



Date of Issue: 07/21/2018 04:02:50

DEP Bureau of Laboratories - Harrisburg  
P.O. Box 1467  
2575 Interstate Drive  
Harrisburg, PA 17105-1467

Contact Phone Number: (717) 346-7200

NELAP - accredited by

NJ DEP - Laboratory Number: PA059  
PA DEP LAP - DEP Lab ID: 22-00223

Analytical Report For  
Abandoned Mine Reclamation

Sample ID: 7135 007

Date Collected: 06/06/2018 09:30:00 AM

Lab Sample ID: O2018003618

Status: Completed

Name of Sample Collector: Joseph S Kasulaitis

Date Received: 06/07/2018

County: Berks

State:

Municipality: Windsor Twp

MP ID: SOIL1 158476

MP Type: Impoundment

MP Location Description: Soil from Point 1

| * Alias ID | Project / Facility |
|------------|--------------------|
| SOIL1      | KERNSVILLE         |

Sample Medium: Soil

Sample Medium Type: Soil

Location: NOT INDICATED

Reason: Routine Sampling

Project: KERNSVILLE Kernsville Dam

Suite: SV-SW

Matrix: Soil

Stream Condition:

Sample Comment: Schuylkill River

Sample Lab Comment: This sample contains the following Tentatively Identified Compounds: sulfur, S6 and S8; hexadecenoic acid methyl ester; hexadecanoic acid methyl ester; palmitoleic acid; hexadecane; tricosane; cholesterol; hexadecyloxirane; stigmasterol; sitosterol; amyrin; lupenone; and stigmastenone. This sample also contains some PAHs below the reporting limits. Endrin and/or DDT breakdown exceeds limits

**Analytical Report For  
Abandoned Mine Reclamation**

Sample ID: 7135 007

Date Collected: 06/06/2018 09:30:00 AM

Lab Sample ID: O2018003618

Status: Completed

| Test Codes / CAS # - Description  | Reported Results | Date And Time Analyzed | Approved by | Test Method |
|---|------------------|------------------------|-------------|-------------|
| 95943 1,2,4,5-Tetrachlorobenzene  | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 120821 1,2,4-Trichlorobenzene   | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 95501 1,2-Dichlorobenzene   | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 541731 1,3-Dichlorobenzene  | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 99650 1,3-Dinitrobenzene  | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 106467 1,4-Dichlorobenzene  | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 130154 1,4-Naphthoquinone   | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 90131 1-Chloronaphthalene   | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 90120 1-Methylnaphthalene   | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 108-60-1 2,2'-oxybis(1-Chloropropane)   | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 58902 2,3,4,6-Tetrachlorophenol   | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 95954 2,4,5-Trichlorophenol   | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 88062 2,4,6-Trichlorophenol   | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 120832 2,4-Dichlorophenol   | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 105679 2,4-Dimethylphenol   | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| Low-level LFB recovery low. Results and/or reporting limit may be biased low. |                  |                        |             |             |
| 51285 2,4-Dinitrophenol   | 8.0 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 121142 2,4-Dinitrotoluene   | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 87650 2,6-Dichlorophenol  | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 606202 2,6-Dinitrotoluene   | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 53963 2-Acetylaminofluorene   | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 91587 2-Chloronaphthalene   | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 95578 2-Chlorophenol  | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 91576 2-Methylnaphthalene   | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 95487 2-Methylphenol  | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 88744 2-Nitroaniline  | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 88755 2-Nitrophenol   | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 109068 2-Picoline (2-Methylpyridine)  | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 1319773 3&4-Methylphenol  | 3.2 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 91941 3,3'-Dichlorobenzidine  | 0.80 mg/kg (U)   | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 99092 3-Nitroaniline  | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 534521 4,6-Dinitro-2-methylphenol   | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 92671 4-Aminobiphenyl   | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 101553 4-Bromophenyl-phenyl ether   | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 59507 4-Chloro-3-methylphenol   | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |

**Analytical Report For  
Abandoned Mine Reclamation**

Sample ID: 7135 007

Date Collected: 06/06/2018 09:30:00 AM

Lab Sample ID: O2018003618

Status: Completed

| Test Codes / CAS # - Description            | Reported Results | Date And Time Analyzed | Approved by | Test Method |
|---|------------------|------------------------|-------------|-------------|
| 106478 4-Chloroaniline                      | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 7005723 4-Chlorophenyl-phenyl ether         | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 100016 4-Nitroaniline                       | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 100027 4-Nitrophenol                        | 8.0 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 99558 5-Nitro-o-toluidine                   | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 83329 Acenaphthene                          | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 208968 Acenaphthylene                       | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 98862 Acetophenone                          | 3.2 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 62533 Aniline                               | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 120127 Anthracene                           | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 140578 Aramite                              | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 98555 a-Terpineol                           | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 56553 Benz(a)anthracene                     | 0.80 mg/kg (U)   | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 50328 Benzo(a)pyrene                        | 0.80 mg/kg (U)   | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 205992 Benzo(b)fluoranthene                 | 0.80 mg/kg (U)   | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| ** Comment ** Includes benzo(j)fluoranthene |                  |                        |             |             |
| 191242 Benzo(g,h,i)perylene                 | 0.80 mg/kg (U)   | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 207089 Benzo(k)fluoranthene                 | 0.80 mg/kg (U)   | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 100516 Benzyl alcohol                       | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 111911 bis(2-Chloroethoxy)methane           | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 111444 bis(2-Chloroethyl)ether              | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 117817 bis(2-Ethylhexyl)phthalate           | 0.80 mg/kg (U)   | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 85687 Butylbenzylphthalate                  | 0.80 mg/kg (U)   | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 510156 Chlorobenzilate                      | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 218019 Chrysene                             | 0.80 mg/kg (U)   | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 2303164 Diallate (Cis & Trans)              | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 53703 Dibenzo(a,h)anthracene                | 0.80 mg/kg (U)   | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 132649 Dibenzofuran                         | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 84662 Diethylphthalate                      | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 60515 Dimethoate                            | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 60117 Dimethylaminoazobenzene               | 0.80 mg/kg (U)   | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 131113 Dimethylphthalate                    | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 84742 Di-n-butylphthalate                   | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 117840 Di-n-octylphthalate                  | 0.80 mg/kg (U)   | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 88857 Dinoseb                               | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |

**Analytical Report For  
Abandoned Mine Reclamation**

Sample ID: 7135 007

Date Collected: 06/06/2018 09:30:00 AM

Lab Sample ID: O2018003618

Status: Completed

| Test Codes / CAS # - Description  | Reported Results | Date And Time Analyzed | Approved by | Test Method |
|---|------------------|------------------------|-------------|-------------|
| 122394 Diphenylamine&n-Nitrosodipheny   | 3.2 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 298044 Disulfoton   | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 62500 Ethyl methanesulfonate  | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 56382 Ethyl Parathion   | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| EXTRACTED DATE  | 06192018 Day     | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 206440 Fluoranthene   | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 86737 Fluorene  | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 118741 Hexachlorobenzene  | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 87683 Hexachlorobutadiene   | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 77474 Hexachlorocyclopentadiene   | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| Continuing calibration recoveries low. Results and/or reporting limits may be biased low. |                  |                        |             |             |
| 67721 Hexachloroethane  | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| Continuing calibration recoveries low. Results and/or reporting limits may be biased low. |                  |                        |             |             |
| 1888717 Hexachloropropene   | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| Continuing calibration recoveries low. Results and/or reporting limits may be biased low. |                  |                        |             |             |
| 193395 Indeno-1,2,3-cd-pyrene   | 0.80 mg/kg (U)   | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 465736 Isodrin  | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 78591 Isophorone  | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 120581 Isosafrole   | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 66273 Methyl Methanesulfonate   | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 298000 Methyl Parathion   | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 91203 Naphthalene   | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 98953 Nitrobenzene  | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 924163 N-Nitrosodibutylamine  | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 55185 N-Nitrosodiethylamine   | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 62759 N-Nitrosodimethylamine  | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 621647 N-Nitrosodipropylamine   | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 10595956 N-Nitrosomethylethylamine  | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 59892 N-Nitrosomorpholine   | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 100754 N-nitrosopiperidine  | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 930552 N-Nitrosopyrrolidine   | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 126681 O,O,O-Triethylphosphorothioate   | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 95534 o-Toluidine   | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 76017 Pentachlorethane  | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 608935 Pentachlorobenzene   | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 82688 Pentachloronitrobenzene   | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |

**Analytical Report For  
Abandoned Mine Reclamation**

Sample ID: 7135 007

Date Collected: 06/06/2018 09:30:00 AM

Lab Sample ID: O2018003618

Status: Completed

| Test Codes / CAS # - Description | Reported Results | Date And Time Analyzed | Approved by | Test Method |
|----------------------------------|------------------|------------------------|-------------|-------------|
| 87865 Pentachlorophenol          | 3.2 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 85018 Phenanthrene               | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 108952 Phenol                    | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 298022 Phorate                   | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 23950585 Pronamide               | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 129000 Pyrene                    | 0.80 mg/kg (U)   | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 110861 Pyridine                  | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 94597 Safrole                    | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 3689245 Sulfotep                 | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |
| 297972 Thionazine                | 1.6 mg/kg (U)    | 06/28/2018 02:00 AM    | CARWALTER   | EPA 8270D   |

The results of the analyses provided in this laboratory report relate only to the sample(s) identified therein. Unless otherwise noted, the results presented on this laboratory report meet all requirements of the 2009 TNI standard. Sample was in acceptable condition when received by the Laboratory. Any exceptions are noted in the report.

\* denotes tests that the laboratory is not accredited for

Taru Upadhyay, Technical Director, Bureau of Laboratories

ORGANICS LABORATORY QUALIFIERS

U - Indicates analysis was performed for the compound but it was not detected. The sample quantitation limit is reported.

J - Indicates an estimated value, below the quantitation limit, but above the method detection limit.

N - Indicates presumptive evidence of a compound.

B - This flag is used when the analyte is found in the associated blank as well as in the sample.

E - This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.

P - This flag is used with a target analyte when there is greater than a 40% difference between the results obtained from the primary and confirmation columns for dual column analysis methods (e.g. pesticides, triazines, PCBs, etc)

Q - This flag identifies the average of multiple results from multiple analyses, or the average of the averages of dual column analysis methods.

X - Non-target analytes co-elute with compound. Identification unable to be confirmed.