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To	WV Purchasing Division Dept. of Administration	From	Marlene Edgell-Hammond
Fax	304-558-3970	Pages	39 (including cover)
Phone	304-558-2157	Date	11/16/10
Request	RFQ: DEP 15037	Attention	Chuck Bowman

Urgent

For Review

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Comments:

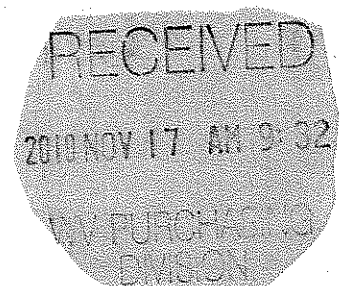
Sealed Bid

Buyer: CB-23

RFQ. No.: DEP 15037

Bid Opening Date: 11/17/2010

Bid Opening Time: 1:30 PM





State of West Virginia  
 Department of Administration  
 Purchasing Division  
 2019 Washington Street East  
 Post Office Box 50130  
 Charleston, WV 25305-0130

# Request for Quotation

RFQ NUMBER  
 DEP15037

PAGE  
 1

ADDRESS CORRESPONDENCE TO ATTENTION OF  
 CHUCK BOWMAN  
 304-558-2157

RFQ COPY

TYPE NAME/ADDRESS HERE

SHIP TO

ENVIRONMENTAL PROTECTION  
 DEPARTMENT OF  
 OFFICE OF WATER RESOURCES  
 601 57TH STREET SE  
 CHARLESTON, WV  
 25304 304-926-0499

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
10/27/2010				

BID OPENING DATE: 11/17/2010 BID OPENING TIME 01:30PM

LINE	QUANTITY	LOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
***** ADDENDUM NO. 5 *****						
ADDENDUM ISSUED FOR THE WATER/SOIL TESTING CONTRACT TO DISTRIBUTE THE REVISED SPECIFICATIONS, APPENDIX A, APPENDIX B, AND THE NEW BID SCHEDULE PER THE ATTACHED.						
BID OPENING DATE AND TIME ARE EXTENDED FROM 10/28/10 TO 11/17/2010 AT 1:30 PM.						
***** NO OTHER CHANGES *****						
0001	1	LS		961-48		
GENERAL ANALYSIS OF WATER AND SOIL FIELD TESTING						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE <i>Marlene DeBell-Hammond</i>	TELEPHONE 304-273-1050	DATE 11/16/10
TITLE President	FEIN 55-0768950	ADDRESS CHANGES TO BE NOTED ABOVE

WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'

## REVISED PER ADDM# 5

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AREA OF WORK

Bids should be submitted by vendors in connection with the costs associated with collection from all Department of Environmental Protection (DEP) offices as listed herein. Awards will be made to all laboratories possessing a current valid West Virginia DEP Laboratory Quality Assurance certification for the appropriate categories of parameters and meeting the qualifications listed below. Because of the short holding times for certain parameters and the desire to avoid multiple labs analyzing samples from individual sites, work will be distributed based on proximity of lab to sample collection location, overall costs for parameters being requested, and the ability of labs to analyze all requested parameters (i.e., certified for all requested parameters). Costs to pickup samples from DEP personnel will also be taken into consideration.

Bidding should be done for each analyte within a specific method. Prices should also be given for liquid and solid samples. If vendor is certified for more than one method per parameter, include method#, MDL and cost. Bids must be submitted exactly as per attached bid sheet.

QUALIFICATIONS

The DEP conducts inspections of permitted and non-permitted facilities, investigates complaints, monitors ambient quality of surface water, groundwater and sediments, performs studies, and provides water quality information to the citizens of West Virginia and other government agencies. Legal action based upon analytic results is possible. Therefore, the vendor or vendors selected must have a quality control program in place and meet the following qualifications:

1. The laboratory must be certified by the Water Resources Quality Assurance Program. This includes any laboratories to which analyses are subcontracted.
2. Be accessible by telephone **24 hours per day, 7 days per week.**
3. Capable of attending and providing expert testimony in legal proceeding, upon request.
4. **Proof of certification and staff chemist(s) resume(s) must be provided at the time of bid.**

SCOPE

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 work, as they relate to the contractor's responsibility, is 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 or is to occur and from which DEP office or other location the sample can be obtained. The vendor shall be notified when the sample was taken (time/date) for circumstances when holding times for parameters to be analyzed are less than seven (7) days. The vendor shall indicate the time the sample was obtained from the pickup location 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.

**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 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. In the event the method is not specified, the laboratory shall contact the sampler for verification of the method to be used.

Vendors must complete the column in Appendix A with the method # associated with methods that have current MDLs that meet or are below the maximum MDL listed for each parameter. A single analytical method for some parameters isn't adequate, for example, a sample of discharge water from a sewage treatment plant need not have the same precision as a sample from relatively clean oligotrophic waters. If vendors are certified for more than 2 methods for a parameter, the vendor can provide bids and associated information on a separate page.

Vendors must provide a single bid for the cost of the analysis and reporting for the Phase 1 Detection Monitoring constituent lists described in the bid sheet.

Results of analytical tests must be submitted electronically in a Microsoft Excel (or compatible) format. Where provided, the vendor must include the WQ ID number with the data submitted. This electronic data submittal requirement may be waived in some circumstances where the number of samples and/or number of analytical tests requested is low. Waiver must be requested prior to data submittal

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 Division. 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 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.

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. The DEP reserves the right to conduct unannounced examinations of the laboratory's records to assure compliance.

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.

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#### **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.

#### **PRIME VENDOR RESPONSIBILITIES**

A vendor who is awarded a contract, when performing work under the terms and conditions of this contract, is solely responsible for the satisfactory completion of the work. The vendor shall be responsible for ensuring that any subcontractors have all the necessary permits, certifications (including WV State Laboratory Certification) and insurance to perform the work. DEP will consider the prime vendor 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.

#### **SUBCONTRACTORS**

The prime vendor shall not be allowed to subcontract any work or services under this contract to any other person, company, corporation, firm, organization or agency without prior written approval of the DEP.

#### **CONFIDENTIALITY**

The vendor agrees that any and all data, analyses, materials, reports or other information, oral or written, prepared by the vendor with respect to this requisition shall, except for information which has been made publicly available, be treated as confidential and shall not be utilized, released, published, or disclosed, by the vendor at any time for any purpose whatsoever other than to provide consultation or other service to DEP.

**MISCELLANEOUS PROVISIONS**

1. The DEP will provide all sample containers and field preservatives.
2. The DEP may, at their discretion, choose to deliver samples to the vendor's establishment rather than having them picked up by or delivered to the vendor.
3. Any updates to the MDLs during the life of this contract shall be provided to the DEP, in writing within one week of the update(s) completion.
4. The vendor 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 Shewart quality control charts.
5. 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 DEP, in writing, within ten (10) days of the time of status change.
6. The laboratory will provide blank water to the DEP, at no charge, upon request.

REVISED PER ADDM# 5

## Appendix A - Method

Item No.	Parameter	Associated MDL*	Method #	Alt Method #	Alt MDL
1	pH	N/A	SM4500-H+B		
2	Hot Acidity	5 mg/L	SM2310B		
3	Alkalinity	5 mg/L	SM2320B		
4	Hardness	1 mg/L	2340B		
5	Specific Conductance	3 $\mu$ S/cm <sup>2</sup>	SM2510B		
6	Sulfate	5 mg/L	EPA300.0		
7	Sulfide	1 mg/L	SW9034		
8	Turbidity	1 NTU (higher OK if highly turbid)	EPA180.1		
9	Bromide	1 mg/L	EPA300.0		
10	Chloride	5 mg/L	EPA300.0		
11	Fluoride	0.2 mg/L	EPA300.0		
12	Fecal Coliform (MF)	4 col/100 ml	SM922D		
13	Fecal Coliform (MPN)	4 col/100 ml	SM9223B-QT		
14	Total Solids	1 mg/L	SM2540B		
15	Dissolved Solids (TDS)	1 mg/L	SM2540C		
16	Suspended Solids (TSS)	3 mg/L	SM2540D		
17	Settleable Solids	0.5 mg/L	SM2540F		
18	Volatile Solids	1 mg/L	SM2540E		
19	Percent Solids	1%	SM2540G		
20	Kjeldahl Nitrogen	0.5 mg/L	SM4500-NorgC		
20A	Kjeldahl Nitrogen (alt. method)	0.1 mg/L	EPA351.2		
21	Ammonia Nitrogen	0.1 mg/L	EPA350.1		
22	Organic Nitrogen	0.5 mg/L	EPA351.2/350.1		
23	Nitrate-Nitrogen	0.05 mg/L	EPA300.0		
24	Nitrite-Nitrogen	0.05 mg/L	EPA300.0		
25	Nitrite-Nitrate	0.05 mg/L	EPA300.0		
25A	Nitrite-Nitrate (alt method)	0.01 mg/L	N/A		
26	Total Phosphorus	0.02 mg/L	SM4500-P BE		
26A	Total Phosphorus (alt. method)	0.005 mg/L	N/A		
27	Orthophosphate	0.01 mg/L	EPA300.0		
28	Total Phosphate	0.01 mg/L	SM4500-P BE		



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## Appendix A - Method (Continued)

Item No.	Parameter	Associated MDL	Method #	Alt Method #	Alt MDL
29	BOD	1 mg/L	SM5210B		
30	BOD-carbonaceous	1 mg/L	SM5210B		
31	COD	0.5 mg/L	EPA410.4		
32	TOC	1 mg/L	SM5310C		
33	MBAS	0.05 mg/L	SM5540C		
34	Phenolics	0.01 mg/L	EPA420.1		
35	Total Cyanide	0.005 mg/L	EPA335.4		
36	Hexavalent Chromium	0.005 mg/L	SM3500-CrD		
37	Oil-Grease	0.1 mg/L	EPA1664A		
38	Chlorophyll A (Standard Methods)	0.5 mg/L	EPA446.0		
39	Color (APHA)	5 color units	SM2120B		
40	Color (ADMI)	10 ADMI value	SM2120E		
41	Cyanide, Amenable (40 CSR 136)	0.005 mg/L	EPA335.4		
42	Cyanide, Free (ASTM)	0.01 mg/L	EPA335.4		
43	Mineral Acidity (Standard Methods)	1 mg/L	SM2310B		
44	Total Acidity (Standard Methods)	1 mg/L	SM2310B		
45	Tot Petroleum Hydrocarbons GRO/DRO (WVTPH/8015B)	0.5 mg/L	SW8015B		
46	Fecal Streptococci (Standard Methods)	4 col/100 mL	SM9230C		
47	Escherichia Coli (Numeric Result)	1 col/100 mL	SM9223B-QT		
48	Bicarbonate (Standard Methods)	1 mg/L	SM2320B		
49	Ferrous Iron(Standard Methods)	0.05 mg/L	SM3500-FeD		
50	Unionized Ammonia (46 CSR 1)	0.1 mg/L	EPA350.1		
51	Dissolved Organic Carbon (Standard Methods)	1 mg/L	SM5310C		
52	Particulate Organic Carbon (Standard Methods)	1 mg/L	SM5310C		

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## Appendix A - Method (Continued)

Metals (Dissolved or Total) (dissolved metals will be field filtered)

Item No.	Parameter	Associated MDL (mg/L)	Method #	Alt Method #	Alt MDL
53	Aluminum	0.005	EPA200.7	N/A	N/A
54	Antimony	0.005	EPA200.7	EPA200.8	0.0002
55	Arsenic	0.005	EPA200.7	EPA200.8	0.001
56	Barium	0.005	EPA200.7	EPA200.8	0.001
57	Beryllium	0.001	EPA200.7	EPA200.8	0.002
58	Boron	0.02	EPA200.7	N/A	N/A
59	Cadmium	0.0002	EPA200.7	EPA200.8	0.0002
60	Calcium	0.02	EPA200.7	N/A	N/A
61	Chromium	0.001	EPA200.7	EPA200.8	0.001
62	Cobalt	0.001	EPA200.7	EPA200.8	0.001
63	Copper	0.001	EPA200.7	EPA200.8	0.001
64	Iron	0.01	EPA200.7	N/A	N/A
65	Lead	0.001	EPA200.7	EPA200.8	0.0002
66	Magnesium	0.05	EPA200.7	N/A	N/A
67	Manganese	0.005	EPA200.7	EPA200.8	0.001
68	Mercury	0.5 (ng/L)	1631E	Method 1631-E	
68A	Mercury (alt. method)	0.0001	EPA245.1	N/A	N/A
69	Molybdenum	0.005	EPA200.7	EPA200.8	0.001
70	Nickel	0.005	EPA200.7	EPA200.8	0.0002
71	Potassium	0.05	EPA200.7	N/A	N/A
72	Selenium	0.001	EPA200.7	SM3114B/SW7742M	0.0001
73	Silver	0.0002	EPA200.7	EPA200.8	0.001
74	Sodium	0.05	EPA200.7	N/A	N/A
75	Thallium	0.001	EPA200.7	EPA200.8	0.002
76	Tin	0.02	EPA200.7	EPA200.8	0.001
77	Vanadium	0.005	EPA200.7	EPA200.8	0.001
78	Zinc	0.002	EPA200.7	EPA200.8	0.003
79	N/A	N/A	N/A	N/A	N/A

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## Appendix A - Method (Continued)

### Radiochemistry

Item No.	Parameter	Associated MDL	Method #	Alt Method #	Alt MDL
80	Gross Alpha		EPA900.0		
81	Gross Beta		EPA900.0		
82	Ra - 226		EPA903.1		
83	Ra -228		EPA904.0		
84	Total Uranium		ASTM D5174		
85	Sr-89		EPA905.0		
86	Sr-90		EPA905.0		
87	Tritium (H3)		EPA906.0		
88	Gamma (Cs-137)		EPA901.1		
89	Radon		SM7500-Rn		

### Toxicity Testing - Freshwater organisms

Item No.	Test	Est. #	Method #
	<b>Acute:</b>		
90	Ceriodaphnia	25	2002.0
91	Daphnia Pulex / D. magna	10	2021.0
92	Pimephales promelas	25	2000.0
	<b>Chronic:</b>		
93	Ceriodaphnia	25	1002.0
94	Pimephales promelas (Survival & growth)	25	1000.0
95	Pimephales promelas (Survival & teratogenicity)	25	1001.0

## REVISED PER ADDM# 5

## Appendix B

**Constituents for Phase I Detection Monitoring****GROUP A: Inorganic Constituents**

<b>COMMON NAME<sup>2</sup></b>	<b>CAS RN<sup>3</sup></b>
Acidity	(Total)
Aluminum	(Total) id as package
Alkalinity	(Total) (Groups A and B combined)
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	(umhos/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-5-day), flouride and calcium.

## REVISED PER ADDM# 5

**GROUP B: Organic Constituents<sup>1</sup>**

<b>COMMON NAME<sup>2</sup></b>	<b>CAS RN<sup>3</sup></b>
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; Chlorodibromomet	124-48-1
1,2-Dibromo-3-chloropropane; DBCP	96-12-8
1,2,-Dibromoethane; Ethylene dibromide; EI	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; Vi	75-35-4
cis-1,2-Dichloroethylene; cis-1,2-Dichloroeth	156-59-2
trans-1,2-Dichloroethylene; trans-1,2-Dichlo	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 keto	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-II	75-69-4
1,2,3-Trichloropropane	96-18-4
Vinyl acetate	108-05-4
Vinyl chloride	75-01-4
Xylenes	1330-20-7

**REVISED PER ADDM# 5**

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.

REVISED PER ADDM# 5

## ANALYSIS OF WATER AND SOIL

DEP15037

## Vendor's Bid Sheet

Vendors Name: Greenscape Analytical Laboratories, Inc

The DEP reserves the right to request additional information and supporting documentation regarding unit prices when the unit price appears to be unreasonable.

## Liquid Samples

ITEM NO.	EST. QUANTITY	DESCRIPTION	Method #	Method Decton Level*	UNIT PRICE	AMOUNT
* 1	4000	pH	SM4500-H <sup>+</sup> B	N/A	\$ 7.00	\$ 28000.00
1A	10	pH (Solid)	SW9045C	N/A	\$ 7.00	\$ 70.00
2	4000	Hot Acidity	SM2310B	5 mg/l	\$ 13.20	\$ 52800.00
2A	1000	Hot Acidity Alt. Method	N/A	N/A	\$ N/A	\$ N/A
3	4000	Alkalinity	SM2320B	5 mg/L	\$ 11.00	\$ 44000.00
3A	1000	Alkalinity Alt. Method	N/A	N/A	\$ N/A	\$ N/A
4	500	Hardness	SM2340B	1 mg/L	\$ 11.00	\$ 5500.00
4A	100	Hardness Alt. Method	N/A	N/A	\$ N/A	\$ N/A
4B	10	Hardness (Solid)	N/A	N/A	\$ N/A	\$ N/A
5	1000	Specific Conductance	SM2510B	3 uS/cm <sup>2</sup>	\$ 11.00	\$ 11000.00
5A	500	Specific Conductance Alt. Method	N/A	N/A	\$ N/A	\$ N/A
6	4000	Sulfate	EPA 300.0	5 mg/L	\$ 13.20	\$ 52800.00
6A	1000	Sulfate Alt. Method	N/A	N/A	\$ N/A	\$ N/A
6B	10	Sulfate (Solid)	SW9056	10 mg/Kg	\$ 13.20	\$ 132.00
7	20	Sulfide	SW9034	1 mg/L	\$ 16.50	\$ 330.00
7A	10	Sulfide Alt. Method	N/A	N/A	\$ N/A	\$ N/A
8	20	Turbidity	EPA 180.1	1 NTU (higher OK if highly turbid)	\$ 11.00	\$ 220.00
8A	10	Turbidity Alt. Method	N/A	N/A	\$ N/A	\$ N/A
9	25	Bromide	EPA 300.0	1 mg/L	\$ 13.20	\$ 330.00
9A	10	Bromide Alt. Method	N/A	0.1 mg/L	\$ N/A	\$ N/A
9B	10	Bromide (Solid)	SW9056	0.0 mg/Kg	\$ 13.20	\$ 132.00
** 10	3000	Chloride	EPA 300.0	5 mg/L	\$ 13.50	\$ 40500.00
10A	100	Chloride Alt. Method	N/A	N/A	\$ N/A	\$ N/A
10B	10	Chloride (Solid)	SW9056	1.0 mg/Kg	\$ 13.20	\$ 132.00
11	25	Fluoride	EPA 300.0	0.2 mg/L	\$ 13.20	\$ 330.00
11A	10	Fluoride Alt. Method	SW4500-FBC	0.01	\$ 13.20	\$ 132.00
11B	10	Fluoride (Solid)	SW9056	0.5 mg/Kg	\$ 13.20	\$ 132.00
* 12	4000	Fecal Coliform (MF)	SM9222D	4 col/100 mL	\$ 20.00	\$ 80000.00
12A	1000	Fecal Coliform (MF) Alt. Method	N/A	N/A	\$ N/A	\$ N/A
13	100	Fecal Coliform (MPN)	SM9223-B	4 col/100 mL	\$ 38.50	\$ 3850.00
13A	50	Fecal Coliform (MPN) Alt. Method	N/A	N/A	\$ N/A	\$ N/A
14	25	Total Solids	SM2540B	1 mg/L	\$ 11.00	\$ 275.00
14A	10	Total Solids Alt. Method	N/A	N/A	\$ N/A	\$ N/A
14B	10	Total Solide (Solid)	SM2540G	1mg/Kg	\$ 11.00	\$ 110.00
15	3000	Dissolved Solids (TDS)	SM2540C	1 mg/L	\$ 11.00	\$ 33000.00
15A	1000	Dissolved Solids (TDS) Alt. Method	N/A	N/A	\$ N/A	\$ N/A
* 16	4000	Suspended Solids (TSS)	SM2540D	3 mg/L	\$ 10.00	\$ 40000.00
16A	1000	Suspended Solids (TSS) Alt. Method	N/A	N/A	\$ N/A	\$ N/A

## REVISED PER ADDM# 5

ITEM NO.	EST. QUANTITY	DESCRIPTION	Method #	Method Decision Level*	UNIT PRICE	AMOUNT
** 17	25	Settleable Solids	SM2540 F	0.5 mg/L	\$ 11.00	\$ 275.00
17A	10	Settleable Solids Alt. Method	N/A	N/A	\$ N/A	\$ N/A
18	25	Volatile Solids	SM2540 E	1 mg/L	\$ 11.00	\$ 275.00
18A	10	Volatile Solids Alt. Method	N/A	N/A	\$ N/A	\$ N/A
18B	10	Volatile Solids (Solid)	SM2540 G	1%	\$ 11.00	\$ 110.00
19	25	Percent Solids	SM2540 G	1%	\$ 11.00	\$ 275.00
19A	10	Percent Solids Alt. Method	N/A	N/A	\$ N/A	\$ N/A
19B	10	Percent Solids (Solid)	SM2540 G	1%	\$ 11.00	\$ 110.00
20	400	Kjeldahl Nitrogen	SM4500-NOR67	0.1 mg/L	\$ 23.10	\$ 9240.00
20A	100	Kjeldahl Nitrogen Alt. Method	EPA 351.2	0.1 mg/L	\$ 23.10	\$ 2310.00
20B	10	Kjeldahl Nitrogen (Solid)	SM4500-NORAR	5.0 mg/L	\$ 23.10	\$ 231.00
20C	10	Kjeldahl Nitrogen Alt. Method (Solid)	N/A	N/A	\$ N/A	\$ N/A
* 21	50	Ammonia Nitrogen	SM4500-NH3BE	0.1 mg/L	\$ 15.00	\$ 750.00
21A	10	Ammonia Nitrogen Alt. Method	N/A	N/A	\$ N/A	\$ N/A
21B	10	Ammonia Nitrogen (Solid)	SM4500-NH3BE	4 mg/Kg	\$ 13.20	\$ 132.00
21C	10	Ammonia Nitrogen Alt. Method (Solid)	N/A	N/A	\$ N/A	\$ N/A
22	50	Organic Nitrogen	EPA 350.1/351.2	0.5 mg/L	\$ 33.00	\$ 1650.00
22A	10	Organic Nitrogen Alt. Method	N/A	N/A	\$ N/A	\$ N/A
23	50	Nitrate-Nitrogen	EPA 300.0	0.05 mg/L	\$ 13.20	\$ 660.00
23A	10	Nitrate-Nitrogen Alt. Method	N/A	N/A	\$ N/A	\$ N/A
24	50	Nitrite-Nitrogen	EPA 300.0	0.05 mg/L	\$ 13.20	\$ 660.00
24A	10	Nitrite-Nitrogen Alt. Method	N/A	N/A	\$ N/A	\$ N/A
24B	10	Nitrite-Nitrogen (Solid)	SW9050	0.5 mg/Kg	\$ 13.20	\$ 132.00
24C	10	Nitrite-Nitrogen Alt. Method (Solid)	N/A	N/A	\$ N/A	\$ N/A
25	400	Nitrite-Nitrate	EPA 300.0	0.05 mg/L	\$ 13.20	\$ 5280.00
25A	100	Nitrite-Nitrate Alt. Method	N/A	N/A	\$ N/A	\$ N/A
25B	10	Nitrite-Nitrate (Solid)	SW9050	0.2 mg/Kg	\$ 13.20	\$ 132.00
25C	10	Nitrite-Nitrate Alt. Method (Solid)	N/A	N/A	\$ N/A	\$ N/A
** 26	400	Total Phosphorus	SM4500-PBE	0.005 mg/L	\$ 20.00	\$ 8000.00
26A	100	Total Phosphorus Alt. Method	N/A	N/A	\$ N/A	\$ N/A
26B	10	Total Phosphorus (Solid)	SW6010-C	1.0 mg/Kg	\$ 8.00	\$ 80.00
26C	10	Total Phosphorus Alt. Method (Solid)	N/A	N/A	\$ N/A	\$ N/A
27	50	Orthophosphate	EPA 300.0	0.01 mg/L	\$ 13.20	\$ 660.00
27A	10	Orthophosphate Alt. Method	N/A	N/A	\$ N/A	\$ N/A
28	50	Total Phosphate	SM4500-PBE	0.01 mg/L	\$ 20.00	\$ 1000.00
28A	10	Total Phosphate Alt. Method	N/A	N/A	\$ N/A	\$ N/A
28B	10	Total Phosphate (Solid)	SW6010-C	1.0 mg/Kg	\$ 8.00	\$ 80.00
28C	10	Total Phosphate Alt. Method (Solid)	N/A	N/A	\$ N/A	\$ N/A
* 29	25	BOD	SM5210 B	1 mg/L	\$ 22.00	\$ 550.00
29A	10	BOD Alt. Method	N/A	N/A	\$ N/A	\$ N/A
30	25	BOD-carbonaceous	SM5210 B	1 mg/L	\$ 22.00	\$ 550.00
30A	10	BOD-carbonaceous Alt. Method	N/A	N/A	\$ N/A	\$ N/A
** 31	25	COD	EPA 410.4	0.5 mg/L	\$ 22.00	\$ 550.00
31A	10	COD Alt. Method	N/A	N/A	\$ N/A	\$ N/A
32	25	TOC	SM5310 C	1 mg/L	\$ 23.10	\$ 577.50
32A	10	TOC Alt. Method	N/A	N/A	\$ N/A	\$ N/A
33	25	MBAS	SM5540 C	0.05 mg/L	\$ 29.70	\$ 742.50
33A	10	MBAS Alt. Method	N/A	N/A	\$ N/A	\$ N/A
34	25	Phenolics	EPA 420.1	0.01 mg/L	\$ 37.40	\$ 935.00
34A	10	Phenolics Alt. Method	N/A	N/A	\$ N/A	\$ N/A
34B	10	Phenolics (Solid)	SW9065	0.05 mg/Kg	\$ 37.40	\$ 374.00
35	25	Total Cyanide	EPA 335.4	0.005 mg/L	\$ 28.60	\$ 715.00
35A	10	Total Cyanide Alt. Method	N/A	N/A	\$ N/A	\$ N/A
35B	10	Total Cyanide (Solid)	SW9010/902A	0.04 mg/Kg	\$ 28.60	\$ 286.00



## REVISED PER ADDM# 5

ITEM NO.	EST. QUANTITY	DESCRIPTION	Method #	Method Decision Level*	UNIT PRICE	AMOUNT
36	200	Hexavalent Chromium	SM3500-C-D	0.005 mg/L	\$ 28.60	\$ 5720.00
36A	10	Hexavalent Chromium Alt. Method	N/A	N/A	\$ N/A	\$ N/A
36B	10	Hexavalent Chromium (Solid)	SW7190A	0.005 mg/kg	\$ 28.60	\$ 286.00
** 37	25	Oil-Grease	EPA 11604	2 mg/L	\$ 28.00	\$ 700.00
37A	10	Oil-Grease Alt. Method	N/A	N/A	\$ N/A	\$ N/A
37B	10	Oil-Grease (Solid)	SW9071	.001 %	\$ 82.50	\$ 825.00
38	100	Cholorophyll A	EPA 4460	0.5 mg/L	\$ 38.50	\$ 3850.00
38A	20	Cholorophyll A Alt. Method	N/A	N/A	\$ N/A	\$ N/A
39	25	Color (APHA)	SM 2120 B	5 color units	\$ 13.20	\$ 330.00
39A	10	Color (APHA) Alt. Method	N/A	N/A	\$ N/A	\$ N/A
40	25	Color (ADMI)	SM 2120 E	10 ADMI value	\$ 55.00	\$ 1375.00
40A	10	Color Alt. Method	N/A	N/A	\$ N/A	\$ N/A
41A	25	Cyanide, Amenable	EPA 335.4	0.005 mg/L	\$ 35.20	\$ 880.00
41B	10	Cyanide, Amenable Alt. Method	N/A	N/A	\$ N/A	\$ N/A
42	25	Cyanide, Free (ASTM)	EPA 335.4	0.01 mg/L	\$ 35.20	\$ 880.00
42A	10	Cyanide, Free Alt. Method	N/A	N/A	\$ N/A	\$ N/A
43	25	Mineral Acidity	SM 2310 B	1 mg/L	\$ 14.30	\$ 357.50
43A	10	Mineral Acidity Alt. Method	N/A	N/A	\$ N/A	\$ N/A
44	25	Total Acidity	SM 2310 B	1 mg/L	\$ 12.10	\$ 302.50
44A	10	Total Acidity Alt. Method	N/A	N/A	\$ N/A	\$ N/A
45	25	Tot Petroleum Hydrocarbons GRO/DRO (8015)	SW8015 B	0.5 mg/L	\$ 71.50	\$ 1787.50
45A	10	Tot Petroleum Hydrocarbons GRO/DRO (8015) Alt. Method	N/A	N/A	\$ N/A	\$ N/A
45B	10	Tot Petroleum Hydrocarbons GRO/DRO (8015) (Solid)	SW8015 B	0.5 mg/kg	\$ 71.50	\$ 715.00
46	25	Fecal Streptococci	SM 9230 C	4 col/100 mL	\$ 60.50	\$ 1512.50
46A	10	Fecal Streptococci Alt. Method	N/A	N/A	\$ N/A	\$ N/A
46B	10	Fecal Streptococci (Solid)	SM 9230 C	1 col/100ml	\$ 60.50	\$ 605.00
47	25	Escherichia Coli (Numeric Result)	SM 9223B-QT	1 col/100 mL	\$ 60.50	\$ 1512.50
47A	10	E. Coli (Numeric Result) Alt. Method	N/A	N/A	\$ N/A	\$ N/A
48	25	Bicarbonate (Standard Methods)	SM 2320 B	1 mg/L	\$ 12.10	\$ 302.50
48A	10	Bicarbonate Alt. Method	N/A	N/A	\$ N/A	\$ N/A
49	25	Ferrous Iron (Standard Methods)	SM 3500-Fed	0.05 mg/L	\$ 33.00	\$ 825.00
49A	10	Ferrous Iron Alt. Method	N/A	N/A	\$ N/A	\$ N/A
51	25	Dissolved Organic Carbon	SM 5310 C	1 mg/L	\$ 23.10	\$ 577.50
51A	10	Dissolved Organic Carbon Alt. Method	N/A	N/A	\$ N/A	\$ N/A
53	4000	Aluminum	EPA 200.7	0.005 mg/L	\$ 8.00	\$ 32000.00
53A	100	Aluminum - Alt. method	N/A	N/A	\$ N/A	\$ N/A
53B	10	Aluminum (Solid)	SW6010 C	0.3 mg/kg	\$ 8.00	\$ 80.00
54	20	Antimony	EPA 200.7	0.005 mg/L	\$ 8.00	\$ 160.00
54A	10	Antimony Alt. Method	EPA 200.8	0.0002 mg/L	\$ 13.86	\$ 138.60
54B	10	Antimony (Solid)	SW6010 C	1.0 mg/kg	\$ 8.00	\$ 80.00
55	20	Arsenic	EPA 200.7	0.005 mg/L	\$ 8.00	\$ 160.00
55A	10	Arsenic Alt. Method	EPA 200.8	0.001 mg/L	\$ 13.86	\$ 138.60
55B	10	Arsenic (Solid)	SW6010 C	1.0 mg/kg	\$ 8.00	\$ 80.00
56	20	Barium	EPA 200.7	0.005 mg/L	\$ 8.00	\$ 160.00
56A	10	Barium Alt. Method	EPA 200.8	0.001 mg/L	\$ 13.86	\$ 138.60
56B	10	Barium (Solid)	SW6010 C	0.20 mg/kg	\$ 8.00	\$ 80.00
57	20	Beryllium	EPA 200.7	0.001 mg/L	\$ 8.00	\$ 160.00
57A	10	Beryllium Alt. Method	EPA 200.8	0.002 mg/L	\$ 13.86	\$ 138.60
57B	10	Beryllium (Solid)	SW 6010 C	0.05 mg/kg	\$ 8.00	\$ 80.00
58	20	Boron	EPA 200.7	0.02 mg/L	\$ 8.00	\$ 160.00
58A	10	Boron Alt. Method	N/A	N/A	\$ N/A	\$ N/A

## REVISED PER ADDM# 5

ITEM NO.	EST. QUANTITY	DESCRIPTION	Method #	Method Dection Level*	UNIT PRICE	AMOUNT
58B	10	Boron (Solid)	SW6010C	2.0 mg/kg	\$ 8.00	\$ 80.00
59	200	Cadmium	EPA 200.7	0.0002 mg/L	\$ 5.00	\$ 1000.00
59A	20	Cadmium Alt. Method	EPA 200.8	0.0002 mg/L	\$ 13.86	\$ 277.20
59B	10	Cadmium (Solid)	SW6010C	0.1 mg/kg	\$ 8.00	\$ 80.00
60	500	Calcium	EPA 200.7	0.02 mg/L	\$ 8.00	\$ 4000.00
60A	20	Calcium Alt. Method	N/A	N/A	\$ N/A	\$ N/A
60B	10	Calcium (Solid)	SW6010C	5.0 mg/kg	\$ 8.00	\$ 80.00
61	20	Chromium	EPA 200.7	0.001 mg/L	\$ 8.00	\$ 160.00
61A	10	Chromium Alt. Method	EPA 200.8	0.001 mg/L	\$ 13.86	\$ 138.60
61B	10	Chromium (Solid)	SW6010C	0.2 mg/kg	\$ 8.00	\$ 80.00
62	20	Cobalt	EPA 200.7	0.001 mg/L	\$ 8.00	\$ 160.00
62A	10	Cobalt Alt. Method	EPA 200.8	0.001 mg/L	\$ 13.86	\$ 138.60
62B	10	Cobalt (Solid)	SW6010C	0.2 mg/kg	\$ 8.00	\$ 80.00
63	200	Copper	EPA 200.7	0.001 mg/L	\$ 8.00	\$ 1600.00
63A	20	Copper Alt. Method	EPA 200.8	0.001 mg/L	\$ 13.86	\$ 277.20
63B	10	Copper (Solid)	SW6010C	0.2 mg/kg	\$ 8.00	\$ 80.00
64	3000	Iron	EPA 200.7	0.01 mg/L	\$ 8.00	\$ 24000.00
64A	100	Iron Alt. Method	N/A	N/A	\$ N/A	\$ N/A
64B	10	Iron (Solid)	SW6010C	0.5 mg/kg	\$ 8.00	\$ 80.00
65	200	Lead	EPA 200.7	0.001 mg/L	\$ 8.00	\$ 1600.00
65A	10	Lead Alt. Method	EPA 200.8	0.0002 mg/L	\$ 13.86	\$ 138.60
65B	10	Lead (Solid)	SW6010C	1.0 mg/kg	\$ 8.00	\$ 80.00
66	500	Magnesium	EPA 200.7	0.05 mg/L	\$ 8.00	\$ 4000.00
66A	20	Magnesium Alt. Method	N/A	N/A	\$ N/A	\$ N/A
66B	10	Magnesium (Solid)	SW6010C	1.0 mg/kg	\$ 8.00	\$ 80.00
67	3000	Manganese	EPA 200.7	0.005 mg/L	\$ 8.00	\$ 24000.00
67A	100	Manganese Alt. Method	EPA 200.8	0.001 mg/L	\$ 13.86	\$ 1386.00
67B	10	Manganese (Solid)	SW6010C	0.2 mg/kg	\$ 8.00	\$ 80.00
68	200	Mercury	EPA 245.1	0.0001 mg/L	\$ 22.00	\$ 4400.00
68A	200	Mercury / Method 1631E	1631E	0.5 ng/L	\$ 48.62	\$ 9724.00
68B	10	Mercury (Solid)	SW7471B	0.02 mg/kg	\$ 22.00	\$ 220.00
69	20	Molybdenum	EPA 200.7	0.005 mg/L	\$ 8.00	\$ 160.00
69A	10	Molybdenum Alt. Method	EPA 200.8	0.001 mg/L	\$ 13.86	\$ 138.60
69B	10	Molybdenum (Solid)	SW6010C	0.7 mg/kg	\$ 8.00	\$ 80.00
70	200	Nickel	EPA 200.7	0.005 mg/L	\$ 8.00	\$ 1600.00
70A	20	Nickel Alt. Method	EPA 200.8	0.002 mg/kg	\$ 13.86	\$ 277.20
70B	10	Nickel (Solid)	SW6010C	0.2 mg/kg	\$ 8.00	\$ 80.00
71	500	Potassium	EPA 200.7	0.05 mg/L	\$ 8.00	\$ 4000.00
71A	20	Potassium Alt. Method	N/A	N/A	\$ N/A	\$ N/A
71B	10	Potassium (Solid)	SW6010C	2.0 mg/kg	\$ 8.00	\$ 80.00
72	500	Selenium	EPA 200.7	0.001 mg/L	\$ 8.00	\$ 4000.00
72A	20	Selenium Alt. Method	SMB1148/SW7742	0.0001	\$ 32.40	\$ 648.00
72B	10	Selenium (Solid)	SW6010C	1.0 mg/kg	\$ 8.00	\$ 80.00
73	200	Silver	EPA 200.7	0.0002 mg/L	\$ 8.00	\$ 1600.00
73A	20	Silver Alt. Method	EPA 200.8	0.001 mg/L	\$ 13.86	\$ 277.20
73B	10	Silver	EPA 6010C	0.1 mg/kg	\$ 8.00	\$ 80.00
74	500	Sodium	EPA 200.7	0.05 mg/L	\$ 8.00	\$ 4000.00
74A	20	Sodium Alt. Method	N/A	N/A	\$ N/A	\$ N/A
74B	10	Sodium (Solid)	SW6010C	3.0 mg/kg	\$ 8.00	\$ 80.00
75	20	Thallium	EPA 200.7	0.001 mg/L	\$ 8.00	\$ 160.00
75A	10	Thallium Alt. Method	EPA 200.8	0.002 mg/L	\$ 13.86	\$ 138.60
75B	10	Thallium (Solid)	SW6010C	1.0 mg/kg	\$ 8.00	\$ 80.00
76	20	Tin	EPA 200.7	0.02 mg/L	\$ 8.00	\$ 160.00
76A	10	Tin Alt. Method	EPA 200.8	0.001 mg/L	\$ 13.86	\$ 138.60

## REVISED PER ADDM# 5

ITEM NO.	EST. QUANTITY	DESCRIPTION	Method #	Method Dection Level*	UNIT PRICE	AMOUNT
76B	10	Tin (Solid)	SW6010C	1.0 mg/kg	\$ 8.00	\$ 80.00
77	20	Vanadium	EPA 200.7	0.005 mg/L	\$ 8.00	\$ 160.00
77A	10	Vanadium Alt. Method	EPA 200.8	0.001 mg/L	\$ 13.86	\$ 138.60
77B	10	Vanadium (Solid)	SW6010C	0.2 mg/kg	\$ 8.00	\$ 80.00
78	200	Zinc	EPA 200.57	0.002 mg/L	\$ 8.00	\$ 1600.00
78A	20	Zinc Alt. Method	EPA 200.8	0.003 mg/L	\$ 13.86	\$ 277.20
78B	10	Zinc (Solid)	SW6010C	0.5 mg/kg	\$ 8.00	\$ 80.00
79	200	Metals Prep Cost	EPA 200.2	N/A	\$ 11.00	\$ 2200.00
79A	10	Metals Prep Cost (Solid)	SW3050B	N/A	\$ 16.50	\$ 165.00
80	20	Gross Alpha			\$ 85.80	\$ 1716.00
81	20	Gross Beta			\$ 85.80	\$ 1716.00
82	20	Ra-226			\$ 110.00	\$ 2200.00
83	20	Ra-228			\$ 110.00	\$ 2200.00
84	20	Total Uranium			\$ 82.50	\$ 1650.00
85	20	Sr-89			\$ 137.50	\$ 2750.00
86	20	Sr-90			\$ 137.50	\$ 2750.00
87	20	Tritium (H3)			\$ 82.50	\$ 1650.00
88	20	Gamma (Cs-137)			\$ 104.50	\$ 2090.00
89	20	Radon			\$ 82.50	\$ 1650.00

## Toxicity Testing - Freshwater Organisms

## Acute:

90	25	Ceriodaphnia			\$ 320.00	\$ 8000.00
91	10	Daphnia Pulex / D. magna			\$ 320.00	\$ 3200.00
92	25	Pimephales promelas			\$ 425.00	\$ 10625.00
<b>Chronic:</b>						
93	25	Ceriodaphnia			\$ 1060.00	\$ 26500.00
94	25	Pimephales promelas (Survival & Growth)			\$ 1475.00	\$ 36875.00

95	200	Analysis of entire "Phase I Parameters" for landfills See Appendix B for list.			\$ 590.00	\$ 118000.00
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96	10	Professional staff representation of data in legal/administrative setting per hour			\$ 120.00	\$ 1200.00
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## Collection of samples - costs associated with sample pickup from the following locations:

97	24	Charleston Office, 601 57th St., SE, Charleston, WV 25304			\$ NC	\$ NC
98	24	Teays Office, P.O. Box 662, Teays, WV 25596			\$ NC	\$ NC
99	24	Fairmont Office, 2031 Pleasant Valley Rd., Fairmont, WV 26554			\$ 180.00	\$ 4320.00
100	24	Romney Office, HC 63, Box 2545, Romney, WV 26757			\$ 312.00	\$ 7488.00
101	24	French Creek Office, P.O. Box 38, French Creek, WV 26218			\$ 216.00	\$ 5184.00
102	24	Wheeling Office, 131A Peninsula St., Wheeling, WV 26003			\$ 201.00	\$ 4824.00
103	24	Parkersburg Office, 2311 Ohio Ave., Parkersburg, WV 26010			\$ NC	\$ NC
104	24	Oak Hill Office, 116 Industrial Dr., Oak Hill, WV 25901			\$ 156.00	\$ 3744.00

## REVISED PER ADDM# 5

ITEM NO.	EST. QUANTITY	DESCRIPTION	Method #	Method Dection Level*	UNIT PRICE	AMOUNT
105	24	Logan Office, 1101 George Kostas Dr. Logan, 25601			\$ 165.00	\$ 3960.00
106	24	Welch Office, 311 Court St. Welch 24801			\$ 262.50	\$ 6300.00
107	5000	Other locations as Cost Per Mile to pickup site			\$ 0.75	\$ 3750.00
108	10	24 Hour Turn-Around Rush Orders**			\$ 50%	\$
109	10	48 Hour Turn-Around Rush Orders**			\$ 25%	\$
110	10	72 Hour Turn Around Rush Orders**			\$ 15%	\$
<b>TOTAL</b>						<b>\$853,792.10</b>

All unit pricing quoted should be based on standard (not to exceed two weeks) turn-around time.

(\$ 853,792.10)

\* For Alternate test methods (and methods for which no MDL is listed), list your current method detection limit for each method

\*\*During emergency situations samples may be requested on a quicker turn-around basis.

### NOTE:

Greenscape Analytical Laboratories, Inc. is presently certified to perform analysis as indicated by a single asterick (\*) We are currently in training to become certified to perform the analysis as indicated by two astericks (\*\*). As we continue to train on additional parameters, our list of services will continue to expand. Parameters not indicated by astericks are submitted for analysis to:

REI Consultants

225 Industrial Park Drive  
Beaver, WV 25813

West Virginia

Department of Environmental Protection

Greenscape Analytical Laboratories, Inc.

to perform analyses for the purpose of determining compliance with the requirements of the state's natural resources and environmental programs when required by an order issued by the agency or required by statute.

This certificate does not guarantee the validity of data generated, but indicates the methodology, equipment, quality control procedures, records, and proficiency of the laboratory have been examined and found to be acceptable.

This certificate is the property of the Department of Environmental Protection

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Certificate number

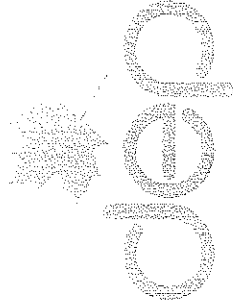
February 21, 2006

Date Issued

*C. N. Hall*

Quality Assurance Officer

Director



**WEST VIRGINIA DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF WATER RESOURCES  
AND**

**WEST VIRGINIA ENVIRONMENTAL TRAINING CENTER**



**CERTIFY THAT**

**MARLENE EDGECELL-HAMMOND**

\_\_\_\_\_ is recognized in the State of West Virginia as a

**CERTIFIED WASTEWATER LABORATORY TECHNICIAN**

07-30-91

Date

155

Certificate Number

DNR Laboratories/Quality Assurance

WV Environmental Training Center



# WEST VIRGINIA ENVIRONMENTAL TRAINING CENTER

and

WEST VIRGINIA DEPARTMENT OF EDUCATION  
BUREAU OF VOCATIONAL, TECHNICAL AND ADULT EDUCATION

CERTIFY

Nichol Vanscoy Adams

has participated in

Quality Control/Quality Assurance in Environmental Laboratories

CEH2009-110  
WW2009-104 13 CEHs

Oct. 28-29, 2009

Date

*R. Heidegard*  
Training Center Coordinator

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

AND  
WEST VIRGINIA ENVIRONMENTAL TRAINING CENTER



CERTIFY THAT

*Nichol Lynette Hanscox*

is recognized in the State of West Virginia as a

CERTIFIED WASTEWATER LABORATORY TECHNICIAN

10/28/05

Date

442

Certificate Number

*Nichol Lynette Hanscox*

DEP Laboratories/Quality Assurance

*R. E. ...*

WV Environmental Training Center





# WEST VIRGINIA ENVIRONMENTAL TRAINING CENTER

and

WEST VIRGINIA DEPARTMENT OF EDUCATION  
BUREAU OF VOCATIONAL, TECHNICAL AND ADULT EDUCATION

CERTIFY

Sandy Rana

has participated in

Dissolved Oxygen Measurement – Tools and Techniques

CEH2010-033  
WW2010-025

6 Hours

June 8, 2010

Date

**etc**

*R. S. Wiggand*

Training Center Coordinator

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

**AND  
WEST VIRGINIA ENVIRONMENTAL TRAINING CENTER**



**CERTIFY THAT  
*Sandy Rana***

is recognized in the State of West Virginia as a

**CERTIFIED WASTEWATER LABORATORY TECHNICIAN**

11/17/06

Date

*David J. Cobb*

DEP Laboratories/Quality Assurance

456

Certificate Number

*R. F. ...*

WV Environmental Training Center

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

Annual Certified Parameter List

for

**GREENSCAPE ANALYTICAL  
LABORATORIES, INC.  
RAVENSWOOD, WEST VIRGINIA**

**PARAMETERS CERTIFIED**

**LIMITED CHEMISTRY:** Chlorine, Residual(HACH 8167), pH(SM18th4500-H B), Oxygen,  
Dissolved(SM18th4500-O G)

**Demand**

SM18th5210 B - Oxygen, Biochemical, (BOD), Oxygen, Biochemical, Carbonaceous,  
(CBOD)

**Nitrogen:** Ammonia(SM18th4500NH3 B + SM18th4500NH3 E)

**Solids:** Suspended(SM18th2540 D)

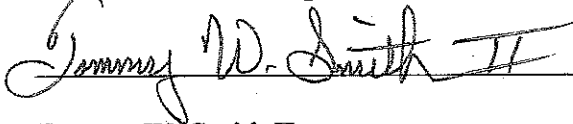
**MICROBIOLOGY**

**MF:** Coliform, Fecal(SM18th9222 D)

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 October 31, 2010.

Certificate No 326



Issued on October 16, 2009

Tommy W. Smith II  
Quality Assurance Officer

West Virginia

# Department of Environmental Protection

hereby certifies

## REI Consultants, Inc.

to perform analyses for the purpose of determining compliance with the requirements of the state's natural resources and environmental programs when required by an order issued by the agency or required by statute.

This certificate does not guarantee the validity of data generated, but indicates the methodology, equipment, quality control procedures, records, and proficiency of the laboratory have been examined and found to be acceptable.

This certificate is the property of the Department of Environmental Protection

060

Certificate number

*L. J. Lel*

Quality Assurance Officer

February 17, 2006

Date Issued

Certification originally granted 6/2/1997



*John G. McElung*

Director

Attachment I

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

Annual Certified Parameter List

for

**REI CONSULTANTS, INCORPORATED**  
**BEAVER, WEST VIRGINIA**

**PARAMETERS CERTIFIED**

**AQUATIC TOXICITY**

**Acute-Invertebrate:** Acute Toxicity, Ceriodaphnia dubia(EPA821-R-02-012 2002.0)

**Acute-Vertebrate:** Acute Toxicity, Fathead Minnows(EPA821-R-02-012 2000.0)

**Chronic-Invertebrate:** Survival & Reproduction of Ceriodaphnia(EPA821-R-02-013 1002.0)

**Chronic-Vertebrate:** Survival & Growth of Fathead Minnow Larval(EPA821-R-02-013 1000.0)

**LIMITED CHEMISTRY:** Oil & Grease(EPA1664 A), Turbidity(EPA180.1 Rev 2.0-1993), Cyanide, Total(EPA335.4 Rev 1.0-1993), Phenolics, Total(EPA420.1 Rev 1978), Color(SM18th2120 B), Color(SM18th2120 E), Turbidity(SM18th2130 B), Acidity, Total(SM18th2310 B), Acidity, Hot, Total(SM18th2310 B(4a)), Acidity, Mineral(SM18th2310 B(4d)), Alkalinity(SM18th2320 B), Specific Conductance(SM18th2510 B), Temperature(SM18th2550 B), Phosphorus, Total (SM18th4500-P B.5 + SM18th4500-P E), Sulfide(SM18th4500-S2 E), Sulfite(field test) (SM18th4500-SO3 B), Surfactants, (MBAS)(SM18th5540 C), Corrosivity, pH, Solid & Waste (SW9045D), Hardness, Calcium(SM18th2340 B), Hardness, Total, Calculations(SM18th2340 B), Chlorine, Residual(SM18th4500-Cl G), Chlorine, Residual, (Field Test)(SM18th4500-Cl G), pH(SM18th4500-H B), pH, (Field Test) (SM18th4500-H B), Oxygen, Dissolved(SM18th4500-O C), Oxygen, Dissolved, (Field Test) (SM18th4500-O C)

**Demand:** Oxygen, Chemical, (COD)(EPA410.4 Rev 2.0-1993), Oxygen, Biochemical, (BOD) (SM18th5210 B), Oxygen, Biochemical, Carbonaceous, (CBOD) (SM18th5210 B), Total Organic Carbon(SM18th5310C)

**Nitrogen:** Ammonia(EPA350.1 Rev 2.0-1993), Ammonia(SM18th4500NH3B + SM18th4500NH3E), Ammonia(SM18th4500NH3B + SM18th4500NH3F), Kjeldahl, Total, (TKN)(SM18th4500NorgB + SM18th4500NH3E),

Page 1 of 3

Kjeldahl, Total, (TKN)(SM18th4500NorgB + SM18th4500NH3F), Kjeldahl, Total, (TKN)  
(EPA 351.2)

ISE: Fluoride(SM18th4500-F B + SM18th4500-F C)

Solids: Total(SM18th2540 B), Dissolved(SM18th2540 C), Suspended(SM18th2540 D),  
Volatile(SM18th2540 E), Settleable(SM18th2540 F), Volatile, (Sludges)(SM18th2540 G)

IC: EPA300.0 Rev 2.1-1993 - Bromide, Chloride, Fluoride, Nitrate, Nitrate-Nitrite, Nitrite,  
Phosphorus, Ortho, Sulfate

#### METALS

CVAA: Mercury(EPA245.1 Rev 3.0-1994), Mercury(SW7470A), Mercury (SW7471A)

GFAA: SW7010 - Antimony, Arsenic, Cadmium, Chromium, Lead, Selenium, Thallium

#### ICP/MS

EPA200.8 Rev 5.4-1994 - Antimony, Arsenic, Barium, Beryllium, Cadmium,  
Chromium, Cobalt, Copper, Gold, Lead, Manganese, Molybdenum, Nickel, Palladium,  
Platinum, Selenium, Silver, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc

SW6020A - Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium,  
Chromium, Cobalt, Copper, Gold, Lead, Manganese, Molybdenum, Nickel, Palladium,  
Platinum, Selenium, Silver, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc

#### ICP

EPA200.7 Rev 4.4-1994 - Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron,  
Cadmium, Calcium, Chromium, Cobalt, Copper, Gold, Iron, Lead, Magnesium,  
Manganese, Molybdenum, Nickel, Potassium, Selenium, Silicon, Silver, Sodium,  
Strontium, Thallium, Tin, Titanium, Vanadium, Zinc

SW6010C - Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium,  
Calcium, Chromium, Cobalt, Copper, Gold, Iron, Lead, Magnesium, Manganese,  
Molybdenum, Nickel, Potassium, Selenium, Silicon, Silver, Sodium, Strontium,  
Thallium, Tin, Titanium, Vanadium, Zinc

Miscellaneous: Chromium, Hexavalent(SM18th3500-Cr D)

#### STGFAA

EPA200.9 Rev 2.2-1994 - Arsenic, Cadmium, Chromium, Lead, Selenium

Digestion: Acid Digestion of Aqueous Samples(EPA200.2)

#### MICROBIOLOGY: Heterotrophic Plate Count(SM18th9215 B)

MF: Coliform, Total(SM18th9222 B), Coliform, Fecal(SM18th9222 D), Streptococci,  
Fecal(SM19th9230 C)

MT/MW: E-Coli(SM18th9223 B)

**ORGANICS**

HPLC: Carbonyl Compounds(SW8315A), Nitroaromatics & Nitramines(SW8330), Nitroglycerin(SW8332)

GC/MS: Purgeables(EPA624), Base/Neutrals & Acids(EPA625), Volatile Organic Compounds(SW8260B), Semivolatile Organic Compounds(SW8270D)

GC: EDB & DBCP(EPA504), Purgeable Halocarbons(EPA601), Purgeable Aromatics(EPA602), Acrolein & Acrylonitrile(EPA603), Phenols(EPA604), Organochlorine Pesticides & PCBs(EPA608), EDB & DBCP(SW8011), Halogenated & Aromatic Volatiles(SW8021B), Acrylonitrile(SW8031), Phenols(SW8041), Organochlorine Pesticides(SW8081B), Polychlorinated Biphenyls(SW8082A), Polynuclear Aromatic Hydrocarbons(SW8100), Organophosphorus Compound, Chlorinated Herbicides(SW8151A), Nonhalogenated Volatile Organics(SW8015C), Total Petroleum Hydrocarbons(SW8015C)

**HAZARDOUS WASTE**

Characteristics: Reactivity, Cyanide(SW Chapter 7.3.3.2), Reactivity, Sulfide(SW Chapter 7.3.4.2), Ignitability(SW1010), Corrosivity(SW9040C)

Extractions: Separatory Funnel Liquid-Liquid(SW3510C), Soxhlet(SW3540C), Ultrasonic(SW3550B), Waste Dilution(SW3580A), Waste Dilution for Volatile Organics(SW3585), Purge & Trap For Aqueous Sample(SW5030B), Closed System Purge & Trap(SW5035)

Digestion: Acid Digestion of Aqueous Samples & Extracts (FLAA/ICP)(SW3010A), Acid Digestion of Aqueous Samples & Extracts (GFAA)(SW3020A)

Toxicity: TLCP (Metals & Organics)(SW1311A)

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 September 30, 2010.

Certificate No 060



Issued on September 30, 2009

Daniel T. Arnold  
Program Manager

Daniel T.  
Arnold

Digitally signed by Daniel T.  
Arnold  
DN: cn=Daniel T. Arnold, o=WV  
DEP, ou=DWWM,  
email=Daniel.T.Arnold@wv.  
gov, c=US  
Date: 2009.10.01 14:56:51  
-04'00'



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west virginia department of environmental protection

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Division of Water and Waste Management  
601 57th Street SE  
Charleston, WV 25304-2345  
Phone: (304) 926-0495  
Fax: (304) 926-0497

Joe Manchin III, Governor  
Randy C. Huffman, Cabinet Secretary  
[www.wvdep.org](http://www.wvdep.org)

October 01, 2009

Clarence Haile  
Laboratory Director  
REI Consultants, Incorporated  
PO Box 286  
Beaver, WV 25813

Dear Dr. Haile:

Please find enclosed a corrected ATTACHMENT I recertifying your facility through September 30, 2010.

If you have any questions, and if I can be of further assistance please call me at (304) 926-0499 ext. 1341 or e-mail me at [Daniel.T.Arnold@wv.gov](mailto:Daniel.T.Arnold@wv.gov).

Sincerely,

A handwritten signature in black ink that reads 'Daniel T. Arnold'.

Daniel T. Arnold  
Program Manager  
da

Enclosure:



# MARLENE W. EDGELL-HAMMOND

## SUMMARY OF QUALIFICATIONS

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Experienced Manager with excellent team abilities, strong leadership and presentation skills. Accomplished in employee development and technical training.

## WORK EXPERIENCE

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### **Owner/Operator 1999 - Present**

*GreenScape Analytical Laboratories, Inc., Ravenswood WV 26164*

### **Manager - Laboratory Technician/ 1990 - 1999**

*Denex Corporation, Ripley WV 25271*

Assisted with establishment of new laboratory services including recommendations for equipment and inventory purchases; coal, water and environmental. Trained employees in laboratory procedures. Conducted preparation and analyses on coal, overburden, soil and water samples.

### **Laboratory Technician - Quality Control/1979 - 1990**

*R & F Coal Company, Cadiz, OH*

Assisted with establishment of laboratory services including recommendations on equipment purchases. Trained analytical technicians in laboratory procedures and practices. Conducted training sessions for laboratory technician in physical and analytical coal analysis at Illinois site. Collected and prepared raw coal samples for analysis. Performed tests such as: core and bulk wash abilities, percent solids, moisture, ash, sulfur Btu and ash fusion. Selected various blending of coal to meet quality control specifications. Determined grouping of coal barges according to quality analysis of coal in order to meet customer specifications. Conducted lecture for the Safety Department on safety procedures to meet MSHA safety training requirements. Entered test results into computer to obtain analysis of coal wash abilities.

### **Laboratory Technician - Coal Analysis/1977 - 1979**

*Tra-Det Laboratories, Wheeling WV*

Conducted short proximate, volatile matter, FSI & ash fusion analysis of coal samples for several local coal companies. Conducted soil analysis. Assisted with water analysis. Calculated test results and recorded data.

## EDUCATION

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### **B.A. Human Resource Management - Completion June, 1992**

*Wheeling Jesuit College - Wheeling, WV*

### **WV Department of Natural Resources Environmental Training Center - Certified July, 1991**

*Ripley WV*

### **Associate Degree in Science - December, 1988**

*West Virginia Northern Community College, Wheeling WV*

### **Emergency Medical Technician, Certified 1983 & 1986**

*Ohio Department of Education, J.V.S.-St. Clairsville OH*

### **Medical Technology - 1974**

*West Liberty State College - West Liberty, WV*

## CERTIFICATIONS

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Certified Waste Water Analyst

Feed & Forage Analysis

Rt. 2 Box 245 A Eastwood Rd  
Ravenswood, WV 26164  
Home (304) 273-9837  
Cell (304) 531-6960  
Email slycadence@yahoo.com

## Nichol L. Vanscoy Adams

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**OBJECTIVE** To obtain an entry-level position in the environmental field.

**EDUCATION** Sept 2001 – May 2005 Mount Vernon Nazarene University (MVNU) Mount Vernon, OH  
Major: Bachelor of Science Biology (Environmental Science) Minor: Chemistry  
• 3.685 GPA Honors Scholar

**Related Course Work**  
Conservation of Natural Resources, Earth Science, Field Botany, Environmental Science, Ecology, Tropical Ecology in Belize, Entomology, Invertebrate Zoology, Microbiology, Genetics, General Chemistry I and II, Organic Chemistry I and II, Quantitative Chemistry, Statistics, Calculus, Honors Project

**ACCREDITATIONS** Wastewater Laboratory Technician Certification October 28, 2005  
Quality Control / Quality Assurance in Environmental Labs Certification October 29, 2009

**SKILLS**

- Prepared various types of media on which to grow bacteria; Bacterial Identification
- Water Quality Analysis
- Experience using lab equipment
- Data Analysis Methods, including Statistics
- Computer skills: familiar with Microsoft Office and database development
- Languages: Intermediate French

**WORK**

July 2005-Present *Greenscape Analytical Laboratories* Ravenswood, WV

- Flammable Gas Evolution Analysis

Wastewater Laboratory Technician

- Field Sampling; Chain of Custody
- Water analysis: pH, Total Residual Chlorine, Dissolved Oxygen, Fecal Coliform, Biochemical Oxygen Demand, Total Suspended Solids, Ammonia-Nitrogen
- Reagent preparation; Ordering Lab Supplies and Inventory
- Organization: Record Keeping, Customer Reports, Invoicing, Dish Washing, Autoclaving
- Familiar with Lab Procedures, Protocol, and Calibrating Lab Equipment; customer service

August 2005-Sept. 2007 *MSM Environmental Services* Farmington, WV

Wastewater – Operator In Training

- Monitoring flow of city wastewater treatment facility, reading meters, water analysis

Feb. 2005-May 2005 *MVNU Biology Dept.* Mount Vernon, OH

Principles of Biology Lab Assistant for Professor Ingersol

February 2002-May 2005 *Pioneer Catering* Mount Vernon, OH

College Cafeteria Worker (Promoted to Manager), Catering Banquets

Sept. 2004-Dec. 2004 *MVNU Math Dept.* Mount Vernon, OH

Statistics Grader for Dr. Noonan

Feb. 2003-May 2004 *MVNU Math Dept.* Mount Vernon, OH

Statistics Grader for Dr. Marguerite Bennett

**REFERENCES** Available upon request

# Sandra Rana

HC 74 Box 119  
Ripley, WV 25271  
Phone: 304-372-2104  
E-mail: bsrana@netscape.com

**OBJECTIVE** To obtain a position as a Laboratory Technician doing analysis on polymers.

**EDUCATION** West Virginia State College, Institute , WVa., 1984-1987  
Associates in Chemistry  
*Accreditation:* Wastewater Laboratory Technician, Certification November 2006.  
Certification: Dissolved Oxygen meter

**EMPLOYMENT** Greenscape Analytical Laboratories, Ravenswood, WVa., June 2006 to Present.  
*Flammable Gas Evolution:* Determine amount of gas released from hazardous waste of pot liner sample from Century Aluminum and package waste for disposal, then report of results.  
*Prepare Chain of Custody for Field Sampling.*  
*Water analysis:* pH, Total Residual Chlorine, Dissolved Oxygen, Fecal Coliform, Biochemical Oxygen Demand, Total Suspended Solids, Ammonia-Nitrogen.  
Reagent preparation; Ordering Lab Supplies.  
*Organization:* Record Keeping, Customer Reports, Invoicing, Maintain inventory and Customer Service.  
Maintain lab equipment and calibration.  
*Coal analysis:* BTU 's, Sulfurs, Moistures, Ash and Neutralization Potentials.

Shell Chemical Co. Polyester Div. Apple Grove, WVa., Sept. 1991 to Sept. 1998.  
Assure quality control analysis on polyesters.  
Tests Include: Intrinsic Viscosities, Carboxyl content, Acet Aldehyde, Glycol tests on GC, Titrations on catalyst, Total Carbon

Tri-State Testing Co. Inc., Huntington, WVa., July 1991 to Sept. 1991.  
Washability tests on new core drills  
Determine specific gravities for mining coal.

Commercial Testing & Engineering, Ceredo, WVa., Aug. 1990 to July 1991.  
Assure quality control of coal samples  
Test for Sulfur, Ash, and Moisture content.  
Prepare reports, Control Inventory, and Maintain Instruments.

**REFERENCES** Available upon request.



**WEST VIRGINIA DEPARTMENT OF TRANSPORTATION**

**Division of Highways**

**1900 Kanawha Boulevard East • Building Five • Room 110  
Charleston, West Virginia 25305-0430 • 304/558-3505**

**Joe Manchin III  
Governor**

**October 24, 2008**

**To Whom It May Concern:**

**In our dealings with Mrs. Marlene Edgell-Hammond of Greenscape Analytical Laboratories, as a consultant performing environmental testing laboratory services for our organization, the West Virginia Department of Transportation, Division of Highways, Materials Control, Soils and Testing Division is pleased with her ability to maintain quality oversight of day to day operations, and we are satisfied with the firm's successful performance.**

**Very truly yours,**

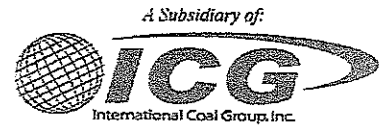
A handwritten signature in cursive script that reads "Aaron C. Gillispie".

**for Aaron C. Gillispie  
Director**

**Materials Control, Soils and Testing Division**

**ACG:Fjtm**

**ICG, LLC**



J. Marc Coolen  
Director of Geology and Exploration  
ICG, LLC  
300 Corporate Centre Drive  
Scott Depot, WV 25560  
(304)-760-2431 Direct  
(304)-760-2499 Fax  
mcoolen@intlcoal.com

Re: Greenscape Analytical Laboratories, Inc.  
Letter of Recommendation

October 20, 2008

To Whom It May Concern.

Since 1999, Greenscape Analytical Laboratories Inc. has provided me and my geological staff with excellent and professional analytical services for our ongoing coal exploration and mine permitting activities in Kentucky and West Virginia. We greatly rely on Greenscape Labs for timely and accurate coal and overburden acid/base analyses and other coal-analytical data and over the years we have experienced nothing else but excellent cooperation with the lab.

I have personally witnessed how Mrs. Marlene Edgell-Hammond has used her great business acumen in expanding her Laboratory from a humble start to where it is right now in Ravenswood. She has brought together a well balanced team of technicians, and her lab ranks among the best qualified in its field in this region.

In my capacity as Director of Geology it is my pleasure to full-heartedly recommend Marlene and the analytical services provided by Greenscape Laboratories.

With Best Regards,

A handwritten signature in cursive script, appearing to read "J. Marc Coolen". The signature is written in dark ink and is positioned above the typed name and title.

J. Marc Coolen  
Director of Geology and Exploration

RFQ No. \_\_\_\_\_

STATE OF WEST VIRGINIA  
Purchasing Division

**PURCHASING AFFIDAVIT**

**West Virginia Code §5A-3-10a states:** 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 the debt owed is an amount greater than one thousand dollars in the aggregate.

**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.

"Debtor" means any individual, corporation, partnership, association, limited liability company or any other form or business association owing a debt to the state or any of its political subdivisions. "Political subdivision" means any county commission; municipality; county board of education; any instrumentality established by a county or municipality; any separate corporation or instrumentality established by one or more counties or municipalities, as permitted by law; or any public body charged by law with the performance of a government function or whose jurisdiction is coextensive with one or more counties or municipalities. "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.

**EXCEPTION:** The prohibition of this section does not apply where a vendor has contested any tax administered pursuant to chapter eleven of this 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.

Under penalty of law for false swearing (*West Virginia Code §61-5-3*), it is hereby certified that the vendor affirms and acknowledges the information in this affidavit and is in compliance with the requirements as stated.

**WITNESS THE FOLLOWING SIGNATURE**

Vendor's Name: Greenscape Analytical Laboratories, Inc.

Authorized Signature: Marlene Edgell-Hammond Date: 11/16/10

State of W. Va.

County of Jackson, to-wit:

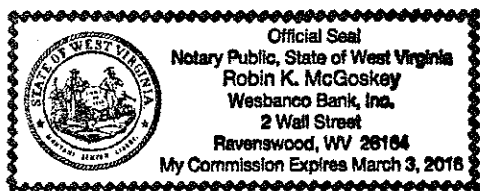
Taken, subscribed, and sworn to before me this 16<sup>th</sup> day of November, 2010.

My Commission expires March 3, 2016.

**AFFIX SEAL HERE**

**NOTARY PUBLIC**

Robin K. McGoskey



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 Resident Vendor Preference, if applicable.

1. **Application is made for 2.5% resident 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% resident 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% resident 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% resident 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% resident 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% resident 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.

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: Greenscape Analytical Laboratories, Inc. Signed: Marlene Edgell-Hammond  
 Date: 11/9/10 Title: President

\*Check any combination of preference consideration(s) indicated above, which you are entitled to receive.