

State of Colorado
Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 (303)894-2100 Fax:(303)894-2109



FOR OGCC USE ONLY

SITE INVESTIGATION AND REMEDIATION WORKPLAN

This form shall be submitted to the Director for approval prior to the initiation of site investigation and remediation activities. Form 27 is intended to be used whenever possible. Additional documentation will be required when large volumes of soil and groundwater have been impacted or involve large facilities with multiple source areas. See Rule 910. Attach as many pages as needed to fully describe the proposed work.

CAUSE OF CONDITION BEING INVESTIGATED AND REMEDIATED

☐ Spill or Release ☒ Plug & Abandon ☐ Central Facility Closure ☐ Site/Facility Closure ☐ Other (describe): _____

OGCC Employee:

☐ Spill ☐ Complaint
☐ Inspection ☐ NOAV

Tracking No: **REM #9631**

OGCC Operator Number: 96705

Name of Operator: WPX Energy Production LLC

Address: PO Box 640/ 721 S Main Street

City: Aztec State: NM Zip: 87410

Contact Name and Telephone:

Deborah Watson

No: 505-333-1880/505-386-9693

Fax: 505-333-1805

API Number: 05-067-05752

County: La Plata

Facility Name: _____

Facility Number: _____

Well Name: Bondad 33-9

Well Number: 26

Location: (QtrQtr, Sec, Twp, Rng, Meridian): SENW, 14, 33N, 9W N Latitude: 37.10635 Longitude: -107.79903

TECHNICAL CONDITIONS

Type of Waste Causing Impact (crude oil, condensate, produced water, etc): If there is a release, produced water and minimal hydrocarbons

Site Conditions: Is location within a sensitive area (according to Rule 901e)? ☐ Y ☒ N If yes, attach evaluation.

Adjacent land use (cultivated, irrigated, dry land farming, industrial, residential, etc.): non-cropland

Soil type, if not previously identified on Form 2A or Federal Surface Use Plan: Falfa Clay loam, 3 to 8 percent slope

Potential receptors (water wells within 1/4 mi, surface waters, etc.): nearest surface water is located 610 feet to the northeast, according to COGCC map there is a well within 0.1 miles of the location at the McCaraville A #1, residence 0.3 miles from location

Description of Impact (if previously provided, refer to that form or document):

Impacted Media (check):

☐

Soils

☐

Vegetation

☐

Groundwater

☐

Surface Water

Extent of Impact:

TBD-below pit tanks

How Determined:

PID, confirmation sample

REMEDIATION WORKPLAN

Describe initial action taken (if previously provided, refer to that form or document):

No impact to the environment anticipated since the current pit tanks (20 bbl) contain a banded 40 mil plastic liner. (Note: there are two small pit tanks on location)

Describe how source is to be removed:

Existing buried pits to be removed by excavation of surrounding soils, removal of tank and liner, offsite disposal of tank and liner at permitted landfill, and collection of one sample from below each pit tank. Samples will be submitted to the lab for analysis per Table 910-1.

Describe how remediation of existing impacts is to be accomplished, including removal and disposal at an injection well or licensed facility, land treatment on site, removal of impacted groundwater, insitu bioremediation, burning of oily vegetation, etc.:

If a release has occurred below a pit tank, impacted soils will be excavated until contamination is below regulatory limits. Impacted soils will be transported offsite to a permitted landfarm or landfill. If extent of contamination indicates impacts beyond site boundaries and/or water resources, a revised Remediation Workplan will be submitted for approval.



Tracking Number: _____
Name of Operator: _____
OGCC Operator No: _____
Received Date: _____
Well Name & No: _____
Facility Name & No: _____

REMEDIATION WORKPLAN (Cont.)

OGCC Employee: _____

If groundwater has been impacted, describe proposed monitoring plan (# of wells or sample points, sampling schedule, analytical methods, etc.):

No groundwater impact.

Describe reclamation plan. Discuss existing and new grade recontouring; method and testing of compaction alleviation; and reseeding program, including location of new seed, seed mix and noxious weed prevention. Attach diagram or drawing. Use additional sheet for description if required.

Submitted under separate cover.

Attach samples and analytical results taken to verify remediation of impacts. Show locations of samples on an onsite schematic or drawing.

Is further site investigation required? ☐ Y ☒ N If yes, describe:

See attached laboratory results.

Final disposition of E&P waste (landtreated and disposed onsite, name of licensed disposal facility, recycling, reuse, etc.):

Tanks and liner taken to Bondad landfill for disposal.

IMPLEMENTATION SCHEDULE

Date Site Investigation Began: 5/12/16 Date Site Investigation Completed: 6/6/16 Date Remediation Plan Submitted: 4/26/16
Remediation Start Date: 5/12/16 Anticipated Completion Date: _____ Actual Completion Date: 6/6/16

I hereby certify that the statements made in this form are, to the best of my knowledge, true, correct, and complete.

Print Name: Deborah Watson

Signed: Deborah Watson

Title: Environmental Specialist

Date: September 13, 2016

OGCC Approved: [Signature]

Title: Environmental Protection Specialist

Date: 9/19/16

WPX Energy - New Mexico

Sample Delivery Group: L840223
Samples Received: 06/08/2016
Project Number:
Description: Bondad 33-9 #26

Report To: Heather Woods
501 Airport Drive, Suite 205
Farmington, NM 87401

Entire Report Reviewed By:



Shane Gambill
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



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SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



SC-1 L840223-01 Solid

Collected by
Heather Woods

Collected date/time
06/06/16 15:39

Received date/time
06/08/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Calculated Results	WG878947	1	06/09/16 09:26	06/14/16 14:35	KK
Calculated Results	WG879629	1	06/14/16 08:27	06/15/16 08:43	LTB
Mercury by Method 7471A	WG878881	1	06/08/16 19:15	06/10/16 09:32	TRB
Metals (ICP) by Method 6010B	WG878947	1	06/09/16 09:26	06/10/16 08:43	LTB
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG878897	1	06/13/16 09:15	06/14/16 10:24	KMP
Semi-Volatile Organic Compounds (GC) by Method 3546/DRO	WG879175	1	06/09/16 20:36	06/10/16 10:40	ACM
Total Solids by Method 2540 G-2011	WG878834	1	06/09/16 09:41	06/09/16 09:53	MEL
Volatile Organic Compounds (GC) by Method 8015/8021	WG879397	5	06/11/16 00:04	06/11/16 21:06	DWR
Wet Chemistry by Method 3060A/7196A	WG878845	1	06/11/16 10:03	06/14/16 14:35	KK
Wet Chemistry by Method 9045D	WG878689	1	06/09/16 11:23	06/09/16 11:23	MHM
Wet Chemistry by Method 9050AMod	WG879309	1	06/10/16 14:51	06/10/16 14:51	AMC

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

SC-2 L840223-02 Solid

Collected by
Heather Woods

Collected date/time
06/06/16 16:00

Received date/time
06/08/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Calculated Results	WG878947	1	06/09/16 09:26	06/14/16 14:35	KK
Calculated Results	WG879629	1	06/14/16 08:27	06/15/16 04:04	LTB
Mercury by Method 7471A	WG878881	1	06/08/16 19:15	06/10/16 09:41	TRB
Metals (ICP) by Method 6010B	WG878947	1	06/09/16 09:26	06/10/16 08:46	LTB
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG878897	1	06/13/16 09:15	06/14/16 10:46	KMP
Semi-Volatile Organic Compounds (GC) by Method 3546/DRO	WG879175	1	06/09/16 20:36	06/10/16 11:00	ACM
Total Solids by Method 2540 G-2011	WG878962	1	06/09/16 14:58	06/09/16 15:12	KDW
Volatile Organic Compounds (GC) by Method 8015/8021	WG879397	5	06/11/16 00:04	06/11/16 21:28	DWR
Wet Chemistry by Method 3060A/7196A	WG878845	1	06/11/16 10:03	06/14/16 14:35	KK
Wet Chemistry by Method 9045D	WG878689	1	06/09/16 11:23	06/09/16 11:23	MHM
Wet Chemistry by Method 9050AMod	WG879309	1	06/10/16 14:51	06/10/16 14:51	AMC



All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Shane Gambill
Technical Service Representative

Sample Handling and Receiving

The following samples were prepared and/or analyzed past recommended holding time. Concentrations should be considered minimum values.

ESC Sample ID	Project Sample ID	Method
L840223-01	SC-1	9045D
L840223-02	SC-2	9045D

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	0.0868		1	06/15/2016 08:43	WG879629

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Calculated Results

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Chromium,Trivalent	21.3		2.53	1	06/14/2016 14:35	WG878947

Total Solids by Method 2540 G-2011

Analyte	Result %	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	79.0		1	06/09/2016 09:53	WG878834

Wet Chemistry by Method 3060A/7196A

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Chromium,Hexavalent	ND		2.53	1	06/14/2016 14:35	WG878845

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.68		1	06/09/2016 11:23	WG878689

Sample Narrative:

9045D L840223-01 WG878689: 7.68 at 21.0c

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	Dilution	Analysis date / time	Batch
Specific Conductance	92.5		1	06/10/2016 14:51	WG879309

Mercury by Method 7471A

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Mercury	0.0316		0.0253	1	06/10/2016 09:32	WG878881

Metals (ICP) by Method 6010B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Arsenic	5.85		2.53	1	06/10/2016 08:43	WG878947
Barium	267		0.633	1	06/10/2016 08:43	WG878947
Cadmium	ND		0.633	1	06/10/2016 08:43	WG878947
Chromium	21.3		1.27	1	06/10/2016 08:43	WG878947
Copper	16.1		2.53	1	06/10/2016 08:43	WG878947
Lead	21.9		0.633	1	06/10/2016 08:43	WG878947
Nickel	16.3		2.53	1	06/10/2016 08:43	WG878947
Selenium	ND		2.53	1	06/10/2016 08:43	WG878947
Silver	ND		1.27	1	06/10/2016 08:43	WG878947
Zinc	76.9		6.33	1	06/10/2016 08:43	WG878947



Collected date/time: 06/06/16 15:39

L840223

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzene	ND		0.00317	5	06/11/2016 21:06	WG879397
Toluene	ND		0.0317	5	06/11/2016 21:06	WG879397
Ethylbenzene	ND		0.00317	5	06/11/2016 21:06	WG879397
Total Xylene	ND		0.00950	5	06/11/2016 21:06	WG879397
TPH (GC/FID) Low Fraction	ND		0.633	5	06/11/2016 21:06	WG879397
(S) a,a,a-Trifluorotoluene(FID)	97.4		59.0-128		06/11/2016 21:06	WG879397
(S) a,a,a-Trifluorotoluene(PID)	103		54.0-144		06/11/2016 21:06	WG879397

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Semi-Volatile Organic Compounds (GC) by Method 3546/DRO

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	ND		5.07	1	06/10/2016 10:40	WG879175
(S) o-Terphenyl	63.8		50.0-150		06/10/2016 10:40	WG879175

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.00760	1	06/14/2016 10:24	WG878897
Acenaphthene	ND		0.00760	1	06/14/2016 10:24	WG878897
Acenaphthylene	ND		0.00760	1	06/14/2016 10:24	WG878897
Benzo(a)anthracene	ND		0.00760	1	06/14/2016 10:24	WG878897
Benzo(a)pyrene	ND		0.00760	1	06/14/2016 10:24	WG878897
Benzo(b)fluoranthene	ND		0.00760	1	06/14/2016 10:24	WG878897
Benzo(g,h,i)perylene	ND		0.00760	1	06/14/2016 10:24	WG878897
Benzo(k)fluoranthene	ND		0.00760	1	06/14/2016 10:24	WG878897
Chrysene	ND		0.00760	1	06/14/2016 10:24	WG878897
Dibenz(a,h)anthracene	ND		0.00760	1	06/14/2016 10:24	WG878897
Fluoranthene	ND		0.00760	1	06/14/2016 10:24	WG878897
Fluorene	ND		0.00760	1	06/14/2016 10:24	WG878897
Indeno(1,2,3-cd)pyrene	ND		0.00760	1	06/14/2016 10:24	WG878897
Naphthalene	ND		0.0253	1	06/14/2016 10:24	WG878897
Phenanthrene	ND		0.00760	1	06/14/2016 10:24	WG878897
Pyrene	ND		0.00760	1	06/14/2016 10:24	WG878897
1-Methylnaphthalene	ND		0.0253	1	06/14/2016 10:24	WG878897
2-Methylnaphthalene	ND		0.0253	1	06/14/2016 10:24	WG878897
2-Chloronaphthalene	ND		0.0253	1	06/14/2016 10:24	WG878897
(S) p-Terphenyl-d14	60.7		32.2-131		06/14/2016 10:24	WG878897
(S) Nitrobenzene-d5	99.6		22.1-146		06/14/2016 10:24	WG878897
(S) 2-Fluorobiphenyl	72.3		40.6-122		06/14/2016 10:24	WG878897



Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	0.654		1	06/15/2016 04:04	WG879629

Calculated Results

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Chromium, Trivalent	18.1		2.45	1	06/14/2016 14:35	WG878947

Total Solids by Method 2540 G-2011

Analyte	Result %	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	81.6		1	06/09/2016 15:12	WG878962

Wet Chemistry by Method 3060A/7196A

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Chromium, Hexavalent	ND		2.45	1	06/14/2016 14:35	WG878845

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.89		1	06/09/2016 11:23	WG878689

Sample Narrative:

9045D L840223-02 WG878689: 7.89 at 20.8c

Wet Chemistry by Method 9050AMod

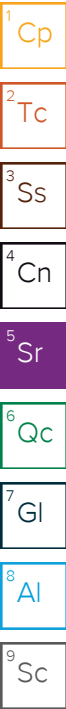
Analyte	Result umhos/cm	Qualifier	Dilution	Analysis date / time	Batch
Specific Conductance	314		1	06/10/2016 14:51	WG879309

Mercury by Method 7471A

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Mercury	ND		0.0245	1	06/10/2016 09:41	WG878881

Metals (ICP) by Method 6010B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Arsenic	4.75		2.45	1	06/10/2016 08:46	WG878947
Barium	239		0.613	1	06/10/2016 08:46	WG878947
Cadmium	ND		0.613	1	06/10/2016 08:46	WG878947
Chromium	18.1		1.23	1	06/10/2016 08:46	WG878947
Copper	13.4		2.45	1	06/10/2016 08:46	WG878947
Lead	15.8		0.613	1	06/10/2016 08:46	WG878947
Nickel	13.0		2.45	1	06/10/2016 08:46	WG878947
Selenium	ND		2.45	1	06/10/2016 08:46	WG878947
Silver	ND		1.23	1	06/10/2016 08:46	WG878947
Zinc	49.2		6.13	1	06/10/2016 08:46	WG878947





Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzene	ND		0.00306	5	06/11/2016 21:28	WG879397
Toluene	ND		0.0306	5	06/11/2016 21:28	WG879397
Ethylbenzene	ND		0.00306	5	06/11/2016 21:28	WG879397
Total Xylene	ND		0.00919	5	06/11/2016 21:28	WG879397
TPH (GC/FID) Low Fraction	ND		0.613	5	06/11/2016 21:28	WG879397
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	97.3		59.0-128		06/11/2016 21:28	WG879397
(S) <i>a,a,a</i> -Trifluorotoluene(PID)	103		54.0-144		06/11/2016 21:28	WG879397

Semi-Volatile Organic Compounds (GC) by Method 3546/DRO

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	ND		4.90	1	06/10/2016 11:00	WG879175
(S) <i>o</i> -Terphenyl	64.8		50.0-150		06/10/2016 11:00	WG879175

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.00735	1	06/14/2016 10:46	WG878897
Acenaphthene	ND		0.00735	1	06/14/2016 10:46	WG878897
Acenaphthylene	ND		0.00735	1	06/14/2016 10:46	WG878897
Benzo(a)anthracene	ND		0.00735	1	06/14/2016 10:46	WG878897
Benzo(a)pyrene	ND		0.00735	1	06/14/2016 10:46	WG878897
Benzo(b)fluoranthene	ND		0.00735	1	06/14/2016 10:46	WG878897
Benzo(g,h,i)perylene	ND		0.00735	1	06/14/2016 10:46	WG878897
Benzo(k)fluoranthene	ND		0.00735	1	06/14/2016 10:46	WG878897
Chrysene	ND		0.00735	1	06/14/2016 10:46	WG878897
Dibenz(a,h)anthracene	ND		0.00735	1	06/14/2016 10:46	WG878897
Fluoranthene	ND		0.00735	1	06/14/2016 10:46	WG878897
Fluorene	ND		0.00735	1	06/14/2016 10:46	WG878897
Indeno(1,2,3-cd)pyrene	ND		0.00735	1	06/14/2016 10:46	WG878897
Naphthalene	ND		0.0245	1	06/14/2016 10:46	WG878897
Phenanthrene	ND		0.00735	1	06/14/2016 10:46	WG878897
Pyrene	ND		0.00735	1	06/14/2016 10:46	WG878897
1-Methylnaphthalene	ND		0.0245	1	06/14/2016 10:46	WG878897
2-Methylnaphthalene	ND		0.0245	1	06/14/2016 10:46	WG878897
2-Chloronaphthalene	ND		0.0245	1	06/14/2016 10:46	WG878897
(S) <i>p</i> -Terphenyl-d14	65.4		32.2-131		06/14/2016 10:46	WG878897
(S) Nitrobenzene-d5	100		22.1-146		06/14/2016 10:46	WG878897
(S) 2-Fluorobiphenyl	78.9		40.6-122		06/14/2016 10:46	WG878897

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3142685-1 06/09/16 09:53

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.000700			

L840195-05 Original Sample (OS) • Duplicate (DUP)

(OS) L840195-05 06/09/16 09:53 • (DUP) R3142685-3 06/09/16 09:53

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	92.1	92.7	1	0.714		5

Laboratory Control Sample (LCS)

(LCS) R3142685-2 06/09/16 09:53

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc



Method Blank (MB)

(MB) R3142699-1 06/09/16 15:12

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Total Solids	0.000300			

L840223-02 Original Sample (OS) • Duplicate (DUP)

(OS) L840223-02 06/09/16 15:12 • (DUP) R3142699-3 06/09/16 15:12

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Total Solids	81.6	81.2	1	0.540		5

Laboratory Control Sample (LCS)

(LCS) R3142699-2 06/09/16 15:12

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3143455-1 06/14/16 14:33

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/kg		mg/kg	mg/kg
Chromium,Hexavalent	U		0.640	2.00

L840534-02 Original Sample (OS) • Duplicate (DUP)

(OS) L840534-02 06/14/16 14:46 • (DUP) R3143455-4 06/14/16 14:46

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/kg	mg/kg		%		%
Chromium,Hexavalent	ND	ND	1	0.000		20

L840751-10 Original Sample (OS) • Duplicate (DUP)

(OS) L840751-10 06/14/16 14:58 • (DUP) R3143455-8 06/14/16 15:02

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/kg	mg/kg		%		%
Chromium,Hexavalent	ND	ND	1	0.000		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3143455-2 06/14/16 14:34 • (LCSD) R3143455-3 06/14/16 14:34

	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	mg/kg	mg/kg	mg/kg	%	%	%			%	%
Chromium,Hexavalent	56.9	47.8	47.8	84.0	84.0	80.0-120			0.000	20

L840534-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L840534-02 06/14/16 14:46 • (MS) R3143455-5 06/14/16 14:47 • (MSD) R3143455-6 06/14/16 14:47

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
Chromium,Hexavalent	20.0	ND	19.1	18.8	95.0	94.0	1	75.0-125			1.00	20

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc



L840058-01 Original Sample (OS) • Duplicate (DUP)

(OS) L840058-01 06/09/16 11:23 • (DUP) WG878689-3 06/09/16 11:23

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	7.94	7.92	1	0.252		1

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

L840317-02 Original Sample (OS) • Duplicate (DUP)

(OS) L840317-02 06/09/16 11:23 • (DUP) WG878689-4 06/09/16 11:23

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	8.05	8.07	1	0.248		1

⁷Gl

⁸Al

⁹Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) WG878689-1 06/09/16 11:23 • (LCSD) WG878689-2 06/09/16 11:23

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	su	su	su	%	%	%			%	%
pH	6.43	6.37	6.38	99.1	99.2	98.4-102			0.157	1



Method Blank (MB)

(MB) WG879309-4 06/10/16 14:51

Analyte	MB Result umhos/cm	MB Qualifier	MB MDL umhos/cm	MB RDL umhos/cm
Specific Conductance	1.90			

L840223-01 Original Sample (OS) • Duplicate (DUP)

(OS) L840223-01 06/10/16 14:51 • (DUP) WG879309-1 06/10/16 14:51

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	92.5	93.0	1	0.539		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) WG879309-2 06/10/16 14:51 • (LCSD) WG879309-3 06/10/16 14:51

Analyte	Spike Amount umhos/cm	LCS Result umhos/cm	LCSD Result umhos/cm	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Specific Conductance	653	675	670	103	103	90.0-110			0.743	20

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3142760-1 06/10/16 09:12

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/kg		mg/kg	mg/kg
Mercury	U		0.0028	0.0200

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3142760-2 06/10/16 09:15 • (LCSD) R3142760-3 06/10/16 09:18

	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	mg/kg	mg/kg	mg/kg	%	%	%			%	%
Mercury	0.300	0.265	0.272	88	91	80-120			3	20

L840297-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L840297-01 06/10/16 09:21 • (MS) R3142760-4 06/10/16 09:24 • (MSD) R3142760-5 06/10/16 09:27

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
Mercury	0.300	ND	0.308	0.302	99	97	1	75-125			2	20

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3142719-1 06/10/16 07:57

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Arsenic	U		0.65	2.00
Barium	U		0.17	0.500
Cadmium	U		0.07	0.500
Chromium	U		0.14	1.00
Copper	U		0.53	2.00
Lead	U		0.19	0.500
Nickel	U		0.49	2.00
Selenium	U		0.74	2.00
Silver	U		0.28	1.00
Zinc	U		0.59	5.00

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3142719-2 06/10/16 07:59 • (LCSD) R3142719-3 06/10/16 08:01

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Arsenic	100	95.0	95.1	95	95	80-120			0	20
Barium	100	97.9	98.1	98	98	80-120			0	20
Cadmium	100	95.8	95.6	96	96	80-120			0	20
Chromium	100	92.8	93.4	93	93	80-120			1	20
Copper	100	94.0	94.7	94	95	80-120			1	20
Lead	100	95.1	94.9	95	95	80-120			0	20
Nickel	100	95.3	95.6	95	96	80-120			0	20
Selenium	100	97.7	97.8	98	98	80-120			0	20
Silver	100	92.6	92.5	93	93	80-120			0	20
Zinc	100	95.2	95.1	95	95	80-120			0	20

L840195-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L840195-01 06/10/16 08:04 • (MS) R3142719-6 06/10/16 08:12 • (MSD) R3142719-7 06/10/16 08:15

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	100	4.38	104	105	99	100	1	75-125			1	20
Barium	100	18.5	117	115	98	96	1	75-125			2	20
Cadmium	100	ND	98.0	101	98	101	1	75-125			3	20
Chromium	100	13.2	107	106	94	93	1	75-125			1	20
Copper	100	10.5	105	108	95	97	1	75-125			2	20
Lead	100	4.55	103	105	98	100	1	75-125			2	20
Nickel	100	8.62	109	109	100	101	1	75-125			0	20



L840195-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L840195-01 06/10/16 08:04 • (MS) R3142719-6 06/10/16 08:12 • (MSD) R3142719-7 06/10/16 08:15

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Selenium	100	ND	99.2	102	99	102	1	75-125			3	20
Silver	100	ND	95.9	98.6	96	99	1	75-125			3	20
Zinc	100	21.9	112	113	90	92	1	75-125			2	20

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc



Method Blank (MB)

(MB) R3143163-5 06/11/16 14:24

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000120	0.000500
Toluene	0.000297	U	0.000150	0.00500
Ethylbenzene	0.000114	U	0.000110	0.000500
Total Xylene	U		0.000460	0.00150
TPH (GC/FID) Low Fraction	U		0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID) 97.6			59.0-128	
(S) a,a,a-Trifluorotoluene(PID) 103			54.0-144	

Cp

Tc

Ss

Cn

Sr

Qc

Gl

Al

Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3143163-1 06/11/16 12:33 • (LCSD) R3143163-2 06/11/16 12:55

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0500	0.0404	0.0404	80.8	80.7	70.0-130			0.140	20
Toluene	0.0500	0.0412	0.0410	82.5	81.9	70.0-130			0.670	20
Ethylbenzene	0.0500	0.0426	0.0431	85.2	86.2	70.0-130			1.13	20
Total Xylene	0.150	0.127	0.128	84.4	85.4	70.0-130			1.12	20
(S) a,a,a-Trifluorotoluene(FID)				96.4	97.3	59.0-128				
(S) a,a,a-Trifluorotoluene(PID)				102	102	54.0-144				

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3143163-3 06/11/16 13:17 • (LCSD) R3143163-4 06/11/16 13:39

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	5.50	5.68	5.68	103	103	63.5-137			0.120	20
(S) a,a,a-Trifluorotoluene(FID)				104	103	59.0-128				
(S) a,a,a-Trifluorotoluene(PID)				111	111	54.0-144				

L840223-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L840223-01 06/11/16 21:06 • (MS) R3143163-6 06/11/16 15:32 • (MSD) R3143163-7 06/11/16 15:55

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	0.0633	ND	0.225	0.233	71.1	73.6	5	49.7-127			3.54	23.5
Toluene	0.0633	ND	0.225	0.234	71.1	73.9	5	49.8-132			3.82	23.5
Ethylbenzene	0.0633	ND	0.233	0.244	73.7	77.1	5	40.8-141			4.56	23.8
Total Xylene	0.190	ND	0.687	0.722	72.3	76.0	5	41.2-140			5.00	23.7



L840223-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L840223-01 06/11/16 21:06 • (MS) R3143163-6 06/11/16 15:32 • (MSD) R3143163-7 06/11/16 15:55

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
(S) a,a,a-Trifluorotoluene(FID)					96.7	97.1		59.0-128				
(S) a,a,a-Trifluorotoluene(PID)					102	103		54.0-144				

L840223-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L840223-01 06/11/16 21:06 • (MS) R3143163-8 06/11/16 16:17 • (MSD) R3143163-9 06/11/16 16:39

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	6.97	ND	32.7	28.3	94.0	81.4	5	28.5-138			14.4	23.6
(S) a,a,a-Trifluorotoluene(FID)					103	103		59.0-128				
(S) a,a,a-Trifluorotoluene(PID)					110	109		54.0-144				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3142765-1 06/10/16 09:21

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) High Fraction	U		0.769	4.00
(S) o-Terphenyl	65.6			50.0-150

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3142765-2 06/10/16 09:33 • (LCSD) R3142765-3 06/10/16 09:44

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) High Fraction	60.0	46.8	48.8	78.1	81.3	50.0-150			4.10	20
(S) o-Terphenyl				77.9	85.4	50.0-150				

L840149-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L840149-01 06/10/16 15:13 • (MS) R3142765-4 06/10/16 15:24 • (MSD) R3142765-5 06/10/16 15:36

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) High Fraction	87.6	U	68.0	73.8	77.6	84.3	1	50.0-150			8.22	20
(S) o-Terphenyl					76.4	78.7		50.0-150				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc



Method Blank (MB)

(MB) R3143594-3 06/14/16 08:13

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Anthracene	U		0.000600	0.00600
Acenaphthene	U		0.000600	0.00600
Acenaphthylene	U		0.000600	0.00600
Benzo(a)anthracene	U		0.000600	0.00600
Benzo(a)pyrene	U		0.000600	0.00600
Benzo(b)fluoranthene	U		0.000600	0.00600
Benzo(g,h,i)perylene	U		0.000600	0.00600
Benzo(k)fluoranthene	U		0.000600	0.00600
Chrysene	U		0.000600	0.00600
Dibenz(a,h)anthracene	U		0.000600	0.00600
Fluoranthene	U		0.000600	0.00600
Fluorene	U		0.000600	0.00600
Indeno(1,2,3-cd)pyrene	U		0.000600	0.00600
Naphthalene	U		0.00200	0.0200
Phenanthrene	U		0.000600	0.00600
Pyrene	U		0.000600	0.00600
1-Methylnaphthalene	U		0.00200	0.0200
2-Methylnaphthalene	U		0.00200	0.0200
2-Chloronaphthalene	U		0.00200	0.0200
(S) p-Terphenyl-d14	78.2			32.2-131
(S) Nitrobenzene-d5	75.0			22.1-146
(S) 2-Fluorobiphenyl	65.5			40.6-122

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3143594-1 06/14/16 07:30 • (LCSD) R3143594-2 06/14/16 07:52

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Anthracene	0.0800	0.0623	0.0634	77.9	79.2	50.3-130			1.63	20
Acenaphthene	0.0800	0.0625	0.0624	78.2	78.0	52.4-120			0.170	20
Acenaphthylene	0.0800	0.0612	0.0615	76.5	76.9	49.6-120			0.460	20
Benzo(a)anthracene	0.0800	0.0575	0.0558	71.8	69.8	46.7-125			2.91	20
Benzo(a)pyrene	0.0800	0.0540	0.0558	67.5	69.8	42.3-119			3.27	20
Benzo(b)fluoranthene	0.0800	0.0552	0.0572	69.0	71.5	43.6-124			3.64	20
Benzo(g,h,i)perylene	0.0800	0.0574	0.0569	71.7	71.1	45.1-132			0.850	20
Benzo(k)fluoranthene	0.0800	0.0627	0.0613	78.4	76.6	46.1-131			2.36	20
Chrysene	0.0800	0.0621	0.0606	77.6	75.8	49.5-131			2.39	20
Dibenz(a,h)anthracene	0.0800	0.0591	0.0573	73.9	71.7	44.8-133			3.09	20
Fluoranthene	0.0800	0.0774	0.0745	96.7	93.2	49.3-128			3.73	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3143594-1 06/14/16 07:30 • (LCSD) R3143594-2 06/14/16 07:52

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Fluorene	0.0800	0.0660	0.0634	82.5	79.3	50.6-121			3.96	20
Indeno(1,2,3-cd)pyrene	0.0800	0.0597	0.0579	74.6	72.4	46.1-135			3.04	20
Naphthalene	0.0800	0.0622	0.0596	77.8	74.5	49.6-115			4.40	20
Phenanthrene	0.0800	0.0597	0.0598	74.7	74.7	48.8-121			0.0900	20
Pyrene	0.0800	0.0663	0.0661	82.9	82.6	44.7-130			0.330	20
1-Methylnaphthalene	0.0800	0.0681	0.0698	85.1	87.2	50.6-122			2.43	20
2-Methylnaphthalene	0.0800	0.0698	0.0631	87.3	78.9	50.4-120			10.1	20
2-Chloronaphthalene	0.0800	0.0591	0.0543	73.8	67.9	53.9-121			8.38	20
(S) p-Terphenyl-d14				66.7	71.9	32.2-131				
(S) Nitrobenzene-d5				106	115	22.1-146				
(S) 2-Fluorobiphenyl				77.8	79.5	40.6-122				

L840236-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L840236-01 06/14/16 12:14 • (MS) R3143594-4 06/14/16 12:36 • (MSD) R3143594-5 06/14/16 12:58

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Anthracene	0.0800	ND	0.0525	0.0519	65.6	64.8	1	26.5-141			1.18	21.2
Acenaphthene	0.0800	ND	0.0500	0.0505	62.5	63.1	1	31.9-130			0.830	20
Acenaphthylene	0.0800	ND	0.0511	0.0510	63.8	63.7	1	33.7-129			0.160	20
Benzo(a)anthracene	0.0800	ND	0.0444	0.0473	55.5	59.1	1	18.3-136			6.28	24.6
Benzo(a)pyrene	0.0800	ND	0.0525	0.0557	65.6	69.7	1	16.9-135			5.96	25.2
Benzo(b)fluoranthene	0.0800	ND	0.0418	0.0464	52.2	58.1	1	10.0-134			10.6	30.9
Benzo(g,h,i)perylene	0.0800	ND	0.0424	0.0470	53.0	58.7	1	14.1-140			10.4	25.5
Benzo(k)fluoranthene	0.0800	ND	0.0531	0.0548	66.4	68.5	1	18.2-138			3.05	25.6
Chrysene	0.0800	ND	0.0523	0.0538	65.4	67.2	1	17.1-145			2.77	24.2
Dibenz(a,h)anthracene	0.0800	ND	0.0444	0.0475	55.6	59.3	1	18.5-138			6.61	24.3
Fluoranthene	0.0800	ND	0.0573	0.0647	70.8	80.1	1	15.4-144			12.1	27.1
Fluorene	0.0800	ND	0.0499	0.0504	62.4	63.0	1	23.5-136			0.990	20
Indeno(1,2,3-cd)pyrene	0.0800	ND	0.0430	0.0476	53.8	59.5	1	14.5-142			10.1	25.8
Naphthalene	0.0800	ND	0.0514	0.0515	64.2	64.4	1	29.2-128			0.270	20
Phenanthrene	0.0800	ND	0.0470	0.0478	58.7	59.8	1	20.1-134			1.83	23.6
Pyrene	0.0800	ND	0.0518	0.0540	64.8	67.6	1	11.0-148			4.22	26.1
1-Methylnaphthalene	0.0800	ND	0.0488	0.0466	61.0	58.3	1	28.4-137			4.47	20
2-Methylnaphthalene	0.0800	ND	0.0493	0.0451	61.6	56.4	1	26.6-137			8.88	20
2-Chloronaphthalene	0.0800	ND	0.0484	0.0513	60.5	64.2	1	38.6-126			5.90	20
(S) p-Terphenyl-d14					65.9	59.7		32.2-131				
(S) Nitrobenzene-d5					87.4	86.8		22.1-146				
(S) 2-Fluorobiphenyl					62.2	60.8		40.6-122				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc



Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.

Qualifier	Description
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J	The identification of the analyte is acceptable; the reported value is an estimate.
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¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc



ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE**.

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	PH-0197	North Carolina ¹	DW21704
Florida	E87487	North Carolina ²	41
Georgia	NELAP	North Dakota	R-140
Georgia ¹	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky ¹	90010	South Dakota	n/a
Kentucky ²	16	Tennessee ¹⁴	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

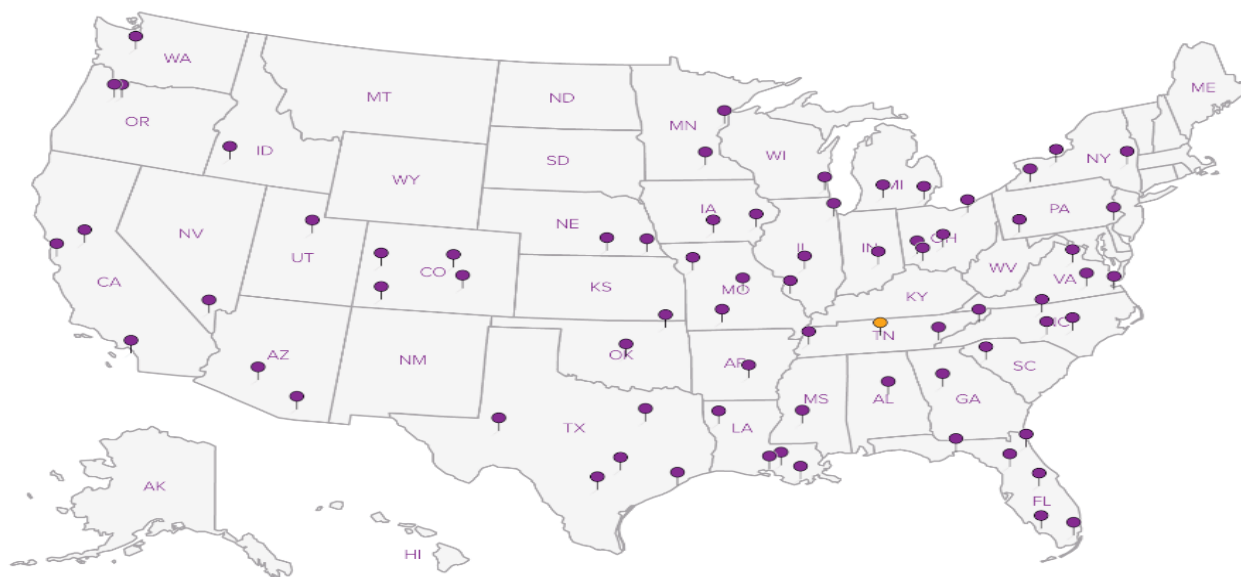
Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ^{n/a} Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**





Bondad 33-9 #026

Pit Sample Locations

Section 14, Township 33N, Range 09W

N37.106381, W107.798896

N37.106424, W107.798866

La Plata County, CO