg/kg	03/17/15 14:09	
Silver	<1.249	19.98	19.27	96	80-120	mg/kg	03/17/15 14:09	
Thallium	<0.2497	19.98	17.52	88	80-120	mg/kg	03/17/15 14:09	
Zinc	<4.994	19.98	18.06	90	80-120	mg/kg	03/17/15 14:09	

Analytical Method: SW-846 6020 A

Seq Number: 121099

Parent Sample Id: 15031307-001

Matrix: Soil

MS Sample Id: 15031307-001 S

Prep Method: SW3050B

Date Prep: 03/16/15

MSD Sample Id: 15031307-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Antimony	<1.113	17.81	12.22	69	16.63	76	75-125	31	30	mg/kg	03/17/15 14:58	XF
Arsenic	2.259	17.81	16.88	82	20.98	85	75-125	22	30	mg/kg	03/17/15 14:58	
Beryllium	<1.113	17.81	15.03	84	17.98	82	75-125	18	30	mg/kg	03/17/15 14:58	
Cadmium	<1.113	17.81	15.80	89	18.45	84	75-125	15	30	mg/kg	03/17/15 14:58	
Chromium	176.8	17.81	228	287	199	101	75-125	14	30	mg/kg	03/17/15 14:58	X
Copper	14.65	17.81	27.96	75	31.54	77	75-125	12	30	mg/kg	03/17/15 14:58	
Lead	4.322	17.81	21.20	95	27.75	107	75-125	27	30	mg/kg	03/17/15 14:58	
Mercury	<0.04451	0.4451	0.4184	94	0.5696	104	75-125	31	30	mg/kg	03/17/15 14:58	F
Nickel	298.9	17.81	441.8	802	307.3	38	75-125	36	30	mg/kg	03/17/15 14:58	XF
Selenium	<1.113	17.81	12.94	73	15.69	72	75-125	19	30	mg/kg	03/17/15 14:58	X
Silver	<1.113	17.81	16.27	91	19.12	87	75-125	16	30	mg/kg	03/17/15 14:58	
Thallium	<0.2226	17.81	14.08	79	16.93	77	75-125	18	20	mg/kg	03/17/15 14:58	
Zinc	20.06	17.81	29.73	54	35.79	72	75-125	18	30	mg/kg	03/17/15 14:58	X

Analytical Method: SW-846 8082 A

Seq Number: 121130

MB Sample Id: 54587-1-BLK

Matrix: Solid

LCS Sample Id: 54587-1-BKS

Prep Method: SW3550C

Date Prep: 03/17/15

LCSD Sample Id: 54587-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
PCB-1016	<0.04897	0.4897	0.4461	91	0.4683	96	62-136	5	25	mg/kg	03/18/15 12:21	
PCB-1260	<0.04897	0.4897	0.4118	84	0.4327	89	56-113	5	25	mg/kg	03/18/15 12:21	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	98		102		107		11-150	%	03/18/15 12:21
Tetrachloro-m-xylene	94		91		97		12-158	%	03/18/15 12:21

PHASE SEPARATION SCIENCE, INC.

QC Summary 15031307

Arc Environmental Percontee

Analytical Method: SW-846 8082 A

Seq Number: 121130

Parent Sample Id: 15031307-005

Matrix: Soil

MS Sample Id: 15031307-005 S

Prep Method: SW3550C

Date Prep: 03/17/15

MSD Sample Id: 15031307-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
PCB-1016	<0.05302	0.5302	0.5525	104	0.5477	104	44-139	1	30	mg/kg	03/18/15 12:21	
PCB-1260	<0.05302	0.5302	0.5350	101	0.5400	102	19-114	1	30	mg/kg	03/18/15 12:21	

Surrogate	MS Result	MS Flag	MSD Result	MSD Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	110		113		11-150	%	03/18/15 12:21
Tetrachloro-m-xylene	100		101		12-158	%	03/18/15 12:21

Analytical Method: SW-846 8015 C

Seq Number: 121184

MB Sample Id: 54616-1-BLK

Matrix: Solid

LCS Sample Id: 54616-1-BKS

Prep Method: SW3550C

Date Prep: 03/18/15

LCSD Sample Id: 54616-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
TPH-DRO (Diesel Range Organics)	<4.155	34.63	33.74	97	33.61	99	56-117	0	25	mg/kg	03/19/15 11:13	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units	Analysis Date
o-Terphenyl	79		85		81		42-129	%	03/19/15 11:13

PHASE SEPARATION SCIENCE, INC.

QC Summary 15031307

Arc Environmental Percontee

Analytical Method: SW-846 8270 C

Seq Number: 121187

MB Sample Id: 54593-1-BLK

Matrix: Solid

LCS Sample Id: 54593-1-BKS

Prep Method: SW3550C

Date Prep: 03/18/15

LCSD Sample Id: 54593-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Acenaphthene	<3.327	66.53	58.22	88	61.51	93	65-104	5	31	ug/kg	03/18/15 20:56	
Acenaphthylene	<3.327	66.53	59.55	90	63.16	96	59-105	6	25	ug/kg	03/18/15 20:56	
Anthracene	<3.327	66.53	61.54	92	65.79	100	52-121	7	25	ug/kg	03/18/15 20:56	
Benzo(a)anthracene	<3.327	66.53	61.88	93	66.78	102	47-114	8	25	ug/kg	03/18/15 20:56	
Benzo(a)pyrene	<3.327	66.53	63.87	96	66.78	102	57-111	4	25	ug/kg	03/18/15 20:56	
Benzo(b)fluoranthene	<3.327	66.53	72.85	109	74.01	112	47-123	2	25	ug/kg	03/18/15 20:56	
Benzo(g,h,i)perylene	<3.327	66.53	64.87	98	68.75	104	46-119	6	25	ug/kg	03/18/15 20:56	
Benzo(k)fluoranthene	<3.327	66.53	55.22	83	58.55	89	44-133	6	25	ug/kg	03/18/15 20:56	
Chrysene	<3.327	66.53	60.88	92	69.08	105	51-111	13	25	ug/kg	03/18/15 20:56	
Dibenz(a,h)Anthracene	<3.327	66.53	64.20	96	67.11	102	44-121	4	25	ug/kg	03/18/15 20:56	
Fluoranthene	<3.327	66.53	59.88	90	62.50	95	55-114	4	25	ug/kg	03/18/15 20:56	
Fluorene	<3.327	66.53	54.56	82	58.55	89	59-107	7	25	ug/kg	03/18/15 20:56	
Indeno(1,2,3-c,d)Pyrene	<3.327	66.53	65.20	98	67.76	103	42-123	4	25	ug/kg	03/18/15 20:56	
2-Methylnaphthalene	<3.327	66.53	56.89	86	59.87	91	67-99	5	25	ug/kg	03/18/15 20:56	
Naphthalene	<3.327	66.53	60.21	91	63.16	96	61-108	5	25	ug/kg	03/18/15 20:56	
Phenanthrene	<3.327	66.53	56.55	85	60.20	92	50-122	6	25	ug/kg	03/18/15 20:56	
Pyrene	<3.327	66.53	65.20	98	66.12	101	45-118	1	31	ug/kg	03/18/15 20:56	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	104		104		105		51-109	%	03/18/15 20:56
Nitrobenzene-d5	90		87		92		48-111	%	03/18/15 20:56
Terphenyl-D14	110		109		110		45-137	%	03/18/15 20:56

Analytical Method: SW-846 8015C

Seq Number: 121047

MB Sample Id: 54558-2-BLK

Matrix: Solid

LCS Sample Id: 54558-2-BKS

Prep Method: SW5030

Date Prep: 03/13/15

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Analysis Date	Flag
TPH-GRO (Gasoline Range Organic)	<49.21	4921	4844	98	60-112	ug/kg	03/13/15 11:01	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	86		101		55-142	%	03/13/15 11:01

Analytical Method: SW-846 8015C

Seq Number: 121078

MB Sample Id: 54580-2-BLK

Matrix: Solid

LCS Sample Id: 54580-2-BKS

Prep Method: SW5030

Date Prep: 03/16/15

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Analysis Date	Flag
TPH-GRO (Gasoline Range Organic)	<49.21	4921	3948	80	60-112	ug/kg	03/16/15 11:09	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	87		99		55-142	%	03/16/15 11:09

PHASE SEPARATION SCIENCE, INC.

QC Summary 15031307

Arc Environmental Percontee

Analytical Method: SW-846 8260 B

Seq Number: 121110

MB Sample Id: 54594-1-BLK

Matrix: Solid

LCS Sample Id: 54594-1-BKS

Prep Method: SW5030

Date Prep: 03/17/15

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Analysis Date	Flag
Dichlorodifluoromethane	<2.546	61.10	53.29	87	53-144	ug/kg	03/17/15 07:42	
Chloromethane	<2.546	61.10	56.33	92	62-143	ug/kg	03/17/15 07:42	
1,1,2-Trichloro-1,2,2-Trifluoroethane	<2.546	61.10	45.65	75	50-162	ug/kg	03/17/15 07:42	
Vinyl Chloride	<2.546	61.10	50.52	83	61-156	ug/kg	03/17/15 07:42	
Bromomethane	<2.546	61.10	64.78	106	45-199	ug/kg	03/17/15 07:42	
Chloroethane	<2.546	61.10	62.21	102	59-151	ug/kg	03/17/15 07:42	
Acetone	<10.18	61.10	56.84	93	24-197	ug/kg	03/17/15 07:42	
Cyclohexane	<10.18	61.10	49.39	81	50-148	ug/kg	03/17/15 07:42	
Trichlorofluoromethane	<2.546	61.10	51.52	84	54-175	ug/kg	03/17/15 07:42	
1,1-Dichloroethene	<2.546	61.10	59.58	98	60-154	ug/kg	03/17/15 07:42	
Methylene Chloride	<2.546	61.10	47.82	78	56-140	ug/kg	03/17/15 07:42	
trans-1,2-Dichloroethene	<2.546	61.10	51.69	85	60-153	ug/kg	03/17/15 07:42	
Methyl-t-butyl ether	<2.546	61.10	51.90	85	59-133	ug/kg	03/17/15 07:42	
1,1-Dichloroethane	<2.546	61.10	52.61	86	60-148	ug/kg	03/17/15 07:42	
2-Butanone	<10.18	61.10	51.88	85	35-173	ug/kg	03/17/15 07:42	
cis-1,2-Dichloroethene	<2.546	61.10	47.25	77	67-126	ug/kg	03/17/15 07:42	
Bromochloromethane	<2.546	61.10	46.23	76	64-121	ug/kg	03/17/15 07:42	
Chloroform	<2.546	61.10	52.84	86	65-126	ug/kg	03/17/15 07:42	
1,1,1-Trichloroethane	<2.546	61.10	51.77	85	60-145	ug/kg	03/17/15 07:42	
1,2-Dichloroethane	<2.546	61.10	55.74	91	62-127	ug/kg	03/17/15 07:42	
Carbon Tetrachloride	<2.546	61.10	48.80	80	55-152	ug/kg	03/17/15 07:42	
Benzene	<2.546	61.10	58.78	96	69-128	ug/kg	03/17/15 07:42	
1,2-Dichloropropane	<2.546	61.10	54.03	88	66-125	ug/kg	03/17/15 07:42	
Carbon Disulfide	<5.092	61.10	56.68	93	58-153	ug/kg	03/17/15 07:42	
Methylcyclohexane	<10.18	61.10	44.03	72	41-142	ug/kg	03/17/15 07:42	
Trichloroethene	<2.546	61.10	59.14	97	68-130	ug/kg	03/17/15 07:42	
Methyl Acetate	<10.18	61.10	57.85	95	47-151	ug/kg	03/17/15 07:42	
Bromodichloromethane	<2.546	61.10	54.73	90	60-125	ug/kg	03/17/15 07:42	
cis-1,3-Dichloropropene	<2.546	61.10	51.78	85	59-122	ug/kg	03/17/15 07:42	
4-Methyl-2-Pentanone	<10.18	61.10	44.03	72	22-173	ug/kg	03/17/15 07:42	
trans-1,3-Dichloropropene	<2.546	61.10	50.05	82	56-124	ug/kg	03/17/15 07:42	
1,1,2-Trichloroethane	<2.546	61.10	55.22	90	65-120	ug/kg	03/17/15 07:42	
Toluene	<2.546	61.10	56.07	92	66-127	ug/kg	03/17/15 07:42	
2-Hexanone	<10.18	61.10	52.95	87	30-175	ug/kg	03/17/15 07:42	
1,2-Dibromoethane	<2.546	61.10	54.31	89	64-123	ug/kg	03/17/15 07:42	
Dibromochloromethane	<2.546	61.10	54.60	89	55-128	ug/kg	03/17/15 07:42	
Bromoform	<2.546	61.10	52.33	86	46-128	ug/kg	03/17/15 07:42	
Tetrachloroethene	<2.546	61.10	50.66	83	55-145	ug/kg	03/17/15 07:42	
Chlorobenzene	<2.546	61.10	49.98	82	61-124	ug/kg	03/17/15 07:42	
Ethylbenzene	<2.546	61.10	52.42	86	58-130	ug/kg	03/17/15 07:42	
m,p-Xylenes	<5.092	122.2	99.63	82	60-131	ug/kg	03/17/15 07:42	
Styrene	<2.546	61.10	48.74	80	54-123	ug/kg	03/17/15 07:42	
1,1,2,2-Tetrachloroethane	<2.546	61.10	46.89	77	50-134	ug/kg	03/17/15 07:42	
o-Xylene	<2.546	61.10	49.97	82	60-126	ug/kg	03/17/15 07:42	
Isopropylbenzene	<2.546	61.10	48.62	80	52-130	ug/kg	03/17/15 07:42	
1,3-Dichlorobenzene	<2.546	61.10	39.05	64	42-123	ug/kg	03/17/15 07:42	
1,4-Dichlorobenzene	<2.546	61.10	39.32	64	40-121	ug/kg	03/17/15 07:42	
1,2-Dichlorobenzene	<2.546	61.10	38.31	63	38-128	ug/kg	03/17/15 07:42	
1,2-Dibromo-3-Chloropropane	<20.37	61.10	54.62	89	43-149	ug/kg	03/17/15 07:42	
1,2,4-Trichlorobenzene	<2.546	61.10	32.54	53	14-143	ug/kg	03/17/15 07:42	
1,2,3-Trichlorobenzene	<2.546	61.10	31.65	52	15-144	ug/kg	03/17/15 07:42	

PHASE SEPARATION SCIENCE, INC.

QC Summary 15031307

Arc Environmental Percontee

Analytical Method: SW-846 8260 B

Seq Number: 121110

MB Sample Id: 54594-1-BLK

Matrix: Solid

LCS Sample Id: 54594-1-BKS

Prep Method: SW5030

Date Prep: 03/17/15

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	108		103		80-125	%	03/17/15 07:42
Dibromofluoromethane	99		100		85-115	%	03/17/15 07:42
Toluene-D8	100		102		91-109	%	03/17/15 07:42

F = RPD exceeded the laboratory control limits

X = Recovery of MS, MSD or both outside of QC Criteria

H= Recovery of BS,BSD or both exceeded the laboratory control limits

L = Recovery of BS,BSD or both below the laboratory control limits



Phase Separation Science, Inc

Sample Receipt Checklist

Work Order # 15031307 **Received By** Rachel Davis
Client Name Arc Environmental **Date Received** 03/13/2015 11:00:00 AM
Project Name Percontee **Delivered By** Trans Time Express
Project Number 057-5 **Tracking No** Not Applicable
Disposal Date 04/17/2015 **Logged In By** Rachel Davis

Shipping Container(s)

No. of Coolers 1

		Ice	Present
Custody Seal(s) Intact?	N/A	Temp (deg C)	2
Seal(s) Signed / Dated?	N/A	Temp Blank Present	No

Documentation

COC agrees with sample labels?	Yes	Sampler Name	<u>Kyle Begey</u>
Chain of Custody	Yes	MD DW Cert. No.	<u>N/A</u>

Sample Container

Appropriate for Specified Analysis?	Yes	Custody Seal(s) Intact?	Not Applicable
Intact?	Yes	Seal(s) Signed / Dated	Not Applicable
Labeled and Labels Legible?	Yes		

Total No. of Samples Received 7

Total No. of Containers Received 21

Preservation

Metals	(pH<2)	N/A
Cyanides	(pH>12)	N/A
Sulfide	(pH>9)	N/A
TOC, COD, Phenols	(pH<2)	N/A
TOX, TKN, NH3, Total Phos	(pH<2)	N/A
VOC, BTEX (VOA Vials Rcvd Preserved)	(pH<2)	N/A
Do VOA vials have zero headspace?		N/A
624 VOC (Rcvd at least one unpreserved VOA vial)		N/A

Comments: (Any "No" response must be detailed in the comments section below.)

For any improper preservation conditions, list sample ID, preservative added (reagent ID number) below as well as documentation of any client notification as well as client instructions. Samples for pH, chlorine and dissolved oxygen should be analyzed as soon as possible, preferably in the field at the time of sampling. Samples which require thermal preservation shall be considered acceptable when received at a temperature above freezing to 6°C. Samples that are hand delivered on the day that they are collected may not meet these criteria but shall be considered acceptable if there is evidence that the chilling process has begun such as arrival on ice.

Samples Inspected/Checklist Completed By:

Rachel Davis

Date: 03/13/2015

Rachel Davis

PM Review and Approval:

Lynn Jackson

Date: 03/16/2015

Lynn Jackson

Analytical Report for

Arc Environmental

Certificate of Analysis No.: 15031116

Project Manager: Christie Pulvino

Project Name : Percontee

Project Location: Silver Spring, MD

Project ID : 057-5



March 30, 2015

Phase Separation Science, Inc.

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PHASE SEPARATION SCIENCE, INC.



March 30, 2015

Christie Pulvino
Arc Environmental
1311 Haubert Street
Baltimore, MD 21230

Reference: PSS Work Order(s) No: **15031116**
Project Name: Percontee
Project Location: Silver Spring, MD
Project ID.: 057-5

Dear Christie Pulvino :

This report includes the analytical results from the analyses performed on the samples received under the project name referenced above and identified with the Phase Separation Science (PSS) Work Order(s) numbered **15031116**.

All work reported herein has been performed in accordance with current NELAP standards, referenced methodologies, PSS Standard Operating Procedures and the PSS Quality Assurance Manual unless otherwise noted in the Case Narrative Summary. PSS is limited in liability to the actual cost of the sample analysis done.

PSS reserves the right to return any unused samples, extracts or related solutions. Otherwise, the samples are scheduled for disposal, without any further notice, on April 15, 2015. This includes any samples that were received with a request to be held but lacked a specific hold period. It is your responsibility to provide a written request defining a specific disposal date if additional storage is required. Upon receipt, the request will be acknowledged by PSS, thus extending the storage period.

This report shall not be reproduced except in full, without the written approval of an authorized PSS representative. A copy of this report will be retained by PSS for at least 5 years, after which time it will be disposed of without further notice, unless prior arrangements have been made.

We thank you for selecting Phase Separation Science, Inc. to serve your analytical needs. If you have any questions concerning this report, do not hesitate to contact us at 410-747-8770 or info@phaseonline.com.

Sincerely,

Dan Prucnal
Laboratory Manager



Sample Summary
Client Name: Arc Environmental
Project Name: Percontee

Work Order Number(s): 15031116

Project ID: 057-5

The following samples were received under chain of custody by Phase Separation Science (PSS) on 03/11/2015 at 12:30 pm

Lab Sample Id	Sample Id	Matrix	Date/Time Collected
15031116-001	B-14 0-2	SOIL	03/10/15 12:25
15031116-002	B-14 4-6	SOIL	03/10/15 12:27
15031116-003	B-15 0-2	SOIL	03/10/15 08:38
15031116-004	B-15 5-7	SOIL	03/10/15 08:51
15031116-005	B-11 0-2	SOIL	03/09/15 10:20
15031116-006	B-11 5-7	SOIL	03/09/15 10:50
15031116-007	B-11 10-12	SOIL	03/09/15 11:15
15031116-008	B-13 0-2	SOIL	03/09/15 12:20
15031116-009	B-13 4-6	SOIL	03/09/15 12:35
15031116-010	B-13 20-22	SOIL	03/09/15 13:05
15031116-011	B-12 4-6	SOIL	03/09/15 14:25

Please reference the Chain of Custody and Sample Receipt Checklist for specific container counts and preservatives. Any sample conditions not in compliance with sample acceptance criteria are described in Case Narrative Summary.

Notes:

1. The presence of a common laboratory contaminant such as methylene chloride may be considered a possible laboratory artifact. Where observed, appropriate consideration of data should be taken.
2. Unless otherwise noted in the case narrative, results are reported on a dry weight basis with the exception of pH, flashpoint, moisture, and paint filter test.
3. Drinking water samples collected for the purpose of compliance with SDWA may not be suitable for their intended use unless collected by a certified sampler [COMAR 26.08.05.07.C.2].
4. The analyses of 1,2-dibromo-3-chloropropane (DBCP) and 1,2-dibromoethane (EDB) by EPA 524.2 and calcium, magnesium, sodium and iron by EPA 200.8 are not currently promulgated for use in testing to meet the Safe Drinking Water Act and as such cannot be used for compliance purposes. The listings of the current promulgated methods for testing in compliance with the Safe Drinking Water Act can be found in the 40 CFR part 141.1, for the primary drinking water contaminants, and part 141.3, for the secondary drinking water contaminants.
5. Sample prepared under EPA 3550C with concentrations greater than 20 mg/Kg should employ the microtip extraction procedure if required to meet data quality objectives.
6. The analysis of acrolein by EPA 624 must be analyzed within three days of sampling unless pH is adjusted to 4-5 units [40 CFR part 136.3(e)].
7. Method 180.1, The Determination of Turbidity by Nephelometry, recommends samples over 40 NTU be diluted until the turbidity falls below 40 units. Routine samples over 40 NTU may not be diluted as long as the data quality objectives are not affected.
8. Alkalinity results analyzed by EPA 310.2 that are reported by dilution are estimated and are not in compliance with method requirements.

Standard Flags/Abbreviations:

- B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- C Results Pending Final Confirmation.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- Fail The result exceeds the regulatory level for Toxicity Characteristic (TCLP) as cited in 40 CFR 261.24 Table 1.
- J The target analyte was positively identified below the reporting limit but greater than the MDL.
- MDL This is the Laboratory Method Detection Limit which is equivalent to the Limit of Detection (LOD). The LOD is an estimate of the minimum amount of a substance that an analytical process can reliably detect. This value will remain constant across multiple similar instrumentation and among different analysts. An LOD is analyte and matrix specific.
- ND Not Detected at or above the reporting limit.
- RL PSS Reporting Limit.
- U Not detected.



Sample Summary

Client Name: Arc Environmental
Project Name: Percontee

Work Order Number(s): 15031116

Certifications:

NELAP Certifications: PA 68-03330, VA 460156
State Certifications: MD 179, WV 303
Regulated Soil Permit: P330-12-00268
NSWC USCG Accepted Laboratory
LDBE MWA LD1997-0041-2015

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15031116

Arc Environmental, Baltimore, MD

March 30, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B-14 0-2	Date/Time Sampled: 03/10/2015 12:25	PSS Sample ID: 15031116-001
Matrix: SOIL	Date/Time Received: 03/11/2015 12:30	% Solids: 90

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	mg/kg	2.2		1	1.1	03/12/15	03/13/15 18:24	1033
Arsenic	2.7	mg/kg	0.45		1	0.22	03/12/15	03/13/15 18:24	1033
Beryllium	ND	mg/kg	2.2		1	1.1	03/12/15	03/13/15 18:24	1033
Cadmium	ND	mg/kg	2.2		1	1.1	03/12/15	03/13/15 18:24	1033
Chromium	83	mg/kg	2.2		1	1.1	03/12/15	03/16/15 14:34	1033
Copper	19	mg/kg	2.2		1	1.1	03/12/15	03/13/15 18:24	1033
Lead	11	mg/kg	2.2		1	1.1	03/12/15	03/13/15 18:24	1033
Mercury	ND	mg/kg	0.090		1	0.045	03/12/15	03/13/15 18:24	1033
Nickel	110	mg/kg	2.2		1	1.1	03/12/15	03/16/15 14:34	1033
Selenium	ND	mg/kg	2.2		1	1.1	03/12/15	03/16/15 14:34	1033
Silver	ND	mg/kg	2.2		1	1.1	03/12/15	03/13/15 18:24	1033
Thallium	ND	mg/kg	0.45		1	0.22	03/12/15	03/13/15 18:24	1033
Zinc	23	mg/kg	9.0		1	4.5	03/12/15	03/13/15 18:24	1033

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	5.1	mg/kg	11	J	1	4.5	03/16/15	03/16/15 22:15	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/kg	110		1	55	03/12/15	03/12/15 09:09	1035

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15031116
 Arc Environmental, Baltimore, MD
 March 30, 2015

Project Name: Percontee
 Project Location: Silver Spring, MD
 Project ID: 057-5

Sample ID: B-14 0-2 **Date/Time Sampled: 03/10/2015 12:25** **PSS Sample ID: 15031116-001**
Matrix: SOIL **Date/Time Received: 03/11/2015 12:30** **% Solids: 90**

Polychlorinated Biphenyls

Analytical Method: SW-846 8082 A

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
PCB-1016	ND	mg/kg	0.056		1	0.056	03/12/15	03/13/15 15:54	1029
PCB-1221	ND	mg/kg	0.056		1	0.056	03/12/15	03/13/15 15:54	1029
PCB-1232	ND	mg/kg	0.056		1	0.056	03/12/15	03/13/15 15:54	1029
PCB-1242	ND	mg/kg	0.056		1	0.056	03/12/15	03/13/15 15:54	1029
PCB-1248	ND	mg/kg	0.056		1	0.056	03/12/15	03/13/15 15:54	1029
PCB-1254	ND	mg/kg	0.056		1	0.056	03/12/15	03/13/15 15:54	1029
PCB-1260	ND	mg/kg	0.056		1	0.056	03/12/15	03/13/15 15:54	1029

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/kg	74		20	74	03/12/15	03/18/15 06:48	1055
Acenaphthylene	ND	ug/kg	74		20	74	03/12/15	03/18/15 06:48	1055
Anthracene	ND	ug/kg	74		20	74	03/12/15	03/18/15 06:48	1055
Benzo(a)anthracene	270	ug/kg	74		20	74	03/12/15	03/18/15 06:48	1055
Benzo(a)pyrene	270	ug/kg	74		20	74	03/12/15	03/18/15 06:48	1055
Benzo(b)fluoranthene	210	ug/kg	74		20	74	03/12/15	03/18/15 06:48	1055
Benzo(g,h,i)perylene	170	ug/kg	74		20	74	03/12/15	03/18/15 06:48	1055
Benzo(k)fluoranthene	270	ug/kg	74		20	74	03/12/15	03/18/15 06:48	1055
Chrysene	350	ug/kg	74		20	74	03/12/15	03/18/15 06:48	1055
Dibenz(a,h)Anthracene	74	ug/kg	74	J	20	74	03/12/15	03/18/15 06:48	1055
Fluoranthene	740	ug/kg	74		20	74	03/12/15	03/18/15 06:48	1055
Fluorene	ND	ug/kg	74		20	74	03/12/15	03/18/15 06:48	1055
Indeno(1,2,3-c,d)Pyrene	180	ug/kg	74		20	74	03/12/15	03/18/15 06:48	1055
2-Methylnaphthalene	ND	ug/kg	74		20	74	03/12/15	03/18/15 06:48	1055
Naphthalene	ND	ug/kg	74		20	74	03/12/15	03/18/15 06:48	1055
Phenanthrene	310	ug/kg	74		20	74	03/12/15	03/18/15 06:48	1055
Pyrene	530	ug/kg	74		20	74	03/12/15	03/18/15 06:48	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15031116

Arc Environmental, Baltimore, MD

March 30, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B-14 4-6	Date/Time Sampled: 03/10/2015 12:27	PSS Sample ID: 15031116-002
Matrix: SOIL	Date/Time Received: 03/11/2015 12:30	% Solids: 79

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	mg/kg	2.6		1	1.3	03/12/15	03/13/15 18:30	1033
Arsenic	6.6	mg/kg	0.52		1	0.26	03/12/15	03/13/15 18:30	1033
Beryllium	ND	mg/kg	2.6		1	1.3	03/12/15	03/13/15 18:30	1033
Cadmium	ND	mg/kg	2.6		1	1.3	03/12/15	03/13/15 18:30	1033
Chromium	27	mg/kg	2.6		1	1.3	03/12/15	03/13/15 18:30	1033
Copper	12	mg/kg	2.6		1	1.3	03/12/15	03/13/15 18:30	1033
Lead	11	mg/kg	2.6		1	1.3	03/12/15	03/13/15 18:30	1033
Mercury	0.10	mg/kg	0.10	J	1	0.052	03/12/15	03/13/15 18:30	1033
Nickel	6.6	mg/kg	2.6		1	1.3	03/12/15	03/13/15 18:30	1033
Selenium	ND	mg/kg	2.6		1	1.3	03/12/15	03/16/15 14:40	1033
Silver	ND	mg/kg	2.6		1	1.3	03/12/15	03/13/15 18:30	1033
Thallium	ND	mg/kg	0.52		1	0.26	03/12/15	03/13/15 18:30	1033
Zinc	13	mg/kg	10		1	5.2	03/12/15	03/13/15 18:30	1033

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	6.5	mg/kg	13	J	1	5.1	03/16/15	03/16/15 22:37	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/kg	130		1	63	03/12/15	03/12/15 04:15	1035

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15031116

Arc Environmental, Baltimore, MD

March 30, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B-14 4-6	Date/Time Sampled: 03/10/2015 12:27	PSS Sample ID: 15031116-002
Matrix: SOIL	Date/Time Received: 03/11/2015 12:30	% Solids: 79

Polychlorinated Biphenyls

Analytical Method: SW-846 8082 A

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
PCB-1016	ND	mg/kg	0.063		1	0.063	03/12/15	03/13/15 21:13	1029
PCB-1221	ND	mg/kg	0.063		1	0.063	03/12/15	03/13/15 21:13	1029
PCB-1232	ND	mg/kg	0.063		1	0.063	03/12/15	03/13/15 21:13	1029
PCB-1242	ND	mg/kg	0.063		1	0.063	03/12/15	03/13/15 21:13	1029
PCB-1248	ND	mg/kg	0.063		1	0.063	03/12/15	03/13/15 21:13	1029
PCB-1254	ND	mg/kg	0.063		1	0.063	03/12/15	03/13/15 21:13	1029
PCB-1260	ND	mg/kg	0.063		1	0.063	03/12/15	03/13/15 21:13	1029

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/kg	4.3		1	4.3	03/12/15	03/18/15 03:56	1055
Acenaphthylene	17	ug/kg	4.3		1	4.3	03/12/15	03/18/15 03:56	1055
Anthracene	12	ug/kg	4.3		1	4.3	03/12/15	03/18/15 03:56	1055
Benzo(a)anthracene	35	ug/kg	4.3		1	4.3	03/12/15	03/18/15 03:56	1055
Benzo(a)pyrene	59	ug/kg	4.3		1	4.3	03/12/15	03/18/15 03:56	1055
Benzo(b)fluoranthene	47	ug/kg	4.3		1	4.3	03/12/15	03/18/15 03:56	1055
Benzo(g,h,i)perylene	48	ug/kg	4.3		1	4.3	03/12/15	03/18/15 03:56	1055
Benzo(k)fluoranthene	31	ug/kg	4.3		1	4.3	03/12/15	03/18/15 03:56	1055
Chrysene	45	ug/kg	4.3		1	4.3	03/12/15	03/18/15 03:56	1055
Dibenz(a,h)Anthracene	24	ug/kg	4.3		1	4.3	03/12/15	03/18/15 03:56	1055
Fluoranthene	38	ug/kg	4.3		1	4.3	03/12/15	03/18/15 03:56	1055
Fluorene	4.7	ug/kg	4.3		1	4.3	03/12/15	03/18/15 03:56	1055
Indeno(1,2,3-c,d)Pyrene	48	ug/kg	4.3		1	4.3	03/12/15	03/18/15 03:56	1055
2-Methylnaphthalene	ND	ug/kg	4.3		1	4.3	03/12/15	03/18/15 03:56	1055
Naphthalene	ND	ug/kg	4.3		1	4.3	03/12/15	03/18/15 03:56	1055
Phenanthrene	14	ug/kg	4.3		1	4.3	03/12/15	03/18/15 03:56	1055
Pyrene	49	ug/kg	4.3		1	4.3	03/12/15	03/18/15 03:56	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15031116

Arc Environmental, Baltimore, MD

March 30, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B-15 0-2	Date/Time Sampled: 03/10/2015 08:38	PSS Sample ID: 15031116-003
Matrix: SOIL	Date/Time Received: 03/11/2015 12:30	% Solids: 88

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	mg/kg	2.1		1	1.1	03/12/15	03/13/15 18:37	1033
Arsenic	1.5	mg/kg	0.43		1	0.21	03/12/15	03/13/15 18:37	1033
Beryllium	ND	mg/kg	2.1		1	1.1	03/12/15	03/13/15 18:37	1033
Cadmium	ND	mg/kg	2.1		1	1.1	03/12/15	03/13/15 18:37	1033
Chromium	64	mg/kg	2.1		1	1.1	03/12/15	03/16/15 14:46	1033
Copper	35	mg/kg	2.1		1	1.1	03/12/15	03/13/15 18:37	1033
Lead	6.5	mg/kg	2.1		1	1.1	03/12/15	03/13/15 18:37	1033
Mercury	ND	mg/kg	0.085		1	0.043	03/12/15	03/13/15 18:37	1033
Nickel	41	mg/kg	2.1		1	1.1	03/12/15	03/13/15 18:37	1033
Selenium	ND	mg/kg	2.1		1	1.1	03/12/15	03/16/15 14:46	1033
Silver	ND	mg/kg	2.1		1	1.1	03/12/15	03/13/15 18:37	1033
Thallium	ND	mg/kg	0.43		1	0.21	03/12/15	03/13/15 18:37	1033
Zinc	52	mg/kg	8.5		1	4.3	03/12/15	03/13/15 18:37	1033

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: SW3550C

DF/HF - No. 2/diesel fuel and heavier fuel/oil patterns observed in sample.

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	14	mg/kg	11	DF	1	4.6	03/16/15	03/16/15 22:59	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/kg	110		1	56	03/12/15	03/12/15 04:45	1035

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15031116

Arc Environmental, Baltimore, MD

March 30, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B-15 0-2	Date/Time Sampled: 03/10/2015 08:38	PSS Sample ID: 15031116-003
Matrix: SOIL	Date/Time Received: 03/11/2015 12:30	% Solids: 88

Polychlorinated Biphenyls

Analytical Method: SW-846 8082 A

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
PCB-1016	ND	mg/kg	0.055		1	0.055	03/12/15	03/13/15 16:22	1029
PCB-1221	ND	mg/kg	0.055		1	0.055	03/12/15	03/13/15 16:22	1029
PCB-1232	ND	mg/kg	0.055		1	0.055	03/12/15	03/13/15 16:22	1029
PCB-1242	ND	mg/kg	0.055		1	0.055	03/12/15	03/13/15 16:22	1029
PCB-1248	ND	mg/kg	0.055		1	0.055	03/12/15	03/13/15 16:22	1029
PCB-1254	ND	mg/kg	0.055		1	0.055	03/12/15	03/13/15 16:22	1029
PCB-1260	ND	mg/kg	0.055		1	0.055	03/12/15	03/13/15 16:22	1029

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	6.4	ug/kg	3.8		1	3.8	03/12/15	03/18/15 04:21	1055
Acenaphthylene	22	ug/kg	3.8		1	3.8	03/12/15	03/18/15 04:21	1055
Anthracene	60	ug/kg	3.8		1	3.8	03/12/15	03/18/15 04:21	1055
Benzo(a)anthracene	140	ug/kg	3.8		1	3.8	03/12/15	03/18/15 04:21	1055
Benzo(a)pyrene	110	ug/kg	3.8		1	3.8	03/12/15	03/18/15 04:21	1055
Benzo(b)fluoranthene	93	ug/kg	3.8		1	3.8	03/12/15	03/18/15 04:21	1055
Benzo(g,h,i)perylene	65	ug/kg	3.8		1	3.8	03/12/15	03/18/15 04:21	1055
Benzo(k)fluoranthene	120	ug/kg	3.8		1	3.8	03/12/15	03/18/15 04:21	1055
Chrysene	150	ug/kg	3.8		1	3.8	03/12/15	03/18/15 04:21	1055
Dibenz(a,h)Anthracene	35	ug/kg	3.8		1	3.8	03/12/15	03/18/15 04:21	1055
Fluoranthene	330	ug/kg	7.6		2	7.6	03/12/15	03/18/15 23:46	1055
Fluorene	8.3	ug/kg	3.8		1	3.8	03/12/15	03/18/15 04:21	1055
Indeno(1,2,3-c,d)Pyrene	78	ug/kg	3.8		1	3.8	03/12/15	03/18/15 04:21	1055
2-Methylnaphthalene	4.1	ug/kg	3.8		1	3.8	03/12/15	03/18/15 04:21	1055
Naphthalene	5.6	ug/kg	3.8		1	3.8	03/12/15	03/18/15 04:21	1055
Phenanthrene	300	ug/kg	7.6		2	7.6	03/12/15	03/18/15 23:46	1055
Pyrene	300	ug/kg	7.6		2	7.6	03/12/15	03/18/15 23:46	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15031116

Arc Environmental, Baltimore, MD

March 30, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B-15 5-7	Date/Time Sampled: 03/10/2015 08:51	PSS Sample ID: 15031116-004
Matrix: SOIL	Date/Time Received: 03/11/2015 12:30	% Solids: 87

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	mg/kg	3.0		1	1.5	03/12/15	03/13/15 18:43	1033
Arsenic	4.2	mg/kg	0.60		1	0.3	03/12/15	03/13/15 18:43	1033
Beryllium	ND	mg/kg	3.0		1	1.5	03/12/15	03/13/15 18:43	1033
Cadmium	ND	mg/kg	3.0		1	1.5	03/12/15	03/13/15 18:43	1033
Chromium	50	mg/kg	3.0		1	1.5	03/12/15	03/13/15 18:43	1033
Copper	15	mg/kg	3.0		1	1.5	03/12/15	03/13/15 18:43	1033
Lead	13	mg/kg	3.0		1	1.5	03/12/15	03/13/15 18:43	1033
Mercury	0.072	mg/kg	0.12	J	1	0.06	03/12/15	03/13/15 18:43	1033
Nickel	19	mg/kg	3.0		1	1.5	03/12/15	03/13/15 18:43	1033
Selenium	ND	mg/kg	3.0		1	1.5	03/12/15	03/16/15 15:16	1033
Silver	ND	mg/kg	3.0		1	1.5	03/12/15	03/13/15 18:43	1033
Thallium	ND	mg/kg	0.60		1	0.3	03/12/15	03/13/15 18:43	1033
Zinc	32	mg/kg	12		1	6	03/12/15	03/13/15 18:43	1033

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/kg	110		1	57	03/12/15	03/12/15 05:14	1035

Polychlorinated Biphenyls

Analytical Method: SW-846 8082 A

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
PCB-1016	ND	mg/kg	0.057		1	0.057	03/12/15	03/13/15 20:44	1029
PCB-1221	ND	mg/kg	0.057		1	0.057	03/12/15	03/13/15 20:44	1029
PCB-1232	ND	mg/kg	0.057		1	0.057	03/12/15	03/13/15 20:44	1029
PCB-1242	ND	mg/kg	0.057		1	0.057	03/12/15	03/13/15 20:44	1029
PCB-1248	ND	mg/kg	0.057		1	0.057	03/12/15	03/13/15 20:44	1029
PCB-1254	ND	mg/kg	0.057		1	0.057	03/12/15	03/13/15 20:44	1029
PCB-1260	ND	mg/kg	0.057		1	0.057	03/12/15	03/13/15 20:44	1029

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15031116

Arc Environmental, Baltimore, MD

March 30, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B-15 5-7	Date/Time Sampled: 03/10/2015 08:51	PSS Sample ID: 15031116-004
Matrix: SOIL	Date/Time Received: 03/11/2015 12:30	% Solids: 87

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	42	ug/kg	38		10	38	03/12/15	03/18/15 05:59	1055
Acenaphthylene	ND	ug/kg	38		10	38	03/12/15	03/18/15 05:59	1055
Anthracene	110	ug/kg	38		10	38	03/12/15	03/18/15 05:59	1055
Benzo(a)anthracene	210	ug/kg	38		10	38	03/12/15	03/18/15 05:59	1055
Benzo(a)pyrene	210	ug/kg	38		10	38	03/12/15	03/18/15 05:59	1055
Benzo(b)fluoranthene	180	ug/kg	38		10	38	03/12/15	03/18/15 05:59	1055
Benzo(g,h,i)perylene	110	ug/kg	38		10	38	03/12/15	03/18/15 05:59	1055
Benzo(k)fluoranthene	160	ug/kg	38		10	38	03/12/15	03/18/15 05:59	1055
Chrysene	220	ug/kg	38		10	38	03/12/15	03/18/15 05:59	1055
Dibenz(a,h)Anthracene	68	ug/kg	38		10	38	03/12/15	03/18/15 05:59	1055
Fluoranthene	460	ug/kg	38		10	38	03/12/15	03/18/15 05:59	1055
Fluorene	64	ug/kg	38		10	38	03/12/15	03/18/15 05:59	1055
Indeno(1,2,3-c,d)Pyrene	140	ug/kg	38		10	38	03/12/15	03/18/15 05:59	1055
2-Methylnaphthalene	ND	ug/kg	38		10	38	03/12/15	03/18/15 05:59	1055
Naphthalene	ND	ug/kg	38		10	38	03/12/15	03/18/15 05:59	1055
Phenanthrene	410	ug/kg	38		10	38	03/12/15	03/18/15 05:59	1055
Pyrene	340	ug/kg	38		10	38	03/12/15	03/18/15 05:59	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15031116

Arc Environmental, Baltimore, MD

March 30, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B-11 0-2	Date/Time Sampled: 03/09/2015 10:20	PSS Sample ID: 15031116-005
Matrix: SOIL	Date/Time Received: 03/11/2015 12:30	% Solids: 79

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	mg/kg	2.6		1	1.3	03/12/15	03/13/15 18:49	1033
Arsenic	2.7	mg/kg	0.52		1	0.26	03/12/15	03/13/15 18:49	1033
Beryllium	ND	mg/kg	2.6		1	1.3	03/12/15	03/13/15 18:49	1033
Cadmium	ND	mg/kg	2.6		1	1.3	03/12/15	03/13/15 18:49	1033
Chromium	81	mg/kg	2.6		1	1.3	03/12/15	03/16/15 15:22	1033
Copper	21	mg/kg	2.6		1	1.3	03/12/15	03/13/15 18:49	1033
Lead	18	mg/kg	2.6		1	1.3	03/12/15	03/13/15 18:49	1033
Mercury	ND	mg/kg	0.10		1	0.052	03/12/15	03/13/15 18:49	1033
Nickel	98	mg/kg	2.6		1	1.3	03/12/15	03/16/15 15:22	1033
Selenium	ND	mg/kg	2.6		1	1.3	03/12/15	03/16/15 15:22	1033
Silver	ND	mg/kg	2.6		1	1.3	03/12/15	03/13/15 18:49	1033
Thallium	ND	mg/kg	0.52		1	0.26	03/12/15	03/13/15 18:49	1033
Zinc	51	mg/kg	10		1	5.2	03/12/15	03/13/15 18:49	1033

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: SW3550C

DF/HF - No. 2/diesel fuel and heavier fuel/oil patterns observed in sample.

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	14	mg/kg	12	DF	1	5	03/16/15	03/17/15 00:05	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/kg	120		1	62	03/12/15	03/12/15 05:44	1035

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15031116

Arc Environmental, Baltimore, MD

March 30, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B-11 0-2	Date/Time Sampled: 03/09/2015 10:20	PSS Sample ID: 15031116-005
Matrix: SOIL	Date/Time Received: 03/11/2015 12:30	% Solids: 79

Polychlorinated Biphenyls

Analytical Method: SW-846 8082 A

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
PCB-1016	ND	mg/kg	0.063		1	0.063	03/12/15	03/13/15 16:51	1029
PCB-1221	ND	mg/kg	0.063		1	0.063	03/12/15	03/13/15 16:51	1029
PCB-1232	ND	mg/kg	0.063		1	0.063	03/12/15	03/13/15 16:51	1029
PCB-1242	ND	mg/kg	0.063		1	0.063	03/12/15	03/13/15 16:51	1029
PCB-1248	ND	mg/kg	0.063		1	0.063	03/12/15	03/13/15 16:51	1029
PCB-1254	ND	mg/kg	0.063		1	0.063	03/12/15	03/13/15 16:51	1029
PCB-1260	ND	mg/kg	0.063		1	0.063	03/12/15	03/13/15 16:51	1029

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/kg	4.2		1	4.2	03/12/15	03/18/15 04:45	1055
Acenaphthylene	5.5	ug/kg	4.2		1	4.2	03/12/15	03/18/15 04:45	1055
Anthracene	11	ug/kg	4.2		1	4.2	03/12/15	03/18/15 04:45	1055
Benzo(a)anthracene	40	ug/kg	4.2		1	4.2	03/12/15	03/18/15 04:45	1055
Benzo(a)pyrene	36	ug/kg	4.2		1	4.2	03/12/15	03/18/15 04:45	1055
Benzo(b)fluoranthene	30	ug/kg	4.2		1	4.2	03/12/15	03/18/15 04:45	1055
Benzo(g,h,i)perylene	27	ug/kg	4.2		1	4.2	03/12/15	03/18/15 04:45	1055
Benzo(k)fluoranthene	38	ug/kg	4.2		1	4.2	03/12/15	03/18/15 04:45	1055
Chrysene	47	ug/kg	4.2		1	4.2	03/12/15	03/18/15 04:45	1055
Dibenz(a,h)Anthracene	12	ug/kg	4.2		1	4.2	03/12/15	03/18/15 04:45	1055
Fluoranthene	90	ug/kg	4.2		1	4.2	03/12/15	03/18/15 04:45	1055
Fluorene	ND	ug/kg	4.2		1	4.2	03/12/15	03/18/15 04:45	1055
Indeno(1,2,3-c,d)Pyrene	29	ug/kg	4.2		1	4.2	03/12/15	03/18/15 04:45	1055
2-Methylnaphthalene	ND	ug/kg	4.2		1	4.2	03/12/15	03/18/15 04:45	1055
Naphthalene	ND	ug/kg	4.2		1	4.2	03/12/15	03/18/15 04:45	1055
Phenanthrene	45	ug/kg	4.2		1	4.2	03/12/15	03/18/15 04:45	1055
Pyrene	74	ug/kg	4.2		1	4.2	03/12/15	03/18/15 04:45	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15031116

Arc Environmental, Baltimore, MD

March 30, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B-11 5-7	Date/Time Sampled: 03/09/2015 10:50	PSS Sample ID: 15031116-006
Matrix: SOIL	Date/Time Received: 03/11/2015 12:30	% Solids: 74

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	mg/kg	2.5		1	1.2	03/12/15	03/13/15 18:55	1033
Arsenic	6.4	mg/kg	0.49		1	0.25	03/12/15	03/13/15 18:55	1033
Beryllium	ND	mg/kg	2.5		1	1.2	03/12/15	03/13/15 18:55	1033
Cadmium	ND	mg/kg	2.5		1	1.2	03/12/15	03/13/15 18:55	1033
Chromium	25	mg/kg	2.5		1	1.2	03/12/15	03/13/15 18:55	1033
Copper	14	mg/kg	2.5		1	1.2	03/12/15	03/13/15 18:55	1033
Lead	10	mg/kg	2.5		1	1.2	03/12/15	03/13/15 18:55	1033
Mercury	0.063	mg/kg	0.099	J	1	0.049	03/12/15	03/13/15 18:55	1033
Nickel	7.3	mg/kg	2.5		1	1.2	03/12/15	03/13/15 18:55	1033
Selenium	ND	mg/kg	2.5		1	1.2	03/12/15	03/16/15 15:28	1033
Silver	ND	mg/kg	2.5		1	1.2	03/12/15	03/13/15 18:55	1033
Thallium	ND	mg/kg	0.49		1	0.25	03/12/15	03/13/15 18:55	1033
Zinc	12	mg/kg	9.9		1	4.9	03/12/15	03/13/15 18:55	1033

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	18	mg/kg	14		1	5.5	03/16/15	03/16/15 23:21	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/kg	130		1	66	03/12/15	03/12/15 06:13	1035

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15031116
Arc Environmental, Baltimore, MD
 March 30, 2015

Project Name: Percontee
 Project Location: Silver Spring, MD
 Project ID: 057-5

Sample ID: B-11 5-7	Date/Time Sampled: 03/09/2015 10:50	PSS Sample ID: 15031116-006
Matrix: SOIL	Date/Time Received: 03/11/2015 12:30	% Solids: 74

Polychlorinated Biphenyls

Analytical Method: SW-846 8082 A

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
PCB-1016	ND	mg/kg	0.065		1	0.065	03/12/15	03/13/15 20:15	1029
PCB-1221	ND	mg/kg	0.065		1	0.065	03/12/15	03/13/15 20:15	1029
PCB-1232	ND	mg/kg	0.065		1	0.065	03/12/15	03/13/15 20:15	1029
PCB-1242	ND	mg/kg	0.065		1	0.065	03/12/15	03/13/15 20:15	1029
PCB-1248	ND	mg/kg	0.065		1	0.065	03/12/15	03/13/15 20:15	1029
PCB-1254	ND	mg/kg	0.065		1	0.065	03/12/15	03/13/15 20:15	1029
PCB-1260	ND	mg/kg	0.065		1	0.065	03/12/15	03/13/15 20:15	1029

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CERTIFICATE OF ANALYSIS

No: 15031116

Arc Environmental, Baltimore, MD

March 30, 2015

Project Name: Percontee
 Project Location: Silver Spring, MD
 Project ID: 057-5

Sample ID: B-11 5-7 **Date/Time Sampled: 03/09/2015 10:50** **PSS Sample ID: 15031116-006**
Matrix: SOIL **Date/Time Received: 03/11/2015 12:30** **% Solids: 74**

TCL Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5035A

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Dichlorodifluoromethane	ND	ug/kg	6.5		1	3.3	03/16/15	03/16/15 23:51	1011
Chloromethane	ND	ug/kg	6.5		1	3.3	03/16/15	03/16/15 23:51	1011
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	ug/kg	6.5		1	3.3	03/16/15	03/16/15 23:51	1011
Vinyl Chloride	ND	ug/kg	6.5		1	3.3	03/16/15	03/16/15 23:51	1011
Bromomethane	ND	ug/kg	6.5		1	3.3	03/16/15	03/16/15 23:51	1011
Chloroethane	ND	ug/kg	6.5		1	3.3	03/16/15	03/16/15 23:51	1011
Acetone	26	ug/kg	26		1	13	03/16/15	03/16/15 23:51	1011
Cyclohexane	ND	ug/kg	26		1	13	03/16/15	03/16/15 23:51	1011
Trichlorofluoromethane	ND	ug/kg	6.5		1	3.3	03/16/15	03/16/15 23:51	1011
1,1-Dichloroethene	ND	ug/kg	6.5		1	3.3	03/16/15	03/16/15 23:51	1011
Methylene Chloride	ND	ug/kg	6.5		1	3.3	03/16/15	03/16/15 23:51	1011
trans-1,2-Dichloroethene	ND	ug/kg	6.5		1	3.3	03/16/15	03/16/15 23:51	1011
Methyl-t-butyl ether	ND	ug/kg	6.5		1	3.3	03/16/15	03/16/15 23:51	1011
1,1-Dichloroethane	ND	ug/kg	6.5		1	3.3	03/16/15	03/16/15 23:51	1011
2-Butanone	ND	ug/kg	26		1	13	03/16/15	03/16/15 23:51	1011
cis-1,2-Dichloroethene	ND	ug/kg	6.5		1	3.3	03/16/15	03/16/15 23:51	1011
Bromochloromethane	ND	ug/kg	6.5		1	3.3	03/16/15	03/16/15 23:51	1011
Chloroform	ND	ug/kg	6.5		1	3.3	03/16/15	03/16/15 23:51	1011
1,1,1-Trichloroethane	ND	ug/kg	6.5		1	3.3	03/16/15	03/16/15 23:51	1011
1,2-Dichloroethane	ND	ug/kg	6.5		1	3.3	03/16/15	03/16/15 23:51	1011
Carbon Tetrachloride	ND	ug/kg	6.5		1	3.3	03/16/15	03/16/15 23:51	1011
Benzene	ND	ug/kg	6.5		1	3.3	03/16/15	03/16/15 23:51	1011
1,2-Dichloropropane	ND	ug/kg	6.5		1	3.3	03/16/15	03/16/15 23:51	1011
Carbon Disulfide	ND	ug/kg	13		1	6.5	03/16/15	03/16/15 23:51	1011
Methylcyclohexane	ND	ug/kg	26		1	13	03/16/15	03/16/15 23:51	1011
Trichloroethene	ND	ug/kg	6.5		1	3.3	03/16/15	03/16/15 23:51	1011
Methyl Acetate	ND	ug/kg	26		1	13	03/16/15	03/16/15 23:51	1011
Bromodichloromethane	ND	ug/kg	6.5		1	3.3	03/16/15	03/16/15 23:51	1011
cis-1,3-Dichloropropene	ND	ug/kg	6.5		1	3.3	03/16/15	03/16/15 23:51	1011
4-Methyl-2-Pentanone	ND	ug/kg	26		1	13	03/16/15	03/16/15 23:51	1011

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15031116

Arc Environmental, Baltimore, MD

March 30, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B-11 5-7	Date/Time Sampled: 03/09/2015 10:50	PSS Sample ID: 15031116-006
Matrix: SOIL	Date/Time Received: 03/11/2015 12:30	% Solids: 74

TCL Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5035A

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
trans-1,3-Dichloropropene	ND	ug/kg	6.5		1	3.3	03/16/15	03/16/15 23:51	1011
1,1,2-Trichloroethane	ND	ug/kg	6.5		1	3.3	03/16/15	03/16/15 23:51	1011
Toluene	ND	ug/kg	6.5		1	3.3	03/16/15	03/16/15 23:51	1011
2-Hexanone	ND	ug/kg	26		1	13	03/16/15	03/16/15 23:51	1011
1,2-Dibromoethane	ND	ug/kg	6.5		1	3.3	03/16/15	03/16/15 23:51	1011
Dibromochloromethane	ND	ug/kg	6.5		1	3.3	03/16/15	03/16/15 23:51	1011
Bromoform	ND	ug/kg	6.5		1	3.3	03/16/15	03/16/15 23:51	1011
Tetrachloroethene	ND	ug/kg	6.5		1	3.3	03/16/15	03/16/15 23:51	1011
Chlorobenzene	ND	ug/kg	6.5		1	3.3	03/16/15	03/16/15 23:51	1011
Ethylbenzene	ND	ug/kg	6.5		1	3.3	03/16/15	03/16/15 23:51	1011
m,p-Xylenes	ND	ug/kg	13		1	6.5	03/16/15	03/16/15 23:51	1011
Styrene	ND	ug/kg	6.5		1	3.3	03/16/15	03/16/15 23:51	1011
1,1,2,2-Tetrachloroethane	ND	ug/kg	6.5		1	3.3	03/16/15	03/16/15 23:51	1011
o-Xylene	ND	ug/kg	6.5		1	3.3	03/16/15	03/16/15 23:51	1011
Isopropylbenzene	ND	ug/kg	6.5		1	3.3	03/16/15	03/16/15 23:51	1011
1,3-Dichlorobenzene	ND	ug/kg	6.5		1	3.3	03/16/15	03/16/15 23:51	1011
1,4-Dichlorobenzene	ND	ug/kg	6.5		1	3.3	03/16/15	03/16/15 23:51	1011
1,2-Dichlorobenzene	ND	ug/kg	6.5		1	3.3	03/16/15	03/16/15 23:51	1011
1,2-Dibromo-3-Chloropropane	ND	ug/kg	52		1	26	03/16/15	03/16/15 23:51	1011
1,2,4-Trichlorobenzene	ND	ug/kg	6.5		1	3.3	03/16/15	03/16/15 23:51	1011
1,2,3-Trichlorobenzene	ND	ug/kg	6.5		1	3.3	03/16/15	03/16/15 23:51	1011

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15031116

Arc Environmental, Baltimore, MD

March 30, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B-11 5-7	Date/Time Sampled: 03/09/2015 10:50	PSS Sample ID: 15031116-006
Matrix: SOIL	Date/Time Received: 03/11/2015 12:30	% Solids: 74

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/kg	45		10	45	03/12/15	03/18/15 06:23	1055
Acenaphthylene	ND	ug/kg	45		10	45	03/12/15	03/18/15 06:23	1055
Anthracene	ND	ug/kg	45		10	45	03/12/15	03/18/15 06:23	1055
Benzo(a)anthracene	ND	ug/kg	45		10	45	03/12/15	03/18/15 06:23	1055
Benzo(a)pyrene	ND	ug/kg	45		10	45	03/12/15	03/18/15 06:23	1055
Benzo(b)fluoranthene	ND	ug/kg	45		10	45	03/12/15	03/18/15 06:23	1055
Benzo(g,h,i)perylene	ND	ug/kg	45		10	45	03/12/15	03/18/15 06:23	1055
Benzo(k)fluoranthene	ND	ug/kg	45		10	45	03/12/15	03/18/15 06:23	1055
Chrysene	ND	ug/kg	45		10	45	03/12/15	03/18/15 06:23	1055
Dibenz(a,h)Anthracene	ND	ug/kg	45		10	45	03/12/15	03/18/15 06:23	1055
Fluoranthene	ND	ug/kg	45		10	45	03/12/15	03/18/15 06:23	1055
Fluorene	ND	ug/kg	45		10	45	03/12/15	03/18/15 06:23	1055
Indeno(1,2,3-c,d)Pyrene	ND	ug/kg	45		10	45	03/12/15	03/18/15 06:23	1055
2-Methylnaphthalene	ND	ug/kg	45		10	45	03/12/15	03/18/15 06:23	1055
Naphthalene	ND	ug/kg	45		10	45	03/12/15	03/18/15 06:23	1055
Phenanthrene	ND	ug/kg	45		10	45	03/12/15	03/18/15 06:23	1055
Pyrene	ND	ug/kg	45		10	45	03/12/15	03/18/15 06:23	1055

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CERTIFICATE OF ANALYSIS

No: 15031116

Arc Environmental, Baltimore, MD

March 30, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B-11 10-12	Date/Time Sampled: 03/09/2015 11:15	PSS Sample ID: 15031116-007
Matrix: SOIL	Date/Time Received: 03/11/2015 12:30	% Solids: 66

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	mg/kg	2.9		1	1.4	03/12/15	03/13/15 19:01	1033
Arsenic	7.8	mg/kg	0.58		1	0.29	03/12/15	03/13/15 19:01	1033
Beryllium	ND	mg/kg	2.9		1	1.4	03/12/15	03/13/15 19:01	1033
Cadmium	ND	mg/kg	2.9		1	1.4	03/12/15	03/13/15 19:01	1033
Chromium	26	mg/kg	2.9		1	1.4	03/12/15	03/13/15 19:01	1033
Copper	21	mg/kg	2.9		1	1.4	03/12/15	03/13/15 19:01	1033
Lead	10	mg/kg	2.9		1	1.4	03/12/15	03/13/15 19:01	1033
Mercury	0.14	mg/kg	0.12		1	0.058	03/12/15	03/13/15 19:01	1033
Nickel	3.9	mg/kg	2.9		1	1.4	03/12/15	03/16/15 15:34	1033
Selenium	ND	mg/kg	2.9		1	1.4	03/12/15	03/16/15 15:34	1033
Silver	ND	mg/kg	2.9		1	1.4	03/12/15	03/13/15 19:01	1033
Thallium	ND	mg/kg	0.58		1	0.29	03/12/15	03/13/15 19:01	1033
Zinc	14	mg/kg	12		1	5.8	03/12/15	03/13/15 19:01	1033

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	6.7	mg/kg	15	J	1	6	03/16/15	03/16/15 21:31	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/kg	150		1	74	03/12/15	03/12/15 06:43	1035

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15031116

Arc Environmental, Baltimore, MD

March 30, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B-11 10-12	Date/Time Sampled: 03/09/2015 11:15	PSS Sample ID: 15031116-007
Matrix: SOIL	Date/Time Received: 03/11/2015 12:30	% Solids: 66

Polychlorinated Biphenyls

Analytical Method: SW-846 8082 A

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
PCB-1016	ND	mg/kg	0.076		1	0.076	03/12/15	03/13/15 17:21	1029
PCB-1221	ND	mg/kg	0.076		1	0.076	03/12/15	03/13/15 17:21	1029
PCB-1232	ND	mg/kg	0.076		1	0.076	03/12/15	03/13/15 17:21	1029
PCB-1242	ND	mg/kg	0.076		1	0.076	03/12/15	03/13/15 17:21	1029
PCB-1248	ND	mg/kg	0.076		1	0.076	03/12/15	03/13/15 17:21	1029
PCB-1254	ND	mg/kg	0.076		1	0.076	03/12/15	03/13/15 17:21	1029
PCB-1260	ND	mg/kg	0.076		1	0.076	03/12/15	03/13/15 17:21	1029

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/kg	5.0		1	5	03/12/15	03/18/15 02:18	1055
Acenaphthylene	ND	ug/kg	5.0		1	5	03/12/15	03/18/15 02:18	1055
Anthracene	ND	ug/kg	5.0		1	5	03/12/15	03/18/15 02:18	1055
Benzo(a)anthracene	ND	ug/kg	5.0		1	5	03/12/15	03/18/15 02:18	1055
Benzo(a)pyrene	ND	ug/kg	5.0		1	5	03/12/15	03/18/15 02:18	1055
Benzo(b)fluoranthene	ND	ug/kg	5.0		1	5	03/12/15	03/18/15 02:18	1055
Benzo(g,h,i)perylene	ND	ug/kg	5.0		1	5	03/12/15	03/18/15 02:18	1055
Benzo(k)fluoranthene	ND	ug/kg	5.0		1	5	03/12/15	03/18/15 02:18	1055
Chrysene	ND	ug/kg	5.0		1	5	03/12/15	03/18/15 02:18	1055
Dibenz(a,h)Anthracene	ND	ug/kg	5.0		1	5	03/12/15	03/18/15 02:18	1055
Fluoranthene	ND	ug/kg	5.0		1	5	03/12/15	03/18/15 02:18	1055
Fluorene	ND	ug/kg	5.0		1	5	03/12/15	03/18/15 02:18	1055
Indeno(1,2,3-c,d)Pyrene	ND	ug/kg	5.0		1	5	03/12/15	03/18/15 02:18	1055
2-Methylnaphthalene	ND	ug/kg	5.0		1	5	03/12/15	03/18/15 02:18	1055
Naphthalene	ND	ug/kg	5.0		1	5	03/12/15	03/18/15 02:18	1055
Phenanthrene	ND	ug/kg	5.0		1	5	03/12/15	03/18/15 02:18	1055
Pyrene	ND	ug/kg	5.0		1	5	03/12/15	03/18/15 02:18	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15031116

Arc Environmental, Baltimore, MD

March 30, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B-13 0-2	Date/Time Sampled: 03/09/2015 12:20	PSS Sample ID: 15031116-008
Matrix: SOIL	Date/Time Received: 03/11/2015 12:30	% Solids: 81

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	mg/kg	2.4		1	1.2	03/12/15	03/13/15 19:31	1033
Arsenic	2.2	mg/kg	0.48		1	0.24	03/12/15	03/16/15 15:40	1033
Beryllium	ND	mg/kg	2.4		1	1.2	03/12/15	03/13/15 19:31	1033
Cadmium	ND	mg/kg	2.4		1	1.2	03/12/15	03/13/15 19:31	1033
Chromium	45	mg/kg	2.4		1	1.2	03/12/15	03/13/15 19:31	1033
Copper	17	mg/kg	2.4		1	1.2	03/12/15	03/16/15 15:40	1033
Lead	19	mg/kg	2.4		1	1.2	03/12/15	03/13/15 19:31	1033
Mercury	0.048	mg/kg	0.095	J	1	0.048	03/12/15	03/13/15 19:31	1033
Nickel	41	mg/kg	2.4		1	1.2	03/12/15	03/13/15 19:31	1033
Selenium	ND	mg/kg	2.4		1	1.2	03/12/15	03/16/15 15:40	1033
Silver	ND	mg/kg	2.4		1	1.2	03/12/15	03/13/15 19:31	1033
Thallium	ND	mg/kg	0.48		1	0.24	03/12/15	03/13/15 19:31	1033
Zinc	35	mg/kg	9.5		1	4.8	03/12/15	03/16/15 15:40	1033

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	6.8	mg/kg	12	J	1	5	03/16/15	03/16/15 23:21	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/kg	120		1	61	03/12/15	03/12/15 07:12	1035

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15031116

Arc Environmental, Baltimore, MD

March 30, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B-13 0-2	Date/Time Sampled: 03/09/2015 12:20	PSS Sample ID: 15031116-008
Matrix: SOIL	Date/Time Received: 03/11/2015 12:30	% Solids: 81

Polychlorinated Biphenyls

Analytical Method: SW-846 8082 A

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
PCB-1016	ND	mg/kg	0.062		1	0.062	03/12/15	03/13/15 19:46	1029
PCB-1221	ND	mg/kg	0.062		1	0.062	03/12/15	03/13/15 19:46	1029
PCB-1232	ND	mg/kg	0.062		1	0.062	03/12/15	03/13/15 19:46	1029
PCB-1242	ND	mg/kg	0.062		1	0.062	03/12/15	03/13/15 19:46	1029
PCB-1248	ND	mg/kg	0.062		1	0.062	03/12/15	03/13/15 19:46	1029
PCB-1254	ND	mg/kg	0.062		1	0.062	03/12/15	03/13/15 19:46	1029
PCB-1260	ND	mg/kg	0.062		1	0.062	03/12/15	03/13/15 19:46	1029

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	5.3	ug/kg	4.1		1	4.1	03/12/15	03/18/15 05:10	1055
Acenaphthylene	4.5	ug/kg	4.1		1	4.1	03/12/15	03/18/15 05:10	1055
Anthracene	35	ug/kg	4.1		1	4.1	03/12/15	03/18/15 05:10	1055
Benzo(a)anthracene	89	ug/kg	4.1		1	4.1	03/12/15	03/18/15 05:10	1055
Benzo(a)pyrene	76	ug/kg	4.1		1	4.1	03/12/15	03/18/15 05:10	1055
Benzo(b)fluoranthene	74	ug/kg	4.1		1	4.1	03/12/15	03/18/15 05:10	1055
Benzo(g,h,i)perylene	46	ug/kg	4.1		1	4.1	03/12/15	03/18/15 05:10	1055
Benzo(k)fluoranthene	57	ug/kg	4.1		1	4.1	03/12/15	03/18/15 05:10	1055
Chrysene	94	ug/kg	4.1		1	4.1	03/12/15	03/18/15 05:10	1055
Dibenz(a,h)Anthracene	24	ug/kg	4.1		1	4.1	03/12/15	03/18/15 05:10	1055
Fluoranthene	170	ug/kg	4.1		1	4.1	03/12/15	03/18/15 05:10	1055
Fluorene	6.1	ug/kg	4.1		1	4.1	03/12/15	03/18/15 05:10	1055
Indeno(1,2,3-c,d)Pyrene	54	ug/kg	4.1		1	4.1	03/12/15	03/18/15 05:10	1055
2-Methylnaphthalene	ND	ug/kg	4.1		1	4.1	03/12/15	03/18/15 05:10	1055
Naphthalene	ND	ug/kg	4.1		1	4.1	03/12/15	03/18/15 05:10	1055
Phenanthrene	120	ug/kg	4.1		1	4.1	03/12/15	03/18/15 05:10	1055
Pyrene	150	ug/kg	4.1		1	4.1	03/12/15	03/18/15 05:10	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15031116

Arc Environmental, Baltimore, MD

March 30, 2015

Project Name: Percontee
 Project Location: Silver Spring, MD
 Project ID: 057-5

Sample ID: B-13 4-6	Date/Time Sampled: 03/09/2015 12:35	PSS Sample ID: 15031116-009
Matrix: SOIL	Date/Time Received: 03/11/2015 12:30	% Solids: 89

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	mg/kg	2.6		1	1.3	03/12/15	03/13/15 19:37	1033
Arsenic	2.6	mg/kg	0.51		1	0.26	03/12/15	03/16/15 15:46	1033
Beryllium	ND	mg/kg	2.6		1	1.3	03/12/15	03/13/15 19:37	1033
Cadmium	ND	mg/kg	2.6		1	1.3	03/12/15	03/13/15 19:37	1033
Chromium	60	mg/kg	2.6		1	1.3	03/12/15	03/16/15 15:46	1033
Copper	23	mg/kg	2.6		1	1.3	03/12/15	03/16/15 15:46	1033
Lead	11	mg/kg	2.6		1	1.3	03/12/15	03/13/15 19:37	1033
Mercury	ND	mg/kg	0.10		1	0.051	03/12/15	03/13/15 19:37	1033
Nickel	75	mg/kg	2.6		1	1.3	03/12/15	03/16/15 15:46	1033
Selenium	ND	mg/kg	2.6		1	1.3	03/12/15	03/16/15 15:46	1033
Silver	ND	mg/kg	2.6		1	1.3	03/12/15	03/13/15 19:37	1033
Thallium	ND	mg/kg	0.51		1	0.26	03/12/15	03/13/15 19:37	1033
Zinc	24	mg/kg	10		1	5.1	03/12/15	03/16/15 15:46	1033

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: SW3550C

DF/HF - No. 2/diesel fuel and heavier fuel/oil patterns observed in sample.

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	25	mg/kg	11	DF	1	4.5	03/16/15	03/16/15 23:43	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/kg	110		1	56	03/12/15	03/12/15 07:41	1035

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15031116
 Arc Environmental, Baltimore, MD
 March 30, 2015

Project Name: Percontee
 Project Location: Silver Spring, MD
 Project ID: 057-5

Sample ID: B-13 4-6 **Date/Time Sampled: 03/09/2015 12:35** **PSS Sample ID: 15031116-009**
Matrix: SOIL **Date/Time Received: 03/11/2015 12:30** **% Solids: 89**

Polychlorinated Biphenyls

Analytical Method: SW-846 8082 A

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
PCB-1016	ND	mg/kg	0.055		1	0.055	03/12/15	03/13/15 17:50	1029
PCB-1221	ND	mg/kg	0.055		1	0.055	03/12/15	03/13/15 17:50	1029
PCB-1232	ND	mg/kg	0.055		1	0.055	03/12/15	03/13/15 17:50	1029
PCB-1242	ND	mg/kg	0.055		1	0.055	03/12/15	03/13/15 17:50	1029
PCB-1248	ND	mg/kg	0.055		1	0.055	03/12/15	03/13/15 17:50	1029
PCB-1254	0.074	mg/kg	0.055		1	0.055	03/12/15	03/13/15 17:50	1029
PCB-1260	ND	mg/kg	0.055		1	0.055	03/12/15	03/13/15 17:50	1029

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/kg	3.7		1	3.7	03/12/15	03/18/15 05:34	1055
Acenaphthylene	ND	ug/kg	3.7		1	3.7	03/12/15	03/18/15 05:34	1055
Anthracene	9.2	ug/kg	3.7		1	3.7	03/12/15	03/18/15 05:34	1055
Benzo(a)anthracene	34	ug/kg	3.7		1	3.7	03/12/15	03/18/15 05:34	1055
Benzo(a)pyrene	32	ug/kg	3.7		1	3.7	03/12/15	03/18/15 05:34	1055
Benzo(b)fluoranthene	ND	ug/kg	3.7		1	3.7	03/12/15	03/18/15 05:34	1055
Benzo(g,h,i)perylene	18	ug/kg	3.7		1	3.7	03/12/15	03/18/15 05:34	1055
Benzo(k)fluoranthene	75	ug/kg	3.7		1	3.7	03/12/15	03/18/15 05:34	1055
Chrysene	39	ug/kg	3.7		1	3.7	03/12/15	03/18/15 05:34	1055
Dibenz(a,h)Anthracene	9.6	ug/kg	3.7		1	3.7	03/12/15	03/18/15 05:34	1055
Fluoranthene	67	ug/kg	3.7		1	3.7	03/12/15	03/18/15 05:34	1055
Fluorene	ND	ug/kg	3.7		1	3.7	03/12/15	03/18/15 05:34	1055
Indeno(1,2,3-c,d)Pyrene	22	ug/kg	3.7		1	3.7	03/12/15	03/18/15 05:34	1055
2-Methylnaphthalene	ND	ug/kg	3.7		1	3.7	03/12/15	03/18/15 05:34	1055
Naphthalene	ND	ug/kg	3.7		1	3.7	03/12/15	03/18/15 05:34	1055
Phenanthrene	33	ug/kg	3.7		1	3.7	03/12/15	03/18/15 05:34	1055
Pyrene	55	ug/kg	3.7		1	3.7	03/12/15	03/18/15 05:34	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15031116

Arc Environmental, Baltimore, MD

March 30, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B-13 20-22	Date/Time Sampled: 03/09/2015 13:05	PSS Sample ID: 15031116-010
Matrix: SOIL	Date/Time Received: 03/11/2015 12:30	% Solids: 82

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	mg/kg	2.3		1	1.1	03/12/15	03/13/15 19:43	1033
Arsenic	2.8	mg/kg	0.45		1	0.23	03/12/15	03/16/15 15:52	1033
Beryllium	ND	mg/kg	2.3		1	1.1	03/12/15	03/13/15 19:43	1033
Cadmium	ND	mg/kg	2.3		1	1.1	03/12/15	03/13/15 19:43	1033
Chromium	19	mg/kg	2.3		1	1.1	03/12/15	03/13/15 19:43	1033
Copper	7.4	mg/kg	2.3		1	1.1	03/12/15	03/16/15 15:52	1033
Lead	8.2	mg/kg	2.3		1	1.1	03/12/15	03/13/15 19:43	1033
Mercury	0.046	mg/kg	0.090	J	1	0.045	03/12/15	03/13/15 19:43	1033
Nickel	7.4	mg/kg	2.3		1	1.1	03/12/15	03/13/15 19:43	1033
Selenium	ND	mg/kg	2.3		1	1.1	03/12/15	03/16/15 15:52	1033
Silver	ND	mg/kg	2.3		1	1.1	03/12/15	03/13/15 19:43	1033
Thallium	ND	mg/kg	0.45		1	0.23	03/12/15	03/13/15 19:43	1033
Zinc	13	mg/kg	9.0		1	4.5	03/12/15	03/16/15 15:52	1033

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	ND	mg/kg	12		1	4.9	03/16/15	03/16/15 21:53	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/kg	120		1	60	03/12/15	03/12/15 08:11	1035

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15031116

Arc Environmental, Baltimore, MD

March 30, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B-13 20-22	Date/Time Sampled: 03/09/2015 13:05	PSS Sample ID: 15031116-010
Matrix: SOIL	Date/Time Received: 03/11/2015 12:30	% Solids: 82

Polychlorinated Biphenyls

Analytical Method: SW-846 8082 A

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
PCB-1016	ND	mg/kg	0.058		1	0.058	03/12/15	03/13/15 19:17	1029
PCB-1221	ND	mg/kg	0.058		1	0.058	03/12/15	03/13/15 19:17	1029
PCB-1232	ND	mg/kg	0.058		1	0.058	03/12/15	03/13/15 19:17	1029
PCB-1242	ND	mg/kg	0.058		1	0.058	03/12/15	03/13/15 19:17	1029
PCB-1248	ND	mg/kg	0.058		1	0.058	03/12/15	03/13/15 19:17	1029
PCB-1254	ND	mg/kg	0.058		1	0.058	03/12/15	03/13/15 19:17	1029
PCB-1260	ND	mg/kg	0.058		1	0.058	03/12/15	03/13/15 19:17	1029

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/kg	4.0		1	4	03/12/15	03/18/15 03:07	1055
Acenaphthylene	ND	ug/kg	4.0		1	4	03/12/15	03/18/15 03:07	1055
Anthracene	ND	ug/kg	4.0		1	4	03/12/15	03/18/15 03:07	1055
Benzo(a)anthracene	ND	ug/kg	4.0		1	4	03/12/15	03/18/15 03:07	1055
Benzo(a)pyrene	ND	ug/kg	4.0		1	4	03/12/15	03/18/15 03:07	1055
Benzo(b)fluoranthene	ND	ug/kg	4.0		1	4	03/12/15	03/18/15 03:07	1055
Benzo(g,h,i)perylene	ND	ug/kg	4.0		1	4	03/12/15	03/18/15 03:07	1055
Benzo(k)fluoranthene	ND	ug/kg	4.0		1	4	03/12/15	03/18/15 03:07	1055
Chrysene	ND	ug/kg	4.0		1	4	03/12/15	03/18/15 03:07	1055
Dibenz(a,h)Anthracene	ND	ug/kg	4.0		1	4	03/12/15	03/18/15 03:07	1055
Fluoranthene	ND	ug/kg	4.0		1	4	03/12/15	03/18/15 03:07	1055
Fluorene	ND	ug/kg	4.0		1	4	03/12/15	03/18/15 03:07	1055
Indeno(1,2,3-c,d)Pyrene	ND	ug/kg	4.0		1	4	03/12/15	03/18/15 03:07	1055
2-Methylnaphthalene	ND	ug/kg	4.0		1	4	03/12/15	03/18/15 03:07	1055
Naphthalene	ND	ug/kg	4.0		1	4	03/12/15	03/18/15 03:07	1055
Phenanthrene	ND	ug/kg	4.0		1	4	03/12/15	03/18/15 03:07	1055
Pyrene	ND	ug/kg	4.0		1	4	03/12/15	03/18/15 03:07	1055

OFFICES:
 6630 BALTIMORE NATIONAL PIKE
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 BALTIMORE, MD 21228
 410-747-8770
 800-932-9047
 FAX 410-788-8723

PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15031116

Arc Environmental, Baltimore, MD

March 30, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B-12 4-6	Date/Time Sampled: 03/09/2015 14:25	PSS Sample ID: 15031116-011
Matrix: SOIL	Date/Time Received: 03/11/2015 12:30	% Solids: 79

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	mg/kg	3.1		1	1.5	03/12/15	03/13/15 19:49	1033
Arsenic	5.7	mg/kg	0.62		1	0.31	03/12/15	03/16/15 15:58	1033
Beryllium	ND	mg/kg	3.1		1	1.5	03/12/15	03/13/15 19:49	1033
Cadmium	ND	mg/kg	3.1		1	1.5	03/12/15	03/13/15 19:49	1033
Chromium	68	mg/kg	3.1		1	1.5	03/12/15	03/16/15 15:58	1033
Copper	18	mg/kg	3.1		1	1.5	03/12/15	03/16/15 15:58	1033
Lead	14	mg/kg	3.1		1	1.5	03/12/15	03/13/15 19:49	1033
Mercury	ND	mg/kg	0.12		1	0.062	03/12/15	03/13/15 19:49	1033
Nickel	27	mg/kg	3.1		1	1.5	03/12/15	03/13/15 19:49	1033
Selenium	ND	mg/kg	3.1		1	1.5	03/12/15	03/16/15 15:58	1033
Silver	ND	mg/kg	3.1		1	1.5	03/12/15	03/13/15 19:49	1033
Thallium	ND	mg/kg	0.62		1	0.31	03/12/15	03/13/15 19:49	1033
Zinc	37	mg/kg	12		1	6.2	03/12/15	03/16/15 15:58	1033

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	24	mg/kg	13		1	5.1	03/16/15	03/17/15 00:27	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/kg	120		1	62	03/12/15	03/12/15 08:40	1035

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15031116

Arc Environmental, Baltimore, MD

March 30, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B-12 4-6	Date/Time Sampled: 03/09/2015 14:25	PSS Sample ID: 15031116-011
Matrix: SOIL	Date/Time Received: 03/11/2015 12:30	% Solids: 79

Polychlorinated Biphenyls

Analytical Method: SW-846 8082 A

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
PCB-1016	ND	mg/kg	0.062		1	0.062	03/12/15	03/13/15 18:19	1029
PCB-1221	ND	mg/kg	0.062		1	0.062	03/12/15	03/13/15 18:19	1029
PCB-1232	ND	mg/kg	0.062		1	0.062	03/12/15	03/13/15 18:19	1029
PCB-1242	ND	mg/kg	0.062		1	0.062	03/12/15	03/13/15 18:19	1029
PCB-1248	ND	mg/kg	0.062		1	0.062	03/12/15	03/13/15 18:19	1029
PCB-1254	ND	mg/kg	0.062		1	0.062	03/12/15	03/13/15 18:19	1029
PCB-1260	ND	mg/kg	0.062		1	0.062	03/12/15	03/13/15 18:19	1029

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/kg	4.2		1	4.2	03/12/15	03/18/15 03:32	1055
Acenaphthylene	ND	ug/kg	4.2		1	4.2	03/12/15	03/18/15 03:32	1055
Anthracene	4.6	ug/kg	4.2		1	4.2	03/12/15	03/18/15 03:32	1055
Benzo(a)anthracene	18	ug/kg	4.2		1	4.2	03/12/15	03/18/15 03:32	1055
Benzo(a)pyrene	15	ug/kg	4.2		1	4.2	03/12/15	03/18/15 03:32	1055
Benzo(b)fluoranthene	ND	ug/kg	4.2		1	4.2	03/12/15	03/18/15 03:32	1055
Benzo(g,h,i)perylene	10	ug/kg	4.2		1	4.2	03/12/15	03/18/15 03:32	1055
Benzo(k)fluoranthene	35	ug/kg	4.2		1	4.2	03/12/15	03/18/15 03:32	1055
Chrysene	20	ug/kg	4.2		1	4.2	03/12/15	03/18/15 03:32	1055
Dibenz(a,h)Anthracene	5.4	ug/kg	4.2		1	4.2	03/12/15	03/18/15 03:32	1055
Fluoranthene	34	ug/kg	4.2		1	4.2	03/12/15	03/18/15 03:32	1055
Fluorene	ND	ug/kg	4.2		1	4.2	03/12/15	03/18/15 03:32	1055
Indeno(1,2,3-c,d)Pyrene	13	ug/kg	4.2		1	4.2	03/12/15	03/18/15 03:32	1055
2-Methylnaphthalene	ND	ug/kg	4.2		1	4.2	03/12/15	03/18/15 03:32	1055
Naphthalene	ND	ug/kg	4.2		1	4.2	03/12/15	03/18/15 03:32	1055
Phenanthrene	16	ug/kg	4.2		1	4.2	03/12/15	03/18/15 03:32	1055
Pyrene	28	ug/kg	4.2		1	4.2	03/12/15	03/18/15 03:32	1055



Case Narrative Summary

Client Name: Arc Environmental

Project Name: Percontee

Work Order Number(s): 15031116

Project ID: 057-5

Any holding time exceedances, deviations from the method specifications, regulatory requirements or variations to the procedures outlined in the PSS Quality Assurance Manual are outlined below.

The analyses of chlorine, pH, dissolved oxygen, temperature and sulfite for drinking water and non-potable samples tested for compliance have a maximum holding time of 15 minutes. As such, all laboratory analyses for these analytes exceed holding times.

Matrix spike and matrix spike duplicate analyses may not be performed due to insufficient sample quantity. In these instances, a laboratory control sample and laboratory control sample duplicate are analyzed unless otherwise noted or specified in the method.

Sample Receipt:

Sample(s) received at 0 degrees but no samples were frozen.

General Comments:

No DRO result for sample -004 due to low sample volume.

Analytical:

Total Petroleum Hydrocarbons - DRO

Batch: 121083

Matrix spike (MS) exceedances identified; see MS summary form. Sample 15031116-001 S showed a DRO recovery at 121%. The QC limits are 47-114%.

Poly Aromatic Hydrocarbons by SIM

Batch: 121149

Surrogate exceedances identified; see surrogate summary form.

Samples required 10X and 20X dilution due to extracts being viscous and dark in color.

NELAP accreditation was held for all analyses performed unless noted below. See www.phaseonline.com for complete PSS scope of accreditation.



Analytical Data Package Information Summary

Work Order(s): 15031116

Report Prepared For: Arc Environmental, Baltimore, MD

Project Name: Percontee

Project Manager: Christie Pulvino

Method	Client Sample Id	Analysis Type	Lab Sample Id	Analyst	Mtx	Prep Batch	Analytical Batch	Sampled	Prepared	Analyzed
ASTM D2216 05	B-14 0-2	Initial	15031116-001	1051	S	120946	120946	03/10/2015	03/11/2015 17:33	03/11/2015 17:33
	B-14 4-6	Initial	15031116-002	1051	S	120946	120946	03/10/2015	03/11/2015 17:33	03/11/2015 17:33
	B-15 0-2	Initial	15031116-003	1051	S	120946	120946	03/10/2015	03/11/2015 17:33	03/11/2015 17:33
	B-15 5-7	Initial	15031116-004	1051	S	120946	120946	03/10/2015	03/11/2015 17:33	03/11/2015 17:33
	B-11 0-2	Initial	15031116-005	1051	S	120946	120946	03/09/2015	03/11/2015 17:33	03/11/2015 17:33
	B-11 5-7	Initial	15031116-006	1051	S	120946	120946	03/09/2015	03/11/2015 17:33	03/11/2015 17:33
	B-11 10-12	Initial	15031116-007	1051	S	120946	120946	03/09/2015	03/11/2015 17:33	03/11/2015 17:33
	B-13 0-2	Initial	15031116-008	1051	S	120946	120946	03/09/2015	03/11/2015 17:33	03/11/2015 17:33
	B-13 4-6	Initial	15031116-009	1051	S	120946	120946	03/09/2015	03/11/2015 17:33	03/11/2015 17:33
	B-13 20-22	Initial	15031116-010	1051	S	120946	120946	03/09/2015	03/11/2015 17:33	03/11/2015 17:33
	B-12 4-6	Initial	15031116-011	1051	S	120946	120946	03/09/2015	03/11/2015 17:33	03/11/2015 17:33
SW-846 6020 A	B-14 0-2	Initial	15031116-001	1033	S	54518	121038	03/10/2015	03/12/2015 13:32	03/13/2015 18:24
	B-14 4-6	Initial	15031116-002	1033	S	54518	121038	03/10/2015	03/12/2015 13:32	03/13/2015 18:30
	B-15 0-2	Initial	15031116-003	1033	S	54518	121038	03/10/2015	03/12/2015 13:32	03/13/2015 18:37
	B-15 5-7	Initial	15031116-004	1033	S	54518	121038	03/10/2015	03/12/2015 13:32	03/13/2015 18:43
	B-11 0-2	Initial	15031116-005	1033	S	54518	121038	03/09/2015	03/12/2015 13:32	03/13/2015 18:49
	B-11 5-7	Initial	15031116-006	1033	S	54518	121038	03/09/2015	03/12/2015 13:32	03/13/2015 18:55
	B-11 10-12	Initial	15031116-007	1033	S	54518	121038	03/09/2015	03/12/2015 13:32	03/13/2015 19:01
	B-13 0-2	Initial	15031116-008	1033	S	54518	121038	03/09/2015	03/12/2015 13:32	03/13/2015 19:31
	B-13 4-6	Initial	15031116-009	1033	S	54518	121038	03/09/2015	03/12/2015 13:32	03/13/2015 19:37
	B-13 20-22	Initial	15031116-010	1033	S	54518	121038	03/09/2015	03/12/2015 13:32	03/13/2015 19:43
	B-12 4-6	Initial	15031116-011	1033	S	54518	121038	03/09/2015	03/12/2015 13:32	03/13/2015 19:49
	54518-1-BKS	BKS	54518-1-BKS	1033	S	54518	121038	-----	03/12/2015 13:32	03/13/2015 16:59
	54518-1-BLK	BLK	54518-1-BLK	1033	S	54518	121038	-----	03/12/2015 13:32	03/13/2015 16:53
	4-3 S	MS	15031012-003 S	1033	S	54518	121038	03/10/2015	03/12/2015 13:32	03/13/2015 17:11
	4-3 SD	MSD	15031012-003 SD	1033	S	54518	121038	03/10/2015	03/12/2015 13:32	03/13/2015 17:18
	54518-1-BKS	Reanalysis	54518-1-BKS	1033	S	54518	121097	-----	03/12/2015 13:32	03/16/2015 13:52
	B-14 0-2	Reanalysis	15031116-001	1033	S	54518	121097	03/10/2015	03/12/2015 13:32	03/16/2015 14:34
	B-14 4-6	Reanalysis	15031116-002	1033	S	54518	121097	03/10/2015	03/12/2015 13:32	03/16/2015 14:40



Analytical Data Package Information Summary

Work Order(s): 15031116

Report Prepared For: Arc Environmental, Baltimore, MD

Project Name: Percontee

Project Manager: Christie Pulvino

Method	Client Sample Id	Analysis Type	Lab Sample Id	Analyst	Mtx	Prep Batch	Analytical Batch	Sampled	Prepared	Analyzed
SW-846 6020 A	B-15 0-2	Reanalysis	15031116-003	1033	S	54518	121097	03/10/2015	03/12/2015 13:32	03/16/2015 14:46
	B-15 5-7	Reanalysis	15031116-004	1033	S	54518	121097	03/10/2015	03/12/2015 13:32	03/16/2015 15:16
	B-11 0-2	Reanalysis	15031116-005	1033	S	54518	121097	03/09/2015	03/12/2015 13:32	03/16/2015 15:22
	B-11 5-7	Reanalysis	15031116-006	1033	S	54518	121097	03/09/2015	03/12/2015 13:32	03/16/2015 15:28
	B-11 10-12	Reanalysis	15031116-007	1033	S	54518	121097	03/09/2015	03/12/2015 13:32	03/16/2015 15:34
	B-13 0-2	Reanalysis	15031116-008	1033	S	54518	121097	03/09/2015	03/12/2015 13:32	03/16/2015 15:40
	B-13 4-6	Reanalysis	15031116-009	1033	S	54518	121097	03/09/2015	03/12/2015 13:32	03/16/2015 15:46
	B-13 20-22	Reanalysis	15031116-010	1033	S	54518	121097	03/09/2015	03/12/2015 13:32	03/16/2015 15:52
	B-12 4-6	Reanalysis	15031116-011	1033	S	54518	121097	03/09/2015	03/12/2015 13:32	03/16/2015 15:58
SW-846 8015 C	B-14 0-2	Initial	15031116-001	1055	S	54567	121083	03/10/2015	03/16/2015 17:37	03/16/2015 22:15
	B-14 4-6	Initial	15031116-002	1055	S	54567	121083	03/10/2015	03/16/2015 17:37	03/16/2015 22:37
	B-15 0-2	Initial	15031116-003	1055	S	54567	121083	03/10/2015	03/16/2015 17:37	03/16/2015 22:59
	B-11 0-2	Initial	15031116-005	1055	S	54567	121083	03/09/2015	03/16/2015 17:37	03/17/2015 00:05
	B-11 5-7	Initial	15031116-006	1055	S	54567	121083	03/09/2015	03/16/2015 17:37	03/16/2015 23:21
	B-11 10-12	Initial	15031116-007	1055	S	54567	121083	03/09/2015	03/16/2015 17:37	03/16/2015 21:31
	B-13 0-2	Initial	15031116-008	1055	S	54567	121083	03/09/2015	03/16/2015 17:37	03/16/2015 23:21
	B-13 4-6	Initial	15031116-009	1055	S	54567	121083	03/09/2015	03/16/2015 17:37	03/16/2015 23:43
	B-13 20-22	Initial	15031116-010	1055	S	54567	121083	03/09/2015	03/16/2015 17:37	03/16/2015 21:53
	B-12 4-6	Initial	15031116-011	1055	S	54567	121083	03/09/2015	03/16/2015 17:37	03/17/2015 00:27
	54567-1-BKS	BKS	54567-1-BKS	1055	S	54567	121083	-----	03/16/2015 17:37	03/16/2015 21:31
	54567-1-BLK	BLK	54567-1-BLK	1055	S	54567	121083	-----	03/16/2015 17:37	03/16/2015 21:08
	54567-1-BSD	BSD	54567-1-BSD	1055	S	54567	121083	-----	03/16/2015 17:37	03/16/2015 21:53
	B-14 0-2 S	MS	15031116-001 S	1055	S	54567	121083	03/10/2015	03/16/2015 17:37	03/16/2015 22:37
	B-14 0-2 SD	MSD	15031116-001 SD	1055	S	54567	121083	03/10/2015	03/16/2015 17:37	03/16/2015 22:59
	SW-846 8015C	B-14 0-2	Initial	15031116-001	1035	S	54503	120969	03/10/2015	03/12/2015 00:49
B-14 4-6		Initial	15031116-002	1035	S	54503	120969	03/10/2015	03/12/2015 00:49	03/12/2015 04:15
B-15 0-2		Initial	15031116-003	1035	S	54503	120969	03/10/2015	03/12/2015 00:49	03/12/2015 04:45
B-15 5-7		Initial	15031116-004	1035	S	54503	120969	03/10/2015	03/12/2015 00:49	03/12/2015 05:14



Analytical Data Package Information Summary

Work Order(s): 15031116

Report Prepared For: Arc Environmental, Baltimore, MD

Project Name: Percontee

Project Manager: Christie Pulvino

Method	Client Sample Id	Analysis Type	Lab Sample Id	Analyst	Mtx	Prep Batch	Analytical Batch	Sampled	Prepared	Analyzed
SW-846 8015C	B-11 0-2	Initial	15031116-005	1035	S	54503	120969	03/09/2015	03/12/2015 00:49	03/12/2015 05:44
	B-11 5-7	Initial	15031116-006	1035	S	54503	120969	03/09/2015	03/12/2015 00:49	03/12/2015 06:13
	B-11 10-12	Initial	15031116-007	1035	S	54503	120969	03/09/2015	03/12/2015 00:49	03/12/2015 06:43
	B-13 0-2	Initial	15031116-008	1035	S	54503	120969	03/09/2015	03/12/2015 00:49	03/12/2015 07:12
	B-13 4-6	Initial	15031116-009	1035	S	54503	120969	03/09/2015	03/12/2015 00:49	03/12/2015 07:41
	B-13 20-22	Initial	15031116-010	1035	S	54503	120969	03/09/2015	03/12/2015 00:49	03/12/2015 08:11
	B-12 4-6	Initial	15031116-011	1035	S	54503	120969	03/09/2015	03/12/2015 00:49	03/12/2015 08:40
	54503-2-BKS	BKS	54503-2-BKS	1035	S	54503	120969	-----	03/12/2015 00:49	03/12/2015 02:46
	54503-2-BLK	BLK	54503-2-BLK	1035	S	54503	120969	-----	03/12/2015 00:49	03/12/2015 02:17
	B-13 4-6 S	MS	15031116-009 S	1035	S	54503	120969	03/09/2015	03/12/2015 00:49	03/12/2015 11:38
	B-13 4-6 SD	MSD	15031116-009 SD	1035	S	54503	120969	03/09/2015	03/12/2015 00:49	03/12/2015 12:07
	SW-846 8082 A	B-14 0-2	Initial	15031116-001	1029	S	54507	121015	03/10/2015	03/12/2015 09:34
B-14 4-6		Initial	15031116-002	1029	S	54507	121015	03/10/2015	03/12/2015 09:34	03/13/2015 21:13
B-15 0-2		Initial	15031116-003	1029	S	54507	121015	03/10/2015	03/12/2015 09:34	03/13/2015 16:22
B-15 5-7		Initial	15031116-004	1029	S	54507	121015	03/10/2015	03/12/2015 09:34	03/13/2015 20:44
B-11 0-2		Initial	15031116-005	1029	S	54507	121015	03/09/2015	03/12/2015 09:34	03/13/2015 16:51
B-11 5-7		Initial	15031116-006	1029	S	54507	121015	03/09/2015	03/12/2015 09:34	03/13/2015 20:15
B-11 10-12		Initial	15031116-007	1029	S	54507	121015	03/09/2015	03/12/2015 09:34	03/13/2015 17:21
B-13 0-2		Initial	15031116-008	1029	S	54507	121015	03/09/2015	03/12/2015 09:34	03/13/2015 19:46
B-13 4-6		Initial	15031116-009	1029	S	54507	121015	03/09/2015	03/12/2015 09:34	03/13/2015 17:50
B-13 20-22		Initial	15031116-010	1029	S	54507	121015	03/09/2015	03/12/2015 09:34	03/13/2015 19:17
B-12 4-6		Initial	15031116-011	1029	S	54507	121015	03/09/2015	03/12/2015 09:34	03/13/2015 18:19
54507-1-BKS		BKS	54507-1-BKS	1029	S	54507	121015	-----	03/12/2015 09:34	03/13/2015 12:31
54507-1-BLK		BLK	54507-1-BLK	1029	S	54507	121015	-----	03/12/2015 09:34	03/13/2015 11:59
54507-1-BSD		BSD	54507-1-BSD	1029	S	54507	121015	-----	03/12/2015 09:34	03/13/2015 13:29
CR-Mud S		MS	15031134-001 S	1029	S	54507	121015	03/10/2015	03/12/2015 09:34	03/13/2015 12:31
CR-Mud SD		MSD	15031134-001 SD	1029	S	54507	121015	03/10/2015	03/12/2015 09:34	03/13/2015 12:59
SW-846 8260 B		B-11 5-7	Initial	15031116-006	1011	S	54573	121069	03/09/2015	03/16/2015 16:27



Analytical Data Package Information Summary

Work Order(s): 15031116

Report Prepared For: Arc Environmental, Baltimore, MD

Project Name: Percontee

Project Manager: Christie Pulvino

Method	Client Sample Id	Analysis Type	Lab Sample Id	Analyst	Mtx	Prep Batch	Analytical Batch	Sampled	Prepared	Analyzed
SW-846 8260 B	54573-1-BKS	BKS	54573-1-BKS	1011	S	54573	121069	-----	03/16/2015 16:27	03/16/2015 19:54
	54573-1-BLK	BLK	54573-1-BLK	1011	S	54573	121069	-----	03/16/2015 16:27	03/16/2015 19:25
	B-5-S-5-13.5-15.0 S	MS	15031204-004 S	1011	S	54573	121069	03/11/2015	03/16/2015 16:27	03/16/2015 20:54
	B-5-S-5-13.5-15.0 SD	MSD	15031204-004 SD	1011	S	54573	121069	03/11/2015	03/16/2015 16:27	03/16/2015 21:23
SW-846 8270 C	B-14 0-2	Initial	15031116-001	1055	S	54509	121149	03/10/2015	03/12/2015 10:08	03/18/2015 06:48
	B-14 4-6	Initial	15031116-002	1055	S	54509	121149	03/10/2015	03/12/2015 10:08	03/18/2015 03:56
	B-15 0-2	Initial	15031116-003	1055	S	54509	121149	03/10/2015	03/12/2015 10:08	03/18/2015 04:21
	B-15 5-7	Initial	15031116-004	1055	S	54509	121149	03/10/2015	03/12/2015 10:08	03/18/2015 05:59
	B-11 0-2	Initial	15031116-005	1055	S	54509	121149	03/09/2015	03/12/2015 10:08	03/18/2015 04:45
	B-11 5-7	Initial	15031116-006	1055	S	54509	121149	03/09/2015	03/12/2015 10:08	03/18/2015 06:23
	B-11 10-12	Initial	15031116-007	1055	S	54509	121149	03/09/2015	03/12/2015 10:08	03/18/2015 02:18
	B-13 0-2	Initial	15031116-008	1055	S	54509	121149	03/09/2015	03/12/2015 10:08	03/18/2015 05:10
	B-13 4-6	Initial	15031116-009	1055	S	54509	121149	03/09/2015	03/12/2015 10:08	03/18/2015 05:34
	B-13 20-22	Initial	15031116-010	1055	S	54509	121149	03/09/2015	03/12/2015 10:08	03/18/2015 03:07
	B-12 4-6	Initial	15031116-011	1055	S	54509	121149	03/09/2015	03/12/2015 10:08	03/18/2015 03:32
	54509-1-BKS	BKS	54509-1-BKS	1055	S	54509	121149	-----	03/12/2015 10:08	03/18/2015 00:40
	54509-1-BLK	BLK	54509-1-BLK	1055	S	54509	121149	-----	03/12/2015 10:08	03/18/2015 00:15
	54509-1-BSD	BSD	54509-1-BSD	1055	S	54509	121149	-----	03/12/2015 10:08	03/18/2015 01:04
	B-11 10-12 S	MS	15031116-007 S	1055	S	54509	121149	03/09/2015	03/12/2015 10:08	03/18/2015 01:29
	B-11 10-12 SD	MSD	15031116-007 SD	1055	S	54509	121149	03/09/2015	03/12/2015 10:08	03/18/2015 01:54
	B-15 0-2	Reanalysis	15031116-003	1055	S	54509	121463	03/10/2015	03/12/2015 10:08	03/18/2015 23:46

PHASE SEPARATION SCIENCE, INC.

QC Summary 15031116

Arc Environmental Percentage

Analytical Method: SW-846 8082 A

Seq Number: 121015
PSS Sample ID: 15031116-001

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/12/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	34		11-150	%	03/13/15 15:54
Tetrachloro-m-xylene	38		12-158	%	03/13/15 15:54

Analytical Method: SW-846 8015 C

Seq Number: 121083
PSS Sample ID: 15031116-001

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/16/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	74		42-129	%	03/16/15 22:15

Analytical Method: SW-846 8270 C

Seq Number: 121149
PSS Sample ID: 15031116-001

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/12/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	100		51-109	%	03/18/15 06:48
Nitrobenzene-d5	100		48-111	%	03/18/15 06:48
Terphenyl-D14	100		45-137	%	03/18/15 06:48

Analytical Method: SW-846 8015C

Seq Number: 120969
PSS Sample ID: 15031116-001

Matrix: Soil

Prep Method: SW5030
Date Prep: 03/12/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	85		55-142	%	03/12/15 09:09

Analytical Method: SW-846 8082 A

Seq Number: 121015
PSS Sample ID: 15031116-002

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/12/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	42		11-150	%	03/13/15 21:13
Tetrachloro-m-xylene	61		12-158	%	03/13/15 21:13

PHASE SEPARATION SCIENCE, INC.

QC Summary 15031116

Arc Environmental Percontee

Analytical Method: SW-846 8015 C

Seq Number: 121083
PSS Sample ID: 15031116-002

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/16/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	84		42-129	%	03/16/15 22:37

Analytical Method: SW-846 8270 C

Seq Number: 121149
PSS Sample ID: 15031116-002

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/12/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	135	*	51-109	%	03/18/15 03:56
Nitrobenzene-d5	121	*	48-111	%	03/18/15 03:56
Terphenyl-D14	126		45-137	%	03/18/15 03:56

Analytical Method: SW-846 8015C

Seq Number: 120969
PSS Sample ID: 15031116-002

Matrix: Soil

Prep Method: SW5030
Date Prep: 03/12/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	87		55-142	%	03/12/15 04:15

Analytical Method: SW-846 8082 A

Seq Number: 121015
PSS Sample ID: 15031116-003

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/12/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	43		11-150	%	03/13/15 16:22
Tetrachloro-m-xylene	53		12-158	%	03/13/15 16:22

Analytical Method: SW-846 8015 C

Seq Number: 121083
PSS Sample ID: 15031116-003

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/16/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	67		42-129	%	03/16/15 22:59

PHASE SEPARATION SCIENCE, INC.

QC Summary 15031116

Arc Environmental Percontee

Analytical Method: SW-846 8270 C

Seq Number: 121149
PSS Sample ID: 15031116-003

Prep Method: SW3550C
Date Prep: 03/12/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	121	*	51-109	%	03/18/15 04:21
Nitrobenzene-d5	110		48-111	%	03/18/15 04:21
Terphenyl-D14	115		45-137	%	03/18/15 04:21

Analytical Method: SW-846 8015C

Seq Number: 120969
PSS Sample ID: 15031116-003

Prep Method: SW5030
Date Prep: 03/12/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	88		55-142	%	03/12/15 04:45

Analytical Method: SW-846 8082 A

Seq Number: 121015
PSS Sample ID: 15031116-004

Prep Method: SW3550C
Date Prep: 03/12/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	55		11-150	%	03/13/15 20:44
Tetrachloro-m-xylene	68		12-158	%	03/13/15 20:44

Analytical Method: SW-846 8270 C

Seq Number: 121149
PSS Sample ID: 15031116-004

Prep Method: SW3550C
Date Prep: 03/12/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	110	*	51-109	%	03/18/15 05:59
Nitrobenzene-d5	110		48-111	%	03/18/15 05:59
Terphenyl-D14	120		45-137	%	03/18/15 05:59

Analytical Method: SW-846 8015C

Seq Number: 120969
PSS Sample ID: 15031116-004

Prep Method: SW5030
Date Prep: 03/12/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	87		55-142	%	03/12/15 05:14

PHASE SEPARATION SCIENCE, INC.

QC Summary 15031116

Arc Environmental Percontee

Analytical Method: SW-846 8082 A

Seq Number: 121015
PSS Sample ID: 15031116-005

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/12/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	59		11-150	%	03/13/15 16:51
Tetrachloro-m-xylene	88		12-158	%	03/13/15 16:51

Analytical Method: SW-846 8015 C

Seq Number: 121083
PSS Sample ID: 15031116-005

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/16/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	85		42-129	%	03/17/15 00:05

Analytical Method: SW-846 8270 C

Seq Number: 121149
PSS Sample ID: 15031116-005

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/12/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	123	*	51-109	%	03/18/15 04:45
Nitrobenzene-d5	122	*	48-111	%	03/18/15 04:45
Terphenyl-D14	125		45-137	%	03/18/15 04:45

Analytical Method: SW-846 8015C

Seq Number: 120969
PSS Sample ID: 15031116-005

Matrix: Soil

Prep Method: SW5030
Date Prep: 03/12/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	87		55-142	%	03/12/15 05:44

Analytical Method: SW-846 8082 A

Seq Number: 121015
PSS Sample ID: 15031116-006

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/12/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	37		11-150	%	03/13/15 20:15
Tetrachloro-m-xylene	67		12-158	%	03/13/15 20:15

PHASE SEPARATION SCIENCE, INC.

QC Summary 15031116

Arc Environmental Percentage

Analytical Method: SW-846 8015 C

Seq Number: 121083
PSS Sample ID: 15031116-006

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/16/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	79		42-129	%	03/16/15 23:21

Analytical Method: SW-846 8270 C

Seq Number: 121149
PSS Sample ID: 15031116-006

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/12/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	120	*	51-109	%	03/18/15 06:23
Nitrobenzene-d5	120	*	48-111	%	03/18/15 06:23
Terphenyl-D14	140	*	45-137	%	03/18/15 06:23

Analytical Method: SW-846 8015C

Seq Number: 120969
PSS Sample ID: 15031116-006

Matrix: Soil

Prep Method: SW5030
Date Prep: 03/12/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	88		55-142	%	03/12/15 06:13

Analytical Method: SW-846 8260 B

Seq Number: 121069
PSS Sample ID: 15031116-006

Matrix: Soil

Prep Method: SW5035
Date Prep: 03/16/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	106		80-125	%	03/16/15 23:51
Dibromofluoromethane	101		85-115	%	03/16/15 23:51
Toluene-D8	101		91-109	%	03/16/15 23:51

Analytical Method: SW-846 8082 A

Seq Number: 121015
PSS Sample ID: 15031116-007

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/12/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	45		11-150	%	03/13/15 17:21
Tetrachloro-m-xylene	63		12-158	%	03/13/15 17:21

PHASE SEPARATION SCIENCE, INC.

QC Summary 15031116

Arc Environmental Percontee

Analytical Method: SW-846 8015 C

Seq Number: 121083
PSS Sample ID: 15031116-007

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/16/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	76		42-129	%	03/16/15 21:31

Analytical Method: SW-846 8270 C

Seq Number: 121149
PSS Sample ID: 15031116-007

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/12/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	89		51-109	%	03/18/15 02:18
Nitrobenzene-d5	83		48-111	%	03/18/15 02:18
Terphenyl-D14	96		45-137	%	03/18/15 02:18

Analytical Method: SW-846 8015C

Seq Number: 120969
PSS Sample ID: 15031116-007

Matrix: Soil

Prep Method: SW5030
Date Prep: 03/12/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	86		55-142	%	03/12/15 06:43

Analytical Method: SW-846 8082 A

Seq Number: 121015
PSS Sample ID: 15031116-008

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/12/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	42		11-150	%	03/13/15 19:46
Tetrachloro-m-xylene	75		12-158	%	03/13/15 19:46

Analytical Method: SW-846 8015 C

Seq Number: 121083
PSS Sample ID: 15031116-008

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/16/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	79		42-129	%	03/16/15 23:21

PHASE SEPARATION SCIENCE, INC.

QC Summary 15031116

Arc Environmental Percontee

Analytical Method: SW-846 8270 C

Seq Number: 121149
PSS Sample ID: 15031116-008

Prep Method: SW3550C
Date Prep: 03/12/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	107		51-109	%	03/18/15 05:10
Nitrobenzene-d5	111		48-111	%	03/18/15 05:10
Terphenyl-D14	116		45-137	%	03/18/15 05:10

Analytical Method: SW-846 8015C

Seq Number: 120969
PSS Sample ID: 15031116-008

Prep Method: SW5030
Date Prep: 03/12/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	87		55-142	%	03/12/15 07:12

Analytical Method: SW-846 8082 A

Seq Number: 121015
PSS Sample ID: 15031116-009

Prep Method: SW3550C
Date Prep: 03/12/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	63		11-150	%	03/13/15 17:50
Tetrachloro-m-xylene	79		12-158	%	03/13/15 17:50

Analytical Method: SW-846 8015 C

Seq Number: 121083
PSS Sample ID: 15031116-009

Prep Method: SW3550C
Date Prep: 03/16/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	73		42-129	%	03/16/15 23:43

Analytical Method: SW-846 8270 C

Seq Number: 121149
PSS Sample ID: 15031116-009

Prep Method: SW3550C
Date Prep: 03/12/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	109		51-109	%	03/18/15 05:34
Nitrobenzene-d5	117	*	48-111	%	03/18/15 05:34
Terphenyl-D14	117		45-137	%	03/18/15 05:34

PHASE SEPARATION SCIENCE, INC.

QC Summary 15031116

Arc Environmental Percontee

Analytical Method: SW-846 8015C

Seq Number: 120969
PSS Sample ID: 15031116-009

Prep Method: SW5030
Date Prep: 03/12/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	87		55-142	%	03/12/15 07:41

Analytical Method: SW-846 8082 A

Seq Number: 121015
PSS Sample ID: 15031116-010

Prep Method: SW3550C
Date Prep: 03/12/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	60		11-150	%	03/13/15 19:17
Tetrachloro-m-xylene	77		12-158	%	03/13/15 19:17

Analytical Method: SW-846 8015 C

Seq Number: 121083
PSS Sample ID: 15031116-010

Prep Method: SW3550C
Date Prep: 03/16/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	79		42-129	%	03/16/15 21:53

Analytical Method: SW-846 8270 C

Seq Number: 121149
PSS Sample ID: 15031116-010

Prep Method: SW3550C
Date Prep: 03/12/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	90		51-109	%	03/18/15 03:07
Nitrobenzene-d5	82		48-111	%	03/18/15 03:07
Terphenyl-D14	88		45-137	%	03/18/15 03:07

Analytical Method: SW-846 8015C

Seq Number: 120969
PSS Sample ID: 15031116-010

Prep Method: SW5030
Date Prep: 03/12/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	86		55-142	%	03/12/15 08:11

PHASE SEPARATION SCIENCE, INC.

QC Summary 15031116

Arc Environmental Percontee

Analytical Method: SW-846 8082 A

Seq Number: 121015
PSS Sample ID: 15031116-011

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/12/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	42		11-150	%	03/13/15 18:19
Tetrachloro-m-xylene	61		12-158	%	03/13/15 18:19

Analytical Method: SW-846 8015 C

Seq Number: 121083
PSS Sample ID: 15031116-011

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/16/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	85		42-129	%	03/17/15 00:27

Analytical Method: SW-846 8270 C

Seq Number: 121149
PSS Sample ID: 15031116-011

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/12/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	122	*	51-109	%	03/18/15 03:32
Nitrobenzene-d5	110		48-111	%	03/18/15 03:32
Terphenyl-D14	111		45-137	%	03/18/15 03:32

Analytical Method: SW-846 8015C

Seq Number: 120969
PSS Sample ID: 15031116-011

Matrix: Soil

Prep Method: SW5030
Date Prep: 03/12/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	62		55-142	%	03/12/15 08:40

F = RPD exceeded the laboratory control limits
X = Recovery of MS, MSD or both outside of QC Criteria
H= Recovery of BS,BSD or both exceeded the laboratory control limits
L = Recovery of BS,BSD or both below the laboratory control limits

PHASE SEPARATION SCIENCE, INC.

QC Summary 15031116

Arc Environmental Percontee

Analytical Method: SW-846 6020 A

Seq Number: 121038

MB Sample Id: 54518-1-BLK

Matrix: Solid

LCS Sample Id: 54518-1-BKS

Prep Method: SW3050B

Date Prep: 03/12/15

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Analysis Date	Flag
Antimony	<1.142	18.26	15.96	87	80-120	mg/kg	03/13/15 16:59	
Arsenic	<0.2283	18.26	17.76	97	80-120	mg/kg	03/13/15 16:59	
Beryllium	<1.142	18.26	16.05	88	80-120	mg/kg	03/13/15 16:59	
Cadmium	<1.142	18.26	15.92	87	80-120	mg/kg	03/13/15 16:59	
Chromium	<1.142	18.26	17.17	94	80-120	mg/kg	03/13/15 16:59	
Copper	<1.142	18.26	17.08	94	80-120	mg/kg	03/13/15 16:59	
Lead	<1.142	18.26	18.19	100	80-120	mg/kg	03/13/15 16:59	
Mercury	<0.04566	0.4566	0.4338	95	80-120	mg/kg	03/13/15 16:59	
Nickel	<1.142	18.26	17.21	94	80-120	mg/kg	03/13/15 16:59	
Selenium	<1.142	18.26	15.42	84	80-120	mg/kg	03/16/15 13:52	
Silver	<1.142	18.26	17.79	97	80-120	mg/kg	03/13/15 16:59	
Thallium	<0.2283	18.26	16.94	93	80-120	mg/kg	03/13/15 16:59	
Zinc	<4.566	18.26	15.55	85	80-120	mg/kg	03/13/15 16:59	

Analytical Method: SW-846 8082 A

Seq Number: 121015

MB Sample Id: 54507-1-BLK

Matrix: Solid

LCS Sample Id: 54507-1-BKS

Prep Method: SW3550C

Date Prep: 03/12/15

LCSD Sample Id: 54507-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
PCB-1016	<0.05005	0.5005	0.3837	77	0.3909	80	62-136	2	25	mg/kg	03/13/15 12:31	
PCB-1260	<0.05005	0.5005	0.3663	73	0.3560	73	56-113	3	25	mg/kg	03/13/15 12:31	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	82		83		78		11-150	%	03/13/15 12:31
Tetrachloro-m-xylene	79		73		77		12-158	%	03/13/15 12:31

Analytical Method: SW-846 8015 C

Seq Number: 121083

MB Sample Id: 54567-1-BLK

Matrix: Solid

LCS Sample Id: 54567-1-BKS

Prep Method: SW3550C

Date Prep: 03/16/15

LCSD Sample Id: 54567-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
TPH-DRO (Diesel Range Organics)	<3.964	33.04	31.95	97	27.77	83	56-117	14	25	mg/kg	03/16/15 21:31	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units	Analysis Date
o-Terphenyl	77		91		77		42-129	%	03/16/15 21:31

PHASE SEPARATION SCIENCE, INC.

QC Summary 15031116

Arc Environmental Percontee

Analytical Method: SW-846 8015 C

Seq Number: 121083

Parent Sample Id: 15031116-001

Matrix: Soil

MS Sample Id: 15031116-001 S

Prep Method: SW3550C

Date Prep: 03/16/15

MSD Sample Id: 15031116-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
TPH-DRO (Diesel Range Organics)	5.084	37.02	49.85	121	39.48	93	47-114	23	30	mg/kg	03/16/15 22:37	X

Surrogate

Surrogate	MS Result	MS Flag	MSD Result	MSD Flag	Limits	Units	Analysis Date
o-Terphenyl	81		82		42-129	%	03/16/15 22:37

Analytical Method: SW-846 8270 C

Seq Number: 121149

MB Sample Id: 54509-1-BLK

Matrix: Solid

LCS Sample Id: 54509-1-BKS

Prep Method: SW3550C

Date Prep: 03/12/15

LCSD Sample Id: 54509-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Acenaphthene	<3.324	66.49	61.50	92	61.90	93	65-104	1	31	ug/kg	03/18/15 00:40	
Acenaphthylene	<3.324	66.49	57.51	86	59.23	89	59-105	3	25	ug/kg	03/18/15 00:40	
Anthracene	<3.324	66.49	53.86	81	53.58	80	52-121	1	25	ug/kg	03/18/15 00:40	
Benzo(a)anthracene	<3.324	66.49	62.50	94	63.89	96	47-114	2	25	ug/kg	03/18/15 00:40	
Benzo(a)pyrene	<3.324	66.49	63.16	95	65.22	98	57-111	3	25	ug/kg	03/18/15 00:40	
Benzo(b)fluoranthene	<3.324	66.49	72.14	108	75.21	113	47-123	4	25	ug/kg	03/18/15 00:40	
Benzo(g,h,i)perylene	<3.324	66.49	66.82	100	71.21	107	46-119	6	25	ug/kg	03/18/15 00:40	
Benzo(k)fluoranthene	<3.324	66.49	58.51	88	62.90	95	44-133	7	25	ug/kg	03/18/15 00:40	
Chrysene	<3.324	66.49	65.16	98	66.56	100	51-111	2	25	ug/kg	03/18/15 00:40	
Dibenz(a,h)Anthracene	<3.324	66.49	66.16	100	70.88	106	44-121	7	25	ug/kg	03/18/15 00:40	
Fluoranthene	<3.324	66.49	59.18	89	56.24	84	55-114	5	25	ug/kg	03/18/15 00:40	
Fluorene	<3.324	66.49	63.50	96	63.23	95	59-107	0	25	ug/kg	03/18/15 00:40	
Indeno(1,2,3-c,d)Pyrene	<3.324	66.49	66.82	100	71.21	107	42-123	6	25	ug/kg	03/18/15 00:40	
2-Methylnaphthalene	<3.324	66.49	63.16	95	63.23	95	67-99	0	25	ug/kg	03/18/15 00:40	
Naphthalene	<3.324	66.49	63.83	96	64.23	96	61-108	1	25	ug/kg	03/18/15 00:40	
Phenanthrene	<3.324	66.49	57.18	86	55.91	84	50-122	2	25	ug/kg	03/18/15 00:40	
Pyrene	<3.324	66.49	63.83	96	64.89	97	45-118	2	31	ug/kg	03/18/15 00:40	

Surrogate

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	108		101		104		51-109	%	03/18/15 00:40
Nitrobenzene-d5	102		93		99		48-111	%	03/18/15 00:40
Terphenyl-D14	111		94		100		45-137	%	03/18/15 00:40

PHASE SEPARATION SCIENCE, INC.

QC Summary 15031116

Arc Environmental Percontee

Analytical Method: SW-846 8270 C

Seq Number: 121149

Parent Sample Id: 15031116-007

Matrix: Soil

MS Sample Id: 15031116-007 S

Prep Method: SW3550C

Date Prep: 03/12/15

MSD Sample Id: 15031116-007 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Acenaphthene	<5.110	102.2	82.78	81	86.58	87	33-146	4	30	ug/kg	03/18/15 01:29	
Acenaphthylene	<5.110	102.2	87.38	85	84.09	84	23-154	4	30	ug/kg	03/18/15 01:29	
Anthracene	<5.110	102.2	80.74	79	76.63	77	24-155	5	30	ug/kg	03/18/15 01:29	
Benzo(a)anthracene	<5.110	102.2	95.05	93	95.04	95	6-165	0	30	ug/kg	03/18/15 01:29	
Benzo(a)pyrene	<5.110	102.2	92.49	90	91.56	92	10-200	1	30	ug/kg	03/18/15 01:29	
Benzo(b)fluoranthene	<5.110	102.2	98.11	96	99.52	100	10-186	1	30	ug/kg	03/18/15 01:29	
Benzo(g,h,i)perylene	<5.110	102.2	91.98	90	95.04	95	10-180	3	30	ug/kg	03/18/15 01:29	
Benzo(k)fluoranthene	<5.110	102.2	78.70	77	79.61	80	10-169	1	30	ug/kg	03/18/15 01:29	
Chrysene	<5.110	102.2	92.49	90	95.04	95	10-178	3	30	ug/kg	03/18/15 01:29	
Dibenz(a,h)Anthracene	<5.110	102.2	93.00	91	96.03	96	19-168	3	30	ug/kg	03/18/15 01:29	
Fluoranthene	<5.110	102.2	82.27	80	81.60	82	10-200	1	30	ug/kg	03/18/15 01:29	
Fluorene	<5.110	102.2	85.34	84	89.57	90	9-162	5	30	ug/kg	03/18/15 01:29	
Indeno(1,2,3-c,d)Pyrene	<5.110	102.2	90.96	89	97.03	97	10-178	6	30	ug/kg	03/18/15 01:29	
2-Methylnaphthalene	<5.110	102.2	85.85	84	85.58	86	17-162	0	30	ug/kg	03/18/15 01:29	
Naphthalene	<5.110	102.2	85.85	84	88.07	88	9-179	3	30	ug/kg	03/18/15 01:29	
Phenanthrene	<5.110	102.2	79.21	78	78.12	78	10-169	1	30	ug/kg	03/18/15 01:29	
Pyrene	<5.110	102.2	101.7	100	99.02	99	10-172	3	30	ug/kg	03/18/15 01:29	

Surrogate	MS Result	MS Flag	MSD Result	MSD Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	96		101		51-109	%	03/18/15 01:29
Nitrobenzene-d5	90		92		48-111	%	03/18/15 01:29
Terphenyl-D14	105		105		45-137	%	03/18/15 01:29

Analytical Method: SW-846 8015C

Seq Number: 120969

MB Sample Id: 54503-2-BLK

Matrix: Solid

LCS Sample Id: 54503-2-BKS

Prep Method: SW5030

Date Prep: 03/12/15

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Analysis Date	Flag
TPH-GRO (Gasoline Range Organic)	52.44	4883	3717	76	60-112	ug/kg	03/12/15 02:46	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	85		98		55-142	%	03/12/15 02:46

Analytical Method: SW-846 8015C

Seq Number: 120969

Parent Sample Id: 15031116-009

Matrix: Soil

MS Sample Id: 15031116-009 S

Prep Method: SW5030

Date Prep: 03/12/15

MSD Sample Id: 15031116-009 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
TPH-GRO (Gasoline Range Organic)	<55.51	5551	4541	82	4449	80	36-131	2	30	ug/kg	03/12/15 11:38	

Surrogate	MS Result	MS Flag	MSD Result	MSD Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	102		100		55-142	%	03/12/15 11:38

PHASE SEPARATION SCIENCE, INC.

QC Summary 15031116

Arc Environmental Percontee

Analytical Method: SW-846 8260 B

Seq Number: 121069

MB Sample Id: 54573-1-BLK

Matrix: Solid

LCS Sample Id: 54573-1-BKS

Prep Method: SW5030

Date Prep: 03/16/15

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Analysis Date	Flag
Dichlorodifluoromethane	<2.561	61.48	49.85	81	53-144	ug/kg	03/16/15 19:54	
Chloromethane	<2.561	61.48	51.21	83	62-143	ug/kg	03/16/15 19:54	
1,1,2-Trichloro-1,2,2-Trifluoroethane	<2.561	61.48	42.70	69	50-162	ug/kg	03/16/15 19:54	
Vinyl Chloride	<2.561	61.48	45.74	74	61-156	ug/kg	03/16/15 19:54	
Bromomethane	<2.561	61.48	62.19	101	45-199	ug/kg	03/16/15 19:54	
Chloroethane	<2.561	61.48	58.42	95	59-151	ug/kg	03/16/15 19:54	
Acetone	<10.25	61.48	65.81	107	24-197	ug/kg	03/16/15 19:54	
Cyclohexane	<10.25	61.48	45.53	74	50-148	ug/kg	03/16/15 19:54	
Trichlorofluoromethane	<2.561	61.48	48.29	79	54-175	ug/kg	03/16/15 19:54	
1,1-Dichloroethene	<2.561	61.48	55.75	91	60-154	ug/kg	03/16/15 19:54	
Methylene Chloride	<2.561	61.48	42.65	69	56-140	ug/kg	03/16/15 19:54	
trans-1,2-Dichloroethene	<2.561	61.48	47.54	77	60-153	ug/kg	03/16/15 19:54	
Methyl-t-butyl ether	<2.561	61.48	51.26	83	59-133	ug/kg	03/16/15 19:54	
1,1-Dichloroethane	<2.561	61.48	47.95	78	60-148	ug/kg	03/16/15 19:54	
2-Butanone	<10.25	61.48	65.88	107	35-173	ug/kg	03/16/15 19:54	
cis-1,2-Dichloroethene	<2.561	61.48	42.81	70	67-126	ug/kg	03/16/15 19:54	
Bromochloromethane	<2.561	61.48	41.63	68	64-121	ug/kg	03/16/15 19:54	
Chloroform	<2.561	61.48	48.09	78	65-126	ug/kg	03/16/15 19:54	
1,1,1-Trichloroethane	<2.561	61.48	48.27	79	60-145	ug/kg	03/16/15 19:54	
1,2-Dichloroethane	<2.561	61.48	50.51	82	62-127	ug/kg	03/16/15 19:54	
Carbon Tetrachloride	<2.561	61.48	45.50	74	55-152	ug/kg	03/16/15 19:54	
Benzene	<2.561	61.48	53.88	88	69-128	ug/kg	03/16/15 19:54	
1,2-Dichloropropane	<2.561	61.48	47.05	77	66-125	ug/kg	03/16/15 19:54	
Carbon Disulfide	<5.123	61.48	48.59	79	58-153	ug/kg	03/16/15 19:54	
Methylcyclohexane	<10.25	61.48	40.46	66	41-142	ug/kg	03/16/15 19:54	
Trichloroethene	<2.561	61.48	51.45	84	68-130	ug/kg	03/16/15 19:54	
Methyl Acetate	<10.25	61.48	57.89	94	47-151	ug/kg	03/16/15 19:54	
Bromodichloromethane	<2.561	61.48	48.88	80	60-125	ug/kg	03/16/15 19:54	
cis-1,3-Dichloropropene	<2.561	61.48	48.16	78	59-122	ug/kg	03/16/15 19:54	
4-Methyl-2-Pentanone	<10.25	61.48	52.67	86	22-173	ug/kg	03/16/15 19:54	
trans-1,3-Dichloropropene	<2.561	61.48	47.26	77	56-124	ug/kg	03/16/15 19:54	
1,1,2-Trichloroethane	<2.561	61.48	47.99	78	65-120	ug/kg	03/16/15 19:54	
Toluene	<2.561	61.48	50.36	82	66-127	ug/kg	03/16/15 19:54	
2-Hexanone	<10.25	61.48	65.33	106	30-175	ug/kg	03/16/15 19:54	
1,2-Dibromoethane	<2.561	61.48	49.40	80	64-123	ug/kg	03/16/15 19:54	
Dibromochloromethane	<2.561	61.48	47.81	78	55-128	ug/kg	03/16/15 19:54	
Bromoform	<2.561	61.48	46.77	76	46-128	ug/kg	03/16/15 19:54	
Tetrachloroethene	<2.561	61.48	45.66	74	55-145	ug/kg	03/16/15 19:54	
Chlorobenzene	<2.561	61.48	44.14	72	61-124	ug/kg	03/16/15 19:54	
Ethylbenzene	<2.561	61.48	46.51	76	58-130	ug/kg	03/16/15 19:54	
m,p-Xylenes	<5.123	123	89.10	72	60-131	ug/kg	03/16/15 19:54	
Styrene	<2.561	61.48	43.32	70	54-123	ug/kg	03/16/15 19:54	
1,1,2,2-Tetrachloroethane	<2.561	61.48	46.74	76	50-134	ug/kg	03/16/15 19:54	
o-Xylene	<2.561	61.48	44.73	73	60-126	ug/kg	03/16/15 19:54	
Isopropylbenzene	<2.561	61.48	43.68	71	52-130	ug/kg	03/16/15 19:54	
1,3-Dichlorobenzene	<2.561	61.48	35.57	58	42-123	ug/kg	03/16/15 19:54	
1,4-Dichlorobenzene	<2.561	61.48	36.38	59	40-121	ug/kg	03/16/15 19:54	
1,2-Dichlorobenzene	<2.561	61.48	35.95	58	38-128	ug/kg	03/16/15 19:54	
1,2-Dibromo-3-Chloropropane	<20.49	61.48	52.37	85	43-149	ug/kg	03/16/15 19:54	
1,2,4-Trichlorobenzene	<2.561	61.48	33.44	54	14-143	ug/kg	03/16/15 19:54	
1,2,3-Trichlorobenzene	<2.561	61.48	33.71	55	15-144	ug/kg	03/16/15 19:54	

PHASE SEPARATION SCIENCE, INC.

QC Summary 15031116

Arc Environmental Percontee

Analytical Method: SW-846 8260 B

Seq Number: 121069

MB Sample Id: 54573-1-BLK

Matrix: Solid

LCS Sample Id: 54573-1-BKS

Prep Method: SW5030

Date Prep: 03/16/15

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	109		104		80-125	%	03/16/15 19:54
Dibromofluoromethane	99		100		85-115	%	03/16/15 19:54
Toluene-D8	100		102		91-109	%	03/16/15 19:54

F = RPD exceeded the laboratory control limits

X = Recovery of MS, MSD or both outside of QC Criteria

H= Recovery of BS,BSD or both exceeded the laboratory control limits

L = Recovery of BS,BSD or both below the laboratory control limits



SAMPLE CHAIN OF CUSTODY/AGREEMENT FORM

PHASE SEPARATION SCIENCE, INC.

www.phaseonline.com
email: info@phaseonline.com

1 CLIENT: Arc Environmental OFFICE LOC. Baltimore, MD		PSS Work Order #: <u>1503116</u>				PAGE <u>1</u> OF <u>2</u>																
PROJECT MGR: Kyle Begey PHONE NO.: 410-659-9971		Matrix Codes: SW=Surface Wtr DW=Drinking Wtr GW=Ground Wtr WW=Waste Wtr O=Oil S=Soil WL=Waste Liquid WS=Waste Solid W= Wipe																				
EMAIL: kbegey@arcenvironmental.com FAX NO.: 410-962-1065		No. C O N T A I N E R S	SAMPLE TYPE C = COMP G = GRAB	PPI Metals	SVOCs (SIM)	VOCs 8260	GRO/DRO 8015	PCBs	Asbestos	Preservative Used ←												
PROJECT NAME: Percontee PROJECT NO.: 057-5											Analysis/ Method Required ←											
SITE LOCATION: Silver Spring, MD P.O. NO.:																						
SAMPLERS: Kyle Begey, Ray Goodwin and Christie Pulvino DW CERT NO.:																						
2	3	4	5	6	7	8	9	10	11	12												
LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX (See Codes)	No.	C	O	N	T	A	I	N	E	R	S	PPI Metals	SVOCs (SIM)	VOCs 8260	GRO/DRO 8015	PCBs	Asbestos	REMARKS ↓
1	B-14 0-2	3/10/15	1225	So	1	G									X	X		X	X			Click to enter Remarks
2	B-144-6	3/10/15	1227		2										X	X		X	X			
3	B-15 0-2	3/10/15	0838		1										X	X		X	X			
4	B-15 0-2 5-7	3/10/15	0851		1										X	X		X	X			
5	B-11 0-2	3/9/15	1020		2										X	X		X	X			
6	B-11 5-7		1050		5										X	X	X	X	X			
7	B-11 10-12		1115		2										X	X		X	X			
8	B-13 0-2		1220		2										X	X		X	X			
9	B-13 4-6		1235		2										X	X		X	X			
10	B-13 20-22	↓	1305	↓	2										X	X		X	X			
5		Relinquished By: (1)		Date	Time	Received By:		4				Requested Turnaround Time			# of Coolers:							
		<i>[Signature]</i>		3/11/15		<i>[Signature]</i>		<input checked="" type="checkbox"/> 5-Day <input type="checkbox"/> 3-Day <input type="checkbox"/> 2-Day <input type="checkbox"/> Next Day <input type="checkbox"/> Emergency <input type="checkbox"/> Other			1		Custody Seal: <u>INTACT-COOLER</u>									
		Relinquished By: (2)		Date	Time	Received By:		Data Deliverables Required:				Ice Present: <u>YES</u> Temp: <u>0°C</u> <u>NOT FROZEN</u>		Shipping Carrier: <u>TTE</u>								
		<i>[Signature]</i>		3/11/15	1230	<i>[Signature]</i>																
		Relinquished By: (3)		Date	Time	Received By:		Special Instructions:														
		<i>[Signature]</i>						VCP Project with comparison to residential cleanup standards														
		Relinquished By: (4)		Date	Time	Received By:																
		<i>[Signature]</i>																				



Phase Separation Science, Inc

Sample Receipt Checklist

Work Order #	15031116	Received By	Rachel Davis
Client Name	Arc Environmental	Date Received	03/11/2015 12:30:00 PM
Project Name	Percontee	Delivered By	Trans Time Express
Project Number	057-5	Tracking No	Not Applicable
Disposal Date	04/15/2015	Logged In By	Rachel Davis

Shipping Container(s)

No. of Coolers	1	Ice	Present
Custody Seal(s) Intact?	Yes	Temp (deg C)	0
Seal(s) Signed / Dated?	Yes	Temp Blank Present	No

Documentation

COC agrees with sample labels?	Yes	Sampler Name	<u>Kyle Begey</u>
Chain of Custody	Yes	MD DW Cert. No.	<u>N/A</u>

Sample Container

Appropriate for Specified Analysis?	Yes	Custody Seal(s) Intact?	Not Applicable
Intact?	Yes	Seal(s) Signed / Dated	Not Applicable
Labeled and Labels Legible?	Yes		

Total No. of Samples Received	11	Total No. of Containers Received	22
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Preservation

Metals	(pH<2)	N/A
Cyanides	(pH>12)	N/A
Sulfide	(pH>9)	N/A
TOC, COD, Phenols	(pH<2)	N/A
TOX, TKN, NH3, Total Phos	(pH<2)	N/A
VOC, BTEX (VOA Vials Rcvd Preserved)	(pH<2)	N/A
Do VOA vials have zero headspace?		N/A
624 VOC (Rcvd at least one unpreserved VOA vial)		N/A

Comments: (Any "No" response must be detailed in the comments section below.)

For any improper preservation conditions, list sample ID, preservative added (reagent ID number) below as well as documentation of any client notification as well as client instructions. Samples for pH, chlorine and dissolved oxygen should be analyzed as soon as possible, preferably in the field at the time of sampling. Samples which require thermal preservation shall be considered acceptable when received at a temperature above freezing to 6°C. Samples that are hand delivered on the day that they are collected may not meet these criteria but shall be considered acceptable if there is evidence that the chilling process has begun such as arrival on ice.

Sample(s) received at 0 degrees but no samples were frozen.

Samples Inspected/Checklist Completed By: Rachel Davis Date: 03/11/2015
 Rachel Davis

PM Review and Approval: Lynn Jackson Date: 03/12/2015
 Lynn Jackson

Analytical Report for

Arc Environmental

Certificate of Analysis No.: 15031910

Project Manager: Kyle Begey

Project Name : Percontee

Project Location: Silver Spring, MD

Project ID : 057-5



March 26, 2015

Phase Separation Science, Inc.

6630 Baltimore National Pike

Baltimore, MD 21228

Phone: (410) 747-8770

Fax: (410) 788-8723

OFFICES:
6630 BALTIMORE NATIONAL PIKE
ROUTE 40 WEST
BALTIMORE, MD 21228
410-747-8770
800-932-9047
FAX 410-788-8723

PHASE SEPARATION SCIENCE, INC.



March 26, 2015

Kyle Begey
Arc Environmental
1311 Haubert Street
Baltimore, MD 21230

Reference: PSS Work Order(s) No: **15031910**
Project Name: Percontee
Project Location: Silver Spring, MD
Project ID.: 057-5

Dear Kyle Begey :

This report includes the analytical results from the analyses performed on the samples received under the project name referenced above and identified with the Phase Separation Science (PSS) Work Order(s) numbered **15031910**.

All work reported herein has been performed in accordance with current NELAP standards, referenced methodologies, PSS Standard Operating Procedures and the PSS Quality Assurance Manual unless otherwise noted in the Case Narrative Summary. PSS is limited in liability to the actual cost of the sample analysis done.

PSS reserves the right to return any unused samples, extracts or related solutions. Otherwise, the samples are scheduled for disposal, without any further notice, on April 23, 2015. This includes any samples that were received with a request to be held but lacked a specific hold period. It is your responsibility to provide a written request defining a specific disposal date if additional storage is required. Upon receipt, the request will be acknowledged by PSS, thus extending the storage period.

This report shall not be reproduced except in full, without the written approval of an authorized PSS representative. A copy of this report will be retained by PSS for at least 5 years, after which time it will be disposed of without further notice, unless prior arrangements have been made.

We thank you for selecting Phase Separation Science, Inc. to serve your analytical needs. If you have any questions concerning this report, do not hesitate to contact us at 410-747-8770 or info@phaseonline.com.

Sincerely,

Dan Prucnal
Laboratory Manager



Sample Summary

Client Name: Arc Environmental
Project Name: Percontee

Work Order Number(s): 15031910

Project ID: 057-5

The following samples were received under chain of custody by Phase Separation Science (PSS) on 03/19/2015 at 01:20 pm

Lab Sample Id	Sample Id	Matrix	Date/Time Collected
15031910-001	B10 0-2	SOIL	03/18/15 08:53
15031910-002	B10 4-6	SOIL	03/18/15 09:03
15031910-003	MW-4 0-2	SOIL	03/18/15 12:23
15031910-004	MW-4 4-6	SOIL	03/18/15 12:32

Please reference the Chain of Custody and Sample Receipt Checklist for specific container counts and preservatives. Any sample conditions not in compliance with sample acceptance criteria are described in Case Narrative Summary.

Notes:

1. The presence of a common laboratory contaminant such as methylene chloride may be considered a possible laboratory artifact. Where observed, appropriate consideration of data should be taken.
2. Unless otherwise noted in the case narrative, results are reported on a dry weight basis with the exception of pH, flashpoint, moisture, and paint filter test.
3. Drinking water samples collected for the purpose of compliance with SDWA may not be suitable for their intended use unless collected by a certified sampler [COMAR 26.08.05.07.C.2].
4. The analyses of 1,2-dibromo-3-chloropropane (DBCP) and 1,2-dibromoethane (EDB) by EPA 524.2 and calcium, magnesium, sodium and iron by EPA 200.8 are not currently promulgated for use in testing to meet the Safe Drinking Water Act and as such cannot be used for compliance purposes. The listings of the current promulgated methods for testing in compliance with the Safe Drinking Water Act can be found in the 40 CFR part 141.1, for the primary drinking water contaminants, and part 141.3, for the secondary drinking water contaminants.
5. Sample prepared under EPA 3550C with concentrations greater than 20 mg/Kg should employ the microtip extraction procedure if required to meet data quality objectives.
6. The analysis of acrolein by EPA 624 must be analyzed within three days of sampling unless pH is adjusted to 4-5 units [40 CFR part 136.3(e)].
7. Method 180.1, The Determination of Turbidity by Nephelometry, recommends samples over 40 NTU be diluted until the turbidity falls below 40 units. Routine samples over 40 NTU may not be diluted as long as the data quality objectives are not affected.
8. Alkalinity results analyzed by EPA 310.2 that are reported by dilution are estimated and are not in compliance with method requirements.

Standard Flags/Abbreviations:

- B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- C Results Pending Final Confirmation.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- Fail The result exceeds the regulatory level for Toxicity Characteristic (TCLP) as cited in 40 CFR 261.24 Table 1.
- J The target analyte was positively identified below the reporting limit but greater than the MDL.
- MDL This is the Laboratory Method Detection Limit which is equivalent to the Limit of Detection (LOD). The LOD is an estimate of the minimum amount of a substance that an analytical process can reliably detect. This value will remain constant across multiple similar instrumentation and among different analysts. An LOD is analyte and matrix specific.
- ND Not Detected at or above the reporting limit.
- RL PSS Reporting Limit.
- U Not detected.

Certifications:

NELAP Certifications: PA 68-03330, VA 460156
State Certifications: MD 179, WV 303
Regulated Soil Permit: P330-12-00268
NSWC USCG Accepted Laboratory
LDBE MWAA LD1997-0041-2015

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15031910

Arc Environmental, Baltimore, MD

March 26, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B10 0-2	Date/Time Sampled: 03/18/2015 08:53	PSS Sample ID: 15031910-001
Matrix: SOIL	Date/Time Received: 03/19/2015 13:20	% Solids: 87

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	mg/kg	2.5		1	1.3	03/23/15	03/25/15 16:00	1033
Arsenic	2.9	mg/kg	0.50		1	0.25	03/23/15	03/25/15 16:00	1033
Beryllium	ND	mg/kg	2.5		1	1.3	03/23/15	03/25/15 16:00	1033
Cadmium	ND	mg/kg	2.5		1	1.3	03/23/15	03/25/15 16:00	1033
Chromium	64	mg/kg	2.5		1	1.3	03/23/15	03/26/15 13:01	1033
Copper	25	mg/kg	2.5		1	1.3	03/23/15	03/25/15 16:00	1033
Lead	51	mg/kg	2.5		1	1.3	03/23/15	03/25/15 16:00	1033
Mercury	0.096	mg/kg	0.10	J	1	0.05	03/23/15	03/25/15 16:00	1033
Nickel	42	mg/kg	2.5		1	1.3	03/23/15	03/25/15 16:00	1033
Selenium	ND	mg/kg	2.5		1	1.3	03/23/15	03/25/15 16:00	1033
Silver	ND	mg/kg	2.5		1	1.3	03/23/15	03/25/15 16:00	1033
Thallium	0.25	mg/kg	0.50	J	1	0.25	03/23/15	03/25/15 16:00	1033
Zinc	53	mg/kg	10		1	5	03/23/15	03/25/15 16:00	1033

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: SW3550C

DF/HF - No. 2/diesel fuel and heavier fuel/oil patterns observed in sample.

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	27	mg/kg	11	DF	1	4.5	03/23/15	03/25/15 11:12	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	91	ug/kg	110	J	1	56	03/20/15	03/20/15 17:06	1035

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15031910

Arc Environmental, Baltimore, MD

March 26, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B10 0-2	Date/Time Sampled: 03/18/2015 08:53	PSS Sample ID: 15031910-001
Matrix: SOIL	Date/Time Received: 03/19/2015 13:20	% Solids: 87

Polychlorinated Biphenyls

Analytical Method: SW-846 8082 A

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
PCB-1016	ND	mg/kg	0.058		1	0.058	03/20/15	03/23/15 12:31	1029
PCB-1221	ND	mg/kg	0.058		1	0.058	03/20/15	03/23/15 12:31	1029
PCB-1232	ND	mg/kg	0.058		1	0.058	03/20/15	03/23/15 12:31	1029
PCB-1242	ND	mg/kg	0.058		1	0.058	03/20/15	03/23/15 12:31	1029
PCB-1248	ND	mg/kg	0.058		1	0.058	03/20/15	03/23/15 12:31	1029
PCB-1254	0.28	mg/kg	0.058		1	0.058	03/20/15	03/23/15 12:31	1029
PCB-1260	ND	mg/kg	0.058		1	0.058	03/20/15	03/23/15 12:31	1029

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	9.5	ug/kg	3.8		1	3.8	03/22/15	03/24/15 21:23	1055
Acenaphthylene	19	ug/kg	3.8		1	3.8	03/22/15	03/24/15 21:23	1055
Anthracene	50	ug/kg	3.8		1	3.8	03/22/15	03/24/15 21:23	1055
Benzo(a)anthracene	120	ug/kg	3.8		1	3.8	03/22/15	03/24/15 21:23	1055
Benzo(a)pyrene	120	ug/kg	3.8		1	3.8	03/22/15	03/24/15 21:23	1055
Benzo(b)fluoranthene	ND	ug/kg	3.8		1	3.8	03/22/15	03/24/15 21:23	1055
Benzo(g,h,i)perylene	74	ug/kg	3.8		1	3.8	03/22/15	03/24/15 21:23	1055
Benzo(k)fluoranthene	260	ug/kg	38		10	38	03/22/15	03/25/15 14:58	1055
Chrysene	120	ug/kg	3.8		1	3.8	03/22/15	03/24/15 21:23	1055
Dibenz(a,h)Anthracene	26	ug/kg	3.8		1	3.8	03/22/15	03/24/15 21:23	1055
Fluoranthene	180	ug/kg	38		10	38	03/22/15	03/25/15 14:58	1055
Fluorene	17	ug/kg	3.8		1	3.8	03/22/15	03/24/15 21:23	1055
Indeno(1,2,3-c,d)Pyrene	84	ug/kg	3.8		1	3.8	03/22/15	03/24/15 21:23	1055
2-Methylnaphthalene	ND	ug/kg	3.8		1	3.8	03/22/15	03/24/15 21:23	1055
Naphthalene	4.2	ug/kg	3.8		1	3.8	03/22/15	03/24/15 21:23	1055
Phenanthrene	110	ug/kg	3.8		1	3.8	03/22/15	03/24/15 21:23	1055
Pyrene	180	ug/kg	3.8		1	3.8	03/22/15	03/24/15 21:23	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15031910

Arc Environmental, Baltimore, MD

March 26, 2015

Project Name: Percontee
 Project Location: Silver Spring, MD
 Project ID: 057-5

Sample ID: B10 0-2 **Date/Time Sampled: 03/18/2015 08:53** **PSS Sample ID: 15031910-001**
Matrix: SOIL **Date/Time Received: 03/19/2015 13:20** **% Solids: 87**

TCL Semivolatile Organic Compounds w/o PAHs Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acetophenone	ND	ug/kg	190		1	95	03/24/15	03/26/15 13:38	1055
Biphenyl (Diphenyl)	ND	ug/kg	190		1	95	03/24/15	03/26/15 13:38	1055
Butyl benzyl phthalate	180	ug/kg	190	J	1	95	03/24/15	03/26/15 13:38	1055
bis(2-chloroethoxy) methane	ND	ug/kg	190		1	95	03/24/15	03/26/15 13:38	1055
bis(2-chloroethyl) ether	ND	ug/kg	190		1	95	03/24/15	03/26/15 13:38	1055
bis(2-chloroisopropyl) ether	ND	ug/kg	190		1	95	03/24/15	03/26/15 13:38	1055
bis(2-ethylhexyl) phthalate	ND	ug/kg	190		1	95	03/24/15	03/26/15 13:38	1055
4-Bromophenylphenyl ether	ND	ug/kg	190		1	95	03/24/15	03/26/15 13:38	1055
Di-n-butyl phthalate	ND	ug/kg	190		1	95	03/24/15	03/26/15 13:38	1055
Carbazole	ND	ug/kg	190		1	95	03/24/15	03/26/15 13:38	1055
4-Chloro-3-methylphenol	ND	ug/kg	190		1	95	03/24/15	03/26/15 13:38	1055
4-Chloroaniline	ND	ug/kg	190		1	190	03/24/15	03/26/15 13:38	1055
2-Chloronaphthalene	ND	ug/kg	190		1	95	03/24/15	03/26/15 13:38	1055
2-Chlorophenol	ND	ug/kg	190		1	95	03/24/15	03/26/15 13:38	1055
4-Chlorophenyl phenyl ether	ND	ug/kg	190		1	95	03/24/15	03/26/15 13:38	1055
Dibenzofuran	ND	ug/kg	190		1	95	03/24/15	03/26/15 13:38	1055
3,3-Dichlorobenzidine	ND	ug/kg	190		1	95	03/24/15	03/26/15 13:38	1055
2,4-Dichlorophenol	ND	ug/kg	190		1	95	03/24/15	03/26/15 13:38	1055
Diethyl phthalate	ND	ug/kg	190		1	95	03/24/15	03/26/15 13:38	1055
Dimethyl phthalate	ND	ug/kg	190		1	95	03/24/15	03/26/15 13:38	1055
2,4-Dimethylphenol	ND	ug/kg	190		1	95	03/24/15	03/26/15 13:38	1055
4,6-Dinitro-2-methyl phenol	ND	ug/kg	190		1	95	03/24/15	03/26/15 13:38	1055
2,4-Dinitrophenol	ND	ug/kg	380		1	190	03/24/15	03/26/15 13:38	1055
2,4-Dinitrotoluene	ND	ug/kg	190		1	95	03/24/15	03/26/15 13:38	1055
2,6-Dinitrotoluene	ND	ug/kg	190		1	95	03/24/15	03/26/15 13:38	1055
Hexachlorobenzene	ND	ug/kg	190		1	95	03/24/15	03/26/15 13:38	1055
Hexachlorobutadiene	ND	ug/kg	190		1	95	03/24/15	03/26/15 13:38	1055
Hexachlorocyclopentadiene	ND	ug/kg	190		1	95	03/24/15	03/26/15 13:38	1055
Hexachloroethane	ND	ug/kg	190		1	95	03/24/15	03/26/15 13:38	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15031910

Arc Environmental, Baltimore, MD

March 26, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B10 0-2	Date/Time Sampled: 03/18/2015 08:53	PSS Sample ID: 15031910-001
Matrix: SOIL	Date/Time Received: 03/19/2015 13:20	% Solids: 87

TCL Semivolatile Organic Compounds w/o PAHs Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Isophorone	ND	ug/kg	190		1	95	03/24/15	03/26/15 13:38	1055
2-Methylphenol	ND	ug/kg	190		1	95	03/24/15	03/26/15 13:38	1055
3&4-Methylphenol	ND	ug/kg	190		1	95	03/24/15	03/26/15 13:38	1055
4-Nitroaniline	ND	ug/kg	190		1	190	03/24/15	03/26/15 13:38	1055
3-Nitroaniline	ND	ug/kg	190		1	95	03/24/15	03/26/15 13:38	1055
2-Nitroaniline	ND	ug/kg	190		1	95	03/24/15	03/26/15 13:38	1055
Nitrobenzene	ND	ug/kg	190		1	95	03/24/15	03/26/15 13:38	1055
2-Nitrophenol	ND	ug/kg	190		1	95	03/24/15	03/26/15 13:38	1055
4-Nitrophenol	ND	ug/kg	190		1	95	03/24/15	03/26/15 13:38	1055
N-Nitrosodi-n-Propylamine	ND	ug/kg	76		1	76	03/24/15	03/26/15 13:38	1055
N-Nitrosodiphenylamine	ND	ug/kg	190		1	95	03/24/15	03/26/15 13:38	1055
Di-n-octyl phthalate	ND	ug/kg	190		1	190	03/24/15	03/26/15 13:38	1055
Pentachlorophenol	ND	ug/kg	190		1	190	03/24/15	03/26/15 13:38	1055
Phenol	ND	ug/kg	190		1	95	03/24/15	03/26/15 13:38	1055
Atrazine	ND	ug/kg	190		1	95	03/24/15	03/26/15 13:38	1055
Pyridine	ND	ug/kg	190		1	95	03/24/15	03/26/15 13:38	1055
Caprolactam	ND	ug/kg	190		1	95	03/24/15	03/26/15 13:38	1055
2,4,6-Trichlorophenol	ND	ug/kg	190		1	95	03/24/15	03/26/15 13:38	1055
2,4,5-Trichlorophenol	ND	ug/kg	190		1	95	03/24/15	03/26/15 13:38	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15031910

Arc Environmental, Baltimore, MD

March 26, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B10 4-6	Date/Time Sampled: 03/18/2015 09:03	PSS Sample ID: 15031910-002
Matrix: SOIL	Date/Time Received: 03/19/2015 13:20	% Solids: 86

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	mg/kg	2.8		1	1.4	03/23/15	03/25/15 16:30	1033
Arsenic	3.4	mg/kg	0.57		1	0.28	03/23/15	03/25/15 16:30	1033
Beryllium	ND	mg/kg	2.8		1	1.4	03/23/15	03/25/15 16:30	1033
Cadmium	ND	mg/kg	2.8		1	1.4	03/23/15	03/25/15 16:30	1033
Chromium	39	mg/kg	2.8		1	1.4	03/23/15	03/25/15 16:30	1033
Copper	22	mg/kg	2.8		1	1.4	03/23/15	03/25/15 16:30	1033
Lead	29	mg/kg	2.8		1	1.4	03/23/15	03/25/15 16:30	1033
Mercury	0.11	mg/kg	0.11	J	1	0.057	03/23/15	03/25/15 16:30	1033
Nickel	27	mg/kg	2.8		1	1.4	03/23/15	03/25/15 16:30	1033
Selenium	ND	mg/kg	2.8		1	1.4	03/23/15	03/25/15 16:30	1033
Silver	ND	mg/kg	2.8		1	1.4	03/23/15	03/25/15 16:30	1033
Thallium	ND	mg/kg	0.57		1	0.28	03/23/15	03/25/15 16:30	1033
Zinc	53	mg/kg	11		1	5.7	03/23/15	03/25/15 16:30	1033

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: SW3550C

DF/HF - No. 2/diesel fuel and heavier fuel/oil patterns observed in sample.

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	30	mg/kg	12	DF	1	4.6	03/23/15	03/25/15 10:49	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	69	ug/kg	110	J	1	57	03/20/15	03/20/15 17:35	1035

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CERTIFICATE OF ANALYSIS

No: 15031910

Arc Environmental, Baltimore, MD

March 26, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B10 4-6	Date/Time Sampled: 03/18/2015 09:03	PSS Sample ID: 15031910-002
Matrix: SOIL	Date/Time Received: 03/19/2015 13:20	% Solids: 86

Polychlorinated Biphenyls

Analytical Method: SW-846 8082 A

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
PCB-1016	ND	mg/kg	0.058		1	0.058	03/20/15	03/23/15 13:06	1029
PCB-1221	ND	mg/kg	0.058		1	0.058	03/20/15	03/23/15 13:06	1029
PCB-1232	ND	mg/kg	0.058		1	0.058	03/20/15	03/23/15 13:06	1029
PCB-1242	ND	mg/kg	0.058		1	0.058	03/20/15	03/23/15 13:06	1029
PCB-1248	ND	mg/kg	0.058		1	0.058	03/20/15	03/23/15 13:06	1029
PCB-1254	ND	mg/kg	0.058		1	0.058	03/20/15	03/23/15 13:06	1029
PCB-1260	ND	mg/kg	0.058		1	0.058	03/20/15	03/23/15 13:06	1029

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CERTIFICATE OF ANALYSIS

No: 15031910

Arc Environmental, Baltimore, MD

March 26, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B10 4-6	Date/Time Sampled: 03/18/2015 09:03	PSS Sample ID: 15031910-002
Matrix: SOIL	Date/Time Received: 03/19/2015 13:20	% Solids: 86

TCL Volatile Organic Compounds
Prep Method SW5030.

Analytical Method: SW-846 8260 B

Preparation Method: 5035A

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Dichlorodifluoromethane	ND	ug/kg	5.6		1	2.8	03/21/15	03/21/15 14:30	1011
Chloromethane	ND	ug/kg	5.6		1	2.8	03/21/15	03/21/15 14:30	1011
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	ug/kg	5.6		1	2.8	03/21/15	03/21/15 14:30	1011
Vinyl Chloride	ND	ug/kg	5.6		1	2.8	03/21/15	03/21/15 14:30	1011
Bromomethane	ND	ug/kg	5.6		1	2.8	03/21/15	03/21/15 14:30	1011
Chloroethane	ND	ug/kg	5.6		1	2.8	03/21/15	03/21/15 14:30	1011
Acetone	48	ug/kg	22		1	11	03/21/15	03/21/15 14:30	1011
Cyclohexane	ND	ug/kg	22		1	11	03/21/15	03/21/15 14:30	1011
Trichlorofluoromethane	ND	ug/kg	5.6		1	2.8	03/21/15	03/21/15 14:30	1011
1,1-Dichloroethene	ND	ug/kg	5.6		1	2.8	03/21/15	03/21/15 14:30	1011
Methylene Chloride	ND	ug/kg	5.6		1	2.8	03/21/15	03/21/15 14:30	1011
trans-1,2-Dichloroethene	ND	ug/kg	5.6		1	2.8	03/21/15	03/21/15 14:30	1011
Methyl-t-butyl ether	ND	ug/kg	5.6		1	2.8	03/21/15	03/21/15 14:30	1011
1,1-Dichloroethane	ND	ug/kg	5.6		1	2.8	03/21/15	03/21/15 14:30	1011
2-Butanone	ND	ug/kg	22		1	11	03/21/15	03/21/15 14:30	1011
cis-1,2-Dichloroethene	ND	ug/kg	5.6		1	2.8	03/21/15	03/21/15 14:30	1011
Bromochloromethane	ND	ug/kg	5.6		1	2.8	03/21/15	03/21/15 14:30	1011
Chloroform	ND	ug/kg	5.6		1	2.8	03/21/15	03/21/15 14:30	1011
1,1,1-Trichloroethane	ND	ug/kg	5.6		1	2.8	03/21/15	03/21/15 14:30	1011
1,2-Dichloroethane	ND	ug/kg	5.6		1	2.8	03/21/15	03/21/15 14:30	1011
Carbon Tetrachloride	ND	ug/kg	5.6		1	2.8	03/21/15	03/21/15 14:30	1011
Benzene	ND	ug/kg	5.6		1	2.8	03/21/15	03/21/15 14:30	1011
1,2-Dichloropropane	ND	ug/kg	5.6		1	2.8	03/21/15	03/21/15 14:30	1011
Carbon Disulfide	ND	ug/kg	11		1	5.6	03/21/15	03/21/15 14:30	1011
Methylcyclohexane	ND	ug/kg	22		1	11	03/21/15	03/21/15 14:30	1011
Trichloroethene	ND	ug/kg	5.6		1	2.8	03/21/15	03/21/15 14:30	1011
Methyl Acetate	ND	ug/kg	22		1	11	03/21/15	03/21/15 14:30	1011
Bromodichloromethane	ND	ug/kg	5.6		1	2.8	03/21/15	03/21/15 14:30	1011
cis-1,3-Dichloropropene	ND	ug/kg	5.6		1	2.8	03/21/15	03/21/15 14:30	1011
4-Methyl-2-Pentanone	ND	ug/kg	22		1	11	03/21/15	03/21/15 14:30	1011

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15031910

Arc Environmental, Baltimore, MD

March 26, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B10 4-6	Date/Time Sampled: 03/18/2015 09:03	PSS Sample ID: 15031910-002
Matrix: SOIL	Date/Time Received: 03/19/2015 13:20	% Solids: 86

TCL Volatile Organic Compounds
Prep Method SW5030.

Analytical Method: SW-846 8260 B

Preparation Method: 5035A

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
trans-1,3-Dichloropropene	ND	ug/kg	5.6		1	2.8	03/21/15	03/21/15 14:30	1011
1,1,2-Trichloroethane	ND	ug/kg	5.6		1	2.8	03/21/15	03/21/15 14:30	1011
Toluene	ND	ug/kg	5.6		1	2.8	03/21/15	03/21/15 14:30	1011
2-Hexanone	ND	ug/kg	22		1	11	03/21/15	03/21/15 14:30	1011
1,2-Dibromoethane	ND	ug/kg	5.6		1	2.8	03/21/15	03/21/15 14:30	1011
Dibromochloromethane	ND	ug/kg	5.6		1	2.8	03/21/15	03/21/15 14:30	1011
Bromoform	ND	ug/kg	5.6		1	2.8	03/21/15	03/21/15 14:30	1011
Tetrachloroethene	ND	ug/kg	5.6		1	2.8	03/21/15	03/21/15 14:30	1011
Chlorobenzene	ND	ug/kg	5.6		1	2.8	03/21/15	03/21/15 14:30	1011
Ethylbenzene	ND	ug/kg	5.6		1	2.8	03/21/15	03/21/15 14:30	1011
m,p-Xylenes	ND	ug/kg	11		1	5.6	03/21/15	03/21/15 14:30	1011
Styrene	ND	ug/kg	5.6		1	2.8	03/21/15	03/21/15 14:30	1011
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.6		1	2.8	03/21/15	03/21/15 14:30	1011
o-Xylene	ND	ug/kg	5.6		1	2.8	03/21/15	03/21/15 14:30	1011
Isopropylbenzene	ND	ug/kg	5.6		1	2.8	03/21/15	03/21/15 14:30	1011
1,3-Dichlorobenzene	ND	ug/kg	5.6		1	2.8	03/21/15	03/21/15 14:30	1011
1,4-Dichlorobenzene	ND	ug/kg	5.6		1	2.8	03/21/15	03/21/15 14:30	1011
1,2-Dichlorobenzene	ND	ug/kg	5.6		1	2.8	03/21/15	03/21/15 14:30	1011
1,2-Dibromo-3-Chloropropane	ND	ug/kg	45		1	22	03/21/15	03/21/15 14:30	1011
1,2,4-Trichlorobenzene	ND	ug/kg	5.6		1	2.8	03/21/15	03/21/15 14:30	1011
1,2,3-Trichlorobenzene	ND	ug/kg	5.6		1	2.8	03/21/15	03/21/15 14:30	1011

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15031910

Arc Environmental, Baltimore, MD

March 26, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B10 4-6	Date/Time Sampled: 03/18/2015 09:03	PSS Sample ID: 15031910-002
Matrix: SOIL	Date/Time Received: 03/19/2015 13:20	% Solids: 86

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	17	ug/kg	3.9		1	3.9	03/22/15	03/24/15 22:12	1055
Acenaphthylene	9.7	ug/kg	3.9		1	3.9	03/22/15	03/24/15 22:12	1055
Anthracene	38	ug/kg	3.9		1	3.9	03/22/15	03/24/15 22:12	1055
Benzo(a)anthracene	73	ug/kg	3.9		1	3.9	03/22/15	03/24/15 22:12	1055
Benzo(a)pyrene	60	ug/kg	3.9		1	3.9	03/22/15	03/24/15 22:12	1055
Benzo(b)fluoranthene	ND	ug/kg	3.9		1	3.9	03/22/15	03/24/15 22:12	1055
Benzo(g,h,i)perylene	36	ug/kg	3.9		1	3.9	03/22/15	03/24/15 22:12	1055
Benzo(k)fluoranthene	130	ug/kg	3.9		1	3.9	03/22/15	03/24/15 22:12	1055
Chrysene	93	ug/kg	3.9		1	3.9	03/22/15	03/24/15 22:12	1055
Dibenz(a,h)Anthracene	15	ug/kg	3.9		1	3.9	03/22/15	03/24/15 22:12	1055
Fluoranthene	170	ug/kg	39		10	39	03/22/15	03/25/15 15:22	1055
Fluorene	19	ug/kg	3.9		1	3.9	03/22/15	03/24/15 22:12	1055
Indeno(1,2,3-c,d)Pyrene	39	ug/kg	3.9		1	3.9	03/22/15	03/24/15 22:12	1055
2-Methylnaphthalene	12	ug/kg	3.9		1	3.9	03/22/15	03/24/15 22:12	1055
Naphthalene	16	ug/kg	3.9		1	3.9	03/22/15	03/24/15 22:12	1055
Phenanthrene	ND	ug/kg	3.9		1	3.9	03/22/15	03/24/15 22:12	1055
Pyrene	160	ug/kg	3.9		1	3.9	03/22/15	03/24/15 22:12	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15031910

Arc Environmental, Baltimore, MD

March 26, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B10 4-6	Date/Time Sampled: 03/18/2015 09:03	PSS Sample ID: 15031910-002
Matrix: SOIL	Date/Time Received: 03/19/2015 13:20	% Solids: 86

TCL Semivolatile Organic Compounds w/o PAHs Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acetophenone	ND	ug/kg	190		1	96	03/24/15	03/26/15 14:10	1055
Biphenyl (Diphenyl)	ND	ug/kg	190		1	96	03/24/15	03/26/15 14:10	1055
Butyl benzyl phthalate	ND	ug/kg	190		1	96	03/24/15	03/26/15 14:10	1055
bis(2-chloroethoxy) methane	ND	ug/kg	190		1	96	03/24/15	03/26/15 14:10	1055
bis(2-chloroethyl) ether	ND	ug/kg	190		1	96	03/24/15	03/26/15 14:10	1055
bis(2-chloroisopropyl) ether	ND	ug/kg	190		1	96	03/24/15	03/26/15 14:10	1055
bis(2-ethylhexyl) phthalate	ND	ug/kg	190		1	96	03/24/15	03/26/15 14:10	1055
4-Bromophenylphenyl ether	ND	ug/kg	190		1	96	03/24/15	03/26/15 14:10	1055
Di-n-butyl phthalate	ND	ug/kg	190		1	96	03/24/15	03/26/15 14:10	1055
Carbazole	ND	ug/kg	190		1	96	03/24/15	03/26/15 14:10	1055
4-Chloro-3-methylphenol	ND	ug/kg	190		1	96	03/24/15	03/26/15 14:10	1055
4-Chloroaniline	ND	ug/kg	190		1	190	03/24/15	03/26/15 14:10	1055
2-Chloronaphthalene	ND	ug/kg	190		1	96	03/24/15	03/26/15 14:10	1055
2-Chlorophenol	ND	ug/kg	190		1	96	03/24/15	03/26/15 14:10	1055
4-Chlorophenyl phenyl ether	ND	ug/kg	190		1	96	03/24/15	03/26/15 14:10	1055
Dibenzofuran	ND	ug/kg	190		1	96	03/24/15	03/26/15 14:10	1055
3,3-Dichlorobenzidine	ND	ug/kg	190		1	96	03/24/15	03/26/15 14:10	1055
2,4-Dichlorophenol	ND	ug/kg	190		1	96	03/24/15	03/26/15 14:10	1055
Diethyl phthalate	ND	ug/kg	190		1	96	03/24/15	03/26/15 14:10	1055
Dimethyl phthalate	ND	ug/kg	190		1	96	03/24/15	03/26/15 14:10	1055
2,4-Dimethylphenol	ND	ug/kg	190		1	96	03/24/15	03/26/15 14:10	1055
4,6-Dinitro-2-methyl phenol	ND	ug/kg	190		1	96	03/24/15	03/26/15 14:10	1055
2,4-Dinitrophenol	ND	ug/kg	380		1	190	03/24/15	03/26/15 14:10	1055
2,4-Dinitrotoluene	ND	ug/kg	190		1	96	03/24/15	03/26/15 14:10	1055
2,6-Dinitrotoluene	ND	ug/kg	190		1	96	03/24/15	03/26/15 14:10	1055
Hexachlorobenzene	ND	ug/kg	190		1	96	03/24/15	03/26/15 14:10	1055
Hexachlorobutadiene	ND	ug/kg	190		1	96	03/24/15	03/26/15 14:10	1055
Hexachlorocyclopentadiene	ND	ug/kg	190		1	96	03/24/15	03/26/15 14:10	1055
Hexachloroethane	ND	ug/kg	190		1	96	03/24/15	03/26/15 14:10	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15031910

Arc Environmental, Baltimore, MD

March 26, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B10 4-6	Date/Time Sampled: 03/18/2015 09:03	PSS Sample ID: 15031910-002
Matrix: SOIL	Date/Time Received: 03/19/2015 13:20	% Solids: 86

TCL Semivolatile Organic Compounds w/o PAHs Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Isophorone	ND	ug/kg	190		1	96	03/24/15	03/26/15 14:10	1055
2-Methylphenol	ND	ug/kg	190		1	96	03/24/15	03/26/15 14:10	1055
3&4-Methylphenol	ND	ug/kg	190		1	96	03/24/15	03/26/15 14:10	1055
4-Nitroaniline	ND	ug/kg	190		1	190	03/24/15	03/26/15 14:10	1055
3-Nitroaniline	ND	ug/kg	190		1	96	03/24/15	03/26/15 14:10	1055
2-Nitroaniline	ND	ug/kg	190		1	96	03/24/15	03/26/15 14:10	1055
Nitrobenzene	ND	ug/kg	190		1	96	03/24/15	03/26/15 14:10	1055
2-Nitrophenol	ND	ug/kg	190		1	96	03/24/15	03/26/15 14:10	1055
4-Nitrophenol	ND	ug/kg	190		1	96	03/24/15	03/26/15 14:10	1055
N-Nitrosodi-n-Propylamine	ND	ug/kg	77		1	77	03/24/15	03/26/15 14:10	1055
N-Nitrosodiphenylamine	ND	ug/kg	190		1	96	03/24/15	03/26/15 14:10	1055
Di-n-octyl phthalate	ND	ug/kg	190		1	190	03/24/15	03/26/15 14:10	1055
Pentachlorophenol	ND	ug/kg	190		1	190	03/24/15	03/26/15 14:10	1055
Phenol	ND	ug/kg	190		1	96	03/24/15	03/26/15 14:10	1055
Atrazine	ND	ug/kg	190		1	96	03/24/15	03/26/15 14:10	1055
Pyridine	ND	ug/kg	190		1	96	03/24/15	03/26/15 14:10	1055
Caprolactam	ND	ug/kg	190		1	96	03/24/15	03/26/15 14:10	1055
2,4,6-Trichlorophenol	ND	ug/kg	190		1	96	03/24/15	03/26/15 14:10	1055
2,4,5-Trichlorophenol	ND	ug/kg	190		1	96	03/24/15	03/26/15 14:10	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15031910

Arc Environmental, Baltimore, MD

March 26, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: MW-4 0-2	Date/Time Sampled: 03/18/2015 12:23	PSS Sample ID: 15031910-003
Matrix: SOIL	Date/Time Received: 03/19/2015 13:20	% Solids: 84

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	mg/kg	2.2		1	1.1	03/23/15	03/25/15 16:36	1033
Arsenic	4.2	mg/kg	0.43		1	0.22	03/23/15	03/25/15 16:36	1033
Beryllium	ND	mg/kg	2.2		1	1.1	03/23/15	03/25/15 16:36	1033
Cadmium	ND	mg/kg	2.2		1	1.1	03/23/15	03/25/15 16:36	1033
Chromium	37	mg/kg	2.2		1	1.1	03/23/15	03/25/15 16:36	1033
Copper	28	mg/kg	2.2		1	1.1	03/23/15	03/25/15 16:36	1033
Lead	21	mg/kg	2.2		1	1.1	03/23/15	03/25/15 16:36	1033
Mercury	0.058	mg/kg	0.086	J	1	0.043	03/23/15	03/25/15 16:36	1033
Nickel	22	mg/kg	2.2		1	1.1	03/23/15	03/25/15 16:36	1033
Selenium	ND	mg/kg	2.2		1	1.1	03/23/15	03/25/15 16:36	1033
Silver	ND	mg/kg	2.2		1	1.1	03/23/15	03/25/15 16:36	1033
Thallium	0.22	mg/kg	0.43	J	1	0.22	03/23/15	03/25/15 16:36	1033
Zinc	68	mg/kg	8.6		1	4.3	03/23/15	03/25/15 16:36	1033

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: SW3550C

DF/HF - No. 2/diesel fuel and heavier fuel/oil patterns observed in sample.

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	28	mg/kg	12	DF	1	4.8	03/23/15	03/24/15 16:19	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/kg			1		03/20/15	03/20/15 18:04	1035

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15031910

Arc Environmental, Baltimore, MD

March 26, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: MW-4 0-2	Date/Time Sampled: 03/18/2015 12:23	PSS Sample ID: 15031910-003
Matrix: SOIL	Date/Time Received: 03/19/2015 13:20	% Solids: 84

Polychlorinated Biphenyls

Analytical Method: SW-846 8082 A

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
PCB-1016	ND	mg/kg	0.059		1	0.059	03/20/15	03/23/15 13:35	1029
PCB-1221	ND	mg/kg	0.059		1	0.059	03/20/15	03/23/15 13:35	1029
PCB-1232	ND	mg/kg	0.059		1	0.059	03/20/15	03/23/15 13:35	1029
PCB-1242	ND	mg/kg	0.059		1	0.059	03/20/15	03/23/15 13:35	1029
PCB-1248	ND	mg/kg	0.059		1	0.059	03/20/15	03/23/15 13:35	1029
PCB-1254	ND	mg/kg	0.059		1	0.059	03/20/15	03/23/15 13:35	1029
PCB-1260	ND	mg/kg	0.059		1	0.059	03/20/15	03/23/15 13:35	1029

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/kg	4.0		1	4	03/22/15	03/24/15 23:00	1055
Acenaphthylene	6.0	ug/kg	4.0		1	4	03/22/15	03/24/15 23:00	1055
Anthracene	17	ug/kg	4.0		1	4	03/22/15	03/24/15 23:00	1055
Benzo(a)anthracene	47	ug/kg	4.0		1	4	03/22/15	03/24/15 23:00	1055
Benzo(a)pyrene	53	ug/kg	4.0		1	4	03/22/15	03/24/15 23:00	1055
Benzo(b)fluoranthene	ND	ug/kg	4.0		1	4	03/22/15	03/24/15 23:00	1055
Benzo(g,h,i)perylene	34	ug/kg	4.0		1	4	03/22/15	03/24/15 23:00	1055
Benzo(k)fluoranthene	130	ug/kg	4.0		1	4	03/22/15	03/24/15 23:00	1055
Chrysene	71	ug/kg	4.0		1	4	03/22/15	03/24/15 23:00	1055
Dibenz(a,h)Anthracene	16	ug/kg	4.0		1	4	03/22/15	03/24/15 23:00	1055
Fluoranthene	100	ug/kg	4.0		1	4	03/22/15	03/24/15 23:00	1055
Fluorene	4.4	ug/kg	4.0		1	4	03/22/15	03/24/15 23:00	1055
Indeno(1,2,3-c,d)Pyrene	37	ug/kg	4.0		1	4	03/22/15	03/24/15 23:00	1055
2-Methylnaphthalene	ND	ug/kg	4.0		1	4	03/22/15	03/24/15 23:00	1055
Naphthalene	ND	ug/kg	4.0		1	4	03/22/15	03/24/15 23:00	1055
Phenanthrene	47	ug/kg	4.0		1	4	03/22/15	03/24/15 23:00	1055
Pyrene	91	ug/kg	4.0		1	4	03/22/15	03/24/15 23:00	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15031910

Arc Environmental, Baltimore, MD

March 26, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: MW-4 4-6	Date/Time Sampled: 03/18/2015 12:32	PSS Sample ID: 15031910-004
Matrix: SOIL	Date/Time Received: 03/19/2015 13:20	% Solids: 87

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	mg/kg	2.3		1	1.1	03/23/15	03/25/15 17:07	1033
Arsenic	2.9	mg/kg	0.46		1	0.23	03/23/15	03/25/15 17:07	1033
Beryllium	1.2	mg/kg	2.3	J	1	1.1	03/23/15	03/25/15 17:07	1033
Cadmium	ND	mg/kg	2.3		1	1.1	03/23/15	03/25/15 17:07	1033
Chromium	44	mg/kg	2.3		1	1.1	03/23/15	03/25/15 17:07	1033
Copper	26	mg/kg	2.3		1	1.1	03/23/15	03/25/15 17:07	1033
Lead	22	mg/kg	2.3		1	1.1	03/23/15	03/26/15 13:07	1033
Mercury	0.057	mg/kg	0.092	J	1	0.046	03/23/15	03/25/15 17:07	1033
Nickel	24	mg/kg	2.3		1	1.1	03/23/15	03/25/15 17:07	1033
Selenium	ND	mg/kg	2.3		1	1.1	03/23/15	03/25/15 17:07	1033
Silver	ND	mg/kg	2.3		1	1.1	03/23/15	03/26/15 13:07	1033
Thallium	0.32	mg/kg	0.46	J	1	0.23	03/23/15	03/25/15 17:07	1033
Zinc	61	mg/kg	9.2		1	4.6	03/23/15	03/25/15 17:07	1033

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: SW3550C

DF/HF - No. 2/diesel fuel and heavier fuel/oil patterns observed in sample.

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	29	mg/kg	11	DF	1	4.6	03/23/15	03/24/15 02:26	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/kg	110		1	56	03/20/15	03/20/15 18:33	1035

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 BALTIMORE, MD 21228
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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15031910

Arc Environmental, Baltimore, MD

March 26, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: MW-4 4-6	Date/Time Sampled: 03/18/2015 12:32	PSS Sample ID: 15031910-004
Matrix: SOIL	Date/Time Received: 03/19/2015 13:20	% Solids: 87

Polychlorinated Biphenyls

Analytical Method: SW-846 8082 A

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
PCB-1016	ND	mg/kg	0.057		1	0.057	03/20/15	03/23/15 14:04	1029
PCB-1221	ND	mg/kg	0.057		1	0.057	03/20/15	03/23/15 14:04	1029
PCB-1232	ND	mg/kg	0.057		1	0.057	03/20/15	03/23/15 14:04	1029
PCB-1242	ND	mg/kg	0.057		1	0.057	03/20/15	03/23/15 14:04	1029
PCB-1248	ND	mg/kg	0.057		1	0.057	03/20/15	03/23/15 14:04	1029
PCB-1254	ND	mg/kg	0.057		1	0.057	03/20/15	03/23/15 14:04	1029
PCB-1260	ND	mg/kg	0.057		1	0.057	03/20/15	03/23/15 14:04	1029

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	450	ug/kg	76		20	76	03/22/15	03/25/15 16:11	1055
Acenaphthylene	13	ug/kg	3.8		1	3.8	03/22/15	03/24/15 23:49	1055
Anthracene	ND	ug/kg	3.8		1	3.8	03/22/15	03/24/15 23:49	1055
Benzo(a)anthracene	980	ug/kg	76		20	76	03/22/15	03/25/15 16:11	1055
Benzo(a)pyrene	840	ug/kg	76		20	76	03/22/15	03/25/15 16:11	1055
Benzo(b)fluoranthene	7.9	ug/kg	3.8		1	3.8	03/22/15	03/24/15 23:49	1055
Benzo(g,h,i)perylene	530	ug/kg	76		20	76	03/22/15	03/25/15 16:11	1055
Benzo(k)fluoranthene	ND	ug/kg	3.8		1	3.8	03/22/15	03/24/15 23:49	1055
Chrysene	970	ug/kg	76		20	76	03/22/15	03/25/15 16:11	1055
Dibenz(a,h)Anthracene	260	ug/kg	76		20	76	03/22/15	03/25/15 16:11	1055
Fluoranthene	ND	ug/kg	3.8		1	3.8	03/22/15	03/24/15 23:49	1055
Fluorene	360	ug/kg	76		20	76	03/22/15	03/25/15 16:11	1055
Indeno(1,2,3-c,d)Pyrene	620	ug/kg	76		20	76	03/22/15	03/25/15 16:11	1055
2-Methylnaphthalene	35	ug/kg	3.8		1	3.8	03/22/15	03/24/15 23:49	1055
Naphthalene	94	ug/kg	3.8		1	3.8	03/22/15	03/24/15 23:49	1055
Phenanthrene	ND	ug/kg	3.8		1	3.8	03/22/15	03/24/15 23:49	1055
Pyrene	2,000	ug/kg	76		20	76	03/22/15	03/25/15 16:11	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15031910

Arc Environmental, Baltimore, MD

March 26, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: MW-4 4-6	Date/Time Sampled: 03/18/2015 12:32	PSS Sample ID: 15031910-004
Matrix: SOIL	Date/Time Received: 03/19/2015 13:20	% Solids: 87

TCL Semivolatile Organic Compounds w/o PAHs Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acetophenone	ND	ug/kg	190		1	96	03/24/15	03/26/15 15:16	1055
Biphenyl (Diphenyl)	ND	ug/kg	190		1	96	03/24/15	03/26/15 15:16	1055
Butyl benzyl phthalate	ND	ug/kg	190		1	96	03/24/15	03/26/15 15:16	1055
bis(2-chloroethoxy) methane	ND	ug/kg	190		1	96	03/24/15	03/26/15 15:16	1055
bis(2-chloroethyl) ether	ND	ug/kg	190		1	96	03/24/15	03/26/15 15:16	1055
bis(2-chloroisopropyl) ether	ND	ug/kg	190		1	96	03/24/15	03/26/15 15:16	1055
bis(2-ethylhexyl) phthalate	ND	ug/kg	190		1	96	03/24/15	03/26/15 15:16	1055
4-Bromophenylphenyl ether	ND	ug/kg	190		1	96	03/24/15	03/26/15 15:16	1055
Di-n-butyl phthalate	ND	ug/kg	190		1	96	03/24/15	03/26/15 15:16	1055
Carbazole	110	ug/kg	190	J	1	96	03/24/15	03/26/15 15:16	1055
4-Chloro-3-methylphenol	ND	ug/kg	190		1	96	03/24/15	03/26/15 15:16	1055
4-Chloroaniline	ND	ug/kg	190		1	190	03/24/15	03/26/15 15:16	1055
2-Chloronaphthalene	ND	ug/kg	190		1	96	03/24/15	03/26/15 15:16	1055
2-Chlorophenol	ND	ug/kg	190		1	96	03/24/15	03/26/15 15:16	1055
4-Chlorophenyl phenyl ether	ND	ug/kg	190		1	96	03/24/15	03/26/15 15:16	1055
Dibenzofuran	ND	ug/kg	190		1	96	03/24/15	03/26/15 15:16	1055
3,3-Dichlorobenzidine	ND	ug/kg	190		1	96	03/24/15	03/26/15 15:16	1055
2,4-Dichlorophenol	ND	ug/kg	190		1	96	03/24/15	03/26/15 15:16	1055
Diethyl phthalate	ND	ug/kg	190		1	96	03/24/15	03/26/15 15:16	1055
Dimethyl phthalate	ND	ug/kg	190		1	96	03/24/15	03/26/15 15:16	1055
2,4-Dimethylphenol	ND	ug/kg	190		1	96	03/24/15	03/26/15 15:16	1055
4,6-Dinitro-2-methyl phenol	ND	ug/kg	190		1	96	03/24/15	03/26/15 15:16	1055
2,4-Dinitrophenol	ND	ug/kg	380		1	190	03/24/15	03/26/15 15:16	1055
2,4-Dinitrotoluene	ND	ug/kg	190		1	96	03/24/15	03/26/15 15:16	1055
2,6-Dinitrotoluene	ND	ug/kg	190		1	96	03/24/15	03/26/15 15:16	1055
Hexachlorobenzene	ND	ug/kg	190		1	96	03/24/15	03/26/15 15:16	1055
Hexachlorobutadiene	ND	ug/kg	190		1	96	03/24/15	03/26/15 15:16	1055
Hexachlorocyclopentadiene	ND	ug/kg	190		1	96	03/24/15	03/26/15 15:16	1055
Hexachloroethane	ND	ug/kg	190		1	96	03/24/15	03/26/15 15:16	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15031910

Arc Environmental, Baltimore, MD

March 26, 2015

Project Name: Percontee
 Project Location: Silver Spring, MD
 Project ID: 057-5

Sample ID: MW-4 4-6	Date/Time Sampled: 03/18/2015 12:32	PSS Sample ID: 15031910-004
Matrix: SOIL	Date/Time Received: 03/19/2015 13:20	% Solids: 87

TCL Semivolatile Organic Compounds w/o PAHs Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Isophorone	ND	ug/kg	190		1	96	03/24/15	03/26/15 15:16	1055
2-Methylphenol	ND	ug/kg	190		1	96	03/24/15	03/26/15 15:16	1055
3&4-Methylphenol	ND	ug/kg	190		1	96	03/24/15	03/26/15 15:16	1055
4-Nitroaniline	ND	ug/kg	190		1	190	03/24/15	03/26/15 15:16	1055
3-Nitroaniline	ND	ug/kg	190		1	96	03/24/15	03/26/15 15:16	1055
2-Nitroaniline	ND	ug/kg	190		1	96	03/24/15	03/26/15 15:16	1055
Nitrobenzene	ND	ug/kg	190		1	96	03/24/15	03/26/15 15:16	1055
2-Nitrophenol	ND	ug/kg	190		1	96	03/24/15	03/26/15 15:16	1055
4-Nitrophenol	ND	ug/kg	190		1	96	03/24/15	03/26/15 15:16	1055
N-Nitrosodi-n-Propylamine	ND	ug/kg	77		1	77	03/24/15	03/26/15 15:16	1055
N-Nitrosodiphenylamine	ND	ug/kg	190		1	96	03/24/15	03/26/15 15:16	1055
Di-n-octyl phthalate	ND	ug/kg	190		1	190	03/24/15	03/26/15 15:16	1055
Pentachlorophenol	ND	ug/kg	190		1	190	03/24/15	03/26/15 15:16	1055
Phenol	ND	ug/kg	190		1	96	03/24/15	03/26/15 15:16	1055
Atrazine	ND	ug/kg	190		1	96	03/24/15	03/26/15 15:16	1055
Pyridine	ND	ug/kg	190		1	96	03/24/15	03/26/15 15:16	1055
Caprolactam	ND	ug/kg	190		1	96	03/24/15	03/26/15 15:16	1055
2,4,6-Trichlorophenol	ND	ug/kg	190		1	96	03/24/15	03/26/15 15:16	1055
2,4,5-Trichlorophenol	ND	ug/kg	190		1	96	03/24/15	03/26/15 15:16	1055



EMSL Analytical, Inc.

10768 Baltimore Avenue, Beltsville, MD 20705

Phone/Fax: (301) 937-5700 / (301) 937-5701

<http://www.EMSL.com>

beltsvillelab@emsl.com

EMSL Order: 191503160

CustomerID: PHAS52

CustomerPO:

ProjectID:

Attn: **Simon Crisp**
Phase Separation Science, Inc.
6630 Baltimore National Pike
Route 40 West
Baltimore, MD 21228

Phone: (410) 747-8770
Fax: (410) 788-8723
Received: 03/20/15 1:30 PM
Analysis Date: 3/24/2015
Collected: 3/18/2015

Project: 15031910

Test Report: Qualitative asbestos analysis of soils using the EPA 600/R-93/116 method

Sample	Description	Appearance	Result	Notes
15031910-002 191503160-0001	B10 4-6		None Detected	

Analyst(s)
George Malone (1)

Joe Centifonti, Laboratory Manager
or other approved signatory

EMSL recommends that soil samples reported as "ND" be tested by the EPA Screening Method/Qualitative. The above report relates only to the items tested. This report may not be reproduced, except in full, without written approval by EMSL Analytical, Inc. The above test must not be used by the client to claim product endorsement by NVLAP nor any agency of the United States Government. The test results contained within this report meet the requirements of NELAC unless otherwise noted. Samples received in good condition unless otherwise noted.
Samples analyzed by EMSL Analytical, Inc. Beltsville, MD

Initial report from 03/25/2015 06:17:33



Case Narrative Summary

Client Name: Arc Environmental

Project Name: Percontee

Work Order Number(s): 15031910

Project ID: 057-5

Any holding time exceedances, deviations from the method specifications, regulatory requirements or variations to the procedures outlined in the PSS Quality Assurance Manual are outlined below.

The analyses of chlorine, pH, dissolved oxygen, temperature and sulfite for drinking water and non-potable samples tested for compliance have a maximum holding time of 15 minutes. As such, all laboratory analyses for these analytes exceed holding times.

Matrix spike and matrix spike duplicate analyses may not be performed due to insufficient sample quantity. In these instances, a laboratory control sample and laboratory control sample duplicate are analyzed unless otherwise noted or specified in the method.

Sample Receipt:

Sample(s) received at 0 degrees, samples were partially frozen.

Received one sample in cooler that was not recorded on the COC. Container labeled B10 38-40 and was sampled on 3/18/15. Placed sample on hold.

General Comments:

Sample 003 (MW-4 0-2) not run for SVOCs due to insufficient sample volume.

Analytical:

PP Metals

Batch: 121341

Matrix spike and/or matrix spike duplicate (MS/MSD) exceedances identified; see MS summary form.

Poly Aromatic Hydrocarbons by SIM

Batch: 121373

Surrogate recoveries affected by sample dilution.

NELAP accreditation was held for all analyses performed unless noted below. See www.phaseonline.com for complete PSS scope of accreditation.



Analytical Data Package Information Summary

Work Order(s): 15031910

Report Prepared For: Arc Environmental, Baltimore, MD

Project Name: Percontee

Project Manager: Kyle Begey

Method	Client Sample Id	Analysis Type	Lab Sample Id	Analyst	Mtx	Prep Batch	Analytical Batch	Sampled	Prepared	Analyzed
ASTM D2216 05	B10 0-2	Initial	15031910-001	1051	S	121225	121225	03/18/2015	03/20/2015 17:30	03/20/2015 17:30
	B10 4-6	Initial	15031910-002	1051	S	121225	121225	03/18/2015	03/20/2015 17:30	03/20/2015 17:30
	MW-4 4-6	Initial	15031910-004	1051	S	121225	121225	03/18/2015	03/20/2015 17:30	03/20/2015 17:30
	MW-4 0-2	Initial	15031910-003	1051	S	121267	121267	03/18/2015	03/23/2015 16:12	03/23/2015 16:12
SW-846 6020 A	B10 0-2	Initial	15031910-001	1033	S	54690	121341	03/18/2015	03/23/2015 15:19	03/25/2015 16:00
	B10 4-6	Initial	15031910-002	1033	S	54690	121341	03/18/2015	03/23/2015 15:19	03/25/2015 16:30
	MW-4 0-2	Initial	15031910-003	1033	S	54690	121341	03/18/2015	03/23/2015 15:19	03/25/2015 16:36
	MW-4 4-6	Initial	15031910-004	1033	S	54690	121341	03/18/2015	03/23/2015 15:19	03/25/2015 17:07
	54690-1-BKS	BKS	54690-1-BKS	1033	S	54690	121341	-----	03/23/2015 15:19	03/25/2015 15:54
	54690-1-BLK	BLK	54690-1-BLK	1033	S	54690	121341	-----	03/23/2015 15:19	03/25/2015 15:47
	B10 0-2 S	MS	15031910-001 S	1033	S	54690	121341	03/18/2015	03/23/2015 15:19	03/25/2015 16:06
	B10 0-2 SD	MSD	15031910-001 SD	1033	S	54690	121341	03/18/2015	03/23/2015 15:19	03/25/2015 16:12
	B10 0-2	Reanalysis	15031910-001	1033	S	54690	121361	03/18/2015	03/23/2015 15:19	03/26/2015 13:01
	MW-4 4-6	Reanalysis	15031910-004	1033	S	54690	121361	03/18/2015	03/23/2015 15:19	03/26/2015 13:07
SW-846 8015 C	MW-4 4-6	Initial	15031910-004	1055	S	54694	121280	03/18/2015	03/23/2015 17:14	03/24/2015 02:26
	54694-1-BKS	BKS	54694-1-BKS	1055	S	54694	121280	-----	03/23/2015 17:14	03/23/2015 22:46
	54694-1-BLK	BLK	54694-1-BLK	1055	S	54694	121280	-----	03/23/2015 17:14	03/23/2015 22:23
	54694-1-BSD	BSD	54694-1-BSD	1055	S	54694	121280	-----	03/23/2015 17:14	03/23/2015 23:08
	MW-4 0-2	Initial	15031910-003	1055	S	54694	121332	03/18/2015	03/23/2015 17:14	03/24/2015 16:19
	Pallet Composite S	MS	15031905-001 S	1055	S	54694	121332	03/19/2015	03/23/2015 17:14	03/24/2015 17:52
	Pallet Composite SD	MSD	15031905-001 SD	1055	S	54694	121332	03/19/2015	03/23/2015 17:14	03/24/2015 18:15
	B10 0-2	Initial	15031910-001	1055	S	54694	121337	03/18/2015	03/23/2015 17:14	03/25/2015 11:12
	B10 4-6	Initial	15031910-002	1055	S	54694	121337	03/18/2015	03/23/2015 17:14	03/25/2015 10:49
SW-846 8015C	B10 0-2	Initial	15031910-001	1035	S	54669	121236	03/18/2015	03/20/2015 11:07	03/20/2015 17:06
	B10 4-6	Initial	15031910-002	1035	S	54669	121236	03/18/2015	03/20/2015 11:07	03/20/2015 17:35
	MW-4 0-2	Initial	15031910-003	1035	S	54669	121236	03/18/2015	03/20/2015 11:07	03/20/2015 18:04
	MW-4 4-6	Initial	15031910-004	1035	S	54669	121236	03/18/2015	03/20/2015 11:07	03/20/2015 18:33
	54669-2-BKS	BKS	54669-2-BKS	1035	S	54669	121236	-----	03/20/2015 11:07	03/20/2015 13:12



Analytical Data Package Information Summary

Work Order(s): 15031910

Report Prepared For: Arc Environmental, Baltimore, MD

Project Name: Percontee

Project Manager: Kyle Begey

Method	Client Sample Id	Analysis Type	Lab Sample Id	Analyst	Mtx	Prep Batch	Analytical Batch	Sampled	Prepared	Analyzed
SW-846 8015C	54669-2-BLK	BLK	54669-2-BLK	1035	S	54669	121236	-----	03/20/2015 11:07	03/20/2015 12:13
	Pallet Composite S	MS	15031905-001 S	1035	S	54669	121236	03/19/2015	03/20/2015 11:07	03/20/2015 20:00
	Pallet Composite SD	MSD	15031905-001 SD	1035	S	54669	121236	03/19/2015	03/20/2015 11:07	03/20/2015 20:30
SW-846 8082 A	B10 0-2	Initial	15031910-001	1029	S	54643	121245	03/18/2015	03/20/2015 09:35	03/23/2015 12:31
	B10 4-6	Initial	15031910-002	1029	S	54643	121245	03/18/2015	03/20/2015 09:35	03/23/2015 13:06
	MW-4 0-2	Initial	15031910-003	1029	S	54643	121245	03/18/2015	03/20/2015 09:35	03/23/2015 13:35
	MW-4 4-6	Initial	15031910-004	1029	S	54643	121245	03/18/2015	03/20/2015 09:35	03/23/2015 14:04
	54643-1-BKS	BKS	54643-1-BKS	1029	S	54643	121245	-----	03/20/2015 09:35	03/20/2015 16:50
	54643-1-BLK	BLK	54643-1-BLK	1029	S	54643	121245	-----	03/20/2015 09:35	03/20/2015 16:21
	54643-1-BSD	BSD	54643-1-BSD	1029	S	54643	121245	-----	03/20/2015 09:35	03/20/2015 17:20
	S-1 S	MS	15031912-001 S	1029	S	54643	121245	03/19/2015	03/20/2015 09:35	03/20/2015 18:46
	S-1 SD	MSD	15031912-001 SD	1029	S	54643	121245	03/19/2015	03/20/2015 09:35	03/20/2015 18:17
SW-846 8260 B	B10 4-6	Initial	15031910-002	1011	S	54663	121229	03/18/2015	03/21/2015 10:26	03/21/2015 14:30
	54663-1-BKS	BKS	54663-1-BKS	1011	S	54663	121229	-----	03/21/2015 10:26	03/21/2015 14:00
	54663-1-BLK	BLK	54663-1-BLK	1011	S	54663	121229	-----	03/21/2015 10:26	03/21/2015 13:30
	B10 4-6 S	MS	15031910-002 S	1011	S	54663	121229	03/18/2015	03/21/2015 10:26	03/21/2015 15:29
	B10 4-6 SD	MSD	15031910-002 SD	1011	S	54663	121229	03/18/2015	03/21/2015 10:26	03/21/2015 15:58
SW-846 8270 C	54699-1-BKS	BKS	54699-1-BKS	1055	S	54699	121360	-----	03/24/2015 09:38	03/26/2015 05:36
	54699-1-BLK	BLK	54699-1-BLK	1055	S	54699	121360	-----	03/24/2015 09:38	03/26/2015 05:04
	54699-1-BSD	BSD	54699-1-BSD	1055	S	54699	121360	-----	03/24/2015 09:38	03/26/2015 06:08
	B10 0-2	Initial	15031910-001	1055	S	54699	121371	03/18/2015	03/24/2015 09:38	03/26/2015 13:38
	B10 4-6	Initial	15031910-002	1055	S	54699	121371	03/18/2015	03/24/2015 09:38	03/26/2015 14:10
	MW-4 4-6	Initial	15031910-004	1055	S	54699	121371	03/18/2015	03/24/2015 09:38	03/26/2015 15:16
SW-846 8270 C	B10 0-2	Initial	15031910-001	1055	S	54662	121326	03/18/2015	03/22/2015 08:35	03/24/2015 21:23
	B10 4-6	Initial	15031910-002	1055	S	54662	121326	03/18/2015	03/22/2015 08:35	03/24/2015 22:12
	MW-4 0-2	Initial	15031910-003	1055	S	54662	121326	03/18/2015	03/22/2015 08:35	03/24/2015 23:00
	MW-4 4-6	Initial	15031910-004	1055	S	54662	121326	03/18/2015	03/22/2015 08:35	03/24/2015 23:49



Analytical Data Package Information Summary

Work Order(s): 15031910

Report Prepared For: Arc Environmental, Baltimore, MD

Project Name: Percontee

Project Manager: Kyle Begey

Method	Client Sample Id	Analysis Type	Lab Sample Id	Analyst	Mtx	Prep Batch	Analytical Batch	Sampled	Prepared	Analyzed
SW-846 8270 C	54662-1-BKS	BKS	54662-1-BKS	1055	S	54662	121326	-----	03/22/2015 08:35	03/24/2015 18:33
	54662-1-BLK	BLK	54662-1-BLK	1055	S	54662	121326	-----	03/22/2015 08:35	03/24/2015 18:09
	54662-1-BSD	BSD	54662-1-BSD	1055	S	54662	121326	-----	03/22/2015 08:35	03/24/2015 18:58
	B17 28'-30' S	MS	15031810-003 S	1055	S	54662	121326	03/17/2015	03/22/2015 08:35	03/24/2015 19:22
	B17 28'-30' SD	MSD	15031810-003 SD	1055	S	54662	121326	03/17/2015	03/22/2015 08:35	03/24/2015 19:46
	B10 0-2	Reanalysis	15031910-001	1055	S	54662	121373	03/18/2015	03/22/2015 08:35	03/25/2015 14:58
	B10 4-6	Reanalysis	15031910-002	1055	S	54662	121373	03/18/2015	03/22/2015 08:35	03/25/2015 15:22
	MW-4 4-6	Reanalysis	15031910-004	1055	S	54662	121373	03/18/2015	03/22/2015 08:35	03/25/2015 16:11

PHASE SEPARATION SCIENCE, INC.

QC Summary 15031910

Arc Environmental Percontee

Analytical Method: SW-846 8082 A

Seq Number: 121245
PSS Sample ID: 15031910-001

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/20/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	55		11-150	%	03/23/15 12:31
Tetrachloro-m-xylene	73		12-158	%	03/23/15 12:31

Analytical Method: SW-846 8270 C

Seq Number: 121326
PSS Sample ID: 15031910-001

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/22/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	92		51-109	%	03/24/15 21:23
Nitrobenzene-d5	67		48-111	%	03/24/15 21:23
Terphenyl-D14	124		45-137	%	03/24/15 21:23

Analytical Method: SW-846 8015 C

Seq Number: 121337
PSS Sample ID: 15031910-001

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/23/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	87		42-129	%	03/25/15 11:12

Analytical Method: SW-846 8270 C

Seq Number: 121371
PSS Sample ID: 15031910-001

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/24/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	85		60-131	%	03/26/15 13:38
2-Fluorophenol	59		45-108	%	03/26/15 13:38
Nitrobenzene-d5	75		42-131	%	03/26/15 13:38
Phenol-d6	77		48-124	%	03/26/15 13:38
Terphenyl-D14	95		59-137	%	03/26/15 13:38
2,4,6-Tribromophenol	90		46-129	%	03/26/15 13:38

Analytical Method: SW-846 8015C

Seq Number: 121236
PSS Sample ID: 15031910-001

Matrix: Soil

Prep Method: SW5030
Date Prep: 03/20/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	86		55-142	%	03/20/15 17:06

PHASE SEPARATION SCIENCE, INC.

QC Summary 15031910

Arc Environmental Percontee

Analytical Method: SW-846 8082 A

Seq Number: 121245
PSS Sample ID: 15031910-002

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/20/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	45		11-150	%	03/23/15 13:06
Tetrachloro-m-xylene	67		12-158	%	03/23/15 13:06

Analytical Method: SW-846 8270 C

Seq Number: 121326
PSS Sample ID: 15031910-002

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/22/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	91		51-109	%	03/24/15 22:12
Nitrobenzene-d5	31	*	48-111	%	03/24/15 22:12
Terphenyl-D14	96		45-137	%	03/24/15 22:12

Analytical Method: SW-846 8015 C

Seq Number: 121337
PSS Sample ID: 15031910-002

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/23/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	75		42-129	%	03/25/15 10:49

Analytical Method: SW-846 8270 C

Seq Number: 121371
PSS Sample ID: 15031910-002

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/24/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	87		60-131	%	03/26/15 14:10
2-Fluorophenol	64		45-108	%	03/26/15 14:10
Nitrobenzene-d5	79		42-131	%	03/26/15 14:10
Phenol-d6	82		48-124	%	03/26/15 14:10
Terphenyl-D14	91		59-137	%	03/26/15 14:10
2,4,6-Tribromophenol	93		46-129	%	03/26/15 14:10

PHASE SEPARATION SCIENCE, INC.

QC Summary 15031910

Arc Environmental Percontee

Analytical Method: SW-846 8260 B

Seq Number: 121229
PSS Sample ID: 15031910-002

Matrix: Soil

Prep Method: SW5035
Date Prep: 03/21/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	105		80-125	%	03/21/15 14:30
Dibromofluoromethane	98		85-115	%	03/21/15 14:30
Toluene-D8	100		91-109	%	03/21/15 14:30

Analytical Method: SW-846 8015C

Seq Number: 121236
PSS Sample ID: 15031910-002

Matrix: Soil

Prep Method: SW5030
Date Prep: 03/20/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	85		55-142	%	03/20/15 17:35

Analytical Method: SW-846 8082 A

Seq Number: 121245
PSS Sample ID: 15031910-003

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/20/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	53		11-150	%	03/23/15 13:35
Tetrachloro-m-xylene	64		12-158	%	03/23/15 13:35

Analytical Method: SW-846 8270 C

Seq Number: 121326
PSS Sample ID: 15031910-003

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/22/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	86		51-109	%	03/24/15 23:00
Nitrobenzene-d5	38	*	48-111	%	03/24/15 23:00
Terphenyl-D14	106		45-137	%	03/24/15 23:00

Analytical Method: SW-846 8015 C

Seq Number: 121332
PSS Sample ID: 15031910-003

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/23/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	80		42-129	%	03/24/15 16:19

PHASE SEPARATION SCIENCE, INC.

QC Summary 15031910

Arc Environmental Percontee

Analytical Method: SW-846 8015C

Seq Number: 121236
PSS Sample ID: 15031910-003

Prep Method: SW5030
Date Prep: 03/20/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	85		55-142	%	03/20/15 18:04

Analytical Method: SW-846 8082 A

Seq Number: 121245
PSS Sample ID: 15031910-004

Prep Method: SW3550C
Date Prep: 03/20/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	55		11-150	%	03/23/15 14:04
Tetrachloro-m-xylene	65		12-158	%	03/23/15 14:04

Analytical Method: SW-846 8015 C

Seq Number: 121280
PSS Sample ID: 15031910-004

Prep Method: SW3550C
Date Prep: 03/23/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	74		42-129	%	03/24/15 02:26

Analytical Method: SW-846 8270 C

Seq Number: 121326
PSS Sample ID: 15031910-004

Prep Method: SW3550C
Date Prep: 03/22/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	86		51-109	%	03/24/15 23:49
Nitrobenzene-d5	36	*	48-111	%	03/24/15 23:49
Terphenyl-D14	108		45-137	%	03/24/15 23:49

Analytical Method: SW-846 8270 C

Seq Number: 121371
PSS Sample ID: 15031910-004

Prep Method: SW3550C
Date Prep: 03/24/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	96		60-131	%	03/26/15 15:16
2-Fluorophenol	64		45-108	%	03/26/15 15:16
Nitrobenzene-d5	82		42-131	%	03/26/15 15:16
Phenol-d6	88		48-124	%	03/26/15 15:16
Terphenyl-D14	106		59-137	%	03/26/15 15:16
2,4,6-Tribromophenol	112		46-129	%	03/26/15 15:16

PHASE SEPARATION SCIENCE, INC.

QC Summary 15031910

Arc Environmental Percontee

Analytical Method: SW-846 8015C

Seq Number: 121236

PSS Sample ID: 15031910-004

Prep Method: SW5030

Date Prep: 03/20/2015

Matrix: Soil

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	86		55-142	%	03/20/15 18:33

F = RPD exceeded the laboratory control limits

X = Recovery of MS, MSD or both outside of QC Criteria

H= Recovery of BS,BSD or both exceeded the laboratory control limits

L = Recovery of BS,BSD or both below the laboratory control limits

PHASE SEPARATION SCIENCE, INC.

QC Summary 15031910

Arc Environmental Percontee

Analytical Method: SW-846 6020 A

Seq Number: 121341

MB Sample Id: 54690-1-BLK

Matrix: Solid

LCS Sample Id: 54690-1-BKS

Prep Method: SW3050B

Date Prep: 03/23/15

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Analysis Date	Flag
Antimony	<1.204	19.26	19.42	101	80-120	mg/kg	03/25/15 15:54	
Arsenic	<0.2408	19.26	18.81	98	80-120	mg/kg	03/25/15 15:54	
Beryllium	<1.204	19.26	18.23	95	80-120	mg/kg	03/25/15 15:54	
Cadmium	<1.204	19.26	19.18	100	80-120	mg/kg	03/25/15 15:54	
Chromium	<1.204	19.26	18.59	97	80-120	mg/kg	03/25/15 15:54	
Copper	<1.204	19.26	17.96	93	80-120	mg/kg	03/25/15 15:54	
Lead	<1.204	19.26	19.10	99	80-120	mg/kg	03/25/15 15:54	
Mercury	<0.04816	0.4816	0.4575	95	80-120	mg/kg	03/25/15 15:54	
Nickel	<1.204	19.26	19.00	99	80-120	mg/kg	03/25/15 15:54	
Selenium	<1.204	19.26	16.33	85	80-120	mg/kg	03/25/15 15:54	
Silver	<1.204	19.26	20.08	104	80-120	mg/kg	03/25/15 15:54	
Thallium	<0.2408	19.26	17.23	89	80-120	mg/kg	03/25/15 15:54	
Zinc	<4.816	19.26	16.89	88	80-120	mg/kg	03/25/15 15:54	

Analytical Method: SW-846 6020 A

Seq Number: 121341

Parent Sample Id: 15031910-001

Matrix: Soil

MS Sample Id: 15031910-001 S

Prep Method: SW3050B

Date Prep: 03/23/15

MSD Sample Id: 15031910-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Antimony	<1.065	17.04	10.10	59	11.83	61	75-125	16	30	mg/kg	03/25/15 16:06	X
Arsenic	2.892	17.04	16.79	82	19.13	83	75-125	13	30	mg/kg	03/25/15 16:06	
Beryllium	<1.065	17.04	15.40	90	17.40	89	75-125	12	30	mg/kg	03/25/15 16:06	
Cadmium	<1.065	17.04	17.53	103	20.08	103	75-125	14	30	mg/kg	03/25/15 16:06	
Chromium	54.71	17.04	51.58	0	77.96	119	75-125	41	30	mg/kg	03/25/15 16:06	XF
Copper	24.52	17.04	32.61	47	39.99	79	75-125	20	30	mg/kg	03/25/15 16:06	X
Lead	51.48	17.04	66.01	85	63.46	61	75-125	4	30	mg/kg	03/25/15 16:06	X
Mercury	0.09589	0.4259	0.5068	96	0.6590	115	75-125	26	30	mg/kg	03/25/15 16:06	
Nickel	41.53	17.04	40.30	0	117.7	390	75-125	98	30	mg/kg	03/25/15 16:06	XF
Selenium	<1.065	17.04	12.45	73	14.59	75	75-125	16	30	mg/kg	03/25/15 16:06	X
Silver	<1.065	17.04	17.86	105	20.55	105	75-125	14	30	mg/kg	03/25/15 16:06	
Thallium	0.2523	17.04	16.20	94	18.19	92	75-125	12	20	mg/kg	03/25/15 16:06	
Zinc	53.34	17.04	62.82	56	65.27	61	75-125	4	30	mg/kg	03/25/15 16:06	X

Analytical Method: SW-846 8082 A

Seq Number: 121245

MB Sample Id: 54643-1-BLK

Matrix: Solid

LCS Sample Id: 54643-1-BKS

Prep Method: SW3550C

Date Prep: 03/20/15

LCSD Sample Id: 54643-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
PCB-1016	<0.04965	0.4965	0.3260	66	0.2663	52	62-136	20	25	mg/kg	03/20/15 16:50	L
PCB-1260	<0.04965	0.4965	0.3461	70	0.2747	54	56-113	23	25	mg/kg	03/20/15 16:50	L

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	80		82		63		11-150	%	03/20/15 16:50
Tetrachloro-m-xylene	66		59		48		12-158	%	03/20/15 16:50

PHASE SEPARATION SCIENCE, INC.

QC Summary 15031910

Arc Environmental Percontee

Analytical Method: SW-846 8015 C

Seq Number: 121280

MB Sample Id: 54694-1-BLK

Matrix: Solid

LCS Sample Id: 54694-1-BKS

Prep Method: SW3550C

Date Prep: 03/23/15

LCSD Sample Id: 54694-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
TPH-DRO (Diesel Range Organics)	<3.967	33.06	28.75	87	31.48	93	56-117	9	25	mg/kg	03/23/15 22:46	
Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units	Analysis Date			
o-Terphenyl	74		79		82		42-129	%	03/23/15 22:46			

Analytical Method: SW-846 8270 C

Seq Number: 121326

MB Sample Id: 54662-1-BLK

Matrix: Solid

LCS Sample Id: 54662-1-BKS

Prep Method: SW3550C

Date Prep: 03/22/15

LCSD Sample Id: 54662-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Acenaphthene	<3.322	66.45	59.80	90	61.88	93	65-104	3	31	ug/kg	03/24/15 18:33	
Acenaphthylene	<3.322	66.45	49.50	74	52.56	79	59-105	6	25	ug/kg	03/24/15 18:33	
Anthracene	<3.322	66.45	61.13	92	63.87	96	52-121	4	25	ug/kg	03/24/15 18:33	
Benzo(a)anthracene	<3.322	66.45	58.47	88	62.21	94	47-114	6	25	ug/kg	03/24/15 18:33	
Benzo(a)pyrene	<3.322	66.45	58.80	88	63.54	96	57-111	8	25	ug/kg	03/24/15 18:33	
Benzo(b)fluoranthene	<3.322	66.45	48.50	73	54.56	82	47-123	12	25	ug/kg	03/24/15 18:33	
Benzo(g,h,i)perylene	<3.322	66.45	64.78	97	73.19	110	46-119	12	25	ug/kg	03/24/15 18:33	
Benzo(k)fluoranthene	<3.322	66.45	73.09	110	75.18	113	44-133	3	25	ug/kg	03/24/15 18:33	
Chrysene	<3.322	66.45	60.47	91	63.21	95	51-111	4	25	ug/kg	03/24/15 18:33	
Dibenz(a,h)Anthracene	<3.322	66.45	63.79	96	71.86	108	44-121	12	25	ug/kg	03/24/15 18:33	
Fluoranthene	<3.322	66.45	51.83	78	51.23	77	55-114	1	25	ug/kg	03/24/15 18:33	
Fluorene	<3.322	66.45	55.48	83	56.89	86	59-107	3	25	ug/kg	03/24/15 18:33	
Indeno(1,2,3-c,d)Pyrene	<3.322	66.45	66.78	100	72.19	109	42-123	8	25	ug/kg	03/24/15 18:33	
2-Methylnaphthalene	<3.322	66.45	54.15	81	52.23	79	67-99	4	25	ug/kg	03/24/15 18:33	
Naphthalene	<3.322	66.45	60.13	90	59.55	90	61-108	1	25	ug/kg	03/24/15 18:33	
Phenanthrene	<3.322	66.45	52.49	79	58.88	89	50-122	11	25	ug/kg	03/24/15 18:33	
Pyrene	<3.322	66.45	53.16	80	53.56	81	45-118	1	31	ug/kg	03/24/15 18:33	
Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units	Analysis Date			
2-Fluorobiphenyl	83		72		74		51-109	%	03/24/15 18:33			
Nitrobenzene-d5	66		56		70		48-111	%	03/24/15 18:33			
Terphenyl-D14	95		96		100		45-137	%	03/24/15 18:33			

PHASE SEPARATION SCIENCE, INC.

QC Summary 15031910

Arc Environmental Percontee

Analytical Method: SW-846 8270 C

Seq Number: 121360

MB Sample Id: 54699-1-BLK

Matrix: Solid

LCS Sample Id: 54699-1-BKS

Prep Method: SW3550C

Date Prep: 03/24/15

LCSD Sample Id: 54699-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Acetophenone	<82.92	1327	1190	90	1179	89	61-114	1	25	ug/kg	03/26/15 05:36	
Biphenyl (Diphenyl)	<82.92	1327	1233	93	1187	89	79-107	4	25	ug/kg	03/26/15 05:36	
Butyl benzyl phthalate	<82.92	1327	1293	97	1212	91	67-125	6	25	ug/kg	03/26/15 05:36	
bis(2-chloroethoxy) methane	<82.92	1327	1148	87	1148	86	58-106	0	25	ug/kg	03/26/15 05:36	
bis(2-chloroethyl) ether	<82.92	1327	1097	83	1091	82	58-105	1	25	ug/kg	03/26/15 05:36	
bis(2-chloroisopropyl) ether	<82.92	1327	1105	83	1119	84	53-114	1	25	ug/kg	03/26/15 05:36	
bis(2-ethylhexyl) phthalate	<82.92	1327	1248	94	1171	88	54-137	6	25	ug/kg	03/26/15 05:36	
4-Bromophenylphenyl ether	<82.92	1327	1213	91	1119	84	65-110	8	25	ug/kg	03/26/15 05:36	
Di-n-butyl phthalate	<82.92	1327	1330	100	1207	91	61-127	10	25	ug/kg	03/26/15 05:36	
Carbazole	<82.92	1327	1396	105	1335	100	45-121	4	25	ug/kg	03/26/15 05:36	
4-Chloro-3-methylphenol	<82.92	1327	1238	93	1175	88	70-113	5	25	ug/kg	03/26/15 05:36	
4-Chloroaniline	<165.8	1327	1308	99	1295	97	73-103	1	25	ug/kg	03/26/15 05:36	
2-Chloronaphthalene	<82.92	1327	1301	98	1236	93	76-104	5	25	ug/kg	03/26/15 05:36	
2-Chlorophenol	<82.92	1327	1135	86	1088	82	69-97	4	25	ug/kg	03/26/15 05:36	
4-Chlorophenyl phenyl ether	<82.92	1327	1169	88	1120	84	67-113	4	25	ug/kg	03/26/15 05:36	
Dibenzofuran	<82.92	1327	1242	94	1173	88	72-109	6	25	ug/kg	03/26/15 05:36	
3,3-Dichlorobenzidine	<82.92	1327	1326	100	1252	94	56-128	6	25	ug/kg	03/26/15 05:36	
2,4-Dichlorophenol	<82.92	1327	1198	90	1170	88	75-101	2	25	ug/kg	03/26/15 05:36	
Diethyl phthalate	<82.92	1327	1228	93	1188	89	69-120	3	25	ug/kg	03/26/15 05:36	
Dimethyl phthalate	<82.92	1327	1188	90	1197	90	64-119	1	25	ug/kg	03/26/15 05:36	
2,4-Dimethylphenol	<82.92	1327	1144	86	1124	84	66-98	2	25	ug/kg	03/26/15 05:36	
4,6-Dinitro-2-methyl phenol	<82.92	1327	1299	98	1268	95	63-126	2	25	ug/kg	03/26/15 05:36	
2,4-Dinitrophenol	<165.8	1327	1219	92	1193	90	56-123	2	25	ug/kg	03/26/15 05:36	
2,4-Dinitrotoluene	<82.92	1327	1306	98	1247	94	70-116	5	25	ug/kg	03/26/15 05:36	
2,6-Dinitrotoluene	<82.92	1327	1325	100	1244	93	72-112	6	25	ug/kg	03/26/15 05:36	
Hexachlorobenzene	<82.92	1327	1315	99	1205	90	72-112	9	25	ug/kg	03/26/15 05:36	
Hexachlorobutadiene	<82.92	1327	1158	87	1117	84	72-100	4	25	ug/kg	03/26/15 05:36	
Hexachlorocyclopentadiene	<82.92	1327	1080	81	1038	78	51-125	4	25	ug/kg	03/26/15 05:36	
Hexachloroethane	<82.92	1327	1145	86	1084	81	69-102	5	25	ug/kg	03/26/15 05:36	
Isophorone	<82.92	1327	1291	97	1278	96	71-96	1	25	ug/kg	03/26/15 05:36	H
2-Methylphenol	<82.92	1327	1167	88	1145	86	69-102	2	25	ug/kg	03/26/15 05:36	
3&4-Methylphenol	<82.92	1327	1181	89	1175	88	64-113	1	25	ug/kg	03/26/15 05:36	
4-Nitroaniline	<165.8	1327	1486	112	1438	108	41-121	3	25	ug/kg	03/26/15 05:36	
3-Nitroaniline	<82.92	1327	1351	102	1331	100	49-117	1	25	ug/kg	03/26/15 05:36	
2-Nitroaniline	<82.92	1327	1317	99	1234	93	71-109	7	25	ug/kg	03/26/15 05:36	
Nitrobenzene	<82.92	1327	1173	88	1165	87	66-101	1	25	ug/kg	03/26/15 05:36	
2-Nitrophenol	<82.92	1327	1161	87	1121	84	74-108	4	25	ug/kg	03/26/15 05:36	
4-Nitrophenol	<82.92	1327	1275	96	1230	92	58-125	4	25	ug/kg	03/26/15 05:36	
N-Nitrosodi-n-Propylamine	<66.34	1327	1210	91	1229	92	58-110	2	25	ug/kg	03/26/15 05:36	
N-Nitrosodiphenylamine	<82.92	1327	1249	94	1166	88	70-109	7	25	ug/kg	03/26/15 05:36	
Di-n-octyl phthalate	<165.8	1327	1179	89	1216	91	63-122	3	25	ug/kg	03/26/15 05:36	
Pentachlorophenol	<165.8	1327	1235	93	1165	87	76-114	6	25	ug/kg	03/26/15 05:36	
Phenol	<82.92	1327	1200	90	1181	89	69-109	2	25	ug/kg	03/26/15 05:36	
Atrazine	<82.92	1327	6679	503	6530	490	69-131	2	25	ug/kg	03/26/15 05:36	H
Pyridine	<82.92	1327	1161	87	1037	78	60-86	11	25	ug/kg	03/26/15 05:36	H
Caprolactam	<82.92	1327	1368	103	1269	95	59-129	8	25	ug/kg	03/26/15 05:36	
2,4,6-Trichlorophenol	<82.92	1327	1273	96	1202	90	75-111	6	25	ug/kg	03/26/15 05:36	
2,4,5-Trichlorophenol	<82.92	1327	1164	88	1100	83	81-112	6	25	ug/kg	03/26/15 05:36	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	93		95		92		60-131	%	03/26/15 05:36

PHASE SEPARATION SCIENCE, INC.

QC Summary 15031910

Arc Environmental Percontee

Analytical Method: SW-846 8270 C

Seq Number: 121360

MB Sample Id: 54699-1-BLK

Matrix: Solid

LCS Sample Id: 54699-1-BKS

Prep Method: SW3550C

Date Prep: 03/24/15

LCSD Sample Id: 54699-1-BSD

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units	Analysis Date
2-Fluorophenol	85		86		81		45-108	%	03/26/15 05:36
Nitrobenzene-d5	92		92		90		42-131	%	03/26/15 05:36
Phenol-d6	89		97		95		48-124	%	03/26/15 05:36
Terphenyl-D14	98		109		101		59-137	%	03/26/15 05:36
2,4,6-Tribromophenol	91		109		101		46-129	%	03/26/15 05:36

Analytical Method: SW-846 8015C

Seq Number: 121236

MB Sample Id: 54669-2-BLK

Matrix: Solid

LCS Sample Id: 54669-2-BKS

Prep Method: SW5030

Date Prep: 03/20/15

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Analysis Date	Flag
TPH-GRO (Gasoline Range Organic)	<49.80	4980	5190	104	60-112	ug/kg	03/20/15 13:12	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	86		104		55-142	%	03/20/15 13:12

PHASE SEPARATION SCIENCE, INC.

QC Summary 15031910

Arc Environmental Percontee

Analytical Method: SW-846 8260 B

Seq Number: 121229

MB Sample Id: 54663-1-BLK

Matrix: Solid

LCS Sample Id: 54663-1-BKS

Prep Method: SW5030

Date Prep: 03/21/15

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Analysis Date	Flag
Dichlorodifluoromethane	<2.567	61.60	69.99	114	53-144	ug/kg	03/21/15 14:00	
Chloromethane	<2.567	61.60	73.46	119	62-143	ug/kg	03/21/15 14:00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	<2.567	61.60	65.59	106	50-162	ug/kg	03/21/15 14:00	
Vinyl Chloride	<2.567	61.60	67.55	110	61-156	ug/kg	03/21/15 14:00	
Bromomethane	<2.567	61.60	87.37	142	45-199	ug/kg	03/21/15 14:00	
Chloroethane	<2.567	61.60	83.18	135	59-151	ug/kg	03/21/15 14:00	
Acetone	<10.27	61.60	91.10	148	24-197	ug/kg	03/21/15 14:00	
Cyclohexane	<10.27	61.60	60.55	98	50-148	ug/kg	03/21/15 14:00	
Trichlorofluoromethane	<2.567	61.60	73.95	120	54-175	ug/kg	03/21/15 14:00	
1,1-Dichloroethene	<2.567	61.60	74.46	121	60-154	ug/kg	03/21/15 14:00	
Methylene Chloride	<2.567	61.60	60.69	99	56-140	ug/kg	03/21/15 14:00	
trans-1,2-Dichloroethene	<2.567	61.60	63.35	103	60-153	ug/kg	03/21/15 14:00	
Methyl-t-butyl ether	<2.567	61.60	49.32	80	59-133	ug/kg	03/21/15 14:00	
1,1-Dichloroethane	<2.567	61.60	63.71	103	60-148	ug/kg	03/21/15 14:00	
2-Butanone	<10.27	61.60	79.28	129	35-173	ug/kg	03/21/15 14:00	
cis-1,2-Dichloroethene	<2.567	61.60	51.33	83	67-126	ug/kg	03/21/15 14:00	
Bromochloromethane	<2.567	61.60	49.38	80	64-121	ug/kg	03/21/15 14:00	
Chloroform	<2.567	61.60	54.20	88	65-126	ug/kg	03/21/15 14:00	
1,1,1-Trichloroethane	<2.567	61.60	60.85	99	60-145	ug/kg	03/21/15 14:00	
1,2-Dichloroethane	<2.567	61.60	56.72	92	62-127	ug/kg	03/21/15 14:00	
Carbon Tetrachloride	<2.567	61.60	61.87	100	55-152	ug/kg	03/21/15 14:00	
Benzene	<2.567	61.60	60.84	99	69-128	ug/kg	03/21/15 14:00	
1,2-Dichloropropane	<2.567	61.60	55.86	91	66-125	ug/kg	03/21/15 14:00	
Carbon Disulfide	<5.133	61.60	77.90	126	58-153	ug/kg	03/21/15 14:00	
Methylcyclohexane	<10.27	61.60	54.15	88	41-142	ug/kg	03/21/15 14:00	
Trichloroethene	<2.567	61.60	59.83	97	68-130	ug/kg	03/21/15 14:00	
Methyl Acetate	<10.27	61.60	74.28	121	47-151	ug/kg	03/21/15 14:00	
Bromodichloromethane	<2.567	61.60	56.54	92	60-125	ug/kg	03/21/15 14:00	
cis-1,3-Dichloropropene	<2.567	61.60	53.79	87	59-122	ug/kg	03/21/15 14:00	
4-Methyl-2-Pentanone	<10.27	61.60	62.29	101	22-173	ug/kg	03/21/15 14:00	
trans-1,3-Dichloropropene	<2.567	61.60	51.26	83	56-124	ug/kg	03/21/15 14:00	
1,1,2-Trichloroethane	<2.567	61.60	56.64	92	65-120	ug/kg	03/21/15 14:00	
Toluene	<2.567	61.60	60.29	98	66-127	ug/kg	03/21/15 14:00	
2-Hexanone	<10.27	61.60	80.12	130	30-175	ug/kg	03/21/15 14:00	
1,2-Dibromoethane	<2.567	61.60	55.41	90	64-123	ug/kg	03/21/15 14:00	
Dibromochloromethane	<2.567	61.60	55.88	91	55-128	ug/kg	03/21/15 14:00	
Bromoform	<2.567	61.60	53.39	87	46-128	ug/kg	03/21/15 14:00	
Tetrachloroethene	<2.567	61.60	59.25	96	55-145	ug/kg	03/21/15 14:00	
Chlorobenzene	<2.567	61.60	53.52	87	61-124	ug/kg	03/21/15 14:00	
Ethylbenzene	<2.567	61.60	56.29	91	58-130	ug/kg	03/21/15 14:00	
m,p-Xylenes	<5.133	123.2	109.5	89	60-131	ug/kg	03/21/15 14:00	
Styrene	<2.567	61.60	52.69	86	54-123	ug/kg	03/21/15 14:00	
1,1,2,2-Tetrachloroethane	<2.567	61.60	55.61	90	50-134	ug/kg	03/21/15 14:00	
o-Xylene	<2.567	61.60	54.71	89	60-126	ug/kg	03/21/15 14:00	
Isopropylbenzene	<2.567	61.60	53.35	87	52-130	ug/kg	03/21/15 14:00	
1,3-Dichlorobenzene	<2.567	61.60	45.28	74	42-123	ug/kg	03/21/15 14:00	
1,4-Dichlorobenzene	<2.567	61.60	45.81	74	40-121	ug/kg	03/21/15 14:00	
1,2-Dichlorobenzene	<2.567	61.60	45.43	74	38-128	ug/kg	03/21/15 14:00	
1,2-Dibromo-3-Chloropropane	<20.53	61.60	62.70	102	43-149	ug/kg	03/21/15 14:00	
1,2,4-Trichlorobenzene	<2.567	61.60	46.97	76	14-143	ug/kg	03/21/15 14:00	
1,2,3-Trichlorobenzene	<2.567	61.60	48.05	78	15-144	ug/kg	03/21/15 14:00	

PHASE SEPARATION SCIENCE, INC.

QC Summary 15031910

Arc Environmental Percontee

Analytical Method: SW-846 8260 B

Seq Number: 121229

MB Sample Id: 54663-1-BLK

Matrix: Solid

LCS Sample Id: 54663-1-BKS

Prep Method: SW5030

Date Prep: 03/21/15

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	106		98		80-125	%	03/21/15 14:00
Dibromofluoromethane	100		102		85-115	%	03/21/15 14:00
Toluene-D8	100		103		91-109	%	03/21/15 14:00

PHASE SEPARATION SCIENCE, INC.

QC Summary 15031910

Arc Environmental Percontee

Analytical Method: SW-846 8260 B

Seq Number: 121229

Parent Sample Id: 15031910-002

Matrix: Soil

MS Sample Id: 15031910-002 S

Prep Method: SW5035

Date Prep: 03/21/15

MSD Sample Id: 15031910-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Dichlorodifluoromethane	<2.991	71.78	75.89	106	89.20	126	22-158	16	30	ug/kg	03/21/15 15:29	
Chloromethane	<2.991	71.78	77.59	108	88.00	125	42-133	13	30	ug/kg	03/21/15 15:29	
1,1,2-Trichloro-1,2,2-Trifluoroethane	<2.991	71.78	68.12	95	79.97	113	28-146	16	30	ug/kg	03/21/15 15:29	
Vinyl Chloride	<2.991	71.78	71.13	99	85.36	121	37-148	18	30	ug/kg	03/21/15 15:29	
Bromomethane	<2.991	71.78	89.12	124	108.7	154	33-149	20	30	ug/kg	03/21/15 15:29	X
Chloroethane	<2.991	71.78	88.57	123	104.7	148	36-155	17	30	ug/kg	03/21/15 15:29	
Acetone	48.10	71.78	129.6	114	134.1	122	32-162	3	30	ug/kg	03/21/15 15:29	
Cyclohexane	<11.96	71.78	60.91	85	72.87	103	34-133	18	30	ug/kg	03/21/15 15:29	
Trichlorofluoromethane	<2.991	71.78	75.46	105	88.85	126	30-155	16	30	ug/kg	03/21/15 15:29	
1,1-Dichloroethene	<2.991	71.78	80.37	112	95.21	135	39-139	17	30	ug/kg	03/21/15 15:29	
Methylene Chloride	<2.991	71.78	68.40	95	81.35	115	35-133	17	30	ug/kg	03/21/15 15:29	
trans-1,2-Dichloroethene	<2.991	71.78	66.33	92	79.88	113	38-137	19	30	ug/kg	03/21/15 15:29	
Methyl-t-butyl ether	<2.991	71.78	56.32	78	67.77	96	48-123	18	30	ug/kg	03/21/15 15:29	
1,1-Dichloroethane	<2.991	71.78	68.52	95	82.38	117	37-136	18	30	ug/kg	03/21/15 15:29	
2-Butanone	<11.96	71.78	74.66	104	70.63	100	35-153	6	30	ug/kg	03/21/15 15:29	
cis-1,2-Dichloroethene	<2.991	71.78	56.09	78	66.91	95	41-122	18	30	ug/kg	03/21/15 15:29	
Bromochloromethane	<2.991	71.78	55.71	78	66.95	95	36-123	18	30	ug/kg	03/21/15 15:29	
Chloroform	<2.991	71.78	59.54	83	71.83	102	39-125	19	30	ug/kg	03/21/15 15:29	
1,1,1-Trichloroethane	<2.991	71.78	63.43	88	75.53	107	32-140	17	30	ug/kg	03/21/15 15:29	
1,2-Dichloroethane	<2.991	71.78	63.01	88	75.04	106	37-130	17	30	ug/kg	03/21/15 15:29	
Carbon Tetrachloride	<2.991	71.78	64.06	89	76.42	108	24-139	18	30	ug/kg	03/21/15 15:29	
Benzene	<2.991	71.78	65.48	91	78.64	111	42-125	18	30	ug/kg	03/21/15 15:29	
1,2-Dichloropropane	<2.991	71.78	61.38	86	74.18	105	41-122	19	30	ug/kg	03/21/15 15:29	
Carbon Disulfide	<5.981	71.78	68.00	95	81.58	116	26-143	18	30	ug/kg	03/21/15 15:29	
Methylcyclohexane	<11.96	71.78	53.52	75	63.81	90	15-135	18	30	ug/kg	03/21/15 15:29	
Trichloroethene	<2.991	71.78	115.6	161	136	193	39-127	16	30	ug/kg	03/21/15 15:29	X
Methyl Acetate	<11.96	71.78	19.12	27	37.03	52	27-159	64	30	ug/kg	03/21/15 15:29	F
Bromodichloromethane	<2.991	71.78	62.73	87	75.50	107	36-127	18	30	ug/kg	03/21/15 15:29	
cis-1,3-Dichloropropene	<2.991	71.78	58.59	82	69.80	99	34-120	17	30	ug/kg	03/21/15 15:29	
4-Methyl-2-Pentanone	<11.96	71.78	53.44	74	47.16	67	30-130	12	30	ug/kg	03/21/15 15:29	
trans-1,3-Dichloropropene	<2.991	71.78	58.10	81	68.83	97	30-126	17	30	ug/kg	03/21/15 15:29	
1,1,2-Trichloroethane	<2.991	71.78	62.98	88	75.33	107	43-122	18	30	ug/kg	03/21/15 15:29	
Toluene	<2.991	71.78	65.77	92	79.18	112	31-135	19	30	ug/kg	03/21/15 15:29	
2-Hexanone	<11.96	71.78	66.21	92	62.93	89	42-131	5	30	ug/kg	03/21/15 15:29	
1,2-Dibromoethane	<2.991	71.78	63.75	89	76.65	109	42-121	18	30	ug/kg	03/21/15 15:29	
Dibromochloromethane	<2.991	71.78	63.09	88	77.04	109	36-123	20	30	ug/kg	03/21/15 15:29	
Bromoform	<2.991	71.78	63.86	89	75.12	106	30-127	16	30	ug/kg	03/21/15 15:29	
Tetrachloroethene	<2.991	71.78	61.62	86	73.65	104	22-136	18	30	ug/kg	03/21/15 15:29	
Chlorobenzene	<2.991	71.78	58.65	82	72.31	102	30-125	21	30	ug/kg	03/21/15 15:29	
Ethylbenzene	<2.991	71.78	61.94	86	76.46	108	37-132	21	30	ug/kg	03/21/15 15:29	
m,p-Xylenes	<5.981	143.6	117.8	82	146.4	104	36-127	22	30	ug/kg	03/21/15 15:29	
Styrene	<2.991	71.78	59.80	83	74.43	105	26-132	22	30	ug/kg	03/21/15 15:29	
1,1,2,2-Tetrachloroethane	<2.991	71.78	<2.991	0	4.390	6	42-127	200	30	ug/kg	03/21/15 15:29	XF
o-Xylene	<2.991	71.78	60.02	84	74.96	106	33-132	22	30	ug/kg	03/21/15 15:29	
Isopropylbenzene	<2.991	71.78	57.05	79	70.46	100	17-140	21	30	ug/kg	03/21/15 15:29	
1,3-Dichlorobenzene	<2.991	71.78	50.24	70	62.60	89	19-125	22	30	ug/kg	03/21/15 15:29	
1,4-Dichlorobenzene	<2.991	71.78	51.86	72	64.29	91	27-120	21	30	ug/kg	03/21/15 15:29	
1,2-Dichlorobenzene	<2.991	71.78	51.03	71	63.73	90	34-118	22	30	ug/kg	03/21/15 15:29	
1,2-Dibromo-3-Chloropropane	<23.93	71.78	71.08	99	81.07	115	42-142	13	30	ug/kg	03/21/15 15:29	
1,2,4-Trichlorobenzene	<2.991	71.78	52.64	73	64.71	92	25-123	21	30	ug/kg	03/21/15 15:29	
1,2,3-Trichlorobenzene	<2.991	71.78	53.93	75	65.50	93	17-136	19	30	ug/kg	03/21/15 15:29	

PHASE SEPARATION SCIENCE, INC.

QC Summary 15031910

Arc Environmental Percontee

Analytical Method: SW-846 8260 B

Seq Number: 121229

Parent Sample Id: 15031910-002

Matrix: Soil

MS Sample Id: 15031910-002 S

Prep Method: SW5035

Date Prep: 03/21/15

MSD Sample Id: 15031910-002 SD

Surrogate	MS Result	MS Flag	MSD Result	MSD Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	99		99		80-125	%	03/21/15 15:29
Dibromofluoromethane	93		97		85-115	%	03/21/15 15:29
Toluene-D8	102		102		91-109	%	03/21/15 15:29

F = RPD exceeded the laboratory control limits

X = Recovery of MS, MSD or both outside of QC Criteria

H= Recovery of BS,BSD or both exceeded the laboratory control limits

L = Recovery of BS,BSD or both below the laboratory control limits



Phase Separation Science, Inc

Sample Receipt Checklist

Work Order #	15031910	Received By	Rachel Davis
Client Name	Arc Environmental	Date Received	03/19/2015 01:20:00 PM
Project Name	Percontee	Delivered By	Trans Time Express
Project Number	057-5	Tracking No	Not Applicable
Disposal Date	04/23/2015	Logged In By	Rachel Davis

Shipping Container(s)

No. of Coolers 1

		Ice	Present
Custody Seal(s) Intact?	N/A	Temp (deg C)	0
Seal(s) Signed / Dated?	N/A	Temp Blank Present	No

Documentation

COC agrees with sample labels?	Yes	Sampler Name	<u>Kyle Begey</u>
Chain of Custody	Yes	MD DW Cert. No.	<u>N/A</u>

Sample Container

Appropriate for Specified Analysis?	Yes	Custody Seal(s) Intact?	Not Applicable
Intact?	Yes	Seal(s) Signed / Dated	Not Applicable
Labeled and Labels Legible?	Yes		

Total No. of Samples Received 5

Total No. of Containers Received 9

Preservation

Metals	(pH<2)	N/A
Cyanides	(pH>12)	N/A
Sulfide	(pH>9)	N/A
TOC, COD, Phenols	(pH<2)	N/A
TOX, TKN, NH3, Total Phos	(pH<2)	N/A
VOC, BTEX (VOA Vials Rcvd Preserved)	(pH<2)	N/A
Do VOA vials have zero headspace?		N/A
624 VOC (Rcvd at least one unpreserved VOA vial)		N/A

Comments: (Any "No" response must be detailed in the comments section below.)

For any improper preservation conditions, list sample ID, preservative added (reagent ID number) below as well as documentation of any client notification as well as client instructions. Samples for pH, chlorine and dissolved oxygen should be analyzed as soon as possible, preferably in the field at the time of sampling. Samples which require thermal preservation shall be considered acceptable when received at a temperature above freezing to 6°C. Samples that are hand delivered on the day that they are collected may not meet these criteria but shall be considered acceptable if there is evidence that the chilling process has begun such as arrival on ice.

Sample(s) received at 0 degrees, samples were partially frozen.
 Received one sample in cooler that was not recorded on the COC. Container labeled B10 38-40 and was sampled on 3/18/15. Placed sample on hold.

Samples Inspected/Checklist Completed By: Rachel Davis Date: 03/20/2015
 Rachel Davis

PM Review and Approval: Simon Crisp Date: 03/23/2015
 Simon Crisp

Analytical Report for

Arc Environmental

Certificate of Analysis No.: 15032625

Project Manager: Christie Pulvino

Project Name : Percontee

Project Location: Silver Spring, MD

Project ID : 057-5



April 3, 2015

Phase Separation Science, Inc.

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PHASE SEPARATION SCIENCE, INC.



April 3, 2015

Christie Pulvino
Arc Environmental
1311 Haubert Street
Baltimore, MD 21230

Reference: PSS Work Order(s) No: **15032625**
Project Name: Percontee
Project Location: Silver Spring, MD
Project ID.: 057-5

Dear Christie Pulvino :

This report includes the analytical results from the analyses performed on the samples received under the project name referenced above and identified with the Phase Separation Science (PSS) Work Order(s) numbered **15032625**.

All work reported herein has been performed in accordance with current NELAP standards, referenced methodologies, PSS Standard Operating Procedures and the PSS Quality Assurance Manual unless otherwise noted in the Case Narrative Summary. PSS is limited in liability to the actual cost of the sample analysis done.

PSS reserves the right to return any unused samples, extracts or related solutions. Otherwise, the samples are scheduled for disposal, without any further notice, on April 30, 2015. This includes any samples that were received with a request to be held but lacked a specific hold period. It is your responsibility to provide a written request defining a specific disposal date if additional storage is required. Upon receipt, the request will be acknowledged by PSS, thus extending the storage period.

This report shall not be reproduced except in full, without the written approval of an authorized PSS representative. A copy of this report will be retained by PSS for at least 5 years, after which time it will be disposed of without further notice, unless prior arrangements have been made.

We thank you for selecting Phase Separation Science, Inc. to serve your analytical needs. If you have any questions concerning this report, do not hesitate to contact us at 410-747-8770 or info@phaseonline.com.

Sincerely,

Dan Prucnal
Laboratory Manager



Sample Summary

Client Name: Arc Environmental
Project Name: Percontee

Work Order Number(s): 15032625

Project ID: 057-5

The following samples were received under chain of custody by Phase Separation Science (PSS) on 03/26/2015 at 05:37 pm

Lab Sample Id	Sample Id	Matrix	Date/Time Collected
15032625-001	MW2 0'-2'	SOIL	03/25/15 08:05
15032625-002	MW2 4'-6'	SOIL	03/25/15 08:15
15032625-003	B8 0'-2'	SOIL	03/25/15 13:30
15032625-004	B8 4'-6'	SOIL	03/25/15 13:40

Please reference the Chain of Custody and Sample Receipt Checklist for specific container counts and preservatives. Any sample conditions not in compliance with sample acceptance criteria are described in Case Narrative Summary.

Notes:

1. The presence of a common laboratory contaminant such as methylene chloride may be considered a possible laboratory artifact. Where observed, appropriate consideration of data should be taken.
2. Unless otherwise noted in the case narrative, results are reported on a dry weight basis with the exception of pH, flashpoint, moisture, and paint filter test.
3. Drinking water samples collected for the purpose of compliance with SDWA may not be suitable for their intended use unless collected by a certified sampler [COMAR 26.08.05.07.C.2].
4. The analyses of 1,2-dibromo-3-chloropropane (DBCP) and 1,2-dibromoethane (EDB) by EPA 524.2 and calcium, magnesium, sodium and iron by EPA 200.8 are not currently promulgated for use in testing to meet the Safe Drinking Water Act and as such cannot be used for compliance purposes. The listings of the current promulgated methods for testing in compliance with the Safe Drinking Water Act can be found in the 40 CFR part 141.1, for the primary drinking water contaminants, and part 141.3, for the secondary drinking water contaminants.
5. Sample prepared under EPA 3550C with concentrations greater than 20 mg/Kg should employ the microtip extraction procedure if required to meet data quality objectives.
6. The analysis of acrolein by EPA 624 must be analyzed within three days of sampling unless pH is adjusted to 4-5 units [40 CFR part 136.3(e)].
7. Method 180.1, The Determination of Turbidity by Nephelometry, recommends samples over 40 NTU be diluted until the turbidity falls below 40 units. Routine samples over 40 NTU may not be diluted as long as the data quality objectives are not affected.
8. Alkalinity results analyzed by EPA 310.2 that are reported by dilution are estimated and are not in compliance with method requirements.

Standard Flags/Abbreviations:

- B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- C Results Pending Final Confirmation.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- Fail The result exceeds the regulatory level for Toxicity Characteristic (TCLP) as cited in 40 CFR 261.24 Table 1.
- J The target analyte was positively identified below the reporting limit but greater than the MDL.
- MDL This is the Laboratory Method Detection Limit which is equivalent to the Limit of Detection (LOD). The LOD is an estimate of the minimum amount of a substance that an analytical process can reliably detect. This value will remain constant across multiple similar instrumentation and among different analysts. An LOD is analyte and matrix specific.
- ND Not Detected at or above the reporting limit.
- RL PSS Reporting Limit.
- U Not detected.

Certifications:

NELAP Certifications: PA 68-03330, VA 460156
State Certifications: MD 179, WV 303
Regulated Soil Permit: P330-12-00268
NSWC USCG Accepted Laboratory
LDBE MWAA LD1997-0041-2015

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15032625

Arc Environmental, Baltimore, MD

April 3, 2015

Project Name: Percontee
 Project Location: Silver Spring, MD
 Project ID: 057-5

Sample ID: MW2 0'-2'	Date/Time Sampled: 03/25/2015 08:05	PSS Sample ID: 15032625-001
Matrix: SOIL	Date/Time Received: 03/26/2015 17:37	% Solids: 82

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	mg/kg	2.6		1	1.3	03/31/15	04/01/15 14:34	1033
Arsenic	3.4	mg/kg	0.51		1	0.26	03/31/15	04/01/15 14:34	1033
Beryllium	1.4	mg/kg	2.6	J	1	1.3	03/31/15	04/01/15 14:34	1033
Cadmium	ND	mg/kg	2.6		1	1.3	03/31/15	04/01/15 14:34	1033
Chromium	51	mg/kg	2.6		1	1.3	03/31/15	04/01/15 14:34	1033
Copper	30	mg/kg	2.6		1	1.3	03/31/15	04/01/15 14:34	1033
Lead	28	mg/kg	2.6		1	1.3	03/31/15	04/01/15 14:34	1033
Mercury	0.093	mg/kg	0.10	J	1	0.051	03/31/15	04/01/15 14:34	1033
Nickel	47	mg/kg	2.6		1	1.3	03/31/15	04/01/15 14:34	1033
Selenium	ND	mg/kg	2.6		1	1.3	03/31/15	04/01/15 14:34	1033
Silver	ND	mg/kg	2.6		1	1.3	03/31/15	04/01/15 14:34	1033
Thallium	0.58	mg/kg	0.51		1	0.26	03/31/15	04/01/15 14:34	1033
Zinc	57	mg/kg	10		1	5.1	03/31/15	04/01/15 14:34	1033

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	6.9	mg/kg	12	J	1	4.9	03/31/15	04/01/15 21:34	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/kg	120		1	61	03/30/15	03/30/15 15:24	1035

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CERTIFICATE OF ANALYSIS

No: 15032625

Arc Environmental, Baltimore, MD

April 3, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: MW2 0'-2'	Date/Time Sampled: 03/25/2015 08:05	PSS Sample ID: 15032625-001
Matrix: SOIL	Date/Time Received: 03/26/2015 17:37	% Solids: 82

Polychlorinated Biphenyls

Analytical Method: SW-846 8082 A

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
PCB-1016	ND	mg/kg	0.061		1	0.061	03/30/15	03/31/15 13:03	1044
PCB-1221	ND	mg/kg	0.061		1	0.061	03/30/15	03/31/15 13:03	1044
PCB-1232	ND	mg/kg	0.061		1	0.061	03/30/15	03/31/15 13:03	1044
PCB-1242	ND	mg/kg	0.061		1	0.061	03/30/15	03/31/15 13:03	1044
PCB-1248	ND	mg/kg	0.061		1	0.061	03/30/15	03/31/15 13:03	1044
PCB-1254	ND	mg/kg	0.061		1	0.061	03/30/15	03/31/15 13:03	1044
PCB-1260	ND	mg/kg	0.061		1	0.061	03/30/15	03/31/15 13:03	1044

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/kg	40		10	40	03/27/15	04/03/15 04:57	1055
Acenaphthylene	ND	ug/kg	40		10	40	03/27/15	04/03/15 04:57	1055
Anthracene	49	ug/kg	40		10	40	03/27/15	04/03/15 04:57	1055
Benzo(a)anthracene	100	ug/kg	40		10	40	03/27/15	04/03/15 04:57	1055
Benzo(a)pyrene	85	ug/kg	40		10	40	03/27/15	04/03/15 04:57	1055
Benzo(b)fluoranthene	77	ug/kg	40		10	40	03/27/15	04/03/15 04:57	1055
Benzo(g,h,i)perylene	57	ug/kg	40		10	40	03/27/15	04/03/15 04:57	1055
Benzo(k)fluoranthene	100	ug/kg	40		10	40	03/27/15	04/03/15 04:57	1055
Chrysene	120	ug/kg	40		10	40	03/27/15	04/03/15 04:57	1055
Dibenz(a,h)Anthracene	ND	ug/kg	40		10	40	03/27/15	04/03/15 04:57	1055
Fluoranthene	290	ug/kg	40		10	40	03/27/15	04/03/15 04:57	1055
Fluorene	ND	ug/kg	40		10	40	03/27/15	04/03/15 04:57	1055
Indeno(1,2,3-c,d)Pyrene	53	ug/kg	40		10	40	03/27/15	04/03/15 04:57	1055
2-Methylnaphthalene	ND	ug/kg	40		10	40	03/27/15	04/03/15 04:57	1055
Naphthalene	ND	ug/kg	40		10	40	03/27/15	04/03/15 04:57	1055
Phenanthrene	280	ug/kg	40		10	40	03/27/15	04/03/15 04:57	1055
Pyrene	210	ug/kg	40		10	40	03/27/15	04/03/15 04:57	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15032625

Arc Environmental, Baltimore, MD

April 3, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: MW2 4'-6'	Date/Time Sampled: 03/25/2015 08:15	PSS Sample ID: 15032625-002
Matrix: SOIL	Date/Time Received: 03/26/2015 17:37	% Solids: 84

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	mg/kg	2.3		1	1.1	03/31/15	04/01/15 15:04	1033
Arsenic	2.2	mg/kg	0.46		1	0.23	03/31/15	04/01/15 15:04	1033
Beryllium	ND	mg/kg	2.3		1	1.1	03/31/15	04/01/15 15:04	1033
Cadmium	ND	mg/kg	2.3		1	1.1	03/31/15	04/01/15 15:04	1033
Chromium	200	mg/kg	2.3		1	1.1	03/31/15	04/01/15 15:04	1033
Copper	38	mg/kg	2.3		1	1.1	03/31/15	04/01/15 15:04	1033
Lead	12	mg/kg	2.3		1	1.1	03/31/15	04/01/15 15:04	1033
Mercury	0.058	mg/kg	0.092	J	1	0.046	03/31/15	04/01/15 15:04	1033
Nickel	52	mg/kg	2.3		1	1.1	03/31/15	04/01/15 15:04	1033
Selenium	ND	mg/kg	2.3		1	1.1	03/31/15	04/01/15 15:04	1033
Silver	ND	mg/kg	2.3		1	1.1	03/31/15	04/01/15 15:04	1033
Thallium	ND	mg/kg	0.46		1	0.23	03/31/15	04/01/15 15:04	1033
Zinc	54	mg/kg	9.2		1	4.6	03/31/15	04/01/15 15:04	1033

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	19	mg/kg	12		1	4.7	03/31/15	04/01/15 21:58	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/kg	120		1	59	03/30/15	03/30/15 15:53	1035

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15032625

Arc Environmental, Baltimore, MD

April 3, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: MW2 4'-6'	Date/Time Sampled: 03/25/2015 08:15	PSS Sample ID: 15032625-002
Matrix: SOIL	Date/Time Received: 03/26/2015 17:37	% Solids: 84

Polychlorinated Biphenyls

Analytical Method: SW-846 8082 A

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
PCB-1016	ND	mg/kg	0.058		1	0.058	03/30/15	03/31/15 13:32	1044
PCB-1221	ND	mg/kg	0.058		1	0.058	03/30/15	03/31/15 13:32	1044
PCB-1232	ND	mg/kg	0.058		1	0.058	03/30/15	03/31/15 13:32	1044
PCB-1242	ND	mg/kg	0.058		1	0.058	03/30/15	03/31/15 13:32	1044
PCB-1248	ND	mg/kg	0.058		1	0.058	03/30/15	03/31/15 13:32	1044
PCB-1254	0.28	mg/kg	0.058		1	0.058	03/30/15	03/31/15 13:32	1044
PCB-1260	ND	mg/kg	0.058		1	0.058	03/30/15	03/31/15 13:32	1044

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/kg	39		10	39	03/27/15	04/03/15 04:31	1055
Acenaphthylene	ND	ug/kg	39		10	39	03/27/15	04/03/15 04:31	1055
Anthracene	ND	ug/kg	39		10	39	03/27/15	04/03/15 04:31	1055
Benzo(a)anthracene	95	ug/kg	39		10	39	03/27/15	04/03/15 04:31	1055
Benzo(a)pyrene	95	ug/kg	39		10	39	03/27/15	04/03/15 04:31	1055
Benzo(b)fluoranthene	83	ug/kg	39		10	39	03/27/15	04/03/15 04:31	1055
Benzo(g,h,i)perylene	59	ug/kg	39		10	39	03/27/15	04/03/15 04:31	1055
Benzo(k)fluoranthene	110	ug/kg	39		10	39	03/27/15	04/03/15 04:31	1055
Chrysene	100	ug/kg	39		10	39	03/27/15	04/03/15 04:31	1055
Dibenz(a,h)Anthracene	ND	ug/kg	39		10	39	03/27/15	04/03/15 04:31	1055
Fluoranthene	180	ug/kg	39		10	39	03/27/15	04/03/15 04:31	1055
Fluorene	ND	ug/kg	39		10	39	03/27/15	04/03/15 04:31	1055
Indeno(1,2,3-c,d)Pyrene	59	ug/kg	39		10	39	03/27/15	04/03/15 04:31	1055
2-Methylnaphthalene	ND	ug/kg	39		10	39	03/27/15	04/03/15 04:31	1055
Naphthalene	ND	ug/kg	39		10	39	03/27/15	04/03/15 04:31	1055
Phenanthrene	170	ug/kg	39		10	39	03/27/15	04/03/15 04:31	1055
Pyrene	140	ug/kg	39		10	39	03/27/15	04/03/15 04:31	1055

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CERTIFICATE OF ANALYSIS

No: 15032625

Arc Environmental, Baltimore, MD

April 3, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B8 0'-2'	Date/Time Sampled: 03/25/2015 13:30	PSS Sample ID: 15032625-003
Matrix: SOIL	Date/Time Received: 03/26/2015 17:37	% Solids: 88

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	mg/kg	2.5		1	1.3	03/31/15	04/01/15 15:10	1033
Arsenic	3.0	mg/kg	0.51		1	0.25	03/31/15	04/01/15 15:10	1033
Beryllium	ND	mg/kg	2.5		1	1.3	03/31/15	04/01/15 15:10	1033
Cadmium	ND	mg/kg	2.5		1	1.3	03/31/15	04/01/15 15:10	1033
Chromium	110	mg/kg	2.5		1	1.3	03/31/15	04/01/15 15:10	1033
Copper	36	mg/kg	2.5		1	1.3	03/31/15	04/01/15 15:10	1033
Lead	29	mg/kg	2.5		1	1.3	03/31/15	04/01/15 15:10	1033
Mercury	0.080	mg/kg	0.10	J	1	0.051	03/31/15	04/01/15 15:10	1033
Nickel	49	mg/kg	2.5		1	1.3	03/31/15	04/01/15 15:10	1033
Selenium	ND	mg/kg	2.5		1	1.3	03/31/15	04/01/15 15:10	1033
Silver	ND	mg/kg	2.5		1	1.3	03/31/15	04/01/15 15:10	1033
Thallium	ND	mg/kg	0.51		1	0.25	03/31/15	04/01/15 15:10	1033
Zinc	61	mg/kg	10		1	5.1	03/31/15	04/01/15 15:10	1033

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	8.6	mg/kg	11	J	1	4.5	03/31/15	04/01/15 22:21	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/kg	110		1	56	03/30/15	03/30/15 16:22	1035

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15032625

Arc Environmental, Baltimore, MD

April 3, 2015

Project Name: Percontee
 Project Location: Silver Spring, MD
 Project ID: 057-5

Sample ID: B8 0'-2'	Date/Time Sampled: 03/25/2015 13:30	PSS Sample ID: 15032625-003
Matrix: SOIL	Date/Time Received: 03/26/2015 17:37	% Solids: 88

Polychlorinated Biphenyls

Analytical Method: SW-846 8082 A

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
PCB-1016	ND	mg/kg	0.057		1	0.057	03/30/15	03/31/15 14:01	1044
PCB-1221	ND	mg/kg	0.057		1	0.057	03/30/15	03/31/15 14:01	1044
PCB-1232	ND	mg/kg	0.057		1	0.057	03/30/15	03/31/15 14:01	1044
PCB-1242	ND	mg/kg	0.057		1	0.057	03/30/15	03/31/15 14:01	1044
PCB-1248	ND	mg/kg	0.057		1	0.057	03/30/15	03/31/15 14:01	1044
PCB-1254	0.16	mg/kg	0.057		1	0.057	03/30/15	03/31/15 14:01	1044
PCB-1260	ND	mg/kg	0.057		1	0.057	03/30/15	03/31/15 14:01	1044

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/kg	38		10	38	03/27/15	04/03/15 05:50	1055
Acenaphthylene	ND	ug/kg	38		10	38	03/27/15	04/03/15 05:50	1055
Anthracene	41	ug/kg	38		10	38	03/27/15	04/03/15 05:50	1055
Benzo(a)anthracene	110	ug/kg	38		10	38	03/27/15	04/03/15 05:50	1055
Benzo(a)pyrene	110	ug/kg	38		10	38	03/27/15	04/03/15 05:50	1055
Benzo(b)fluoranthene	160	ug/kg	38		10	38	03/27/15	04/03/15 05:50	1055
Benzo(g,h,i)perylene	79	ug/kg	38		10	38	03/27/15	04/03/15 05:50	1055
Benzo(k)fluoranthene	ND	ug/kg	38		10	38	03/27/15	04/03/15 05:50	1055
Chrysene	120	ug/kg	38		10	38	03/27/15	04/03/15 05:50	1055
Dibenz(a,h)Anthracene	ND	ug/kg	38		10	38	03/27/15	04/03/15 05:50	1055
Fluoranthene	210	ug/kg	38		10	38	03/27/15	04/03/15 05:50	1055
Fluorene	ND	ug/kg	38		10	38	03/27/15	04/03/15 05:50	1055
Indeno(1,2,3-c,d)Pyrene	71	ug/kg	38		10	38	03/27/15	04/03/15 05:50	1055
2-Methylnaphthalene	ND	ug/kg	38		10	38	03/27/15	04/03/15 05:50	1055
Naphthalene	ND	ug/kg	38		10	38	03/27/15	04/03/15 05:50	1055
Phenanthrene	120	ug/kg	38		10	38	03/27/15	04/03/15 05:50	1055
Pyrene	180	ug/kg	38		10	38	03/27/15	04/03/15 05:50	1055

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15032625

Arc Environmental, Baltimore, MD

April 3, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B8 4'-6'	Date/Time Sampled: 03/25/2015 13:40	PSS Sample ID: 15032625-004
Matrix: SOIL	Date/Time Received: 03/26/2015 17:37	% Solids: 74

PP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3050B

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Antimony	ND	mg/kg	3.3		1	1.6	03/31/15	04/01/15 15:41	1033
Arsenic	11	mg/kg	0.66		1	0.33	03/31/15	04/01/15 15:41	1033
Beryllium	ND	mg/kg	3.3		1	1.6	03/31/15	04/01/15 15:41	1033
Cadmium	ND	mg/kg	3.3		1	1.6	03/31/15	04/01/15 15:41	1033
Chromium	42	mg/kg	3.3		1	1.6	03/31/15	04/01/15 15:41	1033
Copper	23	mg/kg	3.3		1	1.6	03/31/15	04/01/15 15:41	1033
Lead	16	mg/kg	3.3		1	1.6	03/31/15	04/01/15 15:41	1033
Mercury	0.16	mg/kg	0.13		1	0.066	03/31/15	04/01/15 15:41	1033
Nickel	9.3	mg/kg	3.3		1	1.6	03/31/15	04/01/15 15:41	1033
Selenium	2.8	mg/kg	3.3	J	1	1.6	03/31/15	04/01/15 15:41	1033
Silver	ND	mg/kg	3.3		1	1.6	03/31/15	04/01/15 15:41	1033
Thallium	ND	mg/kg	0.66		1	0.33	03/31/15	04/01/15 15:41	1033
Zinc	19	mg/kg	13		1	6.6	03/31/15	04/01/15 15:41	1033

Total Petroleum Hydrocarbons - DRO

Analytical Method: SW-846 8015 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	ND	mg/kg	13		1	5.4	03/31/15	04/01/15 22:44	1055

Total Petroleum Hydrocarbons-GRO

Analytical Method: SW-846 8015C

Preparation Method: 5030

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/kg	130		1	67	03/30/15	03/30/15 16:50	1035

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15032625

Arc Environmental, Baltimore, MD

April 3, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B8 4'-6'	Date/Time Sampled: 03/25/2015 13:40	PSS Sample ID: 15032625-004
Matrix: SOIL	Date/Time Received: 03/26/2015 17:37	% Solids: 74

Polychlorinated Biphenyls

Analytical Method: SW-846 8082 A

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
PCB-1016	ND	mg/kg	0.067		1	0.067	03/30/15	03/31/15 12:05	1044
PCB-1221	ND	mg/kg	0.067		1	0.067	03/30/15	03/31/15 12:05	1044
PCB-1232	ND	mg/kg	0.067		1	0.067	03/30/15	03/31/15 12:05	1044
PCB-1242	ND	mg/kg	0.067		1	0.067	03/30/15	03/31/15 12:05	1044
PCB-1248	ND	mg/kg	0.067		1	0.067	03/30/15	03/31/15 12:05	1044
PCB-1254	ND	mg/kg	0.067		1	0.067	03/30/15	03/31/15 12:05	1044
PCB-1260	ND	mg/kg	0.067		1	0.067	03/30/15	03/31/15 12:05	1044

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CERTIFICATE OF ANALYSIS

No: 15032625

Arc Environmental, Baltimore, MD

April 3, 2015

Project Name: Percontee
 Project Location: Silver Spring, MD
 Project ID: 057-5

Sample ID: B8 4'-6' **Date/Time Sampled: 03/25/2015 13:40** **PSS Sample ID: 15032625-004**
Matrix: SOIL **Date/Time Received: 03/26/2015 17:37** **% Solids: 74**

TCL Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5035A

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Dichlorodifluoromethane	ND	ug/kg	5.4		1	2.7	03/30/15	03/30/15 16:43	1011
Chloromethane	ND	ug/kg	5.4		1	2.7	03/30/15	03/30/15 16:43	1011
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	ug/kg	5.4		1	2.7	03/30/15	03/30/15 16:43	1011
Vinyl Chloride	ND	ug/kg	5.4		1	2.7	03/30/15	03/30/15 16:43	1011
Bromomethane	ND	ug/kg	5.4		1	2.7	03/30/15	03/30/15 16:43	1011
Chloroethane	ND	ug/kg	5.4		1	2.7	03/30/15	03/30/15 16:43	1011
Acetone	20	ug/kg	22	J	1	11	03/30/15	03/30/15 16:43	1011
Cyclohexane	ND	ug/kg	22		1	11	03/30/15	03/30/15 16:43	1011
Trichlorofluoromethane	ND	ug/kg	5.4		1	2.7	03/30/15	03/30/15 16:43	1011
1,1-Dichloroethene	ND	ug/kg	5.4		1	2.7	03/30/15	03/30/15 16:43	1011
Methylene Chloride	ND	ug/kg	5.4		1	2.7	03/30/15	03/30/15 16:43	1011
trans-1,2-Dichloroethene	ND	ug/kg	5.4		1	2.7	03/30/15	03/30/15 16:43	1011
Methyl-t-butyl ether	ND	ug/kg	5.4		1	2.7	03/30/15	03/30/15 16:43	1011
1,1-Dichloroethane	ND	ug/kg	5.4		1	2.7	03/30/15	03/30/15 16:43	1011
2-Butanone	ND	ug/kg	22		1	11	03/30/15	03/30/15 16:43	1011
cis-1,2-Dichloroethene	ND	ug/kg	5.4		1	2.7	03/30/15	03/30/15 16:43	1011
Bromochloromethane	ND	ug/kg	5.4		1	2.7	03/30/15	03/30/15 16:43	1011
Chloroform	ND	ug/kg	5.4		1	2.7	03/30/15	03/30/15 16:43	1011
1,1,1-Trichloroethane	ND	ug/kg	5.4		1	2.7	03/30/15	03/30/15 16:43	1011
1,2-Dichloroethane	ND	ug/kg	5.4		1	2.7	03/30/15	03/30/15 16:43	1011
Carbon Tetrachloride	ND	ug/kg	5.4		1	2.7	03/30/15	03/30/15 16:43	1011
Benzene	ND	ug/kg	5.4		1	2.7	03/30/15	03/30/15 16:43	1011
1,2-Dichloropropane	ND	ug/kg	5.4		1	2.7	03/30/15	03/30/15 16:43	1011
Carbon Disulfide	ND	ug/kg	11		1	5.4	03/30/15	03/30/15 16:43	1011
Methylcyclohexane	ND	ug/kg	22		1	11	03/30/15	03/30/15 16:43	1011
Trichloroethene	ND	ug/kg	5.4		1	2.7	03/30/15	03/30/15 16:43	1011
Methyl Acetate	ND	ug/kg	22		1	11	03/30/15	03/30/15 16:43	1011
Bromodichloromethane	ND	ug/kg	5.4		1	2.7	03/30/15	03/30/15 16:43	1011
cis-1,3-Dichloropropene	ND	ug/kg	5.4		1	2.7	03/30/15	03/30/15 16:43	1011
4-Methyl-2-Pentanone	ND	ug/kg	22		1	11	03/30/15	03/30/15 16:43	1011

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 15032625

Arc Environmental, Baltimore, MD

April 3, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B8 4'-6'	Date/Time Sampled: 03/25/2015 13:40	PSS Sample ID: 15032625-004
Matrix: SOIL	Date/Time Received: 03/26/2015 17:37	% Solids: 74

TCL Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5035A

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
trans-1,3-Dichloropropene	ND	ug/kg	5.4		1	2.7	03/30/15	03/30/15 16:43	1011
1,1,2-Trichloroethane	ND	ug/kg	5.4		1	2.7	03/30/15	03/30/15 16:43	1011
Toluene	ND	ug/kg	5.4		1	2.7	03/30/15	03/30/15 16:43	1011
2-Hexanone	ND	ug/kg	22		1	11	03/30/15	03/30/15 16:43	1011
1,2-Dibromoethane	ND	ug/kg	5.4		1	2.7	03/30/15	03/30/15 16:43	1011
Dibromochloromethane	ND	ug/kg	5.4		1	2.7	03/30/15	03/30/15 16:43	1011
Bromoform	ND	ug/kg	5.4		1	2.7	03/30/15	03/30/15 16:43	1011
Tetrachloroethene	ND	ug/kg	5.4		1	2.7	03/30/15	03/30/15 16:43	1011
Chlorobenzene	ND	ug/kg	5.4		1	2.7	03/30/15	03/30/15 16:43	1011
Ethylbenzene	ND	ug/kg	5.4		1	2.7	03/30/15	03/30/15 16:43	1011
m,p-Xylenes	ND	ug/kg	11		1	5.4	03/30/15	03/30/15 16:43	1011
Styrene	ND	ug/kg	5.4		1	2.7	03/30/15	03/30/15 16:43	1011
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.4		1	2.7	03/30/15	03/30/15 16:43	1011
o-Xylene	ND	ug/kg	5.4		1	2.7	03/30/15	03/30/15 16:43	1011
Isopropylbenzene	ND	ug/kg	5.4		1	2.7	03/30/15	03/30/15 16:43	1011
1,3-Dichlorobenzene	ND	ug/kg	5.4		1	2.7	03/30/15	03/30/15 16:43	1011
1,4-Dichlorobenzene	ND	ug/kg	5.4		1	2.7	03/30/15	03/30/15 16:43	1011
1,2-Dichlorobenzene	ND	ug/kg	5.4		1	2.7	03/30/15	03/30/15 16:43	1011
1,2-Dibromo-3-Chloropropane	ND	ug/kg	43		1	22	03/30/15	03/30/15 16:43	1011
1,2,4-Trichlorobenzene	ND	ug/kg	5.4		1	2.7	03/30/15	03/30/15 16:43	1011
1,2,3-Trichlorobenzene	ND	ug/kg	5.4		1	2.7	03/30/15	03/30/15 16:43	1011

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CERTIFICATE OF ANALYSIS

No: 15032625

Arc Environmental, Baltimore, MD

April 3, 2015

Project Name: Percontee

Project Location: Silver Spring, MD

Project ID: 057-5

Sample ID: B8 4'-6'	Date/Time Sampled: 03/25/2015 13:40	PSS Sample ID: 15032625-004
Matrix: SOIL	Date/Time Received: 03/26/2015 17:37	% Solids: 74

Poly Aromatic Hydrocarbons by SIM

Analytical Method: SW-846 8270 C

Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	MDL	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/kg	45		10	45	03/27/15	04/03/15 03:39	1055
Acenaphthylene	ND	ug/kg	45		10	45	03/27/15	04/03/15 03:39	1055
Anthracene	ND	ug/kg	45		10	45	03/27/15	04/03/15 03:39	1055
Benzo(a)anthracene	ND	ug/kg	45		10	45	03/27/15	04/03/15 03:39	1055
Benzo(a)pyrene	ND	ug/kg	45		10	45	03/27/15	04/03/15 03:39	1055
Benzo(b)fluoranthene	ND	ug/kg	45		10	45	03/27/15	04/03/15 03:39	1055
Benzo(g,h,i)perylene	ND	ug/kg	45		10	45	03/27/15	04/03/15 03:39	1055
Benzo(k)fluoranthene	ND	ug/kg	45		10	45	03/27/15	04/03/15 03:39	1055
Chrysene	ND	ug/kg	45		10	45	03/27/15	04/03/15 03:39	1055
Dibenz(a,h)Anthracene	ND	ug/kg	45		10	45	03/27/15	04/03/15 03:39	1055
Fluoranthene	ND	ug/kg	45		10	45	03/27/15	04/03/15 03:39	1055
Fluorene	ND	ug/kg	45		10	45	03/27/15	04/03/15 03:39	1055
Indeno(1,2,3-c,d)Pyrene	ND	ug/kg	45		10	45	03/27/15	04/03/15 03:39	1055
2-Methylnaphthalene	ND	ug/kg	45		10	45	03/27/15	04/03/15 03:39	1055
Naphthalene	ND	ug/kg	45		10	45	03/27/15	04/03/15 03:39	1055
Phenanthrene	ND	ug/kg	45		10	45	03/27/15	04/03/15 03:39	1055
Pyrene	ND	ug/kg	45		10	45	03/27/15	04/03/15 03:39	1055



Case Narrative Summary

Client Name: Arc Environmental

Project Name: Percontee

Work Order Number(s): 15032625

Project ID: 057-5

Any holding time exceedances, deviations from the method specifications, regulatory requirements or variations to the procedures outlined in the PSS Quality Assurance Manual are outlined below.

The analyses of chlorine, pH, dissolved oxygen, temperature and sulfite for drinking water and non-potable samples tested for compliance have a maximum holding time of 15 minutes. As such, all laboratory analyses for these analytes exceed holding times.

Matrix spike and matrix spike duplicate analyses may not be performed due to insufficient sample quantity. In these instances, a laboratory control sample and laboratory control sample duplicate are analyzed unless otherwise noted or specified in the method.

Sample Receipt:

All sample receipt conditions were acceptable.

Analytical:

RCRA Metals

Batch: 121542

Matrix spike and/or matrix spike duplicate (MS/MSD) exceedances identified; see MS summary form.

Laboratory control sample and/or laboratory control sample duplicate (LCS/LCSD) exceedances identified; see LCS summary form.

Poly Aromatic Hydrocarbons by SIM

Batch: 121601

Surrogate recoveries affected by sample dilution.

Surrogate recoveries affected by sample matrix.

Laboratory control sample and/or laboratory control sample duplicate (LCS/LCSD) exceedances identified; see LCS summary form.

NELAP accreditation was held for all analyses performed unless noted below. See www.phaseonline.com for complete PSS scope of accreditation.



Analytical Data Package Information Summary

Work Order(s): 15032625

Report Prepared For: Arc Environmental, Baltimore, MD

Project Name: Percontee

Project Manager: Christie Pulvino

Method	Client Sample Id	Analysis Type	Lab Sample Id	Analyst	Mtx	Prep Batch	Analytical Batch	Sampled	Prepared	Analyzed
ASTM D2216 05	MW2 0'-2'	Initial	15032625-001	1051	S	121426	121426	03/25/2015	03/27/2015 17:09	03/27/2015 17:09
	MW2 4'-6'	Initial	15032625-002	1051	S	121426	121426	03/25/2015	03/27/2015 17:09	03/27/2015 17:09
	B8 0'-2'	Initial	15032625-003	1051	S	121426	121426	03/25/2015	03/27/2015 17:09	03/27/2015 17:09
	B8 4'-6'	Initial	15032625-004	1051	S	121426	121426	03/25/2015	03/27/2015 17:09	03/27/2015 17:09
SW-846 6020 A	MW2 0'-2'	Initial	15032625-001	1033	S	54816	121542	03/25/2015	03/31/2015 15:10	04/01/2015 14:34
	MW2 4'-6'	Initial	15032625-002	1033	S	54816	121542	03/25/2015	03/31/2015 15:10	04/01/2015 15:04
	B8 0'-2'	Initial	15032625-003	1033	S	54816	121542	03/25/2015	03/31/2015 15:10	04/01/2015 15:10
	B8 4'-6'	Initial	15032625-004	1033	S	54816	121542	03/25/2015	03/31/2015 15:10	04/01/2015 15:41
	54816-1-BKS	BKS	54816-1-BKS	1033	S	54816	121542	-----	03/31/2015 15:10	04/01/2015 14:28
	54816-1-BLK	BLK	54816-1-BLK	1033	S	54816	121542	-----	03/31/2015 15:10	04/01/2015 14:22
	MW2 0'-2' S	MS	15032625-001 S	1033	S	54816	121542	03/25/2015	03/31/2015 15:10	04/01/2015 14:40
	MW2 0'-2' SD	MSD	15032625-001 SD	1033	S	54816	121542	03/25/2015	03/31/2015 15:10	04/01/2015 14:46
SW-846 8015 C	MW2 0'-2'	Initial	15032625-001	1055	S	54815	121538	03/25/2015	03/31/2015 12:30	04/01/2015 21:34
	MW2 4'-6'	Initial	15032625-002	1055	S	54815	121538	03/25/2015	03/31/2015 12:30	04/01/2015 21:58
	B8 0'-2'	Initial	15032625-003	1055	S	54815	121538	03/25/2015	03/31/2015 12:30	04/01/2015 22:21
	B8 4'-6'	Initial	15032625-004	1055	S	54815	121538	03/25/2015	03/31/2015 12:30	04/01/2015 22:44
	54815-1-BKS	BKS	54815-1-BKS	1055	S	54815	121538	-----	03/31/2015 12:30	04/01/2015 17:41
	54815-1-BLK	BLK	54815-1-BLK	1055	S	54815	121538	-----	03/31/2015 12:30	04/01/2015 17:18
	54815-1-BSD	BSD	54815-1-BSD	1055	S	54815	121538	-----	03/31/2015 12:30	04/01/2015 18:04
	B1 (0.5-1.0) S	MS	15032618-001 S	1055	S	54815	121538	03/25/2015	03/31/2015 12:30	04/01/2015 18:51
	B1 (0.5-1.0) SD	MSD	15032618-001 SD	1055	S	54815	121538	03/25/2015	03/31/2015 12:30	04/01/2015 19:15
SW-846 8015C	MW2 0'-2'	Initial	15032625-001	1035	S	54800	121475	03/25/2015	03/30/2015 09:53	03/30/2015 15:24
	MW2 4'-6'	Initial	15032625-002	1035	S	54800	121475	03/25/2015	03/30/2015 09:53	03/30/2015 15:53
	B8 0'-2'	Initial	15032625-003	1035	S	54800	121475	03/25/2015	03/30/2015 09:53	03/30/2015 16:22
	B8 4'-6'	Initial	15032625-004	1035	S	54800	121475	03/25/2015	03/30/2015 09:53	03/30/2015 16:50
	54800-2-BKS	BKS	54800-2-BKS	1035	S	54800	121475	-----	03/30/2015 09:53	03/30/2015 14:25
	54800-2-BLK	BLK	54800-2-BLK	1035	S	54800	121475	-----	03/30/2015 09:53	03/30/2015 11:58
	MW2 0'-2' S	MS	15032625-001 S	1035	S	54800	121475	03/25/2015	03/30/2015 09:53	03/30/2015 18:19



Analytical Data Package Information Summary

Work Order(s): 15032625

Report Prepared For: Arc Environmental, Baltimore, MD

Project Name: Percontee

Project Manager: Christie Pulvino

Method	Client Sample Id	Analysis Type	Lab Sample Id	Analyst	Mtx	Prep Batch	Analytical Batch	Sampled	Prepared	Analyzed
SW-846 8015C	MW2 0'-2' SD	MSD	15032625-001 SD	1035	S	54800	121475	03/25/2015	03/30/2015 09:53	03/30/2015 18:48
SW-846 8082 A	MW2 0'-2'	Initial	15032625-001	1044	S	54789	121549	03/25/2015	03/30/2015 12:20	03/31/2015 13:03
	MW2 4'-6'	Initial	15032625-002	1044	S	54789	121549	03/25/2015	03/30/2015 12:20	03/31/2015 13:32
	B8 0'-2'	Initial	15032625-003	1044	S	54789	121549	03/25/2015	03/30/2015 12:20	03/31/2015 14:01
	B8 4'-6'	Initial	15032625-004	1044	S	54789	121549	03/25/2015	03/30/2015 12:20	03/31/2015 12:05
	54789-1-BKS	BKS	54789-1-BKS	1044	S	54789	121549	-----	03/30/2015 12:20	03/31/2015 10:38
	54789-1-BLK	BLK	54789-1-BLK	1044	S	54789	121549	-----	03/30/2015 12:20	03/31/2015 10:09
	54789-1-BSD	BSD	54789-1-BSD	1044	S	54789	121549	-----	03/30/2015 12:20	03/31/2015 11:07
	Composite-Soil Disposal S	MS	15032608-001 S	1044	S	54789	121549	03/25/2015	03/30/2015 12:20	03/31/2015 11:37
	Composite-Soil Disposal SD	MSD	15032608-001 SD	1044	S	54789	121549	03/25/2015	03/30/2015 12:20	03/31/2015 12:05
SW-846 8260 B	B8 4'-6'	Initial	15032625-004	1011	S	54808	121486	03/25/2015	03/30/2015 10:17	03/30/2015 16:43
	54808-1-BKS	BKS	54808-1-BKS	1011	S	54808	121486	-----	03/30/2015 10:17	03/30/2015 13:37
	54808-1-BLK	BLK	54808-1-BLK	1011	S	54808	121486	-----	03/30/2015 10:17	03/30/2015 13:07
	B-3, S-2 2.5-4' S	MS	15032725-002 S	1011	S	54808	121486	03/17/2015	03/30/2015 10:17	03/30/2015 15:14
	B-3, S-2 2.5-4' SD	MSD	15032725-002 SD	1011	S	54808	121486	03/17/2015	03/30/2015 10:17	03/30/2015 15:44
SW-846 8270 C	MW2 0'-2'	Initial	15032625-001	1055	S	54757	121601	03/25/2015	03/27/2015 09:18	04/03/2015 04:57
	MW2 4'-6'	Initial	15032625-002	1055	S	54757	121601	03/25/2015	03/27/2015 09:18	04/03/2015 04:31
	B8 0'-2'	Initial	15032625-003	1055	S	54757	121601	03/25/2015	03/27/2015 09:18	04/03/2015 05:50
	B8 4'-6'	Initial	15032625-004	1055	S	54757	121601	03/25/2015	03/27/2015 09:18	04/03/2015 03:39
	54757-1-BKS	BKS	54757-1-BKS	1055	S	54757	121601	-----	03/27/2015 09:18	04/03/2015 00:09
	54757-1-BLK	BLK	54757-1-BLK	1055	S	54757	121601	-----	03/27/2015 09:18	04/02/2015 23:43
	54757-1-BSD	BSD	54757-1-BSD	1055	S	54757	121601	-----	03/27/2015 09:18	04/03/2015 00:35
	MW-6 5-7 S	MS	15032528-001 S	1055	S	54757	121601	03/23/2015	03/27/2015 09:18	04/03/2015 01:27
	MW-6 5-7 SD	MSD	15032528-001 SD	1055	S	54757	121601	03/23/2015	03/27/2015 09:18	04/03/2015 01:54

PHASE SEPARATION SCIENCE, INC.

QC Summary 15032625

Arc Environmental Percontee

Analytical Method: SW-846 8082 A

Seq Number: 121549
PSS Sample ID: 15032625-001

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/30/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	55		11-150	%	03/31/15 13:03
Tetrachloro-m-xylene	64		12-158	%	03/31/15 13:03

Analytical Method: SW-846 8015 C

Seq Number: 121538
PSS Sample ID: 15032625-001

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/31/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	79		42-129	%	04/01/15 21:34

Analytical Method: SW-846 8270 C

Seq Number: 121601
PSS Sample ID: 15032625-001

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/27/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	100		51-109	%	04/03/15 04:57
Nitrobenzene-d5	90		48-111	%	04/03/15 04:57
Terphenyl-D14	90		45-137	%	04/03/15 04:57

Analytical Method: SW-846 8015C

Seq Number: 121475
PSS Sample ID: 15032625-001

Matrix: Soil

Prep Method: SW5030
Date Prep: 03/30/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	85		55-142	%	03/30/15 15:24

Analytical Method: SW-846 8082 A

Seq Number: 121549
PSS Sample ID: 15032625-002

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/30/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	51		11-150	%	03/31/15 13:32
Tetrachloro-m-xylene	55		12-158	%	03/31/15 13:32

PHASE SEPARATION SCIENCE, INC.

QC Summary 15032625

Arc Environmental Percontee

Analytical Method: SW-846 8015 C

Seq Number: 121538
PSS Sample ID: 15032625-002

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/31/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	65		42-129	%	04/01/15 21:58

Analytical Method: SW-846 8270 C

Seq Number: 121601
PSS Sample ID: 15032625-002

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/27/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	100		51-109	%	04/03/15 04:31
Nitrobenzene-d5	90		48-111	%	04/03/15 04:31
Terphenyl-D14	90		45-137	%	04/03/15 04:31

Analytical Method: SW-846 8015C

Seq Number: 121475
PSS Sample ID: 15032625-002

Matrix: Soil

Prep Method: SW5030
Date Prep: 03/30/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	85		55-142	%	03/30/15 15:53

Analytical Method: SW-846 8082 A

Seq Number: 121549
PSS Sample ID: 15032625-003

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/30/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	76		11-150	%	03/31/15 14:01
Tetrachloro-m-xylene	88		12-158	%	03/31/15 14:01

Analytical Method: SW-846 8015 C

Seq Number: 121538
PSS Sample ID: 15032625-003

Matrix: Soil

Prep Method: SW3550C
Date Prep: 03/31/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	76		42-129	%	04/01/15 22:21

PHASE SEPARATION SCIENCE, INC.

QC Summary 15032625

Arc Environmental Percontee

Analytical Method: SW-846 8270 C

Seq Number: 121601
PSS Sample ID: 15032625-003

Prep Method: SW3550C
Date Prep: 03/27/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	100		51-109	%	04/03/15 05:50
Nitrobenzene-d5	90		48-111	%	04/03/15 05:50
Terphenyl-D14	100		45-137	%	04/03/15 05:50

Analytical Method: SW-846 8015C

Seq Number: 121475
PSS Sample ID: 15032625-003

Prep Method: SW5030
Date Prep: 03/30/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	84		55-142	%	03/30/15 16:22

Analytical Method: SW-846 8082 A

Seq Number: 121549
PSS Sample ID: 15032625-004

Prep Method: SW3550C
Date Prep: 03/30/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	88		11-150	%	03/31/15 12:05
Tetrachloro-m-xylene	85		12-158	%	03/31/15 12:05

Analytical Method: SW-846 8015 C

Seq Number: 121538
PSS Sample ID: 15032625-004

Prep Method: SW3550C
Date Prep: 03/31/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	65		42-129	%	04/01/15 22:44

Analytical Method: SW-846 8270 C

Seq Number: 121601
PSS Sample ID: 15032625-004

Prep Method: SW3550C
Date Prep: 03/27/2015

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	100		51-109	%	04/03/15 03:39
Nitrobenzene-d5	110		48-111	%	04/03/15 03:39
Terphenyl-D14	80		45-137	%	04/03/15 03:39

PHASE SEPARATION SCIENCE, INC.

QC Summary 15032625

Arc Environmental Percontee

Analytical Method: SW-846 8015C

Seq Number: 121475
PSS Sample ID: 15032625-004

Prep Method: SW5030
Date Prep: 03/30/2015

Matrix: Soil

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	84		55-142	%	03/30/15 16:50

Analytical Method: SW-846 8260 B

Seq Number: 121486
PSS Sample ID: 15032625-004

Prep Method: SW5035
Date Prep: 03/30/2015

Matrix: Soil

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	103		80-125	%	03/30/15 16:43
Dibromofluoromethane	101		85-115	%	03/30/15 16:43
Toluene-D8	100		91-109	%	03/30/15 16:43

F = RPD exceeded the laboratory control limits

X = Recovery of MS, MSD or both outside of QC Criteria

H= Recovery of BS,BSD or both exceeded the laboratory control limits

L = Recovery of BS,BSD or both below the laboratory control limits

PHASE SEPARATION SCIENCE, INC.

QC Summary 15032625

Arc Environmental Percontee

Analytical Method: SW-846 6020 A

Seq Number: 121542

MB Sample Id: 54816-1-BLK

Matrix: Solid

LCS Sample Id: 54816-1-BKS

Prep Method: SW3050B

Date Prep: 03/31/15

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Analysis Date	Flag
Antimony	<1.128	18.04	22.10	123	80-120	mg/kg	04/01/15 14:28	H
Arsenic	<0.2255	18.04	21.54	119	80-120	mg/kg	04/01/15 14:28	
Beryllium	<1.128	18.04	20.13	112	80-120	mg/kg	04/01/15 14:28	
Cadmium	<1.128	18.04	20.36	113	80-120	mg/kg	04/01/15 14:28	
Chromium	<1.128	18.04	23.01	128	80-120	mg/kg	04/01/15 14:28	H
Copper	<1.128	18.04	22.53	125	80-120	mg/kg	04/01/15 14:28	H
Lead	<1.128	18.04	19.27	107	80-120	mg/kg	04/01/15 14:28	
Mercury	<0.04510	0.4510	0.4600	102	80-120	mg/kg	04/01/15 14:28	
Nickel	<1.128	18.04	22.64	125	80-120	mg/kg	04/01/15 14:28	H
Selenium	<1.128	18.04	16.25	90	80-120	mg/kg	04/01/15 14:28	
Silver	<1.128	18.04	21.38	119	80-120	mg/kg	04/01/15 14:28	
Thallium	<0.2255	18.04	18.11	100	80-120	mg/kg	04/01/15 14:28	
Zinc	<4.510	18.04	20.07	111	80-120	mg/kg	04/01/15 14:28	

Analytical Method: SW-846 6020 A

Seq Number: 121542

Parent Sample Id: 15032625-001

Matrix: Soil

MS Sample Id: 15032625-001 S

Prep Method: SW3050B

Date Prep: 03/31/15

MSD Sample Id: 15032625-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Antimony	<1.458	23.33	17.65	76	15.06	75	75-125	16	30	mg/kg	04/01/15 14:40	
Arsenic	3.403	23.33	26.49	99	22.33	94	75-125	17	30	mg/kg	04/01/15 14:40	
Beryllium	<1.458	23.33	26.10	112	21.95	102	75-125	17	30	mg/kg	04/01/15 14:40	
Cadmium	<1.458	23.33	28.25	121	24.69	123	75-125	13	30	mg/kg	04/01/15 14:40	
Chromium	50.66	23.33	81.90	134	70.48	99	75-125	15	30	mg/kg	04/01/15 14:40	X
Copper	29.89	23.33	56.45	114	53.18	116	75-125	6	30	mg/kg	04/01/15 14:40	
Lead	27.98	23.33	56.78	123	49.27	106	75-125	14	30	mg/kg	04/01/15 14:40	
Mercury	0.09254	0.5833	0.7058	105	0.6082	103	75-125	15	30	mg/kg	04/01/15 14:40	
Nickel	47.32	23.33	66.38	82	53.33	30	75-125	22	30	mg/kg	04/01/15 14:40	X
Selenium	<1.458	23.33	18.71	80	16.17	80	75-125	15	30	mg/kg	04/01/15 14:40	
Silver	<1.458	23.33	28.72	123	25.37	126	75-125	12	30	mg/kg	04/01/15 14:40	X
Thallium	0.5809	23.33	25.39	106	22.26	108	75-125	13	20	mg/kg	04/01/15 14:40	
Zinc	57.27	23.33	88.37	133	73.69	82	75-125	18	30	mg/kg	04/01/15 14:40	X

Analytical Method: SW-846 8082 A

Seq Number: 121549

MB Sample Id: 54789-1-BLK

Matrix: Solid

LCS Sample Id: 54789-1-BKS

Prep Method: SW3550C

Date Prep: 03/30/15

LCSD Sample Id: 54789-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
PCB-1016	<0.04970	0.4970	0.4730	95	0.4165	84	62-136	13	25	mg/kg	03/31/15 10:38	
PCB-1260	<0.04970	0.4970	0.3948	79	0.3903	79	56-113	1	25	mg/kg	03/31/15 10:38	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units	Analysis Date
Decachlorobiphenyl	85		86		87		11-150	%	03/31/15 10:38
Tetrachloro-m-xylene	86		93		82		12-158	%	03/31/15 10:38

PHASE SEPARATION SCIENCE, INC.

QC Summary 15032625

Arc Environmental Percontee

Analytical Method: SW-846 8015 C

Seq Number: 121538

MB Sample Id: 54815-1-BLK

Matrix: Solid

LCS Sample Id: 54815-1-BKS

Prep Method: SW3550C

Date Prep: 03/31/15

LCSD Sample Id: 54815-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
TPH-DRO (Diesel Range Organics)	<3.979	33.16	28.78	87	29.10	88	56-117	1	25	mg/kg	04/01/15 17:41	
Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units	Analysis Date			
o-Terphenyl	63		69		69		42-129	%	04/01/15 17:41			

Analytical Method: SW-846 8270 C

Seq Number: 121601

MB Sample Id: 54757-1-BLK

Matrix: Solid

LCS Sample Id: 54757-1-BKS

Prep Method: SW3550C

Date Prep: 03/27/15

LCSD Sample Id: 54757-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Acenaphthene	<3.327	66.53	57.55	87	54.93	83	65-104	5	31	ug/kg	04/03/15 00:09	
Acenaphthylene	<3.327	66.53	77.84	117	75.23	113	59-105	3	25	ug/kg	04/03/15 00:09	H
Anthracene	<3.327	66.53	72.85	109	63.25	95	52-121	14	25	ug/kg	04/03/15 00:09	
Benzo(a)anthracene	<3.327	66.53	66.20	100	63.25	95	47-114	5	25	ug/kg	04/03/15 00:09	
Benzo(a)pyrene	<3.327	66.53	64.54	97	63.91	96	57-111	1	25	ug/kg	04/03/15 00:09	
Benzo(b)fluoranthene	<3.327	66.53	80.84	122	74.23	111	47-123	9	25	ug/kg	04/03/15 00:09	
Benzo(g,h,i)perylene	<3.327	66.53	65.20	98	64.91	97	46-119	0	25	ug/kg	04/03/15 00:09	
Benzo(k)fluoranthene	<3.327	66.53	48.24	73	46.60	70	44-133	3	25	ug/kg	04/03/15 00:09	
Chrysene	<3.327	66.53	66.53	100	63.58	95	51-111	5	25	ug/kg	04/03/15 00:09	
Dibenz(a,h)Anthracene	<3.327	66.53	66.20	100	65.25	98	44-121	1	25	ug/kg	04/03/15 00:09	
Fluoranthene	<3.327	66.53	76.51	115	68.58	103	55-114	11	25	ug/kg	04/03/15 00:09	H
Fluorene	<3.327	66.53	65.20	98	63.91	96	59-107	2	25	ug/kg	04/03/15 00:09	
Indeno(1,2,3-c,d)Pyrene	<3.327	66.53	65.20	98	64.58	97	42-123	1	25	ug/kg	04/03/15 00:09	
2-Methylnaphthalene	<3.327	66.53	65.54	99	63.58	95	67-99	3	25	ug/kg	04/03/15 00:09	
Naphthalene	<3.327	66.53	67.53	102	60.25	90	61-108	11	25	ug/kg	04/03/15 00:09	
Phenanthrene	<3.327	66.53	91.15	137	73.57	110	50-122	21	25	ug/kg	04/03/15 00:09	H
Pyrene	<3.327	66.53	64.54	97	59.92	90	45-118	7	31	ug/kg	04/03/15 00:09	
Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units	Analysis Date			
2-Fluorobiphenyl	115	*	109		118	*	51-109	%	04/03/15 00:09			
Nitrobenzene-d5	111		114	*	136	*	48-111	%	04/03/15 00:09			
Terphenyl-D14	96		99		101		45-137	%	04/03/15 00:09			

Analytical Method: SW-846 8015C

Seq Number: 121475

MB Sample Id: 54800-2-BLK

Matrix: Solid

LCS Sample Id: 54800-2-BKS

Prep Method: SW5030

Date Prep: 03/30/15

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Analysis Date	Flag
TPH-GRO (Gasoline Range Organic)	<48.64	4864	4279	88	60-112	ug/kg	03/30/15 14:25	
Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	Limits	Units	Analysis Date	Flag
a,a,a-Trifluorotoluene	83		97		55-142	%	03/30/15 14:25	

PHASE SEPARATION SCIENCE, INC.

QC Summary 15032625

Arc Environmental Percontee

Analytical Method: SW-846 8015C

Seq Number: 121475

Parent Sample Id: 15032625-001

Matrix: Soil

MS Sample Id: 15032625-001 S

Prep Method: SW5030

Date Prep: 03/30/15

MSD Sample Id: 15032625-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
TPH-GRO (Gasoline Range Organic)	<59.66	5966	4310	72	4327	72	36-131	0	30	ug/kg	03/30/15 18:19	
Surrogate			MS Result	MS Flag		MSD Result	MSD Flag	Limits		Units	Analysis Date	
a,a,a-Trifluorotoluene			97			96		55-142		%	03/30/15 18:19	

PHASE SEPARATION SCIENCE, INC.

QC Summary 15032625

Arc Environmental
Percontee

Analytical Method: SW-846 8260 B

Seq Number: 121486

MB Sample Id: 54808-1-BLK

Matrix: Solid

LCS Sample Id: 54808-1-BKS

Prep Method: SW5030

Date Prep: 03/30/15

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Analysis Date	Flag
Dichlorodifluoromethane	<2.432	58.37	63.47	109	53-144	ug/kg	03/30/15 13:37	
Chloromethane	<2.432	58.37	65.81	113	62-143	ug/kg	03/30/15 13:37	
1,1,2-Trichloro-1,2,2-Trifluoroethane	<2.432	58.37	54.13	93	50-162	ug/kg	03/30/15 13:37	
Vinyl Chloride	<2.432	58.37	62.31	107	61-156	ug/kg	03/30/15 13:37	
Bromomethane	<2.432	58.37	79.99	137	45-199	ug/kg	03/30/15 13:37	
Chloroethane	<2.432	58.37	77.03	132	59-151	ug/kg	03/30/15 13:37	
Acetone	<9.728	58.37	74.67	128	24-197	ug/kg	03/30/15 13:37	
Cyclohexane	<9.728	58.37	53.01	91	50-148	ug/kg	03/30/15 13:37	
Trichlorofluoromethane	<2.432	58.37	66.91	115	54-175	ug/kg	03/30/15 13:37	
1,1-Dichloroethene	<2.432	58.37	73.50	126	60-154	ug/kg	03/30/15 13:37	
Methylene Chloride	<2.432	58.37	52.96	91	56-140	ug/kg	03/30/15 13:37	
trans-1,2-Dichloroethene	<2.432	58.37	60.81	104	60-153	ug/kg	03/30/15 13:37	
Methyl-t-butyl ether	<2.432	58.37	54.17	93	59-133	ug/kg	03/30/15 13:37	
1,1-Dichloroethane	<2.432	58.37	59.36	102	60-148	ug/kg	03/30/15 13:37	
2-Butanone	<9.728	58.37	65.19	112	35-173	ug/kg	03/30/15 13:37	
cis-1,2-Dichloroethene	<2.432	58.37	49.45	85	67-126	ug/kg	03/30/15 13:37	
Bromochloromethane	<2.432	58.37	45.94	79	64-121	ug/kg	03/30/15 13:37	
Chloroform	<2.432	58.37	54.20	93	65-126	ug/kg	03/30/15 13:37	
1,1,1-Trichloroethane	<2.432	58.37	58.92	101	60-145	ug/kg	03/30/15 13:37	
1,2-Dichloroethane	<2.432	58.37	53.37	91	62-127	ug/kg	03/30/15 13:37	
Carbon Tetrachloride	<2.432	58.37	55.45	95	55-152	ug/kg	03/30/15 13:37	
Benzene	<2.432	58.37	62.11	106	69-128	ug/kg	03/30/15 13:37	
1,2-Dichloropropane	<2.432	58.37	52.16	89	66-125	ug/kg	03/30/15 13:37	
Carbon Disulfide	<4.864	58.37	64.06	110	58-153	ug/kg	03/30/15 13:37	
Methylcyclohexane	<9.728	58.37	45.68	78	41-142	ug/kg	03/30/15 13:37	
Trichloroethene	<2.432	58.37	58.19	100	68-130	ug/kg	03/30/15 13:37	
Methyl Acetate	<9.728	58.37	58.60	100	47-151	ug/kg	03/30/15 13:37	
Bromodichloromethane	<2.432	58.37	53.34	91	60-125	ug/kg	03/30/15 13:37	
cis-1,3-Dichloropropene	<2.432	58.37	51.95	89	59-122	ug/kg	03/30/15 13:37	
4-Methyl-2-Pentanone	<9.728	58.37	57.01	98	22-173	ug/kg	03/30/15 13:37	
trans-1,3-Dichloropropene	<2.432	58.37	50.21	86	56-124	ug/kg	03/30/15 13:37	
1,1,2-Trichloroethane	<2.432	58.37	51.02	87	65-120	ug/kg	03/30/15 13:37	
Toluene	<2.432	58.37	57.52	99	66-127	ug/kg	03/30/15 13:37	
2-Hexanone	<9.728	58.37	66.51	114	30-175	ug/kg	03/30/15 13:37	
1,2-Dibromoethane	<2.432	58.37	52.74	90	64-123	ug/kg	03/30/15 13:37	
Dibromochloromethane	<2.432	58.37	53.27	91	55-128	ug/kg	03/30/15 13:37	
Bromoform	<2.432	58.37	52.60	90	46-128	ug/kg	03/30/15 13:37	
Tetrachloroethene	<2.432	58.37	53.39	91	55-145	ug/kg	03/30/15 13:37	
Chlorobenzene	<2.432	58.37	50.69	87	61-124	ug/kg	03/30/15 13:37	
Ethylbenzene	<2.432	58.37	53.31	91	58-130	ug/kg	03/30/15 13:37	
m,p-Xylenes	<4.864	116.7	101.6	87	60-131	ug/kg	03/30/15 13:37	
Styrene	<2.432	58.37	49.57	85	54-123	ug/kg	03/30/15 13:37	
1,1,2,2-Tetrachloroethane	<2.432	58.37	54.13	93	50-134	ug/kg	03/30/15 13:37	
o-Xylene	<2.432	58.37	51.79	89	60-126	ug/kg	03/30/15 13:37	
Isopropylbenzene	<2.432	58.37	49.83	85	52-130	ug/kg	03/30/15 13:37	
1,3-Dichlorobenzene	<2.432	58.37	42.13	72	42-123	ug/kg	03/30/15 13:37	
1,4-Dichlorobenzene	<2.432	58.37	42.85	73	40-121	ug/kg	03/30/15 13:37	
1,2-Dichlorobenzene	<2.432	58.37	43.26	74	38-128	ug/kg	03/30/15 13:37	
1,2-Dibromo-3-Chloropropane	<19.46	58.37	58.45	100	43-149	ug/kg	03/30/15 13:37	
1,2,4-Trichlorobenzene	<2.432	58.37	43.54	75	14-143	ug/kg	03/30/15 13:37	
1,2,3-Trichlorobenzene	<2.432	58.37	42.86	73	15-144	ug/kg	03/30/15 13:37	

PHASE SEPARATION SCIENCE, INC.

QC Summary 15032625

Arc Environmental Percontee

Analytical Method: SW-846 8260 B

Seq Number: 121486

MB Sample Id: 54808-1-BLK

Matrix: Solid

LCS Sample Id: 54808-1-BKS

Prep Method: SW5030

Date Prep: 03/30/15

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	109		102		80-125	%	03/30/15 13:37
Dibromofluoromethane	95		97		85-115	%	03/30/15 13:37
Toluene-D8	98		101		91-109	%	03/30/15 13:37

F = RPD exceeded the laboratory control limits

X = Recovery of MS, MSD or both outside of QC Criteria

H= Recovery of BS,BSD or both exceeded the laboratory control limits

L = Recovery of BS,BSD or both below the laboratory control limits



Phase Separation Science, Inc

Sample Receipt Checklist

Work Order # 15032625 **Received By** Simon Crisp
Client Name Arc Environmental **Date Received** 03/26/2015 05:37:00 PM
Project Name Percontee **Delivered By** Client
Project Number 057-5 **Tracking No** Not Applicable
Disposal Date 04/30/2015 **Logged In By** ALS Group USA, Corp. - PA

Shipping Container(s)

No. of Coolers 1

		Ice	Present
Custody Seal(s) Intact?	N/A	Temp (deg C)	4
Seal(s) Signed / Dated?	N/A	Temp Blank Present	No

Documentation

COC agrees with sample labels?	Yes	Sampler Name	<u>Not Provided</u>
Chain of Custody	Yes		<u>N/A</u>

Sample Container

Appropriate for Specified Analysis?	Yes	Custody Seal(s) Intact?	Not Applicable
Intact?	Yes	Seal(s) Signed / Dated	Not Applicable
Labeled and Labels Legible?	Yes		

Total No. of Samples Received 4

Total No. of Containers Received 12

Preservation

Metals	(pH<2)	N/A
Cyanides	(pH>12)	N/A
Sulfide	(pH>9)	N/A
TOC, COD, Phenols	(pH<2)	N/A
TOX, TKN, NH3, Total Phos	(pH<2)	N/A
VOC, BTEX (VOA Vials Rcvd Preserved)	(pH<2)	N/A
Do VOA vials have zero headspace?		N/A
624 VOC (Rcvd at least one unpreserved VOA vial)		N/A

Comments: (Any "No" response must be detailed in the comments section below.)

For any improper preservation conditions, list sample ID, preservative added (reagent ID number) below as well as documentation of any client notification as well as client instructions. Samples for pH, chlorine and dissolved oxygen should be analyzed as soon as possible, preferably in the field at the time of sampling. Samples which require thermal preservation shall be considered acceptable when received at a temperature above freezing to 6°C. Samples that are hand delivered on the day that they are collected may not meet these criteria but shall be considered acceptable if there is evidence that the chilling process has begun such as arrival on ice.

Samples Inspected/Checklist Completed By:

Rachel Davis

Date: 03/27/2015

Rachel Davis

PM Review and Approval:

Lynn Jackson

Date: 03/27/2015

Lynn Jackson