

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Form C-141
Revised August 8, 2011

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Submit 1 Copy to appropriate District Office to
accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company Burlington Resources Oil & Gas Company	Contact Lisa Hunter	
Address 3401 East 30th St, Farmington, NM	Telephone No. (505) 258-1607	
Facility Name: San Juan 28-6 Unit 155N	Facility Type: Gas	
Surface Owner: BLM	Mineral Owner: SF-079050-C	API No. 3003927601

LOCATION OF RELEASE

Unit Letter E	Section 28	Township 28N	Range 06W	Feet from the 2420'	North/South Line FNL	Feet from the 80'	East/West Line FWL	County OIL CONSERVATION DIV DIST. 3
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Latitude **36.63311** Longitude **-107.48151**

SEP 22 2016

NATURE OF RELEASE

Type of Release Hydrocarbon	Volume of Release 186 bbls	Volume Recovered 0
Source of Release corroded hole in production tank	Date and Hour of Occurrence Unknown	Date and Hour of Discovery 1/27/2015 @ 10:15 AM
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Shari Ketcham(BLM) and Cory Smith (OCD) on 1/27/2015 @ 3:00pm	
By Whom?	Date and Hour	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.* Weld on production tank was found leaking on the 2" plugged coupling located below load line. The drain line to pit was open to drain remaining fluid from tank. Well was shut in.

Describe Area Affected and Cleanup Action Taken.*

ConocoPhillips excavated an area 64 ft x 71 ft x 19 ft deep terminating at sandstone in January 2015. 2100 cy of impacted soil was removed for offsite disposal. Sidewall and bottom samples were laboratory analyzed for BTEX and TPH on February 17, 2015. Sidewall samples were below NMOCD screening levels (50 ppm BTEX/100ppm TPH), however the bottom sample was in excess of the standards for both BTEX and TPH. On April 30, 2015, a bottom 5-point composite resample was analyzed below the NMOCD standards. February 12, 2016, six discriminate base samples at a 6-8 inch depth were collected from the base per BLM request, with the highest lab results at 350ppm TPH and .31ppm BTEX. Additional site assessment was required by BLM, and in April 2016 six borings were cored into the sandstone from the bottom of the 19 ft deep excavation. The screening levels were achieved for total BTEX (<50 mg/kg) and total TPH (<100 mg/kg) in five of the six borings within 5 to 15 ft (24 to 39 ft below site grade). One boring achieved below standard concentrations at a total depth of 59 ft below site grade (40 ft from bottom of excavation). In May 2016, the excavation was backfilled and additional soil borings were advanced in the southwest corner of the former excavation to delineate lateral extent in the area of the deep core hole. In June 2016, five additional borings were drilled/cored to depths of from 32 to 42.5 feet below site grade. Bottom samples from these borings were laboratory analyzed for BTEX and TPH and all constituents were below NMOCD screening levels. Groundwater is estimated based on local well data to be in excess of 200 ft below site grade. COPC believes remediation has reached the maximum depth and horizontal extent practicable & any residual contaminants do not pose a present or foreseeable threat or an environmental risk to fresh water, humans or animals. No further action is recommended for the site.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: 	OIL CONSERVATION DIVISION	
Printed Name: Lisa Hunter	Approved by Environmental Specialist: 	
Title: Field Environmental Specialist	Approval Date: 11/9/17	Expiration Date: —
E-mail Address: Lisa.Hunter@cop.com	Conditions of Approval: No Further Action Rec At this Time	Attached <input checked="" type="checkbox"/>
Date: 09/13/2016	Phone: (505) 258-1607	

* Attach Additional Sheets If Necessary

3R-1030

See Attached.

#NCS 1507249715

(133)

State of New Mexico
Energy, Minerals and Natural Resources Department

Susana Martinez
Governor

Ken McQueen
Cabinet Secretary

Matthias Sayer
Deputy Cabinet Secretary

David R. Catanach, Division Director
Oil Conservation Division



January 9, 2017

Re: No Further Action Request
Well: San Juan 28-6 #155N, 30-039-27601, Section 28, Township 28N, Range 6W

Mr. Crouch,

The Oil Conservation Division (OCD) has reviewed ConocoPhillips (COPC) request for No Further Action at the San Juan 28-6 #155N that was requested on a Final C-141 received September 22, 2016 as well as a copy of a Human and Ecological Risk Assessment received on September 6, 2016.

The OCD has approved COPC request for alternative closure standards and no further action is required.

The acceptance of the "final" C-141 does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to ground water, surface water, human health or the environment. In addition, the OCD acceptance of the final C-141 report does not relieve the operator of responsibility for compliance with any other federal, state or local laws/or regulations.

If you have additional questions, please feel free to call me at 505-334-6178 Ext. 115.

Sincerely,

Cory Smith
Environmental Specialist
Energy, Minerals, & Natural Resources Department
Oil Conservation Division
1000 Rio Brazos Rd, Aztec, NM 87410
cory.smith@state.nm.us



*Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com*

February 20, 2015

Emilee Skyles
Animas Environmental
604 Pinon Street
Farmington, NM 87401
TEL: (505) 564-2281
FAX

RE: COP SJ 28-6 #155N

OrderNo.: 1502720

Dear Emilee Skyles:

Hall Environmental Analysis Laboratory received 5 sample(s) on 2/18/2015 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1502720

Date Reported: 2/20/2015

CLIENT: Animas Environmental

Client Sample ID: SC-1

Project: COP SJ 28-6 #155N

Collection Date: 2/17/2015 2:10:00 PM

Lab ID: 1502720-001

Matrix: MEOH (SOIL)

Received Date: 2/18/2015 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	2/18/2015 10:22:52 AM	17795
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	2/18/2015 10:22:52 AM	17795
Surr: DNOP	99.8	63.5-128		%REC	1	2/18/2015 10:22:52 AM	17795
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.2		mg/Kg	1	2/18/2015 10:19:26 AM	R24377
Surr: BFB	99.3	80-120		%REC	1	2/18/2015 10:19:26 AM	R24377
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.032		mg/Kg	1	2/18/2015 10:19:26 AM	R24377
Toluene	ND	0.032		mg/Kg	1	2/18/2015 10:19:26 AM	R24377
Ethylbenzene	ND	0.032		mg/Kg	1	2/18/2015 10:19:26 AM	R24377
Xylenes, Total	ND	0.064		mg/Kg	1	2/18/2015 10:19:26 AM	R24377
Surr: 4-Bromofluorobenzene	100	80-120		%REC	1	2/18/2015 10:19:26 AM	R24377

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1502720

Date Reported: 2/20/2015

CLIENT: Animas Environmental

Client Sample ID: SC-2

Project: COP SJ 28-6 #155N

Collection Date: 2/17/2015 12:30:00 PM

Lab ID: 1502720-002

Matrix: MEOH (SOIL)

Received Date: 2/18/2015 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	2/18/2015 10:49:56 AM	17795
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	2/18/2015 10:49:56 AM	17795
Surr: DNOP	103	63.5-128		%REC	1	2/18/2015 10:49:56 AM	17795
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	2/18/2015 10:48:11 AM	R24377
Surr: BFB	94.2	80-120		%REC	1	2/18/2015 10:48:11 AM	R24377
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.038		mg/Kg	1	2/18/2015 10:48:11 AM	R24377
Toluene	ND	0.038		mg/Kg	1	2/18/2015 10:48:11 AM	R24377
Ethylbenzene	ND	0.038		mg/Kg	1	2/18/2015 10:48:11 AM	R24377
Xylenes, Total	ND	0.076		mg/Kg	1	2/18/2015 10:48:11 AM	R24377
Surr: 4-Bromofluorobenzene	102	80-120		%REC	1	2/18/2015 10:48:11 AM	R24377

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 2 of 9
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1502720

Date Reported: 2/20/2015

CLIENT: Animas Environmental

Client Sample ID: SC-3

Project: COP SJ 28-6 #155N

Collection Date: 2/17/2015 12:35:00 PM

Lab ID: 1502720-003

Matrix: MEOH (SOIL)

Received Date: 2/18/2015 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	2/18/2015 11:16:47 AM	17795
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	2/18/2015 11:16:47 AM	17795
Surr: DNOP	105	63.5-128		%REC	1	2/18/2015 11:16:47 AM	17795
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.4		mg/Kg	1	2/18/2015 11:16:53 AM	R24377
Surr: BFB	91.9	80-120		%REC	1	2/18/2015 11:16:53 AM	R24377
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.044		mg/Kg	1	2/18/2015 11:16:53 AM	R24377
Toluene	ND	0.044		mg/Kg	1	2/18/2015 11:16:53 AM	R24377
Ethylbenzene	ND	0.044		mg/Kg	1	2/18/2015 11:16:53 AM	R24377
Xylenes, Total	ND	0.088		mg/Kg	1	2/18/2015 11:16:53 AM	R24377
Surr: 4-Bromofluorobenzene	99.5	80-120		%REC	1	2/18/2015 11:16:53 AM	R24377

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 3 of 9
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Analytical ReportLab Order **1502720**Date Reported: **2/20/2015****Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Animas Environmental**Client Sample ID:** SC-4**Project:** COP SJ 28-6 #155N**Collection Date:** 2/17/2015 2:00:00 PM**Lab ID:** 1502720-004**Matrix:** MEOH (SOIL)**Received Date:** 2/18/2015 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	2/18/2015 11:43:46 AM	17795
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	2/18/2015 11:43:46 AM	17795
Surr: DNOP	110	63.5-128		%REC	1	2/18/2015 11:43:46 AM	17795
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.1		mg/Kg	1	2/18/2015 11:45:37 AM	R24377
Surr: BFB	93.0	80-120		%REC	1	2/18/2015 11:45:37 AM	R24377
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.031		mg/Kg	1	2/18/2015 11:45:37 AM	R24377
Toluene	ND	0.031		mg/Kg	1	2/18/2015 11:45:37 AM	R24377
Ethylbenzene	ND	0.031		mg/Kg	1	2/18/2015 11:45:37 AM	R24377
Xylenes, Total	ND	0.062		mg/Kg	1	2/18/2015 11:45:37 AM	R24377
Surr: 4-Bromofluorobenzene	100	80-120		%REC	1	2/18/2015 11:45:37 AM	R24377

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Analytical Report

Lab Order 1502720

Date Reported: 2/20/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental

Client Sample ID: SC-5

Project: COP SJ 28-6 #155N

Collection Date: 2/17/2015 12:45:00 PM

Lab ID: 1502720-005

Matrix: MEOH (SOIL)

Received Date: 2/18/2015 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	640	10		mg/Kg	1	2/18/2015 12:11:05 PM	17795
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	2/18/2015 12:11:05 PM	17795
Surr: DNOP	110	63.5-128		%REC	1	2/18/2015 12:11:05 PM	17795
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	3800	390		mg/Kg	100	2/18/2015 12:14:25 PM	R24377
Surr: BFB	163	80-120	S	%REC	100	2/18/2015 12:14:25 PM	R24377
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	7.6	0.39		mg/Kg	10	2/18/2015 9:50:38 AM	R24377
Toluene	130	3.9		mg/Kg	100	2/19/2015 7:28:20 PM	17797
Ethylbenzene	27	0.39		mg/Kg	10	2/18/2015 9:50:38 AM	R24377
Xylenes, Total	270	7.8		mg/Kg	100	2/18/2015 12:14:25 PM	R24377
Surr: 4-Bromofluorobenzene	213	80-120	S	%REC	10	2/18/2015 9:50:38 AM	R24377

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1502720

20-Feb-15

Client: Animas Environmental

Project: COP SJ 28-6 #155N

Sample ID	MB-17795	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	17795	RunNo:	24371					
Prep Date:	2/18/2015	Analysis Date:	2/18/2015	SeqNo:	718279	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.7		10.00		97.1	63.5	128			

Sample ID	LCS-17795	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	17795	RunNo:	24371					
Prep Date:	2/18/2015	Analysis Date:	2/18/2015	SeqNo:	718280	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	50.00	0	96.5	67.8	130			
Surr: DNOP	4.6		5.000		91.0	63.5	128			

Sample ID	1502720-001AMS	SampType:	MS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	SC-1	Batch ID:	17795	RunNo:	24371					
Prep Date:	2/18/2015	Analysis Date:	2/18/2015	SeqNo:	718410	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	58	9.9	49.70	0	118	29.2	176			
Surr: DNOP	5.5		4.970		110	63.5	128			

Sample ID	1502720-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	SC-1	Batch ID:	17795	RunNo:	24371					
Prep Date:	2/18/2015	Analysis Date:	2/18/2015	SeqNo:	718411	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	58	9.8	49.16	0	118	29.2	176	0.697	23	
Surr: DNOP	5.6		4.916		115	63.5	128	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1502720

20-Feb-15

Client: Animas Environmental

Project: COP SJ 28-6 #155N

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	R24377	RunNo:	24377					
Prep Date:		Analysis Date:	2/18/2015	SeqNo:	718563	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	910		1000		91.1	80	120			

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	R24377	RunNo:	24377					
Prep Date:		Analysis Date:	2/18/2015	SeqNo:	718564	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	110	64	130			
Surr: BFB	1000		1000		101	80	120			

Sample ID	1502720-001AMS	SampType:	MS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	SC-1	Batch ID:	R24377	RunNo:	24377					
Prep Date:		Analysis Date:	2/18/2015	SeqNo:	718567	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	17	3.2	15.94	2.794	91.5	47.9	144			
Surr: BFB	630		637.8		98.7	80	120			

Sample ID	1502720-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	SC-1	Batch ID:	R24377	RunNo:	24377					
Prep Date:		Analysis Date:	2/18/2015	SeqNo:	718568	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	17	3.2	15.94	2.794	92.1	47.9	144	0.512	29.9	
Surr: BFB	640		637.8		100	80	120	0	0	

Sample ID	MB-17797	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	17797	RunNo:	24415					
Prep Date:	2/18/2015	Analysis Date:	2/19/2015	SeqNo:	719115	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	890		1000		89.3	80	120			

Sample ID	LCS-17797	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	17797	RunNo:	24415					
Prep Date:	2/18/2015	Analysis Date:	2/19/2015	SeqNo:	719116	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1000		1000		102	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.

E Value above quantitation range

J Analyte detected below quantitation limits

O RSD is greater than RSDlimit

R RPD outside accepted recovery limits

S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

P Sample pH Not In Range

RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1502720

20-Feb-15

Client: Animas Environmental

Project: COP SJ 28-6 #155N

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	R24377	RunNo:	24377					
Prep Date:		Analysis Date:	2/18/2015	SeqNo:	718586	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		100	80	120			

Sample ID	100NG BTEX LCS	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	R24377	RunNo:	24377					
Prep Date:		Analysis Date:	2/18/2015	SeqNo:	718587	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.2	0.050	1.000	0	116	80	120			
Toluene	1.2	0.050	1.000	0	121	80	120			S
Ethylbenzene	1.2	0.050	1.000	0	116	80	120			
Xylenes, Total	3.4	0.10	3.000	0	114	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		106	80	120			

Sample ID	1502720-002AMS	SampType:	MS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	SC-2	Batch ID:	R24377	RunNo:	24377					
Prep Date:		Analysis Date:	2/18/2015	SeqNo:	718591	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.90	0.038	0.7599	0.01053	117	69.2	126			
Toluene	0.90	0.038	0.7599	0.03245	114	65.6	128			
Ethylbenzene	0.87	0.038	0.7599	0.009005	114	65.5	138			
Xylenes, Total	2.6	0.076	2.280	0.05980	111	63	139			
Surr: 4-Bromofluorobenzene	0.81		0.7599		107	80	120			

Sample ID	1502720-002AMSD	SampType:	MSD	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	SC-2	Batch ID:	R24377	RunNo:	24377					
Prep Date:		Analysis Date:	2/18/2015	SeqNo:	718592	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.84	0.038	0.7599	0.01053	109	69.2	126	6.99	18.5	
Toluene	0.83	0.038	0.7599	0.03245	105	65.6	128	7.60	20.6	
Ethylbenzene	0.84	0.038	0.7599	0.009005	109	65.5	138	4.37	20.1	
Xylenes, Total	2.5	0.076	2.280	0.05980	106	63	139	4.12	21.1	
Surr: 4-Bromofluorobenzene	0.81		0.7599		107	80	120	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1502720

20-Feb-15

Client: Animas Environmental

Project: COP SJ 28-6 #155N

Sample ID	MB-17797		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	17797		RunNo:	24415			
Prep Date:	2/18/2015		Analysis Date:	2/19/2015		SeqNo:	719143		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Toluene	ND	0.050								
Surr: 4-Bromofluorobenzene	0.98		1.000		98.1	80	120			

Sample ID	LCS-17797		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	17797		RunNo:	24415			
Prep Date:	2/18/2015		Analysis Date:	2/19/2015		SeqNo:	719144		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Toluene	1.0	0.050	1.000	0	103	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		107	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Animas Environmental

Work Order Number: 1502720

RptNo: 1

Received by/date:

LM

02/18/15

Logged By: Ashley Gallegos

2/18/2015 8:00:00 AM

Ag

Completed By: Ashley Gallegos

2/18/2015 8:17:11 AM

Ag

Reviewed By:

CS

02/18/15

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? Courier

Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐

of preserved
bottles checked
for pH:

(<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified: _____

Date: _____

By Whom: _____

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.7	Good	Yes			

Client: Animas Environmental Services

Mailing Address: 604 W. Pimon
Farmington, NM 87401

Phone #: (505) 964-2281

email or Fax#: cskyles@animasenvironmental.com

QA/QC Package:

☒ Standard ☐ Level 4 (Full Validation)

Accreditation

☐ NELAP ☐ Other _____

☐ EDD (Type) _____

☐ Standard ☒ Rush same day

CoP SJ 28-6 ± 155 ~~mt~~ N mg 02/18/18
Project #: Per Stephanie Hinds

E. Skyles

On Ice: ☒ Yes ☐ No

Sample Temperature: 17

[illegible]

Date:	Time:	Relinquished by:
1/17/15	11:44	Stephenie Alarido

Date:	Time:	Relinquished by:
7/17/15	1750	Christa Walz

Received by:	Date	Time
Christy White	2/17/15	1644

Received by:	Date	Time
<i>[Signature]</i>	02/18/15	0800

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

[illegible]

Remarks:	B:U to Conoco Phillips.
----------	-------------------------

W0: 20605998

Activity Code: 0150

Supervisor: Mike Smith

user ID: KGARCIA

Ordered by: Lindsay Aumas

Area : 24

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.



*Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com*

July 14, 2015

Emilee Skyles
Animas Environmental
604 Pinon Street
Farmington, NM 87401
TEL: (505) 564-2281
FAX

RE: CoP San Juan 28-6 # 155N

OrderNo.: 1505007

Dear Emilee Skyles:

Hall Environmental Analysis Laboratory received 1 sample(s) on 5/1/2015 for the analyses presented in the following report.

This report is a revised report and it replaces the original report issued May 04, 2015.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order 1505007

Date Reported: 7/14/2015

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Animas Environmental**Client Sample ID:** SC-5 (2)**Project:** CoP San Juan 28-6 # 155N**Collection Date:** 4/30/2015 9:20:00 AM**Lab ID:** 1505007-001**Matrix:** MEOH (SOIL)**Received Date:** 5/1/2015 5:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	20	9.9		mg/Kg	1	5/1/2015 10:09:37 AM	19002
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	5/1/2015 10:09:37 AM	19002
Surr: DNOP	85.3	57.9-140		%REC	1	5/1/2015 10:09:37 AM	19002
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	5/1/2015 10:14:22 AM	R25904
Surr: BFB	95.0	80-120		%REC	1	5/1/2015 10:14:22 AM	R25904
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.038		mg/Kg	1	5/1/2015 10:14:22 AM	R25904
Toluene	ND	0.038		mg/Kg	1	5/1/2015 10:14:22 AM	R25904
Ethylbenzene	ND	0.038		mg/Kg	1	5/1/2015 10:14:22 AM	R25904
Xylenes, Total	ND	0.076		mg/Kg	1	5/1/2015 10:14:22 AM	R25904
Surr: 4-Bromofluorobenzene	105	80-120		%REC	1	5/1/2015 10:14:22 AM	R25904

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1505007

14-Jul-15

Client: Animas Environmental
Project: CoP San Juan 28-6 # 155N

Sample ID	MB-19002	SampType:	MBLK		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	PBS	Batch ID:	19002		RunNo:	25902				
Prep Date:	5/1/2015	Analysis Date:	5/1/2015		SeqNo:	767806		Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.2		10.00		91.8	57.9	140			

Sample ID	LCS-19002		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 19002		RunNo: 25902					
Prep Date:	5/1/2015		Analysis Date: 5/1/2015		SeqNo: 767807		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	10	50.00	0	92.8	67.8	130			
Surr: DNOP	5.2		5.000		105	57.9	140			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1505007

14-Jul-15

Client: Animas Environmental
Project: CoP San Juan 28-6 # 155N

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	R25904	RunNo:	25904					
Prep Date:		Analysis Date:	5/1/2015	SeqNo:	768086	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	900		1000		90.3	80	120			

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	R25904	RunNo:	25904					
Prep Date:		Analysis Date:	5/1/2015	SeqNo:	768087	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	101	64	130			
Surr: BFB	980		1000		98.2	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1505007
14-Jul-15

Client: Animas Environmental
Project: CoP San Juan 28-6 # 155N

Sample ID	5ML RB	SampType: MBLK			TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID: R25904			RunNo: 25904					
Prep Date:		Analysis Date: 5/1/2015			SeqNo: 768099		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		103	80	120			

Sample ID	100NG BTEX LCS	SampType: LCS		TestCode: EPA Method 8021B: Volatiles						
Client ID:	LCSS	Batch ID: R25904		RunNo: 25904						
Prep Date:		Analysis Date: 5/1/2015		SeqNo: 768100			Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	1.000	0	107	76.6	128			
Toluene	1.1	0.050	1.000	0	110	75	124			
Ethylbenzene	1.1	0.050	1.000	0	111	79.5	126			
Xylenes, Total	3.3	0.10	3.000	0	109	78.8	124			
Surr: 4-Bromofluorobenzene	1.1		1.000		111	80	120			

Sample ID	1505007-001AMS	SampType:	MS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	SC-5 (2)	Batch ID:	R25904	RunNo:	25904					
Prep Date:		Analysis Date:	5/1/2015	SeqNo:	768101	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.86	0.038	0.7645	0	113	69.2	126			
Toluene	0.87	0.038	0.7645	0	113	65.6	128			
Ethylbenzene	0.88	0.038	0.7645	0.006215	114	65.5	138			
Xylenes, Total	2.6	0.076	2.294	0	114	63	139			
Surr: 4-Bromofluorobenzene	0.86		0.7645		113	80	120			

Sample ID	1505007-001AMSD	SampType:	MSD	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	SC-5 (2)	Batch ID:	R25904	RunNo:	25904					
Prep Date:		Analysis Date:	5/1/2015	SeqNo:	768103	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.83	0.038	0.7645	0	109	69.2	126	3.91	18.5	
Toluene	0.83	0.038	0.7645	0	108	65.6	128	4.33	20.6	
Ethylbenzene	0.85	0.038	0.7645	0.006215	111	65.5	138	2.55	20.1	
Xylenes, Total	2.5	0.076	2.294	0	111	63	139	2.95	21.1	
Surr: 4-Bromofluorobenzene	0.83		0.7645		109	80	120	0	0	

Qualifiers:

- | | |
|---|--|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits | ND Not Detected at the Reporting Limit |
| O RSD is greater than RSDlimit | P Sample pH Not In Range |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S Spike Recovery outside accepted recovery limits | |



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Animas Environmental

Work Order Number: 1505007

RcptNo: 1

Received by/date:

Logged By: Lindsay Mangin

5/1/2015 5:50:00 AM

Completed By: Lindsay Mangin

5/1/2015 7:19:02 AM

Reviewed By:

AT 05/01/15

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? Courier

Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐

of preserved
bottles checked
for pH:

{<2 or >12 unless noted}

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified: _____

Date: _____

By Whom: _____

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.1	Good	Yes			

Chain-of-Custody Record		Turn-Around Time:
Client: <u>Animas Environmental Services</u>	Standard <input checked="" type="checkbox"/> Rush <u>Same Day</u>	Project Name: <u>CoP San Juan 28-6 # 155N</u>
Mailing Address: <u>664 W. Pinon St.</u> <u>Farmington NM 87401</u>	Project #:	
Phone #: <u>505-564-2281</u>	Project Manager:	<u>E. Skylos</u> <u>C. Lameman</u>
email or Fax#: <u>eskyloseanmasenvironmental.com</u>	QA/QC Package: <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Level 4 (Full Validation)	
Accreditation <input type="checkbox"/> NELAP <input type="checkbox"/> Other _____ <input type="checkbox"/> EDD (Type) _____	On Ice: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Sample Temperature: <u>3.1</u>	

☒ Standard ☒ Rush Same Da

CoP San Juan 28-6 # 155N

Project Manager:

E. Skyles

Sampler: C. Lameman

On Ice: ☒ Yes ☐ No

Sample Temperature: 3.1

[illegible]

Date:	Time:	Relinquished by:
30/1/15	1722	Cari Curran

Date:	Time:	Relinquished by:
4/30/1819		Amber Walz

Received by: Christine Walter Date 4/30/15 Time 1722

Received by:	Date	Time
	05/01/15	055

Remarks: Bill to ConocoPhillips

WO#: 20605998	Area: 24
Supervisor: Mike Smith	Act. Code: D150
User: KGARCIA	Ordered by: Lindsay Dumas

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.



*Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com*

February 18, 2016

Emilee Skyles
Animas Environmental
604 Pinon Street
Farmington, NM 87401
TEL: (505) 564-2281
FAX

RE: CoP SJ 28-6 #155N

OrderNo.: 1602592

Dear Emilee Skyles:

Hall Environmental Analysis Laboratory received 6 sample(s) on 2/13/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order 1602592

Date Reported: 2/18/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental

Client Sample ID: S-1

Project: CoP SJ 28-6 #155N

Collection Date: 2/12/2016 9:15:00 AM

Lab ID: 1602592-001

Matrix: SOIL

Received Date: 2/13/2016 9:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	19	9.5		mg/Kg	1	2/17/2016 1:46:27 AM	23739
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	2/17/2016 1:46:27 AM	23739
Surr: DNOP	73.7	70-130		%Rec	1	2/17/2016 1:46:27 AM	23739
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	27	4.6		mg/Kg	1	2/17/2016 12:28:37 AM	23727
Surr: BFB	206	66.2-112	S	%Rec	1	2/17/2016 12:28:37 AM	23727
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.046		mg/Kg	1	2/17/2016 12:28:37 AM	23727
Toluene	0.17	0.046		mg/Kg	1	2/17/2016 12:28:37 AM	23727
Ethylbenzene	ND	0.046		mg/Kg	1	2/17/2016 12:28:37 AM	23727
Xylenes, Total	1.5	0.093		mg/Kg	1	2/17/2016 12:28:37 AM	23727
Surr: 4-Bromofluorobenzene	120	80-120	S	%Rec	1	2/17/2016 12:28:37 AM	23727

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1602592

Date Reported: 2/18/2016

CLIENT: Animas Environmental

Client Sample ID: S-2

Project: CoP SJ 28-6 #155N

Collection Date: 2/12/2016 9:25:00 AM

Lab ID: 1602592-002

Matrix: SOIL

Received Date: 2/13/2016 9:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	130	9.4		mg/Kg	1	2/17/2016 2:07:39 AM	23739
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	2/17/2016 2:07:39 AM	23739
Surr: DNOP	72.7	70-130		%Rec	1	2/17/2016 2:07:39 AM	23739
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	220	48		mg/Kg	10	2/16/2016 12:58:56 PM	23727
Surr: BFB	166	66.2-112	S	%Rec	10	2/16/2016 12:58:56 PM	23727
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.24		mg/Kg	10	2/16/2016 12:58:56 PM	23727
Toluene	2.3	0.48		mg/Kg	10	2/16/2016 12:58:56 PM	23727
Ethylbenzene	1.2	0.48		mg/Kg	10	2/16/2016 12:58:56 PM	23727
Xylenes, Total	18	0.96		mg/Kg	10	2/16/2016 12:58:56 PM	23727
Surr: 4-Bromofluorobenzene	140	80-120	S	%Rec	10	2/16/2016 12:58:56 PM	23727

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1602592

Date Reported: 2/18/2016

CLIENT: Animas Environmental

Client Sample ID: S-3

Project: CoP SJ 28-6 #155N

Collection Date: 2/12/2016 9:35:00 AM

Lab ID: 1602592-003

Matrix: SOIL

Received Date: 2/13/2016 9:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	19	9.1		mg/Kg	1	2/17/2016 2:28:39 AM	23739
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	2/17/2016 2:28:39 AM	23739
Surr: DNOP	74.9	70-130		%Rec	1	2/17/2016 2:28:39 AM	23739
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	40	4.6		mg/Kg	1	2/17/2016 2:02:17 AM	23727
Surr: BFB	267	66.2-112	S	%Rec	1	2/17/2016 2:02:17 AM	23727
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.046		mg/Kg	1	2/17/2016 2:02:17 AM	23727
Toluene	ND	0.046		mg/Kg	1	2/17/2016 2:02:17 AM	23727
Ethylbenzene	ND	0.046		mg/Kg	1	2/17/2016 2:02:17 AM	23727
Xylenes, Total	0.31	0.093		mg/Kg	1	2/17/2016 2:02:17 AM	23727
Surr: 4-Bromofluorobenzene	122	80-120	S	%Rec	1	2/17/2016 2:02:17 AM	23727

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental

Client Sample ID: S-4

Project: CoP SJ 28-6 #155N

Collection Date: 2/12/2016 9:45:00 AM

Lab ID: 1602592-004

Matrix: SOIL

Received Date: 2/13/2016 9:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	59	9.6		mg/Kg	1	2/17/2016 2:49:48 AM	23739
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/17/2016 2:49:48 AM	23739
Surr: DNOP	74.4	70-130		%Rec	1	2/17/2016 2:49:48 AM	23739
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	91	24		mg/Kg	5	2/16/2016 1:23:49 PM	23727
Surr: BFB	160	66.2-112	S	%Rec	5	2/16/2016 1:23:49 PM	23727
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.12		mg/Kg	5	2/16/2016 1:23:49 PM	23727
Toluene	0.50	0.24		mg/Kg	5	2/16/2016 1:23:49 PM	23727
Ethylbenzene	0.39	0.24		mg/Kg	5	2/16/2016 1:23:49 PM	23727
Xylenes, Total	4.9	0.49		mg/Kg	5	2/16/2016 1:23:49 PM	23727
Surr: 4-Bromofluorobenzene	138	80-120	S	%Rec	5	2/16/2016 1:23:49 PM	23727

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1602592

Date Reported: 2/18/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental

Client Sample ID: S-5

Project: CoP SJ 28-6 #155N

Collection Date: 2/12/2016 9:55:00 AM

Lab ID: 1602592-005

Matrix: SOIL

Received Date: 2/13/2016 9:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	36	10		mg/Kg	1	2/17/2016 3:10:49 AM	23739
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	2/17/2016 3:10:49 AM	23739
Surr: DNOP	73.7	70-130		%Rec	1	2/17/2016 3:10:49 AM	23739
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	150	4.8		mg/Kg	1	2/17/2016 2:25:48 AM	23727
Surr: BFB	223	66.2-112	S	%Rec	1	2/17/2016 2:25:48 AM	23727
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.048		mg/Kg	1	2/17/2016 2:25:48 AM	23727
Toluene	0.16	0.048		mg/Kg	1	2/17/2016 2:25:48 AM	23727
Ethylbenzene	ND	0.048		mg/Kg	1	2/17/2016 2:25:48 AM	23727
Xylenes, Total	5.1	0.096		mg/Kg	1	2/17/2016 2:25:48 AM	23727
Surr: 4-Bromofluorobenzene	145	80-120	S	%Rec	1	2/17/2016 2:25:48 AM	23727

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1602592

Date Reported: 2/18/2016

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Animas Environmental**Client Sample ID:** S-6**Project:** CoP SJ 28-6 #155N**Collection Date:** 2/12/2016 10:05:00 AM**Lab ID:** 1602592-006**Matrix:** SOIL**Received Date:** 2/13/2016 9:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	66	9.6		mg/Kg	1	2/17/2016 3:31:55 AM	23739
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/17/2016 3:31:55 AM	23739
Surr: DNOP	75.1	70-130		%Rec	1	2/17/2016 3:31:55 AM	23739
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	240	9.5		mg/Kg	2	2/16/2016 1:48:30 PM	23727
Surr: BFB	424	66.2-112	S	%Rec	2	2/16/2016 1:48:30 PM	23727
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.095		mg/Kg	2	2/16/2016 1:48:30 PM	23727
Toluene	1.6	0.095		mg/Kg	2	2/16/2016 1:48:30 PM	23727
Ethylbenzene	0.89	0.095		mg/Kg	2	2/16/2016 1:48:30 PM	23727
Xylenes, Total	11	0.19		mg/Kg	2	2/16/2016 1:48:30 PM	23727
Surr: 4-Bromofluorobenzene	164	80-120	S	%Rec	2	2/16/2016 1:48:30 PM	23727

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1602592

18-Feb-16

Client: Animas Environmental

Project: CoP SJ 28-6 #155N

Sample ID	MB-23739	SampType: MBLK			TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID: 23739			RunNo: 32179					
Prep Date:	2/15/2016	Analysis Date: 2/16/2016			SeqNo: 983682		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.7		10.00		87.1	70	130			

Sample ID	LCS-23739		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 23739		RunNo: 32179					
Prep Date:	2/15/2016		Analysis Date: 2/16/2016		SeqNo: 983684		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	50.00	0	95.3	65.8	136			
Surr: DNOP	4.9		5.000		97.5	70	130			

Sample ID	MB-23771		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 23771		RunNo: 32179					
Prep Date:	2/17/2016		Analysis Date: 2/17/2016		SeqNo: 984150		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	7.3		10.00		73.4	70	130			

Sample ID	LCS-23771		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 23771		RunNo: 32179					
Prep Date:	2/17/2016		Analysis Date: 2/17/2016		SeqNo: 984152		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	3.7		5.000		73.3	70	130			

Sample ID	MB-23740		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 23740		RunNo: 32199					
Prep Date:	2/15/2016		Analysis Date: 2/17/2016		SeqNo: 984257		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.7		10.00		96.8	70	130			

Sample ID	LCS-23740		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 23740		RunNo: 32199					
Prep Date:	2/15/2016		Analysis Date: 2/17/2016		SeqNo: 984258		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.3		5.000		85.9	70	130			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1602592

18-Feb-16

Client: Animas Environmental

Project: CoP SJ 28-6 #155N

Sample ID	MB-23733		SampType:	MBLK		TestCode:	EPA Method 8015D: Gasoline Range			
Client ID:	PBS		Batch ID:	23733		RunNo:	32174			
Prep Date:	2/15/2016		Analysis Date:	2/16/2016		SeqNo:	983808		Units: %Rec	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	950		1000		94.5	66.2	112			

Sample ID	LCS-23733		SampType:	LCS		TestCode:	EPA Method 8015D: Gasoline Range			
Client ID:	LCSS		Batch ID:	23733		RunNo:	32174			
Prep Date:	2/15/2016		Analysis Date:	2/16/2016		SeqNo:	983809		Units: %Rec	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	990		1000		99.5	66.2	112			

Sample ID	MB-23727		SampType:	MBLK		TestCode:	EPA Method 8015D: Gasoline Range			
Client ID:	PBS		Batch ID:	23727		RunNo:	32174			
Prep Date:	2/15/2016		Analysis Date:	2/16/2016		SeqNo:	983818		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	920		1000		91.5	66.2	112			

Sample ID	LCS-23727		SampType:	LCS		TestCode:	EPA Method 8015D: Gasoline Range			
Client ID:	LCSS		Batch ID:	23727		RunNo:	32174			
Prep Date:	2/15/2016		Analysis Date:	2/16/2016		SeqNo:	983819		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	94.4	79.6	122			
Surr: BFB	1000		1000		101	66.2	112			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1602592

18-Feb-16

Client: Animas Environmental

Project: CoP SJ 28-6 #155N

Sample ID	MB-23733		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	23733		RunNo:	32174			
Prep Date:	2/15/2016		Analysis Date:	2/16/2016		SeqNo:	983840		Units: %Rec	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.1		1.000		115	80	120			

Sample ID	LCS-23733		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	23733		RunNo:	32174			
Prep Date:	2/15/2016		Analysis Date:	2/16/2016		SeqNo:	983841		Units: %Rec	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.1		1.000		109	80	120			

Sample ID	MB-23727		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	23727		RunNo:	32174			
Prep Date:	2/15/2016		Analysis Date:	2/16/2016		SeqNo:	983846		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		111	80	120			

Sample ID	LCS-23727		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	23727		RunNo:	32174			
Prep Date:	2/15/2016		Analysis Date:	2/16/2016		SeqNo:	983847		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	1.000	0	103	80	120			
Toluene	1.1	0.050	1.000	0	114	80	120			
Ethylbenzene	1.2	0.050	1.000	0	118	80	120			
Xylenes, Total	3.5	0.10	3.000	0	117	80	120			
Surr: 4-Bromofluorobenzene	1.2		1.000		118	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D Sample Diluted Due to Matrix	E Value above quantitation range
H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit	P Sample pH Not In Range
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Animas Environmental

Work Order Number: 1602592

ReptNo: 1

Received by/date

R-177

02/13/16

Logged By: Ashley Gallegos

2/13/2016 9:00:00 AM

AG

Completed By: Ashley Gallegos

2/15/2016 11:13:08 AM

AG

Reviewed By:

JA

02/15/16

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? Courier

Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐

of preserved
bottles checked
for pH

(<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified: _____

Date: _____

By Whom: _____

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.6	Good	Yes			

Chain-of-Custody Record		Turn-Around Time:	
Client: <u>Animas Environmental Services</u>		<input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush	
Billing Address: <u>604 W. Pecos St</u>		Project Name: <u>COP ST 28-6 #155 N</u>	
<u>Farmington, NM 87401</u>		Project #:	
Phone #: <u>505-564-2281</u>		Project Manager:	
Email or Fax#: <u>eskyles@animasenvironmental.com</u>		<u>Emilee Skyless</u>	
QA/QC Package:			
<input type="checkbox"/> Standard <input type="checkbox"/> Level 4 (Full Validation)			
Accreditation		Sampler: <u>SM</u>	
<input checked="" type="checkbox"/> NELAP <input type="checkbox"/> Other _____		On Ice: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
EDD (Type) _____		Sample Temperature: <u>1.6</u>	

☒ Standard ☐ Rush

COP SJ 28-6 #155 N

Project #:

Project Manager:

Emilee Skyles

Sampler: SM

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.6

[illegible]

ate:	Time:	Relinquished by:	Received by:	Date	Time
2/14	1605	<i>Stephen Clark</i>	<i>Christine Walters</i>	2/12/16	1605
ate:	Time:	Relinquished by:	Received by:	Date	Time
2/16	1746	<i>Christine Walters</i>	<i>[Signature]</i>	02/13/15	0900



www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

[illegible]

Remarks: Bill to Comoco Phillips

WO:20605498	UserID: KGarcia
Activity Code: D15D	Area: 24
Supervisor: Mike Smith	Ordered by: Lisa Hunter

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.



*Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com*

July 14, 2015

Emilee Skyles
Animas Environmental
604 Pinon Street
Farmington, NM 87401
TEL: (505) 564-2281
FAX

RE: CoP San Juan 28-6 # 155N

OrderNo.: 1505007

Dear Emilee Skyles:

Hall Environmental Analysis Laboratory received 1 sample(s) on 5/1/2015 for the analyses presented in the following report.

This report is a revised report and it replaces the original report issued May 04, 2015.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1505007

Date Reported: 7/14/2015

CLIENT: Animas Environmental

Client Sample ID: SC-5 (2)

Project: CoP San Juan 28-6 # 155N

Collection Date: 4/30/2015 9:20:00 AM

Lab ID: 1505007-001

Matrix: MEOH (SOIL)

Received Date: 5/1/2015 5:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	20	9.9		mg/Kg	1	5/1/2015 10:09:37 AM	19002
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	5/1/2015 10:09:37 AM	19002
Surr: DNOP	85.3	57.9-140		%REC	1	5/1/2015 10:09:37 AM	19002
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	5/1/2015 10:14:22 AM	R25904
Surr: BFB	95.0	80-120		%REC	1	5/1/2015 10:14:22 AM	R25904
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.038		mg/Kg	1	5/1/2015 10:14:22 AM	R25904
Toluene	ND	0.038		mg/Kg	1	5/1/2015 10:14:22 AM	R25904
Ethylbenzene	ND	0.038		mg/Kg	1	5/1/2015 10:14:22 AM	R25904
Xylenes, Total	ND	0.076		mg/Kg	1	5/1/2015 10:14:22 AM	R25904
Surr: 4-Bromofluorobenzene	105	80-120		%REC	1	5/1/2015 10:14:22 AM	R25904

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1505007

14-Jul-15

Client: Animas Environmental
Project: CoP San Juan 28-6 # 155N

Sample ID	MB-19002	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	19002	RunNo:	25902					
Prep Date:	5/1/2015	Analysis Date:	5/1/2015	SeqNo:	767806	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.2		10.00		91.8	57.9	140			

Sample ID	LCS-19002	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	19002	RunNo:	25902					
Prep Date:	5/1/2015	Analysis Date:	5/1/2015	SeqNo:	767807	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Diesel Range Organics (DRO)	46	10	50.00	0	92.8	67.8	130			
Surr: DNOP	5.2		5.000		105	57.9	140			

Qualifiers:

- | | |
|---|--|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits | ND Not Detected at the Reporting Limit |
| O RSD is greater than RSDlimit | P Sample pH Not In Range |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S Spike Recovery outside accepted recovery limits | |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1505007

14-Jul-15

Client: Animas Environmental
Project: CoP San Juan 28-6 # 155N

Sample ID	5ML RB	SampType	MBLK	TestCode	EPA Method 8015D: Gasoline Range					
Client ID	PBS	Batch ID	R25904	RunNo	25904					
Prep Date:		Analysis Date	5/1/2015	SeqNo	768086	Units	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	900		1000		90.3	80	120			

Sample ID	2.5UG GRO LCS	SampType	LCS	TestCode	EPA Method 8015D: Gasoline Range					
Client ID	LCSS	Batch ID	R25904	RunNo	25904					
Prep Date:		Analysis Date	5/1/2015	SeqNo	768087	Units	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	101	64	130			
Surr: BFB	980		1000		98.2	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1505007

14-Jul-15

Client: Animas Environmental
Project: CoP San Juan 28-6 # 155N

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	R25904	RunNo:	25904					
Prep Date:		Analysis Date:	5/1/2015	SeqNo:	768099	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		103	80	120			

Sample ID	100NG BTEX LCS	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	R25904	RunNo:	25904					
Prep Date:		Analysis Date:	5/1/2015	SeqNo:	768100	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Benzene	1.1	0.050	1.000	0	107	76.6	128			
Toluene	1.1	0.050	1.000	0	110	75	124			
Ethylbenzene	1.1	0.050	1.000	0	111	79.5	126			
Xylenes, Total	3.3	0.10	3.000	0	109	78.8	124			
Surr: 4-Bromofluorobenzene	1.1		1.000		111	80	120			

Sample ID	1505007-001AMS	SampType:	MS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	SC-5 (2)	Batch ID:	R25904	RunNo:	25904					
Prep Date:		Analysis Date:	5/1/2015	SeqNo:	768101	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Benzene	0.86	0.038	0.7645	0	113	69.2	126			
Toluene	0.87	0.038	0.7645	0	113	65.6	128			
Ethylbenzene	0.88	0.038	0.7645	0.006215	114	65.5	138			
Xylenes, Total	2.6	0.076	2.294	0	114	63	139			
Surr: 4-Bromofluorobenzene	0.86		0.7645		113	80	120			

Sample ID	1505007-001AMSD	SampType:	MSD	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	SC-5 (2)	Batch ID:	R25904	RunNo:	25904					
Prep Date:		Analysis Date:	5/1/2015	SeqNo:	768103	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Benzene	0.83	0.038	0.7645	0	109	69.2	126	3.91	18.5	
Toluene	0.83	0.038	0.7645	0	108	65.6	128	4.33	20.6	
Ethylbenzene	0.85	0.038	0.7645	0.006215	111	65.5	138	2.55	20.1	
Xylenes, Total	2.5	0.076	2.294	0	111	63	139	2.95	21.1	
Surr: 4-Bromofluorobenzene	0.83		0.7645		109	80	120	0	0	

Qualifiers:

- | | |
|---|--|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits | ND Not Detected at the Reporting Limit |
| O RSD is greater than RSDlimit | P Sample pH Not In Range |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S Spike Recovery outside accepted recovery limits | |

Sample Log-In Check List

Client Name: Animas Environmental

Work Order Number: 1505007

ReptNo: 1

Received by/date:

[Signature]

05/01/15

Logged By: Lindsay Mangin

5/1/2015 5:50:00 AM

[Signature]

Completed By: Lindsay Mangin

5/1/2015 7:19:02 AM

[Signature]

Reviewed By:

At 05/01/15

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? Courier

Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐

of preserved
bottles checked
for pH:
(<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified: _____

Date: _____

By Whom: _____

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.1	Good	Yes			

[illegible]

☒ Standard ☒ Rush Same Day

Project Name:

CoP San Juan 28-6 # 155N

Project #:

Project Manager:

Sampler: C. Lameman

On Ice: ☒ Yes ☐ No

Sample Temperature: 3.1

05/01/15
Container
Type and #
AT
N200H Kit


Preservative
Type

HEAL No.

1505007
-001

	X	BTEX + MTBE + TMBE (8021)
		BTEX + MTBE + TPH (Gas only)
	X	TPH 8015B (GRO / DRO / MRO)
		TPH (Method 418.1)
		EDB (Method 504.1)
		PAH's (8310 or 8270 SIMS)
		RCRA 8 Metals
		Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)
		8081 Pesticides / 8082 PCB's
		8260B (VOA)
		8270 (Semi-VOA)
		Air Bubbles (Y or N)

Date:	Time:	Relinquished by:
3/30/15	1722	Carlin
Date:	Time:	Relinquished by:
4/30/15	1819	Amber Walter

Received by:	Date	Time
Christine Walter	4/30/15	1722
Received by:	Date	Time
	05/01/15	0550

Remarks: Bill to CenocoPhillips	
WOTH: 20605998	Area: 24
Supervisor: Mike Smith	Act. Code: DISO
User: KGARCIA	Ordered by: Lindsay Dumas

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.



*Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com*

May 03, 2016

Jeff Walker

GHD

6121 Indian School Road, NE #200

Albuquerque, NM 87110

TEL: (505) 884-0672

FAX

RE: San Juan 28-6 155N

OrderNo.: 1604A35

Dear Jeff Walker:

Hall Environmental Analysis Laboratory received 8 sample(s) on 4/22/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order 1604A35

Date Reported: 5/3/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD

Client Sample ID: S-11119528-042116-CH-1-20'

Project: San Juan 28-6 155N

Collection Date: 4/21/2016 2:00:00 PM

Lab ID: 1604A35-001

Matrix: SOIL

Received Date: 4/22/2016 4:00:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	240	9.4		mg/Kg	1	4/28/2016 5:17:26 PM	25002
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	4/28/2016 5:17:26 PM	25002
Surr: DNOP	97.5	70-130		%Rec	1	4/28/2016 5:17:26 PM	25002
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	610	230		mg/Kg	50	4/27/2016 10:53:43 AM	25013
Surr: BFB	132	80-120	S	%Rec	50	4/27/2016 10:53:43 AM	25013
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	0.23		mg/Kg	10	4/28/2016 11:37:40 PM	25013
Toluene	11	0.46		mg/Kg	10	4/28/2016 11:37:40 PM	25013
Ethylbenzene	4.5	0.46		mg/Kg	10	4/28/2016 11:37:40 PM	25013
Xylenes, Total	49	0.93		mg/Kg	10	4/28/2016 11:37:40 PM	25013
Surr: Dibromofluoromethane	93.0	70-130		%Rec	10	4/28/2016 11:37:40 PM	25013
Surr: 1,2-Dichloroethane-d4	98.6	70-130		%Rec	10	4/28/2016 11:37:40 PM	25013
Surr: Toluene-d8	98.7	70-130		%Rec	10	4/28/2016 11:37:40 PM	25013
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	10	4/28/2016 11:37:40 PM	25013

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1604A35

Date Reported: 5/3/2016

CLIENT: GHD

Client Sample ID: S-11119528-042116-CH-1-30'

Project: San Juan 28-6 155N

Collection Date: 4/21/2016 3:30:00 PM

Lab ID: 1604A35-002

Matrix: SOIL

Received Date: 4/22/2016 4:00:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	220	9.7		mg/Kg	1	4/28/2016 6:23:11 PM	25002
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/28/2016 6:23:11 PM	25002
Surr: DNOP	93.5	70-130		%Rec	1	4/28/2016 6:23:11 PM	25002
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	820	240		mg/Kg	50	4/27/2016 3:00:21 PM	25013
Surr: BFB	143	80-120	S	%Rec	50	4/27/2016 3:00:21 PM	25013
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	0.62	0.24		mg/Kg	10	4/29/2016 12:05:43 AM	25013
Toluene	20	0.48		mg/Kg	10	4/29/2016 12:05:43 AM	25013
Ethylbenzene	5.0	0.48		mg/Kg	10	4/29/2016 12:05:43 AM	25013
Xylenes, Total	68	0.96		mg/Kg	10	4/29/2016 12:05:43 AM	25013
Surr: Dibromofluoromethane	91.6	70-130		%Rec	10	4/29/2016 12:05:43 AM	25013
Surr: 1,2-Dichloroethane-d4	99.8	70-130		%Rec	10	4/29/2016 12:05:43 AM	25013
Surr: Toluene-d8	98.7	70-130		%Rec	10	4/29/2016 12:05:43 AM	25013
Surr: 4-Bromofluorobenzene	111	70-130		%Rec	10	4/29/2016 12:05:43 AM	25013

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1604A35

Date Reported: 5/3/2016

CLIENT: GHD

Client Sample ID: S-11119528-042116-CH-2-5'

Project: San Juan 28-6 155N

Collection Date: 4/21/2016 4:45:00 PM

Lab ID: 1604A35-003

Matrix: SOIL

Received Date: 4/22/2016 4:00:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	310	9.5		mg/Kg	1	4/28/2016 6:45:16 PM	25002
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	4/28/2016 6:45:16 PM	25002
Surr: DNOP	94.9	70-130		%Rec	1	4/28/2016 6:45:16 PM	25002
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	1500	24		mg/Kg	5	4/27/2016 11:43:07 AM	25013
Surr: BFB	444	80-120	S	%Rec	5	4/27/2016 11:43:07 AM	25013
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	0.21	0.12		mg/Kg	5	4/28/2016 5:21:42 AM	25013
Toluene	34	2.4		mg/Kg	50	4/29/2016 1:30:27 AM	25013
Ethylbenzene	8.1	0.24		mg/Kg	5	4/28/2016 5:21:42 AM	25013
Xylenes, Total	120	4.8		mg/Kg	50	4/29/2016 1:30:27 AM	25013
Surr: Dibromofluoromethane	92.6	70-130		%Rec	5	4/28/2016 5:21:42 AM	25013
Surr: 1,2-Dichloroethane-d4	101	70-130		%Rec	5	4/28/2016 5:21:42 AM	25013
Surr: Toluene-d8	99.0	70-130		%Rec	5	4/28/2016 5:21:42 AM	25013
Surr: 4-Bromofluorobenzene	126	70-130		%Rec	5	4/28/2016 5:21:42 AM	25013

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.**Analytical Report**Lab Order **1604A35**Date Reported: **5/3/2016****CLIENT:** GHD**Client Sample ID:** S-11119528-042116-CH-2-15'**Project:** San Juan 28-6 155N**Collection Date:** 4/21/2016 6:00:00 PM**Lab ID:** 1604A35-004**Matrix:** SOIL**Received Date:** 4/22/2016 4:00:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	15	9.7		mg/Kg	1	4/28/2016 7:07:13 PM	25002
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/28/2016 7:07:13 PM	25002
Surr: DNOP	97.4	70-130		%Rec	1	4/28/2016 7:07:13 PM	25002
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	4/28/2016 1:08:25 PM	25013
Surr: BFB	102	80-120		%Rec	1	4/28/2016 1:08:25 PM	25013
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	0.023		mg/Kg	1	4/28/2016 5:50:01 AM	25013
Toluene	ND	0.046		mg/Kg	1	4/28/2016 5:50:01 AM	25013
Ethylbenzene	ND	0.046		mg/Kg	1	4/28/2016 5:50:01 AM	25013
Xylenes, Total	ND	0.092		mg/Kg	1	4/28/2016 5:50:01 AM	25013
Surr: Dibromofluoromethane	103	70-130		%Rec	1	4/28/2016 5:50:01 AM	25013
Surr: 1,2-Dichloroethane-d4	101	70-130		%Rec	1	4/28/2016 5:50:01 AM	25013
Surr: Toluene-d8	96.9	70-130		%Rec	1	4/28/2016 5:50:01 AM	25013
Surr: 4-Bromofluorobenzene	106	70-130		%Rec	1	4/28/2016 5:50:01 AM	25013

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1604A35

Date Reported: 5/3/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD

Client Sample ID: S-11119528-042216-CH-3-5'

Project: San Juan 28-6 155N

Collection Date: 4/22/2016 9:00:00 AM

Lab ID: 1604A35-005

Matrix: SOIL

Received Date: 4/22/2016 4:00:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	4/28/2016 7:29:11 PM	25002
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/28/2016 7:29:11 PM	25002
Surr: DNOP	100	70-130		%Rec	1	4/28/2016 7:29:11 PM	25002
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/28/2016 1:31:50 PM	25013
Surr: BFB	96.7	80-120		%Rec	1	4/28/2016 1:31:50 PM	25013
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	0.024		mg/Kg	1	4/28/2016 6:18:23 AM	25013
Toluene	ND	0.049		mg/Kg	1	4/28/2016 6:18:23 AM	25013
Ethylbenzene	ND	0.049		mg/Kg	1	4/28/2016 6:18:23 AM	25013
Xylenes, Total	ND	0.097		mg/Kg	1	4/28/2016 6:18:23 AM	25013
Surr: Dibromofluoromethane	106	70-130		%Rec	1	4/28/2016 6:18:23 AM	25013
Surr: 1,2-Dichloroethane-d4	101	70-130		%Rec	1	4/28/2016 6:18:23 AM	25013
Surr: Toluene-d8	99.8	70-130		%Rec	1	4/28/2016 6:18:23 AM	25013
Surr: 4-Bromofluorobenzene	106	70-130		%Rec	1	4/28/2016 6:18:23 AM	25013

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1604A35

Date Reported: 5/3/2016

CLIENT: GHD

Client Sample ID: S-11119528-042216-CH-3-10'

Project: San Juan 28-6 155N

Collection Date: 4/22/2016 9:30:00 AM

Lab ID: 1604A35-006

Matrix: SOIL

Received Date: 4/22/2016 4:00:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	4/28/2016 7:51:02 PM	25002
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/28/2016 7:51:02 PM	25002
Surr: DNOP	98.1	70-130		%Rec	1	4/28/2016 7:51:02 PM	25002
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/28/2016 1:55:17 PM	25013
Surr: BFB	97.8	80-120		%Rec	1	4/28/2016 1:55:17 PM	25013
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	0.024		mg/Kg	1	4/29/2016 1:58:37 AM	25013
Toluene	ND	0.049		mg/Kg	1	4/29/2016 1:58:37 AM	25013
Ethylbenzene	ND	0.049		mg/Kg	1	4/29/2016 1:58:37 AM	25013
Xylenes, Total	ND	0.098		mg/Kg	1	4/29/2016 1:58:37 AM	25013
Surr: Dibromofluoromethane	100	70-130		%Rec	1	4/29/2016 1:58:37 AM	25013
Surr: 1,2-Dichloroethane-d4	97.6	70-130		%Rec	1	4/29/2016 1:58:37 AM	25013
Surr: Toluene-d8	95.4	70-130		%Rec	1	4/29/2016 1:58:37 AM	25013
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	1	4/29/2016 1:58:37 AM	25013

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1604A35

Date Reported: 5/3/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD

Client Sample ID: S-11119528-042216-CH-4-5'

Project: San Juan 28-6 155N

Collection Date: 4/22/2016 10:15:00 AM

Lab ID: 1604A35-007

Matrix: SOIL

Received Date: 4/22/2016 4:00:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	500	9.5		mg/Kg	1	4/28/2016 8:13:00 PM	25002
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/28/2016 8:13:00 PM	25002
Surr: DNOP	92.6	70-130		%Rec	1	4/28/2016 8:13:00 PM	25002
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	2800	95		mg/Kg	20	4/28/2016 2:18:59 PM	25013
Surr: BFB	470	80-120	S	%Rec	20	4/28/2016 2:18:59 PM	25013
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	0.38	0.024		mg/Kg	1	4/28/2016 7:14:54 AM	25013
Toluene	22	0.95		mg/Kg	20	4/29/2016 2:26:42 AM	25013
Ethylbenzene	2.2	0.048		mg/Kg	1	4/28/2016 7:14:54 AM	25013
Xylenes, Total	140	1.9		mg/Kg	20	4/29/2016 2:26:42 AM	25013
Surr: Dibromofluoromethane	0	70-130	S	%Rec	1	4/28/2016 7:14:54 AM	25013
Surr: 1,2-Dichloroethane-d4	96.8	70-130		%Rec	1	4/28/2016 7:14:54 AM	25013
Surr: Toluene-d8	103	70-130		%Rec	1	4/28/2016 7:14:54 AM	25013
Surr: 4-Bromofluorobenzene	258	70-130	S	%Rec	1	4/28/2016 7:14:54 AM	25013

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1604A35

Date Reported: 5/3/2016

CLIENT: GHD

Client Sample ID: S-11119528-042216-CH-4-15'

Project: San Juan 28-6 155N

Collection Date: 4/22/2016 11:00:00 AM

Lab ID: 1604A35-008

Matrix: SOIL

Received Date: 4/22/2016 4:00:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	4/28/2016 8:34:55 PM	25002
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	4/28/2016 8:34:55 PM	25002
Surr: DNOP	96.3	70-130		%Rec	1	4/28/2016 8:34:55 PM	25002
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/28/2016 2:42:30 PM	25013
Surr: BFB	111	80-120		%Rec	1	4/28/2016 2:42:30 PM	25013
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	0.025		mg/Kg	1	4/29/2016 2:54:46 AM	25013
Toluene	ND	0.050		mg/Kg	1	4/29/2016 2:54:46 AM	25013
Ethylbenzene	ND	0.050		mg/Kg	1	4/29/2016 2:54:46 AM	25013
Xylenes, Total	ND	0.10		mg/Kg	1	4/29/2016 2:54:46 AM	25013
Surr: Dibromofluoromethane	102	70-130		%Rec	1	4/29/2016 2:54:46 AM	25013
Surr: 1,2-Dichloroethane-d4	100	70-130		%Rec	1	4/29/2016 2:54:46 AM	25013
Surr: Toluene-d8	95.4	70-130		%Rec	1	4/29/2016 2:54:46 AM	25013
Surr: 4-Bromofluorobenzene	105	70-130		%Rec	1	4/29/2016 2:54:46 AM	25013

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P Sample pH Not In Range
R	RPD outside accepted recovery limits	RL Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1604A35

03-May-16

Client: GHD
Project: San Juan 28-6 155N

Sample ID	LCS-25002		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 25002		RunNo: 33843					
Prep Date:	4/26/2016		Analysis Date: 4/28/2016		SeqNo: 1042563		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	10	50.00	0	91.2	65.8	136			
Surr: DNOP	4.7		5.000		94.5	70	130			

Sample ID	MB-25002	SampType: MBLK			TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID: 25002			RunNo: 33843					
Prep Date:	4/26/2016	Analysis Date: 4/28/2016			SeqNo: 1042566		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	12		10.00		124	70	130			

Sample ID	1604A35-001AMS		SampType: MS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	S-11119528-042116-		Batch ID: 25002		RunNo: 33843					
Prep Date:	4/26/2016		Analysis Date: 4/28/2016		SeqNo: 1043205		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	290	9.8	48.83	238.8	105	33.9	141			
Surr: DNOP	4.6		4.883		95.1	70	130			

Sample ID	1604A35-001AMSD		SampType: MSD		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	S-11119528-042116-		Batch ID: 25002		RunNo: 33843					
Prep Date:	4/26/2016		Analysis Date: 4/28/2016		SeqNo: 1043206		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	330	9.8	48.78	238.8	178	33.9	141	11.6	20	S
Surr: DNOP	4.8		4.878		97.4	70	130	0	0	

Sample ID	LCS-25071		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 25071		RunNo: 33883					
Prep Date:	4/29/2016		Analysis Date: 4/29/2016		SeqNo: 1043645		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.6		5.000		91.9	70	130			

Sample ID	MB-25071		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 25071		RunNo: 33883					
Prep Date:	4/29/2016		Analysis Date: 4/29/2016		SeqNo: 1043646		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1604A35

03-May-16

Client: GHD

Project: San Juan 28-6 155N

Sample ID	MB-25071		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 25071		RunNo: 33883					
Prep Date:	4/29/2016		Analysis Date: 4/29/2016		SeqNo: 1043646		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.0		10.00		90.3	70	130			

Sample ID	MB-25081		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 25081		RunNo: 33883					
Prep Date:	4/29/2016		Analysis Date: 4/29/2016		SeqNo: 1044125		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.1		10.00		91.4	70	130			

Sample ID	LCS-25081		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 25081		RunNo: 33883					
Prep Date:	4/29/2016		Analysis Date: 4/29/2016		SeqNo: 1044132		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.3		5.000		85.9	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit
W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1604A35

03-May-16

Client: GHD
Project: San Juan 28-6 155N

Sample ID	MB-25015		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS		Batch ID: 25015		RunNo: 33826					
Prep Date:	4/26/2016		Analysis Date: 4/27/2016		SeqNo: 1042318		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	950		1000		95.3	80	120			

Sample ID	LCS-25015		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 25015		RunNo: 33826					
Prep Date:	4/26/2016		Analysis Date: 4/27/2016		SeqNo: 1042319		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1000		1000		102	80	120			

Sample ID	MB-25013		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS		Batch ID: 25013		RunNo: 33826					
Prep Date:	4/26/2016		Analysis Date: 4/27/2016		SeqNo: 1042396		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	970		1000		96.7	80	120			

Sample ID	LCS-25013		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 25013		RunNo: 33826					
Prep Date:	4/26/2016		Analysis Date: 4/27/2016		SeqNo: 1042397		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	102	80	120			
Surr: BFB	1100		1000		108	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit
W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1604A35

03-May-16

Client: GHD

Project: San Juan 28-6 155N

Sample ID	mb-24982		SampType:	MBLK		TestCode:	EPA Method 8260B: Volatiles			
Client ID:	PBS		Batch ID:	24982		RunNo:	33839			
Prep Date:	4/25/2016		Analysis Date:	4/27/2016		SeqNo:	1042490		Units: %Rec	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	0.52		0.5000		104	70	130			
Surr: 1,2-Dichloroethane-d4	0.49		0.5000		99.0	70	130			
Surr: Toluene-d8	0.50		0.5000		99.3	70	130			
Surr: 4-Bromofluorobenzene	0.52		0.5000		103	70	130			

Sample ID	lcs-24982		SampType:	LCS		TestCode:	EPA Method 8260B: Volatiles			
Client ID:	LCSS		Batch ID:	24982		RunNo:	33839			
Prep Date:	4/25/2016		Analysis Date:	4/27/2016		SeqNo:	1042491		Units: %Rec	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	0.52		0.5000		103	70	130			
Surr: 1,2-Dichloroethane-d4	0.51		0.5000		101	70	130			
Surr: Toluene-d8	0.49		0.5000		98.4	70	130			
Surr: 4-Bromofluorobenzene	0.52		0.5000		105	70	130			

Sample ID	mb-25013		SampType:	MBLK		TestCode:	EPA Method 8260B: Volatiles			
Client ID:	PBS		Batch ID:	25013		RunNo:	33839			
Prep Date:	4/26/2016		Analysis Date:	4/27/2016		SeqNo:	1042500		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: Dibromofluoromethane	0.52		0.5000		105	70	130			
Surr: 1,2-Dichloroethane-d4	0.50		0.5000		99.8	70	130			
Surr: Toluene-d8	0.49		0.5000		98.0	70	130			
Surr: 4-Bromofluorobenzene	0.53		0.5000		107	70	130			

Sample ID	lcs-25013		SampType:	LCS		TestCode:	EPA Method 8260B: Volatiles			
Client ID:	LCSS		Batch ID:	25013		RunNo:	33839			
Prep Date:	4/26/2016		Analysis Date:	4/27/2016		SeqNo:	1042501		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	110	70	130			
Toluene	0.97	0.050	1.000	0	97.5	70	130			
Surr: Dibromofluoromethane	0.55		0.5000		110	70	130			
Surr: 1,2-Dichloroethane-d4	0.53		0.5000		105	70	130			
Surr: Toluene-d8	0.50		0.5000		100	70	130			
Surr: 4-Bromofluorobenzene	0.51		0.5000		102	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D Sample Diluted Due to Matrix	E Value above quantitation range
H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit	P Sample pH Not In Range
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1604A35

03-May-16

Client: GHD

Project: San Juan 28-6 155N

Sample ID	mb-25015		SampType:	MBLK		TestCode:	EPA Method 8260B: Volatiles			
Client ID:	PBS		Batch ID:	25015		RunNo:	33872			
Prep Date:	4/26/2016		Analysis Date:	4/28/2016		SeqNo:	1043393		Units: %Rec	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	0.52		0.5000		103	70	130			
Surr: 1,2-Dichloroethane-d4	0.50		0.5000		101	70	130			
Surr: Toluene-d8	0.48		0.5000		96.3	70	130			
Surr: 4-Bromofluorobenzene	0.51		0.5000		102	70	130			

Sample ID	lcs-25015		SampType:	LCS		TestCode:	EPA Method 8260B: Volatiles			
Client ID:	LCSS		Batch ID:	25015		RunNo:	33872			
Prep Date:	4/26/2016		Analysis Date:	4/28/2016		SeqNo:	1043396		Units: %Rec	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	0.52		0.5000		103	70	130			
Surr: 1,2-Dichloroethane-d4	0.50		0.5000		101	70	130			
Surr: Toluene-d8	0.47		0.5000		94.2	70	130			
Surr: 4-Bromofluorobenzene	0.51		0.5000		102	70	130			

Sample ID	1604a35-002ams		SampType:	MS		TestCode:	EPA Method 8260B: Volatiles			
Client ID:	S-11119528-042116-		Batch ID:	25013		RunNo:	33872			
Prep Date:	4/26/2016		Analysis Date:	4/29/2016		SeqNo:	1043451		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.5	0.23	0.9328	0.6229	94.8	49.2	155			
Toluene	18	0.47	0.9328	20.15	-197	52	154			S
Surr: Dibromofluoromethane	4.3		4.664		92.4	70	130			
Surr: 1,2-Dichloroethane-d4	4.7		4.664		101	70	130			
Surr: Toluene-d8	4.5		4.664		96.5	70	130			
Surr: 4-Bromofluorobenzene	4.9		4.664		106	70	130			

Sample ID	1604a35-002amsd		SampType:	MSD		TestCode:	EPA Method 8260B: Volatiles			
Client ID:	S-11119528-042116-		Batch ID:	25013		RunNo:	33872			
Prep Date:	4/26/2016		Analysis Date:	4/29/2016		SeqNo:	1043452		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.3	0.24	0.9662	0.6229	71.7	49.2	155	13.6	20	
Toluene	14	0.48	0.9662	20.15	-607	52	154	24.7	20	RS
Surr: Dibromofluoromethane	4.3		4.831		89.8	70	130	0	0	
Surr: 1,2-Dichloroethane-d4	4.8		4.831		98.4	70	130	0	0	
Surr: Toluene-d8	4.7		4.831		96.4	70	130	0	0	
Surr: 4-Bromofluorobenzene	5.2		4.831		107	70	130	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: GHD

Work Order Number: 1604A35

RcptNo: 1

Received by/date:

CS

04/22/16

Logged By: Ashley Gallegos

4/22/2016 4:00:00 PM

Completed By: Ashley Gallegos

4/23/2016 10:47:45 AM

Reviewed By:

AT 04/25/16

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? Client

Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐
- # of preserved bottles checked for pH: (<2 or >12 unless noted)
Adjusted?
Checked by:

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified: _____ Date: _____
By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding: _____
Client Instructions: _____

17. Additional remarks:

18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	4.9	Good	Not Present			

Chain-of-Custody Record

Client: GND

Mailing Address: 621 INDIAN SCHOOL NE
FE 200, ABR, NM, 87110

Phone #: 505-884-0672

Email or Fax#: JEFF.WALKER @ GND.COM

VQC Package:
☒ Standard ☐ Level 4 (Full Validation)

Accreditation
 NELAP ☐ Other _____

EDD (Type) _____

Turn-Around Time:
☒ Standard ☐ Rush

Project Name:
SAN JUAN 28-6 #155N

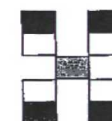
Project #:
11119528

Project Manager:
JEFF WALKER

Sampler: C. KANACK / S. KIRCHNER

On Ice: ☒ Yes ☐ No

Sample Temperature: 49°C



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	BTEX 8260	GRO / DRO 8015	Air Bubbles (Y or N)
4-16	1400	SO				11604A35														
4-16	1400	SO	S-11119528-042116-CH-1-20'	4oz SAN	NONE	-001												X	X	
4-16	1530	SO	S-11119528-042116-CH-1-30'			-002												X	X	
4-16	1645	SO	S-11119528-042116-CH-2-5'			-003												X	X	
4-16	1800	SO	S-11119528-042116-CH-2-15'			-004												X	X	
4-16	0900	SO	S-11119528-042216-CH-3-5'			-005												X	X	
4-16	0930	SO	S-11119528-042216-CH-3-10'			-006												X	X	
4-16	1015	SO	S-11119528-042216-CH-4-5'			-007												X	X	
4-16	1100	SO	S-11119528-042216-CH-4-15'			-008												X	X	
		SO	S-11119528-042216-CH-5															X	X	
		SO	S-11119528-04 16-CH-5															X	X	
		SO	S-11119528-04 16-CH-6															X	X	
		SO	S-11119528-04 16-CH-6															X	X	

Relinquished by: [Signature] Date: 04/22/16 Time: 1600

Received by: Celine Sore Date: 04/22/16 Time: 1600

Remarks:
 * ALL SAMPLES FOR THIS PROJECT
 STANDARD TAT *



*Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com*

May 03, 2016

Jeff Walker

GHD

6121 Indian School Road, NE #200

Albuquerque, NM 87110

TEL: (505) 884-0672

FAX

RE: San Juan 28 6 155N

OrderNo.: 1604B08

Dear Jeff Walker:

Hall Environmental Analysis Laboratory received 5 sample(s) on 4/26/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1604B08

Date Reported: 5/3/2016

CLIENT: GHD

Client Sample ID: S-11119528-042216-CH-1-40

Project: San Juan 28 6 155N

Collection Date: 4/22/2016 4:00:00 PM

Lab ID: 1604B08-001

Matrix: SOIL

Received Date: 4/26/2016 7:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	4/30/2016 12:01:16 AM	25052
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/30/2016 12:01:16 AM	25052
Surr: DNOP	105	70-130		%Rec	1	4/30/2016 12:01:16 AM	25052
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	4/28/2016 2:31:40 PM	25015
Surr: BFB	89.7	80-120		%Rec	1	4/28/2016 2:31:40 PM	25015
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	0.024		mg/Kg	1	4/29/2016 3:51:10 AM	25015
Toluene	ND	0.047		mg/Kg	1	4/29/2016 3:51:10 AM	25015
Ethylbenzene	ND	0.047		mg/Kg	1	4/29/2016 3:51:10 AM	25015
Xylenes, Total	ND	0.094		mg/Kg	1	4/29/2016 3:51:10 AM	25015
Surr: Dibromofluoromethane	103	70-130		%Rec	1	4/29/2016 3:51:10 AM	25015
Surr: 1,2-Dichloroethane-d4	98.2	70-130		%Rec	1	4/29/2016 3:51:10 AM	25015
Surr: Toluene-d8	95.0	70-130		%Rec	1	4/29/2016 3:51:10 AM	25015
Surr: 4-Bromofluorobenzene	99.7	70-130		%Rec	1	4/29/2016 3:51:10 AM	25015

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.**Analytical Report**

Lab Order 1604B08

Date Reported: 5/3/2016

CLIENT: GHD**Client Sample ID:** S-11119528-042216-CH-5-10**Project:** San Juan 28 6 155N**Collection Date:** 4/22/2016 12:45:00 PM**Lab ID:** 1604B08-002**Matrix:** SOIL**Received Date:** 4/26/2016 7:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	280	9.5		mg/Kg	1	4/30/2016 1:05:52 AM	25052
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	4/30/2016 1:05:52 AM	25052
Surr: DNOP	100	70-130		%Rec	1	4/30/2016 1:05:52 AM	25052
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	240	93		mg/Kg	20	4/27/2016 12:57:08 PM	25015
Surr: BFB	167	80-120	S	%Rec	20	4/27/2016 12:57:08 PM	25015
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	0.12		mg/Kg	5	4/29/2016 3:22:58 AM	25015
Toluene	0.46	0.23		mg/Kg	5	4/29/2016 3:22:58 AM	25015
Ethylbenzene	0.84	0.23		mg/Kg	5	4/29/2016 3:22:58 AM	25015
Xylenes, Total	13	0.46		mg/Kg	5	4/29/2016 3:22:58 AM	25015
Surr: Dibromofluoromethane	98.2	70-130		%Rec	5	4/29/2016 3:22:58 AM	25015
Surr: 1,2-Dichloroethane-d4	103	70-130		%Rec	5	4/29/2016 3:22:58 AM	25015
Surr: Toluene-d8	99.8	70-130		%Rec	5	4/29/2016 3:22:58 AM	25015
Surr: 4-Bromofluorobenzene	112	70-130		%Rec	5	4/29/2016 3:22:58 AM	25015

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1604B08

Date Reported: 5/3/2016

CLIENT: GHD

Client Sample ID: S-11119528-042216-CH-5-15

Project: San Juan 28 6 155N

Collection Date: 4/22/2016 1:30:00 PM

Lab ID: 1604B08-003

Matrix: SOIL

Received Date: 4/26/2016 7:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	15	9.5		mg/Kg	1	4/30/2016 1:27:19 AM	25052
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/30/2016 1:27:19 AM	25052
Surr: DNOP	97.0	70-130		%Rec	1	4/30/2016 1:27:19 AM	25052
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/28/2016 2:56:13 PM	25015
Surr: BFB	103	80-120		%Rec	1	4/28/2016 2:56:13 PM	25015
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	0.024		mg/Kg	1	4/29/2016 4:19:27 AM	25015
Toluene	ND	0.049		mg/Kg	1	4/29/2016 4:19:27 AM	25015
Ethylbenzene	ND	0.049		mg/Kg	1	4/29/2016 4:19:27 AM	25015
Xylenes, Total	ND	0.098		mg/Kg	1	4/29/2016 4:19:27 AM	25015
Surr: Dibromofluoromethane	102	70-130		%Rec	1	4/29/2016 4:19:27 AM	25015
Surr: 1,2-Dichloroethane-d4	97.0	70-130		%Rec	1	4/29/2016 4:19:27 AM	25015
Surr: Toluene-d8	93.8	70-130		%Rec	1	4/29/2016 4:19:27 AM	25015
Surr: 4-Bromofluorobenzene	98.7	70-130		%Rec	1	4/29/2016 4:19:27 AM	25015

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1604B08

Date Reported: 5/3/2016

CLIENT: GHD

Client Sample ID: S-11119528-042216-CH-6-5

Project: San Juan 28 6 155N

Collection Date: 4/22/2016 2:50:00 PM

Lab ID: 1604B08-004

Matrix: SOIL

Received Date: 4/26/2016 7:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	4/30/2016 1:48:58 AM	25052
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	4/30/2016 1:48:58 AM	25052
Surr: DNOP	98.0	70-130		%Rec	1	4/30/2016 1:48:58 AM	25052
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/28/2016 3:20:50 PM	25015
Surr: BFB	96.8	80-120		%Rec	1	4/28/2016 3:20:50 PM	25015
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	0.024		mg/Kg	1	4/29/2016 4:47:40 AM	25015
Toluene	0.15	0.048		mg/Kg	1	4/29/2016 4:47:40 AM	25015
Ethylbenzene	ND	0.048		mg/Kg	1	4/29/2016 4:47:40 AM	25015
Xylenes, Total	0.38	0.097		mg/Kg	1	4/29/2016 4:47:40 AM	25015
Surr: Dibromofluoromethane	101	70-130		%Rec	1	4/29/2016 4:47:40 AM	25015
Surr: 1,2-Dichloroethane-d4	98.0	70-130		%Rec	1	4/29/2016 4:47:40 AM	25015
Surr: Toluene-d8	94.7	70-130		%Rec	1	4/29/2016 4:47:40 AM	25015
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	1	4/29/2016 4:47:40 AM	25015

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 4 of 9
	D	Sample Diluted Due to Matrix	E	Value above quantitation range	
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1604B08

Date Reported: 5/3/2016

CLIENT: GHD

Client Sample ID: S-11119528-042216-CH-6-10

Project: San Juan 28 6 155N

Collection Date: 4/22/2016 3:45:00 PM

Lab ID: 1604B08-005

Matrix: SOIL

Received Date: 4/26/2016 7:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	4/30/2016 2:10:19 AM	25052
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	4/30/2016 2:10:19 AM	25052
Surr: DNOP	94.3	70-130		%Rec	1	4/30/2016 2:10:19 AM	25052
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	4/28/2016 3:45:23 PM	25015
Surr: BFB	95.0	80-120		%Rec	1	4/28/2016 3:45:23 PM	25015
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	0.024		mg/Kg	1	4/29/2016 5:15:50 AM	25015
Toluene	ND	0.047		mg/Kg	1	4/29/2016 5:15:50 AM	25015
Ethylbenzene	ND	0.047		mg/Kg	1	4/29/2016 5:15:50 AM	25015
Xylenes, Total	ND	0.094		mg/Kg	1	4/29/2016 5:15:50 AM	25015
Surr: Dibromofluoromethane	101	70-130		%Rec	1	4/29/2016 5:15:50 AM	25015
Surr: 1,2-Dichloroethane-d4	97.7	70-130		%Rec	1	4/29/2016 5:15:50 AM	25015
Surr: Toluene-d8	95.2	70-130		%Rec	1	4/29/2016 5:15:50 AM	25015
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	1	4/29/2016 5:15:50 AM	25015

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1604B08

03-May-16

Client: GHD

Project: San Juan 28 6 155N

Sample ID	LCS-25071		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 25071		RunNo: 33883					
Prep Date:	4/29/2016		Analysis Date: 4/29/2016		SeqNo: 1043645		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.6		5.000		91.9	70	130			

Sample ID	MB-25071		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 25071		RunNo: 33883					
Prep Date:	4/29/2016		Analysis Date: 4/29/2016		SeqNo: 1043646		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.0		10.00		90.3	70	130			

Sample ID	MB-25052	SampType: MBLK			TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID: 25052			RunNo: 33883					
Prep Date:	4/28/2016	Analysis Date: 4/29/2016			SeqNo: 1044123		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		102	70	130			

Sample ID	MB-25081	SampType:	MBLK		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	PBS	Batch ID:	25081		RunNo:	33883				
Prep Date:	4/29/2016	Analysis Date:	4/29/2016		SeqNo:	1044125	Units:	%Rec		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.1		10.00		91.4	70	130			

Sample ID	LCS-25052	SampType: LCS			TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID: 25052			RunNo: 33883					
Prep Date:	4/28/2016	Analysis Date: 4/29/2016			SeqNo: 1044130		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	56	10	50.00	0	113	65.8	136			
Surr: DNOP	5.3		5.000		107	70	130			

Sample ID	LCS-25081		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 25081		RunNo: 33883					
Prep Date:	4/29/2016		Analysis Date: 4/29/2016		SeqNo: 1044132		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.3		5.000		85.9	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1604B08

03-May-16

Client: GHD

Project: San Juan 28 6 155N

Sample ID	1604B08-001AMS	SampType:	MS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	S-11119528-042216-	Batch ID:	25052	RunNo:	33883					
Prep Date:	4/28/2016	Analysis Date:	4/30/2016	SeqNo:	1044136	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	54	9.5	47.44	0	113	33.9	141			
Surr: DNOP	4.9		4.744		103	70	130			

Sample ID	1604B08-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	S-11119528-042216-	Batch ID:	25052	RunNo:	33883					
Prep Date:	4/28/2016	Analysis Date:	4/30/2016	SeqNo:	1044137	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	9.4	46.77	0	108	33.9	141	6.20	20	
Surr: DNOP	4.6		4.677		97.9	70	130	0	0	

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1604B08

03-May-16

Client: GHD

Project: San Juan 28 6 155N

Sample ID	MB-25015	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	25015	RunNo:	33826					
Prep Date:	4/26/2016	Analysis Date:	4/27/2016	SeqNo:	1042318	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	950		1000		95.3	80	120			

Sample ID	LCS-25015	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	25015	RunNo:	33826					
Prep Date:	4/26/2016	Analysis Date:	4/27/2016	SeqNo:	1042319	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	88.0	80	120			
Surr: BFB	1000		1000		102	80	120			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1604B08

03-May-16

Client: GHD

Project: San Juan 28 6 155N

Sample ID	mb-25015		SampType:	MBLK		TestCode:	EPA Method 8260B: Volatiles			
Client ID:	PBS		Batch ID:	25015		RunNo:	33872			
Prep Date:	4/26/2016		Analysis Date:	4/28/2016		SeqNo:	1043393		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: Dibromofluoromethane	0.52		0.5000		103	70	130			
Surr: 1,2-Dichloroethane-d4	0.50		0.5000		101	70	130			
Surr: Toluene-d8	0.48		0.5000		96.3	70	130			
Surr: 4-Bromofluorobenzene	0.51		0.5000		102	70	130			

Sample ID	lcs-25015		SampType:	LCS		TestCode:	EPA Method 8260B: Volatiles			
Client ID:	LCSS		Batch ID:	25015		RunNo:	33872			
Prep Date:	4/26/2016		Analysis Date:	4/28/2016		SeqNo:	1043396		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	109	70	130			
Toluene	0.99	0.050	1.000	0	99.1	70	130			
Surr: Dibromofluoromethane	0.52		0.5000		103	70	130			
Surr: 1,2-Dichloroethane-d4	0.50		0.5000		101	70	130			
Surr: Toluene-d8	0.47		0.5000		94.2	70	130			
Surr: 4-Bromofluorobenzene	0.51		0.5000		102	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit
W Sample container temperature is out of limit as specified



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: GHD

Work Order Number: 1604B08

RcptNo: 1

Received by/date: *AT*

Logged By: Lindsay Mangin

04/26/16
4/26/2016 7:20:00 AM

Completed By: Lindsay Mangin

4/26/2016 10:29:57 AM

Reviewed By: *g/as*

04/26/16

[Signature]

[Signature]

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? Courier

Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐
- # of preserved bottles checked for pH:
(<2 or >12 unless noted)
Adjusted?
Checked by:

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified: _____

Date: _____

By Whom: _____

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

lient: GHD

ailing Address: 6121 INDIAN SCHOOL N.E
TE 200, ABQ, NM 87110

hone #: 505-884-0672

mail or Fax#: SEFF.WALKER @ GHD.COM

A/QC Package:

☒ Standard ☐ Level 4 (Full Validation)

ccreditation

☐ NELAP ☐ Other _____

☐ EDD (Type) _____

Turn-Around Time: Results 5/2
(1 WEEK)
☒ Standard ☐ Rush 1 WEEK

Project Name: SAN JUAN 28-6 #155N

Project #: 11119528

Project Manager:
JEFF WALKER

Sampler: C. KAMACK / J. KIRCHNER

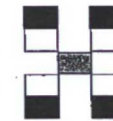
On Ice:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
---------	---	-----------------------------

Sample Temperature:	10
---------------------	----

Container Type and #	Preservative Type	HEAL No. 1604/B08
-------------------------	----------------------	----------------------

[illegible]

ate:	Time:	Relinquished by:	Received by:	Date	Time
15/16	1000	John Kasher	Christy Woot	4/25/16	1000
ate:	Time:	Relinquished by:	Received by:	Date	Time
5/16/1849		Art Woot	Ann H	04/26/16	0720



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

[illegible]

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any subcontracted data will be clearly noted on the analytical report.

July 19, 2016

Christine Mathews
GHD Services, Inc.
6212 Indian School Rd. NE St2
Albuquerque, NM 87110

RE: Project: 11119528 SAN JUAN 28-6 #155N
Pace Project No.: 60223055

Dear Christine Mathews:

Enclosed are the analytical results for sample(s) received by the laboratory on July 08, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Alice Flanagan
alice.flanagan@pacelabs.com
Project Manager

Enclosures

cc: Angela Bown, GHD Services, Inc.
Jeffrey Walker, GHD Services, Inc



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: 11119528 SAN JUAN 28-6 #155N
Pace Project No.: 60223055

Kansas Certification IDs

9608 Loiret Boulevard, Lenexa, KS 66219
WY STR Certification #: 2456.01
Arkansas Certification #: 15-016-0
Illinois Certification #: 003097
Iowa Certification #: 118
Kansas/NELAP Certification #: E-10116

Louisiana Certification #: 03055
Nevada Certification #: KS000212008A
Oklahoma Certification #: 9205/9935
Texas Certification #: T104704407
Utah Certification #: KS00021
Kansas Field Laboratory Accreditation: # E-92587

Dallas Certification IDs:

400 West Bethany Dr Suite 190, Allen, TX 75013
EPA# TX00074
Florida Certification #: E871118
Texas Certification #: T104704232
Kansas Certification #: E-10388
Arkansas Certification #: 88-0647

Oklahoma Certification #: TX00074
Louisiana Certification #: 30686
Iowa Certification #: 408
Florida Certification #: E871118
Nevada Certification #: TX00074

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: 11119528 SAN JUAN 28-6 #155N

Pace Project No.: 60223055

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60223055001	SL-11119528-070616-JW-B9-42.5	Solid	07/06/16 16:40	07/08/16 09:00
60223055002	SL-11119528-070716-JW-B10-42.5	Solid	07/06/16 09:10	07/08/16 09:00
60223055003	11119528-B-11@22.5	Solid	07/06/16 11:00	07/08/16 09:00
60223055004	11119528-B-11@22.5 DUP	Solid	07/06/16 11:00	07/08/16 09:00
60223055005	TRIP BLANK	Solid	07/06/16 11:00	07/08/16 09:00

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: 11119528 SAN JUAN 28-6 #155N
Pace Project No.: 60223055

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60223055001	SL-11119528-070616-JW-B9-42.5	EPA 8015B	AJM	3	PASI-K
		TNRCC 1005	ACW	6	PASI-K
		EPA 8270 by SIM	NAW	18	PASI-K
		EPA 5035A/8260	TJT	8	PASI-K
		ASTM D2974	CEM	1	PASI-K
60223055002	SL-11119528-070716-JW-B10-42.5	EPA 8015B	AJM	3	PASI-K
		TNRCC 1005	ACW	6	PASI-K
		EPA 8270 by SIM	NAW	18	PASI-K
		EPA 5035A/8260	TJT	8	PASI-K
		ASTM D2974	CEM	1	PASI-K
60223055003	11119528-B-11@22.5	EPA 8015B	AJM	4	PASI-K
		TNRCC 1005	ACW	6	PASI-K
		TCEQ 1006	JS	14	PASI-D
		EPA 8270 by SIM	NAW	18	PASI-K
		EPA 5035A/8260	TJT	8	PASI-K
60223055004	11119528-B-11@22.5 DUP	ASTM D2974	CEM	1	PASI-K
		TCEQ 1006	JS	14	PASI-D
		ASTM D2974	CEM	1	PASI-K

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 11119528 SAN JUAN 28-6 #155N
Pace Project No.: 60223055

Method: EPA 8015B
Description: 8015B Diesel Range Organics
Client: GHD Services_COP NM
Date: July 19, 2016

General Information:

3 samples were analyzed for EPA 8015B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with EPA 3546 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Surrogates:

All surrogates were within QC limits with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 11119528 SAN JUAN 28-6 #155N
Pace Project No.: 60223055

Method: TNRCC 1005
Description: TNRCC 1005 TPH
Client: GHD Services_COP NM
Date: July 19, 2016

General Information:

3 samples were analyzed for TNRCC 1005. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with TNRCC 1005 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Surrogates:

All surrogates were within QC limits with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 11119528 SAN JUAN 28-6 #155N

Pace Project No.: 60223055

Method: TCEQ 1006

Description: TCEQ 1006 TPH

Client: GHD Services_COP NM

Date: July 19, 2016

General Information:

2 samples were analyzed for TCEQ 1006. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with TCEQ 1006 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Surrogates:

All surrogates were within QC limits with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 11119528 SAN JUAN 28-6 #155N
Pace Project No.: 60223055

Method: EPA 8270 by SIM
Description: 8270 MSSV PAH by SIM
Client: GHD Services_COP NM
Date: July 19, 2016

General Information:

3 samples were analyzed for EPA 8270 by SIM. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with EPA 3546 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

Surrogates:

All surrogates were within QC limits with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 11119528 SAN JUAN 28-6 #155N
Pace Project No.: 60223055

Method: EPA 5035A/8260
Description: 8260 MSV GRO and Oxygenates
Client: GHD Services_COP NM
Date: July 19, 2016

General Information:

3 samples were analyzed for EPA 5035A/8260. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

Surrogates:

All surrogates were within QC limits with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 11119528 SAN JUAN 28-6 #155N
Pace Project No.: 60223055

Sample: SL-11119528-070616-JW-B9-42.5 **Lab ID:** 60223055001 **Collected:** 07/06/16 16:40 **Received:** 07/08/16 09:00 **Matrix:** Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics								
Analytical Method: EPA 8015B Preparation Method: EPA 3546								
TPH-DRO	ND	mg/kg	11.6	1	07/15/16 00:00	07/17/16 23:07		
Surrogates								
n-Tetracosane (S)	90	%	49-133	1	07/15/16 00:00	07/17/16 23:07	646-31-1	
p-Terphenyl (S)	90	%	57-108	1	07/15/16 00:00	07/17/16 23:07	92-94-4	
TNRCC 1005 TPH								
Analytical Method: TNRCC 1005 Preparation Method: TNRCC 1005								
TPH (C06-C12)	ND	mg/kg	23.9	1	07/15/16 15:05	07/16/16 02:04		
TPH (>C12-C28)	ND	mg/kg	23.9	1	07/15/16 15:05	07/16/16 02:04		
TPH (>C28-C35)	ND	mg/kg	23.9	1	07/15/16 15:05	07/16/16 02:04		
TPH Total (C06-C35)	ND	mg/kg	23.9	1	07/15/16 15:05	07/16/16 02:04		
Surrogates								
o-Terphenyl (S)	102	%	70-130	1	07/15/16 15:05	07/16/16 02:04	84-15-1	
1-Chlorooctane (S)	101	%	70-130	1	07/15/16 15:05	07/16/16 02:04	3386-33-2	
8270 MSSV PAH by SIM								
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	ND	ug/kg	4.0	1	07/14/16 00:00	07/16/16 22:27	83-32-9	
Acenaphthylene	ND	ug/kg	4.0	1	07/14/16 00:00	07/16/16 22:27	208-96-8	
Anthracene	ND	ug/kg	4.0	1	07/14/16 00:00	07/16/16 22:27	120-12-7	
Benzo(a)anthracene	ND	ug/kg	4.0	1	07/14/16 00:00	07/16/16 22:27	56-55-3	
Benzo(a)pyrene	ND	ug/kg	4.0	1	07/14/16 00:00	07/16/16 22:27	50-32-8	
Benzo(b)fluoranthene	ND	ug/kg	4.0	1	07/14/16 00:00	07/16/16 22:27	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	4.0	1	07/14/16 00:00	07/16/16 22:27	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	4.0	1	07/14/16 00:00	07/16/16 22:27	207-08-9	
Chrysene	ND	ug/kg	4.0	1	07/14/16 00:00	07/16/16 22:27	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	4.0	1	07/14/16 00:00	07/16/16 22:27	53-70-3	
Fluoranthene	ND	ug/kg	4.0	1	07/14/16 00:00	07/16/16 22:27	206-44-0	
Fluorene	ND	ug/kg	4.0	1	07/14/16 00:00	07/16/16 22:27	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	4.0	1	07/14/16 00:00	07/16/16 22:27	193-39-5	
Naphthalene	ND	ug/kg	4.0	1	07/14/16 00:00	07/16/16 22:27	91-20-3	
Phenanthrene	ND	ug/kg	4.0	1	07/14/16 00:00	07/16/16 22:27	85-01-8	
Pyrene	ND	ug/kg	4.0	1	07/14/16 00:00	07/16/16 22:27	129-00-0	
Surrogates								
2-Fluorobiphenyl (S)	80	%	62-105	1	07/14/16 00:00	07/16/16 22:27	321-60-8	
Terphenyl-d14 (S)	85	%	61-123	1	07/14/16 00:00	07/16/16 22:27	1718-51-0	
8260 MSV GRO and Oxygenates								
Analytical Method: EPA 5035A/8260								
Benzene	ND	mg/kg	0.0060	1		07/12/16 13:54	71-43-2	
Ethylbenzene	ND	mg/kg	0.0060	1		07/12/16 13:54	100-41-4	
Toluene	0.017	mg/kg	0.0060	1		07/12/16 13:54	108-88-3	
TPH-GRO	ND	mg/kg	0.60	1		07/12/16 13:54		
Xylene (Total)	ND	mg/kg	0.012	1		07/12/16 13:54	1330-20-7	
Surrogates								
Toluene-d8 (S)	100	%	80-120	1		07/12/16 13:54	2037-26-5	
4-Bromofluorobenzene (S)	92	%	81-117	1		07/12/16 13:54	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	83-120	1		07/12/16 13:54	17060-07-0	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 11119528 SAN JUAN 28-6 #155N
Pace Project No.: 60223055

Sample: **SL-11119528-070616-JW-B9-42.5** Lab ID: **60223055001** Collected: 07/06/16 16:40 Received: 07/08/16 09:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture								
Analytical Method: ASTM D2974								
Percent Moisture	17.1	%	0.50	1		07/16/16 00:00		

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ANALYTICAL RESULTS

Project: 11119528 SAN JUAN 28-6 #155N
Pace Project No.: 60223055

Sample: SL-11119528-070716-JW- B10-42.5 Lab ID: 60223055002 Collected: 07/06/16 09:10 Received: 07/08/16 09:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics								
Analytical Method: EPA 8015B Preparation Method: EPA 3546								
TPH-DRO	ND	mg/kg	10	1	07/15/16 00:00	07/17/16 23:15		
Surrogates								
n-Tetracosane (S)	124	%	49-133	1	07/15/16 00:00	07/17/16 23:15	646-31-1	
p-Terphenyl (S)	89	%	57-108	1	07/15/16 00:00	07/17/16 23:15	92-94-4	
TNRCC 1005 TPH								
Analytical Method: TNRCC 1005 Preparation Method: TNRCC 1005								
TPH (C06-C12)	ND	mg/kg	20.5	1	07/15/16 15:05	07/16/16 02:52		
TPH (>C12-C28)	ND	mg/kg	20.5	1	07/15/16 15:05	07/16/16 02:52		
TPH (>C28-C35)	ND	mg/kg	20.5	1	07/15/16 15:05	07/16/16 02:52		
TPH Total (C06-C35)	ND	mg/kg	20.5	1	07/15/16 15:05	07/16/16 02:52		
Surrogates								
o-Terphenyl (S)	98	%	70-130	1	07/15/16 15:05	07/16/16 02:52	84-15-1	
1-Chlorooctane (S)	97	%	70-130	1	07/15/16 15:05	07/16/16 02:52	3386-33-2	
8270 MSSV PAH by SIM								
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	ND	ug/kg	3.4	1	07/14/16 00:00	07/16/16 22:45	83-32-9	
Acenaphthylene	ND	ug/kg	3.4	1	07/14/16 00:00	07/16/16 22:45	208-96-8	
Anthracene	ND	ug/kg	3.4	1	07/14/16 00:00	07/16/16 22:45	120-12-7	
Benzo(a)anthracene	ND	ug/kg	3.4	1	07/14/16 00:00	07/16/16 22:45	56-55-3	
Benzo(a)pyrene	ND	ug/kg	3.4	1	07/14/16 00:00	07/16/16 22:45	50-32-8	
Benzo(b)fluoranthene	ND	ug/kg	3.4	1	07/14/16 00:00	07/16/16 22:45	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	3.4	1	07/14/16 00:00	07/16/16 22:45	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	3.4	1	07/14/16 00:00	07/16/16 22:45	207-08-9	
Chrysene	ND	ug/kg	3.4	1	07/14/16 00:00	07/16/16 22:45	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	3.4	1	07/14/16 00:00	07/16/16 22:45	53-70-3	
Fluoranthene	ND	ug/kg	3.4	1	07/14/16 00:00	07/16/16 22:45	206-44-0	
Fluorene	ND	ug/kg	3.4	1	07/14/16 00:00	07/16/16 22:45	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	3.4	1	07/14/16 00:00	07/16/16 22:45	193-39-5	
Naphthalene	8.2	ug/kg	3.4	1	07/14/16 00:00	07/16/16 22:45	91-20-3	
Phenanthrene	ND	ug/kg	3.4	1	07/14/16 00:00	07/16/16 22:45	85-01-8	
Pyrene	ND	ug/kg	3.4	1	07/14/16 00:00	07/16/16 22:45	129-00-0	
Surrogates								
2-Fluorobiphenyl (S)	82	%	62-105	1	07/14/16 00:00	07/16/16 22:45	321-60-8	
Terphenyl-d14 (S)	88	%	61-123	1	07/14/16 00:00	07/16/16 22:45	1718-51-0	
8260 MSV GRO and Oxygenates								
Analytical Method: EPA 5035A/8260								
Benzene	ND	mg/kg	0.0052	1		07/12/16 14:10	71-43-2	
Ethylbenzene	ND	mg/kg	0.0052	1		07/12/16 14:10	100-41-4	
Toluene	ND	mg/kg	0.0052	1		07/12/16 14:10	108-88-3	
TPH-GRO	ND	mg/kg	0.52	1		07/12/16 14:10		
Xylene (Total)	ND	mg/kg	0.010	1		07/12/16 14:10	1330-20-7	
Surrogates								
Toluene-d8 (S)	99	%	80-120	1		07/12/16 14:10	2037-26-5	
4-Bromofluorobenzene (S)	96	%	81-117	1		07/12/16 14:10	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	83-120	1		07/12/16 14:10	17060-07-0	

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ANALYTICAL RESULTS

Project: 11119528 SAN JUAN 28-6 #155N

Pace Project No.: 60223055

Sample: SL-11119528-070716-JW-B10-42.5 **Lab ID:** 60223055002 Collected: 07/06/16 09:10 Received: 07/08/16 09:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture								
Analytical Method: ASTM D2974								
Percent Moisture	4.5	%	0.50	1		07/16/16 00:00		

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ANALYTICAL RESULTS

Project: 11119528 SAN JUAN 28-6 #155N
Pace Project No.: 60223055

Sample: 11119528-B-11@22.5 Lab ID: 60223055003 Collected: 07/06/16 11:00 Received: 07/08/16 09:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics Analytical Method: EPA 8015B Preparation Method: EPA 3546								
TPH-DRO	ND	mg/kg	10.9	1	07/15/16 00:00	07/17/16 23:24		
TPH-DRO (C10-C28)	ND	mg/kg	10.9	1	07/15/16 00:00	07/17/16 23:24		
Surrogates								
n-Tetracosane (S)	117	%	49-133	1	07/15/16 00:00	07/17/16 23:24	646-31-1	
p-Terphenyl (S)	92	%	57-108	1	07/15/16 00:00	07/17/16 23:24	92-94-4	
TNRCC 1005 TPH Analytical Method: TNRCC 1005 Preparation Method: TNRCC 1005								
TPH (C06-C12)	ND	mg/kg	47.7	1	07/15/16 15:05	07/16/16 03:37		
TPH (>C12-C28)	ND	mg/kg	47.7	1	07/15/16 15:05	07/16/16 03:37		
TPH (>C28-C35)	ND	mg/kg	47.7	1	07/15/16 15:05	07/16/16 03:37		
TPH Total (C06-C35)	ND	mg/kg	47.7	1	07/15/16 15:05	07/16/16 03:37		
Surrogates								
o-Terphenyl (S)	86	%	70-130	1	07/15/16 15:05	07/16/16 03:37	84-15-1	
1-Chlorooctane (S)	85	%	70-130	1	07/15/16 15:05	07/16/16 03:37	3386-33-2	
TCEQ 1006 TPH Analytical Method: TCEQ 1006 Preparation Method: TCEQ 1006								
Aliphatic (C6)	ND	mg/kg	20.0	1	07/13/16 06:47	07/13/16 19:03		
Aliphatic (>C06-C08)	ND	mg/kg	40.0	1	07/13/16 06:47	07/13/16 19:03		
Aliphatic (>C08-C10)	ND	mg/kg	20.0	1	07/13/16 06:47	07/13/16 19:03		
Aliphatic (>C10-C12)	ND	mg/kg	20.0	1	07/13/16 06:47	07/13/16 19:03		
Aliphatic (>C12-C16)	ND	mg/kg	20.0	1	07/13/16 06:47	07/13/16 19:03		
Aliphatic (>C16-C21)	ND	mg/kg	20.0	1	07/13/16 06:47	07/13/16 19:03		
Aliphatic (>C21-C35)	ND	mg/kg	40.0	1	07/13/16 06:47	07/13/16 19:03		
Aromatic (>C07-C08)	ND	mg/kg	4.6	1	07/13/16 06:47	07/13/16 19:03		
Aromatic (>C08-C10)	ND	mg/kg	30.7	1	07/13/16 06:47	07/13/16 19:03		
Aromatic (>C10-C12)	ND	mg/kg	20.0	1	07/13/16 06:47	07/13/16 19:03		
Aromatic (>C12-C16)	ND	mg/kg	20.0	1	07/13/16 06:47	07/13/16 19:03		
Aromatic (>C16-C21)	ND	mg/kg	20.0	1	07/13/16 06:47	07/13/16 19:03		
Aromatic (>C21-C35)	ND	mg/kg	40.0	1	07/13/16 06:47	07/13/16 19:03		
C6-C35 Aliphatic & Aromatic	ND	mg/kg	4.6	1	07/13/16 06:47	07/13/16 19:03		
8270 MSSV PAH by SIM Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	ND	ug/kg	3.6	1	07/14/16 00:00	07/15/16 20:33	83-32-9	
Acenaphthylene	ND	ug/kg	3.6	1	07/14/16 00:00	07/15/16 20:33	208-96-8	
Anthracene	ND	ug/kg	3.6	1	07/14/16 00:00	07/15/16 20:33	120-12-7	
Benzo(a)anthracene	ND	ug/kg	3.6	1	07/14/16 00:00	07/15/16 20:33	56-55-3	
Benzo(a)pyrene	ND	ug/kg	3.6	1	07/14/16 00:00	07/15/16 20:33	50-32-8	
Benzo(b)fluoranthene	ND	ug/kg	3.6	1	07/14/16 00:00	07/15/16 20:33	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	3.6	1	07/14/16 00:00	07/15/16 20:33	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	3.6	1	07/14/16 00:00	07/15/16 20:33	207-08-9	
Chrysene	ND	ug/kg	3.6	1	07/14/16 00:00	07/15/16 20:33	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	3.6	1	07/14/16 00:00	07/15/16 20:33	53-70-3	
Fluoranthene	ND	ug/kg	3.6	1	07/14/16 00:00	07/15/16 20:33	206-44-0	
Fluorene	ND	ug/kg	3.6	1	07/14/16 00:00	07/15/16 20:33	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	3.6	1	07/14/16 00:00	07/15/16 20:33	193-39-5	
Naphthalene	ND	ug/kg	3.6	1	07/14/16 00:00	07/15/16 20:33	91-20-3	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 11119528 SAN JUAN 28-6 #155N
Pace Project No.: 60223055

Sample: 11119528-B-11@22.5 Lab ID: 60223055003 Collected: 07/06/16 11:00 Received: 07/08/16 09:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH by SIM Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Phenanthrene	ND	ug/kg	3.6	1	07/14/16 00:00	07/15/16 20:33	85-01-8	
Pyrene	ND	ug/kg	3.6	1	07/14/16 00:00	07/15/16 20:33	129-00-0	
Surrogates								
2-Fluorobiphenyl (S)	82	%	62-105	1	07/14/16 00:00	07/15/16 20:33	321-60-8	
Terphenyl-d14 (S)	106	%	61-123	1	07/14/16 00:00	07/15/16 20:33	1718-51-0	
8260 MSV GRO and Oxygenates Analytical Method: EPA 5035A/8260								
Benzene	ND	mg/kg	0.0055	1		07/12/16 14:25	71-43-2	
Ethylbenzene	ND	mg/kg	0.0055	1		07/12/16 14:25	100-41-4	
Toluene	ND	mg/kg	0.0055	1		07/12/16 14:25	108-88-3	
TPH-GRO	ND	mg/kg	0.55	1		07/12/16 14:25		
Xylene (Total)	ND	mg/kg	0.011	1		07/12/16 14:25	1330-20-7	
Surrogates								
Toluene-d8 (S)	100	%	80-120	1		07/12/16 14:25	2037-26-5	
4-Bromofluorobenzene (S)	90	%	81-117	1		07/12/16 14:25	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	83-120	1		07/12/16 14:25	17060-07-0	
Percent Moisture Analytical Method: ASTM D2974								
Percent Moisture	10.0	%	0.50	1		07/16/16 00:00		

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ANALYTICAL RESULTS

Project: 11119528 SAN JUAN 28-6 #155N
Pace Project No.: 60223055

Sample: 11119528-B-11@22.5 DUP Lab ID: 60223055004 Collected: 07/06/16 11:00 Received: 07/08/16 09:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TCEQ 1006 TPH Analytical Method: TCEQ 1006 Preparation Method: TCEQ 1006								
Aliphatic (C6)	ND	mg/kg	27.7	1	07/13/16 06:47	07/13/16 19:29		
Aliphatic (>C06-C08)	ND	mg/kg	55.4	1	07/13/16 06:47	07/13/16 19:29		
Aliphatic (>C08-C10)	ND	mg/kg	27.7	1	07/13/16 06:47	07/13/16 19:29		
Aliphatic (>C10-C12)	ND	mg/kg	27.7	1	07/13/16 06:47	07/13/16 19:29		
Aliphatic (>C12-C16)	ND	mg/kg	27.7	1	07/13/16 06:47	07/13/16 19:29		
Aliphatic (>C16-C21)	ND	mg/kg	27.7	1	07/13/16 06:47	07/13/16 19:29		
Aliphatic (>C21-C35)	ND	mg/kg	55.4	1	07/13/16 06:47	07/13/16 19:29		
Aromatic (>C07-C08)	ND	mg/kg	6.4	1	07/13/16 06:47	07/13/16 19:29		
Aromatic (>C08-C10)	ND	mg/kg	42.6	1	07/13/16 06:47	07/13/16 19:29		
Aromatic (>C10-C12)	ND	mg/kg	27.7	1	07/13/16 06:47	07/13/16 19:29		
Aromatic (>C12-C16)	ND	mg/kg	27.7	1	07/13/16 06:47	07/13/16 19:29		
Aromatic (>C16-C21)	ND	mg/kg	27.7	1	07/13/16 06:47	07/13/16 19:29		
Aromatic (>C21-C35)	ND	mg/kg	55.4	1	07/13/16 06:47	07/13/16 19:29		
C6-C35 Aliphatic & Aromatic	ND	mg/kg	6.4	1	07/13/16 06:47	07/13/16 19:29		
Percent Moisture Analytical Method: ASTM D2974								
Percent Moisture	4.6	%	0.50	1		07/16/16 00:00		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 11119528 SAN JUAN 28-6 #155N

Pace Project No.: 60223055

QC Batch:	438162	Analysis Method:	EPA 5035A/8260
QC Batch Method:	EPA 5035A/8260	Analysis Description:	8260 MSV GRO and Oxygenates
Associated Lab Samples: 60223055001, 60223055002, 60223055003			

METHOD BLANK: 1791988 Matrix: Solid

Associated Lab Samples: 60223055001, 60223055002, 60223055003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	mg/kg	ND	0.0050	07/12/16 12:07	
Ethylbenzene	mg/kg	ND	0.0050	07/12/16 12:07	
Toluene	mg/kg	ND	0.0050	07/12/16 12:07	
TPH-GRO	mg/kg	ND	0.50	07/12/16 12:07	
Xylene (Total)	mg/kg	ND	0.010	07/12/16 12:07	
1,2-Dichloroethane-d4 (S)	%	101	83-120	07/12/16 12:07	
4-Bromofluorobenzene (S)	%	92	81-117	07/12/16 12:07	
Toluene-d8 (S)	%	101	80-120	07/12/16 12:07	

LABORATORY CONTROL SAMPLE: 1791989

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	mg/kg	.1	0.092	92	75-116	
Ethylbenzene	mg/kg	.1	0.089	89	72-116	
Toluene	mg/kg	.1	0.087	87	72-116	
TPH-GRO	mg/kg	4	4.2	105	76-128	
Xylene (Total)	mg/kg	.3	0.27	91	69-116	
1,2-Dichloroethane-d4 (S)	%			102	83-120	
4-Bromofluorobenzene (S)	%			105	81-117	
Toluene-d8 (S)	%			97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1791990 1791991

Parameter	Units	60223055003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
Benzene	mg/kg	ND	.11	.11	0.087	0.098	79	88	28-136	11	36
Ethylbenzene	mg/kg	ND	.11	.11	0.080	0.088	73	80	10-152	9	48
Toluene	mg/kg	ND	.11	.11	0.083	0.092	75	83	19-141	11	40
Xylene (Total)	mg/kg	ND	.33	.33	0.24	0.27	74	81	10-149	9	50
1,2-Dichloroethane-d4 (S)	%						100	100	83-120		
4-Bromofluorobenzene (S)	%						103	102	81-117		
Toluene-d8 (S)	%						99	99	80-120	38	

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REPORT OF LABORATORY ANALYSIS

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Date: 07/19/2016 04:00 PM

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QUALITY CONTROL DATA

Project: 11119528 SAN JUAN 28-6 #155N
Pace Project No.: 60223055

QC Batch: 438615 Analysis Method: EPA 8015B
QC Batch Method: EPA 3546 Analysis Description: EPA 8015B
Associated Lab Samples: 60223055001, 60223055002, 60223055003

METHOD BLANK: 1794138 Matrix: Solid
Associated Lab Samples: 60223055001, 60223055002, 60223055003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH-DRO	mg/kg	ND	9.8	07/17/16 22:50	
TPH-DRO (C10-C28)	mg/kg	ND	9.8	07/17/16 22:50	
n-Tetracosane (S)	%	95	49-133	07/17/16 22:50	
p-Terphenyl (S)	%	95	57-108	07/17/16 22:50	

LABORATORY CONTROL SAMPLE: 1794139

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH-DRO	mg/kg	78.9	79.1	100	77-122	
TPH-DRO (C10-C28)	mg/kg	78.9	79.1	100	79-124	
n-Tetracosane (S)	%			98	49-133	
p-Terphenyl (S)	%			99	57-108	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1794140 1794141

Parameter	Units	60223055003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
TPH-DRO	mg/kg	ND	90.8	90.2	95.1	94.6	101	101	44-138	1	71	
TPH-DRO (C10-C28)	mg/kg	ND	90.8	90.2	95.1	94.6	101	101	10-209	1	72	
n-Tetracosane (S)	%						123	119	49-133		58	
p-Terphenyl (S)	%						99	96	57-108		56	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 11119528 SAN JUAN 28-6 #155N
Pace Project No.: 60223055

QC Batch: 438459 Analysis Method: EPA 8270 by SIM
QC Batch Method: EPA 3546 Analysis Description: 8270/3546 MSSV PAH by SIM
Associated Lab Samples: 60223055001, 60223055002, 60223055003

METHOD BLANK: 1793214 Matrix: Solid
Associated Lab Samples: 60223055001, 60223055002, 60223055003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acenaphthene	ug/kg	ND	3.2	07/15/16 16:55	
Acenaphthylene	ug/kg	ND	3.2	07/15/16 16:55	
Anthracene	ug/kg	ND	3.2	07/15/16 16:55	
Benzo(a)anthracene	ug/kg	ND	3.2	07/15/16 16:55	
Benzo(a)pyrene	ug/kg	ND	3.2	07/15/16 16:55	
Benzo(b)fluoranthene	ug/kg	ND	3.2	07/15/16 16:55	
Benzo(g,h,i)perylene	ug/kg	ND	3.2	07/15/16 16:55	
Benzo(k)fluoranthene	ug/kg	ND	3.2	07/15/16 16:55	
Chrysene	ug/kg	ND	3.2	07/15/16 16:55	
Dibenz(a,h)anthracene	ug/kg	ND	3.2	07/15/16 16:55	
Fluoranthene	ug/kg	ND	3.2	07/15/16 16:55	
Fluorene	ug/kg	ND	3.2	07/15/16 16:55	
Indeno(1,2,3-cd)pyrene	ug/kg	ND	3.2	07/15/16 16:55	
Naphthalene	ug/kg	ND	3.2	07/15/16 16:55	
Phenanthrene	ug/kg	ND	3.2	07/15/16 16:55	
Pyrene	ug/kg	ND	3.2	07/15/16 16:55	
2-Fluorobiphenyl (S)	%	74	62-105	07/15/16 16:55	
Terphenyl-d14 (S)	%	89	61-123	07/15/16 16:55	

LABORATORY CONTROL SAMPLE: 1793215

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acenaphthene	ug/kg	32.1	27.4	85	60-111	
Acenaphthylene	ug/kg	32.1	27.3	85	56-111	
Anthracene	ug/kg	32.1	26.1	81	52-115	
Benzo(a)anthracene	ug/kg	32.1	27.7	86	59-119	
Benzo(a)pyrene	ug/kg	32.1	27.1	84	49-119	
Benzo(b)fluoranthene	ug/kg	32.1	30.1	94	56-121	
Benzo(g,h,i)perylene	ug/kg	32.1	26.2	82	46-123	
Benzo(k)fluoranthene	ug/kg	32.1	29.0	90	59-116	
Chrysene	ug/kg	32.1	30.8	96	48-116	
Dibenz(a,h)anthracene	ug/kg	32.1	28.8	90	46-126	
Fluoranthene	ug/kg	32.1	27.0	84	58-118	
Fluorene	ug/kg	32.1	27.8	87	58-115	
Indeno(1,2,3-cd)pyrene	ug/kg	32.1	26.2	82	47-124	
Naphthalene	ug/kg	32.1	28.0	87	51-121	
Phenanthrene	ug/kg	32.1	27.1	84	60-110	
Pyrene	ug/kg	32.1	28.9	90	60-119	
2-Fluorobiphenyl (S)	%			79	62-105	
Terphenyl-d14 (S)	%			86	61-123	

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QUALITY CONTROL DATA

Project: 11119528 SAN JUAN 28-6 #155N
Pace Project No.: 60223055

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1793216 1793217												
Parameter	Units	60223055003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Acenaphthene	ug/kg	ND	35.6	36.9	28.8	30.3	81	82	36-127	5	51	
Acenaphthylene	ug/kg	ND	35.6	36.9	30.3	30.3	85	82	31-133	0	72	
Anthracene	ug/kg	ND	35.6	36.9	29.2	30.7	82	83	26-138	5	49	
Benzo(a)anthracene	ug/kg	ND	35.6	36.9	29.7	32.4	84	88	31-148	9	73	
Benzo(a)pyrene	ug/kg	ND	35.6	36.9	29.7	31.4	84	85	19-148	5	67	
Benzo(b)fluoranthene	ug/kg	ND	35.6	36.9	29.9	31.5	84	86	27-152	5	59	
Benzo(g,h,i)perylene	ug/kg	ND	35.6	36.9	29.7	30.5	83	83	10-153	2	73	
Benzo(k)fluoranthene	ug/kg	ND	35.6	36.9	30.0	31.3	84	85	10-157	4	61	
Chrysene	ug/kg	ND	35.6	36.9	33.7	34.6	95	94	10-154	3	73	
Dibenz(a,h)anthracene	ug/kg	ND	35.6	36.9	31.2	31.6	88	86	28-135	1	48	
Fluoranthene	ug/kg	ND	35.6	36.9	27.5	29.9	77	81	10-169	8	77	
Fluorene	ug/kg	ND	35.6	36.9	30.0	31.1	84	84	19-148	3	54	
Indeno(1,2,3-cd)pyrene	ug/kg	ND	35.6	36.9	30.4	29.7	85	81	21-142	2	58	
Naphthalene	ug/kg	ND	35.6	36.9	30.0	31.1	84	84	10-175	4	66	
Phenanthrene	ug/kg	ND	35.6	36.9	30.1	31.6	84	86	10-201	5	91	
Pyrene	ug/kg	ND	35.6	36.9	33.2	35.9	93	97	10-206	8	74	
2-Fluorobiphenyl (S)	%						81	81	62-105		43	
Terphenyl-d14 (S)	%						94	97	61-123		46	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 11119528 SAN JUAN 28-6 #155N
Pace Project No.: 60223055

QC Batch: 438486 Analysis Method: TNRCC 1005
QC Batch Method: TNRCC 1005 Analysis Description: TX1005 TPH GCS
Associated Lab Samples: 60223055001, 60223055002, 60223055003

METHOD BLANK: 1793263 Matrix: Solid
Associated Lab Samples: 60223055001, 60223055002, 60223055003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH (>C12-C28)	mg/kg	ND	20.0	07/15/16 16:53	
TPH (>C28-C35)	mg/kg	ND	20.0	07/15/16 16:53	
TPH (C06-C12)	mg/kg	ND	20.0	07/15/16 16:53	
TPH Total (C06-C35)	mg/kg	ND	20.0	07/15/16 16:53	
1-Chlorooctane (S)	%	109	70-130	07/15/16 16:53	
o-Terphenyl (S)	%	110	70-130	07/15/16 16:53	

LABORATORY CONTROL SAMPLE & LCSD: 1793264			1793265							
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
TPH Total (C06-C35)	mg/kg	2500	2180	1930	87	77	75-125	12	23	
1-Chlorooctane (S)	%				118	105	70-130			
o-Terphenyl (S)	%				104	91	70-130			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1793266			1793267									
Parameter	Units	60223055003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
TPH Total (C06-C35)	mg/kg	ND	5570	5900	5630	5250	101	89	75-125	7	23	
1-Chlorooctane (S)	%						130	116	70-130			
o-Terphenyl (S)	%						109	96	70-130			

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QUALITY CONTROL DATA

Project: 11119528 SAN JUAN 28-6 #155N

Pace Project No.: 60223055

QC Batch: 57756

Analysis Method: TCEQ 1006

QC Batch Method: TCEQ 1006

Analysis Description: TX1006 TPH GCS

Associated Lab Samples: 60223055003, 60223055004

METHOD BLANK: 242704

Matrix: Solid

Associated Lab Samples: 60223055003, 60223055004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Aliphatic (>C06-C08)	mg/kg	ND	25.9	07/13/16 16:51	
Aliphatic (>C08-C10)	mg/kg	ND	13.0	07/13/16 16:51	
Aliphatic (>C10-C12)	mg/kg	ND	13.0	07/13/16 16:51	
Aliphatic (>C12-C16)	mg/kg	ND	13.0	07/13/16 16:51	
Aliphatic (>C16-C21)	mg/kg	ND	13.0	07/13/16 16:51	
Aliphatic (>C21-C35)	mg/kg	ND	25.9	07/13/16 16:51	
Aliphatic (C6)	mg/kg	ND	13.0	07/13/16 16:51	
Aromatic (>C07-C08)	mg/kg	ND	3.0	07/13/16 16:51	
Aromatic (>C08-C10)	mg/kg	ND	19.9	07/13/16 16:51	
Aromatic (>C10-C12)	mg/kg	ND	13.0	07/13/16 16:51	
Aromatic (>C12-C16)	mg/kg	ND	13.0	07/13/16 16:51	
Aromatic (>C16-C21)	mg/kg	ND	13.0	07/13/16 16:51	
Aromatic (>C21-C35)	mg/kg	ND	25.9	07/13/16 16:51	
C6-C35 Aliphatic & Aromatic	mg/kg	ND	3.0	07/13/16 16:51	

LABORATORY CONTROL SAMPLE & LCSD: 242705

242706

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
C6-C35 Aliphatic & Aromatic	mg/kg	313	218	216	69	69	60-140	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 242707

242708

Parameter	Units	60223055003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
C6-C35 Aliphatic & Aromatic	mg/kg	ND	770	730	498	483	65	66	60-140	3	20	

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QUALITY CONTROL DATA

Project: 11119528 SAN JUAN 28-6 #155N
Pace Project No.: 60223055

QC Batch: 438797	Analysis Method: ASTM D2974
QC Batch Method: ASTM D2974	Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 60223055001, 60223055002, 60223055003, 60223055004	

METHOD BLANK: 1795005	Matrix: Solid
Associated Lab Samples: 60223055001, 60223055002, 60223055003, 60223055004	

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Percent Moisture	%	ND	0.50	07/16/16 00:00	

SAMPLE DUPLICATE: 1795154

Parameter	Units	60223055003 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	10.0	9.9	1	20	

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QUALIFIERS

Project: 11119528 SAN JUAN 28-6 #155N
Pace Project No.: 60223055

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.
ND - Not Detected at or above adjusted reporting limit.
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
MDL - Adjusted Method Detection Limit.
PQL - Practical Quantitation Limit.
RL - Reporting Limit.
S - Surrogate
1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.
Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.
LCS(D) - Laboratory Control Sample (Duplicate)
MS(D) - Matrix Spike (Duplicate)
DUP - Sample Duplicate
RPD - Relative Percent Difference
NC - Not Calculable.
SG - Silica Gel - Clean-Up
U - Indicates the compound was analyzed for, but not detected.
N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.
Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.
TNI - The NELAC Institute.

LABORATORIES

PASI-D Pace Analytical Services - Dallas
PASI-K Pace Analytical Services - Kansas City

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 11119528 SAN JUAN 28-6 #155N
Pace Project No.: 60223055

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60223055001	SL-11119528-070616-JW-B9-42.5	EPA 3546	438615	EPA 8015B	438810
60223055002	SL-11119528-070716-JW-B10-42.5	EPA 3546	438615	EPA 8015B	438810
60223055003	11119528-B-11@22.5	EPA 3546	438615	EPA 8015B	438810
60223055001	SL-11119528-070616-JW-B9-42.5	TNRCC 1005	438486	TNRCC 1005	438823
60223055002	SL-11119528-070716-JW-B10-42.5	TNRCC 1005	438486	TNRCC 1005	438823
60223055003	11119528-B-11@22.5	TNRCC 1005	438486	TNRCC 1005	438823
60223055003	11119528-B-11@22.5	TCEQ 1006	57756	TCEQ 1006	57812
60223055004	11119528-B-11@22.5 DUP	TCEQ 1006	57756	TCEQ 1006	57812
60223055001	SL-11119528-070616-JW-B9-42.5	EPA 3546	438459	EPA 8270 by SIM	438757
60223055002	SL-11119528-070716-JW-B10-42.5	EPA 3546	438459	EPA 8270 by SIM	438757
60223055003	11119528-B-11@22.5	EPA 3546	438459	EPA 8270 by SIM	438757
60223055001	SL-11119528-070616-JW-B9-42.5	EPA 5035A/8260	438162		
60223055002	SL-11119528-070716-JW-B10-42.5	EPA 5035A/8260	438162		
60223055003	11119528-B-11@22.5	EPA 5035A/8260	438162		
60223055001	SL-11119528-070616-JW-B9-42.5	ASTM D2974	438797		
60223055002	SL-11119528-070716-JW-B10-42.5	ASTM D2974	438797		
60223055003	11119528-B-11@22.5	ASTM D2974	438797		
60223055004	11119528-B-11@22.5 DUP	ASTM D2974	438797		

REPORT OF LABORATORY ANALYSIS

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Sample Condition Upon Receipt

WO#: 60223055



60223055

Client Name: GHD - NM

Courier: FedEx ☒ UPS ☐ VIA ☐ Clay ☐ PEX ☐ ECI ☐ Pace ☐ Other ☐ Client ☐

Tracking #: 0508 0165 1977

Pace Shipping Label Used? Yes ☒ No ☐

Optional

Proj Due Date:

Proj Name:

Custody Seal on Cooler/Box Present: Yes ☒ No ☐ Seals intact: Yes ☒ No ☐

Packing Material: Bubble Wrap ☒ Bubble Bags ☒ Foam ☐ None ☐ Other ☐

Thermometer Used: CF-1.1 CF-0.1
T-266 T-239

Type of Ice: Wet Blue None ☐ Samples received on ice, cooling process has begun.
(circle one)

Cooler Temperature: 2.6

Date and initials of person examining contents: JA 7/8/16 950

Temperature should be above freezing to 6°C

Chain of Custody present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody filled out:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler name & signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples arrived within holding time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time analyses (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct containers used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
Pace containers used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Containers intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	11.
Unpreserved 5035A soils frozen w/in 48hrs?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	12.
Filtered volume received for dissolved tests?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.
Sample labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	14.
Includes date/time/ID/analyses	Matrix: <u>water</u> <u>soil</u>	15.
All containers needing preservation have been checked.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.
All containers needing preservation are found to be in compliance with EPA recommendation.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	17.
Exceptions: VOA, Coliform, O&G, WI-DRO (water)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	18.
Trip Blank present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	19.
Pace Trip Blank lot # (if purchased):	<u>032016-3</u>	20.
Headspace in VOA vials (>6mm):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	21.
Project sampled in USDA Regulated Area:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	22.
Additional labels attached to 5035A vials in the field?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	23.

Client Notification/ Resolution:

Copy COC to Client? Y / N

Field Data Required? Y / N

Person Contacted:

Date/Time:

Comments/ Resolution:

Project Manager Review:

Date:



Address: 6121 Indian Sch. Rd, Albog, NM 87110

W 505 - 884 0672

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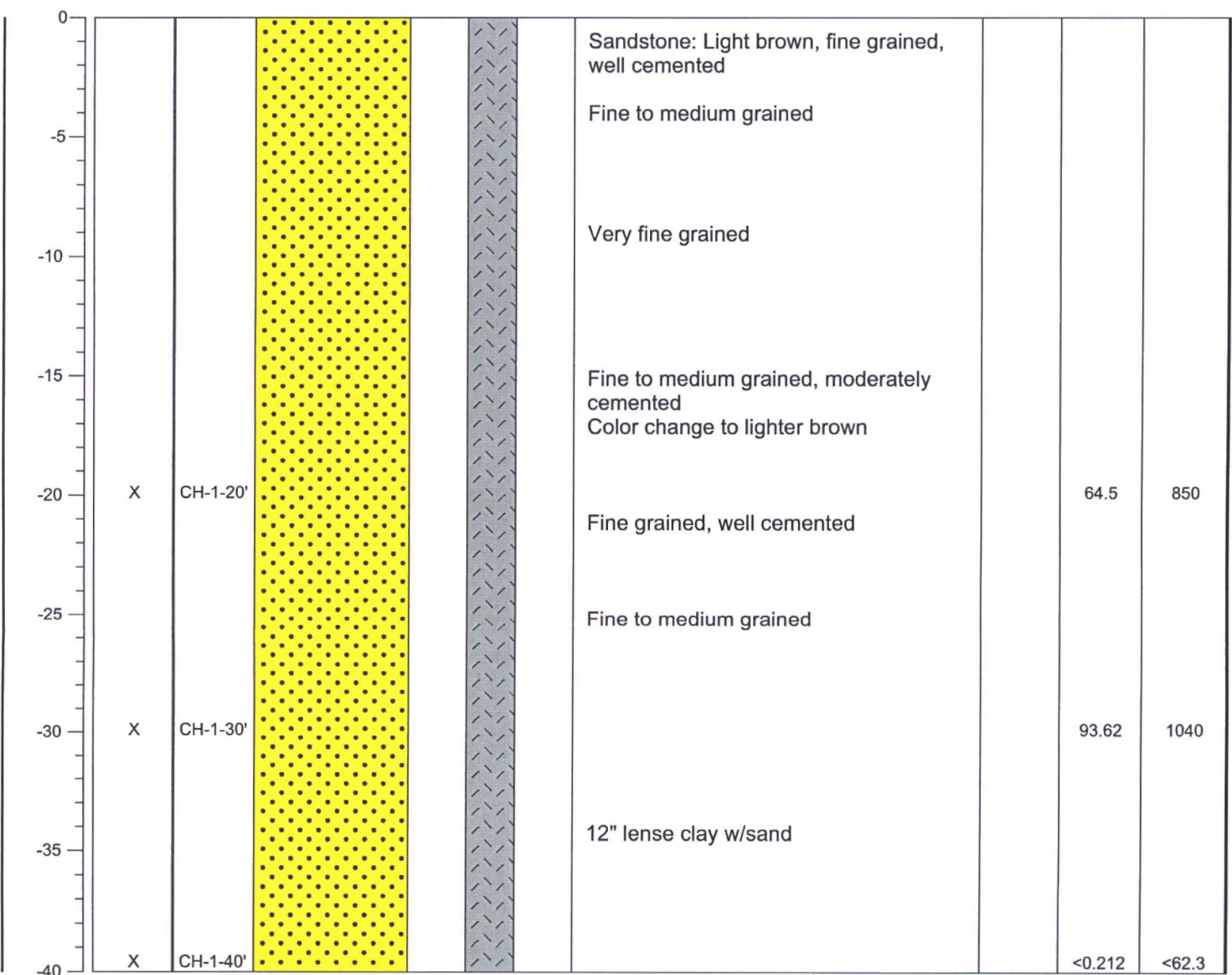
(See Reverse Side for Instructions)

THE CHAIN OF CUSTODY IS A LEGAL DOCUMENT – ALL FIELDS MUST BE COMPLETED ACCURATELY

CRA Form: COC-10B (20110804)

PROJECT NAME: San Juan 28-6 #155N	SOIL BORING NO: CH-1
LOCATION: Rio Arriba County, New Mexico	DRILL TYPE: Air Rotary
FIELD LOGGED BY: Cale Kanack	CME-850
SURFACE ELEVATION (msl): Unavailable	BORE HOLE DIAMETER: 6"
GROUNDWATER ELEVATION (msl): N/A	DRILLED BY: Yellow Jacket Drilling
REMARKS: * Depths measured from bottom of existing excavation (approximately 19' below grade)	DATE/TIME HOLE STARTED: 4-21-16 / 1030
COORDINATES: Unavailable	DATE/TIME HOLE COMPLETED: 4-22-16 / 1600

DEPTH (bgs) - ft	SAMPLE TO LAB	SAMPLE ID	STRATAGRAPHIC SEQUENCE	COMPLETION INFORMATION	CLASSIFICATION AND DESCRIPTION	PID (ppm)	Total BTEX (mg/kg)	Total TPH (mg/kg)
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PROJECT NAME: San Juan 28-6 #155N	SOIL BORING NO: CH-2
LOCATION: Rio Arriba County, New Mexico	DRILL TYPE: Air Rotary
FIELD LOGGED BY: Cale Kanack	CME-850
SURFACE ELEVATION (msl): Unavailable	BORE HOLE DIAMETER: 6"
GROUNDWATER ELEVATION (msl): N/A	DRILLED BY: Yellow Jacket Drilling
REMARKS: * Depths measured from bottom of existing excavation (approximately 19' below grade)	DATE/TIME HOLE STARTED: 4-21-16 / 1630
COORDINATES: Unavailable	DATE/TIME HOLE COMPLETED: 4-21-16 / 1815

DEPTH (bgs) - ft	SAMPLE TO LAB	SAMPLE ID	STRATAGRAPHIC SEQUENCE	COMPLETION INFORMATION	CLASSIFICATION AND DESCRIPTION	PID (ppm)	Total BTEX (mg/kg)	Total TPH (mg/kg)
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0								
-5	X	CH-2-5'			Sandstone: Light brown, fine grained, very well cemented		162.31	1810
-10								
-15	X	CH-2-15'			Light brown/tan, very fine grained, well cemented		<0.207	15

PROJECT NAME: San Juan 28-6 #155N	SOIL BORING NO: CH-3
LOCATION: Rio Arriba County, New Mexico	DRILL TYPE: Air Rotary
FIELD LOGGED BY: Cale Kanack	CME-850
SURFACE ELEVATION (msl): Unavailable	BORE HOLE DIAMETER: 6"
GROUNDWATER ELEVATION (msl): N/A	DRILLED BY: Yellow Jacket Drilling
REMARKS: * Depths measured from bottom of existing excavation (approximately 19' below grade)	DATE/TIME HOLE STARTED: 4-22-16 / 0845
COORDINATES: Unavailable	DATE/TIME HOLE COMPLETED: 4-22-16 / 0945

DEPTH (bgs) - ft	SAMPLE TO LAB	SAMPLE ID	STRATAGRAPHIC SEQUENCE	COMPLETION INFORMATION	CLASSIFICATION AND DESCRIPTION	PID (ppm)	Total BTEX (mg/kg)	Total TPH (mg/kg)
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0					Sandstone: Light brown/tan, very fine grained, very well cemented			
-5	X	CH-3-5'					<0.219	<62.5
-10	X	CH-3-10'			Light brown, fine to medium grained, moderately cemented		<0.220	<63.7

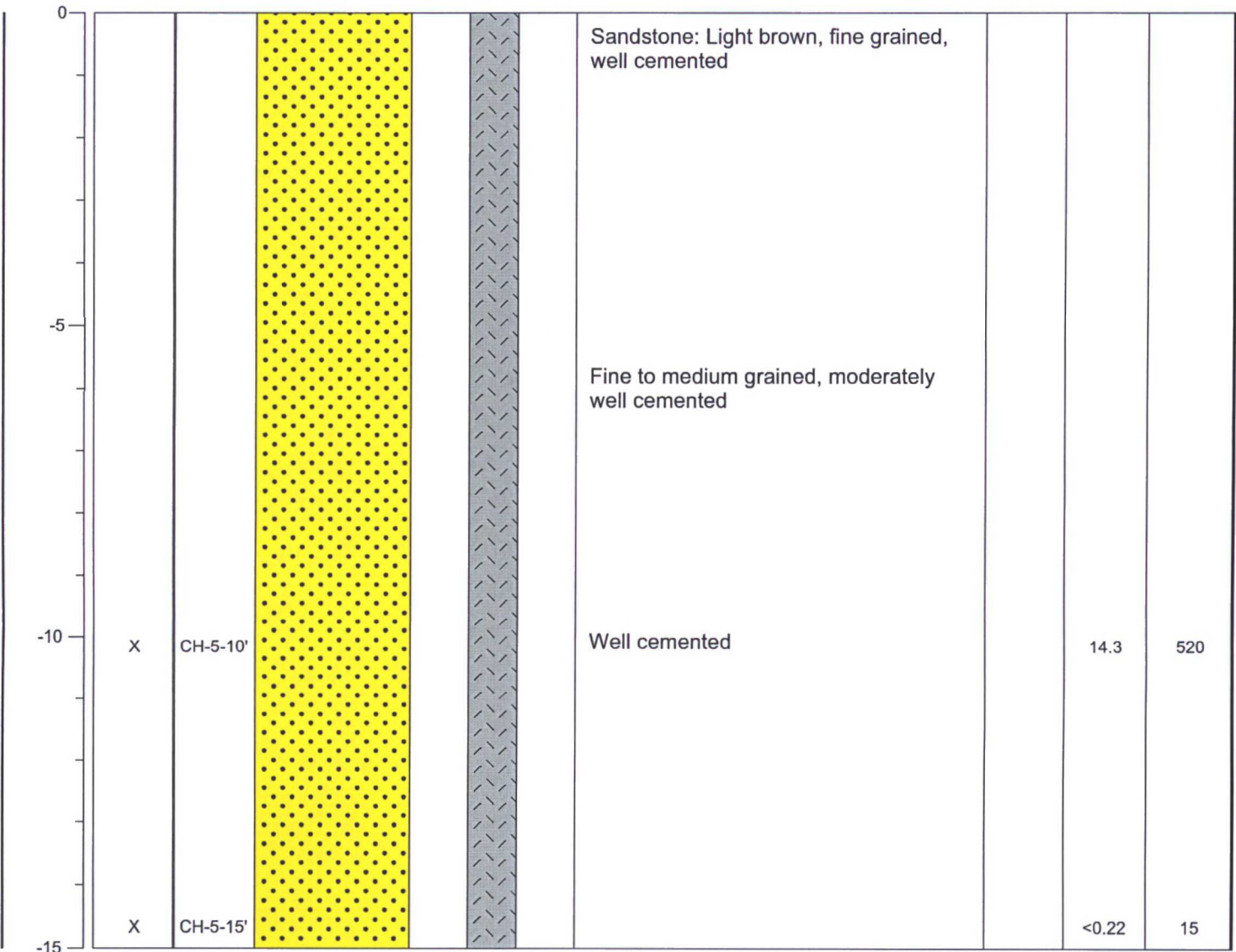
PROJECT NAME: San Juan 28-6 #155N	SOIL BORING NO: CH-4
LOCATION: Rio Arriba County, New Mexico	DRILL TYPE: Air Rotary
FIELD LOGGED BY: Cale Kanack	CME-850
SURFACE ELEVATION (msl): Unavailable	BORE HOLE DIAMETER: 6"
GROUNDWATER ELEVATION (msl): N/A	DRILLED BY: Yellow Jacket Drilling
REMARKS: * Depths measured from bottom of existing excavation (approximately 19' below grade)	DATE/TIME HOLE STARTED: 4-22-16 / 1005
COORDINATES: Unavailable	DATE/TIME HOLE COMPLETED: 4-22-16 / 1115

DEPTH (bgs) - ft	SAMPLE TO LAB	SAMPLE ID	STRATAGRAPHIC SEQUENCE	COMPLETION INFORMATION	CLASSIFICATION AND DESCRIPTION	PID (ppm)	Total BTEX (mg/kg)	Total TPH (mg/kg)
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0					Sandstone: Light brown/tan, very fine grained, very well cemented			
-5	X	CH-4-5'					164.58	3300
-10					Brown, fine to medium grained, very well cemented			
-15	X	CH-4-15'					<0.225	<61.4

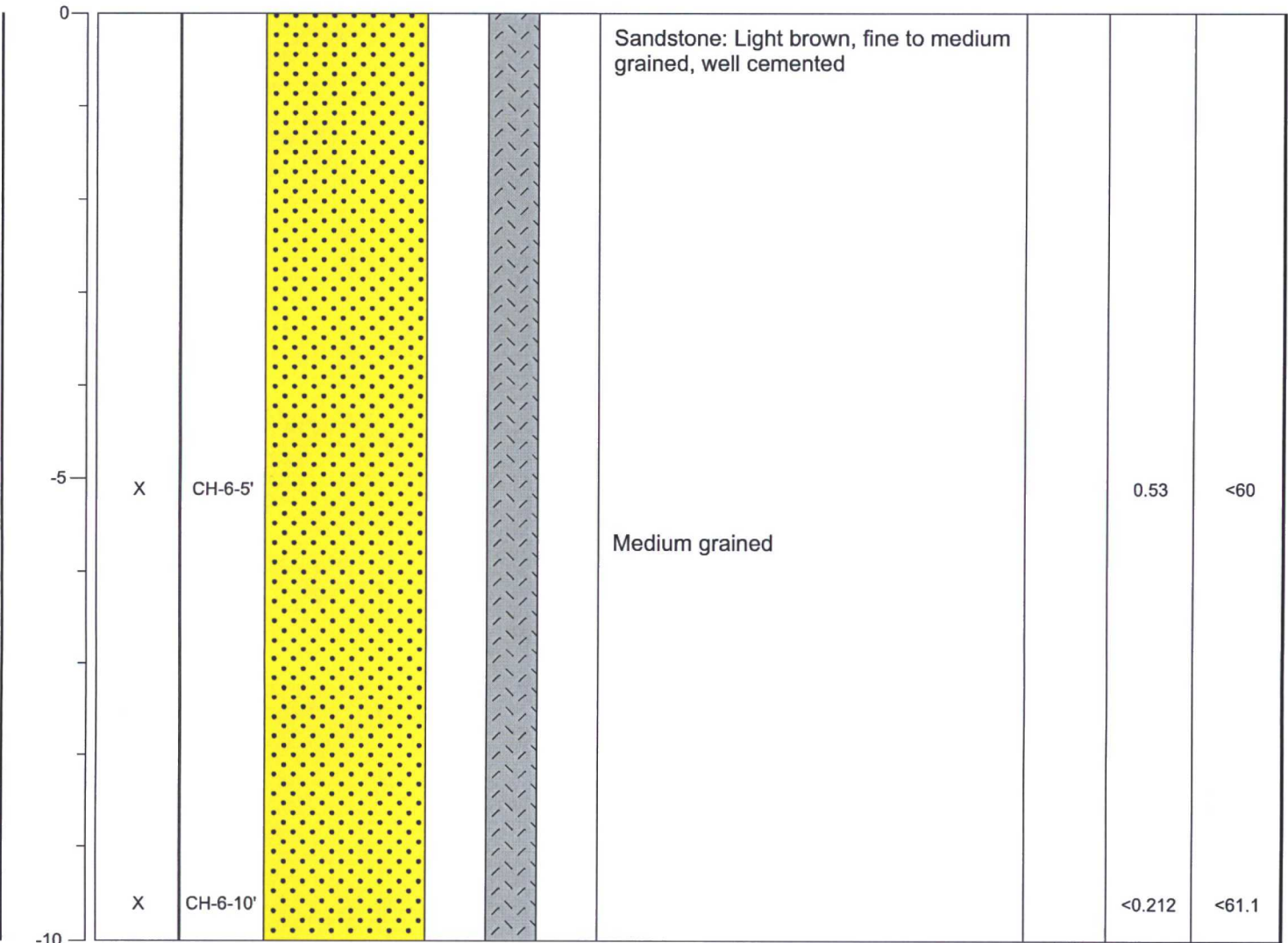
PROJECT NAME: San Juan 28-6 #155N	SOIL BORING NO: CH-5
LOCATION: Rio Arriba County, New Mexico	DRILL TYPE: Air Rotary
FIELD LOGGED BY: Cale Kanack	CME-850
SURFACE ELEVATION (msl): Unavailable	BORE HOLE DIAMETER: 6"
GROUNDWATER ELEVATION (msl): N/A	DRILLED BY: Yellow Jacket Drilling
REMARKS: * Depths measured from bottom of existing excavation (approximately 19' below grade)	DATE/TIME HOLE STARTED: 4-22-16 / 1135
COORDINATES: Unavailable	DATE/TIME HOLE COMPLETED: 4-22-16 / 1330

DEPTH (bgs) - ft	SAMPLE TO LAB	SAMPLE ID	STRATAGRAPHIC SEQUENCE	COMPLETION INFORMATION	CLASSIFICATION AND DESCRIPTION	PID (ppm)	Total BTEX (mg/kg)	Total TPH (mg/kg)
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PROJECT NAME: San Juan 28-6 #155N	SOIL BORING NO: CH-6
LOCATION: Rio Arriba County, New Mexico	DRILL TYPE: Air Rotary
FIELD LOGGED BY: Cale Kanack	CME-850
SURFACE ELEVATION (msl): Unavailable	BORE HOLE DIAMETER: 6"
GROUNDWATER ELEVATION (msl): N/A	DRILLED BY: Yellow Jacket Drilling
REMARKS: * Depths measured from bottom of existing excavation (approximately 19' below grade)	DATE/TIME HOLE STARTED: 4-22-16 / 1420
COORDINATES: Unavailable	DATE/TIME HOLE COMPLETED: 4-22-16 / 1530

DEPTH (bgs) - ft	SAMPLE TO LAB	SAMPLE ID	STRATAGRAPHIC SEQUENCE	COMPLETION INFORMATION	CLASSIFICATION AND DESCRIPTION	PID (ppm)	Total BTEX (mg/kg)	Total TPH (mg/kg)
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PROJECT NAME: San Juan 28-6 #155N

LOCATION: Rio Arriba, New Mexico

FIELD LOGGED BY: Jeff Walker

SURFACE ELEVATION (msl):

GROUNDWATER ELEVATION (msl): N/A

REMARKS:

COORDINATES: 36.63294, -107.48142

SOIL BORING NO: CH-7

DRILL TYPE: Stratex/Air Rotary

CME-85

BORE HOLE DIAMETER:

DRILLED BY: Yellow Jacket Drilling

DATE/TIME HOLE STARTED: 6/28/2016

DATE/TIME HOLE COMPLETED: 7/6/2016 at 0800

DEPTH (bgs) - ft	SAMPLE TO LAB	SAMPLE ID	STRATAGRAPHIC SEQUENCE	COMPLETION INFORMATION	CLASSIFICATION AND DESCRIPTION	PID (ppm)	Total BTEX (mg/kg)	Total TPH (mg/kg)
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0					Silt: some fine sand, brown, slightly moist to wet, medium dense, no odor			
-5					slightly sandier, Ca Carb/Sulf staining, trace clay, moist			
-10					Silty Sand: fine grained, brown, moist, no odor	0		
-15					Clay: firm, mottled gray/white/greenish yellow shale texture, moist	1.1		
-20					Sandstone: yellow brown, light to moderate cemented, fine grained, slight odor	1.1		
-25					competent-well cemented	1.7		
-30					no odor, minor iron banding	0		
X	CH7-32							

TD = 32 feet bgs



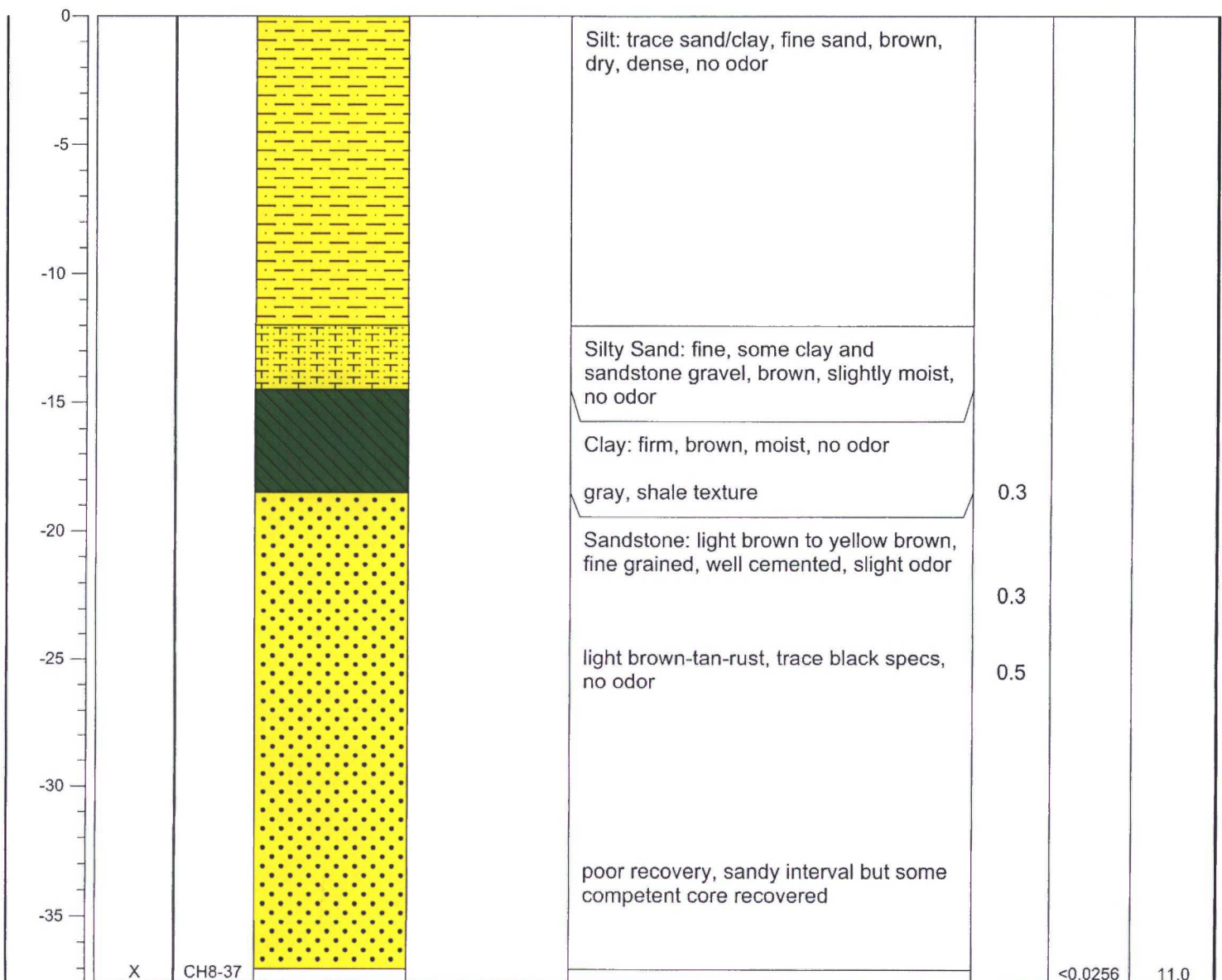
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BORING LOG AND
WELL COMPLETION FORM

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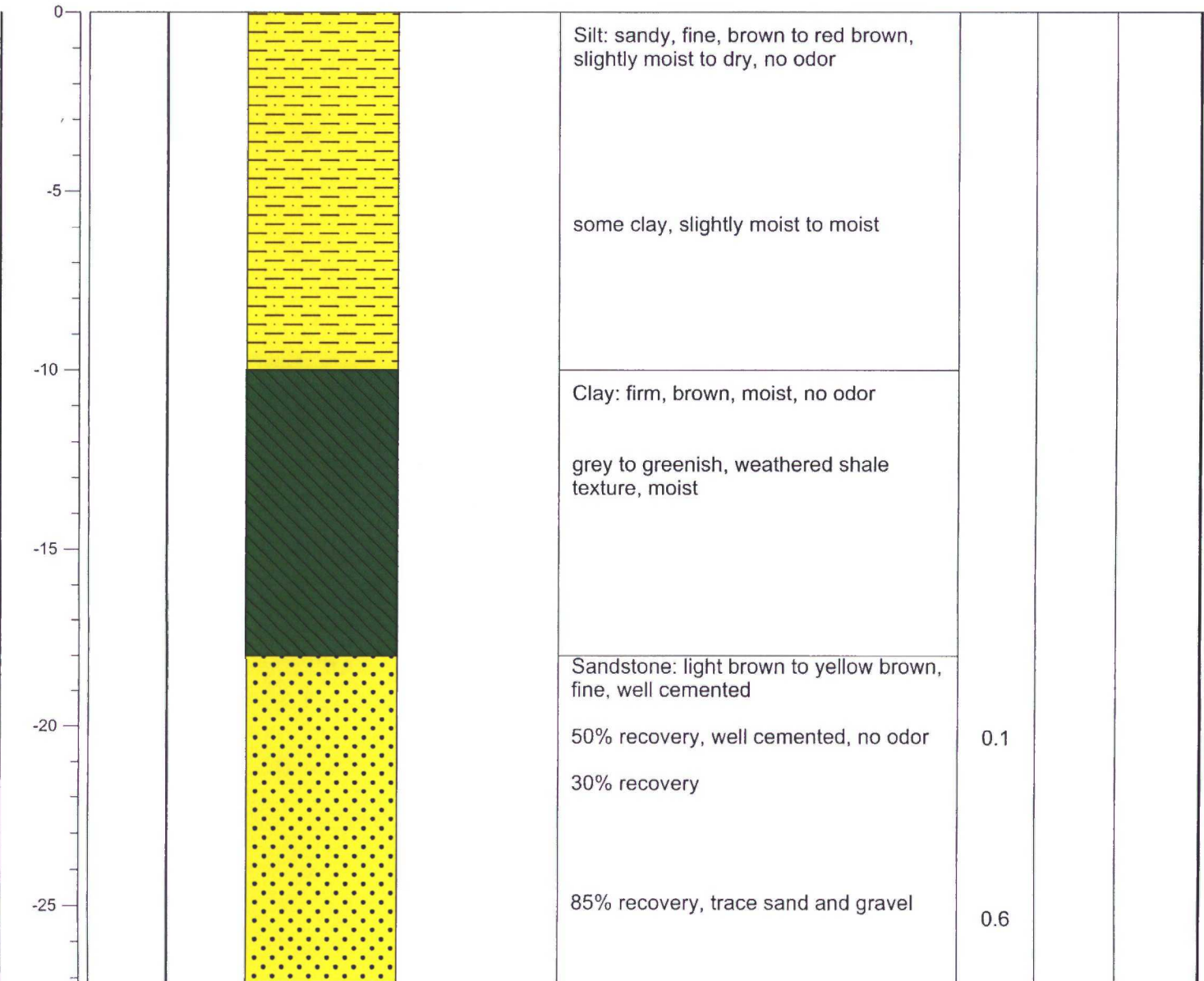
PROJECT NAME: San Juan 28-6 #155N	SOIL BORING NO: CH-8
LOCATION: Rio Arriba, New Mexico	DRILL TYPE: Stratex/Air Rotary
FIELD LOGGED BY: Jeff Walker	CME-85
SURFACE ELEVATION (msl): No survey data available	BORE HOLE DIAMETER:
GROUNDWATER ELEVATION (msl):	DRILLED BY: Yellow Jacket Drilling
REMARKS:	DATE/TIME HOLE STARTED: 7/6/2016 at 930
COORDINATES: 36.63298, -107.48141	DATE/TIME HOLE COMPLETED:

DEPTH (bgs) - ft	SAMPLE TO LAB	SAMPLE ID	STRATAGRAPHIC SEQUENCE	COMPLETION INFORMATION	CLASSIFICATION AND DESCRIPTION	PID (ppm)	Total BTEX (mg/kg)	Total TPH (mg/kg)
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PROJECT NAME: San Juan 28-6 #155N	SOIL BORING NO: CH-9
LOCATION: Rio Arriba, New Mexico	DRILL TYPE: Stratex/ Air Rotary
FIELD LOGGED BY: Jeff Walker	CME-85
SURFACE ELEVATION (msl): No survey data available	BORE HOLE DIAMETER:
GROUNDWATER ELEVATION (msl):	DRILLED BY: Yellow Jacket Drilling
REMARKS:	DATE/TIME HOLE STARTED: 7/6/2016 @ 1425
COORDINATES: 36.63301, -107.48151	DATE/TIME HOLE COMPLETED: 7/16/2016 @ 1630

DEPTH (bgs) - ft	SAMPLE TO LAB	SAMPLE ID	STRATAGRAPHIC SEQUENCE	COMPLETION INFORMATION	CLASSIFICATION AND DESCRIPTION	PID (ppm)	Total BTEX (mg/kg)	Total TPH (mg/kg)
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PROJECT NAME: San Juan 28-6 #155N
 LOCATION: Rio Arriba, New Mexico
 FIELD LOGGED BY: Jeff Walker
 SURFACE ELEVATION (msl): No survey data available
 GROUNDWATER ELEVATION (msl):
 REMARKS:
 COORDINATES: 36.63297, -107.48130

SOIL BORING NO: CH-10
 DRILL TYPE: Stratex/Air Rotary
 CME-85
 BORE HOLE DIAMETER:
 DRILLED BY: Yellow Jacket Drilling
 DATE/TIME HOLE STARTED: 7/7/2016 @ 0630
 DATE/TIME HOLE COMPLETED:

DEPTH (bgs) - ft	SAMPLE TO LAB	SAMPLE ID	STRATAGRAPHIC SEQUENCE	COMPLETION INFORMATION	CLASSIFICATION AND DESCRIPTION	PID (ppm)	Total BTEX (mg/kg)	Total TPH (mg/kg)
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0					Silt: trace fine sand, brown, slightly moist, firm			
-5								
-10								
-15					Sand: trace to some silt, light brown, fine grain, lightly moist, no odor			
-20					Clay: greenish gray to brown, firm, slightly moist, no odor, weathered shale texture			
-25					Sandstone: light brown to yellow brown, well cemented, fine grained, quarts rich with minor black	0.4		
					~70% recovery, rounded/subrounded grains			
					75% recovery, very well cemented	3.1		

TD = 42.5 feet bgs



Services Inc.

BORING LOG AND
WELL COMPLETION FORM

page 1 of 2

PROJECT NAME: San Juan 28-6 #155N
 LOCATION: Rio Arriba, New Mexico
 FIELD LOGGED BY: Jeff Walker
 SURFACE ELEVATION (msl): No survey data available
 GROUNDWATER ELEVATION (msl):
 REMARKS:
 COORDINATES:

SOIL BORING NO: CH-11
 DRILL TYPE: Stratex/Air Rotary
 CME-85
 BORE HOLE DIAMETER:
 DRILLED BY: Yellow Jacket Drilling
 DATE/TIME HOLE STARTED: 7/7/2016 @ 930
 DATE/TIME HOLE COMPLETED:

DEPTH (bgs) - ft	SAMPLE TO LAB	SAMPLE ID	STRATAGRAPHIC SEQUENCE	COMPLETION INFORMATION	CLASSIFICATION AND DESCRIPTION	PID (ppm)	Total BTEX (mg/kg)	Total TPH (mg/kg)
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0					Imported Backfill			
-5								
-10								
-15								
-20					Sandstone: brown, well cemented, HC odor	155		
-25					very well cemented, blocky	9.7		
-30						0.7		
	X	CH11-32.5					<0.0275	<11.45

TD = 32.5 feet bgs



Services Inc.

BORING LOG AND
WELL COMPLETION FORM

page 1 of 1

PROJECT NAME: San Juan 28-6 #155N	SOIL BORING NO: CH-10
LOCATION: Rio Arriba, New Mexico	DRILL TYPE: Stratex/Air Rotary
FIELD LOGGED BY: Jeff Walker	CME-85
SURFACE ELEVATION (msl): No survey data available	BORE HOLE DIAMETER:
GROUNDWATER ELEVATION (msl):	DRILLED BY: Yellow Jacket Drilling
REMARKS:	DATE/TIME HOLE STARTED: 7/7/2016 @ 0630
COORDINATES: 36.63297, -107.48130	DATE/TIME HOLE COMPLETED:

DEPTH (bgs) - ft	SAMPLE TO LAB	SAMPLE ID	STRATAGRAPHIC SEQUENCE	COMPLETION INFORMATION	CLASSIFICATION AND DESCRIPTION	PID (ppm)	Total BTEX (mg/kg)	Total TPH (mg/kg)
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-30					50% recovery, core not as massive, less cemented	0.8		
-35					50% recovery, tan to rust, iron banding	0.4		
-40						0.3		
X	CH10-42.5						0.017	<12.2

PROJECT NAME: San Juan 28-6 #155N
 LOCATION: Rio Arriba, New Mexico
 FIELD LOGGED BY: Jeff Walker
 SURFACE ELEVATION (msl): No survey data available
 GROUNDWATER ELEVATION (msl):
 REMARKS:
 COORDINATES: 36.63301, -107.48151

SOIL BORING NO: CH-9
 DRILL TYPE: Stratex/ Air Rotary
 CME-85
 BORE HOLE DIAMETER:
 DRILLED BY: Yellow Jacket Drilling
 DATE/TIME HOLE STARTED: 7/6/2016 @ 1425
 DATE/TIME HOLE COMPLETED: 7/16/2016 @ 1630

DEPTH (bgs) - ft	SAMPLE TO LAB	SAMPLE ID	STRATAGRAPHIC SEQUENCE	COMPLETION INFORMATION	CLASSIFICATION AND DESCRIPTION	PID (ppm)	Total BTEX (mg/kg)	Total TPH (mg/kg)
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-30					tan to rust, some greenish, 80% recovery			
-35					less competent	0.5		
-40								
	X	CH9-32					0.017	<12.2

TD = 42.5 feet bgs



Services Inc.

BORING LOG AND
WELL COMPLETION FORM

page 2 of 2

July 18, 2016

Christine Mathews
GHD Services, Inc.
6212 Indian School Rd. NE St2
Albuquerque, NM 87110


RE: Project: 11119528 COP SAN JUAN 28-6 UNI
Pace Project No.: 60222998

Dear Christine Mathews:

Enclosed are the analytical results for sample(s) received by the laboratory on July 07, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Alice Flanagan
alice.flanagan@pacelabs.com
Project Manager

Enclosures

cc: Angela Bown, GHD Services, Inc,
Jeffrey Walker, GHD Services, Inc



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: 11119528 COP SAN JUAN 28-6 UNI
Pace Project No.: 60222998

Kansas Certification IDs

9608 Loiret Boulevard, Lenexa, KS 66219
WY STR Certification #: 2456.01
Arkansas Certification #: 15-016-0
Illinois Certification #: 003097
Iowa Certification #: 118
Kansas/NELAP Certification #: E-10116

Louisiana Certification #: 03055
Nevada Certification #: KS000212008A
Oklahoma Certification #: 9205/9935
Texas Certification #: T104704407
Utah Certification #: KS00021
Kansas Field Laboratory Accreditation: # E-92587

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: 11119528 COP SAN JUAN 28-6 UNI
Pace Project No.: 60222998

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60222998001	SL-11119528-070616-JW-B7-32	Solid	07/06/16 07:45	07/07/16 14:10
60222998002	SL-11119528-070616-JW-B8-37	Solid	07/06/16 13:00	07/07/16 14:10

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: 11119528 COP SAN JUAN 28-6 UNI
Pace Project No.: 60222998

Lab ID	Sample ID	Method	Analysts	Analytes Reported
60222998001	SL-11119528-070616-JW-B7-32	EPA 8015B	AJM	3
		TNRCC 1005	ACW	6
		EPA 8270 by SIM	NAW	18
		EPA 5035A/8260	TJT	8
		ASTM D2974	DWC	1
60222998002	SL-11119528-070616-JW-B8-37	EPA 8015B	AJM	3
		TNRCC 1005	ACW	6
		EPA 8270 by SIM	NAW	18
		EPA 5035A/8260	TJT	8
		ASTM D2974	DWC	1

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 11119528 COP SAN JUAN 28-6 UNI

Pace Project No.: 60222998

Method: EPA 8015B

Description: 8015B Diesel Range Organics

Client: GHD Services_COP NM

Date: July 18, 2016

General Information:

2 samples were analyzed for EPA 8015B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with EPA 3546 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Surrogates:

All surrogates were within QC limits with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 11119528 COP SAN JUAN 28-6 UNI

Pace Project No.: 60222998

Method: TNRCC 1005

Description: TNRCC 1005 TPH

Client: GHD Services_COP NM

Date: July 18, 2016

General Information:

2 samples were analyzed for TNRCC 1005. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with TNRCC 1005 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Surrogates:

All surrogates were within QC limits with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 11119528 COP SAN JUAN 28-6 UNI
Pace Project No.: 60222998

Method: EPA 8270 by SIM
Description: 8270 MSSV PAH by SIM
Client: GHD Services_COP NM
Date: July 18, 2016

General Information:

2 samples were analyzed for EPA 8270 by SIM. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with EPA 3546 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

Surrogates:

All surrogates were within QC limits with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 11119528 COP SAN JUAN 28-6 UNI
Pace Project No.: 60222998

Method: EPA 5035A/8260
Description: 8260 MSV GRO and Oxygenates
Client: GHD Services_COP NM
Date: July 18, 2016

General Information:

2 samples were analyzed for EPA 5035A/8260. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

Surrogates:

All surrogates were within QC limits with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 11119528 COP SAN JUAN 28-6 UNI
Pace Project No.: 60222998

Sample: SL-11119528-070616-JW-B7-32 Lab ID: 60222998001 Collected: 07/06/16 07:45 Received: 07/07/16 14:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics								
Analytical Method: EPA 8015B Preparation Method: EPA 3546								
TPH-DRO	11.8	mg/kg	10.1	1	07/14/16 00:00	07/17/16 21:02		
Surrogates								
n-Tetracosane (S)	97	%	49-133	1	07/14/16 00:00	07/17/16 21:02	646-31-1	
p-Terphenyl (S)	96	%	57-108	1	07/14/16 00:00	07/17/16 21:02	92-94-4	
TNRCC 1005 TPH								
Analytical Method: TNRCC 1005 Preparation Method: TNRCC 1005								
TPH (C06-C12)	ND	mg/kg	20.6	1	07/15/16 15:05	07/16/16 00:43		
TPH (>C12-C28)	ND	mg/kg	20.6	1	07/15/16 15:05	07/16/16 00:43		
TPH (>C28-C35)	ND	mg/kg	20.6	1	07/15/16 15:05	07/16/16 00:43		
TPH Total (C06-C35)	ND	mg/kg	20.6	1	07/15/16 15:05	07/16/16 00:43		
Surrogates								
o-Terphenyl (S)	98	%	70-130	1	07/15/16 15:05	07/16/16 00:43	84-15-1	
1-Chlorooctane (S)	97	%	70-130	1	07/15/16 15:05	07/16/16 00:43	3386-33-2	
8270 MSSV PAH by SIM								
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	ND	ug/kg	3.4	1	07/14/16 00:00	07/15/16 17:31	83-32-9	
Acenaphthylene	ND	ug/kg	3.4	1	07/14/16 00:00	07/15/16 17:31	208-96-8	
Anthracene	ND	ug/kg	3.4	1	07/14/16 00:00	07/15/16 17:31	120-12-7	
Benzo(a)anthracene	ND	ug/kg	3.4	1	07/14/16 00:00	07/15/16 17:31	56-55-3	
Benzo(a)pyrene	ND	ug/kg	3.4	1	07/14/16 00:00	07/15/16 17:31	50-32-8	
Benzo(b)fluoranthene	ND	ug/kg	3.4	1	07/14/16 00:00	07/15/16 17:31	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	3.4	1	07/14/16 00:00	07/15/16 17:31	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	3.4	1	07/14/16 00:00	07/15/16 17:31	207-08-9	
Chrysene	ND	ug/kg	3.4	1	07/14/16 00:00	07/15/16 17:31	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	3.4	1	07/14/16 00:00	07/15/16 17:31	53-70-3	
Fluoranthene	ND	ug/kg	3.4	1	07/14/16 00:00	07/15/16 17:31	206-44-0	
Fluorene	ND	ug/kg	3.4	1	07/14/16 00:00	07/15/16 17:31	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	3.4	1	07/14/16 00:00	07/15/16 17:31	193-39-5	
Naphthalene	ND	ug/kg	3.4	1	07/14/16 00:00	07/15/16 17:31	91-20-3	
Phenanthrene	ND	ug/kg	3.4	1	07/14/16 00:00	07/15/16 17:31	85-01-8	
Pyrene	ND	ug/kg	3.4	1	07/14/16 00:00	07/15/16 17:31	129-00-0	
Surrogates								
2-Fluorobiphenyl (S)	75	%	62-105	1	07/14/16 00:00	07/15/16 17:31	321-60-8	
Terphenyl-d14 (S)	91	%	61-123	1	07/14/16 00:00	07/15/16 17:31	1718-51-0	
8260 MSV GRO and Oxygenates								
Analytical Method: EPA 5035A/8260								
Benzene	ND	mg/kg	0.0052	1		07/12/16 13:24	71-43-2	
Ethylbenzene	ND	mg/kg	0.0052	1		07/12/16 13:24	100-41-4	
Toluene	ND	mg/kg	0.0052	1		07/12/16 13:24	108-88-3	
TPH-GRO	ND	mg/kg	0.52	1		07/12/16 13:24		
Xylene (Total)	ND	mg/kg	0.010	1		07/12/16 13:24	1330-20-7	
Surrogates								
Toluene-d8 (S)	100	%	80-120	1		07/12/16 13:24	2037-26-5	
4-Bromofluorobenzene (S)	94	%	81-117	1		07/12/16 13:24	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	83-120	1		07/12/16 13:24	17060-07-0	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 11119528 COP SAN JUAN 28-6 UNI
Pace Project No.: 60222998

Sample: SL-11119528-070616-JW- Lab ID: 60222998001 Collected: 07/06/16 07:45 Received: 07/07/16 14:10 Matrix: Solid
B7-32

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture								
Analytical Method: ASTM D2974								
Percent Moisture	3.9	%	0.50	1		07/15/16 00:00		

REPORT OF LABORATORY ANALYSIS

ANALYTICAL RESULTS

Project: 11119528 COP SAN JUAN 28-6 UNI

Pace Project No.: 60222998

Sample: SL-11119528-070616-JW-B8-37 Lab ID: 60222998002 Collected: 07/06/16 13:00 Received: 07/07/16 14:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics								
Analytical Method: EPA 8015B Preparation Method: EPA 3546								
TPH-DRO	11.0	mg/kg	10.1	1	07/14/16 00:00	07/17/16 21:11		
Surrogates								
n-Tetracosane (S)	92	%	49-133	1	07/14/16 00:00	07/17/16 21:11	646-31-1	
p-Terphenyl (S)	93	%	57-108	1	07/14/16 00:00	07/17/16 21:11	92-94-4	
TNRCC 1005 TPH								
Analytical Method: TNRCC 1005 Preparation Method: TNRCC 1005								
TPH (C06-C12)	ND	mg/kg	20.0	1	07/15/16 15:05	07/16/16 01:25		
TPH (>C12-C28)	ND	mg/kg	20.0	1	07/15/16 15:05	07/16/16 01:25		
TPH (>C28-C35)	ND	mg/kg	20.0	1	07/15/16 15:05	07/16/16 01:25		
TPH Total (C06-C35)	ND	mg/kg	20.0	1	07/15/16 15:05	07/16/16 01:25		
Surrogates								
o-Terphenyl (S)	101	%	70-130	1	07/15/16 15:05	07/16/16 01:25	84-15-1	
1-Chlorooctane (S)	100	%	70-130	1	07/15/16 15:05	07/16/16 01:25	3386-33-2	
8270 MSSV PAH by SIM								
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	ND	ug/kg	3.3	1	07/14/16 00:00	07/15/16 17:49	83-32-9	
Acenaphthylene	ND	ug/kg	3.3	1	07/14/16 00:00	07/15/16 17:49	208-96-8	
Anthracene	ND	ug/kg	3.3	1	07/14/16 00:00	07/15/16 17:49	120-12-7	
Benzo(a)anthracene	ND	ug/kg	3.3	1	07/14/16 00:00	07/15/16 17:49	56-55-3	
Benzo(a)pyrene	ND	ug/kg	3.3	1	07/14/16 00:00	07/15/16 17:49	50-32-8	
Benzo(b)fluoranthene	ND	ug/kg	3.3	1	07/14/16 00:00	07/15/16 17:49	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	3.3	1	07/14/16 00:00	07/15/16 17:49	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	3.3	1	07/14/16 00:00	07/15/16 17:49	207-08-9	
Chrysene	ND	ug/kg	3.3	1	07/14/16 00:00	07/15/16 17:49	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	3.3	1	07/14/16 00:00	07/15/16 17:49	53-70-3	
Fluoranthene	ND	ug/kg	3.3	1	07/14/16 00:00	07/15/16 17:49	206-44-0	
Fluorene	ND	ug/kg	3.3	1	07/14/16 00:00	07/15/16 17:49	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	3.3	1	07/14/16 00:00	07/15/16 17:49	193-39-5	
Naphthalene	ND	ug/kg	3.3	1	07/14/16 00:00	07/15/16 17:49	91-20-3	
Phenanthrene	ND	ug/kg	3.3	1	07/14/16 00:00	07/15/16 17:49	85-01-8	
Pyrene	ND	ug/kg	3.3	1	07/14/16 00:00	07/15/16 17:49	129-00-0	
Surrogates								
2-Fluorobiphenyl (S)	75	%	62-105	1	07/14/16 00:00	07/15/16 17:49	321-60-8	
Terphenyl-d14 (S)	93	%	61-123	1	07/14/16 00:00	07/15/16 17:49	1718-51-0	
8260 MSV GRO and Oxygenates								
Analytical Method: EPA 5035A/8260								
Benzene	ND	mg/kg	0.0052	1		07/12/16 13:39	71-43-2	
Ethylbenzene	ND	mg/kg	0.0052	1		07/12/16 13:39	100-41-4	
Toluene	ND	mg/kg	0.0052	1		07/12/16 13:39	108-88-3	
TPH-GRO	ND	mg/kg	0.52	1		07/12/16 13:39		
Xylene (Total)	ND	mg/kg	0.010	1		07/12/16 13:39	1330-20-7	
Surrogates								
Toluene-d8 (S)	100	%	80-120	1		07/12/16 13:39	2037-26-5	
4-Bromofluorobenzene (S)	94	%	81-117	1		07/12/16 13:39	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	83-120	1		07/12/16 13:39	17060-07-0	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 11119528 COP SAN JUAN 28-6 UNI

Pace Project No.: 60222998

Sample: SL-11119528-070616-JW-B8-37 **Lab ID:** 60222998002 **Collected:** 07/06/16 13:00 **Received:** 07/07/16 14:10 **Matrix:** Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture								
Analytical Method: ASTM D2974								
Percent Moisture	2.2	%	0.50	1		07/15/16 00:00		

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QUALITY CONTROL DATA

Project: 11119528 COP SAN JUAN 28-6 UNI

Pace Project No.: 60222998

QC Batch: 438162	Analysis Method: EPA 5035A/8260
QC Batch Method: EPA 5035A/8260	Analysis Description: 8260 MSV GRO and Oxygenates
Associated Lab Samples: 60222998001, 60222998002	

METHOD BLANK: 1791988 Matrix: Solid

Associated Lab Samples: 60222998001, 60222998002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	mg/kg	ND	0.0050	07/12/16 12:07	
Ethylbenzene	mg/kg	ND	0.0050	07/12/16 12:07	
Toluene	mg/kg	ND	0.0050	07/12/16 12:07	
TPH-GRO	mg/kg	ND	0.50	07/12/16 12:07	
Xylene (Total)	mg/kg	ND	0.010	07/12/16 12:07	
1,2-Dichloroethane-d4 (S)	%	101	83-120	07/12/16 12:07	
4-Bromofluorobenzene (S)	%	92	81-117	07/12/16 12:07	
Toluene-d8 (S)	%	101	80-120	07/12/16 12:07	

LABORATORY CONTROL SAMPLE: 1791989

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	mg/kg	.1	0.092	92	75-116	
Ethylbenzene	mg/kg	.1	0.089	89	72-116	
Toluene	mg/kg	.1	0.087	87	72-116	
TPH-GRO	mg/kg	4	4.2	105	76-128	
Xylene (Total)	mg/kg	.3	0.27	91	69-116	
1,2-Dichloroethane-d4 (S)	%			102	83-120	
4-Bromofluorobenzene (S)	%			105	81-117	
Toluene-d8 (S)	%			97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1791990 1791991

Parameter	Units	60223055003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
Benzene	mg/kg	ND	.11	.11	0.087	0.098	79	88	28-136	11	36
Ethylbenzene	mg/kg	ND	.11	.11	0.080	0.088	73	80	10-152	9	48
Toluene	mg/kg	ND	.11	.11	0.083	0.092	75	83	19-141	11	40
Xylene (Total)	mg/kg	ND	.33	.33	0.24	0.27	74	81	10-149	9	50
1,2-Dichloroethane-d4 (S)	%						100	100	83-120		
4-Bromofluorobenzene (S)	%						103	102	81-117		
Toluene-d8 (S)	%						99	99	80-120		38

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QUALITY CONTROL DATA

Project: 11119528 COP SAN JUAN 28-6 UNI
Pace Project No.: 60222998

QC Batch: 438458 Analysis Method: EPA 8015B
QC Batch Method: EPA 3546 Analysis Description: EPA 8015B
Associated Lab Samples: 60222998001, 60222998002

METHOD BLANK: 1793208 Matrix: Solid
Associated Lab Samples: 60222998001, 60222998002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH-DRO	mg/kg	ND	9.9	07/17/16 20:46	
n-Tetracosane (S)	%	96	49-133	07/17/16 20:46	
p-Terphenyl (S)	%	97	57-108	07/17/16 20:46	

LABORATORY CONTROL SAMPLE: 1793209

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH-DRO	mg/kg	81.9	80.3	98	77-122	
n-Tetracosane (S)	%			100	49-133	
p-Terphenyl (S)	%			100	57-108	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1793210 1793211

Parameter	Units	60223039001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
TPH-DRO	mg/kg	ND	90.9	87.8	104	119	106	127	44-138	14	71
n-Tetracosane (S)	%						106	101	49-133		58
p-Terphenyl (S)	%						103	94	57-108		56

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QUALITY CONTROL DATA

Project: 11119528 COP SAN JUAN 28-6 UNI
Pace Project No.: 60222998

QC Batch: 438459	Analysis Method: EPA 8270 by SIM
QC Batch Method: EPA 3546	Analysis Description: 8270/3546 MSSV PAH by SIM
Associated Lab Samples: 60222998001, 60222998002	

METHOD BLANK: 1793214 Matrix: Solid
Associated Lab Samples: 60222998001, 60222998002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acenaphthene	ug/kg	ND	3.2	07/15/16 16:55	
Acenaphthylene	ug/kg	ND	3.2	07/15/16 16:55	
Anthracene	ug/kg	ND	3.2	07/15/16 16:55	
Benzo(a)anthracene	ug/kg	ND	3.2	07/15/16 16:55	
Benzo(a)pyrene	ug/kg	ND	3.2	07/15/16 16:55	
Benzo(b)fluoranthene	ug/kg	ND	3.2	07/15/16 16:55	
Benzo(g,h,i)perylene	ug/kg	ND	3.2	07/15/16 16:55	
Benzo(k)fluoranthene	ug/kg	ND	3.2	07/15/16 16:55	
Chrysene	ug/kg	ND	3.2	07/15/16 16:55	
Dibenz(a,h)anthracene	ug/kg	ND	3.2	07/15/16 16:55	
Fluoranthene	ug/kg	ND	3.2	07/15/16 16:55	
Fluorene	ug/kg	ND	3.2	07/15/16 16:55	
Indeno(1,2,3-cd)pyrene	ug/kg	ND	3.2	07/15/16 16:55	
Naphthalene	ug/kg	ND	3.2	07/15/16 16:55	
Phenanthrene	ug/kg	ND	3.2	07/15/16 16:55	
Pyrene	ug/kg	ND	3.2	07/15/16 16:55	
2-Fluorobiphenyl (S)	%	74	62-105	07/15/16 16:55	
Terphenyl-d14 (S)	%	89	61-123	07/15/16 16:55	

LABORATORY CONTROL SAMPLE: 1793215

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acenaphthene	ug/kg	32.1	27.4	85	60-111	
Acenaphthylene	ug/kg	32.1	27.3	85	56-111	
Anthracene	ug/kg	32.1	26.1	81	52-115	
Benzo(a)anthracene	ug/kg	32.1	27.7	86	59-119	
Benzo(a)pyrene	ug/kg	32.1	27.1	84	49-119	
Benzo(b)fluoranthene	ug/kg	32.1	30.1	94	56-121	
Benzo(g,h,i)perylene	ug/kg	32.1	26.2	82	46-123	
Benzo(k)fluoranthene	ug/kg	32.1	29.0	90	59-116	
Chrysene	ug/kg	32.1	30.8	96	48-116	
Dibenz(a,h)anthracene	ug/kg	32.1	28.8	90	46-126	
Fluoranthene	ug/kg	32.1	27.0	84	58-118	
Fluorene	ug/kg	32.1	27.8	87	58-115	
Indeno(1,2,3-cd)pyrene	ug/kg	32.1	26.2	82	47-124	
Naphthalene	ug/kg	32.1	28.0	87	51-121	
Phenanthrene	ug/kg	32.1	27.1	84	60-110	
Pyrene	ug/kg	32.1	28.9	90	60-119	
2-Fluorobiphenyl (S)	%			79	62-105	
Terphenyl-d14 (S)	%			86	61-123	

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QUALITY CONTROL DATA

Project: 11119528 COP SAN JUAN 28-6 UNI
Pace Project No.: 60222998

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1793216 1793217												
Parameter	Units	60223055003	MS	MSD	MS	MSD	MS	MSD	% Rec	% Rec	Max	Qual
		Result	Spike	Spike								
			Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	
Acenaphthene	ug/kg	ND	35.6	36.9	28.8	30.3	81	82	36-127	5	51	
Acenaphthylene	ug/kg	ND	35.6	36.9	30.3	30.3	85	82	31-133	0	72	
Anthracene	ug/kg	ND	35.6	36.9	29.2	30.7	82	83	26-138	5	49	
Benzo(a)anthracene	ug/kg	ND	35.6	36.9	29.7	32.4	84	88	31-148	9	73	
Benzo(a)pyrene	ug/kg	ND	35.6	36.9	29.7	31.4	84	85	19-148	5	67	
Benzo(b)fluoranthene	ug/kg	ND	35.6	36.9	29.9	31.5	84	86	27-152	5	59	
Benzo(g,h,i)perylene	ug/kg	ND	35.6	36.9	29.7	30.5	83	83	10-153	2	73	
Benzo(k)fluoranthene	ug/kg	ND	35.6	36.9	30.0	31.3	84	85	10-157	4	61	
Chrysene	ug/kg	ND	35.6	36.9	33.7	34.6	95	94	10-154	3	73	
Dibenz(a,h)anthracene	ug/kg	ND	35.6	36.9	31.2	31.6	88	86	28-135	1	48	
Fluoranthene	ug/kg	ND	35.6	36.9	27.5	29.9	77	81	10-169	8	77	
Fluorene	ug/kg	ND	35.6	36.9	30.0	31.1	84	84	19-148	3	54	
Indeno(1,2,3-cd)pyrene	ug/kg	ND	35.6	36.9	30.4	29.7	85	81	21-142	2	58	
Naphthalene	ug/kg	ND	35.6	36.9	30.0	31.1	84	84	10-175	4	66	
Phenanthrene	ug/kg	ND	35.6	36.9	30.1	31.6	84	86	10-201	5	91	
Pyrene	ug/kg	ND	35.6	36.9	33.2	35.9	93	97	10-206	8	74	
2-Fluorobiphenyl (S)	%						81	81	62-105		43	
Terphenyl-d14 (S)	%						94	97	61-123		46	

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QUALITY CONTROL DATA

Project: 11119528 COP SAN JUAN 28-6 UNI
Pace Project No.: 60222998

QC Batch: 438486 Analysis Method: TNRCC 1005
QC Batch Method: TNRCC 1005 Analysis Description: TX1005 TPH GCS
Associated Lab Samples: 60222998001, 60222998002

METHOD BLANK: 1793263 Matrix: Solid
Associated Lab Samples: 60222998001, 60222998002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH (>C12-C28)	mg/kg	ND	20.0	07/15/16 16:53	
TPH (>C28-C35)	mg/kg	ND	20.0	07/15/16 16:53	
TPH (C06-C12)	mg/kg	ND	20.0	07/15/16 16:53	
TPH Total (C06-C35)	mg/kg	ND	20.0	07/15/16 16:53	
1-Chlorooctane (S)	%	109	70-130	07/15/16 16:53	
o-Terphenyl (S)	%	110	70-130	07/15/16 16:53	

LABORATORY CONTROL SAMPLE & LCSD: 1793264		1793265								
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
TPH Total (C06-C35)	mg/kg	2500	2180	1930	87	77	75-125	12	23	
1-Chlorooctane (S)	%				118	105	70-130			
o-Terphenyl (S)	%				104	91	70-130			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1793266		1793267										
Parameter	Units	60223055003	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Result										
TPH Total (C06-C35)	mg/kg	ND	5570	5900	5630	5250	101	89	75-125	7	23	
1-Chlorooctane (S)	%						130	116	70-130			
o-Terphenyl (S)	%						109	96	70-130			

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QUALITY CONTROL DATA

Project: 11119528 COP SAN JUAN 28-6 UNI
Pace Project No.: 60222998

QC Batch: 438647	Analysis Method: ASTM D2974
QC Batch Method: ASTM D2974	Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 60222998001, 60222998002	

METHOD BLANK: 1794213 Matrix: Solid
Associated Lab Samples: 60222998001, 60222998002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Percent Moisture	%	ND	0.50	07/15/16 00:00	

SAMPLE DUPLICATE: 1794214

Parameter	Units	60222660001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	4.8	5.2	7	20	

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QUALIFIERS

Project: 11119528 COP SAN JUAN 28-6 UNI

Pace Project No.: 60222998

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 11119528 COP SAN JUAN 28-6 UNI
Pace Project No.: 60222998

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60222998001	SL-11119528-070616-JW-B7-32	EPA 3546	438458	EPA 8015B	438755
60222998002	SL-11119528-070616-JW-B8-37	EPA 3546	438458	EPA 8015B	438755
60222998001	SL-11119528-070616-JW-B7-32	TNRCC 1005	438486	TNRCC 1005	438823
60222998002	SL-11119528-070616-JW-B8-37	TNRCC 1005	438486	TNRCC 1005	438823
60222998001	SL-11119528-070616-JW-B7-32	EPA 3546	438459	EPA 8270 by SIM	438757
60222998002	SL-11119528-070616-JW-B8-37	EPA 3546	438459	EPA 8270 by SIM	438757
60222998001	SL-11119528-070616-JW-B7-32	EPA 5035A/8260	438162		
60222998002	SL-11119528-070616-JW-B8-37	EPA 5035A/8260	438162		
60222998001	SL-11119528-070616-JW-B7-32	ASTM D2974	438647		
60222998002	SL-11119528-070616-JW-B8-37	ASTM D2974	438647		

REPORT OF LABORATORY ANALYSIS

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Sample Condition Upon Receipt
ESI Tech Spec Client

WO# : 60222998



Client Name: GHD GP-NM

Courier: FedEx ☒ UPS ☐ VIA ☐ Clay ☐ PEX ☐ ECI ☐ Pace ☐ Other ☐ Client ☐

Tracking #: 6703 1645 2844 Pace Shipping Label Used? Yes ☒ No ☐

Custody Seal on Cooler/Box Present: Yes ☐ No ☐ Seals intact: Yes ☐ No ☐

Packing Material: Bubble Wrap ☐ Bubble Bags ☐ Foam ☐ None ☐ Other ☐

Thermometer Used: T-239 / T-262

Type of Ice: Wet Blue ☐ None ☐ Samples received on ice, cooling process has begun.
(circle one)

Cooler Temperature: 5.4

Temperature should be above freezing to 6°C

Date and initials of person examining contents: JS 7/7/16 1505

Chain of Custody present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody filled out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler name & signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples arrived within holding time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time analyses (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct containers used:	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	9. Bulk soil samples received for 6260.
Pace containers used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Containers intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	11.
Unpreserved 5035A soils frozen w/in 48hrs?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
Filtered volume received for dissolved tests?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.
Sample labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	14.
Includes date/time/ID/analyses	Matrix: <u>water</u>	15.
All containers needing preservation have been checked.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.
All containers needing preservation are found to be in compliance with EPA recommendation.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	17.
Exceptions: VOA, Coliform, O&G, WI-DRO (water)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	18.
Trip Blank present:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	19.
Pace Trip Blank lot # (if purchased):	<u>NA</u>	20.
Headspace in VOA vials (>6mm):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	21.
Project sampled in USDA Regulated Area:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	22.
Additional labels attached to 5035A vials in the field?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	23.

Client Notification/ Resolution:

Copy COC to Client? Y / N

Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: AAF Date: 07/07/16

Temp Log: Record start and finish times when unpacking cooler, if >20 min, recheck sample temps.

Start: <u>1500</u>	Start:
End: <u>1505</u>	End:
Temp:	Temp:

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : 1 Of 1

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:		Page : 1 Of 1	
Company: GHD Services, COP NM		Report To: Jeffrey Walker		Attention:		Regulatory Agency:	
Address: 6121 Indian School Rd NE		Copy To:		Company Name:			
Albuquerque, NM 87110				Address:			
Email: jeff.walker@ghd.com		Purchase Order #:		Pace Quote:		State / Location NM	
Phone: 505-377-3920 Fax:		Project Name: 1119528 COP San Juan 28-6 Unit155N		Pace Project Manager: alioe.flanagan@pacelabs.com			
Requested Due Date:		Project #:		Pace Profile #: 8644, line 30			

[illegible]

SAMPLER NAME AND SIGNATURE		TEMP in C	Received on date	Cust-Only Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:					
SIGNATURE of SAMPLER:	DATE Signed:				