

Analytical Report

Report Summary

Client: Chevron

Chain Of Custody Number:

Samples Received: 11/17/2015 4:57:00PM

Job Number: 92270-1399

Work Order: P511036

Project Name/Location: Hill 8-2

Entire Report Reviewed By:



Tim Cain, Laboratory Manager

Date: 11/25/15

Supplement to analytical report generated on: 11/24/15 7:56 am

The results in this report apply to the samples submitted to Envirotech's Analytical Laboratory and were analyzed in accordance with the chain of custody document supplied by you, the client, and as such are for your exclusive use only. The results in this report are based on the sample as received unless otherwise noted. Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc. If you have any questions regarding this analytical report, please don't hesitate to contact Envirotech's Laboratory Staff.

Chevron
 322 Road 3100
 Aztec NM, 87410

Project Name: Hill 8-2
 Project Number: 92270-1399
 Project Manager: Isaac Garcia

Reported:
 25-Nov-15 13:03

Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
Pipeline Leak	P511036-01A	Aqueous	11/17/15	11/17/15	VOA Vial, 40mL; HCL
	P511036-01B	Aqueous	11/17/15	11/17/15	VOA Vial, 40mL; HCL
	P511036-01C	Aqueous	11/17/15	11/17/15	VOA Vial, 40mL; HCL
	P511036-01D	Aqueous	11/17/15	11/17/15	VOA Vial, 40mL; HCL
	P511036-01E	Aqueous	11/17/15	11/17/15	Poly 250mL
	P511036-01F	Aqueous	11/17/15	11/17/15	Poly 250mL
Point of Release	P511036-02A	Soil	11/17/15	11/17/15	Glass Jar, 4 oz.
	P511036-02B	Soil	11/17/15	11/17/15	Glass Jar, 4 oz.
Background	P511036-03A	Soil	11/17/15	11/17/15	Glass Jar, 4 oz.
	P511036-03B	Soil	11/17/15	11/17/15	Glass Jar, 4 oz.

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Chevron
 322 Road 3100
 Aztec NM, 87410

 Project Name: Hill 8-2
 Project Number: 92270-1399
 Project Manager: Isaac Garcia

Reported:
 25-Nov-15 13:03

Pipeline Leak
P511036-01 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.001	mg/L	1	1547018	11/19/15	11/19/15	EPA 8021B	
Toluene	ND	0.001	mg/L	1	1547018	11/19/15	11/19/15	EPA 8021B	
Ethylbenzene	ND	0.001	mg/L	1	1547018	11/19/15	11/19/15	EPA 8021B	
p,m-Xylene	ND	0.002	mg/L	1	1547018	11/19/15	11/19/15	EPA 8021B	
o-Xylene	ND	0.001	mg/L	1	1547018	11/19/15	11/19/15	EPA 8021B	
Total Xylenes	ND	0.001	mg/L	1	1547018	11/19/15	11/19/15	EPA 8021B	
Total BTEX	ND	0.001	mg/L	1	1547018	11/19/15	11/19/15	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		97.3 %		50-150	1547018	11/19/15	11/19/15	EPA 8021B	
Total Metals by 6010									
Arsenic	ND	0.01	mg/L	1	1548004	11/24/15	11/24/15	EPA 6010C	
Cation/Anion Analysis									
Total Dissolved Solids	1590	10.0	mg/L	1	1547020	11/19/15	11/19/15	160.1/2540C	
Chloride	77.7	20.0	mg/L	10	1547013	11/18/15	11/18/15	EPA 300.0	
Sulfate	ND	20.0	mg/L	10	1547013	11/18/15	11/18/15	EPA 300.0	

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Project Name: Hill 8-2
Project Number: 92270-1399
Project Manager: Isaac Garcia

Reported:
25-Nov-15 13:03

Point of Release
P511036-02 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.002	mg/kg	0.02	1547019	11/19/15	11/19/15	EPA 8021B	
Toluene	ND	0.002	mg/kg	0.02	1547019	11/19/15	11/19/15	EPA 8021B	
Ethylbenzene	ND	0.002	mg/kg	0.02	1547019	11/19/15	11/19/15	EPA 8021B	
p,m-Xylene	ND	0.004	mg/kg	0.02	1547019	11/19/15	11/19/15	EPA 8021B	
o-Xylene	ND	0.002	mg/kg	0.02	1547019	11/19/15	11/19/15	EPA 8021B	
Total Xylenes	ND	0.002	mg/kg	0.02	1547019	11/19/15	11/19/15	EPA 8021B	
Total BTEX	ND	0.002	mg/kg	0.02	1547019	11/19/15	11/19/15	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		101 %		50-150	1547019	11/19/15	11/19/15	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	0.40	mg/kg	0.02	1547019	11/19/15	11/19/15	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1547014	11/18/15	11/18/15	EPA 8015D	
<i>Surrogate: n-Nonane</i>		91.5 %		50-200	1547014	11/18/15	11/18/15	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		91.2 %		50-150	1547019	11/19/15	11/19/15	EPA 8015D	
Total Metals by 6010									
Arsenic	3.38	0.99	mg/kg	1	1547022	11/19/15	11/19/15	EPA 6010C	
Barium	173	9.87	mg/kg	1	1547022	11/19/15	11/19/15	EPA 6010C	
Cadmium	ND	0.99	mg/kg	1	1547022	11/19/15	11/19/15	EPA 6010C	
Chromium	15.8	4.93	mg/kg	1	1547022	11/19/15	11/19/15	EPA 6010C	
Copper	ND	1.97	mg/kg	1	1547022	11/19/15	11/19/15	EPA 6010C	
Lead	12.2	0.99	mg/kg	1	1547022	11/19/15	11/19/15	EPA 6010C	
Mercury	ND	0.99	mg/kg	1	1547022	11/19/15	11/19/15	EPA 6010C	
Nickel	7.18	0.99	mg/kg	1	1547022	11/19/15	11/19/15	EPA 6010C	
Selenium	ND	4.93	mg/kg	1	1547022	11/19/15	11/19/15	EPA 6010C	
Silver	ND	0.99	mg/kg	1	1547022	11/19/15	11/19/15	EPA 6010C	
Zinc	24.5	1.97	mg/kg	1	1547022	11/19/15	11/19/15	EPA 6010C	

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 Aztec NM, 87410

Project Name: Hill 8-2
 Project Number: 92270-1399
 Project Manager: Isaac Garcia

Reported:
 25-Nov-15 13:03

Point of Release
P511036-02 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Cation/Anion Analysis									
pH @21.6°C	8.54		pH Units	1	1547028	11/20/15	11/20/15	EPA 9045D	
Electrical Conductivity	938		umhos/cm	1	1547028	11/20/15	11/20/15	EPA 120.1	
Sodium Absorption Ratio	1.36		N/A	1	1547029	11/20/15	11/20/15	[CALC]	
Calcium	33.1	0.50	mg/L	1	1547025	11/19/15	11/19/15	EPA 6010C	
Magnesium	55.5	0.20	mg/L	1	1547025	11/19/15	11/19/15	EPA 6010C	
Sodium	55.0	2.00	mg/L	1	1547025	11/19/15	11/19/15	EPA 6010C	
Boron-Hot Water Soluble by EPA 6010									
Boron	ND	0.50	mg/L	1	1547023	11/19/15	11/20/15	EPA 6010C	

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 Project Manager: Isaac Garcia

Reported:
 25-Nov-15 13:03

Volatile Organics by EPA 8021 - Quality Control
Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1547018 - Purge and Trap EPA 5030A
Blank (1547018-BLK1)

Prepared & Analyzed: 19-Nov-15

Benzene	ND	0.001	mg/L							
Toluene	ND	0.001	"							
Ethylbenzene	ND	0.001	"							
p,m-Xylene	ND	0.002	"							
o-Xylene	ND	0.001	"							
Total Xylenes	ND	0.001	"							
Total BTEX	ND	0.001	"							

Surrogate: 4-Bromochlorobenzene-PID	0.161		"	0.160		101	50-150
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LCS (1547018-BS1)

Prepared & Analyzed: 19-Nov-15

Benzene	0.10	0.001	mg/L	0.100		95.8	70-130
Toluene	0.09	0.001	"	0.100		93.0	70-130
Ethylbenzene	0.09	0.001	"	0.100		92.0	70-130
p,m-Xylene	0.18	0.002	"	0.200		91.7	70-130
o-Xylene	0.09	0.001	"	0.100		89.5	70-130

Surrogate: 4-Bromochlorobenzene-PID	0.158		"	0.160		99.0	50-150
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Matrix Spike (1547018-MS1)

Source: P511036-01

Prepared & Analyzed: 19-Nov-15

Benzene	0.10	0.001	mg/L	0.100	ND	102	54.3-133
Toluene	0.10	0.001	"	0.100	ND	99.7	61.4-130
Ethylbenzene	0.10	0.001	"	0.100	ND	98.3	61.4-133
p,m-Xylene	0.20	0.002	"	0.200	ND	98.0	63.3-131
o-Xylene	0.10	0.001	"	0.100	ND	96.9	63.3-131

Surrogate: 4-Bromochlorobenzene-PID	0.155		"	0.160		97.0	50-150
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Matrix Spike Dup (1547018-MSD1)

Source: P511036-01

Prepared & Analyzed: 19-Nov-15

Benzene	0.10	0.001	mg/L	0.100	ND	101	54.3-133	0.966	20
Toluene	0.10	0.001	"	0.100	ND	98.6	61.4-130	1.13	20
Ethylbenzene	0.10	0.001	"	0.100	ND	97.1	61.4-133	1.16	20
p,m-Xylene	0.19	0.002	"	0.200	ND	97.0	63.3-131	1.04	20
o-Xylene	0.10	0.001	"	0.100	ND	96.2	63.3-131	0.731	20

Surrogate: 4-Bromochlorobenzene-PID	0.165		"	0.160		103	50-150
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Project Name: Hill 8-2
Project Number: 92270-1399
Project Manager: Isaac Garcia

Reported:
25-Nov-15 13:03

Volatile Organics by EPA 8021 - Quality Control
Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1547019 - Purge and Trap EPA 5030A
Blank (1547019-BLK1)

Prepared & Analyzed: 19-Nov-15

Benzene	ND	0.10	mg/kg
Toluene	ND	0.10	"
Ethylbenzene	ND	0.10	"
p,m-Xylene	ND	0.20	"
o-Xylene	ND	0.10	"
Total Xylenes	ND	0.10	"
Total BTEX	ND	0.10	"

Surrogate: 4-Bromochlorobenzene-PID 0.322 " 0.320 101 50-150

LCS (1547019-BS1)

Prepared & Analyzed: 19-Nov-15

Benzene	11.9	0.10	mg/kg	10.0		119	70-130
Toluene	11.7	0.10	"	10.0		117	70-130
Ethylbenzene	11.7	0.10	"	10.0		117	70-130
p,m-Xylene	23.2	0.20	"	20.0		116	70-130
o-Xylene	11.3	0.10	"	10.0		113	70-130

Surrogate: 4-Bromochlorobenzene-PID 0.323 " 0.320 101 50-150

Matrix Spike (1547019-MS1)

Source: P511036-02

Prepared & Analyzed: 19-Nov-15

Benzene	11.4	0.10	mg/kg	10.0	ND	114	54.3-133
Toluene	11.2	0.10	"	10.0	ND	112	61.4-130
Ethylbenzene	11.2	0.10	"	10.0	ND	112	61.4-133
p,m-Xylene	22.2	0.20	"	20.0	ND	111	63.3-131
o-Xylene	10.9	0.10	"	10.0	ND	109	63.3-131

Surrogate: 4-Bromochlorobenzene-PID 0.327 " 0.320 102 50-150

Matrix Spike Dup (1547019-MSD1)

Source: P511036-02

Prepared & Analyzed: 19-Nov-15

Benzene	11.0	0.10	mg/kg	10.0	ND	110	54.3-133	3.89	20
Toluene	10.7	0.10	"	10.0	ND	107	61.4-130	4.11	20
Ethylbenzene	10.6	0.10	"	10.0	ND	106	61.4-133	5.01	20
p,m-Xylene	21.2	0.20	"	20.0	ND	106	63.3-131	4.80	20
o-Xylene	10.5	0.10	"	10.0	ND	105	63.3-131	3.37	20

Surrogate: 4-Bromochlorobenzene-PID 0.325 " 0.320 101 50-150

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Chevron
 322 Road 3100
 Aztec NM, 87410

 Project Name: Hill 8-2
 Project Number: 92270-1399
 Project Manager: Isaac Garcia

Reported:
 25-Nov-15 13:03

Nonhalogenated Organics by 8015 - Quality Control
Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1547014 - DRO Extraction EPA 3550M
Blank (1547014-BLK1)

Prepared & Analyzed: 18-Nov-15

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
<i>Surrogate: n-Nonane</i>	<i>47.4</i>		<i>"</i>	<i>50.0</i>		<i>94.7</i>	<i>50-200</i>			

LCS (1547014-BS1)

Prepared & Analyzed: 18-Nov-15

Diesel Range Organics (C10-C28)	451	25.0	mg/kg	500		90.1	38-132			
<i>Surrogate: n-Nonane</i>	<i>45.5</i>		<i>"</i>	<i>50.0</i>		<i>90.9</i>	<i>50-200</i>			

Matrix Spike (1547014-MS1)
Source: P511036-02

Prepared & Analyzed: 18-Nov-15

Diesel Range Organics (C10-C28)	442	25.0	mg/kg	500	ND	88.3	38-132			
<i>Surrogate: n-Nonane</i>	<i>42.9</i>		<i>"</i>	<i>50.0</i>		<i>85.9</i>	<i>50-200</i>			

Matrix Spike Dup (1547014-MSD1)
Source: P511036-02

Prepared & Analyzed: 18-Nov-15

Diesel Range Organics (C10-C28)	440	25.0	mg/kg	500	ND	88.1	38-132	0.288	20	
<i>Surrogate: n-Nonane</i>	<i>42.4</i>		<i>"</i>	<i>50.0</i>		<i>84.9</i>	<i>50-200</i>			

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 Aztec NM, 87410

 Project Name: Hill 8-2
 Project Number: 92270-1399
 Project Manager: Isaac Garcia

Reported:
 25-Nov-15 13:03

Nonhalogenated Organics by 8015 - Quality Control
Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1547019 - Purge and Trap EPA 5030A
Blank (1547019-BLK1)

Prepared & Analyzed: 19-Nov-15

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg							
Surrogate: 1-Chloro-4-fluorobenzene-FID	0.279		"	0.320		87.2	50-150			

LCS (1547019-BS1)

Prepared & Analyzed: 19-Nov-15

Gasoline Range Organics (C6-C10)	118	20.0	mg/kg	106		111	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	0.282		"	0.320		88.2	50-150			

Matrix Spike (1547019-MS1)

Source: P511036-02

Prepared & Analyzed: 19-Nov-15

Gasoline Range Organics (C6-C10)	119	20.0	mg/kg	106	ND	112	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	0.299		"	0.320		93.4	50-150			

Matrix Spike Dup (1547019-MSD1)

Source: P511036-02

Prepared & Analyzed: 19-Nov-15

Gasoline Range Organics (C6-C10)	110	20.0	mg/kg	106	ND	104	70-130	7.79	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	0.286		"	0.320		89.3	50-150			

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Chevron
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 Project Name: Hill 8-2
 Project Number: 92270-1399
 Project Manager: Isaac Garcia

Reported:
 25-Nov-15 13:03

Total Metals by 6010 - Quality Control
Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1547022 - Metal Solid Digestion EPA 3051A
Blank (1547022-BLK1)

Prepared: 19-Nov-15 Analyzed: 20-Nov-15

Arsenic	ND	1.00	mg/kg
Barium	ND	10.0	"
Cadmium	ND	1.00	"
Chromium	ND	5.00	"
Copper	ND	2.00	"
Lead	ND	1.00	"
Mercury	ND	1.00	"
Nickel	ND	1.00	"
Selenium	ND	5.00	"
Silver	ND	1.00	"
Zinc	ND	2.00	"

LCS (1547022-BS1)

Prepared & Analyzed: 19-Nov-15

Arsenic	24.5	1.00	mg/kg	25.0	98.1	80-120
Barium	528	10.0	"	500	106	80-120
Cadmium	24.8	1.00	"	25.0	99.3	80-120
Chromium	47.0	5.00	"	50.0	94.0	80-120
Copper	48.6	2.00	"	50.0	97.1	80-120
Lead	49.2	1.00	"	50.0	98.3	80-120
Mercury	10.6	1.00	"	10.0	106	80-120
Nickel	49.2	1.00	"	50.0	98.4	80-120
Selenium	9.37	5.00	"	10.0	93.7	80-120
Silver	9.39	1.00	"	10.0	93.9	80-120
Zinc	49.0	2.00	"	50.0	98.0	80-120

Matrix Spike (1547022-MS1)

Source: P511036-02

Prepared & Analyzed: 19-Nov-15

Arsenic	26.6	1.00	mg/kg	25.0	3.38	93.1	75-125
Barium	698	9.98	"	499	173	105	75-125
Cadmium	23.7	1.00	"	25.0	ND	95.0	75-125
Chromium	59.7	4.99	"	49.9	15.8	87.9	75-125
Copper	48.6	2.00	"	49.9	ND	97.4	75-125
Lead	59.6	1.00	"	49.9	12.2	95.1	75-125
Mercury	10.1	1.00	"	9.98	ND	101	75-125
Nickel	55.3	1.00	"	49.9	7.18	96.4	75-125
Selenium	9.25	4.99	"	9.98	ND	92.6	75-125
Silver	8.58	1.00	"	9.98	ND	85.9	75-125
Zinc	71.2	2.00	"	49.9	24.5	93.7	75-125

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Chevron
 322 Road 3100
 Aztec NM, 87410

Project Name: Hill 8-2
 Project Number: 92270-1399
 Project Manager: Isaac Garcia

Reported:
 25-Nov-15 13:03

Total Metals by 6010 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1547022 - Metal Solid Digestion EPA 3051A

Matrix Spike Dup (1547022-MSD1)	Source: P511036-02			Prepared & Analyzed: 19-Nov-15						
Arsenic	25.9	0.99	mg/kg	24.7	3.38	91.4	75-125	2.57	20	
Barium	673	9.87	"	494	173	101	75-125	3.77	20	
Cadmium	23.3	0.99	"	24.7	ND	94.6	75-125	1.60	20	
Chromium	60.8	4.94	"	49.4	15.8	91.2	75-125	1.87	20	
Copper	47.6	1.97	"	49.4	ND	96.4	75-125	2.20	20	
Lead	59.0	0.99	"	49.4	12.2	94.9	75-125	1.06	20	
Mercury	9.86	0.99	"	9.87	ND	99.9	75-125	1.93	20	
Nickel	54.1	0.99	"	49.4	7.18	95.0	75-125	2.20	20	
Selenium	9.05	4.94	"	9.87	ND	91.7	75-125	2.11	20	
Silver	8.97	0.99	"	9.87	ND	90.9	75-125	4.53	20	
Zinc	70.8	1.97	"	49.4	24.5	93.8	75-125	0.698	20	

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Project Name: Hill 8-2
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 Project Manager: Isaac Garcia

Reported:
 25-Nov-15 13:03

Total Metals by 6010 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1548004 - Metal Water/TCLP (EPA 1311) Digestion EPA 3015A

Blank (1548004-BLK1)

Prepared: 23-Nov-15 Analyzed: 25-Nov-15

Arsenic	ND	0.01	mg/L
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LCS (1548004-BS1)

Prepared: 23-Nov-15 Analyzed: 25-Nov-15

Arsenic	0.25	0.01	mg/L	0.278	91.6	80-120
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Matrix Spike (1548004-MS1)

Source: P511045-01

Prepared: 23-Nov-15 Analyzed: 25-Nov-15

Arsenic	0.27	0.01	mg/L	0.278	ND	95.8	75-125
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Matrix Spike Dup (1548004-MSD1)

Source: P511045-01

Prepared: 23-Nov-15 Analyzed: 25-Nov-15

Arsenic	0.26	0.01	mg/L	0.278	ND	95.2	75-125	0.628	20
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Chevron
 322 Road 3100
 Aztec NM, 87410

 Project Name: Hill 8-2
 Project Number: 92270-1399
 Project Manager: Isaac Garcia

Reported:
 25-Nov-15 13:03

Cation/Anion Analysis - Quality Control
Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch 1547013 - Anion Extraction EPA 300.0
Blank (1547013-BLK1)

Prepared & Analyzed: 18-Nov-15

Chloride	ND	2.00	mg/L							
Sulfate	ND	2.00	"							

LCS (1547013-BS1)

Prepared & Analyzed: 18-Nov-15

Chloride	48.6	2.00	mg/L	50.0		97.1	90-110			
Sulfate	47.2	2.00	"	50.0		94.5	90-110			

Matrix Spike (1547013-MS1)

Source: P511036-01

Prepared & Analyzed: 18-Nov-15

Chloride	571	20.0	mg/L	500	77.7	98.6	80-120			
Sulfate	475	20.0	"	500	ND	95.0	80-120			

Matrix Spike Dup (1547013-MSD1)

Source: P511036-01

Prepared & Analyzed: 18-Nov-15

Chloride	570	20.0	mg/L	500	77.7	98.6	80-120	0.0473	20	
Sulfate	475	20.0	"	500	ND	95.0	80-120	0.0211	20	

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Chevron
 322 Road 3100
 Aztec NM, 87410

 Project Name: Hill 8-2
 Project Number: 92270-1399
 Project Manager: Isaac Garcia

Reported:
 25-Nov-15 13:03

Boron-Hot Water Soluble by EPA 6010 - Quality Control
Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1547023 - Boron HW Soluble Digestion
Blank (1547023-BLK1)

Prepared: 19-Nov-15 Analyzed: 20-Nov-15

Boron ND 0.50 mg/L

LCS (1547023-BS1)

Prepared: 19-Nov-15 Analyzed: 20-Nov-15

Boron 0.50 mg/L 0.500 99.5 80-120

Duplicate (1547023-DUP1)
Source: P511036-02

Prepared: 19-Nov-15 Analyzed: 20-Nov-15

Boron ND 0.50 mg/L ND 20

Matrix Spike (1547023-MS1)
Source: P511036-02

Prepared: 19-Nov-15 Analyzed: 20-Nov-15

Boron 0.60 mg/L 0.500 0.08 103 75-125

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Chevron
322 Road 3100
Aztec NM, 87410

Project Name: Hill 8-2
Project Number: 92270-1399
Project Manager: Isaac Garcia

Reported:
25-Nov-15 13:03

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

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Page 16 of 28

Client: Chevron
 Project: Hill 8-2
 Sampler: E. Garcia
 Phone: _____
 Email(s): Isaac G.
 Project Manager: Greg Crabtree

RUSH?

☒ 1d
☐ 3d

Lab Use Only		Analysis and Method						Lab Only		
Lab WO#		GRO/DRO by 8015	BTEX by 8021	TPH by 418.1	Chloride by 300.0	C.O. 910 Table	Hold	Total As per Isaac 11/24/15	Lab Number	Correct Cont/Prsv (s) Y/N
Job Number										
P 5110 36										
92270-1399										

Page 1 of 1

Sample ID	Sample Date	Sample Time	Matrix	Containers QTY - Vol/TYPE/Preservative	GRO/DRO by 8015	BTEX by 8021	TPH by 418.1	Chloride by 300.0	C.O. 910 Table	Hold	Total As per Isaac 11/24/15	Lab Number	Correct Cont/Prsv (s) Y/N
Pipe line leak	11/17/15	2:18	A	(4 VOA / HCl)					X			1	Y
Pipe line leak	11/17/15	2:18	A	(2-250/poly/cool)					X		X	2	Y
Point of Release	11/17/15	2:25	S	2-402/G/cool					X			3	Y
Background	11/17/15	2:31	S	2-402/G/cool						X		4	Y

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Lab Use Only	
	11/17/15	1657		11/17/15	1657	**Received on Ice Y/N T1 12.4 T2 13.3 T3 17.3 AVG Temp °C 14.3	
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time		

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other _____ Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

**Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

☐ Sample(s) dropped off after hours to a secure drop off area.

Chain of Custody

Notes/Billing info:



5795 US Highway 64, Farmington, NM 87401
 Three Springs - 65 Mercado Street, Suite 115, Durango, CO 81301

Ph (505) 632-0615 Fx (505) 632-1865
 Ph (970) 259-0615 Fx (800) 362-1879

envirotech-linc.com
 lab@envirotech-linc.com

EnviroTech- NM

Sample Delivery Group: L802079
Samples Received: 11/19/2015
Project Number: 92270-1399
Description: Hill 8-2
Site: P511036
Report To: Tim Cain and Lynn Cook
5796 US. Highway 64
Farmington, NM 87401

Entire Report Reviewed By:



Daphne Richards
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.



¹ Cp: Cover Page	1	¹ Cp
² Tc: Table of Contents	2	² Tc
³ Ss: Sample Summary	3	
⁴ Cn: Case Narrative	4	³ Ss
⁵ Sr: Sample Results	5	⁴ Cn
POINT OF RELEASE L802079-01	5	
⁶ Qc: Quality Control Summary	6	⁵ Sr
Total Solids by Method 2540 G-2011	6	
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	7	⁶ Qc
⁷ Gl: Glossary of Terms	9	⁷ Gl
⁸ Al: Accreditations & Locations	10	
⁹ Sc: Chain of Custody	11	⁸ Al
		⁹ Sc



POINT OF RELEASE L802079-01 Solid

Collected by
I. GarciaCollected date/time
11/17/15 14:25Received date/time
11/19/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG830332	1	11/20/15 00:51	11/20/15 11:18	KMP
Total Solids by Method 2540 G-2011	WG830379	1	11/19/15 17:58	11/20/15 10:35	KDW

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. 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.

Daphne Richards
Technical Service Representative

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	74.9		1	11/20/2015 10:35	WG830379

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

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Anthracene	ND		0.00802	1	11/20/2015 11:18	WG830332
Acenaphthene	ND		0.00802	1	11/20/2015 11:18	WG830332
Acenaphthylene	ND		0.00802	1	11/20/2015 11:18	WG830332
Benzo(a)anthracene	ND		0.00802	1	11/20/2015 11:18	WG830332
Benzo(a)pyrene	ND		0.00802	1	11/20/2015 11:18	WG830332
Benzo(b)fluoranthene	ND		0.00802	1	11/20/2015 11:18	WG830332
Benzo(g,h,i)perylene	ND		0.00802	1	11/20/2015 11:18	WG830332
Benzo(k)fluoranthene	ND		0.00802	1	11/20/2015 11:18	WG830332
Chrysene	ND		0.00802	1	11/20/2015 11:18	WG830332
Dibenz(a,h)anthracene	ND		0.00802	1	11/20/2015 11:18	WG830332
Fluoranthene	ND		0.00802	1	11/20/2015 11:18	WG830332
Fluorene	ND		0.00802	1	11/20/2015 11:18	WG830332
Indeno(1,2,3-cd)pyrene	ND		0.00802	1	11/20/2015 11:18	WG830332
Naphthalene	ND		0.0267	1	11/20/2015 11:18	WG830332
Phenanthrene	ND		0.00802	1	11/20/2015 11:18	WG830332
Pyrene	ND		0.00802	1	11/20/2015 11:18	WG830332
1-Methylnaphthalene	ND		0.0267	1	11/20/2015 11:18	WG830332
2-Methylnaphthalene	ND		0.0267	1	11/20/2015 11:18	WG830332
2-Chloronaphthalene	ND		0.0267	1	11/20/2015 11:18	WG830332
(S) Nitrobenzene-d5	81.6		22.1-146		11/20/2015 11:18	WG830332
(S) 2-Fluorobiphenyl	84.1		40.6-122		11/20/2015 11:18	WG830332
(S) p-Terphenyl-d14	72.5		32.2-131		11/20/2015 11:18	WG830332

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) 11/20/15 10:33

	MB Result	<u>MB Qualifier</u>	MB RDL
Analyte	%		%
Total Solids	0.00120		

L801833-03 Original Sample (OS) • Duplicate (DUP)

(OS) 11/20/15 10:33 • (DUP) 11/20/15 10:33

	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Analyte	%	%		%		%
Total Solids	83.7	83.4	1	0.330		5

Laboratory Control Sample (LCS)

(LCS) 11/20/15 10:33

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

 ${}^1\text{Cp}$ ${}^2\text{Tc}$
$3S_s$
 ${}^4\text{Cn}$ ${}^5\text{Sr}$ ${}^6\text{Qc}$ ⁷Gl ${}^8\text{Al}$ ${}^9\text{Sc}$

Method Blank (MB)

(MB) 11/20/15 06:10

Analyte	MB Result mg/kg	MB Qualifier	MB RDL mg/kg
Anthracene	ND		0.00600
Acenaphthene	ND		0.00600
Acenaphthylene	ND		0.00600
Benzo(a)anthracene	ND		0.00600
Benzo(a)pyrene	ND		0.00600
Benzo(b)fluoranthene	ND		0.00600
Benzo(g,h,i)perylene	ND		0.00600
Benzo(k)fluoranthene	ND		0.00600
Chrysene	ND		0.00600
Dibenz(a,h)anthracene	ND		0.00600
Fluoranthene	ND		0.00600
Fluorene	ND		0.00600
Indeno(1,2,3-cd)pyrene	ND		0.00600
Naphthalene	ND		0.0200
Phenanthrene	ND		0.00600
Pyrene	ND		0.00600
1-Methylnaphthalene	ND		0.0200
2-Methylnaphthalene	ND		0.0200
2-Chloronaphthalene	ND		0.0200
(S) p-Terphenyl-d14	80.9		32.2-131
(S) Nitrobenzene-d5	79.5		22.1-146
(S) 2-Fluorobiphenyl	80.6		40.6-122

1

Cp

2

Tc

3

Ss

4

Cn

5

Sr

6

Qc

7

Gl

8

Al

9

Sc

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

(LCS) 11/20/15 05:15 • (LCSD) 11/20/15 05:43

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	0.0694	0.0727	86.7	90.9	50.3-130			4.71	20
Acenaphthene	0.0800	0.0628	0.0651	78.5	81.4	52.4-120			3.59	20
Acenaphthylene	0.0800	0.0664	0.0690	83.0	86.3	49.6-120			3.91	20
Benzo(a)anthracene	0.0800	0.0667	0.0703	83.3	87.8	46.7-125			5.23	20
Benzo(a)pyrene	0.0800	0.0684	0.0704	85.6	88.0	42.3-119			2.80	20
Benzo(b)fluoranthene	0.0800	0.0687	0.0690	85.9	86.2	43.6-124			0.380	20
Benzo(g,h,i)perylene	0.0800	0.0645	0.0667	80.6	83.4	45.1-132			3.45	20
Benzo(k)fluoranthene	0.0800	0.0628	0.0671	78.5	83.8	46.1-131			6.53	20

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

(LCS) 11/20/15 05:15 • (LCSD) 11/20/15 05:43

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 %
Chrysene	0.0800	0.0673	0.0694	84.1	86.8	49.5-131			3.08	20
Dibenz(a,h)anthracene	0.0800	0.0673	0.0695	84.2	86.8	44.8-133			3.13	20
Fluoranthene	0.0800	0.0702	0.0745	87.7	93.1	49.3-128			6.00	20
Fluorene	0.0800	0.0650	0.0672	81.2	84.0	50.6-121			3.43	20
Indeno(1,2,3-cd)pyrene	0.0800	0.0668	0.0695	83.6	86.9	46.1-135			3.93	20
Naphthalene	0.0800	0.0617	0.0644	77.2	80.5	49.6-115			4.26	20
Phenanthrene	0.0800	0.0638	0.0661	79.7	82.7	48.8-121			3.68	20
Pyrene	0.0800	0.0653	0.0685	81.7	85.6	44.7-130			4.74	20
1-Methylnaphthalene	0.0800	0.0644	0.0667	80.5	83.4	50.6-122			3.50	20
2-Methylnaphthalene	0.0800	0.0643	0.0665	80.4	83.1	50.4-120			3.31	20
2-Chloronaphthalene	0.0800	0.0643	0.0663	80.4	82.9	53.9-121			3.05	20
(S) p-Terphenyl-d14				72.4	76.8	32.2-131				
(S) Nitrobenzene-d5				76.6	80.6	22.1-146				
(S) 2-Fluorobiphenyl				77.6	81.2	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,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.
SDL	Sample Detection Limit.
MQL	Method Quantitation Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.

Qualifier	Description
-----------	-------------

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ 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**.

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		

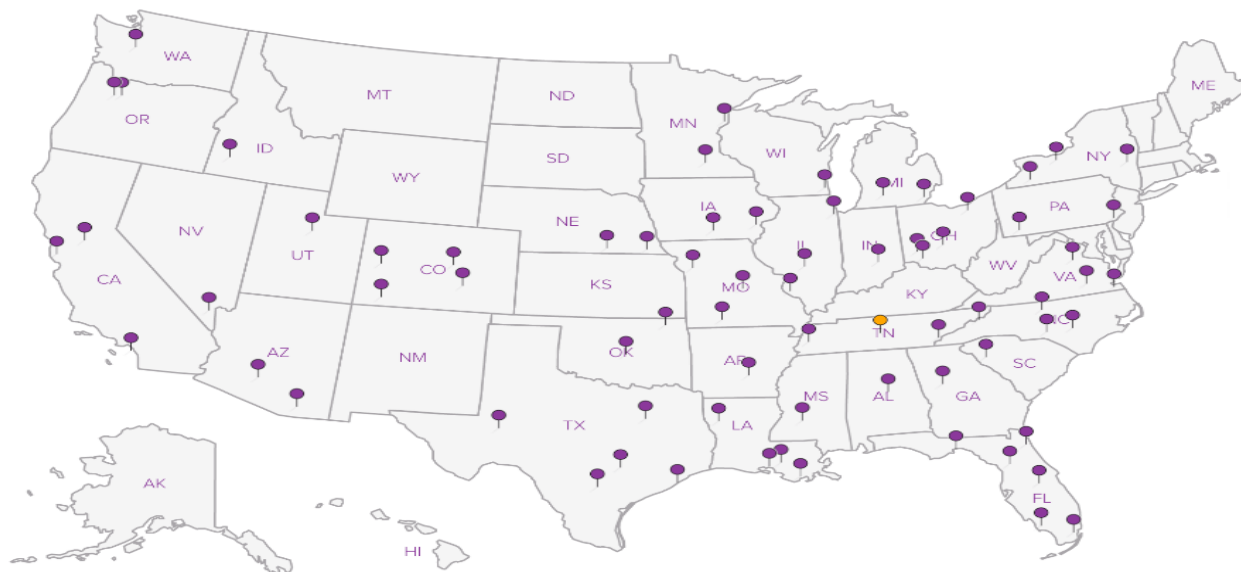
Third Party & Federal Accreditations

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.**



Company Name/Address: Envirotech Inc. -NM 5796 US Highway 64 Farmington, NM 87401				Billing Information: Accounts Payable 5796 US Highway 64 Farmington, NM 87401				Analysis / Container / Preservative <div style="display: flex; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg); padding: 5px;">PAH Sim by 8270/4oz jar / cool</div> <table border="1" style="width: 100%; height: 100px;"> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </table> </div>																														Chain of Custody Page 1 of 1	
Report to: Lynn Cook & Tim Cain				Email To: Lynn Cook & Tim Cain																																			
Project Description: Hill 8-2				City/State Collected:																																			
Phone: Fax:		Client Project # 92270-1399		Lab Project #																																			
Collected by (print): I. Garcia		Site/Facility ID # P511034		P.O. # 142780																																			
Collected by (signature): Immediately Packed on Ice N <input type="checkbox"/> Y <input type="checkbox"/>		Rush? (Lab MUST Be Notified) <input checked="" type="checkbox"/> Same Day200% <input checked="" type="checkbox"/> Next Day100% <input type="checkbox"/> Two Day50% <input type="checkbox"/> Three Day25%		Date Results Needed Email? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes FAX? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes																																			
Sample ID		Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	<div style="display: flex; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg); padding: 5px;">PAH Sim by 8270/4oz jar / cool</div> <table border="1" style="width: 100%; height: 100px;"> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </table> </div>																															
Point of Release			S		11-17-15	14:25	1																																
* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other _____								pH _____ Temp _____																															
Remarks: 6309 3737 7905								Flow _____ Other _____																															
Relinquished by : (Signature) 		Date: 11-18-15	Time: 15:05	Received by: (Signature)		Samples returned via: <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> Courier <input type="checkbox"/> _____		Condition: (lab use only) 7f OK																															
Relinquished by : (Signature)		Date:	Time:	Received by: (Signature)		Temp: 3.8 °C Bottles Received: 1		COC Seal Intact: <input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA																															
Relinquished by : (Signature)		Date:	Time:	Received for lab by: (Signature) 		Date: 11-19-18 Time: 0900		pH Checked: NCF:																															