



Purchasing Division
 2019 Washington Street East
 Post Office Box 50130
 Charleston, WV 25305-0130

State of West Virginia
 Request for Quotation
 23 - Laboratory

Proc Folder: 164659

Doc Description: Addendum No. 2 - Organic Analysis of Water and Soil

Proc Type: Central Master Agreement

Date Issued	Solicitation Closes	Solicitation No	Version
2016-11-16	2016-11-30 13:30:00	CRFQ 0313 DEP1700000009	3

BID RECEIVING LOCATION

BID CLERK
 DEPARTMENT OF ADMINISTRATION
 PURCHASING DIVISION
 2019 WASHINGTON ST E
 CHARLESTON WV 25305
 US

VENDOR

Vendor Name, Address and Telephone Number:

PACE Analytical Services, LLC
 5 Weatheridge Drive
 State Route 34
 Hurricane, WV 25526

304-757-8954

11/30/16 12:19:12
 WV Purchasing Division

FOR INFORMATION CONTACT THE BUYER

Michelle L Childers
 (304) 558-2063
 michelle.l.childers@wv.gov

Signature X

FEIN #

41-1821617

DATE

11-29-2016

All offers subject to all terms and conditions contained in this solicitation

ADDITIONAL INFORMATION:

Addendum

Addendum No. 2 issued to publish and distribute the attached information to the vendor community.

The West Virginia Purchasing Division is soliciting bids on behalf of The West Virginia Department of Environmental Protection to establish an open end contract for Organic Analysis of Water and Soil Samples.

INVOICE TO		SHIP TO	
ENVIRONMENTAL PROTECTION OFFICE OF ADMINISTRATION 601 57TH ST SE CHARLESTON WV25304 US		ENVIRONMENTAL PROTECTION 601 57TH ST CHARLESTON WV 25304 US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
1	Organic Analysis of Water and Soil				

Comm Code	Manufacturer	Specification	Model #
81102600			

Extended Description :

Organic Analysis of Water and Soil

West Virginia Department of Environmental Protection
 601 57th Street
 Charleston, WV 25304

SOLICITATION NUMBER: CRFQ DEP1700000009

Addendum Number: 02

The purpose of this addendum is to modify the solicitation identified as ("Solicitation") to reflect the change(s) identified and described below.

Applicable Addendum Category:

- Modify bid opening date and time
- Modify specifications of product or service being sought
- Attachment of vendor questions and responses
- Attachment of pre-bid sign-in sheet
- Correction of error
- Other

Description of Modification to Solicitation:

This addendum is issued to modify the solicitation per the attached documentation and the following:

1. To publish vendor questions and agency answers.

No other changes.

Additional Documentation: Documentation related to this Addendum (if any) has been included herewith as Attachment A and is specifically incorporated herein by reference.

Terms and Conditions:

1. All provisions of the Solicitation and other addenda not modified herein shall remain in full force and effect.
2. Vendor should acknowledge receipt of all addenda issued for this Solicitation by completing an Addendum Acknowledgment, a copy of which is included herewith. Failure to acknowledge addenda may result in bid disqualification. The addendum acknowledgement should be submitted with the bid to expedite document processing.

ATTACHMENT A

CRFQ DEP1700000009
Organic Analysis of Water and Soil
Questions and Answers

Q1.) For line item 31.0 it states "Metals/Cyanide Target Analyte List (TAL)-Low Level option EPA 200.7/SW7470/7471". This leads to these questions:

There is no method reference for Cyanide. After review of Attachment A for this line item, Cyanide is NOT on the list. Should my price point include Cyanide?

A1.) Yes, please include cyanide.

Q2.) The methods listed, combine two different references. EPA 200.7 is from EPA Methods for Water & Wastewater; while SW7470/7471 is from SW-846 Methods. Further, you ask for "low-level option". That would infer ICP-MS of either EPA 200.8 or SW6020B. Please confirm.

A2.) Yes, Low Level Option ICP-MS method, 200.8 (EPA) and 6020B (SW-846), with Method 7470 or 7471 for Mercury.

Q3.) Additionally, as you state methods SW7470/7471, which are mercury methods, the list in attachment A, does not include mercury. Please confirm if this is to be included or not.

A3.) Yes, please include mercury.

Q4.) Line item 35.0 requests 8280 PCBs by GC. I believe the correct method is 8082. Please confirm.

A4.) The correct method for PCBs is 8082.

Q5.) Line item 38.0 states "8260B Semivolatile Organics by GC/MS". That should be Volatile Organics if the method is correct. Please confirm.

A5.) Yes, 8260B is for Volatile Organics.

Q6.) For the Organic Analysis of Water and Soil Bid, is that strictly laboratory services or will you need people to actually go out and collect those samples and bring them to a lab?

A6.) No, we will not need laboratory staff to collect samples. This bid is strictly for laboratory services.

Q7.) Can alternate methods be used? If so how did you want this on the Bid schedule?

A7.) No, alternate methods cannot be used.

Q8.) Can you tell us who the incumbent lab is?

A8.) Labs on the previous contract were: REI Consultants, ALS Environmental, Reliance Laboratories, Pace Analytical, and Bio Chem Testing Inc.

Q9.) Can you provide a copy of their current contract prices?

A9.) Using the link below, please see the Bid Index for February 2, 2012 DEP15706:

<http://www.state.wv.us/admin/purchase/Bids/FY2012/BO20120202.html>

Q10.) Under section 3 General requirements- are the documents requested in 3.1.1.1.3 and 3.1.1.1.4 required at the time of bid submission or when the contract is awarded?

A10.) These should be submitted with the vendor's response, but may be requested after bid opening and prior to contract award.

ADDENDUM ACKNOWLEDGEMENT FORM
SOLICITATION NO.: _____

Instructions: Please acknowledge receipt of all addenda issued with this solicitation by completing this addendum acknowledgment form. Check the box next to each addendum received and sign below. Failure to acknowledge addenda may result in bid disqualification.

Acknowledgment: I hereby acknowledge receipt of the following addenda and have made the necessary revisions to my proposal, plans and/or specification, etc.

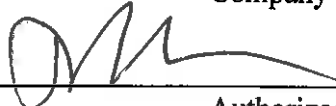
Addendum Numbers Received:

(Check the box next to each addendum received)

- | | |
|--|--|
| <input checked="" type="checkbox"/> Addendum No. 1 | <input type="checkbox"/> Addendum No. 6 |
| <input checked="" type="checkbox"/> Addendum No. 2 | <input type="checkbox"/> Addendum No. 7 |
| <input type="checkbox"/> Addendum No. 3 | <input type="checkbox"/> Addendum No. 8 |
| <input type="checkbox"/> Addendum No. 4 | <input type="checkbox"/> Addendum No. 9 |
| <input type="checkbox"/> Addendum No. 5 | <input type="checkbox"/> Addendum No. 10 |

I understand that failure to confirm the receipt of addenda may cause for rejection of this bid. I further understand that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.

Pace Analytical Services, LLC
Company


Authorized Signature

11-29-2016
Date

NOTE: This addendum acknowledgment should be submitted with the bid to expedite document processing.
Revised 6/8/2012



Purchasing Division
 2019 Washington Street East
 Post Office Box 50130
 Charleston, WV 25305-0130

State of West Virginia
 Request for Quotation
 23 - Laboratory

Proc Folder: 164659

Doc Description: Addendum No. 1 - Organic Analysis of Water and Soil

Proc Type: Central Master Agreement

Date Issued	Solicitation Closes	Solicitation No	Version
2016-11-09	2016-11-30 13:30:00	CRFQ 0313 DEP1700000009	2

BID RECEIVING LOCATION

BID CLERK
 DEPARTMENT OF ADMINISTRATION
 PURCHASING DIVISION
 2019 WASHINGTON ST E
 CHARLESTON WV 25305
 US

VENDOR

Vendor Name, Address and Telephone Number:

PACE Analytical Services, LLC
 5 Weatheridge Drive
 State Route 34
 Hurricane, WV 25526

304-757-8954

FOR INFORMATION CONTACT THE BUYER

Michelle L Childers
 (304) 558-2063
 michelle.l.childers@wv.gov

Signature X

FEIN #

41-182+617

DATE

11-29-2016

All offers subject to all terms and conditions contained in this solicitation

ADDITIONAL INFORMATION:

Addendum

Addendum No. 1 issued to publish and distribute the attached information to the vendor community.

The West Virginia Purchasing Division is soliciting bids on behalf of The West Virginia Department of Environmental Protection to establish an open end contract for Organic Analysis of Water and Soil Samples.

INVOICE TO		SHIP TO	
ENVIRONMENTAL PROTECTION OFFICE OF ADMINISTRATION 601 57TH ST SE CHARLESTON WV25304 US		ENVIRONMENTAL PROTECTION 601 57TH ST CHARLESTON WV 25304 US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
1	Organic Analysis of Water and Soil				

Comm Code	Manufacturer	Specification	Model #
81102600			

Extended Description :
 Organic Analysis of Water and Soil

(Faint, illegible text)

SOLICITATION NUMBER: CRFQ DEP1700000009
Addendum Number: 01

The purpose of this addendum is to modify the solicitation identified as ("Solicitation") to reflect the change(s) identified and described below.

Applicable Addendum Category:

- Modify bid opening date and time
- Modify specifications of product or service being sought
- Attachment of vendor questions and responses
- Attachment of pre-bid sign-in sheet
- Correction of error
- Other

Description of Modification to Solicitation:

This addendum is issued to modify the solicitation per the attached documentation and the following:

1. To modify the bid opening date to November 30, 2016 at 1:30PM, EST.

No other changes.

Additional Documentation: Documentation related to this Addendum (if any) has been included herewith as Attachment A and is specifically incorporated herein by reference.

Terms and Conditions:

1. All provisions of the Solicitation and other addenda not modified herein shall remain in full force and effect.
2. Vendor should acknowledge receipt of all addenda issued for this Solicitation by completing an Addendum Acknowledgment, a copy of which is included herewith. Failure to acknowledge addenda may result in bid disqualification. The addendum acknowledgement should be submitted with the bid to expedite document processing.

ADDENDUM ACKNOWLEDGEMENT FORM
SOLICITATION NO.: _____

Instructions: Please acknowledge receipt of all addenda issued with this solicitation by completing this addendum acknowledgment form. Check the box next to each addendum received and sign below. Failure to acknowledge addenda may result in bid disqualification.

Acknowledgment: I hereby acknowledge receipt of the following addenda and have made the necessary revisions to my proposal, plans and/or specification, etc.

Addendum Numbers Received:

(Check the box next to each addendum received)

- | | |
|---|--|
| <input type="checkbox"/> Addendum No. 1 | <input type="checkbox"/> Addendum No. 6 |
| <input type="checkbox"/> Addendum No. 2 | <input type="checkbox"/> Addendum No. 7 |
| <input type="checkbox"/> Addendum No. 3 | <input type="checkbox"/> Addendum No. 8 |
| <input type="checkbox"/> Addendum No. 4 | <input type="checkbox"/> Addendum No. 9 |
| <input type="checkbox"/> Addendum No. 5 | <input type="checkbox"/> Addendum No. 10 |

I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.

Company

Authorized Signature

Date

NOTE: This addendum acknowledgement should be submitted with the bid to expedite document processing.
Revised 6/8/2012



Purchasing Division
 2019 Washington Street East
 Post Office Box 50130
 Charleston, WV 25305-0130

State of West Virginia
 Request for Quotation
 23 - Laboratory

Proc Folder: 164659

Doc Description: Organic Analysis of Water and Soil

Proc Type: Central Master Agreement

Date Issued	Solicitation Closes	Solicitation No	Version
2016-10-12	2016-11-15 13:30:00	CRFQ 0313 DEP1700000009	1

BID RECEIVING LOCATION

BID CLERK
 DEPARTMENT OF ADMINISTRATION
 PURCHASING DIVISION
 2019 WASHINGTON ST E
 CHARLESTON WV 25305
 US

VENDOR

Vendor Name, Address and Telephone Number:

PACE Analytical Services, LLC
 5 Weatheridge Drive
 State Route 34
 Hurricane, WV 25526

304-757-8954

FOR INFORMATION CONTACT THE BUYER

Michelle L Childers
 (304) 558-2063
 michelle.l.childers@wv.gov

Signature X

FEIN # 41-1821617

DATE 11-29-2016

All offers subject to all terms and conditions contained in this solicitation

ADDITIONAL INFORMATION:

The West Virginia Purchasing Division is soliciting bids on behalf of The West Virginia Department of Environmental Protection to establish an open end contract for Organic Analysis of Water and Soil Samples.

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Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
1	Organic Analysis of Water and Soil				

Comm Code	Manufacturer	Specification	Model #
81102600			

Extended Description :
Organic Analysis of Water and Soil

ALL INFORMATION CONTAINED
HEREIN IS UNCLASSIFIED
DATE 08/14/01 BY 60322/MLP/STP

DEP1700000009	Document Phase Draft	Document Description Organic Analysis of Water and Soil	Page 3
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ADDITIONAL TERMS AND CONDITIONS

See attached document(s) for additional Terms and Conditions

INSTRUCTIONS TO VENDORS SUBMITTING BIDS

1. REVIEW DOCUMENTS THOROUGHLY: The attached documents contain a solicitation for bids. Please read these instructions and all documents attached in their entirety. These instructions provide critical information about requirements that if overlooked could lead to disqualification of a Vendor's bid. All bids must be submitted in accordance with the provisions contained in these instructions and the Solicitation. Failure to do so may result in disqualification of Vendor's bid.

2. MANDATORY TERMS: The Solicitation may contain mandatory provisions identified by the use of the words "must," "will," and "shall." Failure to comply with a mandatory term in the Solicitation will result in bid disqualification.

3. PREBID MEETING: The item identified below shall apply to this Solicitation.

A pre-bid meeting will not be held prior to bid opening

A NON-MANDATORY PRE-BID meeting will be held at the following place and time:

A MANDATORY PRE-BID meeting will be held at the following place and time:

All Vendors submitting a bid must attend the mandatory pre-bid meeting. Failure to attend the mandatory pre-bid meeting shall result in disqualification of the Vendor's bid. No one person attending the pre-bid meeting may represent more than one Vendor.

An attendance sheet provided at the pre-bid meeting shall serve as the official document verifying attendance. The State will not accept any other form of proof or documentation to verify attendance. Any person attending the pre-bid meeting on behalf of a Vendor must list on the attendance sheet his or her name and the name of the Vendor he or she is representing.

Additionally, the person attending the pre-bid meeting should include the Vendor's E-Mail address, phone number, and Fax number on the attendance sheet. It is the Vendor's responsibility to locate the attendance sheet and provide the required information. Failure to complete the attendance sheet as required may result in disqualification of Vendor's bid.

All Vendors should arrive prior to the starting time for the pre-bid. Vendors who arrive after the starting time but prior to the end of the pre-bid will be permitted to sign in, but are charged with knowing all matters discussed at the pre-bid.

Questions submitted at least five business days prior to a scheduled pre-bid will be discussed at the pre-bid meeting if possible. Any discussions or answers to questions at the pre-bid meeting are preliminary in nature and are non-binding. Official and binding answers to questions will be published in a written addendum to the Solicitation prior to bid opening.

4. VENDOR QUESTION DEADLINE: Vendors may submit questions relating to this Solicitation to the Purchasing Division. Questions must be submitted in writing. All questions must be submitted on or before the date listed below and to the address listed below in order to be considered. A written response will be published in a Solicitation addendum if a response is possible and appropriate. Non-written discussions, conversations, or questions and answers regarding this Solicitation are preliminary in nature and are nonbinding.

Submitted e-mails should have solicitation number in the subject line.

Question Submission Deadline: October 25, 2016 at 9:00 AM EST.

Submit Questions to: Michelle Childers
2019 Washington Street, East
Charleston, WV 25305
Fax: (304) 558-4115 (Vendors should not use this fax number for bid submission)
Email: Michelle.L.Childers@wv.gov

5. VERBAL COMMUNICATION: Any verbal communication between the Vendor and any State personnel is not binding, including verbal communication at the mandatory pre-bid conference. Only information issued in writing and added to the Solicitation by an official written addendum by the Purchasing Division is binding.

6. BID SUBMISSION: All bids must be submitted electronically through wvOASIS or signed and delivered by the Vendor to the Purchasing Division at the address listed below on or before the date and time of the bid opening. Any bid received by the Purchasing Division staff is considered to be in the possession of the Purchasing Division and will not be returned for any reason. The Purchasing Division will not accept bids, modification of bids, or addendum acknowledgment forms via e-mail. Acceptable delivery methods include electronic submission via wvOASIS, hand delivery, delivery by courier, or facsimile.

The bid delivery address is:
 Department of Administration, Purchasing Division
 2019 Washington Street East
 Charleston, WV 25305-0130

A bid that is not submitted electronically through wvOASIS should contain the information listed below on the face of the envelope or the bid may be rejected by the Purchasing Division.:

SEALED BID:
 BUYER:
 SOLICITATION NO.:
 BID OPENING DATE:
 BID OPENING TIME:
 FAX NUMBER:

The Purchasing Division may prohibit the submission of bids electronically through wvOASIS at its sole discretion. Such a prohibition will be contained and communicated in the wvOASIS system resulting in the Vendor's inability to submit bids through wvOASIS. Submission of a response to an Expression or Interest or Request for Proposal is not permitted in wvOASIS.

For Request For Proposal ("RFP") Responses Only: In the event that Vendor is responding to a request for proposal, the Vendor shall submit one original technical and one original cost proposal plus N/A convenience copies of each to the Purchasing Division at the address shown above. Additionally, the Vendor should identify the bid type as either a technical or cost proposal on the face of each bid envelope submitted in response to a request for proposal as follows:

BID TYPE: (This only applies to CRFP)

- Technical
 Cost

7. BID OPENING: Bids submitted in response to this Solicitation will be opened at the location identified below on the date and time listed below. Delivery of a bid after the bid opening date and time will result in bid disqualification. For purposes of this Solicitation, a bid is considered delivered when confirmation of delivery is provided by wvOASIS (in the case of electronic submission) or when the bid is time stamped by the official Purchasing Division time clock (in the case of hand delivery).

Bid Opening Date and Time: November 15, 2016 at 1:30 PM EST.

Bid Opening Location: Department of Administration, Purchasing Division
 2019 Washington Street East
 Charleston, WV 25305-0130

8. ADDENDUM ACKNOWLEDGEMENT: Changes or revisions to this Solicitation will be made by an official written addendum issued by the Purchasing Division. Vendor should acknowledge receipt of all addenda issued with this Solicitation by completing an Addendum Acknowledgment Form, a copy of which is included herewith. Failure to acknowledge addenda may result in bid disqualification. The addendum acknowledgement should be submitted with the bid to expedite document processing.

9. BID FORMATTING: Vendor should type or electronically enter the information onto its bid to prevent errors in the evaluation. Failure to type or electronically enter the information may result in bid disqualification.

10. ALTERNATES: Any model, brand, or specification listed in this Solicitation establishes the acceptable level of quality only and is not intended to reflect a preference for, or in any way favor, a particular brand or vendor. Vendors may bid alternates to a listed model or brand provided that the alternate is at least equal to the model or brand and complies with the required specifications. The equality of any alternate being bid shall be determined by the State at its sole discretion. Any Vendor bidding an alternate model or brand should clearly identify the alternate items in its bid and should include manufacturer's specifications, industry literature, and/or any other relevant documentation demonstrating the equality of the alternate items. Failure to provide information for alternate items may be grounds for rejection of a Vendor's bid.

11. EXCEPTIONS AND CLARIFICATIONS: The Solicitation contains the specifications that shall form the basis of a contractual agreement. Vendor shall clearly mark any exceptions, clarifications, or other proposed modifications in its bid. Exceptions to, clarifications of, or modifications of a requirement or term and condition of the Solicitation may result in bid disqualification.

12. COMMUNICATION LIMITATIONS: In accordance with West Virginia Code of State Rules §148-1-6.6, communication with the State of West Virginia or any of its employees regarding this Solicitation during the solicitation, bid, evaluation or award periods, except through the Purchasing Division, is strictly prohibited without prior Purchasing Division approval. Purchasing Division approval for such communication is implied for all agency delegated and exempt purchases.

13. REGISTRATION: Prior to Contract award, the apparent successful Vendor must be properly registered with the West Virginia Purchasing Division and must have paid the \$125 fee, if applicable.

14. UNIT PRICE: Unit prices shall prevail in cases of a discrepancy in the Vendor's bid.

15. PREFERENCE: Vendor Preference may only be granted upon written request and only in accordance with the West Virginia Code § 5A-3-37 and the West Virginia Code of State Rules. A Vendor Preference Certificate form has been attached hereto to allow Vendor to apply for the preference. Vendor's failure to submit the Vendor Preference Certificate form with its bid will result in denial of Vendor Preference. Vendor Preference does not apply to construction projects.

16. SMALL, WOMEN-OWNED, OR MINORITY-OWNED BUSINESSES: For any solicitations publicly advertised for bid, in accordance with West Virginia Code §5A-3-37(a)(7) and W. Va. CSR § 148-22-9, any non-resident vendor certified as a small, women-owned, or minority-owned business under W. Va. CSR § 148-22-9 shall be provided the same preference made available to any resident vendor. Any non-resident small, women-owned, or minority-owned business must identify itself as such in writing, must submit that writing to the Purchasing Division with its bid, and must be properly certified under W. Va. CSR § 148-22-9 prior to contract award to receive the preferences made available to resident vendors. Preference for a non-resident small, women-owned, or minority owned business shall be applied in accordance with W. Va. CSR § 148-22-9.

17. WAIVER OF MINOR IRREGULARITIES: The Director reserves the right to waive minor irregularities in bids or specifications in accordance with West Virginia Code of State Rules § 148-1-4.6.

18. ELECTRONIC FILE ACCESS RESTRICTIONS: Vendor must ensure that its submission in wvOASIS can be accessed by the Purchasing Division staff immediately upon bid opening. The Purchasing Division will consider any file that cannot be immediately opened and/or viewed at the time of the bid opening (such as, encrypted files, password protected files, or incompatible files) to be blank or incomplete as context requires, and are therefore unacceptable. A vendor will not be permitted to unencrypt files, remove password protections, or resubmit documents after bid opening if those documents are required with the bid.

19. NON-RESPONSIBLE: The Purchasing Division Director reserves the right to reject the bid of any vendor as Non-Responsible in accordance with W. Va. Code of State Rules § 148-1-5.3, when the Director determines that the vendor submitting the bid does not have the capability to fully perform, or lacks the integrity and reliability to assure good-faith performance.”

20. ACCEPTANCE/REJECTION: The State may accept or reject any bid in whole, or in part in accordance with W. Va. Code of State Rules § 148-1-4.5. and § 148-1-6.4.b.”

21. YOUR SUBMISSION IS A PUBLIC DOCUMENT: Vendor’s entire response to the Solicitation and the resulting Contract are public documents. As public documents, they will be disclosed to the public following the bid/proposal opening or award of the contract, as required by the competitive bidding laws of West Virginia Code §§ 5A-3-1 et seq., 5-22-1 et seq., and 5G-1-1 et seq. and the Freedom of Information Act West Virginia Code §§ 29B-1-1 et seq.

DO NOT SUBMIT MATERIAL YOU CONSIDER TO BE CONFIDENTIAL, A TRADE SECRET, OR OTHERWISE NOT SUBJECT TO PUBLIC DISCLOSURE.

Submission of any bid, proposal, or other document to the Purchasing Division constitutes your explicit consent to the subsequent public disclosure of the bid, proposal, or document. The Purchasing Division will disclose any document labeled “confidential,” “proprietary,” “trade secret,” “private,” or labeled with any other claim against public disclosure of the documents, to include any “trade secrets” as defined by West Virginia Code § 47-22-1 et seq. All submissions are subject to public disclosure without notice.

GENERAL TERMS AND CONDITIONS:

1. CONTRACTUAL AGREEMENT: Issuance of a Award Document signed by the Purchasing Division Director, or his designee, and approved as to form by the Attorney General's office constitutes acceptance of this Contract made by and between the State of West Virginia and the Vendor. Vendor's signature on its bid signifies Vendor's agreement to be bound by and accept the terms and conditions contained in this Contract.

2. DEFINITIONS: As used in this Solicitation/Contract, the following terms shall have the meanings attributed to them below. Additional definitions may be found in the specifications included with this Solicitation/Contract.

2.1. "Agency" or "Agencies" means the agency, board, commission, or other entity of the State of West Virginia that is identified on the first page of the Solicitation or any other public entity seeking to procure goods or services under this Contract.

2.2. "Bid" or "Proposal" means the vendors submitted response to this solicitation.

2.3. "Contract" means the binding agreement that is entered into between the State and the Vendor to provide the goods or services requested in the Solicitation.

2.4. "Director" means the Director of the West Virginia Department of Administration, Purchasing Division.

2.5. "Purchasing Division" means the West Virginia Department of Administration, Purchasing Division.

2.6. "Award Document" means the document signed by the Agency and the Purchasing Division, and approved as to form by the Attorney General, that identifies the Vendor as the contract holder.

2.7. "Solicitation" means the official notice of an opportunity to supply the State with goods or services that is published by the Purchasing Division.

2.8. "State" means the State of West Virginia and/or any of its agencies, commissions, boards, etc. as context requires.

2.9. "Vendor" or "Vendors" means any entity submitting a bid in response to the Solicitation, the entity that has been selected as the lowest responsible bidder, or the entity that has been awarded the Contract as context requires.

3. CONTRACT TERM; RENEWAL; EXTENSION: The term of this Contract shall be determined in accordance with the category that has been identified as applicable to this Contract below:

Term Contract

Initial Contract Term: This Contract becomes effective on _____
upon award _____ and extends for a period of one (1) year(s).

Renewal Term: This Contract may be renewed upon the mutual written consent of the Agency, and the Vendor, with approval of the Purchasing Division and the Attorney General's office (Attorney General approval is as to form only). Any request for renewal should be submitted to the Purchasing Division thirty (30) days prior to the expiration date of the initial contract term or appropriate renewal term. A Contract renewal shall be in accordance with the terms and conditions of the original contract. Renewal of this Contract is limited to three (3) successive one (1) year periods or multiple renewal periods of less than one year, provided that the multiple renewal periods do not exceed thirty-six (36) months in total. Automatic renewal of this Contract is prohibited. Notwithstanding the foregoing, Purchasing Division approval is not required on agency delegated or exempt purchases. Attorney General approval may be required for vendor terms and conditions.

Delivery Order Limitations: In the event that this contract permits delivery orders, a delivery order may only be issued during the time this Contract is in effect. Any delivery order issued within one year of the expiration of this Contract shall be effective for one year from the date the delivery order is issued. No delivery order may be extended beyond one year after this Contract has expired.

Fixed Period Contract: This Contract becomes effective upon Vendor's receipt of the notice to proceed and must be completed within _____ days.

Fixed Period Contract with Renewals: This Contract becomes effective upon Vendor's receipt of the notice to proceed and part of the Contract more fully described in the attached specifications must be completed within _____ days.

Upon completion, the vendor agrees that maintenance, monitoring, or warranty services will be provided for one year thereafter with an additional _____ successive one year renewal periods or multiple renewal periods of less than one year provided that the multiple renewal periods do not exceed _____ months in total. Automatic renewal of this Contract is prohibited.

One Time Purchase: The term of this Contract shall run from the issuance of the Award Document until all of the goods contracted for have been delivered, but in no event will this Contract extend for more than one fiscal year.

Other: See attached.

4. NOTICE TO PROCEED: Vendor shall begin performance of this Contract immediately upon receiving notice to proceed unless otherwise instructed by the Agency. Unless otherwise specified, the fully executed Award Document will be considered notice to proceed.

5. QUANTITIES: The quantities required under this Contract shall be determined in accordance with the category that has been identified as applicable to this Contract below.

Open End Contract: Quantities listed in this Solicitation are approximations only, based on estimates supplied by the Agency. It is understood and agreed that the Contract shall cover the quantities actually ordered for delivery during the term of the Contract, whether more or less than the quantities shown.

Service: The scope of the service to be provided will be more clearly defined in the specifications included herewith.

Combined Service and Goods: The scope of the service and deliverable goods to be provided will be more clearly defined in the specifications included herewith.

One Time Purchase: This Contract is for the purchase of a set quantity of goods that are identified in the specifications included herewith. Once those items have been delivered, no additional goods may be procured under this Contract without an appropriate change order approved by the Vendor, Agency, Purchasing Division, and Attorney General's office.

6. EMERGENCY PURCHASES: The Purchasing Division Director may authorize the Agency to purchase goods or services in the open market that Vendor would otherwise provide under this Contract if those goods or services are for immediate or expedited delivery in an emergency. Emergencies shall include, but are not limited to, delays in transportation or an unanticipated increase in the volume of work. An emergency purchase in the open market, approved by the Purchasing Division Director, shall not constitute a breach of this Contract and shall not entitle the Vendor to any form of compensation or damages. This provision does not excuse the State from fulfilling its obligations under a One Time Purchase contract.

7. REQUIRED DOCUMENTS: All of the items checked below must be provided to the Purchasing Division by the Vendor as specified below.

BID BOND (Construction Only): Pursuant to the requirements contained in W. Va. Code § 5-22-1(c), All Vendors submitting a bid on a construction project shall furnish a valid bid bond in the amount of five percent (5%) of the total amount of the bid protecting the State of West Virginia. The bid bond must be submitted with the bid.

PERFORMANCE BOND: The apparent successful Vendor shall provide a performance bond in the amount of _____. The performance bond must be received by the Purchasing Division prior to Contract award. On construction contracts, the performance bond must be 100% of the Contract value.

LABOR/MATERIAL PAYMENT BOND: The apparent successful Vendor shall provide a labor/material payment bond in the amount of 100% of the Contract value. The labor/material payment bond must be delivered to the Purchasing Division prior to Contract award.

In lieu of the Bid Bond, Performance Bond, and Labor/Material Payment Bond, the Vendor may provide certified checks, cashier's checks, or irrevocable letters of credit. Any certified check, cashier's check, or irrevocable letter of credit provided in lieu of a bond must be of the same amount and delivered on the same schedule as the bond it replaces. A letter of credit submitted in lieu of a performance and labor/material payment bond will only be allowed for projects under \$100,000. Personal or business checks are not acceptable.

MAINTENANCE BOND: The apparent successful Vendor shall provide a two (2) year maintenance bond covering the roofing system. The maintenance bond must be issued and delivered to the Purchasing Division prior to Contract award.

INSURANCE: The apparent successful Vendor shall furnish proof of the following insurance prior to Contract award and shall list the state as a certificate holder:

Commercial General Liability Insurance: In the amount of _____ or more.

Builders Risk Insurance: In an amount equal to 100% of the amount of the Contract.

The apparent successful Vendor shall also furnish proof of any additional insurance requirements contained in the specifications prior to Contract award regardless of whether or not that insurance requirement is listed above.

LICENSE(S) / CERTIFICATIONS / PERMITS: In addition to anything required under the Section entitled Licensing, of the General Terms and Conditions, the apparent successful Vendor shall furnish proof of the following licenses, certifications, and/or permits prior to Contract award, in a form acceptable to the Purchasing Division.

Water Resources Quality Assurance Certification

The apparent successful Vendor shall also furnish proof of any additional licenses or certifications contained in the specifications prior to Contract award regardless of whether or not that requirement is listed above.

8. WORKERS' COMPENSATION INSURANCE: The apparent successful Vendor shall comply with laws relating to workers compensation, shall maintain workers' compensation insurance when required, and shall furnish proof of workers' compensation insurance upon request.

9. LITIGATION BOND: The Director reserves the right to require any Vendor that files a protest of an award to submit a litigation bond in the amount equal to one percent of the lowest bid submitted or \$5,000, whichever is greater. The entire amount of the bond shall be forfeited if the hearing officer determines that the protest was filed for frivolous or improper purpose, including but not limited to, the purpose of harassing, causing unnecessary delay, or needless expense for the Agency. All litigation bonds shall be made payable to the Purchasing Division. In lieu of a bond, the protester may submit a cashier's check or certified check payable to the Purchasing Division. Cashier's or certified checks will be deposited with and held by the State Treasurer's office. If it is determined that the protest has not been filed for frivolous or improper purpose, the bond or deposit shall be returned in its entirety.

10. LIQUIDATED DAMAGES: Vendor shall pay liquidated damages in the amount of

for _____.

This clause shall in no way be considered exclusive and shall not limit the State or Agency's right to pursue any other available remedy.

11. ACCEPTANCE: Vendor's signature on its bid, or on the certification and signature page, constitutes an offer to the State that cannot be unilaterally withdrawn, signifies that the product or service proposed by vendor meets the mandatory requirements contained in the Solicitation for that product or service, unless otherwise indicated, and signifies acceptance of the terms and conditions contained in the Solicitation unless otherwise indicated.

12. PRICING: The pricing set forth herein is firm for the life of the Contract, unless specified elsewhere within this Solicitation/Contract by the State. A Vendor's inclusion of price adjustment provisions in its bid, without an express authorization from the State in the Solicitation to do so, may result in bid disqualification.

13. PAYMENT: Payment in advance is prohibited under this Contract. Payment may only be made after the delivery and acceptance of goods or services. The Vendor shall submit invoices, in arrears.

14. PURCHASING CARD ACCEPTANCE: The State of West Virginia currently utilizes a Purchasing Card program, administered under contract by a banking institution, to process payment for goods and services. The Vendor must accept the State of West Virginia's Purchasing Card for payment of all orders under this Contract unless the box below is checked.

Vendor is not required to accept the State of West Virginia's Purchasing Card as payment for all goods and services.

15. TAXES: The Vendor shall pay any applicable sales, use, personal property or any other taxes arising out of this Contract and the transactions contemplated thereby. The State of West Virginia is exempt from federal and state taxes and will not pay or reimburse such taxes.

16. ADDITIONAL FEES: Vendor is not permitted to charge additional fees or assess additional charges that were not either expressly provided for in the solicitation published by the State of West Virginia or included in the unit price or lump sum bid amount that Vendor is required by the solicitation to provide. Including such fees or charges as notes to the solicitation may result in rejection of vendor's bid. Requesting such fees or charges be paid after the contract has been awarded may result in cancellation of the contract.

17. FUNDING: This Contract shall continue for the term stated herein, contingent upon funds being appropriated by the Legislature or otherwise being made available. In the event funds are not appropriated or otherwise made available, this Contract becomes void and of no effect beginning on July 1 of the fiscal year for which funding has not been appropriated or otherwise made available.

18. CANCELLATION: The Purchasing Division Director reserves the right to cancel this Contract immediately upon written notice to the vendor if the materials or workmanship supplied do not conform to the specifications contained in the Contract. The Purchasing Division Director may also cancel any purchase or Contract upon 30 days written notice to the Vendor in accordance with West Virginia Code of State Rules § 148-1-6.1.e.

19. TIME: Time is of the essence with regard to all matters of time and performance in this Contract.

20. APPLICABLE LAW: This Contract is governed by and interpreted under West Virginia law without giving effect to its choice of law principles. Any information provided in specification manuals, or any other source, verbal or written, which contradicts or violates the West Virginia Constitution, West Virginia Code or West Virginia Code of State Rules is void and of no effect.

21. COMPLIANCE: Vendor shall comply with all applicable federal, state, and local laws, regulations and ordinances. By submitting a bid, Vendor acknowledges that it has reviewed, understands, and will comply with all applicable laws, regulations, and ordinances.

22. ARBITRATION: Any references made to arbitration contained in this Contract, Vendor's bid, or in any American Institute of Architects documents pertaining to this Contract are hereby deleted, void, and of no effect.

23. MODIFICATIONS: This writing is the parties' final expression of intent. Notwithstanding anything contained in this Contract to the contrary no modification of this Contract shall be binding without mutual written consent of the Agency, and the Vendor, with approval of the Purchasing Division and the Attorney General's office (Attorney General approval is as to form only). Any change to existing contracts that adds work or changes contract cost, and were not included in the original contract, must be approved by the Purchasing Division and the Attorney General's Office (as to form) prior to the implementation of the change or commencement of work affected by the change.

24. WAIVER: The failure of either party to insist upon a strict performance of any of the terms or provision of this Contract, or to exercise any option, right, or remedy herein contained, shall not be construed as a waiver or a relinquishment for the future of such term, provision, option, right, or remedy, but the same shall continue in full force and effect. Any waiver must be expressly stated in writing and signed by the waiving party.

25. SUBSEQUENT FORMS: The terms and conditions contained in this Contract shall supersede any and all subsequent terms and conditions which may appear on any form documents submitted by Vendor to the Agency or Purchasing Division such as price lists, order forms, invoices, sales agreements, or maintenance agreements, and includes internet websites or other electronic documents. Acceptance or use of Vendor's forms does not constitute acceptance of the terms and conditions contained thereon.

26. ASSIGNMENT: Neither this Contract nor any monies due, or to become due hereunder, may be assigned by the Vendor without the express written consent of the Agency, the Purchasing Division, the Attorney General's office (as to form only), and any other government agency or office that may be required to approve such assignments. Notwithstanding the foregoing, Purchasing Division approval may or may not be required on certain agency delegated or exempt purchases.

27. WARRANTY: The Vendor expressly warrants that the goods and/or services covered by this Contract will: (a) conform to the specifications, drawings, samples, or other description furnished or specified by the Agency; (b) be merchantable and fit for the purpose intended; and (c) be free from defect in material and workmanship.

28. STATE EMPLOYEES: State employees are not permitted to utilize this Contract for personal use and the Vendor is prohibited from permitting or facilitating the same.

29. BANKRUPTCY: In the event the Vendor files for bankruptcy protection, the State of West Virginia may deem this Contract null and void, and terminate this Contract without notice.

30. PRIVACY, SECURITY, AND CONFIDENTIALITY: The Vendor agrees that it will not disclose to anyone, directly or indirectly, any such personally identifiable information or other confidential information gained from the Agency, unless the individual who is the subject of the information consents to the disclosure in writing or the disclosure is made pursuant to the Agency's policies, procedures, and rules. Vendor further agrees to comply with the Confidentiality Policies and Information Security Accountability Requirements, set forth in <http://www.state.wv.us/admin/purchase/privacy/default.html>.

31. YOUR SUBMISSION IS A PUBLIC DOCUMENT: Vendor's entire response to the Solicitation and the resulting Contract are public documents. As public documents, they will be disclosed to the public following the bid/proposal opening or award of the contract, as required by the competitive bidding laws of West Virginia Code §§ 5A-3-1 et seq., 5-22-1 et seq., and 5G-1-1 et seq. and the Freedom of Information Act West Virginia Code §§ 29B-1-1 et seq.

DO NOT SUBMIT MATERIAL YOU CONSIDER TO BE CONFIDENTIAL, A TRADE SECRET, OR OTHERWISE NOT SUBJECT TO PUBLIC DISCLOSURE.

Submission of any bid, proposal, or other document to the Purchasing Division constitutes your explicit consent to the subsequent public disclosure of the bid, proposal, or document. The Purchasing Division will disclose any document labeled "confidential," "proprietary," "trade secret," "private," or labeled with any other claim against public disclosure of the documents, to include any "trade secrets" as defined by West Virginia Code § 47-22-1 et seq. All submissions are subject to public disclosure without notice.

32. LICENSING: In accordance with West Virginia Code of State Rules § 148-1-6.1.e, Vendor must be licensed and in good standing in accordance with any and all state and local laws and requirements by any state or local agency of West Virginia, including, but not limited to, the West Virginia Secretary of State's Office, the West Virginia Tax Department, West Virginia Insurance Commission, or any other state agency or political subdivision. Upon request, the Vendor must provide all necessary releases to obtain information to enable the Purchasing Division Director or the Agency to verify that the Vendor is licensed and in good standing with the above entities.

33. ANTITRUST: In submitting a bid to, signing a contract with, or accepting a Award Document from any agency of the State of West Virginia, the Vendor agrees to convey, sell, assign, or transfer to the State of West Virginia all rights, title, and interest in and to all causes of action it may now or hereafter acquire under the antitrust laws of the United States and the State of West Virginia for price fixing and/or unreasonable restraints of trade relating to the particular commodities or services purchased or acquired by the State of West Virginia. Such assignment shall be made and become effective at the time the purchasing agency tenders the initial payment to Vendor.

34. VENDOR CERTIFICATIONS: By signing its bid or entering into this Contract, Vendor certifies (1) that its bid or offer was made without prior understanding, agreement, or connection with any corporation, firm, limited liability company, partnership, person or entity submitting a bid or offer for the same material, supplies, equipment or services; (2) that its bid or offer is in all respects fair and without collusion or fraud; (3) that this Contract is accepted or entered into without any prior understanding, agreement, or connection to any other entity that could be considered a violation of law; and (4) that it has reviewed this Solicitation in its entirety; understands the requirements, terms and conditions, and other information contained herein.

Vendor's signature on its bid or offer also affirms that neither it nor its representatives have any interest, nor shall acquire any interest, direct or indirect, which would compromise the performance of its services hereunder. Any such interests shall be promptly presented in detail to the Agency. The individual signing this bid or offer on behalf of Vendor certifies that he or she is authorized by the Vendor to execute this bid or offer or any documents related thereto on Vendor's behalf; that he or she is authorized to bind the Vendor in a contractual relationship; and that, to the best of his or her knowledge, the Vendor has properly registered with any State agency that may require registration.

35. VENDOR RELATIONSHIP: The relationship of the Vendor to the State shall be that of an independent contractor and no principal-agent relationship or employer-employee relationship is contemplated or created by this Contract. The Vendor as an independent contractor is solely liable for the acts and omissions of its employees and agents. Vendor shall be responsible for selecting, supervising, and compensating any and all individuals employed pursuant to the terms of this Solicitation and resulting contract. Neither the Vendor, nor any employees or subcontractors of the Vendor, shall be deemed to be employees of the State for any purpose whatsoever. Vendor shall be exclusively responsible for payment of employees and contractors for all wages and salaries, taxes, withholding payments, penalties, fees, fringe benefits, professional liability insurance premiums, contributions to insurance and pension, or other deferred compensation plans, including but not limited to, Workers' Compensation and Social Security obligations, licensing fees, etc. and the filing of all necessary documents, forms, and returns pertinent to all of the foregoing.

Vendor shall hold harmless the State, and shall provide the State and Agency with a defense against any and all claims including, but not limited to, the foregoing payments, withholdings, contributions, taxes, Social Security taxes, and employer income tax returns.

36. INDEMNIFICATION: The Vendor agrees to indemnify, defend, and hold harmless the State and the Agency, their officers, and employees from and against: (1) Any claims or losses for services rendered by any subcontractor, person, or firm performing or supplying services, materials, or supplies in connection with the performance of the Contract; (2) Any claims or losses resulting to any person or entity injured or damaged by the Vendor, its officers, employees, or subcontractors by the publication, translation, reproduction, delivery, performance, use, or disposition of any data used under the Contract in a manner not authorized by the Contract, or by Federal or State statutes or regulations; and (3) Any failure of the Vendor, its officers, employees, or subcontractors to observe State and Federal laws including, but not limited to, labor and wage and hour laws.

37. PURCHASING AFFIDAVIT: In accordance with West Virginia Code § 5A-3-10a, all Vendors are required to sign, notarize, and submit the Purchasing Affidavit stating that neither the Vendor nor a related party owe a debt to the State in excess of \$1,000. The affidavit must be submitted prior to award, but should be submitted with the Vendor's bid. A copy of the Purchasing Affidavit is included herewith.

38. ADDITIONAL AGENCY AND LOCAL GOVERNMENT USE: This Contract may be utilized by other agencies, spending units, and political subdivisions of the State of West Virginia; county, municipal, and other local government bodies; and school districts ("Other Government Entities"). Any extension of this Contract to the aforementioned Other Government Entities must be on the same prices, terms, and conditions as those offered and agreed to in this Contract, provided that such extension is in compliance with the applicable laws, rules, and ordinances of the Other Government Entity. If the Vendor does not wish to extend the prices, terms, and conditions of its bid and subsequent contract to the Other Government Entities, the Vendor must clearly indicate such refusal in its bid. A refusal to extend this Contract to the Other Government Entities shall not impact or influence the award of this Contract in any manner.

39. CONFLICT OF INTEREST: Vendor, its officers or members or employees, shall not presently have or acquire an interest, direct or indirect, which would conflict with or compromise the performance of its obligations hereunder. Vendor shall periodically inquire of its officers, members and employees to ensure that a conflict of interest does not arise. Any conflict of interest discovered shall be promptly presented in detail to the Agency.

40. REPORTS: Vendor shall provide the Agency and/or the Purchasing Division with the following reports identified by a checked box below:

Such reports as the Agency and/or the Purchasing Division may request. Requested reports may include, but are not limited to, quantities purchased, agencies utilizing the contract, total contract expenditures by agency, etc.

Quarterly reports detailing the total quantity of purchases in units and dollars, along with a listing of purchases by agency. Quarterly reports should be delivered to the Purchasing Division via email at purchasing.requisitions@wv.gov.

41. BACKGROUND CHECK: In accordance with W. Va. Code § 15-2D-3, the Director of the Division of Protective Services shall require any service provider whose employees are regularly employed on the grounds or in the buildings of the Capitol complex or who have access to sensitive or critical information to submit to a fingerprint-based state and federal background inquiry through the state repository. The service provider is responsible for any costs associated with the fingerprint-based state and federal background inquiry.

After the contract for such services has been approved, but before any such employees are permitted to be on the grounds or in the buildings of the Capitol complex or have access to sensitive or critical information, the service provider shall submit a list of all persons who will be physically present and working at the Capitol complex to the Director of the Division of Protective Services for purposes of verifying compliance with this provision. The State reserves the right to prohibit a service provider's employees from accessing sensitive or critical information or to be present at the Capitol complex based upon results addressed from a criminal background check.

Service providers should contact the West Virginia Division of Protective Services by phone at (304) 558-9911 for more information.

42. PREFERENCE FOR USE OF DOMESTIC STEEL PRODUCTS: Except when authorized by the Director of the Purchasing Division pursuant to W. Va. Code § 5A-3-56, no contractor may use or supply steel products for a State Contract Project other than those steel products made in the United States. A contractor who uses steel products in violation of this section may be subject to civil penalties pursuant to W. Va. Code § 5A-3-56. As used in this section:

- a. "State Contract Project" means any erection or construction of, or any addition to, alteration of or other improvement to any building or structure, including, but not limited to, roads or highways, or the installation of any heating or cooling or ventilating plants or other equipment, or the supply of and materials for such projects, pursuant to a contract with the State of West Virginia for which bids were solicited on or after June 6, 2001.
- b. "Steel Products" means products rolled, formed, shaped, drawn, extruded, forged, cast, fabricated or otherwise similarly processed, or processed by a combination of two or more or such operations, from steel made by the open heath, basic oxygen, electric furnace, Bessemer or other steel making process. The Purchasing Division Director may, in writing, authorize the use of foreign steel products if:
- c. The cost for each contract item used does not exceed one tenth of one percent (.1%) of the total contract cost or two thousand five hundred dollars (\$2,500.00), whichever is greater. For the purposes of this section, the cost is the value of the steel product as delivered to the project; or
- d. The Director of the Purchasing Division determines that specified steel materials are not produced in the United States in sufficient quantity or otherwise are not reasonably available to meet contract requirements.

43. PREFERENCE FOR USE OF DOMESTIC ALUMINUM, GLASS, AND STEEL: In Accordance with W. Va. Code § 5-19-1 et seq., and W. Va. CSR § 148-10-1 et seq., for every contract or subcontract, subject to the limitations contained herein, for the construction, reconstruction, alteration, repair, improvement or maintenance of public works or for the purchase of any item of machinery or equipment to be used at sites of public works, only domestic aluminum, glass or steel products shall be supplied unless the spending officer determines, in writing, after the receipt of offers or bids, (1) that the cost of domestic aluminum, glass or steel products is unreasonable or inconsistent with the public interest of the State of West Virginia, (2) that domestic aluminum, glass or steel products are not produced in sufficient quantities to meet the contract requirements, or (3) the available domestic aluminum, glass, or steel do not meet the contract specifications. This provision only applies to public works contracts awarded in an amount more than fifty thousand dollars (\$50,000) or public works contracts that require more than ten thousand pounds of steel products.

The cost of domestic aluminum, glass, or steel products may be unreasonable if the cost is more than twenty percent (20%) of the bid or offered price for foreign made aluminum, glass, or steel products. If the domestic aluminum, glass or steel products to be supplied or produced in a "substantial labor surplus area", as defined by the United States Department of Labor, the cost of domestic aluminum, glass, or steel products may be unreasonable if the cost is more than thirty percent (30%) of the bid or offered price for foreign made aluminum, glass, or steel products. This preference shall be applied to an item of machinery or equipment, as indicated above, when the item is a single unit of equipment or machinery manufactured primarily of aluminum, glass or steel, is part of a public works contract and has the sole purpose or of being a permanent part of a single public works project. This provision does not apply to equipment or machinery purchased by a spending unit for use by that spending unit and not as part of a single public works project.

All bids and offers including domestic aluminum, glass or steel products that exceed bid or offer prices including foreign aluminum, glass or steel products after application of the preferences provided in this provision may be reduced to a price equal to or lower than the lowest bid or offer price for foreign aluminum, glass or steel products plus the applicable preference. If the reduced bid or offer prices are made in writing and supersede the prior bid or offer prices, all bids or offers, including the reduced bid or offer prices, will be reevaluated in accordance with this rule.

SPECIFICATIONS

1. **PURPOSE AND SCOPE:** The West Virginia Purchasing Division is soliciting bids on behalf of The West Virginia Department of Environmental Protection to establish an open end contract for Organic Analysis of Water and Soil Samples.
2. **DEFINITIONS:** The terms listed below shall have the meanings assigned to them below. Additional definitions can be found in Attachment A and section 2 of the General Terms and Conditions.
 - 2.1 “**Contract Item**” or “**Contract Items**” the list of items identified in Section 3.1 below and on the Pricing Pages
 - 2.2 “**Pricing Pages**” means the schedule of prices, estimated order quantity, and totals contained in wvOASIS or attached hereto as Exhibit A, and used to evaluate the Solicitation responses
 - 2.3 “**Solicitation**” means the official notice of an opportunity to supply the State with goods or services that is published by the Purchasing Division.
 - 2.4 “**WVDEP**” means the West Virginia Department of Environmental Protection.
 - 2.5 “**MDL**” means Method Detection Limit.
 - 2.6 “**MRL**” means Method Reporting Limit.
 - 2.7 “**PQL**” means Practical Quantitation Limit.
 - 2.8 “**Blank Water**” is deionized water which is treated as a sample. It is used to identify errors or contamination in sample collection and analysis.
 - 2.9 “**Dry Weight**” is when the laboratory has measured the moisture content of the sample, and calculated the concentration based on the percent solids present in the sample.
 - 2.10 “**Shewhart Quality Control Charts**” are graphical and analytic tools for monitoring process variation.

3. GENERAL REQUIREMENTS:

3.1. Contract Items and Mandatory Requirements: Vendors shall provide Agency with the Contract Items listed below on an open-end and continuing basis. This contract will be awarded to multiple vendors based on the need to have vendors located throughout the state in close proximity to various DEP offices. Contract Items must meet or exceed the mandatory requirements as shown below:

3.1.1. Organic analysis of water and soil samples.

- 3.1.1.1. Must have a chemist on staff experienced in organic water/soil analysis and its interpretation.
 - 3.1.1.1.1 The chemist must have at minimum a bachelor's degree in chemistry and a minimum of two (2) years of experience in gas chromatography & mass spectrometry.
 - 3.1.1.1.2 Compliance with experience requirements will be determined prior to contract award by the State through references provided by the Vendor with its bid or upon request, through knowledge or documentation of the Vendor's past projects, or some other method that the State determines to be acceptable.
 - 3.1.1.1.3 Vendor should provide a current résumé which includes information regarding the number of years of qualification, experience and training, and relevant professional education for each individual that will be assigned to this project.
 - 3.1.1.1.4 Vendor must provide any documentation requested by the State to assist in confirmation of compliance with this provision. References, documentation, or other information to confirm compliance with this experience requirement should be submitted with the vendors response, but may be requested after bid opening and prior to contract award
- 3.1.1.2. The laboratory must be certified by the Water Resources Quality Assurance Program. This includes any laboratories to which analyses are subcontracted. Submit proof of certification preferably with bid, but must be sent prior to award.

REQUEST FOR QUOTATION
Organic Analysis of Water and Soil

- 3.1.1.3. The vendor must be accessible by telephone twenty-four (24) hours per day, seven (7) days per week.
- 3.1.1.4 The vendors must follow the Quality Control and Analytical Procedures outlined in Attachment A.
- 3.1.1.5 The vendors, who are awarded a contract, are solely responsible for the satisfactory completion of the work. The prime vendor shall be responsible for ensuring that any subcontractors have all the necessary permits, certifications (including WV State Laboratory certifications), experience and insurance to perform the work. All subcontractors must be approved by DEP before the subcontractor initiates work. The primary contractor must prove subcontractor's qualifications prior to award. All work performed by a subcontractor must be appropriately annotated on any submitted documentation. DEP will consider the vendors to be the sole point of contact with regard to authorized work under the contract; however, this provision does not prohibit the DEP from directly contacting subcontractors in instances where the DEP may need specific information regarding an analytical method or results in a timely manner which the prime vendor may not be able to provide.
 - 3.1.1.5.1 The subcontractors are not expected to be available twenty-four (24) hours a day, seven (7) days a week.
- 3.1.1.6 The vendors agree that any and all data, analyses, materials, reports or other information, oral or written, prepared by the vendors with respect to this requisition shall, except for information which has been publicly available, be treated as confidential and shall not be utilized, released, published, or disclosed, by the vendors at any time for any purpose whatsoever other than to provide consultation or other service to the DEP
- 3.1.1.7 All analytical data submitted to DEP must be reported in MDLs, not PQLs.
- 3.1.1.8 Upon request, the vendors shall provide sample containers and field preservatives to the DEP at no charge.

- 3.1.1.9** The DEP may, at their discretion, choose to deliver to the vendor's establishment rather than having them picked up by or delivered to the vendors.
- 3.1.1.10** If samples are to be shipped to the vendors by mail courier, the vendors will not be permitted to have any additional charges related to the shipping. These charges must be included in the cost.
- 3.1.1.11** All unit pricing quoted must be based on standard (not to exceed fourteen (14) calendar days) turn-around time.
- 3.1.1.12** Upon awarding the contract, each vendor shall provide one copy of the method detection limits (MDLs) and method reporting limits (MRL's) for all analytes for which the contract is awarded. Any updates to the MDLs during the life of this contract shall be provided to the DEP, in writing, within seven (7) calendar days of the update(s) completion. If the vendor raises MDL's so that they no longer meet regulatory criteria, DEP reserves the right use another vendor. If a vendor fails to supply this information to the DEP, the DEP will not conduct business with that vendor until the information has been submitted.
- 3.1.1.13** The vendors shall provide at no additional cost, any requested quality control/calibration information associated with a particular sample. Quality control/calibration information includes, but is not limited to, values of standards used in calibration, date of last calibration, correlation coefficients of calibration curves, instrument blank values, check standard values, spike/recovery values, duplicate values, dilution volumes, bench sheets, calculations and Shewhart Quality Control Charts (graphical and analytic tools for monitoring process variation).
- 3.1.1.14** Notice of any changes to the vendor's certification status with regard to any of the parameters that the vendor is certified to analyze for, must be submitted to the DEP, in writing, within ten (10) calendar days of the time of status change.
- 3.1.1.15** The laboratories will provide blank water to the DEP, at no charge, upon request.

- 3.1.1.16** Should MDLs lower than those listed on the contract be available, the vendor shall provide these lower detection levels when conducting analyses.
- 3.1.1.17** All soil sample analytical results shall be reported on a dry-weight basis.
- 3.1.1.18** Samples delivered by WVDEP shall be taken to the lab located closest to the sampling location that is capable of conducting all necessary analysis. For samples to be picked up at the DEP Offices, DEP shall contact the lab capable of conducting all necessary analysis at regulatory required MDL's that has the lowest unit price per pickup at that particular DEP Office location as established in the contract. DEP shall verify that these conditions have been met prior to issuing a release order for the services.

4. CONTRACT AWARD:

4.1 Contract Award: The Contract is intended to provide Agency with a purchase price on all Contract Items. The Contract shall be awarded to the Vendors that meet the specifications set forth in this RFQ. This award will be split if it is in the best interest of the DEP. The first evaluator should be the degradation of the sample time and the test required. If there is no holding time restriction, then selection of vendor will be based on lowest to highest bidder to do the test. If holding time is restricted, then selection of the vendor will be based on the lowest to highest bid, with the closest lowest bidder providing the service.

4.2 Pricing Pages: Vendors should complete the Pricing Pages by filling in the "Unit Price" box with the price per unit. The "Amount" box is filled in by multiplying the "Unit Price" with the "Quantity". Vendors should complete the Pricing Page in their entirety as failure to do so may result in Vendor's bid being disqualified.

The Pricing Pages contain a list of the Contract Items and estimated purchase volume. The estimated purchase volume of each item represents the approximate volume of anticipated purchases only. No future use of the Contract of any individual item is guaranteed or implied.

Vendor should electronically enter the information into the Pricing Pages through wvOASIS, if available, or as an electronic document. In most cases, vendors can request an electronic copy of the Pricing Pages for bid purposes by sending an email request to the following address:

5. ORDERING AND PAYMENT:

5.1 Ordering: Vendors shall accept orders through wvOASIS, regular mail, facsimile, e-mail, or any other written form of communication. Vendors may, but are not required to, accept on-line orders through a secure internet ordering portal/website. If Vendors have the ability to accept on-line orders, they should include in their response a brief description of how Agencies may utilize the on-line ordering system. Vendors shall ensure that their on-line ordering system is properly secured prior to processing Agency orders on-line.

5.1.1 Agency will issue an Agency Delivery Order (ADO) for sampling. Agency must use the lowest bid Vendor unless it is determined that the sample need is perishable. Agency must document in the ADO how selected Vendor was established and used

5.2 Payment: Vendors shall accept payment in accordance with the payment procedures of the State of West Virginia.

6. DELIVERY AND RETURN:

6.1 Delivery Time: Vendors shall deliver standard orders within 14 working days after orders are received. Vendors shall deliver emergency orders within 1 working day(s) after orders are received. Vendors shall ship all orders in accordance with the above schedule and shall not hold orders until a minimum delivery quantity is met.

6.2 Late Delivery: The Agency placing the order under this Contract must be notified in writing if orders will be delayed for any reason. Any delay in delivery that could cause harm to an Agency will be grounds for cancellation of the delayed order, and/or obtaining the items ordered from a third party.

Any Agency seeking to obtain items from a third party under this provision must first obtain approval of the Purchasing Division.

6.3 Delivery Payment/Risk of Loss: Standard order delivery shall be F.O.B. destination to the Agency's location. Vendors shall include the cost of standard order delivery charges in its bid pricing/discount and is not permitted to charge the Agency separately for such delivery. The Agency will pay delivery charges on all emergency orders provided that Vendors invoices those delivery costs as a separate charge with the original freight bill attached to the invoice.

6.4 Return of Unacceptable Items: If the Agency deems the Contract Items to be unacceptable, the Contract Items shall be returned to Vendor at Vendor's expense and with no restocking charge. Vendor shall either make arrangements for the return within five (5) days of being notified that items are unacceptable, or permit the Agency to arrange for the return and reimburse Agency for delivery expenses.

If the original packaging cannot be utilized for the return, Vendor will supply the Agency with appropriate return packaging upon request. All returns of unacceptable items shall be F.O.B. the Agency's location. The returned product shall either be replaced, or the Agency shall receive a full credit or refund for the purchase price, at the Agency's discretion.

- 6.5 Return Due to Agency Error:** Items ordered in error by the Agency will be returned for credit within 30 days of receipt, F.O.B. Vendor's location. Vendor shall not charge a restocking fee if returned products are in a resalable condition. Items shall be deemed to be in a resalable condition if they are unused and in the original packaging. Any restocking fee for items not in a resalable condition shall be the lower of the Vendor's customary restocking fee or 5% of the total invoiced value of the returned items.

7. VENDOR DEFAULT:

7.1 The following shall be considered a vendor default under this Contract.

- 7.1.1 Failure to provide Contract Items in accordance with the requirements contained herein.
- 7.1.2 Failure to comply with other specifications and requirements contained herein.
- 7.1.3 Failure to comply with any laws, rules, and ordinances applicable to the Contract Services provided under this Contract.
- 7.1.4 Failure to remedy deficient performance upon request.

7.2 The following remedies shall be available to Agency upon default.

- 7.2.1 Immediate cancellation of the Contract.
- 7.2.2 Immediate cancellation of one or more release orders issued under this Contract.

7.2.3 Any other remedies available in law or equity.

8. MISCELLANEOUS:

- 8.1 **No Substitutions:** Vendor shall supply only Contract Items submitted in response to the Solicitation unless a contract modification is approved in accordance with the provisions contained in this Contract.
- 8.2 **Vendor Supply:** Vendor must carry sufficient inventory of the Contract Items being offered to fulfill its obligations under this Contract. By signing its bid, Vendor certifies that it can supply the Contract Items contained in its bid response.
- 8.3 **Reports:** Vendor shall provide quarterly reports and annual summaries to the Agency showing the Agency's items purchased, quantities of items purchased, and total dollar value of the items purchased. Vendor shall also provide reports, upon request, showing the items purchased during the term of this Contract, the quantity purchased for each of those items, and the total value of purchases for each of those items. Failure to supply such reports may be grounds for cancellation of this Contract.
- 8.4 **Contract Manager:** During its performance of this Contract, Vendor must designate and maintain a primary contract manager responsible for overseeing Vendor's responsibilities under this Contract. The Contract manager must be available during normal business hours to address any customer service or other issues related to this Contract. Vendor should list its Contract manager and his or her contact information below.

Contract Manager: Mukesh Shah or Brian Richard

Telephone Number: 304-437-5405 or 304-545-4181

Fax Number: 304-757-9676

Email Address: Mukesh.Shah@pacelabs.com
Brian.Richards@pacelabs.com

In administering and enforcing most of the pollution control laws of the state, the importance of quality control cannot be overstated. Quality control measures must be strictly adhered to in all phases of sample collection, preservation, transportation, and analysis. The quality control and analytical processes, as they relate to the vendor's responsibility, are divided into four (4) major steps:

Step 1 – Collection of sample from specified office.

Step 2 – Conduct specified analysis on samples in a timely and professional manner.

Step 3 - Establishment of continuing program to ensure the reliability of analytical data.

Step 4 – Legal Testimony

Step 1 – Collection of Samples from Specified Office

The sampling for the DEP shall be conducted by Department personnel. The vendor shall be notified of the date sampling occurs /is to occur and from which DEP office the sample can be obtained. The vendor shall be notified when the sample was taken (time/date) and the person who collected the sample. The vendor shall be responsible for obtaining the sample from the specified office and delivery of sample to the laboratory within 24 hours from the time of sampling. The vendor shall indicate the time the sample was obtained from the specified office and its condition and the time the sample was delivered to the laboratory. The vendor shall be responsible for holding times, preservation of the sample and the internal chain of custody from the time the vendor obtained the sample until the time the analysis is accepted by the Department. The vendor shall also maintain records of the results of analysis for a minimum of five (5) years. If samples are to be shipped to the vendor by mail courier, then the vendor shall supply all shipping containers, labels and shall cover all costs of shipping from the sample location or from any WV/DEP office.

Step 2 - Conduct Specified Analysis on Samples

The methods used by the laboratory for the analysis shall be either 1) Methods described in 40 CFR-136 for organic analysis and Standard Methods for the Examination of Water and Waste Water, current edition, but must be an approved method per 40 CFR Part 36 or 2) Test Methods for Evaluating Solid Waste - Physical/Chemical Methods (SW-846) Third Edition, with updates. The sampler shall be responsible for specifying either 1 or 2 above, and in the event the method is not specified, Method 1 shall be used.

In the event a compound is requested by a method which has greater than ten compounds in the compound list, any compounds detected at or above three times the PQL, in addition to the requested compound, shall be reported and invoiced as individual compounds up to a maximum of ten compounds total. If ten or more compounds are detected and reported, the total list cost

will be in effect.

Analysis of samples is not deemed completed until the data has been submitted to and accepted by DEP. Should the DEP not provide notice of acceptance within four weeks of the date results were mailed, the vendor may consider the data to be acceptable by the Department. The vendor shall be responsible for maintaining preservation of the samples until the holding time is exceeded. Any samples with a sheen, discoloration or odor shall be maintained by the vendor until DEP's notification that the sample can be properly disposed of. DEP will advise the vendor which samples fall into this category. The vendor shall be responsible for the proper disposal of all samples submitted to them by the DEP unless otherwise notified. The vendor shall dispose of the sample no earlier than four weeks after DEP accepts the results. The results of the analysis shall be submitted to the DEP no more than two (2) weeks after receipt of samples.

Step 3 - Quality Control

Three programs are to be utilized to assure reliable laboratory data: (1) the use and documentation of standard analytical methods, (2) analysis of duplicate and spiked (where the concept applies) samples at regular intervals each day to check analytical precision and accuracy, and (3) analysis of reference samples at 6 (six) month intervals*. Regardless of which analytical methods are used in a laboratory, the methodology must be carefully documented. Standard methods which have been modified or entirely replaced because of recent advances in the state of art may only be used when it has been given approval in the Federal Register. Documentation of procedures must be clear, honest, and adequately referenced; and the procedures shall be applied exactly as documented. The responsibility for results obtained from these procedures rests with the analyst and supervisor, both as representatives of the firm.

All testing must be conducted using approved methods: (1) 40-CFR-136, Organic test Methods for NPDES samples or 2) SW-846 Methods for all other samples. Where an NPDES method is not available, the laboratory may substitute an SW-846 method. The laboratory will be advised as to the type of sample being tested so that the proper test methods may be applied.

Further, the laboratory may substitute capillary column technology for packed column technology for NPDES test methods.

To check the laboratory analytical precision, duplicate analysis of samples shall be performed at regular intervals. Duplicate samples must be carried through the complete analytical process. For all analyses, the interval shall be every tenth (10th) sample. When less than ten (10) samples are tested in one day, at least one duplicate sample shall be analyzed, and that sample must be a DEP sample. The difference between the replicates for each analysis are to be plotted on Shewart precision quality control charts. "Out-of-Control" samples are to be repeated and appropriate steps shall be taken to locate and remedy the error.

To check the laboratory analytical accuracy, samples containing a known addition of the target analyte (spike) shall be analyzed at regular intervals. Spiked samples must be carried through

the complete analytical process. For all analyses, the interval shall be every tenth (10th) sample. Where less than ten samples are tested in one day, at least one spiked sample shall be analyzed, and that sample must be a DEP sample. The percent recovery must be plotted out on Shewart accuracy quality control charts. "Out of Control" samples are to be repeated and appropriate steps taken to locate and remedy the source of error.

Periodic submission of samples with known composition will occur. No notice of this activity will be provided unless results indicate an anomaly.

*These analyses shall be conducted under the vendor's performance evaluation test number through the Analytical Products Group.

Practical Quantitation Limits

PQLs have been listed where possible and is defined as the lowest concentration of analytes that can be reliably determined within specified limits of precision and accuracy by a particular method under routine laboratory conditions. If the PQL for a particular method is higher value than the regulatory limit for that parameter, then an alternate method with a PQL lower than the regulatory limit shall be used. The laboratory shall provide DEP with one complete set of PQLs and Method Detection Limits upon being awarded the contract. If a certain PQL is desired by the sampler, the laboratory may substitute the requested method with another method that meets the necessary PQL upon approval of the sampler.

Step 4 - Legal Testimony

The selected vendor or vendors may be requested by the DEP to testify concerning the validity of the laboratory analysis. The vendor will only be required to testify to the following areas:

1. Time of notification by Department of sampling and by whom.
2. When and where samples were collected by the firm.
3. Condition of sample.
4. How sample was preserved by the firm.
5. Date and time(s) of analysis and by whom.
6. Chain of Custody procedures within the laboratory
7. Methods used.
8. Results of analysis.

At no time will the firm respond to questions concerning interpretation of results. The Department shall reimburse the vendor for the costs of any such testimony. The vendor must provide a detailed invoice of actual costs incurred.

Quality Control Deliverables

Level I Contents

- Laboratory Analysis Reports
- Chain of Custody Form

Level II Contents

- Laboratory Analysis reports
- Case Narrative
- Chain of Custody Form
- Initial Calibration summaries, CLP Form 6
- Continuing Calibration Verification summaries, CLP Form 7
- Raw method blank data
- Matrix Spike/Matrix Spike Duplicate Summary (MS/MSD), CLP form 3
- Surrogate Summary, CLP Form 2
- Raw Sample data

Level III Contents, Organic

- Laboratory Analysis reports
- Chain of Custody Form
- Case Narrative
- Retention Time Summary (if applicable)
- Extraction Logs (if applicable)
- Analytical Run Logs
- MS Tuning Summary, CLP form 5 (if applicable)
- Initial Calibration Summaries, CLP Form 6
- Continuing Calibration Verification Summaries, CLP Form 7
- Method Blank Summary, CLP Form 4
- Raw method blank data
- Matrix Spike/Matrix Spike Duplicate Summary (MS/MSD), CLP form 3
- Surrogate Summary, CLP Form 2 (if applicable)
- Internal Standard Summary, CLP form 8 (if applicable)
- All associated Raw QC data, including calibrations
- Form 1 results Summaries for samples and blanks
- Raw Sample data
- MDL Statements

Electronic Date Deliverable**Level IV Contents, Inorganic/Metals****Laboratory Analysis reports****Chain of Custody Form****Case Narrative****Analysis Data Sheet, CLP form 1****Initial and continuing Calibration Verification, CLP Form 2, Part 1****CRDL Standard for AA and ICP, CLP Form 2 , Part 2****Blanks, CLP Form 3****ICP Interference Check Sample, CLP Form 4****Spike Sample Recovery, CLP Form 5, Part 1****Post Digest Spike Sample Recovery, CLP Form 5, Part 2****Duplicates, CLP Form 6****Laboratory Control Sample, CLP Form 7****Standard Addition Results, CLP Form 8****ICP Serial Dilutions, CLP Form 9****Preparation Logs, CLP Form 13****Analysis Run Logs, CLP Form 14****All associated raw data****MDL statements****Electronic Date Deliverable**

Parameters detected with EPA 600 Series Organic Analyses

Method 601, Purgeable Halocarbons	MDLs	SOLID
Bromodichloroethane	1.0 ug/l	
Bromoform	1.0 ug/l	
Bromomethane	1.0 ug/l	
Carbon Tetrachloride	1.0 ug/l	
Chlorobenzene	1.0 ug/l	
Chloroethane	1.0 ug/l	
2-Chloroethylvinyl ether	1.0 ug/l	
Chloroform	1.0 ug/l	
Chloromethane	1.0 ug/l	
Dibromochloromethane	1.0 ug/l	
1,2-Dichlorobenzene	1.0 ug/l	
1,3-Dichlorobenzene	1.0 ug/l	
1,4-Dichlorobenzene	1.0 ug/l	
Dichlorodifluoromethane		
1,1-Dichloroethane	1.0 ug/l	
1,2-Dichloroethane	1.0 ug/l	
trans-1,2-Dichloroethene	1.0 ug/l	
1,2-Dichloropropane	1.0 ug/l	
cis-1,3-Dichloropropene	1.0 ug/l	
trans-1,3-Dichloropropene	1.0 ug/l	
Methylene chloride	1.0 ug/l	
1,1,2,2-Tetrachloroethane	1.0 ug/l	
Tetrachloroethene	1.0 ug/l	
1,1,1-Trichloroethane	1.0 ug/l	
1,1,2-Trichloroethane	1.0 ug/l	
Tetrachloroethylene	1.0 ug/l	
Trichlorofluoromethane	1.0 ug/l	
Vinyl Chloride	1.0 ug/l	
1,1-Dichloroethene	1.0 ug/l	
Full Suite		
Method 602, Purgeable Aromatics	MDLs	SOLID
Benzene	1.0 ug/l	
Chlorobenzene	1.0 ug/l	
1,2-Dichlorobenzene	1.0 ug/l	
1,3-Dichlorobenzene	1.0 ug/l	
1,4-Dichlorobenzene	1.0 ug/l	
Ethylbenzene	1.0 ug/l	
Toluene	1.0 ug/l	

Method 603, Acrolein and Acrylonitrile	MDLs	SOLID
Acrylonitrile		
Acrolein		
Method 604, Phenols	MDLs	SOLID
4-Chloro-3-methylphenol		
2-Chlorophenol		
2,4-Dichlorophenol		
2,4-Dimethylphenol		
2,4-Dinitrophenol		
2-Methyl-4,6-dinitrophenol		
2-Nitrophenol		
4-Nitrophenol		
Pentachlorophenol		
Phenol		
2,4,6-Trichlorophenol		
Method 605, Benzidines	MDLs	SOLID
Benzidines		
3,3'-Dichlorobenzidine		
Method 606 Phthalate Esters	MDLs	SOLID
Bis(2-ethylhexyl) phthalate		
Butyl benzyl phthalate		
Di-n-butyl phthalate		
Diethyl phthalate		
Dimethyl phthalate		
Di-n-octyl phthalate		
Method 607, Nitrosamines	MDLs	SOLID
N-Nitrosodimethylamine		
N-Nitrosodiphenylamine		
N-Nitrosodi-n-propylamine		
Method 608, Organochlorine Pesticides and PCBs	MDLs	SOLID
Aldrin	0.3 ug/l	
α -BHC	0.3 ug/l	
β -BHC	0.3 ug/l	
δ -BHC	0.3 ug/l	
γ -BHC	0.3 ug/l	
Chlorodane	0.5 ug/l	

Method 608, Organochlorine Pesticides and PCBs continued

	MDLs	SOLID
4,4'-DDD	0.3 ug/l	
4,4'-DDE	0.3 ug/l	
4,4'-DDT	0.3 ug/l	
Dieldrin	0.3 ug/l	
Endosulfan I	0.3 ug/l	
Endosulfan II	0.3 ug/l	
Endosulfan sulfate	0.5 ug/l	
Eldrin	0.5 ug/l	
Endrin aldehyde	0.5 ug/l	
Heptachlor	0.5 ug/l	
Heptachlor epoxide	0.3 ug/l	
Toxaphene	1.5 ug/l	
PCB-1016	0.5 ug/l	
PCB-1221	0.5 ug/l	
PCB-1232	0.5 ug/l	
PCB-1242	0.5 ug/l	
PCB-1248	0.5 ug/l	
PCB-1254	0.5 ug/l	
PCB-1260	0.5 ug/l	

Method 609, Nitroaromatics and Isophorone

	MDLs	SOLID
2,4-Dinitrotoluene		
2,6-Dinitrotoluene		
Isophorone		
Nitrobenzene		

Method 610, Polynuclear Aromatic Hydrocarbons

	MDLs	SOLID
Acenaphthene	10 ug/l	
Acenaphthylene	10 ug/l	
Anthracene	10 ug/l	
Benzo(a)anthracene	10 ug/l	
Benzo(a)pyrene	10 ug/l	
Benzo(b)fluoranthene	10 ug/l	
Benzo(ghi)perylene	10 ug/l	
Benzo(k)fluoranthene	10 ug/l	
Chrysene	10 ug/l	
Dibenzo(a,h)anthracene	10 ug/l	
Fluoranthene	10 ug/l	
Fluorene	10 ug/l	
Indeno(1,2,3-cd)pyrene	10 ug/l	
Naphthalene	10 ug/l	
Phenanthrene	10 ug/l	

Pyrene	10 ug/l	
Method 611, Haloethers	MDLs	SOLID
Bis(2-chloroethyl) ether		
Bis(2-chloroethoxy) methane		
Bis(2-chloroisopropyl) ether		
4-Bromophenyl phenyl ether		
4-Chlorophenyl phenyl ether		
Method 612, Chlorinated Hydrocarbons continued	MDLs	SOLID
2-Chloronaphthalene		
1,2-Dichlorobenzene		
1,3-Dichlorobenzene		
1,4-Dichlorobenzene		
Hexachlorobenzene		
Hexachlorobutadiene		
Hexachlorocyclopentadiene		
Hexachloroethane		
1,2,4-Trichlorobenzene		
Method 613 2,3,7,8-Tetrachlorodibenzo-P-dioxin	MDLs	SOLID
2,3,7,8-Tetrachlorodibenzo-P-dioxin		
Method 613 Tetra-through Octa-Chlorinated Dibenzo-P-dioxins (CDDs) and Dibenzofurans (CDFs)		
Method 624, Purgeables	MDLs	SOLID
Benzene	10 ug/l	
Bromodichloromethane	10 ug/l	
Bromoform	10 ug/l	
Bromomethane	10 ug/l	
Carbon Tetrachloride	10 ug/l	
Chlorobenzene	10 ug/l	
Chloroethane	10 ug/l	
2-Chloroethylvinyl ether	20 ug/l	
Chloroform	10 ug/l	
Chloromethane	10 ug/l	
Dibromochloromethane	10 ug/l	
1,2-Dichlorobenzene	10 ug/l	
1,3-Dichlorobenzene	10 ug/l	
1,4-Dichlorobenzene	10 ug/l	
1,1-Dichloroethane	10 ug/l	
1,2-Dichloroethane	10 ug/l	

Method 624, Purgeables continued

	MDLs	SOLID
trans-1,2-Dichloroethene	10 ug/l	
1,2-Dichloropropane	10 ug/l	
cis-1,3-Dichloropropene	10 ug/l	
trans-1,3-Dichloropropene	10 ug/l	
Ethyl benzene	10 ug/l	
Methylene chloride	10 ug/l	
1,1,2,2-Tetrachloroethane	10 ug/l	
Tetrachloroethene	10 ug/l	
Toluene	10 ug/l	
1,1,1-Trichloroethene	10 ug/l	
1,1,2-Trichloroethene	10 ug/l	
Trichlorethane	10 ug/l	
Trichlorofluoromethane	10 ug/l	
Vinyl chloride	10 ug/l	
1,1-Dichloroethene	10 ug/l	

Method 625, Base/Neutrals Extractables

	MDLs	SOLID
Acenaphthene	10 ug/l	
Acenaphthylene	10 ug/l	
Anthracene	10 ug/l	
Aldrin	10 ug/l	
Benzo(a)anthracene		
Benzo(b)fluoranthene	10 ug/l	
Benzo(k)fluoranthene	10 ug/l	
Benzo(a)pyrene	10 ug/l	
Benzo(ghi)perylene	20 ug/l	
Benzyl butyl phthalate	10 ug/l	
3 -BHC		
δ -BHC		
Bis(2-chloroethyl) ether	10 ug/l	
Bis(2-chloroethoxy) methane	10 ug/l	
Bis(2-ethylhexyl) phthalate		
Bis(2-chloroisopropyl) ether	10 ug/l	
4-Bromophenyl phenyl ether	10 ug/l	
Chlordane		
2-chloronaphthalene	10 ug/l	
4-chlorophenyl phenyl ether		
Chrysene	10 ug/l	
4,4'-DDD		
4,4'-DDE		
4,4'-DDT		
Dibenzo(a,h) anthracene	20 ug/l	
Di-n-butylphthalate	10 ug/l	

Method 625, Base/Neutrals Extractables continued

	MDLs	SOLID
1,2-Dichlorobenzene	10 ug/l	
1,3-Dichlorobenzene	10 ug/l	
1,4-Dichlorobenzene	10 ug/l	
3,3'-dichlorobenzidine	50 ug/l	
Dieldrin		
Diethyl phthalate	10 ug/l	
Dimethyl phthalate	10 ug/l	
2,4-dinitrotoluene	10 ug/l	
2,6-dinitrotoluene	10 ug/l	
Di-n-octylphthalate	10 ug/l	
Endosulfan sulfate		
Endrin aldehyde		
Fluoranthene	10 ug/l	
Fluorene	10 ug/l	
Heptachlor		
Heptchlor epoxide		
Hexachlorobenzene		
Hexachlorobutadiene	10 ug/l	
Hexachloroethane	10 ug/l	
Indeno(1,2,3-cd) pyrene	10 ug/l	
Isophorone		
Naphthalene	10 ug/l	
Nitrobenzene	10 ug/l	
N-nitrosodi-n-propylamine	10 ug/l	
PCB-1016		
PCB-1221		
PCB-1232		
PCB-1242		
PCB-1248		
PCB-1254		
PCB-1260		
Phenanthrene	10 ug/l	
Pyrene	10 ug/l	
Toxaphene		
1,2,4-trichlorobenzene	10 ug/l	

625 Acid Extractables

	MDLs	SOLID
4-chloro-3-methylphenol		
2-chlorophenol		
2,4-Dichlorophenol		
2,4-Dimethylphenol		
2,4-dinitrophenol		
2-methyl-4,6-dinitrophenol		

2-nitrophenol
 4-nitrophenol
 Pentachlorophenol
 Phenol
 2,4,6-trichlorophenol

METHOD 8015B

	MDLs	SOLID
Acetone	10 ug/l	
Acetonitrile	10 ug/l	
Acrolein	10 ug/l	
Acrylonitrile	10 ug/l	
Allyl alcohol	10 ug/l	
1-Butanol (n-Butyl alcohol)	10 ug/l	
Method 8015B continued		

	MDLs	SOLID
t-Butyl alcohol	10 ug/l	
2-Chloroacrylonitrile	10 ug/l	
2-Chloroethyl vinyl ether	10 ug/l	
Crotonaldehyde	10 ug/l	
Diethyl ether	10 ug/l	
1,4-Dioxane	10 ug/l	
Epichlorohydrin	10 ug/l	
Ethanol	10 ug/l	
Ethyl acetate	10 ug/l	
Ethyl glycol	10 ug/l	
Ethylene oxide	10 ug/l	
Hexafluoro-2-propanol (I.S.)	10 ug/l	
Hexafluoro-2-methyl		
2-propanol (I.S.)	10 ug/l	
Isobutyl alcohol	10 ug/l	
Isopropyl alcohol	10 ug/l	
Methanol	10 ug/l	
Methyl ethyl ketone (MEK)	10 ug/l	
Methyl isobutyl ketone (MIBK)	10 ug/l	
N-Nitroso-di-n-butylamine	10 ug/l	
Paraldehyde	10 ug/l	
2-Pentanone	10 ug/l	
2-Picoline	10 ug/l	
1-Propanol	10 ug/l	
Propionitrile	10/ug/l	
DRO	10/ug/l	
GRO	10/ug/l	
ORO	10/ug/l	

METHOD 8041 Phenols by GC**MDLs****SOLID**

4-Chloro-3-methylphenol
 2-Chlorophenol
 2-Cyclohexyl-4,6-dinitrophenol
 2,4-Dichlorophenol
 2,6-Dichlorophenol
 2,4-Dimethylphenol
 Dinoseb (DNBP)
 2,4-Dinitrophenol
 2-Methyl-4,6-dinitrophenol
 2-Methylphenol (o-Cresol)
 3-Methylphenol (m-Cresol)
 4-Methylphenol (p-Cresol)
 2-Nitrophenol
 4-Nitrophenol
 Pentachlorophenol

Method 8041 Phenols by GC continued**MDLs****SOLID**

Phenol
 2,3,4,5-Tetrachlorophenol
 2,3,4,6-Tetrachlorophenol
 2,3,5,6-Tetrachlorophenol
 2,4,5-Trichlorophenol
 2,4,6-Trichlorophenol
 2-Chloro-5-methylphenol
 4-chloro-2-methylphenol
 3-Chlorophenol
 4-Chlorophenol
 2,3-Dichlorophenol
 2,5-Dichlorophenol
 3,4-Dichlorophenol
 3,5-dichlorophenol
 2,3-Dimethylphenol
 2,5-Dimethylphenol
 2,6-Dimethylphenol
 3,4-Dimethylphenol
 2,5-Dinitrophenol
 3-Nitrophenol
 2,3,4-Trichlorophenol
 2,3,5-Trichlorophenol
 2,3,6-Trichlorophenol

METHOD 8100 Polynuclear Aromatic Hydrocarbons**MDLs****SOLID**

Acenaphthene
 Acenaphthylene
 Anthracene
 Benzo(a)anthracene
 Benzo(a)pyrene
 Benzo(b)fluoranthene
 Benzo(j)fluoranthene
 Benzo(k)fluoranthene
 Benzo(ghi)perylene
 Chrysene
 Dibenz(a,h)acridine
 Dibenz(a,j)acrodome
 Dibenzo(a,h)anthracene
 7H-Dibenzo(c,g)carbazole
 Dibenzo(a,e)pyrene
 Dibenzo(a,h)pyrene
 Dibenzo(a,l)pyrene
 Fluoranthene
 Fluorene

Method 8100 Polynuclear Aromatic Hydrocarbons continued**MDLs****SOLID**

Indo(1,2,3-cd)pyrene
 3-Methhylcholanthrene
 Naphthalene
 Phenanthrene
 Pyrene

METHOD 8121, Chlorinated Hydrocarbons**MDLs****SOLID**

Benzal chloride 10ug/l
 Benzotrichloride 10ug/l
 Benzyl chloride 10ug/l
 2-Chloronaphthalene 10ug/l
 1,2-Dichlorobenzene 10ug/l
 1,3-Dichlorobenzene 10ug/l
 1,4-Dichlorobenzene 10ug/l
 Hexachlorobenzene 10ug/l
 Hexachlorobutadiene 10ug/l
 α -Hexachlorocyclohexane (α -BHC) 10ug/l
 β -Hexachlorocyclohexane (β -BHC) 10ug/l
 γ -Hexachlorocyclohexane (γ -BHC) 10ug/l
 δ -Hexachlorocyclohexane (δ -BHC) 10ug/l
 Hexachlorocyclopentadiene 10ug/l
 Hexachloroethane 10ug/l

Pentachlorobenzene	10ug/l
1,2,3,4-Tetrachlorobenzene	10ug/l
1,2,3,5-Tetrachlorobenzene	10ug/l
1,2,4,5-Tetrachlorobenzene	10ug/l
1,2,4-Trichlorobenzene	10ug/l
1,2,3,-Trichlorobenzene	10ug/l
1,3,5-Trichlorobenzene	10ug/l

METHOD 8151A, Chlorinated Herbicides

	MDLs	SOLID
2,4-D		
2,4-DB		
2,4,5-TP(Silvex)		
2,4,5-T		
Dalapon		
Dicamba		
Dichloroprop		
Dinoseb		
MCPA		
MCPP		
4-Nitrophenol		
Pentachlorophenol		
Aciflouorfen		

Method 8151A, Chlorinated Herbicides continued

	MDLs	SOLID
Bentazon		
Chloramben		
DCPA diacid		
3,5-Dichlorobenzoic Acid		
5-Hydroxydicamba		
Picloram		

METHOD 8260

	MDLs	SOLID
Acetone	10 ug/l	
Acetonitrile	10 ug/l	
Acrolein (Propenal)	10 ug/l	
Acrylonitrile	10 ug/l	
Allyl alcohol	10 ug/l	
Allyl chloride	10 ug/l	
Benzene	10 ug/l	
Benzyl chloride	10 ug/l	
Bis(2-chloroethyl)sulfide	10 ug/l	
Bromoacetone	10 ug/l	
Bromochloromethane	10 ug/l	
Bromodichloromethane	10 ug/l	

METHOD 8260 continued	MDLs	SOLID
4-Bromofluorobenzene	10 ug/l	
Bromoform	10 ug/l	
Bromomethane	10 ug/l	
n-Butanol	10 ug/l	
2-Butanone (MEK)	10 ug/l	
t-Butylalcohol	10 ug/l	
Carbon disulfide	10 ug/l	
Carbon tetrachloride	10 ug/l	
Chloral hydrate	10 ug/l	
Chlorobenzene	10 ug/l	
Chlorodibromomethane	10 ug/l	
Chloroethane	10 ug/l	
2-Chloroethanol	10 ug/l	
2-Chloroethyl vinyl ether	10 ug/l	
Chloroform	10 ug/l	
Chloromethane	10 ug/l	
Chloroprene	10 ug/l	
3-Chloropropionitrile	10 ug/l	
Crotonaldehyde	10 ug/l	
1,2-Dibromo-3-chloropropane	10 ug/l	
1,2-Dibromoethane	10 ug/l	
Dibromomethane	10 ug/l	
1,2-Dichlorobenzene	10 ug/l	
1,3-Dichlorobenzene	10 ug/l	
1,4-Dichlorobenzene	10 ug/l	
cis-1,4-Dichloro-2-butene	10 ug/l	
trans-1,4-Dichloro-2-butene	10 ug/l	
Dichlorodifluoromethane	10 ug/l	
1,1-Dichloroethane	10 ug/l	
1,2-Dichloroethane	10 ug/l	
1,1-Dichloroethene	10 ug/l	
trans-1,2-Dichloroethene	10 ug/l	
1,2-Dichloropropane	10 ug/l	
1,3-Dichloro-2-propanol	10 ug/l	
cis-1,3-Dichloropropene	10 ug/l	
trans-1,3-Dichloropropene	10 ug/l	
1,2,3,4-Dipoxybutane	10 ug/l	
Diethyl ether	10 ug/l	
1,4-Difluorobenzene	10 ug/l	
1,4-Dioxane	10 ug/l	
Epichlorohydrin	10 ug/l	
Ethanol	10 ug/l	
Ethyl acetate	10 ug/l	
Ethylbenzene	10 ug/l	

METHOD 8260 continued	MDLs	SOLID
Ethylene oxide	10 ug/l	
Ethyl methacrylate	10 ug/l	
Fluorobenzene	10 ug/l	
Hexachlorobutadiene	10 ug/l	
Hexachloroethane	10 ug/l	
2-Hexanone	10 ug/l	
2-Hydroxypropionitrile	10 ug/l	
Iodomethane	10 ug/l	
Isobutyl alcohol	10 ug/l	
Isopropylbenzene	10 ug/l	
Malononitrile	10 ug/l	
Methacrylonitrile	10 ug/l	
Methanol	10 ug/l	
Methylene chloride	10 ug/l	
Methyl methacrylate	10 ug/l	
4-Methyl-2-pentanone (MIBK)	10 ug/l	
Naphthalene	10 ug/l	
Nitrobenzene	10 ug/l	
2-Nitropropane	10 ug/l	
N-Nitroso-di-n-butylamine	10 ug/l	
Paraldehyde	10 ug/l	
Pentachloroethane	10 ug/l	
2-Pentanone	10 ug/l	
2-Picoline	10 ug/l	
1-Propanol	10 ug/l	
2-Propanol	10 ug/l	
Propargyl alcohol	10 ug/l	
β -Propiolactone	10 ug/l	
Propionitrile (ethyl cyanide)	10 ug/l	
n-Propylamine	10 ug/l	
Pyridine	10 ug/l	
Styrene	10 ug/l	
1,1,1,2-Tetrachloroethane	10 ug/l	
1,1,2,2-Tetrachloroethane	10 ug/l	
Tetrachloroethene	10 ug/l	
Toluene	10 ug/l	
o-Touidine	10 ug/l	
1,2,4-Trichlorobenzene	10 ug/l	
1,1,1-Trichloroethane	10 ug/l	
1,1,2-Trichloroethane	10 ug/l	
Trichloroethene	10 ug/l	
Trichlorofluoromethane	10 ug/l	
1,2,3-Trichloropropane	10 ug/l	
Vinyl acetate	10 ug/l	

METHOD 8260 continued

	MDLs	SOLID
Vinyl Chloride	10 ug/l	
o-Xylene	10 ug/l	
m-Xylene	10 ug/l	
p-Xylene	10 ug/l	

Method 8270

	MDLs	SOLID
Acenaphthene	10	
Acenaphthylene	10	
Acetophenone	10	
2-Acetylaminofluorene	20	
1-Acetyl-2-thiourea	1000	
2-Aminoanthraquinone	20	
Aminoazobenzene	10	
4-Aminobiphenyl	20	
Anilazine	100	
Aniline		
o-Anisidine	10	
Anthracene	10	
Aramite	20	
Azinphos-methyl	100	
Benzidine		
Benzoic acid	50	
Benz(a)anthracene	10	
Benzo(b)fluoranthene	10	
Benzo(k)fluoranthene	10	
Benzo(g,h,i,)perylene	10	
Benzo(a)pyrene	10	
p-Benzoquinone	10	
Benzyl alcohol	20	
Bis(2-chloroethoxy)methane	10	
Bis(2-chloroethyl)ether	10	
Bis(2-chloroisopropyl) ether	10	
Bis(2-ethylhexyl)phthalate		
4-Bromophenyl phenyl ether	10	
Bromoxynil	10	
Butyl Benzyl phthalate	10	
Captafol	20	
Captan	50	
Carbaryl	10	
Carbofuran	10	
Carbophenothion	10	
Chlordane		
Chlorfenvinphos	20	

METHOD 8270 continued

	MDLs	SOLID
4-Chloroaniline	20	
Chlorobenzilate	10	
5-Chloro-2-methylaniline	20	
4-Chloro-3-methylphenol	20	
3-(Chloromethyl)pyridine hydrochloride	100	
1-Chloronaphthalene		
2-Chloronaphthalene	10	
2-Chlorophenol	10	
4-Chloro-1,2-phenylenediamine		
4-Chloro-1,3-phenylenediamine		
4-Chlorophenyl phenyl ether	10	
Chrysene	10	
Coumaphos	40	
p-Cresidine	10	
Crotoxyphos	20	
2-Cyclohexyl-4,6-dinitro-phenol	100	
Demeton-O	10	
Demeton-S	10	
Diallate (cis or trans)	10	
2,4-Diaminotoluene	20	
Dibenz(a,j)acridine	10	
Dibenz(a,h)anthracene	10	
Dibenzofuran	10	
Dibenzo(a,e)pyrene	10	
1,2-Dibromo-3-chloropropane		
Di-n-butyl phthalate	10	
Diclone		
1,2-Dichlorobenzene	10	
1,3-Dichlorobenzene	10	
1,4-Dichlorobenzene	10	
3,3'-Dichlorobenzidine	20	
2,4-Dichlorophenol	10	
2,6-Dichlorophenol	10	
Dichlorovos	10	
Dicrotophos	10	
Diethyl phthalate	10	
Diethylstilbestrol	20	
Dimethoate	20	
3,3'-Dimethoxybenzidine	100	
Dimethylaminoazobenzene	10	
7,12-Dimethylbenz(a)anthracene	10	
3,3'-Dimethylbenzidine	10	
2,4-Dimethylphenol	10	
Dimethyl phthalate	10	

METHOD 8270 continued	MDLs	SOLID
1,2-Dinitrobenzene	40	
1,3-Dinitrobenzene	20	
1,4-Dinitrobenzene	40	
4,6-Dinitro-2-methylphenol	50	
2,4-Dinitrophenol	50	
2,4-Dinitrotoluene	10	
2,6-Dinitrotoulene	10	
5,5-Diphenylhydantoin	20	
1,2-Diphenylhydrazine		
Di-n-octyl phthalate	10	
Disulfoton	10	
EPN	10	
Ethion	10	
Ethyl carbamate	50	
Ethyl methanesulfonate	20	
Famphur	20	
Fensulfothion	40	
Fenthion	10	
Fluchloralin	20	
Fluoranthene	10	
Fluorene	10	
2-Fluorobiphenyl		
2-Fluorophenol		
Hexachlorobenzene	10	
Hexachlorobutadiene	10	
Hexachlorocyclopentadiene	10	
Hexachloroethane	10	
Hexacholorophene	50	
Hexamethylphosphoramide	20	
Hydroquinone		
Indeno(1,2,3-cd)pyrene	10	
Isodrin	20	
Isophorone	10	
Isosafrole	10	
Kepone	20	
Leptophos	10	
Mestranol	20	
Methapyrilene	100	
3-Methylcholanthrene	10	
Methyl methanesulfonate	10	
2-Methylnaphthalene	10	
2-Methlyphenol	10	
3-Methylphenol	10	
4-Methylphenol	10	

METHOD 8270 continued

	MDLs	SOLID
Monocrotophos	40	
Naphthalene	10	
1,4-Naphthoquinone	10	
1-Naphthylamine	10	
2-Naphthylamine	10	
Nicotine	20	
5-Nitroacenaphthene	10	
2-Nitroaniline	50	
3-Nitroaniline	50	
4-Nitroaniline	20	
5-Nitro-o-toluidine	10	
4-Nitroquinoline-1-oxide	40	
N-Nitrosodi-n-butylamine	10	
N-Nitrosodiethylamine	20	
N-Nitrosodimethylamine		
N-Nitrosodiphenylamine	10	
N-Nitrosodi-n-propylamine	10	
N-Nitrosomorpholine		
N-Nitrosopiperidine	20	
N-Nitrosopyrrolidine	40	
Octamethyl pyrophosphoramidate	200	
4-4'-Oxydianiline	20	
Pentachlorobenzene	10	
Pentachloronitrobenzene	20	
Pentachlorophenol	50	
Phenacetin	20	
Phenanthrene	10	
Phenobarbital	10	
Phenol	10	
1,4-Phenylenediamine	10	
Phorate	10	
Phosalone	100	
Phosmet	40	
Phosphamidon	100	
Phthalic anhydride	100	
2-Picoline (2-Methylpyridine)		
Piperonyl sulfoxide	100	
Pronamide	10	
Propylthiouracil	100	
Pyrene	10	
Pyridine		
Resorcinol	100	
Safrole	10	

METHOD 8270 continued

	MDLs	SOLID
Strychnine	40	
Sulfallate	10	
Terbufos	20	
1,2,4,5-Tetrachlorobenzene	10	
2,3,4,6-Tetrachlorophenol	10	
Tetrachlorvinphos	20	
Tetraethyl pyrophosphate	40	
Thionazine	20	
Thiophenol (Benzenethiol)	20	
Toulene diisocyanate		
o-Toulidine	10	
Toxaphene		
2,4,6-Tribromophenol		
1,2,4-Trichlorobenzene	10	
2,4,5-Trichlorophenol	10	
2,4,6-Trichlorophenol	10	
Trifluralin	10	
2,4,5-Trimethylaniline	10	
Trimethyl phosphate	10	
1,3,5-Trinitrobenzene	10	
Tris(2,3-dibromopropyl) phosphate	200	
Tri-p-tolyl phosphate	10	
O,O,O-Triethyl phosphorothioate		

METHOD 8310 Polynuclear Aromatic Hydrocarbons by HPLC

	MDLs	SOLID
Acenaphthene		
Acenaphthylene		
Anthracene		
Benzo(a)anthracene		
Benzo(a)pyrene		
Benzo(b)fluoranthene		
Benzo(k)fluoranthene		
Benzo(ghi)perylene		
Chrysene		
Dibenzo(a,h)anthracene		
Fluoranthene		
Fluorene		
Indo(1,2,3-cd)pyrene		
Naphthalene		
Phenanthrene		
Pyrene		

TCLP RCRA Pesticides and Herbicides	PQL µg/l	SOLID
EPA 1311/SW846		
Chlordane	2.0	
Endrin	20.0	
Heptachlor (and its epoxide)	2.0	
Lindane	20.0	
Methoxychlor	20.0	
toxaphene	2.0	
2,4-D	50.0	
2,4,5-TP(silvex)	10.0	
TCLP RCRA METALS	PQL µg/l	SOLID
EPA 1311/SW846		
Arsenic	20.0	
Barium	500.0	
Cadmium	25.0	
Chromium	250.0	
Lead	500.0	
Mercury	2.0	
Selenium	20.0	
Silver	50.0	
TCLP Volatile Organics		
8260 with 1311 extraction	MDLs	SOLID
Benzene	50.0	
Carbon Tetrachloride	50.0	
Chlorobenzene	50.0	
Chloroform	50.0	
1,2-dichloroethane	50.0	
1,1-dichloroethane	50.0	
methyl ethyl ketone	1000.0	
tetrachloroethylene	50.0	
trichloroethylene	50.0	
vinyl chloride	50.0	
TCLP Semi-Volatile Organics	MDLs	SOLID
8270 with 1311 extraction		
o-cresol	20.0	
m,p-cresol	40.0	
2,4-dinitrotoluene	10.0	
hexachlorobenzene	10.0	

hexachloro-1,3-butadiene	10.0
hexachloroethane	10.0
nitrobenzene	10.0
pentachlorophenol	20.0
pyridiene	10.0
2,4,5-trichlorophenol	20.0
2,4,6-trichlorophenol	20.0
1,4-dichlorobenzene	10.0

RCRA General Chemistry**MDLs****SOLID**

Ignitability	Corrosivity
Total Releasable Sulfide as H ₂ S	5.0
Total Releasable Cyanide as HCN	1.0

Metals/Cyanide Target Analyte List (TAL)-low level option

EPA 200.7/SW 7470/7471

MDL

Water/solid

Aluminum	200 µg/l /40 mg/Kg
Antimony	60 µg/l /12 mg/Kg
Arsenic	10 µg/l /2 mg/Kg
Barium	200 µg/l /40 mg/Kg
Beryllium	5 µg/l /1 mg/Kg
Cadmium	5 µg/l /1 mg/Kg
Calcium	5000 µg/l /1000 mg/Kg
Chromium	10 µg/l /2 mg/Kg
Cobalt	50 µg/l /10 mg/Kg
Copper	25 µg/l /5 mg/Kg
Iron	100 µg/l /20 mg/Kg
Lead	3 µg/l /1 mg/Kg
Magnesium	5000 µg/l /1000 mg/Kg
Manganese	15 µg/l /3 mg/Kg
Molybdenum	20 µg/l /8 mg/Kg
Nickel	40 µg/l /8 mg/Kg
Potassium	5000 µg/l /1000 mg/Kg
Selenium	5 µg/l /1 mg/Kg mg/Kg
Silica	100 µg/l /20 mg/Kg
Silver	10 µg/l /2 mg/Kg
Sodium	5000 µg/l /1000 mg/Kg
Thallium	10 µg/l /2 mg/Kg
Vanadium	20 µg/l /4 mg/Kg
Zinc	10 µg/l /2 mg/Kg

Priority Pollutant Metals-(Low Level option)Water

EPA 245.7 or 1631

	MDL
Mercury	0.2 ng/l

Priority Pollutant Metals (low level option)-soil

EPA 245.5

	MDL
Mercury	0.1 mg/kg

CONSTITUENTS FOR PHASE I DETECTION MONITORING¹**GROUP A:****Inorganic Constituents:**

COMMON NAME²	CAS RN³
Acidity	(Total)
Aluminum	(Total)
Alkalinity	(Total)
Ammonia Nitrogen	(Total)
Antimony	(Total)
Arsenic	(Total)
Barium	(Total)
Beryllium	(Total)
Bicarbonates	(mg/l)
Boron	(Total)
Cadmium	(Total)
Chlorides	(Total)
Chromium	(Total)
Cobalt	(Total)
COD	(mg/l)
Copper	(Total)
Dissolved Manganese	(Total)
Iron	(Total)
Lead	(Total)
Magnesium	(Total)
Mercury	(Total)
Molybdenum	(Total)
Nickel	(Total)
Nitrate	(Total)
pH	(Std. Units)
Potassium	(Total)
Selenium	(Total)
Silver	(Total)

Sodium	(Total)
Specific Conductance	(μ mhos/cm)
Sulfate	(Total)
TDS	(mg/l)
Thallium	(Total)
TOC	(mg/l)
Total Phenolic Materials	(Total)
TSS	(Total)
Turbidity	(Total)
Vanadium	(Total)
Zinc	(Total)

In addition to the above, the following parameters should be analyzed:
Temperature, (BOD-5day), fluoride and calcium.

GROUP B:**Organic Constituents:
COMMON NAME²****CAS RN³**

Acetone	67-64-1
Acrylonitrile	107-13-1
Benzene	71-43-2
Bromochloromethane	74-97-5
Bromodichloromethane	75-27-4
Bromoform; Tribromomethane	75-25-2
Carbon disulfide	75-15-0
Carbon tetrachloride	56-23-5
Chlorobenzene	108-90-7
Chloroethane; Ethyl chloride	75-00-3
Chloroform; Trichloromethane	67-66-3
Dibromochloromethane; Chlorodibromomethane	124-48-1
1,2-Dibromo-3-chloropropane; DBCP	96-12-8
1,2-Dibromoethane; Ethylene dibromide; EDB	106-93-4
o-Dichlorobenzene; 1,2-Dichlorobenzene	95-50-1
p-Dichlorobenzene; 1,4-Dichlorobenzene	106-46-7
trans-1,4-Dichloro-2-butene	110-57-6
1,1-Dichloroethane; Ethylidene chloride	75-34-3
1,2-Dichloroethane; Ethylene dichloride	107-06-2
1,1-Dichloroethylene; 1,1-Dichloroethene;	
Vinylidene chloride	75-35-4
cis-1,2-Dichloroethylene; cis-1,2-	
Dichloroethene	156-59-2
trans-1,2-Dichloroethylene; trans-1,2-	
Dichloroethene	156-60-5
1,2-Dichloropropane; Propylene dichloride	78-87-5
cis-1,3-Dichloropropene	10061-01-5
trans-1,3-Dichloropropene	10061-02-6
Ethylbenzene	100-41-4
2-Hexanone; Methyl butyl ketone	591-78-6
Methyl bromide; Bromomethane	74-83-9
Methyl chloride; Chloromethane	74-87-3
Methylene bromide; Dibromomethane	74-95-3
Methylene chloride; Dichloromethane	75-09-2
Methyl ethyl ketone; MEK; 2-Butanone	78-93-3
Methyl iodide; Iodomethane	74-88-4
4-Methyl-2-pentanone; Methyl isobutyl ketone	108-10-1
Styrene	100-42-5
1,1,1,2-Tetrachloroethane	630-20-6
1,1,2,2-Tetrachloroethane	79-34-5
Tetrachloroethylene; Perchloroethylene	127-18-4
Toluene	108-88-3
1,1,1-Trichloroethane; Methylchloroform	71-55-6
1,1,2-Trichloroethane	79-00-5
Trichloroethylene; Trichloroethene	79-01-6
Trichlorofluoromethane; CFC-11	75-69-4

1,2,3-Trichloropropane	96-18-4
Vinyl acetate	108-05-4
Vinyl chloride	75-01-4
Xylenes	1330-20-7

1. This list contains volatile organics for which possible analytical procedures provided in EPA Report SW-846 "Test Methods for Evaluating Solid Waste," third edition, November 1986, as revised December 1987, includes Method 8260 and 8011; and metals for which SW-846 provides either Method 6010 or a method from the 7000 series of methods.

2. Common names are those widely used in government regulations, scientific publications, and commerce; synonyms exist for many chemicals.

3. Chemical Abstracts Service registry number. Where "Total" is entered, all species in the groundwater that contain this element are included.

Attachment A

**PHASE II ASSESSMENT MONITORING
HAZARDOUS INORGANIC AND ORGANIC CONSTITUENTS¹**

COMMON NAME ²	CAS RN ³	CHEMICAL ABSTRACTS SERVICE INDEX NAME ⁴	SUGGESTED METHODS ⁵	PQL UG/L) ⁶
Acenaphthene	83-32-9	Acenaphthylene, 1,2-dihydro-.....	8100.....	200
Acenaphthylene	208-96-8	Acenaphthylene.....	8270..... 8100.....	10 200
Acetone	67-64-1	2-Propanone	8270.....	10
Acetonitrile; Methyl cyanide	75-05-8	Acetonitrile	8260	100
Acetophenone	98-86-2	Ethanone, 1-phenyl	8015	100
2-Acetylamino fluorene; 2-AAF	53-96-3	Acetamide, N-9H-fluoren-2-yl-	8270	10
Acrolein	107-02-8	2-Propenal	8270 8030	20 5
Acrylonitrile	107-13-1	2-Propenenitrile	8260 8030	100 5
Aldrin	309-00-2	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro- 1,4,4a,5,8,8a-hexahydro- (1a,4a,4aB,5a,8a,8aB)-	8260 8080 8270	200 0.05 10
Allyl chloride	107-05-1	1-Propene, 3-chloro-	8010	5
4-Aminobiphenyl	92-67-1	{1,1'-Biphenyl}-4-amine	8260	10
Anthracene	120-12-7	Anthracene	8270 8100	20 200
Antimony	(Total)	Antimony	8270 6010 7040	10 300 2000
Arsenic	(Total)	Arsenic	7041 6010 7060 7061	30 500 10 20

Attachment A

Barium	(Total)	Barium	6010	20
Benzene	71-43-2	Benzene	7080	1000
			8020	2
			8021	0.1
Benzo(a)anthracene;Benzathracene	56-55-3	Benz(a)anthracene	8260	5
			8100	200
Benzo(b)fluoranthene	205-99-2	Benz(e)acephenanthrylene	8270	10
			8100	200
Benzo(k)fluoranthene	207-08-9	Benzo(k)fluoranthene	8270	10
			8100	200
Benzo(ghi)perylene	191-24-2	Benzo(ghi)perylene	8270	10
			8100	200
Benzo(a)pyrene	50-32-8	Benzo(a)pyrene	8270	10
			8100	200
Benzyl alcohol	100-51-6	Benzenemethanol	8270	10
Beryllium	(Total)	Beryllium	8270	20
			6010	3
			7090	50
			7091	2
alpha-BHC	319-84-6	Cyclohexane, 1,2,3,4,5,6- hexachloro-, (1a,2a,3B,4a,5B,6B)	8080	0.05
beta-BHC	319-85-7	Cyclohexane, 1,2,3,4,5,6- hexachloro-, (1a,2a,3B,4a,5B,6B)	8270	10
delta-BHC	319-86-8	Cyclohexane, 1,2,3,4,5,6- hexachloro-, (1a,2a,3a,4B,5a,6B)	8080	0.05
gamma-BHC;Lindane	58-89-9	Cyclohexane, 1,2,3,4,5,6- hexachloro-, (1a,2a,3B,4a, 5a,6B)	8270	20
Bis(2-chloroethoxy)methane -{methylenebis	111-91-1 8110	Ethane, 1,1 ¹ 5	8080	0.05
		(oxy)}bis{2-chloro	8270	10
Bis(2-chloroethyl)ether; Dichlor-oethyl ether	111-44-4	Ethane, 1,1-oxybis{2-chloro-	8110	3
			8270	10
Bis(2-chloro 1-methylethyl) ether; 2,2 ¹ -Dichlorodiiso- propyl ether; DCIP See Note 7	108-60-1	Propane, 2,2-oxybis{1-chloro-	8110	10
			8270	10
Bis(2-ethylhexyl)phthalate	117-81-7	1,2-Benzenedicarboxylic acid,	8060	20

Attachment A

Bromochloromethane; Chloro-bromomethane	74-97-5	bis(2-ethylhexyl) ester Methane, bromochloro-	8021	0.1
Bromodichloromethane; Dibromochloromethane	75-27-4	Methane, bromodichloro-	8260	5
			8010	1
			8021	0.2
Bromoform; Tribromomethane	75-25-2	Methane, tribromo	8260	5
			8010	2
			8021	15
4-Bromophenyl.phenyl ether	101-55-3	Benzene, 1-bromo-4-phenoxy	8260	5
			8110	25
Butyl benzyl phthalate; Benzyl butyl phthalate	85-68-7	1,2-Benzenedicarboxylic acid, butyl phenylmethyl ester	8270	10
Cadmium	(Total)	Cadmium	8060	5
			8270	10
			6010	40
			7130	50
Carbon disulfide	75-15-0	Carbon disulfide	7131	1
Carbon tetrachloride	56-23-5	Methane, tetrachloro-	8260	100
			8010	1
			8021	0.1
Chlordane	See Note 8	4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-	8260	10
		2,3,3a,4,7,7a-hexahydro-	8080	0.1
p-Chloroaniline	106-47-8	Benzenamine, 4-chloro	8270	50
Chlorobenzene	108-90-7	Benzene, chloro-	8270	20
			8010	2
			8020	2
			8021	0.1
Chlorobenzilate	510-15-6	Benzeneacetic acid, 4-chloro-a- (4-chlorophenyl)-a- hydroxyethyl ester	8260	5
			8270	10
p-Chloro-m-cresol; 4-Chloro-3-methylphenol	59-50-7	Phenol, 4-chloro-3-methyl-	8040	5
Chloroethane; Ethyl chloride	75-00-3	Ethane, chloro-	8270	20
			8010	5
			8021	1
			8260	10

Attachment A

Chloroform, Trichloromethane	67-66-3	Methane, trichloro-	8010	0.5
			8021	0.2
2-Chloronaphthalene	91-58-7	Naphthalene, 2-chloro-	8260	5
			8120	10
2-Chlorophenol	95-57-8	Phenol, 2-chloro-	8270	10
			8040	5
4-Chlorophenyl phenyl ether	7005-72-3	Benzene, 1-chloro-4-phenoxy-	8270	10
			8110	40
Chloroprene	126-99-8	1,3-Butadiene, 2-chloro-	8270	10
			8010	50
Chromium	(Total)	Chromium	8260	20
			6010	70
			7190	500
Chrysene	218-01-9	Chrysene	7191	10
			8100	200
Cobalt	(Total)	Cobalt	8270	10
			6010	70
			7200	500
Copper	(Total)	Copper	7201	10
			6010	60
			7210	200
			7211	10
m-Cresol; 3-methylphenol	108-39-4	Phenol, 3-methyl	8270	10
o-Cresol; 2-methylphenol	95-48-7	Phenol, 2-methyl	8270	10
p-Cresol; 4-methylphenol	106-44-5	Phenol, 4-methyl	8270	10
Cyanide	57-12-5	Cyanide	8270	10
2,4-D; 2,4-Dichloro- phenoxyacetic acid	94-75-7	Acetic acid (2,4-dichloro phenoxy)	9010	200
			8150	10
4,4 ¹ -DDD	72-54-8	Benzene 1,1 ¹ -(2,2-dichloro- ethylidene)bis{4-chloro-	8080	0.1
			8270	10
4,4 ¹ -DDE	72-55-9	Benzene 1,1 ¹ -(dichloro- ethylenylidene)bis{4-chloro-	8080	0.05
			8270	10
4,4 ¹ -DDT	50-29-3	Benzene 1,1 ¹ -(2,2,2-trichloro- ethylidene)bis	8080	0.1
		{4-chloro-}	8270	10
Diallate	2303-16-4	Carbamothioic acid,	8270	10

Attachment A

Dibenz{a,h}anthracene	53-70-3	bis(1-methylethyl)-S-(2,3-dichloro-2-propenyl) ester Dibenz{a,h}anthracene	8100	200
Dibenzofuran	132-64-9	Dibenzofuran	8270	10
Dibromochloromethane; Chlorodibromomethane	124-48-1	Methane, dirbromochloro-	8270 8010	10 1
1,2-Dibromo- 3-chloropropane;DBCP	96-12-8	Propane, 1,2-dibromo-3-chloro-	8021 8260 8011	0.3 5 0.1
1,2-Dibromoethane; Ethylene dibromide;EDB	106-93-4	Ethane, 1,2-dibromo	8021 8260 8011	30 25 0.1
Di-n-butyl phthalate	84-74-2	1,2-Benzenedicarboxylic acid, dibutyl ester	8021 8260 8060	10 5 5
o-Dichlorobenzene; 1,2-Dichlorobenzene	95-50-1	Benzene, 1,2-dichloro-	8270 8010 8020 8021 8120 8260	10 2 5 0.5 10 5
m-Dichlorobenzene; 1,3-Dichlorobenzene	541-73-1	Benzene, 1,3-Dichloro-	8270 8010 8020 8021 8120 8260	10 5 5 0.2 10 5
p-Dichlorobenzene; 1,4-Dichlorobenzene	106-46-7	Benzene, 1,4-Dichloro-	8270 8010 8020 8021 8120 8260	10 2 5 0.1 15 5
3,3 ¹ --Dichlorobenzidine	91-94-1	{1,1 ¹ -Biphenyl}-4,4 ¹ -diamine, 3,3 ¹ --dichloro-	8270 8270	10 20

Attachment A

trans-1,4-Dichloro-2-butene	110-57-6	2-Butene, 1,4-dichlor-(E)	8260	100
Dichlorodifluoromethane; CFC 12	75-71-8	Methane, dichlorodifluoro	8021	0.5
1,1-Dichloroethane; Ethylidene chloride	75-34-3	Ethane, 1,1-dichloro	8260	5
			8010	1
			8021	0.5
			8260	5
1,2-Dichloroethane; Ethylene dichloride	107-06-2	Ethane, 1,1-dichloro	8010	0.5
			8021	0.3
			8260	5
			8021	0.3
1,1-Dichloroethylene; 1,1-Dichloroethene; Vinylidene chloride	75-35-4	Ethene, 1,1-dichloro	8260	5
			8010	1
			8021	0.5
			8260	5
cis-1,2-Dichloroethylene; cis-1,2-Dichloroethane	156-59-2	Ethene, 1,2-dichloro-(Z)	8021	0.2
			8260	5
trans-1,2-Dichloroethylene; trans-1,2-Dichloroethene	156-60-5	Ethene, 1,2-dichloro-(E)	8010	1
			8021	0.5
			8260	5
2,4-Dichlorophenol	120-83-2	Phenol, 2,4-dichloro-	8040	5
			8270	10
			8270	10
2,6-Dichlorophenol	87-65-0	Phenol, 2,6-dichloro-	8010	0.5
			8021	0.05
			8260	5
1,2-Dichloropropane; Propylene dichloride	78-87-5	Propane, 1,2-dichloro-	8021	0.3
			8260	5
			8021	0.5
1,3-Dichloropropane; Trimethylene dichloride	142-28-9	Propane, 1,3-dichloro-	8021	0.3
			8260	5
			8021	0.5
2,2-Dichloropropane; Isopropylidene chloride	594-20-7	Propane, 2,2-dichloro-	8260	15
			8021	0.2
			8260	5
1,1-Dichloropropene	563-58-6	1-Propene, 1,1-dichloro-	8021	0.2
			8260	5
			8010	20
cis-1,3-Dichloropropene	10061-01-5	1-Propene, 1,3-dichloro-(Z)	8260	10
			8010	5
			8260	10
trans-1,3-Dichloropropene	10061-02-6	1-Propene, 1,3-dichloro-(E)	8010	5
			8260	10
			8260	10
Dieldrin	60-57-1	2,7:3,6-Dimethanonaphth {2,3-b} oxirene, 3,4,5,6,9,9	8080	0.05
			8270	10

Attachment A

		-hexa, chloro-1a,2,2a,3,6,6a,7, 7a-octa- hydro-,(1aa,2B,2aa,3B, 6B,6aa,7B,7aa)		
Diethyl phthalate	84-66-2	1,2-Benzenedicarboxylic acid, diethyl ester	8060	5
0,0-Diethyl 0-2- pyrazinyl	297-97-2	Phosphorothioic acid, 0,0-diethyl 0-pyrazinyl ester	8270 8141 8270	10 5 20
phosphorothioate; Thionazin Dimethoate	60-51-5	Phosphorodithioic acid, 0,0-diethyl,S-{2-(methylamino) -2-oxoethyl} ester	8141 8270	3 20
p-(Dimethylamino)azobenzene	60-11-7	Benzenamine,N,N-dimethyl- 4-(phenylazo)	8270	10
7,12-Dimethylbenz{a}anthracene- 3,3-Dimethylbenzidine-	57-97-6 119-93-7	Benz{a}anthracene, 7,12-dimethyl- {1,1Biphenyl}-4,4-diamine, 3,3-dimethyl-	8270 8270	10 10
2,4-Dimethylphenol; m-Xylenol	105-67-9	Phenol, 2,4-dimethyl	8040 8270	5 10
Dimethyl phthalate	131-11-3	1,2-Benzenedicarboxylic acid, dimethyl ester	8060 8270	5 10
m-Dinitrobenzene	99-65-0	Benzene, 1,3-dinitro-	8270	20
4,6-Dinitro-o-cresol	534-52-1	Phenol, 2-methyl-4,6-dinitro	8040 8270	150 50
4,6-Dinitro-2-methylphenol			8270	150
2,4-Dinitrophenol;	51-28-5	Phenol, 2,4-dinitro	8040 8270	50 50
2,4-Dinitrotoluene	121-14-2	Benzene, 1-methyl-2,4-dinitro-	8090 8270	0.2 10
2,6-Dinitrotoluene	606-20-2	Benzene, 2-methyl-1,3-dinitro-	8090 8270	0.1 10
Dinoseb; DNBP; 2-sec- Butyl-4,6-dinitrophenol	88-85-7	Phenol, 2-(1-methylpropyl)- 4,6-dinitro-	8150 8270	1 20
Di-n-octyl phthalate	117-84-0	1,2-Benzenedicarboxylic acid, dioctyl ester	8060 8270	30 10
Diphenylamine	122-39-4	Benzenamine, N-phenyl-	8270	10
Disulfoton	298-04-4	Phosphorodithioic acid,0,0-diethyl S-{2-(ethylthio)ethyl}.ester	8140 8141	2 0.5

Attachment A

Endosulfan I	959-98-8	6,9-Methano-2,4,3-benzodioxathiepin, 6,7,8,9,10,10-hexachloro 1,5,5a,6,9,9a-hexahydro, 3-oxide	8270	10
			8080	0.1
			8270	20
Endosulfan II	33213-65-9	6,9-Methano-2,4,3-benzodioxathiepin, 6,7,8,9,10,10-hexachloro 1,5,5a,6,9,9a-hexahydro, 3-oxide, (3a,5aa,6B,9B,9aa)-	8080	0.05
			8270	20
Endosulfan sulfate	1031-07-8	6,9-Methano-2,4,3-benzodioxathiepin, 6,7,8,9,10,10-hexachloro 1,5,5a,6,9,9a-hexahydro, 3,3-dioxide.	8080	0.5
			8270	10
Endrin	72-20-8	2,7:3,6-Dimethanonaphth{2,3-b} oxirene,3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a- octahydro-, (1aa,2B,2aB,3a,6a,6aB,7B,7aa)-	8080	0.1
			8270	20
Endrin aldehyde	7421-93-4	1,2,4-Methenocyclopenta{cd} pentalene-5- carboxaldehyde, 2,2a,3,3,4,7-hexachlorodec ahydro-, (1a,2B,2aB,4B,4aB,5B,6aB,6bB,7R)	8080	0.2
			8270	10
Ethylbenzene	100-41-4	Benzene, ethyl-	8020	2
			8221	0.05
			8260	5
Ethyl methacrylate	97-63-2	2-Propenoic acid, 2-methyl-, ethyl ester	8015	5
			8260	10
			8270	10
Ethyl methanesulfonate	62-50-0	Methanesulfonic acid, ethylester	8270	20
Famphur	52-85-7	Phosphorothioic acid, 0-[4-{(dimethylamino)sulfonyl} phenyl] 0,0-dimethyl ester	8270	20
Fluoranthene	206-44-0	Fluoranthene	8100	200
			8270	10
Fluorene	86-73-7	9-H-Fluorene	8100	200
			8270	10
Heptachlor	76-44-8	4,7-Methano-1H-indene, 1,4,5,6,7,	8080	0.05

Attachment A

Heptachlor epoxide	1024-57-3	8,8-heptachloro-3a,4,7, 7a-tetrahydro- 2,5-Methano-2H-indeno{1,2-b} oxirene,2,3,4,5,6,7,7-hepta chloro-1a,1b,5,5a,6,2,2, hexahydro-(1aa,1bB,2a,5a, 5aB,6B,6aa)	8270	10
Hexachlorobenzene	118-74-1	Benzene, hexachloro	8120	0.5
Hexachlorobutadiene	87-68-3	1,3-Butadiene, 1,1,2,3,4, 4-hexachloro-	8270 8021 8120 8260	10 0.5 5 10
Hexachlorocyclopentadiene	77-47-4	1,3-Cyclopentadiene, 1,2,3, 4,5, 5-hexachloro-	8270 8120	10 5
Hexachloroethane	67-72-1	Ethane, hexachloro-	8270 8120 8260	10 0.5 10
Hexachloropropene	1888-71-7	1-Propene, 1,1,2,3,3,3-hexachloro-	8270	10
2-Hexanone; Methyl butyl ketone	591-78-6	2-Hexanone	8270 8260	10 50
Indeno(1,2,3-cd)pyrene	193-39-5	Indeno(1,2,3-cd)pyrene	8100	200
Isobutyl alcohol	78-83-1	1-Propanol, 2-methyl-	8270 8015	10 50
Isodrin	465-73-6	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro- 1,4, 4a,5,8,8a hexahydro- (1a,4a, 4aB,5B,8B,8aB)-	8240 8270 8260	100 20 10
Isophorone	78-59-1	2-Cyclohexen-1-one,3,5,5 trimethyl	8090	60
Isosafrole	120-58-1	1,3-Benzodioxole, 5-(1-pro-penyl)	8270	10
Kepone	143-50-0	1,3,4-Metheno-2H-cyclobuta{cd} pentalen-2-one, 1,1a,3,3a,4,5,5, 5a,5b, 6-decachlorooctahydro-	8270 8270	10 20
Lead	(Total)	Lead	6010	400

Attachment A

			7420	1000
Mercury	(Total)	Mercury	7421	10
Methacrylonitrile	126-98-7	2-Propenenitrile, 2-methyl-	7470	2
			8015	5
Methapyrilene	91-80-5	1,2-Ethanediamine, N,N-dimethyl- N-2-pridinyl-N1/2- thienylmethyl)	8260	100
			8270	100
Methoxychlor	72-43 5	Benzene, 1,1-(2,2,2, trichloro- ethylidene) bis {4-methoxy-	8080	2
Methyl bromide; Bromomethane	74-83-9	Methane, bromo-	8270	10
Methyl chloride; Chloromethane	74-87-3	Methane, chloro-	8010	20
3-Methylcholanthrene	56-49-5		8021	10
		Benz[<i>j</i>]aceanthrylene, 1,2 dihydro- 3-methyl-	8021	0.3
Methyl ethyl.ketone; MEK; 2-Butanone	78-93-3	2-Butanone	8270	10
Methyl iodide;Iodomethane	74-88-4	Methane, iodo-	8015	10
			8260	100
Methyl methacrylate	80-62-6	2-Propenoic acid, 2-methyl ester	8010	40
			8260	10
Methyl methanesulfonate	66-27-3	Methanesulfonic acid, methyl ester	8015	2
2-Methylnaphthalene	91-57-6	Naphthalene, 2-methyl-	8260	30
Methyl parathion; Parathion methyl	298-00-0	Phosphorothioic acid, 0,0- dimethyl 0-(4-nitrophenyl)ester	8270	10
			8140	0.5
4-Methyl-2-pentanone;- Methyl isobutyl ketone	108-10-1	2-Pentanone, 4-methyl	8141	1
			8270	10
Methylene bromide; Dibromomethane	74-95-3	Methane, dibromo-	8015	5
			8260	100
Methylene chloride; Dichloromethane	75-09-2	Methane, dichloro-	8010	15
			8021	20
			8260	10
Naphthalene	91-20-3	Naphthalene	8010	5
			8021	0.2
			8260	10
			8021	0.5

Attachment A

			8100	
			8260	.200
1,4-Naphthoquinone	130-15-4	1,4-Naphthalenedione	8270	5
1-Naphthylamine	134-32-7	1-Naphthalenamine	8270	10
2-Naphthylamine	91-59-8	2-Naphthalenamine	8270	10
Nickel	(Total)	Nickel	8270	10
			6010	150
o-Nitroaniline; 2-Nitroaniline	88-74-4	Benzenamine, 2-nitro-	7520	400
m-Nitroaniline; 3-Nitroaniline	99-09-2	Benzenamine, 3-nitro-	8270	50
p-Nitroaniline;	100-01-6	Benzenamine, 4-nitro-	8270	50
4-Nitroaniline			8270	20
Nitrobenzene	98-95-3	Benzene, nitro-		
			8090	40
o-Nitrophenol; 2-Nitrophenol	88-75-5	Phenol, 2-nitro-	8270	10
			8040	5
p-Nitrophenol; 4-Nitrophenol	100-02-7	Phenol, 4-nitro-	8270	10
			8040	10
N-Nitrosodi-n-butylamine	924-16-3	1-Butanamine, N-butyl-N-nitroso-	8270	50
N-Nitrosodiethylamine	55-18-5	Ethanamine, N-ethyl-N-nitroso	8270	10
N-Nitrosodimethylamine	62-75-9	Methanamine, N-methyl-N-nitroso-	8270	20
N-Nitrosodiphenylamine	86-30-6	Benzenamine, N-nitroso-N-phenyl	8070	2
N-Nitrosodipropylamine;	621-64-7	1-Propanamine, N-nitroso-N-propyl	8070	5
N-Nitroso-N-dipropylamine;			8070	10
Di-n-propylnitrosamine				
N-Nitrosomethylethylamine	10595-95-6	Ethanamine, N-methyl-N-nitroso-	8270	10
N-Nitrosopiperidine	100-75-4	Piperidine, 1-nitroso-	8270	20
N-Nitrosopyrrolidine	930-55-2	Pyrrolidine, 1-nitroso-	8270	40
5-Nitro-o-toluidine	99-55-8	Benzenamine, 2-methyl-5-nitro-	8270	10
Parathion	56-38-2	Phosphorothioic acid, 0,0-diethyl	8141	0.5
		0-(4-nitrophenyl).ester	8270	10
Pentachlorobenzene	608-93-5	Benzene, pentachloro-	8270	10
Pentachloronitrobenzene	82-68-8	Benzene, pentachloronitro-	8270	20
Pentachlorophenol	87-86-5	Phenol, pentachloro-	8040	5
			8270	50
Phenacetin	62-44-2	Acetamide, N-(4-ethoxyphenyl)	8270	20

Attachment A

Phenanthrene	85-01-8	Phenanthrene	8100	200
Phenol	108-95-2	Phenol	8270	10
p-Phenylenediamine	106-50-3	1,4-Benzenediamine	8040	1
Phorate	298-02-2	Phosphorodithioic acid,0,0-diethyl S-{ethylthio)methyl} ester	8270 8140 8141	10 2 0.5
Polychlorinated biphenyls; PCBs; Aroclors	See Note 9	1,1-Biphenyl, chloro derivatives	8270 8080	10 50
Pronamide	23950-58-5	Benzamide, 3,5-dichloro-N-(1,1-dimethyl-2-propynyl)-	8270 8270	200 10
Propionitrile; Ethyl cyanide	107-12-0	Propanenitrile	8015	60
Pyrene	129-00-0	Pyrene	8260 8100	150 200
Safrole	94-59-7	1,3-Benzodioxole, 5-(2-propenyl)	8270	10
Selenium	(Total)	Selenium	8270 6010 7740 7741	10 750 20 20
Silver	(Total)	Silver	6010 7760 7761	70 100 10
Silvex 2,4,5-TP	93-72-1	Propanoic acid, 2-(2,4,5-trichlorophenoxy)-	8150	2
Styrene	100-42-5	Benzene, ethenyl-	8020 8021	1 0.1
Sulfide	18496-25-8	Sulfide	8260	10
2,4,5-T; 2,4,5-Trichlorophen oxyacetic acid	93-76-5	Acetic acid, (2,4,5-trichlorophenoxy)-	9030 8150	4000 2
1,2,4,5-Tetrachlorobenzene	95-94-3	Benzene, 1,2,4,5-tetrachloro-	8270	10
1,1,1,2-Tetrachloroethane	630-20-6	Ethane, 1,1,1,2-tetrachloro-	8010 8021	5 0.05
1,1,2,2-Tetrachloroethane	79-34-5	Ethane, 1,1,2,2-tetrachloro-	8260 8010 8021	5 0.5 0.1

Attachment A

Tetrachloroethylene; Tetrachloroethene; Perchloroethylene	127-18-4	Ethane, tetrachloro-	8260	5
			8010	0.5
			8021	0.5
			8260	5
2,3,4,6-Tetrachlorophenol	58-90-2	Phenol, 2,3,4,6-tetrachloro-	8270	10
			6010	400
			7840	1000
			7841	10
Tin	(Total)	Tin	6010	40
Toluene	108-88-3	Benzene, methyl-	8020	2
			8021	0.1
			8260	5
			8270	10
o-Toluidine	95-53-4	Benzenamine, 2-mehtyl-	8080	2
			8021	0.3
			8120	0.5
			8260	10
Toxaphene	See Note 10	Toxaphene	8270	10
			8080	2
			8021	0.3
			8120	0.5
1,2,4-Trichlorobenzene	120-82-1	Benzene, 1,2,4-trichloro-	8260	10
			8270	10
			8010	0.3
			8021	0.3
1,1,1-Trichloroethane; Methylchloroform-	71-55-6	Ethane, 1,1,1-trichloro-	8260	5
			8010	0.2
			8260	5
			8010	1
1,1,2-Trichlorethane	79-00-5	Ethane, 1,1,2-trichloro-	8021	0.2
			8260	5
			8010	0.2
			8260	5
Trichloroethylene; Trichloroethene	79-01-6	Ethene, trichloro-	8010	1
			8021	0.2
			8260	5
			8010	10
Trichlorofluoro- methane; CFC-11	75-69-4	Methane, trichlorofluoro-	8021	0.3
			8260	5
			8010	10
			8021	5
2,4,5-Trichlorophenol	95-95-4	Phenol, 2,4,5-trichloro-	8270	10
			8040	5
2,4,6-Trichlorophenol	88-06-2	Phenol, 2,4,6-trichloro-	8270	10
			8010	10
1,2,3-Trichloropropane	96-18-4	Propane, 1,2,3-trichloro-	8021	5
			8260	15
			8270	10
			8270	10
0,0,0-Triethyl	126-68-1	Phosphorothioic acid,	8270	10
			8270	10

Attachment A

phosphorothioate		0,0,0-triethylester		
sym-Trinitrobenzene-	99-35-4	Benzene, 1,3,5-trinitro-	8270	10
Vanadium	(Total)	Vanadium	6010	80
			7910	2000
			7911	40
Vinyl acetate	108-05-4	Acetic acid, ethenyl ester	8260	50
Vinyl chloride;	75-01-4	Ethene, chloro-	8010	2
Chloroethene			8021	0.4
			8260	10
Xylene(total)	See Note 11	Benzene, dimethyl-	8020	5
			8021	0.2
			8260	5
Zinc	(Total)	Zinc	6010	20
			7950	50
			7951	0.5

Notes:

1. The regulatory requirements pertain only to the list of substances; the right hand columns (methods and PQL are given for informational purposes only. See also footnotes 5 and 6.
2. Common names are widely used in governmental regulations, scientific publications, and commerce; synonyms exist for many chemicals.
3. Chemical Abstract Service registry number. Where "Total" is entered, all species in the groundwater that contain this element are included.
4. CAS index are those used in the 9th Collective Index.
5. Suggested Methods refer to analytical procedure numbers used in EPA Report SW-846 "Test Methods for Evaluating Solid Waste," third edition, November 1986, as revised, December 1987. Analytical details can be found in SW-846 and in documentation on file at the Agency. Caution: The methods listed are representative SW-846 procedures and may not always be the most suitable method(s) for monitoring an analyte under the regulations.
6. Practical Quantitation Limits (PQLs) are the lowest concentrations of analytes in groundwaters that can be reliably determined within specified limits of precision and accuracy by the indicated methods under routine laboratory operating conditions. The PQL values listed are generally stated to one significant figure. PQLs are based on 5 ml samples for volatile organics and 1 liter samples for semivolatile organics. Caution: The PQL values in many cases are based only on a general estimate for the method and not on a determination for individual compounds; PQLs are

Attachment A

not part of the regulation.

7. This substance is often called Bis(2-chloroisopropyl) ether, the name Chemical Abstracts Service applies to its noncommercial isomer, Propane, 2,2'-oxybis[2-chloro-(CAS RN 39638-32-9).

8. Chlordane: This entry includes alpha-chlordane (CAS RN 5103-71-9), beta-chlordane (CAS RN 5103-74-2), gamma-chlordane (CAS RN 5566-34-7), and constituents of chlordane (CAS RN 57-74-9 and CAS RN 12789-03-6). PQL shown is for technical chlordane. PALS of specific isomers are about 20 ug/l by method 8270.

9. Polychlorinated biphenyls (CAS RN 1336-36-3); this category contains congener chemicals, including constituents of Aroclor 1016 (CAS RN 12676-74-11-2), Aroclor 1221 (CAS RN 11104-28-2), Aroclor 1232 (CAS RN 11141-16-5), Aroclor 1242 (CAS RN 53469-21-9), Aroclor 1248 (CAS RN 12672-29-6), Aroclor 1254 (CAS RN 11097-69-1), and Aroclor 1260 (CAS RN 11096-82-5). The PQL shown is an average value for PCB congeners.

10. Toxaphene: This entry includes congener chemicals contained in technical toxaphene (CAS RN 8001-35-2), i.e., chlorinated camphene.

11. Xylene (total): This entry includes o-xylene (CAS RN 96-47-6), m-xylene (CAS RN 108-38-3), p-xylene (CAS RN 106-42-3), and unspecified xylenes (dimethylbenzenes) (CAS RN 1330-20-7). PALS for method 8021 are 0.2 for o-xylene and 0.1 for m- or p-xylene. The PQL for m-xylene is 2.0 ug/L by method 8020 or 8260.

Exhibit A Bid Schedule
ORGANIC ANALYSIS OF WATER AND SOIL

ITEM NO.	DESCRIPTION	UNIT of MEASURE	UNIT PRICE	ESTIMATE D QUANTITY	EXTENDED COST
1.0	Method 601, Purgeable Halocarbons - See Attachment A				
1.1	Single compound analysis cost	per sample	N/A	12	N/A
1.2	Up to 10 compounds then complete list cost applies	per sample	N/A	12	N/A
1.3	Complete list cost	per sample	N/A	12	N/A
2.0	Method 602, Purgeable Aromatics - See Attachment A				
2.1	Single compound analysis cost	per sample	N/A	15	N/A
2.2	Complete list cost	per sample	N/A	15	N/A
3.0	Method 603, Acrolein & Acrylonitrile - See Attachment A				
3.1	Single compound analysis cost	per sample	N/A	15	N/A
3.2	Complete list cost	per sample	N/A	15	N/A
4.0	Method 604, Phenols - See attachment A				
4.1	Single compound analysis cost	per sample	N/A	20	N/A
4.2	Up to 10 compounds then complete list cost applies	per sample	N/A	20	N/A
4.3	Complete list cost	per sample	N/A	20	N/A
5.0	Method 605, Benzidines - See Attachment A				
5.1	Single compound analysis cost	per sample	N/A	12	N/A
5.2	Complete list cost	per sample	N/A	12	N/A
6.0	Method 606, Phthalate Esters - See Attachment A				
6.1	Single compound analysis cost	per sample	N/A	12	N/A
6.2	Complete list cost	per sample	N/A	12	N/A
7.0	Method 607, Nitrosamines - See Attachment A				
7.1	Single compound analysis cost	per sample	N/A	12	N/A
7.2	Complete list cost	per sample	N/A	12	N/A
8.0	Method 608, Organochlorine Pesticides & PCBs - See Attachment A				
8.1	Single compound analysis cost	per sample	75.00	15	1125.00
8.2	Up to 10 compounds then complete list cost applies	per sample	90.00	15	1350.00
8.3	Complete list cost	per sample	95.00	15	1425.00
9.0	Method 609, Nitroaromatics & Isophorone - See Attachment A				
9.1	Single compound analysis cost	per sample	N/A	12	N/A
9.2	Complete list cost	per sample	N/A	12	N/A
10.0	Method 610, Polynuclear Aromatic Hydrocarbons - See Attachment A				
10.1	Single compound analysis cost	per sample	65.00	20	1300.00
10.2	Up to 10 compounds then complete list cost applies	per sample	70.00	20	1400.00
10.3	Complete list cost	per sample	70.00	20	1400.00
11.0	Method 611, Haloethers - See Attachment A				
11.1	Single compound analysis cost	per sample	N/A	12	N/A
11.2	Complete list cost	per sample	N/A	12	N/A
12.0	Method 612, Chlorinated hydrocarbons - See Attachment A				

ITEM NO.	DESCRIPTION	UNIT of MEASURE	UNIT PRICE	ESTIMATE D QUANTITY	EXTENDED COST
12.1	Single compound analysis cost	per sample	N/A	12	N/A
12.2	Complete list cost	per sample	N/A	12	N/A
13.0	Method 1613, 2,3,7,8 Tetrachlorodibenzo-P-dioxin - See Attachment A				
13.1	Single compound analysis cost	per sample	250.00	12	3000.00
14.0	Method 1613, Tetra-through Octa-Chlorinated Dibenzo-P-dioxins (CDDs) & Dibenzofurans (CDFs) - See Attachment A				
14.1	Complete list cost	per sample	650.00	12	7800.00
15.0	Method 624, Purgeables - See Attachment A				
15.1	Single compound analysis cost	per sample	25.00	20	500.00
15.2	Up to 10 compounds then complete list cost applies	per sample	35.00	20	700.00
15.3	Complete list cost	per sample	65.00	20	1300.00
16.0	Method 625, Base/Neutrals Extractables - See Attachment A				
16.1	Single compound analysis cost	per sample	120.00	12	1440.00
16.2	Up to 10 compounds then complete list cost applies	per sample	125.00	12	1500.00
16.3	Complete list cost	per sample	130.00	12	1560.00
17.0	Method 625, Acid Extractables - See Attachment A				
17.1	Single compound analysis cost	per sample	115.00	12	1380.00
17.2	Up to 10 compounds then complete list cost applies	per sample	115.00	12	1380.00
17.3	Complete list cost	per sample	115.00	12	1380.00
18.0	Method 8015B - See Attachment A				
18.1	Single compound analysis cost	per sample	35.00	20	700.00
18.2	Up to 10 compounds then complete list cost applies	per sample	35.00	20	700.00
18.3	Complete list cost	per sample	35.00	20	700.00
19.0	Method 8041, Phenols by GC - See Attachment A				
19.1	Single compound analysis cost	per sample	N/A	12	N/A
19.2	Up to 10 compounds then complete list cost applies	per sample	N/A	12	N/A
19.3	Complete list cost	per sample	N/A	12	N/A
20.0	Method 8100, Polynuclear Aromatic Hydrocarbons - See Attachment A				
20.1	Single compound analysis cost	per sample	N/A	20	N/A
20.2	Up to 10 compounds then complete list cost applies	per sample	N/A	20	N/A
20.3	Complete list cost	per sample	N/A	20	N/A
21.0	Method 8121, Chlorinated Hydrocarbons - See Attachment A				
21.1	Single compound analysis cost	per sample	N/A	12	N/A
21.2	Up to 10 compounds then complete list cost applies	per sample	N/A	12	N/A
21.3	Complete list cost	per sample	N/A	12	N/A
22.0	Method 8151A, Chlorinated Herbicides - See Attachment A				
22.1	Single compound analysis cost	per sample	125.00	12	1500.00
22.2	Up to 10 compounds then complete list cost applies	per sample	135.00	12	1620.00
22.3	Complete list cost	per sample	135.00	12	1620.00
23.0	Method 8260, - See Attachment A				

ITEM NO.	DESCRIPTION	UNIT of MEASURE	UNIT PRICE	ESTIMATE D QUANTITY	EXTENDED COST
23.1	Search for additional tentatively identified compounds	per sample	15.00	15	225.00
23.2	Single compound analysis cost	per sample	25.00	15	375.00
23.3	Up to 10 compounds then complete list cost applies	per sample	35.00	15	525.00
23.4	Complete list cost	per sample	65.00	15	975.00
23.5	GC-MS Scan per TIC, report TICS that are detected at 10% of the area of the nearest internal standard	per sample	20.00	15	300.00
24.0	Method 8270, - See Attachment A				
24.1	Search for additional tentatively identified compounds	per sample	20.00	15	300.00
24.2	Single compound analysis cost	per sample	120.00	15	1800.00
24.3	Up to 10 compounds then complete list cost applies	per sample	125.00	15	1875.00
24.4	Complete list cost	per sample	125.00	15	1875.00
24.5	GC-MS Scan per TIC, report TICS that are detected at 10% of the area of the nearest internal standard	per sample	20.00	15	300.00
25.0	Method 8310, Polynuclear Aromatic Hydrocarbons by HPLC - See Attachment A				
25.1	Single compound analysis cost	per sample	N/A	15	N/A
25.2	Up to 10 compounds then complete list cost applies	per sample	N/A	15	N/A
25.3	Complete list cost	per sample	N/A	15	N/A
26.0	TCLP RCRA Pesticides & Herbicides EPA 1311/SW846 - See Attachment A				
26.1	Single compound analysis cost	per sample	215.00	12	2580.00
26.2	Complete list cost	per sample	215.00	12	2580.00
27.0	TCLP RCRA Metals EPA 1311/SW846 - See Attachment A				
27.1	Single compound analysis cost	per sample	80.00	24	1920.00
27.2	Complete list cost	per sample	80.00	24	1920.00
28.0	TCLP Volatile Organics 8260 with 1311 extraction - See Attachment A				
28.1	Single compound analysis cost	per sample	50.00	20	1000.00
28.2	Up to 10 compounds then complete list cost applies	per sample	80.00	20	1600.00
28.3	Complete list cost	per sample	80.00	20	1600.00
29.0	TCLP Semi-Volatile Organics 8720 with 1311 extraction - See Attachment A				
29.1	Single compound analysis cost	per sample	115.00	12	1380.00
29.2	Up to 10 compounds then complete list cost applies	per sample	145.00	12	1740.00
29.3	Complete list cost	per sample	145.00	12	1740.00
30.0	RCRA General Chemistry - See Attachment A				
30.1	Single compound analysis cost	per sample	30.00	12	360.00
30.2	Complete list cost	per sample	80.00	12	960.00
31.0	Metals/Cyanide Target Analyte List (TAL)-Low level option EPA 200.7/SW 7470/7471				
31.1	Single compound analysis cost, 200.7 or 200.8	per sample	20.00	12	240.00
31.2	Complete list cost	per sample	120.00	12	1440.00
	Cyanide by SM4500 CN C-99/E-99	per sample	25.00	12	300
32.0	Priority Pollutant Metals-(low level option-Mercury) Water	per sample	55.00	10	550.00

ITEM NO.	DESCRIPTION	UNIT of MEASURE	UNIT PRICE	ESTIMATE D QUANTITY	EXTENDED COST
33.0	Priority Pollutant Metals-(low level option-Mercury) Soil	per sample	25.00	10	250.00
	Quick Packages				
34.0	8081A Organochlorine Pesticides GC	per sample	75.00	10	750.00
35.0	8082 PCBs by GC	per sample	45.00	10	450.00
36.0	8061A Phthalate Esters by GC/EDC	per sample	N/A	10	N/A
37.0	8270 PAH by GC/MS	per sample	75.00	10	750.00
37.a	PAH by GC/MS - 8270 SIM	per sample	75.00	20	1500.00
38.0	8260B Volatile Organics by GC/MS	per sample	65.00	20	1300.00
39.0	8270C Semivolatile Organics by GC/MS	per sample	135.00	20	2700.00
39.a	Semivolatile Organics by GC/MS - 8270 SIM	per sample	135.00	20	2700.00
40.0	BTEX (8021B/8260B)	per sample	25.00	30	750.00
41.0	BTEX (8021B)/MTBE (8021B)	per sample	N/A	30	N/A
42.0	BTEX (8021B)/GRO (8015B)	per sample	35.00	30	1050.00
43.0	BTEX (8021B)/DRO/GRO (8015B)	per sample	90.00	30	2700.00
44.0	BTEX (8021B)/GRO (8015B)/MTBE (8021B)	per sample	60.00	30	1800.00
45.0	BTEX (8021B)/DRO/GRO (8015B)/MTBE (8021B)	per sample	95.00	30	2850.00
46.0	BTEX/MTBE/TBA/EDB/EDC by 8260B (SIM)	per sample	N/A	30	N/A
47.0	TPH-ORO (8015B)	per sample	45.00	10	450.00
48.0	TPH-GRO (8015B)	per sample	35.00	10	350.00
49.0	TPH-DRO (8015B)	per sample	35.00	10	350.00
50.0	TPH-DRO/ORO (8015B)	per sample	55.00	10	550.00
51.0	TPH-GRO/DRO (8015B)	per sample	70.00	10	700.00
52.0	TPH-GRO/DRO/ORO (8015B)	per sample	90.00	20	1800.00
CONSTITUENTS FOR PHASE I DETECTION MONITORING					
53.0	Cost (Groundwater only) per set: - See Attachment A: Group B				
53.1	Search for additional tentatively identified compounds	per sample	10.00	12	120.00
53.2	Single compound analysis cost	per sample	60.00	12	720.00
53.3	Up to 10 compounds then complete list cost applies	per sample	65.00	12	780.00
53.4	Total cost Phase I complete list	per sample	110.00	12	1320.00


ITEM NO.	DESCRIPTION	UNIT of MEASURE	UNIT PRICE	ESTIMATE D QUANTITY	EXTENDED COST
54.0 Priority Pollutants by SW-846 Protocol Analysis					
54.1	Priority Pollutant Volatiles	per sample	65.00	12	780.00
54.2	Priority Pollutant Semi-Volatiles	per sample	135.00	12	1620.00
54.3	Priority Pollutant Pesticides/PCBs	per sample	95.00	12	1140.00
54.4	Priority Pollutant Inorganics	per sample	95.00	12	1140.00
54.5	Total Package Cost (less dioxins) Dioxin (2,3,7,8-Tetrachlorodibenzo-p-Dioxin) quoted at time of analysis	per sample	390.00	12	4680.00
55.0 Total Toxic Organics (TTO) by SW-846 Protocol Analysis					
55.1	TTO Volatiles	per sample	65.00	12	780.00
55.2	TTO Semi-Volatiles	per sample	135.00	12	1620.00
55.3	TTO Pesticides/PCBs	per sample	95.00	12	1140.00
55.4	TTO Inorganics	per sample	95.00	12	1140.00
55.5	Total Package Cost (less dioxins) Dioxin (2,3,7,8-Tetrachlorodibenzo-p-Dioxin) quoted at time of analysis	per sample	390.00	12	4680.00
56.0 Target Compounds List (TCL) Analysis					
56.1	TCL Volatiles	per sample	65.00	12	780.00
56.2	TCL Semi-Volatiles	per sample	135.00	12	1620.00
56.3	TCL Pesticides/PCBs	per sample	95.00	12	1140.00
56.4	TCL Inorganics	per sample	95.00	12	1140.00
56.5	Total Package Cost (less dioxins) Dioxin (2,3,7,8-Tetrachlorodibenzo-p-Dioxin) quoted at time of analysis	per sample	390.00	12	4680.00
57.0 Hazardous Waste Characterizations Analysis					
57.1	Reactivity	per sample	25.00	12	300.00
57.2	Ignitability	per sample	25.00	12	300.00
57.3	Corrosivity (pH)	per sample	5.00	12	60.00
57.4	Corrosivity (NACE)	per sample	N/A	12	N/A
57.5	BTU	per sample	N/A	12	N/A
57.6	TCLP; minus Corrosivity (NACE) & BTU	per sample	550.00	12	6600.00
57.7	Total Package Cost	per sample	605.00	12	7260.00
58.0 TCLP Extractions Analysis					
58.1	Percent Solids (metals, semi-volatiles, volatiles, pesticides, herbicides)	per sample	5.00	15	75.00
58.2	Characterization Extraction (metals, semi-volatiles, pesticides, herbicides)	per sample	30.00	15	450.00
58.3	Zero Headspace Extraction (volatiles)	per sample	30.00	15	450.00
59.0 TCLP Analysis - Analysis					
59.1	TCLP Metals quantified to 10% of TCLP levels	per sample	50.00	20	1000.00
59.2	TCLP-Mercury	per sample	25.00	20	500.00
59.3	TCLP-Individual Metal	per sample	15.00	20	300.00
59.4	Additional Metals (Flame, Furnace, ICP, ICP-MS)	per sample	15.00	20	300.00
59.5	Analysis by Standard Method of Addition (per metal)	per sample	55.00	20	1100.00
59.6	TCLP Pb characterization (includes extraction fees)	per sample	15.00	20	300.00
59.7	TCLP Volatile Organics	per sample	60.00	20	1200.00
59.8	TCLP Semi-Volatile Organics	per sample	125.00	20	2500.00
59.9	TCLP Pesticides/Herbicides	per sample	195.00	20	3900.00
59.10	TCLP Pesticides	per sample	70.00	20	1400.00

ITEM NO.	DESCRIPTION	UNIT of MEASURE	UNIT PRICE	ESTIMATE D QUANTITY	EXTENDED COST
59.11	TCLP Herbicides	per sample	145.00	20	2900.00
59.12	Full TCLP	per sample	550.00	20	11000.00
	NOTE: Multiphasic samples will be subject to additional extraction and analytical fee	per sample	550.00		
PHASE II ASSESSMENT MONITORING (groundwater only)					
60.0	See Attachment A				
60.1	Search for additional tentatively identified compounds	per sample	15.00	12	180.00
60.2	Single compound analysis cost	per sample	25.00	12	300.00
60.3	Up to 10 compounds then complete list cost applies	per sample	25.00	12	300.00
60.4	Total cost Phase II complete list	per sample	65.00	12	780.00
61.0	Encore Sampling Kits (each)	each	11.00	12	132.00
62.0	Terra Core Sampling Kits (each)	each	11.00	12	132.00
	Collection of Samples-Cost associated with collecting samples from DEP offices per pick-up				
63.0	Charleston Office, 601 57th St., SE, Charleston, WV 25304	per trip	0.00	24	0.00
64.0	Teays Office, P.O. Box 662, Teays, WV 25596	per trip	0.00	24	0.00
65.0	Fairmont Office, 2031 Pleasant Valley Rd., Fairmont, WV 26554	per trip	80.00	24	1920.00
66.0	Romney Office, HC 63, Box 2545, Romney, WV 26757	per trip	130.00	24	3120.00
67.0	French Creek Office, P.O. Box 38, French Creek, WV 26218	per trip	63.00	24	1512.00
68.0	Wheeling Office, 131A Peninsula St., Wheeling, WV 26003	per trip	100.00	24	2400.00
69.0	Parkersburg Office, 2311 Ohio Ave., Parkersburg, WV 26010	per trip	50.00	24	1200.00
70.0	Oak Hill Office, 116 Industrial Dr., Oak Hill, WV 25901	per trip	40.00	24	960.00
71.0	24 Hour Turn-Around Rush Order percentage markup, per sample	per sample	75.00	\$500.00	\$
72.0	48 Hour Turn-Around Rush Order percentage markup, per sample	per sample	50.00	\$500.00	\$
73.0	72 Hour Turn Around Rush Order percentage markup, per sample	per sample	40.00	\$500.00	\$
TOTAL Bid Amount					\$

Quantities listed on the bid schedule are for bid evaluation purposes only and are not a guarantee of quantities to be ordered over the life of the contract. Actual quantities may be more or less than those stated on this schedule. Note: Modification of this pricing page will result in vendor disqualification.

Company: Pace Analytical Services, LLC

Name: Mukesh Shah

Signature:  Date: 11-29-2016

State of West Virginia

VENDOR PREFERENCE CERTIFICATE

Certification and application* is hereby made for Preference in accordance with West Virginia Code, §5A-3-37. (Does not apply to construction contracts). West Virginia Code, §5A-3-37, provides an opportunity for qualifying vendors to request (at the time of bid) preference for their residency status. Such preference is an evaluation method only and will be applied only to the cost bid in accordance with the West Virginia Code. This certificate for application is to be used to request such preference. The Purchasing Division will make the determination of the Vendor Preference, if applicable.

1. Application is made for 2.5% vendor preference for the reason checked:

- Bidder is an individual resident vendor and has resided continuously in West Virginia for four (4) years immediately preceding the date of this certification; or, Bidder is a partnership, association or corporation resident vendor and has maintained its headquarters or principal place of business continuously in West Virginia for four (4) years immediately preceding the date of this certification; or 80% of the ownership interest of Bidder is held by another individual, partnership, association or corporation resident vendor who has maintained its headquarters or principal place of business continuously in West Virginia for four (4) years immediately preceding the date of this certification; or, Bidder is a nonresident vendor which has an affiliate or subsidiary which employs a minimum of one hundred state residents and which has maintained its headquarters or principal place of business within West Virginia continuously for the four (4) years immediately preceding the date of this certification; or,

2. Application is made for 2.5% vendor preference for the reason checked:

- Bidder is a resident vendor who certifies that, during the life of the contract, on average at least 75% of the employees working on the project being bid are residents of West Virginia who have resided in the state continuously for the two years immediately preceding submission of this bid; or,

3. Application is made for 2.5% vendor preference for the reason checked:

- Bidder is a nonresident vendor employing a minimum of one hundred state residents or is a nonresident vendor with an affiliate or subsidiary which maintains its headquarters or principal place of business within West Virginia employing a minimum of one hundred state residents who certifies that, during the life of the contract, on average at least 75% of the employees or Bidder's affiliate's or subsidiary's employees are residents of West Virginia who have resided in the state continuously for the two years immediately preceding submission of this bid; or,

4. Application is made for 5% vendor preference for the reason checked:

- Bidder meets either the requirement of both subdivisions (1) and (2) or subdivision (1) and (3) as stated above; or,

5. Application is made for 3.5% vendor preference who is a veteran for the reason checked:

- Bidder is an individual resident vendor who is a veteran of the United States armed forces, the reserves or the National Guard and has resided in West Virginia continuously for the four years immediately preceding the date on which the bid is submitted; or,

6. Application is made for 3.5% vendor preference who is a veteran for the reason checked:

- Bidder is a resident vendor who is a veteran of the United States armed forces, the reserves or the National Guard, if, for purposes of producing or distributing the commodities or completing the project which is the subject of the vendor's bid and continuously over the entire term of the project, on average at least seventy-five percent of the vendor's employees are residents of West Virginia who have resided in the state continuously for the two immediately preceding years.

7. Application is made for preference as a non-resident small, women- and minority-owned business, in accordance with West Virginia Code §5A-3-59 and West Virginia Code of State Rules.

- Bidder has been or expects to be approved prior to contract award by the Purchasing Division as a certified small, women- and minority-owned business.

Bidder understands if the Secretary of Revenue determines that a Bidder receiving preference has failed to continue to meet the requirements for such preference, the Secretary may order the Director of Purchasing to: (a) reject the bid; or (b) assess a penalty against such Bidder in an amount not to exceed 5% of the bid amount and that such penalty will be paid to the contracting agency or deducted from any unpaid balance on the contract or purchase order.

By submission of this certificate, Bidder agrees to disclose any reasonably requested information to the Purchasing Division and authorizes the Department of Revenue to disclose to the Director of Purchasing appropriate information verifying that Bidder has paid the required business taxes, provided that such information does not contain the amounts of taxes paid nor any other information deemed by the Tax Commissioner to be confidential.

Under penalty of law for false swearing (West Virginia Code, §61-5-3), Bidder hereby certifies that this certificate is true and accurate in all respects; and that if a contract is issued to Bidder and if anything contained within this certificate changes during the term of the contract, Bidder will notify the Purchasing Division in writing immediately.

Bidder: Pac Analytical Services, LLC

Signed: [Signature]

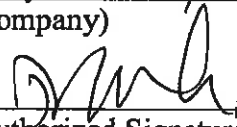
Date: 11-29-2016

Title: General Manager

DESIGNATED CONTACT: Vendor appoints the individual identified in this Section as the Contract Administrator and the initial point of contact for matters relating to this Contract.

Mukesh Shah, General Manager
 (Name, Title)
Brian Richards, Lab Manager
 (Printed Name and Title)
5 Weatheridge Drive, Hurvitzville, WV 25526
 (Address)
304-757-8954 304-757-9676
 (Phone Number) / (Fax Number)
Mukesh.Shah@paclabs.com
 (email address)
mshah@biochemtesting.com

CERTIFICATION AND SIGNATURE: By signing below, or submitting documentation through wvOASIS, I certify that I have reviewed this Solicitation in its entirety; that I understand the requirements, terms and conditions, and other information contained herein; that this bid, offer or proposal constitutes an offer to the State that cannot be unilaterally withdrawn; that the product or service proposed meets the mandatory requirements contained in the Solicitation for that product or service, unless otherwise stated herein; that the Vendor accepts the terms and conditions contained in the Solicitation, unless otherwise stated herein; that I am submitting this bid, offer or proposal for review and consideration; that I am authorized by the vendor to execute and submit this bid, offer, or proposal, or any documents related thereto on vendor's behalf; that I am authorized to bind the vendor in a contractual relationship; and that to the best of my knowledge, the vendor has properly registered with any State agency that may require registration.

Pace Analytical Services, LLC
 (Company)
 Mukesh Shah, General Manager
 (Authorized Signature) (Representative Name, Title)
Mukesh Shah, General Manager
 (Printed Name and Title of Authorized Representative)
11-29-2016
 (Date)
304-757-8954 304-757-9676
 (Phone Number) (Fax Number)

STATE OF WEST VIRGINIA
Purchasing Division

PURCHASING AFFIDAVIT

MANDATE: Under W. Va. Code §5A-3-10a, no contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and: (1) the debt owed is an amount greater than one thousand dollars in the aggregate; or (2) the debtor is in employer default.

EXCEPTION: The prohibition listed above does not apply where a vendor has contested any tax administered pursuant to chapter eleven of the W. Va. Code, workers' compensation premium, permit fee or environmental fee or assessment and the matter has not become final or where the vendor has entered into a payment plan or agreement and the vendor is not in default of any of the provisions of such plan or agreement.

DEFINITIONS:

"Debt" means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently delinquent or due and required to be paid to the state or any of its political subdivisions, including any interest or additional penalties accrued thereon.

"Employer default" means having an outstanding balance or liability to the old fund or to the uninsured employers' fund or being in policy default, as defined in W. Va. Code § 23-2c-2, failure to maintain mandatory workers' compensation coverage, or failure to fully meet its obligations as a workers' compensation self-insured employer. An employer is not in employer default if it has entered into a repayment agreement with the Insurance Commissioner and remains in compliance with the obligations under the repayment agreement.

"Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceeds five percent of the total contract amount.

AFFIRMATION: By signing this form, the vendor's authorized signer affirms and acknowledges under penalty of law for false swearing (W. Va. Code §61-5-3) that neither vendor nor any related party owe a debt as defined above and that neither vendor nor any related party are in employer default as defined above, unless the debt or employer default is permitted under the exception above.

WITNESS THE FOLLOWING SIGNATURE:

Vendor's Name: Pace Analytical Services, LLC

Authorized Signature: [Signature] Date: 11-29-2016

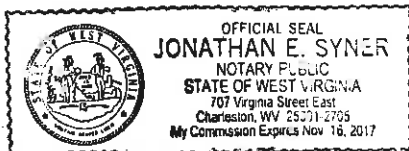
State of WV

County of Putnam, to-wit:

Taken, subscribed, and sworn to before me this 25th day of November, 2016

My Commission expires 11/16, 2017.

AFFIX SEAL HERE



NOTARY PUBLIC

[Signature]

Purchasing Affidavit (Revised 08/01/2015)

BRENT HANLIN

OBJECTIVE I would like to apply my skills and experience to the needs of your company so that we may both enjoy our fullest potential and achieve sustained growth.

SKILLS & ABILITIES I have more than twenty years of experience in the laboratory field, as an analyst, supervisor, department manager, and technical director.

EXPERIENCE **TECHNICAL DIRECTOR, MICROBAC LABORATORIES**

December 2014 - Present

I communicate with the various regulating agencies regarding certifications and capabilities of the laboratory. I also work closely with the QA officer to make sure all staff and procedures are in compliance.

ORGANICS MANAGER, MICROBAC LABORATORIES AND AMERICAN WESTECH LABORATORIES

February 1999 - Present

I work closely with Organic Department staff to assure timely, high-quality data is produced at the laboratory. I revise SOP's, perform Root Cause investigations, open and fill out CAR's, communicate with Project Managers, and give technical guidance to laboratory staff.

INORGANICS MANAGER, AMERICAN WESTECH LABORATORIES

February 2006 – May 2009

I have also performed the functions of Metals Manager, overseeing staff to organize their workload and perform analyses on various equipment.

ANALYST, ANALYTICAL LABORATORY SERVICES, INC.

December 1990 – February 1999

As an analyst, I worked in all areas of the laboratory including Microbiology, Biototoxicity, Wet Chemistry, Metals, VOC's, SVOC's, Wood Testing, TO-15 Air monitoring, Chocolates, Food testing, pharmaceutical product testing, and HPLC.

EDUCATION **UNIVERSITY OF PITTSBURGH – BRADFORD, CHEMISTRY**

Minor in Biology. Participated in intercollegiate soccer and member of Sigma Lambda Chi fraternity.

Attachment I

WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER AND WASTE MANAGEMENT

List of Certified Parameters
for

PACE ANALYTICAL SERVICES, LLC-
HURRICANE, WV
HURRICANE, WEST VIRGINIA

PARAMETERS CERTIFIED

NONPOTABLE WATER INORGANIC NONMETALS

<u>ANALYTE</u>	<u>METHOD</u>	<u>TECHNOLOGY</u>
Acidity, Hot	SM2310 B(4a)-97	Titrimetric
Alkalinity	SM2320 B-97	Titrimetric
Ammonia	HACH 8038	Spectrophotometric
Ammonia	Lachat 10-107-06-5-J	Spectrophotometric
Ammonia	SM4500-NH3 B-97	Distillation
Ammonia	SM4500-NH3 C-97	Titrimetric
Bromide	EPA300.0 Rev 2.1-1993	IC
Carbon, Total Organic (TOC)	SM5310 C-00	Oxidation
Chloride	EPA300.0 Rev 2.1-1993	IC
Chloride	SM4500-Cl C-97	Titrimetric
Chlorine, Residual	HACH 8167	Spectrophotometric
Chromium, Hexavalent	SM3500-Cr B-09	Spectrophotometric
Color	SM2120 B-01	Visual Comparison
Conductance, Specific	EPA120.1 Rev 1982	Probe
Cyanide, Total	SM4500-CN C-99	Distillation
Cyanide, Total	SM4500-CN E-99	Spectrophotometric
Cyanide, Weak Acid Dissociable	SM4500-CN E-99	Spectrophotometric
Cyanide, Weak Acid Dissociable	SM4500-CN I-11	Distillation
Fluoride	EPA300.0 Rev 2.1-1993	IC
Hardness, Calcium	SM2340 B-97	Calculation
Hardness, Total	HACH 8226	Titrimetric
Hardness, Total	SM2340 B-97	Calculation
Nitrate	EPA300.0 Rev 2.1-1993	IC
Nitrate	Lachat 10-107-04-1-C	Calculation
Nitrate-Nitrite	EPA300.0 Rev 2.1-1993	Calculation
Nitrate-Nitrite	Lachat 10-107-04-1-C	Spectrophotometric
Nitrite	EPA300.0 Rev 2.1-1993	IC
Nitrite	Lachat 10-107-04-1-C	Spectrophotometric
Nitrogen, Total Kjeldahl (TKN)	Lachat 10-107-06-2-E	Spectrophotometric

<u>ANALYTE</u>	<u>METHOD</u>	<u>TECHNOLOGY</u>
Nitrogen, Total Kjeldahl (TKN)	SM4500-NH3 B-97	Distillation
Nitrogen, Total Kjeldahl (TKN)	SM4500-NH3 C-97	Titrimetric
Nitrogen, Total Kjeldahl (TKN)	SM4500-Norg C-97	Digestion
Oil & Grease	EPA1664 A	Gravimetric
Oxygen Demand, Biochemical (BOD)	SM5210 B-01	Probe
Oxygen Demand, Carbonaceous Biochemical (CBOD)	SM5210 B-01	Probe
Oxygen Demand, Chemical (COD)	HACH 8000	Spectrophotometric
Oxygen, Dissolved	SM4500-O G-01	Probe
pH (Hydrogen Ion)	SM4500-H B-00	Electrode
Phenolics, Total	EPA420.1 Rev 1978	Spectrophotometric
Phosphorus, Ortho	SM4500-P E-99	Spectrophotometric
Phosphorus, Total	Lachat 10-115-01-1-F	Spectrophotometric
Phosphorus, Total	SM4500-P B(5)-99	Digestion
Phosphorus, Total	SM4500-P E-99	Spectrophotometric
Solids, Dissolved	SM2540 C-97	Gravimetric
Solids, Settleable	SM2540 F-97	Imhoff
Solids, Suspended	SM2540 D-97	Gravimetric
Solids, Total	SM2540 B-97	Gravimetric
Solids, Volatile	EPA160.4	Gravimetric
Sulfate	EPA300.0 Rev 2.1-1993	IC
Temperature	SM2550 B-00	Thermometric
Turbidity	EPA180.1 Rev 2.0-1993	Turbidimetric

NONPOTABLE WATER TRACE METALS

<u>METAL</u>	<u>METHOD</u>	<u>TECHNOLOGY</u>
Aluminum	EPA200.7 Rev 4.4-1994	ICP
Aluminum	EPA200.8 Rev 5.4-1994	ICP-MS
Aluminum	SW6010B	ICP
Aluminum	SW6020	ICP-MS
Antimony	EPA200.7 Rev 4.4-1994	ICP
Antimony	EPA200.8 Rev 5.4-1994	ICP-MS
Antimony	SW6010B	ICP
Antimony	SW6020	ICP-MS
Arsenic	EPA200.7 Rev 4.4-1994	ICP
Arsenic	EPA200.8 Rev 5.4-1994	ICP-MS
Arsenic	SW6010B	ICP
Arsenic	SW6020	ICP-MS
Barium	EPA200.7 Rev 4.4-1994	ICP
Barium	EPA200.8 Rev 5.4-1994	ICP-MS
Barium	SW6010B	ICP
Barium	SW6020	ICP-MS
Beryllium	EPA200.7 Rev 4.4-1994	ICP
Beryllium	EPA200.8 Rev 5.4-1994	ICP-MS
Beryllium	SW6010B	ICP
Beryllium	SW6020	ICP-MS
Boron	EPA200.7 Rev 4.4-1994	ICP
Boron	SW6010B	ICP

<u>METAL</u>	<u>METHOD</u>	<u>TECHNOLOGY</u>
Cadmium	EPA200.7 Rev 4.4-1994	ICP
Cadmium	EPA200.8 Rev 5.4-1994	ICP-MS
Cadmium	SW6010B	ICP
Cadmium	SW6020	ICP-MS
Calcium	EPA200.7 Rev 4.4-1994	ICP
Calcium	SW6010B	ICP
Chromium	EPA200.7 Rev 4.4-1994	ICP
Chromium	EPA200.8 Rev 5.4-1994	ICP-MS
Chromium	SW6010B	ICP
Chromium	SW6020	ICP-MS
Cobalt	EPA200.7 Rev 4.4-1994	ICP
Cobalt	EPA200.8 Rev 5.4-1994	ICP-MS
Cobalt	SW6010B	ICP
Cobalt	SW6020	ICP-MS
Copper	EPA200.7 Rev 4.4-1994	ICP
Copper	EPA200.8 Rev 5.4-1994	ICP-MS
Copper	SW6010B	ICP
Copper	SW6020	ICP-MS
Iron	EPA200.7 Rev 4.4-1994	ICP
Iron	SW6010B	ICP
Lead	EPA200.7 Rev 4.4-1994	ICP
Lead	EPA200.8 Rev 5.4-1994	ICP-MS
Lead	SW6010B	ICP
Lead	SW6020	ICP-MS
Magnesium	EPA200.7 Rev 4.4-1994	ICP
Magnesium	SW6010B	ICP
Manganese	EPA200.7 Rev 4.4-1994	ICP
Manganese	EPA200.8 Rev 5.4-1994	ICP-MS
Manganese	SW6010B	ICP
Manganese	SW6020	ICP-MS
Mercury	EPA245.1 Rev 3.0-1994	CVAA
Mercury	SW7470A	CVAA
Metals, Total	SM3030 E-97	Digestion
Metals, Total	SM3030 F-97	Digestion
Molybdenum	EPA200.7 Rev 4.4-1994	ICP
Molybdenum	EPA200.8 Rev 5.4-1994	ICP-MS
Molybdenum	SW6010B	ICP
Molybdenum	SW6020	ICP-MS
Nickel	EPA200.7 Rev 4.4-1994	ICP
Nickel	EPA200.8 Rev 5.4-1994	ICP-MS
Nickel	SW6010B	ICP
Nickel	SW6020	ICP-MS
Potassium	EPA200.7 Rev 4.4-1994	ICP
Potassium	SW6010B	ICP
Selenium	EPA200.7 Rev 4.4-1994	ICP
Selenium	EPA200.8 Rev 5.4-1994	ICP-MS
Selenium	SM3113 B-04	GFAA
Selenium	SM3114 C-97 (Modified)	HGAF
Selenium	SW6010B	ICP
Selenium	SW6020	ICP-MS

<u>METAL</u>	<u>METHOD</u>	<u>TECHNOLOGY</u>
Silica	EPA200.7 Rev 4.4-1994	Calculation
Silica	SW6010B	Calculation
Silicon	EPA200.7 Rev 4.4-1994	ICP
Silicon	SW6010B	ICP
Silver	EPA200.7 Rev 4.4-1994	ICP
Silver	EPA200.8 Rev 5.4-1994	ICP-MS
Silver	SW6010B	ICP
Silver	SW6020	ICP-MS
Sodium	EPA200.7 Rev 4.4-1994	ICP
Sodium	SW6010B	ICP
Strontium	EPA200.7 Rev 4.4-1994	ICP
Strontium	SW6010B	ICP
Thallium	EPA200.7 Rev 4.4-1994	ICP
Thallium	EPA200.8 Rev 5.4-1994	ICP-MS
Thallium	SW6010B	ICP
Thallium	SW6020	ICP-MS
Tin	EPA200.7 Rev 4.4-1994	ICP
Tin	SW6010B	ICP
Titanium	EPA200.7 Rev 4.4-1994	ICP
Titanium	SW6010B	ICP
Vanadium	EPA200.7 Rev 4.4-1994	ICP
Vanadium	EPA200.8 Rev 5.4-1994	ICP-MS
Vanadium	SW6010B	ICP
Vanadium	SW6020	ICP-MS
Zinc	EPA200.7 Rev 4.4-1994	ICP
Zinc	EPA200.8 Rev 5.4-1994	ICP-MS
Zinc	SW6010B	ICP
Zinc	SW6020	ICP-MS

NONPOTABLE WATER MICROBIOLOGY

<u>GROUP</u>	<u>METHOD</u>	<u>TECHNOLOGY</u>
Coliform, Fecal (MF)	SM9222 D-97	Membrane Filter
Coliform, Fecal (MPN)	Colilert 18	Multiple Well
Coliform, Fecal (MPN)	SM9221 E-06	Multiple Tube
Coliform, Total (MF)	SM9222 B-97	Membrane Filter
Coliform, Total (MPN)	Colilert 18	Multiple Well
E. Coli (MF)	HACH 10029	Membrane Filter
E. Coli (MPN)	Colilert 18	Multiple Well
Streptococci, Fecal (MF)	SM9230 C-07	Membrane Filter

HAZARDOUS WASTE CHARACTERISTICS

<u>PROCEDURE</u>	<u>METHOD</u>	<u>TECHNOLOGY</u>
Corrosivity	SW9040C	Electrode
Paint Filter Test	SW9095B	Gravimetric
SPLP- Metals	SW1312	Extraction
TCLP- Metals	SW1311	Extraction

SOLID AND CHEMICAL INORGANIC NONMETALS

<u>ANALYTE</u>	<u>METHOD</u>	<u>TECHNOLOGY</u>
Ammonia	HACH 8038	Spectrophotometric
Ammonia	SM4500-NH3 B-97	Distillation
Ammonia	SM4500-NH3 C-97	Titrimetric
Chloride	EPA300.0 Rev 2.1-1993	IC
Chloride	SM4500-Cl C-97	Titrimetric
Cyanide, Total	SM4500-CN C-99	Distillation
Cyanide, Total	SM4500-CN E-99	Spectrophotometric
Fluoride	EPA300.0 Rev 2.1-1993	IC
Nitrate	EPA300.0 Rev 2.1-1993	IC
Nitrate	Lachat 10-107-04-1-C	Calculation
Nitrate-Nitrite	EPA300.0 Rev 2.1-1993	Calculation
Nitrate-Nitrite	Lachat 10-107-04-1-C	Spectrophotometric
Nitrite	EPA300.0 Rev 2.1-1993	IC
Nitrite	Lachat 10-107-04-1-C	Spectrophotometric
Nitrogen, Total Kjeldahl (TKN)	SM4500-NH3 B-97	Distillation
Nitrogen, Total Kjeldahl (TKN)	SM4500-NH3 C-97	Titrimetric
Nitrogen, Total Kjeldahl (TKN)	SM4500-Norg C-97	Digestion
pH (Hydrogen Ion)	SW9045C	Electrode
Phosphorus, Total	SM4500-P B(5)-99	Digestion
Phosphorus, Total	SM4500-P E-99	Spectrophotometric
Solids, Total, Fixed, & Volatile	SM2540 G-97	Gravimetric
Solids, Volatile	EPA160.4	Gravimetric
Sulfate	EPA300.0 Rev 2.1-1993	IC

SOLID AND CHEMICAL TRACE METALS

<u>METAL</u>	<u>METHOD</u>	<u>TECHNOLOGY</u>
Aluminum	SW6010B	ICP
Antimony	SW6010B	ICP
Arsenic	SW6010B	ICP
Barium	SW6010B	ICP
Beryllium	SW6010B	ICP
Boron	SW6010B	ICP
Cadmium	SW6010B	ICP
Calcium	SW6010B	ICP
Chromium	SW6010B	ICP
Cobalt	SW6010B	ICP
Copper	SW6010B	ICP
Iron	SW6010B	ICP
Lead	SW6010B	ICP
Magnesium	SW6010B	ICP
Manganese	SW6010B	ICP
Mercury	SW7470A	CVAA
Mercury	SW7471A	CVAA
Metals, Total	SW3050B	Digestion
Molybdenum	SW6010B	ICP
Nickel	SW6010B	ICP

<u>METAL</u>	<u>METHOD</u>	<u>TECHNOLOGY</u>
Phosphorus	SW6010B	ICP
Potassium	SW6010B	ICP
Selenium	SW6010B	ICP
Selenium	SW7010	GFAA
Silicon	SW6010B	ICP
Silver	SW6010B	ICP
Sodium	SW6010B	ICP
Strontium	SW6010B	ICP
Thallium	SW6010B	ICP
Tin	SW6010B	ICP
Titanium	SW6010B	ICP
Vanadium	SW6010B	ICP
Zinc	SW6010B	ICP

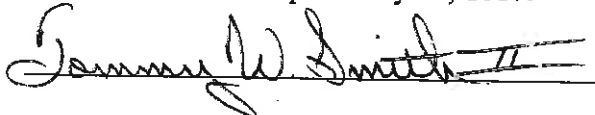
SOLID AND CHEMICAL MICROBIOLOGY

<u>GROUP</u>	<u>METHOD</u>	<u>TECHNOLOGY</u>
Coliform, Fecal (MPN)	EPA-821-R-10-003 (2010)	Multiple Tube
Coliform, Fecal (MPN)	SM9221 E-06	Multiple Tube

This laboratory may test **ONLY** for those environmental parameters listed above for compliance reporting purposes. All testing must be by the test method cited in the current application for certification.

This Certification Expires July 31, 2017.

Certificate No 220

 Issued on November 03, 2016

Tommy W. Smith II
Quality Assurance Officer

NOTE: This Attachment I supersedes and voids all previous Attachment I documents issued by WV DEP.

Attachment I

WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER AND WASTE MANAGEMENT

List of Certified Parameters
for

**PACE ANALYTICAL SERVICES,
INCORPORATED - GREENSBURG, PA
GREENSBURG, PENNSYLVANIA**

PARAMETERS CERTIFIED

NONPOTABLE WATER INORGANIC NONMETALS

<u>ANALYTE</u>	<u>METHOD</u>	<u>TECHNOLOGY</u>
Acidity	SM2310 B-97	Titrimetric
Alkalinity	SM2320 B-97	Titrimetric
Ammonia	EPA350.1 Rev 2.0-1993	Spectrophotometric
Bromide	EPA300.0 Rev 2.1-1993	IC
Carbon, Total Organic (TOC)	SM5310 C-00	Oxidation
Carbon, Total Organic (TOC)	SW9060A	Oxidation
Chloride	EPA300.0 Rev 2.1-1993	IC
Chloride	SM4500-Cl E-97	Spectrophotometric
Chloride	SW9251	Colorimetric
Chlorine, Residual	SM4500-Cl G-00	Spectrophotometric
Chromium, Hexavalent	SM3500-Cr B-09	Spectrophotometric
Chromium, Hexavalent	SW7196A	Spectrophotometric
Color	SM2120 B-01	Visual Comparison
Conductance, Specific	EPA120.1 Rev 1982	Probe
Conductance, Specific	SW9050A	Probe
Corrosivity	SW9040C	Electrode
Cyanide	SM4500-CN C-99	Distillation
Cyanide, Amenable to Chlorination	SM4500-CN G-99	Digestion
Cyanide, Amenable to Chlorination	SM4500-CN G-99	Distillation
Cyanide, Total	EPA335.4 Rev 1.0-1993	Spectrophotometric
Cyanide, Total	SM4500-CN E-11	Spectrophotometric
Cyanide, Total	SW9010C	Distillation
Cyanide, Total	SW9012A	Spectrophotometric
Cyanide, Total	SW9012B	Spectrophotometric
Cyanide, Total	SW9014	Spectrophotometric
Fluoride	EPA300.0 Rev 2.1-1993	IC
Fluoride	SM4500-F B-97	Distillation
Fluoride	SM4500-F C-97	ISE
Hardness, Total	SM2340 B-97	Calculation

<u>ANALYTE</u>	<u>METHOD</u>	<u>TECHNOLOGY</u>
Iron, Ferrous	SM3500-Fe B(4.c)-97	Spectrophotometric
Nitrate	SM4500-NO3 F-00	Calculation
Nitrate-Nitrite	SM4500-NO3 F-00	Spectrophotometric
Nitrite	SM4500-NO2 B-00	Spectrophotometric
Nitrogen, Total Kjeldahl (TKN)	EPA351.2 Rev 2.0-1993	Colorimetric
Oil & Grease	EPA1664 A	Gravimetric
Oxygen Demand, Biochemical (BOD)	SM5210 B-01	Probe
Oxygen Demand, Carbonaceous Biochemical (CBOD)	SM5210 B-01	Probe
Oxygen Demand, Chemical (COD)	EPA410.4 Rev 2.0-1993	Spectrophotometric
Oxygen, Dissolved	SM4500-O G-01	Probe
Petroleum Hydrocarbons, Total	EPA1664 A	Gravimetric (SGT)
pH (Hydrogen Ion)	SM4500-H B-00	Electrode
pH (Hydrogen Ion)	SW9040B	Electrode
Phenolics, Total	EPA420.1 Rev 1978	Spectrophotometric
Phenolics, Total	SW9065	Spectrophotometric
Phosphorus, Ortho	SM4500-P E-99	Spectrophotometric
Phosphorus, Total	SM4500-P B(5)-99	Digestion
Phosphorus, Total	SM4500-P E-99	Spectrophotometric
Solids, Dissolved	SM2540 C-97	Gravimetric
Solids, Settleable	SM2540 F-97	Imhoff
Solids, Suspended	SM2540 D-97	Gravimetric
Solids, Total	SM2540 B-97	Gravimetric
Solids, Volatile	EPA160.4	Gravimetric
Sulfate	ASTM D516-02	Turbidimetric
Sulfate	ASTM D516-90	Turbidimetric
Sulfate	EPA300.0 Rev 2.1-1993	IC
Sulfate	SW9038	Turbidimetric
Sulfide	SM4500-S F-00	Titrimetric
Sulfite	SM4500-SO3 B-00	Titrimetric
Surfactants	SM5540 C-00	Colorimetric
Temperature	SM2550 B-00	Thermometric
Thiocyanate	SM4500-CN M-99	Spectrophotometric
Turbidity	EPA180.1 Rev 2.0-1993	Turbidimetric

NONPOTABLE WATER TRACE METALS

<u>METAL</u>	<u>METHOD</u>	<u>TECHNOLOGY</u>
Aluminum	EPA200.7 Rev 4.4-1994	ICP
Aluminum	SW6010B	ICP
Aluminum	SW6010C	ICP
Antimony	EPA200.7 Rev 4.4-1994	ICP
Antimony	SW6010B	ICP
Antimony	SW6010C	ICP
Arsenic	EPA200.7 Rev 4.4-1994	ICP
Arsenic	SW6010B	ICP

METALMETHODTECHNOLOGY

Arsenic	SW6010C	ICP
Barium	EPA200.7 Rev 4.4-1994	ICP
Barium	SW6010B	ICP
Barium	SW6010C	ICP
Beryllium	EPA200.7 Rev 4.4-1994	ICP
Beryllium	SW6010B	ICP
Beryllium	SW6010C	ICP
Boron	EPA200.7 Rev 4.4-1994	ICP
Boron	SW6010B	ICP
Boron	SW6010C	ICP
Cadmium	EPA200.7 Rev 4.4-1994	ICP
Cadmium	SW6010B	ICP
Cadmium	SW6010C	ICP
Calcium	EPA200.7 Rev 4.4-1994	ICP
Calcium	SW6010B	ICP
Calcium	SW6010C	ICP
Chromium	EPA200.7 Rev 4.4-1994	ICP
Chromium	SW6010B	ICP
Chromium	SW6010C	ICP
Cobalt	EPA200.7 Rev 4.4-1994	ICP
Cobalt	SW6010B	ICP
Cobalt	SW6010C	ICP
Copper	EPA200.7 Rev 4.4-1994	ICP
Copper	SW6010B	ICP
Copper	SW6010C	ICP
Iron	EPA200.7 Rev 4.4-1994	ICP
Iron	SW6010B	ICP
Iron	SW6010C	ICP
Lead	EPA200.7 Rev 4.4-1994	ICP
Lead	SW6010B	ICP
Lead	SW6010C	ICP
Lithium	EPA200.7 Rev 4.4-1994	ICP
Lithium	SW6010B	ICP
Lithium	SW6010C	ICP
Magnesium	EPA200.7 Rev 4.4-1994	ICP
Magnesium	SW6010B	ICP
Magnesium	SW6010C	ICP
Manganese	EPA200.7 Rev 4.4-1994	ICP
Manganese	SW6010B	ICP
Manganese	SW6010C	ICP
Mercury	EPA245.1 Rev 3.0-1994	CVAA
Mercury	SW7470A	CVAA
Metals	SW3005A	Digestion
Molybdenum	EPA200.7 Rev 4.4-1994	ICP
Molybdenum	SW6010B	ICP
Molybdenum	SW6010C	ICP
Nickel	EPA200.7 Rev 4.4-1994	ICP
Nickel	SW6010B	ICP
Nickel	SW6010C	ICP
Phosphorus	EPA200.7 Rev 4.4-1994	ICP
Phosphorus	SW6010B	ICP

<u>METAL</u>	<u>METHOD</u>	<u>TECHNOLOGY</u>
Phosphorus	SW6010C	ICP
Potassium	EPA200.7 Rev 4.4-1994	ICP
Potassium	SW6010B	ICP
Potassium	SW6010C	ICP
Selenium	EPA200.7 Rev 4.4-1994	ICP
Selenium	SW6010B	ICP
Selenium	SW6010C	ICP
Silica	EPA200.7 Rev 4.4-1994	Calculation
Silica	SW6010B	Calculation
Silica	SW6010C	Calculation
Silicon	EPA200.7 Rev 4.4-1994	ICP
Silicon	SW6010B	ICP
Silicon	SW6010C	ICP
Silver	EPA200.7 Rev 4.4-1994	ICP
Silver	SW6010B	ICP
Silver	SW6010C	ICP
Sodium	EPA200.7 Rev 4.4-1994	ICP
Sodium	SW6010B	ICP
Sodium	SW6010C	ICP
Strontium	EPA200.7 Rev 4.4-1994	ICP
Strontium	SW6010B	ICP
Strontium	SW6010C	ICP
Sulfur	EPA200.7 Rev 4.4-1994	ICP
Sulfur	SW6010B	ICP
Sulfur	SW6010C	ICP
Thallium	EPA200.7 Rev 4.4-1994	ICP
Thallium	SW6010B	ICP
Thallium	SW6010C	ICP
Tin	EPA200.7 Rev 4.4-1994	ICP
Tin	SW6010B	ICP
Tin	SW6010C	ICP
Titanium	EPA200.7 Rev 4.4-1994	ICP
Titanium	SW6010B	ICP
Titanium	SW6010C	ICP
Vanadium	EPA200.7 Rev 4.4-1994	ICP
Vanadium	SW6010B	ICP
Vanadium	SW6010C	ICP
Zinc	EPA200.7 Rev 4.4-1994	ICP
Zinc	SW6010B	ICP
Zinc	SW6010C	ICP
Zirconium	EPA200.7 Rev 4.4-1994	ICP
Zirconium	SW6010B	ICP
Zirconium	SW6010C	ICP

NONPOTABLE WATER VOLATILE ORGANIC CHEMICALS

<u>GROUP</u>	<u>METHOD</u>	<u>TECHNOLOGY</u>
Purge & Trap For Aqueous Samples	SW5030B	Extraction
Purge & Trap For Aqueous Samples	SW5030C	Extraction
Purgeables	EPA624	GC/MS

<u>GROUP</u>	<u>METHOD</u>	<u>TECHNOLOGY</u>
Total Petroleum Hydrocarbons (GRO)	SW8015B	GC/FID
Total Petroleum Hydrocarbons (GRO)	SW8015D	GC/FID
Volatile Organic Compounds	SW8260B	GC/MS
Volatile Organic Compounds	SW8260C	GC/MS

NONPOTABLE WATER EXTRACTABLE AND SEMI-VOLATILE ORGANIC CHEMICALS

<u>GROUP</u>	<u>METHOD</u>	<u>TECHNOLOGY</u>
Base/Neutrals & Acids	EPA625	GC/MS
EDB & DBCP	SW8011	GC/ECD
Organochlorine Pesticides	SW8081A	GC
Organochlorine Pesticides	SW8081B	GC
Organochlorine Pesticides & PCBs	EPA608	GC
Polychlorinated Biphenyls	SW8082	GC
Polychlorinated Biphenyls	SW8082A	GC
Semivolatile Organic Compounds	SW8270C	GC/MS
Semivolatile Organic Compounds	SW8270C	SIM
Semivolatile Organic Compounds	SW8270D	GC/MS
Semivolatile Organic Compounds	SW8270D	SIM
Separatory Funnel Liquid-Liquid	SW3510C	Extraction
Solid Phase Extraction	SW3535A	Extraction
Sulfur Cleanup	SW3660B	Cleanup
Sulfuric Acid/Permanganate Cleanup	SW3665A	Cleanup
Total Petroleum Hydrocarbons (DRO)	SW8015B	GC/FID
Total Petroleum Hydrocarbons (DRO)	SW8015D	GC/FID

NONPOTABLE WATER RADIOCHEMISTRY

<u>GROUP</u>	<u>METHOD</u>	<u>TECHNOLOGY</u>
Alpha Counting Error	EPA900.0	GFPC
Beta Counting Error	EPA900.0	GFPC
Gamma Spec	EPA901.1	GS
Gross Alpha	EPA900.0	GFPC
Gross Alpha	SM7110 C-96	GFPC
Gross Beta	EPA900.0	GFPC
Isotopic Thorium & Uranium, & Radium 226	EML28th-HASL 300 Se-02	GFPC
Radium 226	EPA903.1	GFPC
Radium 228	EPA904.0	GFPC
Radium Isotopes, Alpha Emitting	EPA903.0	GFPC
Radium Isotopes, Alpha Emitting	SW9315	GFPC
Strontium 90	EPA905.0	GFPC
Tritium	EPA906.0	GFPC
Uranium	ASTM D5174-97	Phosphorimetric Laser
Uranium	EPA908.0	GFPC
Uranium, Isotopic	EML28th-HASL 300 U-02	GFPC

HAZARDOUS WASTE CHARACTERISTICS

<u>PROCEDURE</u>	<u>METHOD</u>	<u>TECHNOLOGY</u>
Corrosivity	SW9045C	Electrode
Corrosivity	SW9045D	Electrode
Ignitability	SW1010	Closed Cup
Ignitability	SW1010A	Closed Cup
Paint Filter Test	SW9095A	Gravimetric
Paint Filter Test	SW9095B	Gravimetric
SPLP- Metals & Organics	SW1312	Extraction
TCLP- Metals & Organics	SW1311	Extraction

SOLID AND CHEMICAL INORGANIC NONMETALS

<u>ANALYTE</u>	<u>METHOD</u>	<u>TECHNOLOGY</u>
Ammonia	EPA350.1 Rev 2.0-1993	Spectrophotometric
Chloride	SW9251	Colorimetric
Chromium, Hexavalent	SW3060A	Digestion
Chromium, Hexavalent	SW7196A	Spectrophotometric
Cyanide, Total	SW9010C	Distillation
Cyanide, Total	SW9012B	Spectrophotometric
Cyanide, Total	SW9013	Extraction
Cyanide, Total	SW9014	Spectrophotometric
Nitrogen, Total Kjeldahl (TKN)	EPA351.2 Rev 2.0-1993	Colorimetric
Oil & Grease	SW9071B	Gravimetric
Petroleum Hydrocarbons, Total	SW9071B	Gravimetric
pH (Hydrogen Ion)	SW9045C	Electrode
pH (Hydrogen Ion)	SW9045D	Electrode
Phenolics, Total	SW9065	Spectrophotometric
Phosphorus, Total	SM4500-P B(5)-99	Digestion
Phosphorus, Total	SM4500-P E-99	Spectrophotometric
Solids, Volatile	EPA160.4	Gravimetric
Sulfate	SW9038	Turbidimetric

SOLID AND CHEMICAL TRACE METALS

<u>METAL</u>	<u>METHOD</u>	<u>TECHNOLOGY</u>
Aluminum	SW6010B	ICP
Aluminum	SW6010C	ICP
Antimony	SW6010B	ICP
Antimony	SW6010C	ICP
Arsenic	SW6010B	ICP
Arsenic	SW6010C	ICP
Barium	SW6010B	ICP
Barium	SW6010C	ICP
Beryllium	SW6010B	ICP
Beryllium	SW6010C	ICP
Boron	SW6010B	ICP
Boron	SW6010C	ICP
Cadmium	SW6010B	ICP

<u>METAL</u>	<u>METHOD</u>	<u>TECHNOLOGY</u>
Cadmium	SW6010C	ICP
Calcium	SW6010B	ICP
Calcium	SW6010C	ICP
Chromium	SW6010B	ICP
Chromium	SW6010C	ICP
Cobalt	SW6010B	ICP
Cobalt	SW6010C	ICP
Copper	SW6010B	ICP
Copper	SW6010C	ICP
Iron	SW6010B	ICP
Iron	SW6010C	ICP
Lead	SW6010B	ICP
Lead	SW6010C	ICP
Lithium	SW6010B	ICP
Lithium	SW6010C	ICP
Magnesium	SW6010B	ICP
Magnesium	SW6010C	ICP
Manganese	SW6010B	ICP
Manganese	SW6010C	ICP
Mercury	SW7471A	CVAA
Mercury	SW7471B	CVAA
Metals	SW3050B	Digestion
Metals, Total	SW3051A	Digestion
Molybdenum	SW6010B	ICP
Molybdenum	SW6010C	ICP
Nickel	SW6010B	ICP
Nickel	SW6010C	ICP
Phosphorus	SW6010B	ICP
Phosphorus	SW6010C	ICP
Potassium	SW6010B	ICP
Potassium	SW6010C	ICP
Selenium	SW6010B	ICP
Selenium	SW6010C	ICP
Silica	SW6010B	Calculation
Silica	SW6010C	Calculation
Silicon	SW6010B	ICP
Silicon	SW6010C	ICP
Silver	SW6010B	ICP
Silver	SW6010C	ICP
Sodium	SW6010B	ICP
Sodium	SW6010C	ICP
Strontium	SW6010B	ICP
Strontium	SW6010C	ICP
Thallium	SW6010B	ICP
Thallium	SW6010C	ICP
Tin	SW6010B	ICP
Tin	SW6010C	ICP
Titanium	SW6010B	ICP
Titanium	SW6010C	ICP
Vanadium	SW6010B	ICP
Vanadium	SW6010C	ICP

<u>METAL</u>	<u>METHOD</u>	<u>TECHNOLOGY</u>
Zinc	SW6010B	ICP
Zinc	SW6010C	ICP
Zirconium	SW6010B	ICP
Zirconium	SW6010C	ICP

SOLID AND CHEMICAL VOLATILE ORGANIC CHEMICALS

<u>GROUP</u>	<u>METHOD</u>	<u>TECHNOLOGY</u>
Closed System Purge & Trap	SW5035A	Extraction
Total Petroleum Hydrocarbons (GRO)	SW8015B	GC/FID
Total Petroleum Hydrocarbons (GRO)	SW8015D	GC/FID
Volatile Organic Compounds	SW8260B	GC/MS
Volatile Organic Compounds	SW8260C	GC/MS

SOLID AND CHEMICAL EXTRACTABLE AND SEMI-VOLATILE ORGANIC CHEMICALS

<u>GROUP</u>	<u>METHOD</u>	<u>TECHNOLOGY</u>
Microwave Extraction	SW3546	Extraction
Organochlorine Pesticides	SW8081A	GC
Organochlorine Pesticides	SW8081B	GC
Polychlorinated Biphenyls	SW8082	GC
Polychlorinated Biphenyls	SW8082A	GC
Semivolatile Organic Compounds	SW8270C	GC/MS
Semivolatile Organic Compounds	SW8270C	SIM
Semivolatile Organic Compounds	SW8270D	GC/MS
Semivolatile Organic Compounds	SW8270D	SIM
Total Petroleum Hydrocarbons (DRO)	SW8015B	GC/FID
Total Petroleum Hydrocarbons (DRO)	SW8015D	GC/FID
Waste Dilution	SW3580A	Dilution

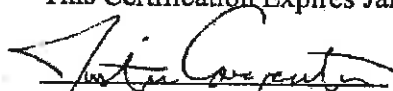
SOLID AND CHEMICAL RADIOCHEMISTRY

<u>GROUP</u>	<u>METHOD</u>	<u>TECHNOLOGY</u>
Gamma Spec	EPA901.1 modified	GS
Gross Alpha	SW9310	GFPC
Gross Beta	SW9310	GFPC
Isotopic Thorium & Uranium, & Radium 226	EML28th-HASL 300 Se-02	GFPC
Radium 228	SW9320	GFPC
Radium Isotopes, Alpha Emitting	SW9315	GFPC
Strontium 90	ASTM D5811-08	GFPC
Uranium, Isotopic	EML28th-HASL 300 U-02	GFPC

This laboratory may test **ONLY** for those environmental parameters listed above for compliance reporting purposes. All testing must be by the test method cited in the current application for certification.

This Certification Expires January 31, 2017.

Certificate No 143

 Issued on January 31, 2016

Justin Carpenter
QA Auditor

NOTE: This Attachment I supersedes and voids all previous Attachment I documents issued by WV DEP.