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

Final Report

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.

☐ Initial Report

Release Notification and Corrective Action

OPERATOR

Name of Company Burlington Resources Oil & Gas Company					
Address 3401 East 30 th St, Farmington, NM	Telephone No. (505) 258-1607				
Facility Name: San Juan 28-6 Unit 155N	Facility Type: Gas				
Surface Owner: BLM Mineral Owner	er: SF-079050-C API No.3003927601				
LOCATI	ON OF RELEASE				
	rth/South Line Feet from the FNL Feet from the FNL East/West Line FWL OIL COUNTY FWL OIL ST. 3				
Latitude <u>36.63.</u>	311 Longitude <u>-107.48151</u> SEP 2 2 2016				
	RE 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 1/27/2015 @ 10:15 AM				
Was Immediate Notice Given? ☐ Yes ☐ No ☐ Not Require					
By Whom? Was a Watercourse Reached?	Date and Hour				
was a watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.				
If a Watercourse was Impacted, Describe Fully.*					
Describe Cause of Problem and Remedial Action Taken.* Weld on p line. The drain line to pit was open to drain remaining fluid from tank.	roduction tank was found leaking on the 2" plugged coupling located below load Well was shut in.				
Describe Area Affected and Cleanup Action Taken.*					
	ting at sandstone in January 2015. 2100 cy of impacted soil was removed for alyzed for BTEX and TPH on February 17, 2015. Sidewall samples were below				
	the bottom sample was in excess of the standards for both BTEX and TPH. On				
	below the NMOCD standards. February 12, 2016, six discriminate base				
	request, with the highest lab results at 350ppm TPH and .31ppm BTEX.				
	6 six borings were cored into the sandstone from the bottom of the 19 ft deep 0 mg/kg) and total TPH (<100 mg/kg) in five of the six borings within 5 to 15 ft				
	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 addit	ional soil borings were advanced in the southwest corner of the former				
	ole. In June 2016, five additional borings were drilled/cored to depths of from				
	s were laboratory analyzed for BTEX and TPH and all constituents were below all well data to be in excess of 200 ft below site grade. COPC believes				
	it practicable & any residual contaminates do not pose a present or foreseeable				
threat or an environmental risk to fresh water, humans or animals					
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				
	the notifications and perform corrective actions for releases which may endanger				
	the NMOCD marked as "Final Report" does not relieve the operator of liability				
	diate contamination that pose a threat to ground water, surface water, human health rt does not relieve the operator of responsibility for compliance with any other				
federal, state, or local laws and/or regulations.	tt does not reneve the operator of responsibility for compliance with any other				
. 0 . 111	OIL CONSERVATION DIVISION				
Signature:					
Signature.	Amend & Friedrick one of the				
Printed Name: Lisa Hunter	Approved by Environmental Specialist:				
Title: Field Environmental Specialist	Approval Date: //9//> Expiration Date:				
E-mail Address: Lisa.Hunter@cop.com	Conditions of Approval: No Farther Attached				
Date: 09/13/2016 Phone: (505) 258-1607	Action Rea At this Time				
Attach Additional Sheets If Necessary 3R-1030	See Attachel. (133)				
311 70 30	#NCS 1507249715 (13)				

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 relive 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

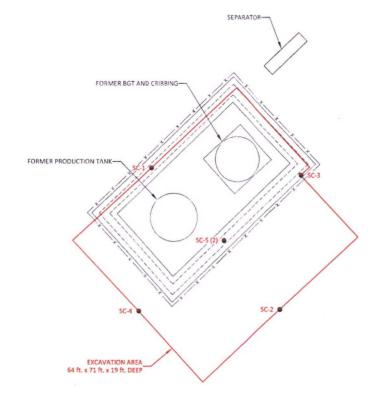
Environmental Specialist

Energy, Minerals, & Natural Resources Department

Oil Conservation Division

1000 Rio Brazos Rd, Aztec, NM 87410

cory.smith@state.nm.us



	Field Sa	mpling Re	sults	
Sample ID	Date	Depth (ft)	OVM- PID (ppm)	TPH (mg/kg)
NA	AOCD ACTIO	ON LEVEL	100	100
SC-1	2/17/15	1 to 19	74.2	<20.0
SC-2	2/17/15	1 to 19	48.0	<20.0
SC-3	2/17/15	1 to 19	20.2	<20.0
SC-4	2/17/15	1 to 19	2.5	<20.0
SC-5 (2)	4/30/15	19	38.5	38.8

		Lab	oratory An	alytical Res	ults		
Sample ID	Date	Depth (ft)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH - GRO (mg/kg)	TPH - DRO (mg/kg)	TPH - DRO (mg/kg)
NMOCD	ACTION LE	VEL	10	50		100	
SC-1	2/17/15	1 to 19	< 0.032	< 0.160	<3.2	<10	<50
SC-2	2/17/15	1 to 19	< 0.038	< 0.190	<3.8	<10	<50
SC-3	2/17/15	1 to 19	< 0.044	< 0.220	<4.4	<10	<50
SC-4	2/17/15	1 to 19	< 0.031	<0.155	<3.1	<9.9	<50
SC-5 (2)	4/30/15	19	<0.038	< 0.190	<3.8	20	<49

FIGURE 3

FINAL EXCAVATION SAMPLE LOCATIONS AND RESULTS FEBRUARY AND APRIL 2015 CONCOCDHIIIIPS SWI, NWY, SECTION 28, TZYN, REW RIO ARRIBA COUNTY, NEW MEXICO N36.63291, W107.48120



Animas Environmental Services, U.C.

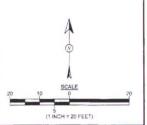
DRAWN BY:	DATE DRAWN:
S. Glasses	February 18, 2015
REVISIONS BY:	DATE REVISED:
C. Lameman	May 6, 2015
CHECKED BY:	DATE CHECKED:
E. Skyles	May 6, 2015
APPROVED BY:	DATE APPROVED:
E. McNally	May 6, 2015

LEGEND

SAMPLE LOCATIONS

==== SECONDARY CONTAINMENT BERM

-x - FENCE



SAN JUAN 28-6 #155N WELLHEAD-



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 qualifers 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

andyl

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order 1502720

Date Reported: 2/20/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental

Project: COP SJ 28-6 #155N

1502720-001

Lab ID:

Client Sample ID: SC-1

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

Matrix: MEOH (SOIL) Received Date: 2/18/2015 8:00:00 AM

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

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
- Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Page 1 of 9

- P Sample pH Not In Range
- RL Reporting Detection Limit

Lab Order 1502720

Date Reported: 2/20/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental

1502720-002

Lab ID:

Project: COP SJ 28-6 #155N

Client Sample ID: SC-2

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

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 RANG	E ORGANICS				Analys	st: JME
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	2/18/2015 10:49:56 A	M 17795
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	2/18/2015 10:49:56 A	M 17795
Surr: DNOP	103	63.5-128	%REC	1	2/18/2015 10:49:56 A	M 17795
EPA METHOD 8015D: GASOLINE RA	NGE				Analys	st: NSB
Gasoline Range Organics (GRO)	ND	3.8	mg/Kg	1	2/18/2015 10:48:11 Al	M R24377
Surr: BFB	94.2	80-120	%REC	1	2/18/2015 10:48:11 Al	M R24377
EPA METHOD 8021B: VOLATILES					Analys	st: NSB
Benzene	ND	0.038	mg/Kg	1	2/18/2015 10:48:11 Al	M R24377
Toluene	ND	0.038	mg/Kg	1	2/18/2015 10:48:11 Al	M R24377
Ethylbenzene	ND	0.038	mg/Kg	1	2/18/2015 10:48:11 Al	M R24377
Xylenes, Total	ND	0.076	mg/Kg	1	2/18/2015 10:48:11 Al	M R24377
Surr: 4-Bromofluorobenzene	102	80-120	%REC	1	2/18/2015 10:48:11 Al	M R24377

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
- Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Page 2 of 9

- Sample pH Not In Range
- RL Reporting Detection Limit

Lab Order 1502720

Date Reported: 2/20/2015

Hall Environmental Analysis Laboratory, Inc.

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 RANG	E 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 RA	NGE				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.
- 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

Page 3 of 9

- P Sample pH Not In Range
- RL Reporting Detection Limit

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

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
- ragged QC data and preservation information
- B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Page 4 of 9

- P Sample pH Not In Range
- RL Reporting Detection Limit

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 RAM	IGE					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.
- 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

Page 5 of 9

- P Sample pH Not In Range
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

WO#:

1502720

20-Feb-15

Clie	nt:
Proj	ect:

Animas Environmental COP SJ 28-6 #155N

Sample ID	MB-17795
Client ID:	PBS

ND

ND

9.7

4.6

5.5

Result

SampType: MBLK Batch ID: 17795 Analysis Date: 2/18/2015

PQL

TestCode: EPA Method 8015D: Diesel Range Organics RunNo: 24371

SeqNo: 718279

Units: mg/Kg

%RPD

HighLimit

RPDLimit

Analyte Diesel Range Organics (DRO) Motor Oil Range Organics (MRO)

Prep Date: 2/18/2015

Result

10 50 10.00

97.1

63.5 128

TestCode: EPA Method 8015D: Diesel Range Organics

Sample ID LCS-17795 Client ID: LCSS

Prep Date: 2/18/2015

SampType: LCS Batch ID: 17795 Analysis Date: 2/18/2015

RunNo: 24371 SeqNo: 718280

SPK value SPK Ref Val %REC LowLimit

Units: mg/Kg

Diesel Range Organics (DRO) Surr: DNOP

Surr: DNOP

Result PQL 48

SPK value SPK Ref Val 50.00

5.000

4.970

%REC LowLimit HighLimit 96.5 67.8 63.5 91.0

%RPD **RPDLimit** Qual

Sample ID 1502720-001AMS

SampType: MS

10

TestCode: EPA Method 8015D: Diesel Range Organics

%RPD

Client ID: SC-1 Prep Date: 2/18/2015

Batch ID: 17795 Analysis Date: 2/18/2015 RunNo: 24371 SeqNo: 718410

Units: mg/Kg

HighLimit

130

128

Analyte Diesel Range Organics (DRO) Surr: DNOP

Result **PQL** SPK value SPK Ref Val 58 99 49.70

%REC LowLimit 118

29.2 176 110 63.5 128

RPDLimit Qual

Sample ID 1502720-001AMSD

Analyte

SampType: MSD

TestCode: EPA Method 8015D: Diesel Range Organics RunNo: 24371

Client ID: SC-1 Prep Date: 2/18/2015

Batch ID: 17795 Analysis Date: 2/18/2015

PQL

SeqNo: 718411

Units: mg/Kg

HighLimit

RPDLimit Qual 23

Diesel Range Organics (DRO) Surr: DNOP

58 9.8 49.16 5.6 4.916

SPK value SPK Ref Val %REC 118

0

LowLimit 29.2 115 63.5

0.697 176 128

%RPD

0

Qualifiers:

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

Page 6 of 9

Hall Environmental Analysis Laboratory, Inc.

1000

WO#:

1502720

20-Feb-15

Qual

Client: Project:

Surr: BFB

Animas Environmental 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

SPK value SPK Ref Val %REC LowLimit %RPD **RPDLimit** Result PQL HighLimit Analyte Gasoline Range Organics (GRO) ND 5.0 Surr: BFB 910 1000 91.1 80 120

1000

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

101

80

120

Sample ID 1502720-001AMS TestCode: EPA Method 8015D: Gasoline Range SampType: MS Client ID: SC-1 Batch ID: R24377 RunNo: 24377 Prep Date: Analysis Date: 2/18/2015 SegNo: 718567 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDI imit Qual Gasoline Range Organics (GRO) 17 32 15.94 2.794 91.5 47 9 144 Surr: BFB 630 637.8 98.7 80 120

Sample ID 1502720-001AMSD TestCode: EPA Method 8015D: Gasoline Range SampType: MSD Client ID: SC-1 Batch ID: R24377 RunNo: 24377 Prep Date: Analysis Date: 2/18/2015 SeqNo: 718568 Units: mg/Kg SPK value SPK Ref Val Result PQL %REC LowLimit HighLimit %RPD **RPDLimit** Qual Analyte Gasoline Range Organics (GRO) 32 15.94 2 794 92 1 47 9 0.512 29.9 17 144 Surr: BFB 640 637.8 100 80 120 0

TestCode: EPA Method 8015D: Gasoline Range Sample ID MB-17797 SampType: MBLK Batch ID: 17797 RunNo: 24415 Client ID: PBS 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 120 893 80

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

Qualifiers:

- Value exceeds Maximum Contaminant Level
- Value above quantitation range E
- Analyte detected below quantitation limits
- 0 RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Page 7 of 9

- P Sample pH Not In Range
- RL Reporting Detection Limit

Spike Recovery outside accepted recovery limits S

Hall Environmental Analysis Laboratory, Inc.

WO#:

1502720

20-Feb-15

Client:	Animas Environmenta
Project:	COP SJ 28-6 #155N

Sample ID 5ML RB Client ID: PBS		ype: ME ID: R2			RunNo: 2		8021B: Volat			
Prep Date:	Analysis D		18/2015		SeqNo: 7		Units: mg/K	g		
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 LC	S SampT	ype: LC	S	Tes	tCode: El	PA Method	8021B: Vola	tiles		
Client ID: LCSS	Batch	ID: R2	4377	F	RunNo: 2	4377				
Prep Date:	Analysis D	ate: 2/	18/2015	8	SeqNo: 7	18587	Units: mg/K	ζg		
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	Samp [*]	Type: MS	3	Tes	tCode: E	PA Method	8021B: Volat	tiles		
Client ID: SC-2	Bato	h ID: R2	4377	F	RunNo: 2	4377				
Prep Date:	Analysis I	Date: 2/	18/2015	5	SeqNo: 7	18591	Units: mg/K	ζg		
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 1502720-002AM	SD SampT	ype: MS	SD	Tes	tCode: El	PA Method	8021B: Volat	tiles		
Client ID: SC-2	Batch	ID: R2	4377	F	RunNo: 2	4377				
Prep Date:	Analysis D	ate: 2/	18/2015	S	SeqNo: 7	18592	Units: mg/K	g		
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

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Hall Environmental Analysis Laboratory, Inc.

WO#:

1502720

20-Feb-15

Client: Project: Animas Environmental COP SJ 28-6 #155N

Sample ID MB-17797

SampType: MBLK

TestCode: EPA Method 8021B: Volatiles

Client ID: PBS

PQL

0.050

0.050

Batch ID: 17797

RunNo: 24415

Prep Date:

2/18/2015

Analysis Date: 2/19/2015

SeqNo: 719143

Units: mg/Kg

HighLimit

RPDLimit

Qual

Analyte Toluene Surr: 4-Bromofluorobenzene

Result ND 0.98

1.000

98.1

80

%RPD

Sample ID LCS-17797

SampType: LCS

TestCode: EPA Method 8021B: Volatiles

120

Client ID: LCSS

Batch ID: 17797

RunNo: 24415 SeqNo: 719144

107

Units: mg/Kg

120

120

Analyte Toluene

Prep Date:

Surr: 4-Bromofluorobenzene

2/18/2015

Analysis Date: 2/19/2015 Result PQL

1.0

1.1

SPK value SPK Ref Val 1.000 1.000

0

SPK value SPK Ref Val %REC LowLimit

%REC LowLimit 103 80 80 HighLimit

%RPD

RPDLimit Qual

Qualifiers:

S

Value exceeds Maximum Contaminant Level.

E Value above quantitation range

Analyte detected below quantitation limits J

0 RSD is greater than RSDlimit

R RPD outside accepted recovery limits

ND

Analyte detected in the associated Method Blank H Holding times for preparation or analysis exceeded

P

Sample pH Not In Range

Reporting Detection Limit

Spike Recovery outside accepted recovery limits

Not Detected at the Reporting Limit

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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 No.	imber: 1502720		RoptNo: 1
Received by/date. XM 02 18	15		en kannadalanka matara kalendalanka kannada kannada (k. 1915). 1977 (k. 1977). 1974 (k. 1996). 1974 (k. 1977). Tanada kannada kannada kannada kannada kannada kannada (k. 1977). 1977 (k. 1977). 1974 (k. 1977). 1974 (k. 19
Logged By: Ashley Gallegos 2/18/2015 8:00:0	O AM	A	
Completed By: Ashley Gallegos 2/18/2015 8:17:1	1 AM	A	
Reviewed By: (S 02/18/15		Q	
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° 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 L
10.VOA vials have zero headspace?	Yes _	No 🗆	No VOA Vials
11, Were any sample containers received broken?	Yes	No 🗹	# of preserved bottles checked
12.Does paperwork match bottle labels?	Yes 🗸	No 🗌	for pH:
(Note discrepancies on chain of custody)			(<2 or >12 unless note
13. Are matrices correctly identified on Chain of Custody?	Yes 🗹	No	Adjusted?
14. Is it clear what analyses were requested?	Yes 🗹	No []	Checked by:
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes 🗹	No 🗔	Checked by.
Special Handling (if applicable)			
16. Was client notified of all discrepancies with this order?	Yes 🗌	No 🗆	NA 🗹
Person Notified: D	ate		
By Whom:	ia: eMail :	Phone Fax	☐ In Person
Regarding:			
Client Instructions:			All Company and Assault and Assault Assault and Assaul
17. Additional remarks:	Scores I in Descriptions of management	nan tanungan nan makan alaka a ka s	
18. Cooler Information			
Cooler No Temp °C Condition Seal Intact Seal N	o Seal Date	Signed By	2
1 1.7 Good Yes			

C	hain-	of-Cu	stody Record	Turn-Around	Time:					1_				NIX	77.5	20	MIR	ME	RIT	AI	
Client:	Anmas	Environ	imental services	□ Standard Project Name	Rush	same day				A	N	AL	YS	SIS	S L		30	ME RA			
Mailing	Address:	1.774 1	V. Pinon	COP 55	28-6 ±	195 MN majorlight		490	11 H									7109			
			NM 27401	Project #:		Per Stechanie Hinds	1		1. 50								-410°				
Phone #		24-2				Hinds			1. 50	5-54	J-5.					ues	-				28.4
			Danimas environmental.	Proiect Mana	ger:			only)	0												
	Package:	1,001	com				021)	s on	MR					SO,	B's						
Stan	-		☐ Level 4 (Full Validation)	E. Sky	les		s (8021)	(Gas	DRO / MRO)			SIMS)		PO	PCB's						
Accredi	tation			Sampler: 5,	Houds		1	TPH	9	=	=	70 S		102,	3082						10
□ NEL		□ Othe	r	On Ice:	Yes	□ No	4	+	8	118	504	r 82	co	03,1	8/8		(A)				or A
□ EDD	(Type)			Sample Temp	perature: []	7	出	MTBE	3(G	od 4	po	0 0	etal	N,	cide	F	j-V				2
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE	BTEX + M	H 8015B (GRO	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270	RCRA 8 Metals	Anions (F,CI,NO3,NO2,PO4,SO4)	8081 Pesticides / 8082	8260B (VOA)	8270 (Semi-VOA)				Air Bubbles (Y or N)
						1502720	BT	ВТ	TPH	且	ED	PA	8	An	80	82	82.				Air
-17/15	14:10	soil	56-1	MEON KIT	Medy	-001	X		X												
117/15	12:30	Soil	51-2			-002	*		X												
117/15		Sost	Sc-3			-003	X		X												
	14:00	soil	56-4			-004	7		X												
	12:45	soll	SC-5	1	1	-005	X		X												
																		H	1	+	+
							-														
							L													\perp	
							-									-		\vdash	\dashv	+	
							-						-	-		-	-	\vdash	-	+	_
Date:	Time:	Relinquishe	ad hv:	Received by:		Date Time	Por	mark													
/11/15 Date:	1644 Time:	Relinquish	sherie Stinds	Received by:	Walte	2/17/15 1444 Date Time	w	mark	060	599	8	Con		us	er I	LO:	KG	ARCI	A		
كال	1750,	Mist	LLalt	V 1	X DE	18/15 0800		terry pervi								d by : 21		ndsag	j bu	mas	
If	necessary	samples subr	mitted to Hall Environmental may be subo	contracted to other a	credited laboratori	es. This serves as notice of this	s poss	ibility.	Any su	ib-con	tracte	d data	will be	e clear	ly not	ated or	n the a	inalytica	al repor	t.	



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

andyl

4901 Hawkins NE

Albuquerque, NM 87109

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 Q	ıal Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RAN	IGE ORGANICS	6			Analys	: 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 RA	NGE				Analys	: 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					Analys	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

Page 1 of 4

- P Sample pH Not In Range
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

46

5.2

10

50.00

5.000

WO#:

1505007 14-Jul-15

Client:

Animas Environmental

Project:

Diesel Range Organics (DRO)

Surr: DNOP

CoP San Juan 28-6 # 155N

Troject.	100011	
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 valu	ue 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 10.0	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 POI SPK valu	US SPK Ref Val. %REC. Lowl imit. Highl imit. %RPD. RPDI imit. Qual.

67.8

57.9

130

140

92.8

105

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

Page 2 of 4

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

%REC

Prep Date:

Analysis Date: 5/1/2015

SeqNo: 768086

Analyte

Surr: BFB

Gasoline Range Organics (GRO)

Result PQL ND 5.0

LowLimit

LowLimit

%RPD

RPDLimit Qual

900

90.3

SPK value SPK Ref Val

1000

80

Sample ID 2.5UG GRO LCS

SampType: LCS

TestCode: EPA Method 8015D: Gasoline Range

Client ID: LCSS

Batch ID: R25904

RunNo: 25904

Units: mg/Kg

120

HighLimit

Prep Date:

Surr: BFB

Analysis Date: 5/1/2015

SeqNo: 768087 %REC

Units: mg/Kg

HighLimit

%RPD **RPDLimit** Qual

Analyte Gasoline Range Organics (GRO)

PQL SPK value SPK Ref Val Result 25 5.0 25.00 980 1000

101 98.2 64 80

130 120

Qualifiers:

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

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Hall Environmental Analysis Laboratory, Inc.

WO#:

1505007

14-Jul-15

Client:

Animas Environmental

Project:

CoP San Juan 28-6 # 155N

Project:	CoP San .										
Sample ID	5ML RB	SampT	уре: М	BLK	Tes	tCode: El	PA Method	8021B: Vola	tiles		
Client ID:	PBS	Batch	n ID: R2	5904	F	RunNo: 2	5904				
Prep Date:		Analysis D	Date: 5/	1/2015	5	SeqNo: 7	68099	Units: mg/k	(g		
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-Brom	nofluorobenzene	1.0		1.000		103	80	120			
Sample ID	100NG BTEX LCS	SampT	ype: LC	s	Tes	tCode: El	PA Method	8021B: Vola	tiles		
Client ID:	LCSS	Batch	n ID: R2	5904	F	RunNo: 2	5904				
Prep Date:		Analysis D)ate: 5/	1/2015	5	SeqNo: 7	68100	Units: mg/k	(g		
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-Brom	nofluorobenzene	1.1		1.000		111	80	120			
	1505007-001AMS		ype: MS		Tes			8021B: Vola	tiles		
	1505007-001AMS	SampT	ype: M \$	3			PA Method		tiles		
Sample ID	1505007-001AMS	SampT	n ID: R2	5904	F	tCode: EF	PA Method				
Sample ID Client ID:	1505007-001AMS	SampT Batch	n ID: R2	5 5904 1/2015	F	tCode: ER	PA Method	8021B: Vola		RPDLimit	Qual
Sample ID Client ID: Prep Date:	1505007-001AMS	SampT Batch Analysis D	n ID: R2	5 5904 1/2015	F	tCode: ER RunNo: 28 SeqNo: 70	PA Method 5904 68101	8021B: Volat	(g	RPDLimit	Qual
Sample ID Client ID: Prep Date: Analyte	1505007-001AMS	SampT Batch Analysis D Result	n ID: R2 Date: 5/	5904 1/2015 SPK value	SPK Ref Val	tCode: ER RunNo: 29 SeqNo: 70 %REC	PA Method 5904 68101 LowLimit	8021B: Volat Units: mg/K HighLimit	(g	RPDLimit	Qual
Sample ID Client ID: Prep Date: Analyte Benzene	1505007-001AMS	SampT Batch Analysis D Result 0.86	PQL 0.038	5904 1/2015 SPK value 0.7645	SPK Ref Val	tCode: EF RunNo: 29 SeqNo: 70 %REC 113	PA Method 5904 68101 LowLimit 69.2	8021B: Volat Units: mg/K HighLimit 126	(g	RPDLimit	Qual
Sample ID Client ID: Prep Date: Analyte Benzene Toluene	1505007-001AMS	SampT Batch Analysis D Result 0.86 0.87	PQL 0.038 0.038	5904 1/2015 SPK value 0.7645 0.7645	SPK Ref Val	tCode: EF RunNo: 2 5 SeqNo: 7 6 %REC 113 113	PA Method 5904 68101 LowLimit 69.2 65.6	8021B: Volat Units: mg/K HighLimit 126 128	(g	RPDLimit	Qual
Sample ID Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total	1505007-001AMS	SampT Batch Analysis D Result 0.86 0.87 0.88	PQL 0.038 0.038 0.038	5904 1/2015 SPK value 0.7645 0.7645 0.7645	SPK Ref Val 0 0 0.006215	tCode: EF RunNo: 2 8 SeqNo: 7 6 %REC 113 113 114	PA Method 5904 68101 LowLimit 69.2 65.6 65.5	8021B: Volat Units: mg/K HighLimit 126 128 138	(g	RPDLimit	Qual
Sample ID Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Brom	1505007-001AMS SC-5 (2)	SampT Batch Analysis D Result 0.86 0.87 0.88 2.6 0.86	PQL 0.038 0.038 0.038	5904 1/2015 SPK value 0.7645 0.7645 0.7645 2.294 0.7645	SPK Ref Val 0 0 0 0.006215 0	RunNo: 29 RunNo: 76 %REC 113 113 114 114 113	PA Method 5904 68101 LowLimit 69.2 65.6 65.5 63 80	8021B: Volat Units: mg/K HighLimit 126 128 138 139	(g %RPD	RPDLimit	Qual
Sample ID Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Brom	1505007-001AMS SC-5 (2) nofluorobenzene	SampT Batch Analysis D Result 0.86 0.87 0.88 2.6 0.86	PQL 0.038 0.038 0.038 0.076	5904 1/2015 SPK value 0.7645 0.7645 0.7645 2.294 0.7645	SPK Ref Val 0 0 0.006215 0	RunNo: 28 RunNo: 76 REC 113 113 114 114 113	PA Method 5904 68101 LowLimit 69.2 65.6 65.5 63 80	8021B: Volat Units: mg/K HighLimit 126 128 138 139 120	(g %RPD	RPDLimit	Qual
Sample ID Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Brom	1505007-001AMS SC-5 (2) nofluorobenzene	SampT Batch Analysis D Result 0.86 0.87 0.88 2.6 0.86	PQL 0.038 0.038 0.076 0.076 MS DE R2	5904 1/2015 SPK value 0.7645 0.7645 0.7645 2.294 0.7645	SPK Ref Val 0 0 0.006215 0	RunNo: 28 ReqNo: 76 **REC 113 113 114 114 113 **Code: EF	PA Method 5904 68101 LowLimit 69.2 65.6 65.5 63 80 PA Method	8021B: Volat Units: mg/K HighLimit 126 128 138 139 120	%RPD	RPDLimit	Qual
Sample ID Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Brom Sample ID Client ID:	1505007-001AMS SC-5 (2) nofluorobenzene	SampT Batch Analysis D Result 0.86 0.87 0.88 2.6 0.86 SampT Batch	PQL 0.038 0.038 0.076 0.076 MS DE R2	5904 1/2015 SPK value 0.7645 0.7645 0.7645 2.294 0.7645 6D 5904	SPK Ref Val 0 0 0.006215 0 Test	RunNo: 29 RunNo: 70 REC 113 113 114 114 113 Code: EF	PA Method 5904 68101 LowLimit 69.2 65.6 65.5 63 80 PA Method	8021B: Volate Units: mg/K HighLimit 126 128 138 139 120 8021B: Volate	%RPD	RPDLimit RPDLimit	Qual
Sample ID Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Brom Sample ID Client ID: Prep Date:	1505007-001AMS SC-5 (2) nofluorobenzene	SampT Batch Analysis D Result 0.86 0.87 0.88 2.6 0.86 O SampT Batch Analysis D Result 0.83	PQL 0.038 0.076 0.076 MS 1D: R2 0.038 0.076 PQL 0.038 0.076 PQL 0.038	5904 1/2015 SPK value 0.7645 0.7645 2.294 0.7645 6D 5904 1/2015 SPK value 0.7645	SPK Ref Val 0 0 0.006215 0 Test 8 SPK Ref Val 0	RunNo: 29 RunNo: 76 REC 113 113 114 114 113 RCode: EF RunNo: 29 ReqNo: 76 %REC 109	PA Method 5904 68101 LowLimit 69.2 65.6 65.5 63 80 PA Method 5904 68103	8021B: Volate Units: mg/K HighLimit 126 128 138 139 120 8021B: Volate Units: mg/K HighLimit 126	%RPD tiles %RPD 3.91	RPDLimit 18.5	
Sample ID Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Brom Sample ID Client ID: Prep Date: Analyte Benzene Toluene	1505007-001AMS SC-5 (2) nofluorobenzene	SampT Batch Analysis D Result 0.86 0.87 0.88 2.6 0.86 SampT Batch Analysis D Result 0.83 0.83	PQL 0.038 0.038 0.076 DE R2 DE	5904 1/2015 SPK value 0.7645 0.7645 2.294 0.7645 50 5904 1/2015 SPK value 0.7645 0.7645	SPK Ref Val 0 0 0.006215 0 Test 8 SPK Ref Val 0 0	RunNo: 29 RunNo: 76 REC 113 113 114 114 113 RCode: EF RunNo: 29 RegNo: 76 %REC 109 108	PA Method 5904 68101 LowLimit 69.2 65.6 65.5 63 80 PA Method 5904 68103 LowLimit 69.2 65.6	8021B: Volate Units: mg/K HighLimit 126 128 138 139 120 8021B: Volate Units: mg/K HighLimit 126 128	%RPD tiles %RPD 3.91 4.33	RPDLimit 18.5 20.6	
Sample ID Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Brom Sample ID Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene	1505007-001AMS SC-5 (2) nofluorobenzene	SampT Batch Analysis D Result 0.86 0.87 0.88 2.6 0.86 SampT Batch Analysis D Result 0.83 0.83 0.85	PQL 0.038 0.038 0.076 PQL 0.038 0.038 0.076 PQL 0.038 0.038 0.038 0.038 0.038 0.038 0.038	5904 1/2015 SPK value 0.7645 0.7645 0.7645 2.294 0.7645 5904 1/2015 SPK value 0.7645 0.7645 0.7645	SPK Ref Val 0 0.006215 0 Test SPK Ref Val 0 0 0 0.006215	RunNo: 29 RunNo: 76 REC 113 113 114 114 113 RCode: EF RunNo: 29 REC 109 108 111	PA Method 5904 68101 LowLimit 69.2 65.6 65.5 63 80 PA Method 5904 68103 LowLimit 69.2 65.6 65.5	8021B: Volate Units: mg/K HighLimit 126 128 138 139 120 8021B: Volate Units: mg/K HighLimit 126 128 138	%RPD **Siles** **General Superior Control Co	RPDLimit 18.5 20.6 20.1	
Sample ID Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Brom Sample ID Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total	1505007-001AMS SC-5 (2) nofluorobenzene	SampT Batch Analysis D Result 0.86 0.87 0.88 2.6 0.86 SampT Batch Analysis D Result 0.83 0.83	PQL 0.038 0.038 0.076 DE R2 DE	5904 1/2015 SPK value 0.7645 0.7645 2.294 0.7645 50 5904 1/2015 SPK value 0.7645 0.7645	SPK Ref Val 0 0 0.006215 0 Test 8 SPK Ref Val 0 0	RunNo: 29 RunNo: 76 REC 113 113 114 114 113 RCode: EF RunNo: 29 RegNo: 76 %REC 109 108	PA Method 5904 68101 LowLimit 69.2 65.6 65.5 63 80 PA Method 5904 68103 LowLimit 69.2 65.6	8021B: Volate Units: mg/K HighLimit 126 128 138 139 120 8021B: Volate Units: mg/K HighLimit 126 128	%RPD tiles %RPD 3.91 4.33	RPDLimit 18.5 20.6	

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

Page 4 of 4



Hali Environmental Analysis Laboratory 4901 Hawkins NE Albiquerque, 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:	05/01/15				
Logged By: Lindsay Mangin	5/1/2015 5:50:00 AM		of 4th go		
Completed By: Lindsay Mangin	5/1/2015 7:19:02 AM		A JAMADO		
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	7	Yes 🗹	No 🗆	NA 🗀	
5. Were all samples received at a temperature	e of >0° 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) prope	rly preserved?	Yes V	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 brok	en?	Yes	No 🗸	# of preserved	-
12 Dags agreed match halfile labels?		Yes 🗸	No 🗆	bottles checked for pH:	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)		165	140	(<2 or >12 unless noted)
13. Are matrices correctly identified on Chain o	Custody?	Yes 🗸	No 🗆	Adjusted?	
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 🗌	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			The state of the s	No consideration to	
17. Additional remarks:					
18. Cooler Information			0		
Cooler No Temp °C Condition S 1 3.1 Good Ye		Seal Date	Signed By		
11 0.1 0000 16			I		

C	hain-	of-Cu	stody Record	Turn-Around	Time:						ш				VT.	20	NIR	ME	NT	ΔI	
Client:	Animas	Environ	nmental Services	Standard	c X Rush ∷	Same D	ay_												TO		•
				Project Name	:)		1							ntal.co					
Mailing	Address	614 V.	Pinon St.	CoP Sar Project #:	Juan 28-	6 # 1551	V		490	01 Ha	wkir	ns NE	- A	lbuq	uerqu	ıe, N	M 87	109			
			19ton NM 87401	Project #:	,				Te	1. 505	5-345	5-397	5	Fax	505	-345	410	7			
Phone :	#: 505	- 564-												alysi	Red	ques	t				
email o	r Fax#: ¿	skylise	anmasemironmental.com	Project Mana	ger:				ly)	9				76							
	Package:	,						TMB2 (8021)	+ TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)			2	Anions (F.C. NO. NO. PO. SO.)	PCB's						
X Stan	dard		☐ Level 4 (Full Validation)		E, Skyle , C. Lam	5		T.	. (č	8			SIMS)	J G	2 P(
Accredi		- Oth -		Sampler:		eman		_ ₩	IPH	0/0	=	= 1	2/9	8	808						or N)
□ NEL		□ Othe	r	On Ice:	Yes erature: 3	□ No			+	3RC	418	504	2 3	2 9	es /		OA)				
	(Type)_				berature: >			MIBET	+ MTBE) Bi	hod	hod	210	Nets CL2	ticid	OA)	ni-V) se
Date	Time	Matrix	Sample Request ID	OS OILS Container	Preservative	HEAL	No	+	+	801	TPH (Method 418.1)	EDB (Method 504.1)	PAH'S (8310 or 8270	Anions (F.C.I.NC	8081 Pesticides / 8082	8260B (VOA)	(Semi-VOA)				Bubbles (Y
Date	Time	IVIALIA	Sample Request ID	Type and #	Туре	1500	2017	BTEX	ВТЕХ	PH	F	DB	AH S		081	260	8270				Air Bt
10-0	A (0 A	<i>c</i> 1	~ -	MECH Ket	C 1	OOO	OT	X	В		-	Ш	0. 0	Y A	- 8	80	80		_	+	<
1-30-13	0920	201	Sc-5	2-402 jar	Cool	-0)]	χ.		Х	+	-	+	+	+	-			+	+	+-
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Date:	Time:	Reilinquish	ed by:	Received by:		Date	Time	SUD	enia	LUGO SUV: N KGAI	ikes	miTh			Act. C	ode:	D15	0			
4/30/1	1819	MAL	he walter	1	A	05/01/18	5 05SI	us	er:	KGA	2CIA			6	vole	red by	;: L	inds	ay Di	rma:	5
-	faccassar	bamplac cuh	mitted to Hall Environmental may be sub	contracted to other a	ccredited laboratori		s notice of thi	s possi	ibility.	Any su	b-cont	racted	data wi								



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 qualifers 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

andyl

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 1	Units	DF Date Analyzed Batch
EPA METHOD 8015M/D: DIESEL RANG	GE ORGANICS	S			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 RAN	IGE				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.

- * 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 Page 1 of 9
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1602592

Date Reported: 2/18/2016

Hall Environmental Analysis Laboratory, Inc.

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	DF Date Analyzed	
EPA METHOD 8015M/D: DIESEL RANG	E ORGANIC	S				Analys	t: 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 RANG	GE					Analys	t: NSB
Gasoline Range Organics (GRO)	220	48		mg/Kg	10	2/16/2016 12:58:56 PM	1 23727
Surr: BFB	166	66.2-112	S	%Rec	10	2/16/2016 12:58:56 PM	1 23727
EPA METHOD 8021B: VOLATILES						Analys	t: NSB
Benzene	ND	0.24		mg/Kg	10	2/16/2016 12:58:56 PM	1 23727
Toluene	2.3	0.48		mg/Kg	10	2/16/2016 12:58:56 PM	1 23727
Ethylbenzene	1.2	0.48		mg/Kg	10	2/16/2016 12:58:56 PM	1 23727
Xylenes, Total	18	0.96		mg/Kg	10	2/16/2016 12:58:56 PM	1 23727
Surr: 4-Bromofluorobenzene	140	80-120	S	%Rec	10	2/16/2016 12:58:56 PM	1 23727

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

- * 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 Page 2 of 9
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1602592

Date Reported: 2/18/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental

Project: CoP SJ 28-6 #155N

Lab ID: 1602592-003 Client Sample ID: S-3

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

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

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANIC	s				Analyst	: КЈН
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 RA	NGE					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

Matrix: SOIL

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

- 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
- RPD outside accepted recovery limits
- % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits Page 3 of 9 J
- Sample pH Not In Range
- Reporting Detection Limit
- Sample container temperature is out of limit as specified

Lab Order 1602592

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 2/18/2016

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		Units	DF	Date Analyzed	Batch	
EPA METHOD 8015M/D: DIESEL RANG	GE ORGANIC	s				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 RAN	IGE					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.

- 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 Page 4 of 9
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1602592

Date Reported: 2/18/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental

CoP SJ 28-6 #155N

Lab ID: 1602592-005

Project:

Client Sample ID: S-5

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

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

Analyses	Result	PQL (Qual	Units	DF	DF Date Analyzed	
EPA METHOD 8015M/D: DIESEL RANG	SE ORGANICS	S				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 RAN	GE					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

Matrix: SOIL

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

- 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 Page 5 of 9
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1602592

Date Reported: 2/18/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental

Project: CoP SJ 28-6 #155N

Lab ID: 1602592-006

Client Sample ID: S-6

Collection Date: 2/12/2016 10:05:00 AM

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

Analyses	Result PQL Qual Units		Units	DF	Date Analyzed	Batch	
EPA METHOD 8015M/D: DIESEL RAN	IGE ORGANIC	S				Analys	t: 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 RA	NGE					Analys	: 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						Analys	: 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

Matrix: SOIL

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

- * 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 Page 6 of 9
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602592**

18-Feb-16

	Environmental 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	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.

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

Page 7 of 9

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

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

LowLimit

LowLimit

66.2

Client ID: PBS

Batch ID: 23733

RunNo: 32174

%RPD

%RPD

%RPD

Prep Date:

Units: %Rec

Analyte

2/15/2016

Analysis Date: 2/16/2016 PQL

SeqNo: 983808

Qual

Surr: BFB

Result 950

Result

Result

ND

920

990

SPK value SPK Ref Val 1000

1000

94.5

HighLimit 112 **RPDLimit**

Sample ID LCS-23733

SampType: LCS

%REC

TestCode: EPA Method 8015D: Gasoline Range

Client ID:

LCSS

Batch ID: 23733

POI

RunNo: 32174

Prep Date:

2/15/2016

Analysis Date: 2/16/2016

SeqNo: 983809

99.5

Units: %Rec

Analyte

SPK value SPK Ref Val %REC HighLimit

RPDLimit Qual

Surr: BFB

2/15/2016

66.2 112

Sample ID MB-23727

SampType: MBLK

TestCode: EPA Method 8015D: Gasoline Range

Client ID: Prep Date:

PBS

Batch ID: 23727 Analysis Date: 2/16/2016

RunNo: 32174 SeaNo: 983818

Units: mg/Kg

Analyte

PQL 5.0

SPK value SPK Ref Val %REC LowLimit

1000

HighLimit

RPDLimit

Qual

Qual

Gasoline Range Organics (GRO) Surr: BFB

91.5

112

Sample ID LCS-23727

Client ID: LCSS SampType: LCS

TestCode: EPA Method 8015D: Gasoline Range RunNo: 32174

66.2

Analyte

Prep Date: 2/15/2016

Batch ID: 23727 Analysis Date: 2/16/2016

PQL

5.0

SeqNo: 983819

%REC

Units: mg/Kg

%RPD **RPDLimit**

Gasoline Range Organics (GRO) Surr: BFB

Result 24 1000

25.00 1000

0

SPK value SPK Ref Val

94.4 101 79.6 66.2

LowLimit

122 112

HighLimit

Qualifiers:

H

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

Holding times for preparation or analysis exceeded

- B Analyte detected in the associated Method Blank
- J
- P Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified

E Value above quantitation range

Analyte detected below quantitation limits Page 8 of 9

Hall Environmental Analysis Laboratory, Inc.

WO#: 1602592

18-Feb-16

Client:

Animas Environmental

Project:

CoP SJ 28-6 #155N

Sample ID MB-23733	SampType: M	BLK	Test						
Client ID: PBS	Batch ID: 23	733							
Prep Date: 2/15/2016	Analysis Date: 2	/16/2016	Se	eqNo: 9	83840	Units: %Re	С		
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: L0	S	Test	Code: El					

	, , , , , , , , , , , , , , , , , , ,						The second second second second			
Client ID: LCSS	Batch ID: 23733 RunNo:					2174				
Prep Date: 2/15/2016	Analysis Da	ate: 2/	16/2016	SeqNo: 983841			Units: %Red			
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	SampT	ype: ME	BLK	Tes	tCode: El	PA Method	od 8021B: Volatiles								
Client ID: PBS	Batch	1D: 23	727	F	2174										
Prep Date: 2/15/2016	Analysis D	ate: 2/	16/2016	6 SeqNo: 983846 L				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	7 SampType: LCS			S-23727 SampType: LCS TestCode: EPA Method 8021B: Volatiles					TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSS	Batch	ID: 23	727	F	RunNo: 3	2174											
Prep Date: 2/15/2016	Analysis D	ate: 2/	16/2016	5	83847	Units: mg/F	(g										
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										

- 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
- Page 9 of 9

- 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: Animas Environmental Work Order Numl	ber: 1602592		RcptNo: 1
Received by/date: X177 02/13	110	The same of the sa	
Logged By: Ashley Gallegos 2/13/2016 9:00:00 A	ÁM	A	
Completed By: Ashley Gallegos 2/15/2016 11:13:08	AM	AZ	
Reviewed By: 94 02/15/16		V	
Chain of Custody	SUPPRESURBERMONES DE RESSES		
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		
<u>Log In</u>			
4. Was an attempt made to cool the samples?	Yes 🗸	No 🗆	NA 🗆
5. Were all samples received at a temperature of >0° 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 🗸	# of preserved
40 -		N- []	bottles checked for pH
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes 🗹	No 🗌	(<2 or >12 unless noted)
13. Are matrices correctly identified on Chain of Custody?	Yes 🗸	No 🗆	Adjusted?
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 🗌	Checked by:
Special Handling (if applicable)			
16. Was client notified of all discrepancies with this order?	Yes 🗌	No 🗌	NA ☑
Person Notified: Date	Parties and the second		
By Whom: Via:		hone 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 1.6 Good Yes			

C	hain-	n-of-Custody Record Turn-Around Time:											E	NIX	TE	20	NIA	ЛF	NT	ΔI	
ient:	minus E	ev. You men	tul Services	Standard	☐ Rush					_									TC		
				Project Name	: :						wwv	v.hal	lenv	ironi	men	tal.co	om				
ailing	Address	604 W.	Pmon St	COP ST	28-6 #15	5 N		49	01 H								M 87	109			
			M 8740/	Project #:					el. 50								410				
none		-504-2					Analysis Request														
_			cumas environmental	Project Mana	ger:			<u>{</u>	Ô					(4)							
	Package:	·	☐ Level 4 (Full Validation)	Emile	ee Skyles		# TMB's (8021)	+ TPH (Gas only)	O / MF			SIMS)		PO4,SC	PCB's						
	tation			Sampler: St	1/		1	PH (/ DR	=	-	20 S		102,	085						9
NEL	AP	□ Othe	r	On Ice:	Yes	□ No	14		RO	18.	.04	82.	10	03,7	8/8		(A)				0 70
EDD	(Type)_			Sample Tem	perature: /, (出	BE	9)	pd 4	g pc	0 0	stals	Ž	ide	(A	>-				2
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL NO.	BTEX + MTBE	BTEX + MTBE	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270	RCRA 8 Metals	Anions (F,CI,NO3,NO2,PO4,SO4)	8081 Pesticides / 8082	8260B (VOA)	8270 (Semi-VOA)				Air Bubbles (Y or N)
416	9:15	Soil	5-1	1-402	cool	-001	X		X												
2/10	9:25	Soi	5-2	1-402	C001	-002	X		4												
2/16	9:35	soil	S-3	1-402	(00)	-003	X		Y												
12/10	9:45	5011	5-4	1-402	Cool	-004	X		*												
12/16	9:55	Seil	S-5	1-402	Cool	-005	x		X												
•	10:05	Soll	5-6	1-402	(00)	-000	x		٨										-	_	
																				1	
							_							_						+	+
																				\perp	
ate:	Time:	Relinquishe	phone Alish	Received by:	- Walte		1		s: B			moc		7		KGar	re i A				
12/16	Time:	Received by: Date Time AUD HALL OF JOHN Received by: Date Time			Date Time 02/13/15 0900	Ad	Nity (ode:	DIS	D	M		Area	:2	ч			unter	,		



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

andyl

4901 Hawkins NE

Albuquerque, NM 87109

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					Analys	t: 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					Analys	t: 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

Page 1 of 4

- P Sample pH Not In Range
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

WO#:

1505007

14-Jul-15

Client:

Animas Environmental

Project:

Analyte

Surr: DNOP

Diesel Range Organics (DRO)

CoP San Juan 28-6 # 155N

Result

46

5.2

PQL

10

Sample ID MB-19002	SampType: MBL	К	TestCode: EF	A Method	8015M/D: Die	sel Range	e Organics	
Client ID: PBS	Batch ID: 1900	2	RunNo: 25	5902				
Prep Date: 5/1/2015	Analysis Date: 5/1/	2015	SeqNo: 76	67806	Units: mg/Kg	9		
Analyte	Result PQL S	SPK value SPK F	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: EF	A Method	8015M/D: Die	sel Range	e Organics	
Client ID: LCSS	Batch ID: 1900	2	RunNo: 25	5902				
Prep Date: 5/1/2015	Analysis Date: 5/1/	2015	SeqNo: 76	67807	Units: mg/Kg	3		

LowLimit

67.8

57.9

92.8

105

HighLimit

130

140

%RPD

RPDLimit

Qual

SPK value SPK Ref Val %REC

50.00

5.000

0	262
Ona	lifiers

* 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

Page 2 of 4

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:

Batch ID: R25904

RunNo: 25904

Prep Date:

Analysis Date: 5/1/2015

SeqNo: 768086

Units: mg/Kg

Analyte

PQL

ND 5.0 SPK value SPK Ref Val %REC

HighLimit

RPDLimit Qual

Gasoline Range Organics (GRO) Surr: BFB

900

Result

1000

90.3

80

LowLimit

%RPD

%RPD

Sample ID 2.5UG GRO LCS

SampType: LCS

TestCode: EPA Method 8015D: Gasoline Range

120

Client ID: LCSS

Batch ID: R25904

%REC

Prep Date:

Analysis Date: 5/1/2015

SeqNo: 768087

Units: mg/Kg **HighLimit**

RPDLimit

Analyte Gasoline Range Organics (GRO)

SPK value SPK Ref Val Result PQL 25

25.00

101

Qual

Surr: BFB

980 1000

98.2

80

LowLimit

120

Qualifiers:

E

Value exceeds Maximum Contaminant Level.

Spike Recovery outside accepted recovery limits

Analyte detected below quantitation limits J 0 RSD is greater than RSDlimit

R RPD outside accepted recovery limits

Value above quantitation range

Analyte detected in the associated Method Blank

Holding times for preparation or analysis exceeded Not Detected at the Reporting Limit

Sample pH Not In Range

H

RL Reporting Detection Limit Page 3 of 4

Hall Environmental Analysis Laboratory, Inc.

WO#: 1505007

14-Jul-15

Client:

Animas Environmental

Project:

CoP San Juan 28-6 # 155N

Sample ID 5ML RB	SampT	SampType: MBLK TestCode: EPA Method 8021B: Volatiles										
Client ID: PBS	Batch	1D: R2	5904	F	RunNo: 2	5904						
Prep Date:	Analysis D	ate: 5/	1/2015	S	SeqNo: 7	68099	Units: mg/k	ts: 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 LC	SampT	ype: LC	S	Tes	tCode: El	PA Method	8021B: Vola	tiles		
Client ID: LCSS	Batch	1D: R2	5904	RunNo: 25904						
Prep Date:	Analysis D	ate: 5/	1/2015	S	SeqNo: 7	68100	Units: mg/F	(g		
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	Samp	npType: MS TestCode: EPA Method 8021B: Volatiles									
Client ID: SC-5 (2)	Batc	Batch ID: R25904			RunNo: 25904						
Prep Date:	Analysis [Date: 5/	1/2015	8							
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 1505007-001AM	SD SampT	ype: MS	SD	Tes	tCode: El	PA Method	8021B: Vola	tiles				
Client ID: SC-5 (2)	Batch	ID: R2	25904 RunNo: 25904									
Prep Date:	Analysis D	ate: 5/	1/2015	5	SeqNo: 7	68103	Units: mg/F	(g				
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.
- 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

Page 4 of 4

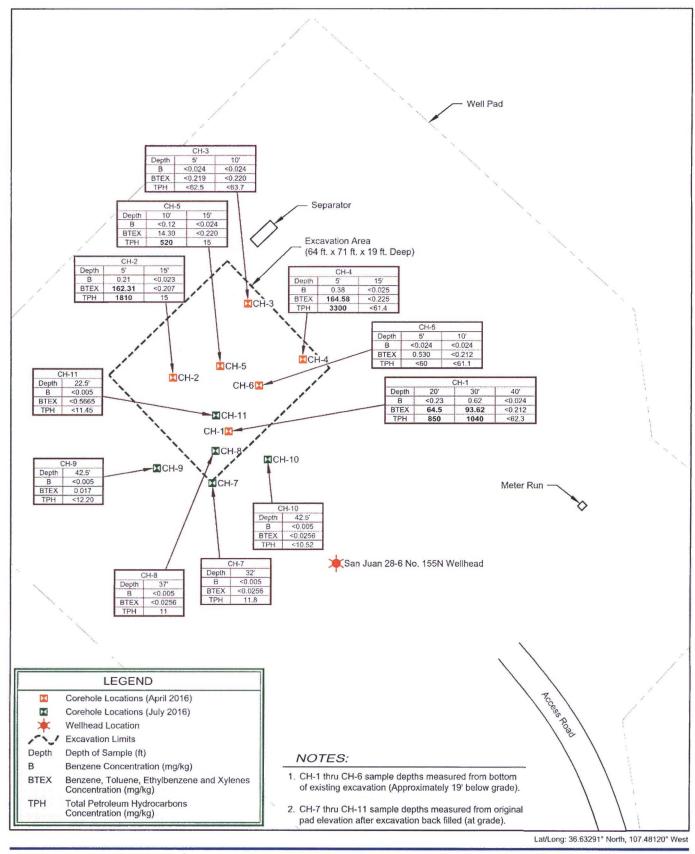


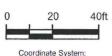
Hali Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Animas Enviro	nmental Work Order Numb	er: 1505007		RcptNo:	1
1	1 1				
Received by/date:	05/01/15				
Logged By: Lindsay Man	gin 5/1/2015 5:50:00 AM	А	July Hago		
Completed By: Lindsay Man	gin 5/1/2015 7:19:02 AM	И	of yellings		
Reviewed By: AT 09	101115				
Chain of Custody					
1. Custody seals intact on sam	ple bottles?	Yes	No 🗆	Not Present 🗸	
2. Is Chain of Custody complete	e?	Yes 🗹	No 🗌	Not Present	
3. How was the sample delivered	ed?	Courier			
Log In					
Was an attempt made to con	ol the samples?	Yes 🗸	No 🗌	NA 🗀	
5. Were all samples received a	at a temperature of >0° C to 6.0°C	Yes 🗹	No _	NA 🗆	
6. Sample(s) in proper containe	er(s)?	Yes 🗸	No 🗌		
7. Sufficient sample volume for	indicated test(s)?	Yes 🗹	No 🗌		
8, Are samples (except VOA ar	nd ONG) properly preserved?	Yes 🗸	No 🗌		
9. Was preservative added to b	pottles?	Yes	No 🗹	NA 🗔	
10.VOA vials have zero headsp.	ace?	Yes 🗌	No 🗌	No VOA Viais	
11. Were any sample containers		Yes 🗆	No V		
, ,,,				# of preserved bottles checked	
12. Does paperwork match bottle		Yes 🗸	No 🗌	for pH:	or >12 unless noted)
(Note discrepancies on chair		Yes 🗸	No 🗌	Adjusted?	or >12 dilless noted)
13. Are matrices correctly identif 14. Is it clear what analyses were		Yes 🗸	No 🗆		The second secon
15. Were all holding times able t		Yes 🗸	No 🗆	Checked by:	
(If no, notify customer for aut				and the second of the second o	and of the same and the same and an enterior of the same and a same and a same and a same and same and same and
Special Handling (if appli				17	
16. Was client notified of all disc	repancies 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	Condition September Section	Seal Date	Cionad D. I		
	Condition Seal Intact Seal No Good Yes	Sear Date	Signed By		

C	hain-	of-Cu	stody Record	Turn-Around	Time:		HALL ENVIRONMENTAL														
Client:	Animas	Environ	nmental Services	Standard	Rush	Same Day	-											RA			•
				Project Name	e:)										al.co			. –		
Mailing	Address	664 V.	Pinon St.	COP Sai	n Juan 28.	-6 # 155N		490)1 H								M 87	109			
			19ton NM 87401	Project #:			Tel. 505-345-3975 Fax 505-345-4107														
Phone :	#: 505	- 564-	J					14				7 10 10 10				uest	-				
			anmasenironnental.con	Project Mana	iger:			<u>Ş</u>	<u>ô</u>					()						T	\Box
	Package:			1			021	sor	MRO)			<u>(0</u>		JS(†	PCB's						
₩ Stan	dard		☐ Level 4 (Full Validation)		E, Skyle	75	TMB29 (8021)	(Gas only)	DRO/	1		SIMS)		PO	PC						1
Accredi				Sampler:	, C. Lam			TPH	~	=	=	70 8		202	3082						=
□ NEL	AP	□ Othe	Ť	On Ice:	✓ Yes	□ No	1 +	+ 1	(GRO	418.1)	904	8270		03,1	8 / 8		<u>8</u>				20
	(Type)_			Sample Tem	perature: 3	il	H	MTBE	9	pd 4	b	0 0	etals	Ž,	side	(F)	- N				ک
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE+	BTEX + MT	TPH 8015B	TPH (Method	EDB (Method 504.1)	PAH's (8310 or	RCRA 8 Metals	Anions (F,CI,NO ₃ ,NO ₂ ,PO ₄ ,SO ₄)	8081 Pesticides / 8082	8260B (VOA)	8270 (Semi-VOA)				Air Bubbles (Y or N)
1-30-15	0920	Sal	S(-5	2-402 jur	Cool	-001	X		χ												
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Date:	Time:	Relinquishe	i (m /	Received by:	Walte	Date Time 430//5 /722 Date Time	Rer	nark	s: Bi	11 to	o C	enoc	co Pr	illif	05 126 11/10	: 24	D150	ondsa			
4/30/15	1819	Mu	Jul Walte Printed to Hall Environmental may be subr	contracted to other a	coredited laboratoris															mas	





NAD 1983 (2011) StatePlane-New Mexico Central (US Feet)





CONOCOPHILLIPS COMPANY RIO ARRIBA COUNTY, NEW MEXICO SAN JUAN 28-6 No. 155N

2016 CORING LOCATIONS AND ANALYTICAL RESULTS MAP

11119528-00

Aug 3, 2016

FIGURE 3



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

OrderNo.: 1604A35

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

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 qualifers 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

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

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

Analyses	Result	PQL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANG	GE ORGANICS	;			Analyst	КЈН
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 RAN	IGE				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

Matrix: SOIL

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

- 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 Page 1 of 13
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1604A35

Date Reported: 5/3/2016

Hall Environmental Analysis Laboratory, Inc.

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 RAN	GE ORGANICS	3				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 RAI	NGE					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.

- 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 Page 2 of 13
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1604A35

Date Reported: 5/3/2016

Hall Environmental Analysis Laboratory, Inc.

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 RANG	GE ORGANICS	3				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 RAN	IGE					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.

- 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 Page 3 of 13
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1604A35

Date Reported: 5/3/2016

Hall Environmental Analysis Laboratory, Inc.

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 Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RAN	GE 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 RAI	NGE				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.

- 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
- % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits Page 4 of 13 J
- P Sample pH Not In Range
- Reporting Detection Limit
- Sample container temperature is out of limit as specified

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

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

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RAM	IGE ORGANICS	5			Analyst	: КЈН
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 RA	NGE				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

Matrix: SOIL

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

- 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 Page 5 of 13
- P Sample pH Not In Range
- RL Reporting Detection Limit
- 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-3-10'

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 Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RA	NGE ORGANICS	i			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 RA	ANGE				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.

- 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
- % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits Page 6 of 13 J
- P Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified

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 RANG	E ORGANICS	1				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 RANG	SE .					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.

- * 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 Page 7 of 13
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1604A35

Date Reported: 5/3/2016

Hall Environmental Analysis Laboratory, Inc.

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

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

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RA	NGE ORGANICS	3			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 RA	ANGE				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

Matrix: SOIL

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

- 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
- % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits Page 8 of 13 J
- Sample pH Not In Range P
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

WO#: 1604A35

03-May-16

Client:

GHD

Project:	San Juar	128-6 155N									
Sample ID	LCS-25002	SampTy	/pe: LC	s	Tes	tCode: El	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID:	LCSS	Batch	ID: 25	002	F	RunNo: 3	3843				
Prep Date:	4/26/2016	Analysis Da	ate: 4/	28/2016	5	SeqNo: 1	042563	Units: mg/l	K g		
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	SampTy	pe: ME	BLK	Tes	tCode: El	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID:	PBS	Batch	ID: 25	002	F	RunNo: 3	3843				
Prep Date:	4/26/2016	Analysis Da	ate: 4/	28/2016	5	SeqNo: 1	042566	Units: mg/l	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
	Organics (DRO)	ND	10								
Motor Oil Rang Surr: DNOP	ge Organics (MRO)	ND 12	50	10.00		124	70	130			
	1604A35-001AMS							8015M/D: Di	esel Rang	e Organics	
	Client ID: S-11119528-042116- Batch ID: 25002 RunNo: 33843										
Prep Date:	4/26/2016	Analysis Da	ate: 4/	28/2016	8	SeqNo: 1	043205	Units: mg/h	(g		
Analyte	. (550)	Result	PQL		SPK Ref Val		LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	Organics (DRO)	290 4.6	9.8	48.83 4.883	238.8	105 95.1	33.9 70	141 130			
	1604A35-001AMS							8015M/D: Di	esel Range	e Organics	
	S-11119528-0421		ID: 25			RunNo: 3		Units			
	4/26/2016	Analysis Da				SeqNo: 10		Units: mg/h			
Analyte	Organica (DBO)	Result 330	PQL 9.8	SPK value 48.78	SPK Ref Val	%REC 178	LowLimit 33.9	HighLimit 141	%RPD 11.6	RPDLimit 20	Qual S
Surr: DNOP	Organics (DRO)	4.8	9.0	4.878	230.0	97.4	70	130	0	0	3
Commis ID	1.00.05074	CT-			T	Onder El	24 14 - 1	2045M/D D:			
Client ID:	LCSS	SampTy	pe: LC			tunNo: 3:		8015M/D: Di	esel Kange	e Organics	
	4/29/2016	Analysis Da				egNo: 1		Units: %Re	c		
	4/23/2010									DDDI III	0 -1
Surr: DNOP		Result 4.6	PQL	5.000	SPK Ref Val	%REC 91.9	LowLimit 70	HighLimit 130	%RPD	RPDLimit	Qual
Sample ID		SampTy						8015M/D: Di	esel Range	Organics	
Client ID:	PBS		ID: 25			lunNo: 3		Unite: 8/ P	_		
Prep Date:	4/29/2016	Analysis Da				eqNo: 10		Units: %Re			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

Not Detected at the Reporting Limit ND

R RPD outside accepted recovery limits

% Recovery outside of range due to dilution or matrix

В Analyte detected in the associated Method Blank

Value above quantitation range

Analyte detected below quantitation limits

Page 9 of 13

Sample pH Not In Range

RL Reporting Detection Limit

Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

WO#:

1604A35

03-May-16

Client:

GHD

Project:

San Juan 28-6 155N

Sample ID	MB-25071
Client ID:	PBS

SampType: MBLK

TestCode: EPA Method 8015M/D: Diesel Range Organics

Batch ID: 25071

RunNo: 33883

Prep Date: 4/29/2016

90.3

Units: %Rec

Analysis Date: 4/29/2016

SeqNo: 1043646

HighLimit

Analyte Surr: DNOP Result PQL 9.0

%REC SPK value SPK Ref Val

70

LowLimit

130

RPDLimit Qual

SampType: MBLK

TestCode: EPA Method 8015M/D: Diesel Range Organics

Sample ID MB-25081

PBS

Batch ID: 25081

RunNo: 33883

%RPD

Client ID: 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

Surr: DNOP

9.1

10.00

10.00

91.4

130

%RPD **RPDLimit** Qual

Sample ID LCS-25081

SampType: LCS

TestCode: EPA Method 8015M/D: Diesel Range Organics RunNo: 33883

Client ID: Prep Date:

LCSS 4/29/2016 Batch ID: 25081

Analysis Date: 4/29/2016

SeqNo: 1044132

Units: %Rec

Analyte

Result

PQL

SPK value SPK Ref Val

%REC LowLimit

HighLimit

%RPD

Qual

Surr: DNOP

4.3

5.000

85.9

70

130

RPDLimit

Qualifiers:

D

Value exceeds Maximum Contaminant Level.

Sample Diluted Due to Matrix H Holding times for preparation or analysis exceeded Not Detected at the Reporting Limit ND

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

Page 10 of 13

P Sample pH Not In Range

RL Reporting Detection Limit

Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

1100

1000

WO#:

1604A35

03-May-16

Client:

GHD

Project:	San Juan 28-6 155N							
Sample ID MB-25	SampTyp	e: MBLK	TestCode: E	PA Method	8015D: Gasol	ine Rang	e	
Client ID: PBS	Batch II	D: 25015	RunNo:	33826				
Prep Date: 4/26/	2016 Analysis Dat	e: 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-2	5015 SampTyp	e: LCS	TestCode: E	PA Method	8015D: Gasol	ine Rang	e	
Client ID: LCSS	Batch II	D: 25015	RunNo:	33826				
Prep Date: 4/26/	2016 Analysis Dat	e: 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-25	SampTyp	e: MBLK	TestCode: E	PA Method	8015D: Gasol	ine Rang	e	
Client ID: PBS	Batch II	D: 25013	RunNo: 3	33826				
Prep Date: 4/26/	2016 Analysis Dat	e: 4/27/2016	SeqNo:	1042396	Units: mg/Kg	3		
Analyte	Result	PQL SPK value	SPK Ref Val %REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organi Surr: BFB	cs (GRO) ND 970	5.0	96.7	80	120			
Sample ID LCS-2	5013 SampTyp	e: LCS	TestCode: E	PA Method	8015D: Gasoli	ine Rang	e	
Client ID: LCSS	Batch II	D: 25013	RunNo: 3			J		
Prep Date: 4/26/	2016 Analysis Date	e: 4/27/2016	SeqNo:	1042397	Units: mg/Kg	J		
Analyte	Result	PQL SPK value	SPK Ref Val %REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organi	cs (GRO) 25	5.0 25.00	0 102	80	120			

Qualifiers:

Surr: BFB

- * 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

108

80

120

J Analyte detected below quantitation limits

Page 11 of 13

- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

WO#:

1604A35

03-May-16

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GHD

Project:

San Juan 28-6 155N

Project: San Ju	an 28-6 155N								
Sample ID mb-24982	SampType:	MBLK	Test	Code: EPA	A Method	8260B: Volat	iles		
Client ID: PBS	Batch ID:	24982	R	unNo: 338	339				
Prep Date: 4/25/2016	Analysis Date:	4/27/2016	S	eqNo: 104	12490	Units: %Red			
Analyte	Result PC	QL SPK value	SPK Ref Val	%REC I	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 Ics-24982	SampType:	LCS	Test	Code: EPA	A Method	8260B: Volat	iles		
Client ID: LCSS	Batch ID:	24982	R	RunNo: 33839					
Prep Date: 4/25/2016	Analysis Date:	4/27/2016	S	eqNo: 104	12491	Units: %Rec	;		
Analyte	Result PC	L SPK value	SPK Ref Val	%REC I	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	Test	Code: EPA	A Method	8260B: Volat	iles		
Client ID: PBS	Batch ID:	25013	RunNo: 33839						
Prep Date: 4/26/2016	Analysis Date:	4/27/2016	S	eqNo: 104	12500	Units: mg/K	g		
Analyte	Result PC	L SPK value	SPK Ref Val	%REC L	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND 0.0	25							
Toluene	ND 0.0	50							
Ethylbenzene	ND 0.0	50							
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 Ics-25013	SampType:	LCS	Test	Code: EPA	A Method	8260B: Volati	iles		
Client ID: LCSS	Batch ID:	25013	Ri	unNo: 338	39				
Prep Date: 4/26/2016	Analysis Date:	4/27/2016	Se	eqNo: 104	2501	Units: mg/K	g		
Analyte	Result PC		SPK Ref Val	%REC L	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1 0.0		0	110	70	130			
Toluene	0.97 0.0		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			
Surr: 1,2-Dichloroethane-d4 Surr: Toluene-d8	0.55 0.53 0.50	0.5000 0.5000 0.5000		110 105 100	70 70 70	130 130 130			

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

Page 12 of 13

- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

WO#: 1604A35

03-May-16

Client:

GHD

Project: San Jua	n 28-6 155N	1								
Sample ID mb-25015	SampT	ype: ME	BLK	Tes	tCode: E	PA Method	8260B: Vola	tiles		
Client ID: PBS	Batch	1D: 25	015	F	RunNo: 3	3872				
Prep Date: 4/26/2016	Analysis D	ate: 4/	28/2016	5	SeqNo: 1	043393	Units: %Re	С		
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 Ics-25015	SampT	ype: LC	s	Tes	tCode: E	PA Method	8260B: Vola	tiles		
Client ID: LCSS	Batch	ID: 25	015	F	RunNo: 3	3872				
Prep Date: 4/26/2016	Analysis D	ate: 4/	28/2016	S	SeqNo: 1	043396	Units: %Re	С		
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-11119528-042	116- Batch	ID: 25	013	F	RunNo: 3	3872				
Client ID: S-11119528-042	116- Batch Analysis D				RunNo: 3 SeqNo: 1		Units: mg/h	(g		
			29/2016				Units: mg/l	(g %RPD	RPDLimit	Qual
Prep Date: 4/26/2016	Analysis D	ate: 4/	29/2016	S	SeqNo: 1	043451		•	RPDLimit	Qual
Prep Date: 4/26/2016 Analyte	Analysis D Result	ate: 4/	29/2016 SPK value	SPK Ref Val	eqNo: 1	043451 LowLimit	HighLimit	•	RPDLimit	Qual
Prep Date: 4/26/2016 Analyte Benzene	Analysis D Result	PQL 0.23	29/2016 SPK value 0.9328	SPK Ref Val 0.6229	SeqNo: 1 %REC 94.8	043451 LowLimit 49.2	HighLimit 155	•	RPDLimit	
Prep Date: 4/26/2016 Analyte Benzene Toluene	Analysis D Result 1.5 18	PQL 0.23	29/2016 SPK value 0.9328 0.9328	SPK Ref Val 0.6229	%REC 94.8 -197	043451 LowLimit 49.2 52	HighLimit 155 154	•	RPDLimit	
Prep Date: 4/26/2016 Analyte Benzene Toluene Surr: Dibromofluoromethane	Analysis D Result 1.5 18 4.3	PQL 0.23	29/2016 SPK value 0.9328 0.9328 4.664	SPK Ref Val 0.6229	%REC 94.8 -197 92.4	043451 LowLimit 49.2 52 70	HighLimit 155 154 130	•	RPDLimit	
Prep Date: 4/26/2016 Analyte Benzene Toluene Surr: Dibromofluoromethane Surr: 1,2-Dichloroethane-d4	Analysis D Result 1.5 18 4.3 4.7	PQL 0.23	29/2016 SPK value 0.9328 0.9328 4.664 4.664	SPK Ref Val 0.6229	%REC 94.8 -197 92.4 101	043451 LowLimit 49.2 52 70 70	HighLimit 155 154 130 130	•	RPDLimit	
Prep Date: 4/26/2016 Analyte Benzene Toluene Surr: Dibromofluoromethane Surr: 1,2-Dichloroethane-d4 Surr: Toluene-d8	Analysis D Result 1.5 18 4.3 4.7 4.5 4.9	PQL 0.23	29/2016 SPK value 0.9328 0.9328 4.664 4.664 4.664 4.664	SPK Ref Val 0.6229 20.15	%REC 94.8 -197 92.4 101 96.5 106	043451 LowLimit 49.2 52 70 70 70 70	HighLimit 155 154 130 130	%RPD	RPDLimit	
Prep Date: 4/26/2016 Analyte Benzene Toluene Surr: Dibromofluoromethane Surr: 1,2-Dichloroethane-d4 Surr: Toluene-d8 Surr: 4-Bromofluorobenzene	Analysis D Result 1.5 18 4.3 4.7 4.5 4.9 SampT	PQL 0.23 0.47	29/2016 SPK value 0.9328 0.9328 4.664 4.664 4.664 4.664	SPK Ref Val 0.6229 20.15	%REC 94.8 -197 92.4 101 96.5 106	043451 LowLimit 49.2 52 70 70 70 70 PA Method	HighLimit 155 154 130 130 130 130	%RPD	RPDLimit	
Prep Date: 4/26/2016 Analyte Benzene Toluene Surr: Dibromofluoromethane Surr: 1,2-Dichloroethane-d4 Surr: Toluene-d8 Surr: 4-Bromofluorobenzene Sample ID 1604a35-002ams	Analysis D Result 1.5 18 4.3 4.7 4.5 4.9 SampT	PQL 0.23 0.47 ype: MS	29/2016 SPK value 0.9328 0.9328 4.664 4.664 4.664 4.664	SPK Ref Val 0.6229 20.15	%REC 94.8 -197 92.4 101 96.5 106	043451 LowLimit 49.2 52 70 70 70 70 PA Method 3872	HighLimit 155 154 130 130 130 130	%RPD	RPDLimit	
Prep Date: 4/26/2016 Analyte Benzene Toluene Surr: Dibromofluoromethane Surr: 1,2-Dichloroethane-d4 Surr: Toluene-d8 Surr: 4-Bromofluorobenzene Sample ID 1604a35-002ams Client ID: S-11119528-042	Analysis D Result 1.5 18 4.3 4.7 4.5 4.9 sd SampT 116- Batch	PQL 0.23 0.47 ype: MS	29/2016 SPK value 0.9328 0.9328 4.664 4.664 4.664 4.664 5D 013 29/2016	SPK Ref Val 0.6229 20.15	%REC 94.8 -197 92.4 101 96.5 106	043451 LowLimit 49.2 52 70 70 70 70 PA Method 3872	HighLimit 155 154 130 130 130 130 8260B: Volati	%RPD	RPDLimit	
Prep Date: 4/26/2016 Analyte Benzene Toluene Surr: Dibromofluoromethane Surr: 1,2-Dichloroethane-d4 Surr: Toluene-d8 Surr: 4-Bromofluorobenzene Sample ID 1604a35-002ams Client ID: S-11119528-042	Analysis D Result 1.5 18 4.3 4.7 4.5 4.9 Sd SampT 116- Batch Analysis D	PQL 0.23 0.47 vype: MS ID: 250 ate: 4/	29/2016 SPK value 0.9328 0.9328 4.664 4.664 4.664 4.664 5D 013 29/2016	SPK Ref Val 0.6229 20.15	%REC 94.8 -197 92.4 101 96.5 106 CCode: El cunNo: 3 deqNo: 1	043451 LowLimit 49.2 52 70 70 70 70 PA Method 3872 043452	HighLimit 155 154 130 130 130 130 Units: mg/F	%RPD		S
Prep Date: 4/26/2016 Analyte Benzene Toluene Surr: Dibromofluoromethane Surr: 1,2-Dichloroethane-d4 Surr: Toluene-d8 Surr: 4-Bromofluorobenzene Sample ID 1604a35-002ams Client ID: S-11119528-042	Analysis D Result 1.5 18 4.3 4.7 4.5 4.9 Sd SampT I16- Batch Analysis D Result	PQL 0.23 0.47 0.47 0.47 0.47 0.47 0.47 0.47 0.47	29/2016 SPK value 0.9328 0.9328 4.664 4.664 4.664 013 29/2016 SPK value	SPK Ref Val 0.6229 20.15 Test	%REC 94.8 -197 92.4 101 96.5 106 tCode: El tunNo: 3	043451 LowLimit 49.2 52 70 70 70 70 PA Method 3872 043452 LowLimit	HighLimit 155 154 130 130 130 130 8260B: Volation Units: mg/F	%RPD tiles %RPD	RPDLimit	S
Prep Date: 4/26/2016 Analyte Benzene Toluene Surr: Dibromofluoromethane Surr: 1,2-Dichloroethane-d4 Surr: Toluene-d8 Surr: 4-Bromofluorobenzene Sample ID 1604a35-002ams Client ID: S-11119528-042 Prep Date: 4/26/2016 Analyte Benzene	Analysis D Result 1.5 18 4.3 4.7 4.5 4.9 Std SampT 116- Batch Analysis D Result 1.3	PQL 0.23 0.47 vype: MS 1ID: 25/ate: 4/PQL 0.24	29/2016 SPK value 0.9328 0.9328 4.664 4.664 4.664 4.664 5D 013 29/2016 SPK value 0.9662	SPK Ref Val 0.6229 20.15 Tesi R SPK Ref Val 0.6229	%REC 71.7	043451 LowLimit 49.2 52 70 70 70 70 PA Method 3872 043452 LowLimit 49.2	HighLimit 155 154 130 130 130 130 8260B: Volat Units: mg/k HighLimit 155	%RPD tiles %RPD 13.6	RPDLimit 20	S
Prep Date: 4/26/2016 Analyte Benzene Toluene Surr: Dibromofluoromethane Surr: 1,2-Dichloroethane-d4 Surr: Toluene-d8 Surr: 4-Bromofluorobenzene Sample ID 1604a35-002ams Client ID: S-11119528-042 Prep Date: 4/26/2016 Analyte Benzene Toluene	Analysis D Result 1.5 18 4.3 4.7 4.5 4.9 Sd SampT 116- Batch Analysis D Result 1.3 14	PQL 0.23 0.47 vype: MS 1ID: 25/ate: 4/PQL 0.24	29/2016 SPK value 0.9328 0.9328 4.664 4.664 4.664 4.664 SD 013 29/2016 SPK value 0.9662 0.9662	SPK Ref Val 0.6229 20.15 Tesi R SPK Ref Val 0.6229	%REC 94.8 -197 92.4 101 96.5 106 Code: ElanNo: 3 GeqNo: 1 %REC 71.7 -607	043451 LowLimit 49.2 52 70 70 70 70 PA Method 3872 043452 LowLimit 49.2 52	HighLimit 155 154 130 130 130 130 8260B: Volate Units: mg/F HighLimit 155 154	%RPD ***tiles **Gg **RPD 13.6 24.7	RPDLimit 20 20	S
Prep Date: 4/26/2016 Analyte Benzene Toluene Surr: Dibromofluoromethane Surr: 1,2-Dichloroethane-d4 Surr: Toluene-d8 Surr: 4-Bromofluorobenzene Sample ID 1604a35-002ams Client ID: S-11119528-042 Prep Date: 4/26/2016 Analyte Benzene Toluene Surr: Dibromofluoromethane	Analysis D Result 1.5 18 4.3 4.7 4.5 4.9 ad SampT 116- Batch Analysis D Result 1.3 14 4.3	PQL 0.23 0.47 vype: MS 1ID: 25/ate: 4/PQL 0.24	29/2016 SPK value 0.9328 0.9328 4.664 4.664 4.664 4.664 SD 013 29/2016 SPK value 0.9662 0.9662 4.831	SPK Ref Val 0.6229 20.15 Tesi R SPK Ref Val 0.6229	%REC 94.8 -197 92.4 101 96.5 106 Code: ElanNo: 3 deqNo: 1 %REC 71.7 -607 89.8	043451 LowLimit 49.2 52 70 70 70 70 PA Method 3872 043452 LowLimit 49.2 52 70	HighLimit 155 154 130 130 130 8260B: Volat Units: mg/k HighLimit 155 154 130	%RPD ***tiles ***G ***RPD 13.6 24.7 0	RPDLimit 20 20 0	S

Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

Not Detected at the Reporting Limit

RPD outside accepted recovery limits R

% Recovery outside of range due to dilution or matrix

Analyte detected in the associated Method Blank В

E Value above quantitation range

J Analyte detected below quantitation limits

Page 13 of 13

P Sample pH Not In Range

RL Reporting Detection Limit

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

Clien	t Name:	GHD		Work (Order Numb	er: 1604/	A35		RcptNo	1
Recei	ived by/date	e CS		04/6	a//	0				
Logge	ed By:	Ashley Gal	legos	4/22/201	6 4:00:00 P	M		A		
Comp	oleted By:	Ashley Gal	legos	4/23/201	6 10:47:45	AM		A		
Revie	ewed By:	AT 041	25/16	i.e.				V		
Chai	n of Cus	tody		× ×						
1. C	ustody sea	ls intact on sa	mple bottles?			Yes		No 🗌	Not Present	
2. Is	Chain of C	custody comp	lete?			Yes		No 🗆	Not Present	
3. H	ow was the	sample deliv	ered?			Clien	<u>t</u>			
Log	<u>In</u>									
		mpt made to	cool the samp	les?		Yes		No 🗆	NA 🗆	
5. V	Vere all san	nples received	d at a tempera	ature of >0° C	to 6.0°C	Yes		No 🗌	NA 🗌	
6. s	Sample(s) ir	proper conta	iner(s)?			Yes		No 🗆		
7. S	ufficient sa	mple volume	for indicated t	est(s)?		Yes		No 🗆		
8. A	re samples	(except VOA	and ONG) pr	operly preserve	ed?	Yes		No 🗌		
9. W	Vas preserv	ative added to	bottles?			Yes		No 🖈	NA 🗆	
10.V	OA vials ha	ve zero head	space?			Yes		No 🗌	No VOA Vials	
		mple contain		roken?		Yes		No 🖈		
									# of preserved bottles checked	
		ork match bo				Yes		No 🗆	for pH:	or >12 unless noted)
		correctly iden		n of Custody?		Yes		No 🗌	Adjusted?	or >12 unless noted)
		at analyses w				Yes		No 🗌		
		ling times able				Yes		No 🗌	Checked by:	
(1	f no, notify	customer for a	authorization.)							
Spec	ial Hand	ling (if app	dicable)							
				vith this order?		Yes		No 🗆	NA 🖝	
						humanamana 102			,	1
	By Wh	Notified:		PATALANI ANA BARBARAN MANAGRAPAN MANAGRAPAN	Date Via:]	:	Dhono 🗆 Fay	In Person	
İ	Regard	3			VIA.	eMa	SANGARA ARAGONA S	Phone Fax	in Person	
		nstructions:	DLA HIS HIS HIS VINANTON NEWS COMPANION				gyarawy;		atta helden kalan ka Kalan kalan ka	
17. A	Additional re	marks:				-		6 6		.1
18 0	Cooler Info	rmation								
	Cooler No		Condition	Seal Intact	Seal No	Seal Da	te	Signed By	1	
	1	4.9	Good	Not Present				***************************************		

Chain-of-Custody Recor	d Turn-Around Time:				HAI	1 F	NVI	RO	NME	NT/	AL.
ient: Gito	Standard 🗆 Ru	ush							BOR		
	Project Name:		g				vironme				
ailing Address: Gial Inditu Scitor N	E SAN DUKN 28.	6 #155N	49	901 Hav					м 87109)	
F 200, ABR, MM, 87110	Project #:	200	1 1	el. 505	345-39	75	Fax 50)5-345	-4107		
none #: 505 - 884-0672	111195	28	Analysis Request								
nail or Fax#: SEFF. WALKER @ Git D. COM	Project Manager:		2	6							
VQC Package: Standard □ Level 4 (Full Valid	SEFF WALK	EN	's (8021) (Gas only)	/ DRO / MRO)		SIMS)	,PO4,SC	2 PCB's		516	
ccreditation	Sampler: C. KAWACK	15. KIRCHNER	TMB's		= =	02	0 2	8082	0	اک	9
NELAP	On Ice: XYes	_ □ No	+ +	8 3	0 2	8270	000	_	1 1	0	0 70
EDD (Type)	Sample Temperature	49°C	MTBE	9	od (t	0 or	Z :	A Side	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	DRO	
Date Time Matrix Sample Reques	ct ID	HEAT NO	BTEX + MT	TPH 8015B (GRO	EDB (Method 504.1)	PAH's (8310 or RCRA 8 Metals	Anions (F,CI,NO ₃ ,NO ₂ ,PO ₄ ,SO ₄)	8081 Pesticides 8260B (VOA)	8270 (Semi-VOA)		Air Bubbles (Y or N)
16 1400 30 S-111828-04216-CH	-1-30 402 SAR NOWE							2 0	X		
1-16 1530 50 5-1119528-042116-CI	-1-301	-008							X	x	
16 1645 SO 5-11119528-042116-CI	1-2-31	-003							X	X	
HG 1800 SO 5-11119578-64716-01	-2-15!	-004							X	X	
1-16 0900 SO 5-1111 8528-04746-41	-3-5!	-005							X	X	
7-16 0930 SO 5-11119528-042216-0	f-3-10°	-006							X	X	
2-16 1015 SO S-11118528-042216-0	74-51	-007							X	X	
-16 1100 SO 5-1419528-042216-CI	4-151	-008							X	X	
SO SHIP508 2121/6 CH	5				_		-	-	X	X	
50 5-1119532-04 K-CH	5					-	-	-	X		+
50 इसाम्डिक वर्ष १६ वर्ष	6			-	-			=	X	X	
So softenson for	6			-			-		X	X	
ate: Time: Relinquished by: 3-16 1600 Cul	Received by: Cellus Sur	Date Time 04/22/16 1600	Remar	ks: ALL	SAI	PLES	Fo	R ·	THIS	Pro:	SECT
ate: Time: Relinquished by:	Received by:	Date Time		STP	NDF	41CD	TA	てを	×		



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 qualifers 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

andyl

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order 1604B08

Hall Environmental Analysis Laboratory, Inc. 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 Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANICS	3			Analys	t: JME
Diesel Range Organics (DRO)	ND	9.6	mg/Kg	1	4/30/2016 12:01:16 AM	1 25052
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	4/30/2016 12:01:16 AM	1 25052
Surr: DNOP	105	70-130	%Rec	1	4/30/2016 12:01:16 AM	1 25052
EPA METHOD 8015D: GASOLINE RAI	NGE				Analys	t: 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					Analys	t: 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.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- Not Detected at the Reporting Limit ND
- RPD outside accepted recovery limits R
- % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- Value above quantitation range
- Analyte detected below quantitation limits Page 1 of 9 J
- Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified

Lab Order 1604B08

Date Reported: 5/3/2016

Hall Environmental Analysis Laboratory, Inc.

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

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

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RAN	GE 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 RAI	NGE				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

Matrix: SOIL

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

- * 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 Page 2 of 9
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1604B08

Date Reported: 5/3/2016

Hall Environmental Analysis Laboratory, Inc.

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 Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RA	NGE ORGANICS				Analys	: 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 RA	NGE				Analys	: 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					Analys	: 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.

- 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 Page 3 of 9
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1604B08

Date Reported: 5/3/2016

Hall Environmental Analysis Laboratory, Inc.

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 Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RA	NGE ORGANICS	3			Analys	t: 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 RA	ANGE				Analys	: 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					Analys	: 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.

- * 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 Page 4 of 9
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1604B08

Date Reported: 5/3/2016

Hall Environmental Analysis Laboratory, Inc.

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 Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RAI	NGE ORGANICS	6			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 RA	NGE				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.

- 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 Page 5 of 9
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

WO#:

Page 6 of 9

1604B08

03-May-16

Client:

GHD

Project: San Juan	1 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) Surr: DNOP	ND 50 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 Surr: DNOP	Result PQL SPK value 9.1 10.00	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual 91.4 70 130
		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		SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Diesel Range Organics (DRO) Surr: DNOP	56 10 50.00 5.3 5.000	0 113 65.8 136 107 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

Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

RPD outside accepted recovery limits

% Recovery outside of range due to dilution or matrix

В Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

Sample pH Not In Range

Reporting Detection Limit

P

Sample container temperature is out of limit as specified

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 %REC **RPDLimit** Analyte Result **PQL** SPK value SPK Ref Val LowLimit HighLimit %RPD 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 1604B08-001AM	SD SampT	ype: MS	SD	Tes	tCode: El	PA Method	8015M/D: Die	esel Range	e Organics	
Client ID: S-11119528-042	216- Batch	ID: 25	052	F	RunNo: 3	3883				
Prep Date: 4/28/2016	Analysis D	ate: 4/	30/2016	S	SeqNo: 1	044137	Units: mg/K	(g		
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	

- * 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
- Page 7 of 9

- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

WO#:

1604B08

03-May-16

Client:

GHD

Project:

San Juan 28 6 155N

Project: San Jua	11 28 0 133N									
Sample ID MB-25015	SampTyp	SampType: MBLK			TestCode: EPA Method 8015D: Gasoline Range					
Client ID: PBS	Batch I	D: 25	015	F	RunNo: 3	3826				
Prep Date: 4/26/2016	Analysis Dat	te: 4/	27/2016	S	SeqNo: 1	042318	Units: mg/K	(g		
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	SampTyp	pe: LC	s	Tes	tCode: El	PA Method	8015D: Gaso	line Rang	e	
Client ID: LCSS	Batch I	D: 25 0	015	F	RunNo: 3	3826				
Prep Date: 4/26/2016	Analysis Dat	te: 4/	27/2016	S	SeqNo: 10	042319	Units: mg/K	(g		
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.
- 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

Page 8 of 9

- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

WO#: **1604B08**

03-May-16

Client:

GHD

Project:

San Juan 28 6 155N

Sample ID mb-25015	SampT	уре: МЕ	BLK	Tes	tCode: El	PA Method	8260B: Vola	tiles		
Client ID: PBS	Batch	n ID: 25 0	015	F	RunNo: 3	3872				
Prep Date: 4/26/2016	Analysis D	ate: 4/	28/2016	8	SeqNo: 1	043393	Units: mg/h	(g		
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 Ics-25015	SampT	SampType: LCS		Tes	TestCode: EPA Method 8260B: Volatiles					
Client ID: LCSS	Batch	ID: 25	015	F	RunNo: 3	3872				
Prep Date: 4/26/2016	Analysis D	ate: 4/	28/2016	S	SeqNo: 1	043396	Units: mg/k	(g		
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			

- * 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
- Page 9 of 9

- 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	r: 1604	808		RcptNo	: 1
Received by/date	/ 3 1	OHZOLIL			Augh All and		
Logged By:	Lindsay Mangin	4/26/2016 7:20:00 AM			مالاندان		
Completed By:	Lindsay Mangin	4/26/2016 10:29:57 A	M		Timeker H Harfuy D		1 1 1 1 1
Reviewed By:	to as	04/24/14					
Chain of Cus	tody					_	
1. Custody sea	ls intact on sample bottles?		Yes		No 🗌	Not Present	
2. Is Chain of C	Custody complete?		Yes		No L_	Not Present	
How was the	sample delivered?		Cour	rier			
Log In							
4. Was an atte	mpt made to cool the sample	es?	Yes		No 🗆	NA 🗌	
5. Were all san	nples received at a temperati	ure of >0° C to 6.0°C	Yes		No 🗆	NA 🗆	
6. Sample(s) in	n proper container(s)?		Yes	*	No 🗆		
7. Sufficient sa	mple volume for indicated tes	st(s)?	Yes		No 🗌		
8. Are samples	(except VOA and ONG) proj	perly preserved?	Yes		No 🗌		
9. Was preserv	vative added to bottles?		Yes		No 🐼	NA 🗆	
10.VOA vials ha	ave zero headspace?		Yes		No 🗆	No VOA Vials	
11. Were any sa	ample containers received br	oken?	Yes		No 🐼		
					_	# of preserved bottles checked	
2000	vork match bottle labels?		Yes		No 🗆	for pH:	or >12 unless noted)
	pancies on chain of custody) correctly identified on Chain	of Custody?	Yes		No 🗆	Adjusted?	or > 12 unless noteu)
	at analyses were requested?		Yes		No 🗆		
15. Were all hold	ding times able to be met?		Yes		No 🗌	Checked by:	
(If no, notify	customer for authorization.)						
Special Hand	ling (if applicable)						
	otified of all discrepancies with	th this order?	Yes		No 🗆	NA 🐼	
i	100000000000000000000000000000000000000	WANTA AMBINING AND	103	amana amana		IVA @3	ě
By Wh	Notified:	Date:		🗆	Dhasa 🗆 Fau	□la Banan	
Regard		Via:	eMa		Phone Fax	In Person	:
	Instructions:	CONTRACTOR OF THE PARTY OF THE					
17. Additional re	,						:
18. Cooler Info							
Cooler No		Seal Intact Seal No	Seal Da	te	Signed By		
1	1.0 Good	/es					

Chain-of-Custody Record	Turn-Around Time: Results \$2	HALL ENVIRONMENTAL
lient: GHD	Turn-Around Time: Standard Project Name:	ANALYSIS LABORATORY
	Project Name:	www.hallenvironmental.com
lailing Address: 6(2) INDIAN School NE	SAN JUAN 28-6 #155N	4901 Hawkins NE - Albuquerque, NM 87109
TE 200; ABQ, NM 87110	Project #:	Tel. 505-345-3975 Fax 505-345-4107
hone #: 505-884-0672	11119528	Analysis Request
mail or Fax#: SEFF. WALKER @ GitD.OM	Project Manager:	(1) (1) (2) (3) (3) (4) (1)
A/QC Package:	SEFF WACKER	3027 38 00 30 00 3
Standard Level 4 (Full Validation)		SIMS) SIMS) (\$5 PCB" (\$5 PCB") (\$5 P
ccreditation NELAP Other	Sampler: C-KAMACK / J. KIRCHWEK	+ TMB's (8021) + TPH (Gas onl) RO / DRO / MRC 18.1) (04.1) (04.1) (04.1) (04.1) (04.1) (04.1) (04.1) (04.1) (05.0) (07.0)
I NELAP	On Ice: ☐ No Sample Temperature:	E + + 11 150 Or 8 Or
LEDD (Type)		MTBE MTBE (S 558 (C 558 (C 310 o 310
Date Time Matrix Sample Request ID	Container Type and # Type	(Me) (Me) (Se
Sale Time Industry Cample Request ID	Type and # Type 1604R08	BTEX + MTBE + TMB's (8021) BTEX + MTBE + TPH (Gas only) TPH 8015B (GRO / DRO / MRO) TPH 8015B (GRO / DRO / MRO) TPH (Method 418.1) EDB (Method 504.1) PAH's (8310 or 8270 SIMS) RCRA 8 Metals Anions (F,CI,NO ₃ ,NO ₂ ,PO ₄ ,SO ₄) 8081 Pesticides / 8082 PCB's 8260B (VOA) BZ70 (Semi-VOA) BZ70 (Semi-VOA) BZ70 (Semi-VOA) Air Bubbles (Y or N)
2/16/1600 SO 5-11/19528-0422 16-CH-1-40	402 JAN NOWE -001	
2/16 1245 SO 5-1111958-0422 16-clt-510	1 1 -002	X X
22/12 1330 SO 5-11119528-04 1216-CH-5-15	-003	XX
12/16 1450 SO SIM9538-04 VIGOR-6-5	-004	XX
22/14/545 SO 3-111/958-34 216-CH-G-16	-05	XX
ate: Time: Relipquished by	Received by: Date Time	Remarks:
ate: Time: Relinquished by:	Received by: Date Time	-
du 1849 Part 1 /21/2	Received by: Date Time U4/26/16	
Strain is how ware	0120	





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

Ilice Flanagan

alice.flanagan@pacelabs.com

Project Manager

Enclosures

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







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

lowa 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





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



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	
		ASTM D2974	CEM	1	PASI-K	
60223055004	11119528-B-11@22.5 DUP	TCEQ 1006	JS	14	PASI-D	
		ASTM D2974	CEM	1	PASI-K	

REPORT OF LABORATORY ANALYSIS





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:





PROJECT NARRATIVE

Project:

11119528 SAN JUAN 28-6 #155N

Pace Project No.:

60223055

Method:

TNRCC 1005 Description: TNRCC 1005 TPH

Client: Date:

GHD Services_COP NM 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.

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:





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:



Analytical Serv 9608 Loiret Blvd. Lenexa, KS 66219 (913)599-5665

PROJECT NARRATIVE

Project:

11119528 SAN JUAN 28-6 #155N

Pace Project No.: 60223055

Method:

EPA 8270 by SIM

Client:

Description: 8270 MSSV PAH by SIM 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:



(913)599-5665



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.

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.



Project:

11119528 SAN JUAN 28-6 #155N

Pace Project No.:

60223055

Sample: SL-11119528-070616-JW-

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 Met	hod: EPA 801	5B Preparation Me	ethod: E	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		07/17/16 23:07		
p-Terphenyl (S)	90	%	57-108	1	07/15/16 00:00	07/17/16 23:07	92-94-4	
TNRCC 1005 TPH	Analytical Met	hod: TNRCC	1005 Preparation N	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) Surrogates	ND	mg/kg	23.9	1	07/15/16 15:05	07/16/16 02:04		
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		07/16/16 02:04		
8270 MSSV PAH by SIM	Analytical Met	nod: EPA 8270	by SIM Preparati	on Met	hod: 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		07/16/16 22:27		
Anthracene	ND	ug/kg	4.0	1		07/16/16 22:27		
Benzo(a)anthracene	ND	ug/kg	4.0	1		07/16/16 22:27		
Benzo(a)pyrene	ND	ug/kg	4.0	1		07/16/16 22:27		
Benzo(b)fluoranthene	ND	ug/kg	4.0	1		07/16/16 22:27		
Benzo(g,h,i)perylene	ND	ug/kg	4.0	1		07/16/16 22:27		
Benzo(k)fluoranthene	ND	ug/kg	4.0	1		07/16/16 22:27		
Chrysene	ND	ug/kg	4.0	1		07/16/16 22:27		
Dibenz(a,h)anthracene	ND	ug/kg	4.0	1		07/16/16 22:27		
Fluoranthene	ND	ug/kg	4.0	1		07/16/16 22:27		
Fluorene	ND	ug/kg	4.0	1		07/16/16 22:27		
Indeno(1,2,3-cd)pyrene	ND	ug/kg	4.0	1		07/16/16 22:27		
Naphthalene	ND	ug/kg	4.0	1		07/16/16 22:27		
Phenanthrene	ND	ug/kg	4.0	1		07/16/16 22:27		
Pyrene	ND	ug/kg	4.0	1		07/16/16 22:27		
Surrogates		0 0						
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 Meth	nod: EPA 5035	5A/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		
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		5 5		-				
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		
1,2-Dichloroethane-d4 (S)	101	%	83-120	1		07/12/16 13:54		

REPORT OF LABORATORY ANALYSIS





Project:

11119528 SAN JUAN 28-6 #155N

Pace Project No.:

60223055

Sample: SL-11119528-070616-JW-

Lab ID: 60223055001

Collected: 07/06/16 16:40 Received: 07/08/16 09:00 Matrix: Solid

B9-42.5 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

CAS No. Analyzed

Qual

Percent Moisture

Analytical Method: ASTM D2974

Percent Moisture

Date: 07/19/2016 04:00 PM

17.1

0.50 1 07/16/16 00:00

REPORT OF LABORATORY ANALYSIS



Project:

11119528 SAN JUAN 28-6 #155N

Pace Project No.:

60223055

Sample: SL-11119528-070716-JW-B10-42.5

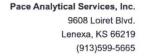
Lab ID: 60223055002

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 Met	nod: EPA 8015B	Preparation Me	ethod: E	EPA 3546			
TPH-DRO Surrogates	ND	mg/kg	10	1	07/15/16 00:00	07/17/16 23:15		
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 Met	nod: TNRCC 10	05 Preparation N	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) Surrogates	ND	mg/kg	20.5	1	07/15/16 15:05	07/16/16 02:52		
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	
3270 MSSV PAH by SIM	Analytical Meth	nod: EPA 8270 b	y SIM Preparati	on Met	thod: 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	
ndeno(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	
3260 MSV GRO and Oxygenates	Analytical Meth	od: 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		
(ylene (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	
I-Bromofluorobenzene (S)	96	%	81-117	1		07/12/16 14:10	460-00-4	
,2-Dichloroethane-d4 (S)	102	%	83-120	1		07/12/16 14:10	17060-07-0	

REPORT OF LABORATORY ANALYSIS





Project:

11119528 SAN JUAN 28-6 #155N

Pace Project No.:

60223055

Sample: SL-11119528-070716-JW-

B10-42.5

Parameters

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.

Results

Units

Report Limit

Prepared

Analyzed

CAS No.

Qual

Percent Moisture

Analytical Method: ASTM D2974

Percent Moisture

Date: 07/19/2016 04:00 PM

4.5

%

0.50 1 07/16/16 00:00



Project:

Naphthalene

Date: 07/19/2016 04:00 PM

11119528 SAN JUAN 28-6 #155N

Sample: 11119528-B-11@22.5	Lab ID: 602	23055003	Collected: 07/06/1	16 11:00	Received: 07	7/08/16 09:00 N	/latrix: Solid	
Results reported on a "dry weight	" basis and are ad	usted for pe	rcent moisture, sa	mple s	ize and any dilu	tions.		
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua
015B Diesel Range Organics	Analytical Met	nod: EPA 801	5B Preparation Me	ethod: E	EPA 3546	1		
TPH-DRO	ND	mg/kg	10.9	1	07/15/16 00:00	07/17/16 23:24		
ГРН-DRO (С10-С28)	ND	mg/kg	10.9	1		07/17/16 23:24		
Surrogates								
-Tetracosane (S)	117	%	49-133	1		07/17/16 23:24		
-Terphenyl (S)	92	%	57-108	1	07/15/16 00:00	07/17/16 23:24	92-94-4	
NRCC 1005 TPH	Analytical Met	nod: TNRCC	1005 Preparation N	Method	: TNRCC 1005			
PH (C06-C12)	ND	mg/kg	47.7	1	07/15/16 15:05	07/16/16 03:37		
PH (>C12-C28)	ND	mg/kg	47.7	1	07/15/16 15:05	07/16/16 03:37		
PH (>C28-C35)	ND	mg/kg	47.7	1	07/15/16 15:05	07/16/16 03:37		
PH Total (C06-C35)	ND	mg/kg	47.7	1	07/15/16 15:05	07/16/16 03:37		
Surrogates								
-Terphenyl (S)	86	%	70-130	1		07/16/16 03:37		
-Chlorooctane (S)	85	%	70-130	1	07/15/16 15:05	07/16/16 03:37	3386-33-2	
CEQ 1006 TPH	Analytical Met	nod: TCEQ 10	006 Preparation Me	ethod: 7	TCEQ 1006			
liphatic (C6)	ND	mg/kg	20.0	1	07/13/16 06:47	07/13/16 19:03		
liphatic (>C06-C08)	ND	mg/kg	40.0	1	07/13/16 06:47	07/13/16 19:03		
liphatic (>C08-C10)	ND	mg/kg	20.0	1	07/13/16 06:47	07/13/16 19:03		
liphatic (>C10-C12)	ND	mg/kg	20.0	1	07/13/16 06:47	07/13/16 19:03		
liphatic (>C12-C16)	ND	mg/kg	20.0	1	07/13/16 06:47	07/13/16 19:03		
liphatic (>C16-C21)	ND	mg/kg	20.0	1	07/13/16 06:47	07/13/16 19:03		
liphatic (>C21-C35)	ND	mg/kg	40.0	1	07/13/16 06:47	07/13/16 19:03		
romatic (>C07-C08)	ND	mg/kg	4.6	1	07/13/16 06:47	07/13/16 19:03		
romatic (>C08-C10)	ND	mg/kg	30.7	1	07/13/16 06:47	07/13/16 19:03		
romatic (>C10-C12)	ND	mg/kg	20.0	1	07/13/16 06:47	07/13/16 19:03		
romatic (>C12-C16)	ND	mg/kg	20.0	1	07/13/16 06:47	07/13/16 19:03		
romatic (>C16-C21)	ND	mg/kg	20.0	1	07/13/16 06:47	07/13/16 19:03		
romatic (>C21-C35)	ND	mg/kg	40.0	1	07/13/16 06:47	07/13/16 19:03		
6-C35 Aliphatic & Aromatic	ND	mg/kg	4.6	1	07/13/16 06:47	07/13/16 19:03		
270 MSSV PAH by SIM	Analytical Meth	nod: EPA 8270	0 by SIM Preparati	on Met	hod: EPA 3546			
cenaphthene	ND	ug/kg	3.6	1	07/14/16 00:00	07/15/16 20:33	83-32-9	
cenaphthylene	ND	ug/kg	3.6	1	07/14/16 00:00	07/15/16 20:33	208-96-8	
nthracene	ND	ug/kg	3.6	1		07/15/16 20:33		
enzo(a)anthracene	ND	ug/kg	3.6	1	07/14/16 00:00	07/15/16 20:33	56-55-3	
enzo(a)pyrene	ND	ug/kg	3.6	1	07/14/16 00:00	07/15/16 20:33	50-32-8	
enzo(b)fluoranthene	ND	ug/kg	3.6	1		07/15/16 20:33		
enzo(g,h,i)perylene	ND	ug/kg	3.6	1	07/14/16 00:00	07/15/16 20:33	191-24-2	
enzo(k)fluoranthene	ND	ug/kg	3.6	1		07/15/16 20:33		
hrysene	ND	ug/kg	3.6	1		07/15/16 20:33		
ibenz(a,h)anthracene	ND	ug/kg	3.6	1		07/15/16 20:33		
luoranthene	ND	ug/kg	3.6	1	07/14/16 00:00			
uorene	ND	ug/kg	3.6	1	07/14/16 00:00			
deno(1,2,3-cd)pyrene	ND	ug/kg	3.6	1		07/15/16 20:33		
lanhthalana	ND	ug/kg	2.6	4		07/45/46 20:22		

REPORT OF LABORATORY ANALYSIS

3.6

1

07/14/16 00:00 07/15/16 20:33 91-20-3

ND

ug/kg



Project:

11119528 SAN JUAN 28-6 #155N

Pace Project No.: 60223055

Date: 07/19/2016 04:00 PM

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.	Qua
3270 MSSV PAH by SIM	Analytical Meti	nod: EPA 8270	by SIM Preparati	on Met	hod: EPA 3546			
Phenanthrene	ND	ug/kg	3.6	1	07/14/16 00:00	07/15/16 20:33	85-01-8	
Pyrene Surrogates	ND	ug/kg	3.6	1	07/14/16 00:00	07/15/16 20:33	129-00-0	
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	
3260 MSV GRO and Oxygenates	Analytical Meth	nod: EPA 5035	5A/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		
Kylene (Total) Surrogates	ND	mg/kg	0.011	1		07/12/16 14:25	1330-20-7	
Toluene-d8 (S)	100	%	80-120	1		07/12/16 14:25	2037-26-5	
1-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 Meth	nod: ASTM D2	974					
Percent Moisture	10.0	%	0.50	1		07/16/16 00:00		



Pace Analy Serv Inc. 9608 Loiret Blvd. Lenexa, KS 66219 (913)599-5665

ANALYTICAL RESULTS

Project:

11119528 SAN JUAN 28-6 #155N

Pace Project No.:

Date: 07/19/2016 04:00 PM

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 Meth	nod: TCEQ 10	06 Preparation Me	ethod:	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 Meth	nod: ASTM D2	974					
Percent Moisture	4.6	%	0.50	1		07/16/16 00:00		



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

Date: 07/19/2016 04:00 PM

Associated Lab Samples: 60223055001, 60223055002, 60223055003

		Blank	Reporting		
Parameter	Units	Result	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					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% 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 SP	PIKE DUPLICA	TE: 17919	90		1791991							
			MS	MSD								
	6	0223055003	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	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	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



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

Date: 07/19/2016 04:00 PM

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					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% 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 S	PIKE DUPLIC	CATE: 179414	40		1794141							
			MS	MSD								
		60223055003	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	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	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



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

		Blank	Reporting		
Parameter	Units	Result	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					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% 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	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS



Project:

11119528 SAN JUAN 28-6 #155N

Pace Project No.: 60223055

		TE: 17932	MS	MSD	1793217							
	6	0223055003	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qua
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	
luoranthene	ug/kg	ND	35.6	36.9	27.5	29.9	77	81	10-169	8	77	
luorene	ug/kg	ND	35.6	36.9	30.0	31.1	84	84	19-148	3	54	
ndeno(1,2,3-cd)pyrene	ug/kg	ND	35.6	36.9	30.4	29.7	85	81	21-142	2	58	
laphthalene	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	
yrene	ug/kg	ND	35.6	36.9	33.2	35.9	93	97	10-206	8	74	
-Fluorobiphenyl (S)	%						81	81	62-105		43	
erphenyl-d14 (S)	%						94	97	61-123		46	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



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

Date: 07/19/2016 04:00 PM

Associated Lab Samples: 60223055001, 60223055002, 60223055003

		Blank	Reporting		
Parameter	Units	Result	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		17	93265						
		Spike	LCS	LCSD	LCS	LCSD	% Rec		Max	
Parameter	Units	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	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 S	PIKE DUPLICA	ATE: 179326	66		1793267							
			MS	MSD								
	6	60223055003	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	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			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



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:

ples: 60223055003, 60223055004

METHOD BLANK: 242704

Date: 07/19/2016 04:00 PM

Associated Lab Samples: 60223055003, 60223055004

Matrix: Solid

		Blank	Reporting		
Parameter	Units	Result	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		24	12706						
		Spike	LCS	LCSD	LCS	LCSD	% Rec		Max	
Parameter	Units	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qualifiers
C6-C35 Aliphatic & Aromatic	mg/kg	313	218	216	69	69	60-140	1	20	

C6-C35 Aliphatic & Aromatic	mg/kg	ND	770	730	498	483	65	66	60-140	3	20	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
	6	0223055003	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
			MS	MSD								
MATRIX SPIKE & MATRIX SPI	KE DUPLICA	TE: 24270	7		242708							

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.





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:

Parameter

Parameter

60223055001, 60223055002, 60223055003, 60223055004

Blank Result Reporting

Limit

Analyzed

1

Qualifiers

Percent Moisture

Units %

ND

0.50 07/16/16 00:00

SAMPLE DUPLICATE: 1795154

Date: 07/19/2016 04:00 PM

60223055003 Result

Dup Result

RPD

Max RPD

Qualifiers

Percent Moisture

Units %

10.0

9.9

20

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.





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

Date: 07/19/2016 04:00 PM

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



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project:

11119528 SAN JUAN 28-6 #155N

Pace Project No.:

Date: 07/19/2016 04:00 PM

60223055

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytica 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 60223055002 60223055003	SL-11119528-070616-JW-B9-42.5 SL-11119528-070716-JW-B10-42.5 11119528-B-11@22.5	EPA 5035A/8260 EPA 5035A/8260 EPA 5035A/8260	438162 438162 438162		
60223055001 60223055002 60223055003 60223055004	SL-11119528-070616-JW-B9-42.5 SL-11119528-070716-JW-B10-42.5 11119528-B-11@22.5 11119528-B-11@22.5 DUP	ASTM D2974 ASTM D2974 ASTM D2974 ASTM D2974	438797 438797 438797 438797		



Sample Condition Upon Receipt



Client Name: CHD - NM				Optional
Courier: FedEx P UPS UPS UPS UPS UPS UPS UPS UPS UPS U	PEX 🗆	E		Pace □ Other □ Client □ Proj Due Date:
Tracking #: 0508 845 1977 P	ace Sh	nipping	Label L	Jsed? Yes 🗗 No □ Proj Name:
Custody Seal on Cooler/Box Present: Yes > No C	□ s	eals in	tact: Y	es ∕ No □
Packing Material: Bubble Wrap P Bubble Bage	s 🗷		Foam [□ None □ Other □
Thermometer Used: (T-268) T-239 Typ	oe of lo	ce: 🗸	Ved Blu	ue None Samples received on ice, cooling process has begun.
Cooler Temperature: 2.6			(circle	Date and initials of person examining
Temperature should be above freezing to 6°C				contents: TH 7/8/16 950
Chain of Custody present:	Yes	□No	□N/A	1.
Chain of Custody filled out:	Yes	□No	□N/A	2.
Chain of Custody relinquished:	Yes	□No	□n/a	3.
Sampler name & signature on COC:	Yes	□No	□N/A	4.
Samples arrived within holding time:	Yes	□No	□N/A	5.
Short Hold Time analyses (<72hr):	□Yes	No	□n/A	6.
Rush Turn Around Time requested:	□Yes	No	□N/A	7.
Sufficient volume:	Yes	□No	□N/A	β.
Correct containers used:	Yes	□No	□n/a	102
Pace containers used:	☐Yes	□No	□N/A	9.
Containers intact:	Yes	□No	□N/A	10.
Unpreserved 5035A soils frozen w/in 48hrs?	□Yes	□No	√N/A	11.
Filtered volume received for dissolved tests?	□Yes	□No	∕2N/A	12.
Sample labels match COC:	Pyes	□No	□N/A	
Includes date/time/ID/analyses Matrix:	2/4	coil		13.
All containers needing preservation have been checked.	□Yes	□No	ØN/A	
All containers needing preservation are found to be in compliance	□Yes		∕ ∕2N/A	
with EPA recommendation.				14. Initial when / Lot # of added
Exceptions: VOA, Coliform, O&G, WI-DRO (water) Trip Blank present:	Yes	□No		completed preservative
	Yes	□No	□N/A	'
Pace Trip Blank lot # (if purchased): 0328/b-3 Headspace in VOA vials (>6mm):				15.
readspace in VOA vials (Formin).	□Yes	No	□N/A	
				16.
Project sampled in USDA Regulated Area:	□Yes	No	17N/A	17. List State: NM
Additional labels attached to 5035A vials in the field?	□Yes	□No	P N/A	18.
Client Notification/ Resolution: Copy COC	C to Clie	ent?	Ý / N	Field Data Required? Y / N
Person Contacted: Date	e/Time:	:		
Comments/ Resolution:				
Ant				910110
Project Manager Review:			(Date: () ()

CHAIN OF CUSTODY RECORD Address: 6/21 Indian Sch. Rd, Alber, Mu 87110 Phone: 505 - 377-3920 C Fax:

COC NO.:	327	61
	PAGE	OE

Pr	roject No/ Phase/Task Code:	98 12 18 1		Labo	orator	y Na	me/			1 437	we	rly	tia	al	7 Lab	Loca	ation.	ec		150 E	-5	12.71	SSOW ID:	Page
	roject Name: San Juan 286#,	155N	/	Lab	Conta	act:	1/	120	2 /	FI	a	uo	90	eu	Lab	Quo	te No		1		11 9	e Bras	Cooler No:	
	roject Location:	· ; :		SAM TYI	ACCOUNTS NO.		C			R Q		TITY O	&		~ 1				REQU OC for				Carrier:	*:
	hemistry Contact:		10	(C)	(C) dı	- 1	(HCI)	7 ***	(*0	0	(Soil	к25-9	ar z	Sample	GRC	1	1	0		3 34 -		13	Airbill No:	43
	ampler(s): Jeff Walker jeff.u 505-377-3920	ra (receç	ind cov	ck of COC)	(G) or Con	pevi	Hydrochloric Acid (HCI)	Nitric Acid (HNO ₃)	Acid (H ₂ SO ₄)	Hydroxid	/Water (3x5-g, 1x25-g	12.5	Total Containers/Sample	BTEX	2000	38	100			1	Request	Date Shipped:	
ttem	SAMPLE IDENTIFICATION (Containers for each sample may be combined on one line)	DATE (mm/dd//vv)	TIME (hh:mm)	Matrix (see ba	Grab (G	Unpreserved	Hydroch	Nitric Ac	Sulfurio	Sodium Hydroxide (NaOH)	Methano VOC)	EnCores	Other:	Total Co	3068	COSK	3/2	X	23.13	1 40	1	MS/MSD	COMMENT SPECIAL INSTRU	
1	51-1119528-070616-JW-89-43 SL-1119528-070716-JW-BID	5 7-6	1640	7 - 1	1 11	4			W. I			:15:			X	$\langle \rangle$	X	10	T. 7	2017			4(WETU)	W
2	SL-1119528-070716-JW-BID	US 7-7	0910			4									X	X	XX						1	WZ
	11119528-B-11@22.5	7-7-16				4+									\mathcal{X}	Φ	X	X					4(Netw) 2(8(8W) 9(NE	n) W3
4	11119528-B-11@225 DUP	1		4004		4+	44.				25.05.00		-	J.M	4			X				1	ZVEGWIRREW)	ay
5	11119528-13-11@ 22.5 NO/USD	V	1	2		44					a 1940				, " 44		₽Ţ.	X				-		<u> </u>
6	Trip Blaks						a.l								-								2(V69W)	W5
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1 4						-																		,
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T	AT Required in business days (use separate COCs	for different	TATs):				To	otal f	Vuml	ber o	f Cor	taine	ers:		Note	es/S	pecia	I Re	quirem	ents:				
	1 Day 2 Days 3 Days 1 Week 2 We	ek 🗌 Other	1			All	Samp	oles i	in Co	oler	must	be o	n CC	С		_	2	- 6	· c				- NO. 4	See L
		COMPANY	1	DATE	,		TIME	4.1				R	ECEIV	ED B	Y	523				COMP	ANY		DATE	TIME
1.	JeffWaller G	AHO	7-	7-1	6	10	230	2	1.)/	14/	Ve.	_	1/2	_			Pace		1	-	7/8/16	900
2.		-		4					2,		/	,										1.4	Capacita and the	22
3.							Z ,Z		3.									, and a second					A 1 Cars 1125	

FIELD LO SURFAC GROUNI	ON: _Ri OGGEC E ELE\ DWATE KS: _ * [ex	o Arriba () BY: Cal VATION (ER ELEV/ Depths make cavation	Juan 28-6 #155N County, New Mexico le Kanack (msl): Unavailable ATION (msl): N/A leasured from bottor (approximately 19'	m of existing	SOIL BORING NO: CH-1 DRILL TYPE: Air Rotary CME-850 BORE HOLE DIAMETER: 6" DRILLED BY: Yellow Jacket Drilling DATE/TIME HOLE STARTED: 4-21-16 / DATE/TIME HOLE COMPLETED:4-22-1			
DEPTH (bgs) - ft	SAMPLE TO LAB	SAMPLE ID	STRATAGRAPHIC SEQUENCE	COMPLETION INFORMATION	CLASSIFICATION AND DESCRIPTION	PID (mdd)	Total BTEX (mg/kg)	Total TPH (mg/kg)
I 07[/ / /	01			
					Sandstone: Light brown, fine grained, well cemented			
-5 —					Fine to medium grained			
-10 —					Very fine grained			
-15 — - - - -					Fine to medium grained, moderately cemented Color change to lighter brown			
-20 —	Х	CH-1-20'			Fine grained, well cemented		64.5	850
-25 — - -					Fine to medium grained			
-30 —	Х	CH-1-30'					93.62	1040
-35 —					12" lense clay w/sand			
-40	Х	CH-1-40'		///			<0.212	<62.3



GROUNDWAT REMARKS: *	D BY: <u>Ca</u> VATION F ER ELEV Depths m xcavation	(msl): Unavailable ATION (msl): N/A easured from bottor (approximately 19'	n of existing	SOIL BORING NO: CH-2 DRILL TYPE: Air Rotary CME-850 BORE HOLE DIAMETER: 6" DRILLED BY: Yellow Jacket Drilling DATE/TIME HOLE STARTED: 4-21-16 DATE/TIME HOLE COMPLETED:4-21-		5	
DEPTH (bgs) - ft	SAMPLEID	STRATAGRAPHIC SEQUENCE	COMPLETION INFORMATION	CLASSIFICATION AND DESCRIPTION	Old (mdd)	Total BTEX (mg/kg)	Total TPH (mg/kg)
-5— X	CH-2-15'			Sandstone: Light brown, fine grained, very well cemented Light brown/tan, very fine grained, well cemented		<0.207	1810

TD = 15 feet *

Sandstone: Light brown/tan, very fine grained, wery well cemented Sandstone: Light brown/tan, very fine grained, moderately cemented CLASSIFICATION AND DESCRIPTION GLEATION AND DESCRIPTION GLEATION AND DESCRIPTION GLEATION AND DESCRIPTION CLASSIFICATION AND DESCRIPTION AND DESCRIPTION CLASSIFICATION AND DESCRIPTION AND DESCRIPTION CLASSIFIC	PROJECT NAME: San J LOCATION: Rio Arriba (FIELD LOGGED BY: Cal SURFACE ELEVATION (GROUNDWATER ELEVA REMARKS: * Depths me excavation COORDINATES: Unavai	County, New Mexico e Kanack msl): Unavailable ATION (msl): N/A easured from bottor (approximately 19'	m of existing	SOIL BORING NO: CH-3 DRILL TYPE: Air Rotary CME-850 BORE HOLE DIAMETER: 6" DRILLED BY: Yellow Jacket Drilling DATE/TIME HOLE STARTED: 4-22-16 / 0845 DATE/TIME HOLE COMPLETED:4-22-16 / 0945						
Sandstone: Light brown/tan, very fine grained, very well cemented -5 X CH-3-5' Light brown, fine to medium grained,	DEPTH (bgs) - ft SAMPLE TO LAB				DID (mdd)	Total BTEX (mg/kg)	Total TPH (mg/kg)			
X CH-3-10' <0.220 <63.7	-5 — X CH-3-5'			grained, very well cemented Light brown, fine to medium grained,		<0.219	<62.5			

LOCATION: Rio Arr FIELD LOGGED BY: SURFACE ELEVATION GROUNDWATER EI REMARKS: * Deptr excava COORDINATES: Ur	ON (msl): Unavailable EVATION (msl): N/A s measured from botto tion (approximately 19	om of existing						
DE (bg	ATO				or n	Total TP (mg/kg)		
-5— x CH	4-5'		Sandstone: Light brown/tan, very fine grained, very well cemented Brown, fine to medium grained, very well cemented		164.58	<61.4		

GROUNDWATER REMARKS: * Dep	Y: Cale Kanack TION (msl): Unavailable ELEVATION (msl): N/A oths measured from botton vation (approximately 19'	m of existing	DRILL TYPE: Air Rotary CME-850 BORE HOLE DIAMETER: 6" DRILLED BY: Yellow Jacket Drilling DATE/TIME HOLE STARTED: 4-22-16 DATE/TIME HOLE COMPLETED: 4-22		60	
DEPTH (bgs) - ft SAMPLE TO LAB	O STRATAGRAPHIC SEQUENCE	COMPLETION INFORMATION	CLASSIFICATION AND DESCRIPTION	PID (mdd)	Total BTEX (mg/kg)	Total TPH (mg/kg)
-	H-5-10'		Sandstone: Light brown, fine grained, well cemented Fine to medium grained, moderately well cemented Well cemented		14.3	520

LOCATIO FIELD LO SURFACE GROUND	N: Ri OGGED E ELEV WATE S:_*[ex	o Arriba () BY: Cal VATION (ER ELEV Depths m cavation	(msI): Unavailable ATION (msI): N/A easured from bottor (approximately 19'	m of existing	SOIL BORING NO: CH-6 DRILL TYPE: Air Rotary CME-850 BORE HOLE DIAMETER: 6" DRILLED BY: Yellow Jacket Drilling DATE/TIME HOLE STARTED: 4-22-16 / 1420 DATE/TIME HOLE COMPLETED:4-22-16 / 1530						
DEPTH (bgs) - ft	SAMPLE TO LAB	SAMPLE ID	STRATAGRAPHIC SEQUENCE	COMPLETION INFORMATION	CLASSIFICATION AND DESCRIPTION	OIA (mdd)	Total BTEX (mg/kg)	Total TPH (mg/kg)			
-5-	X	CH-6-5'			Sandstone: Light brown, fine to medium grained, well cemented Medium grained		<0.212	<60 <61.1			

LOCATION: FIELD LOGO SURFACE E GROUNDW/ REMARKS:	Rio Arriba, GED BY: Jef ELEVATION ATER ELEV			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 10 LAB	STRATAGRAPHIC SEQUENCE	COMPLETION INFORMATION	CLASSIFICATION AND DESCRIPTION	OIO (mdd)	Total BTEX (mg/kg)	Total TPH (mg/kg)				
-10 — -25 — -30 — -x	CH7-32			Silt: some fine sand, brown, slightly moist to wet, medium dense, no odor slightly sandier, Ca Carb/Sulf staining, trace clay, moist Silty Sand: fine grained, brown, moist, no odor Clay: firm, mottled gray/white/greenish yellow shale texture, moist Sandstone: yellow brown, light to moderate cemented, fine grained, slight odor competent-well cemented no odor, minor iron banding	0 1.1 1.7						

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 DATE/TIME HOLE STARTED: 7/6/2016 at 930 REMARKS: DATE/TIME HOLE COMPLETED: COORDINATES: 36.63298, -107.48141 \Box Total BTEX Total TPH (mg/kg) (mg/kg) SAMPLE TO SAMPLE PID (mdd) COMPLETION CLASSIFICATION STRATAGRAPHIC SEQUENCE INFORMATION AND DESCRIPTION Silt: trace sand/clay, fine sand, brown, dry, dense, no odor -5 -10 Silty Sand: fine, some clay and sandstone gravel, brown, slightly moist, no odor -15 Clay: firm, brown, moist, no odor 0.3 gray, shale texture -20 Sandstone: light brown to yellow brown, fine grained, well cemented, slight odor 0.3 -25 light brown-tan-rust, trace black specs, 0.5 no odor -30 poor recovery, sandy interval but some competent core recovered -35 CH8-37 < 0.0256 11.0

LOCATION FIELD LOCATION SURFACTOR GROUNI REMARK	ON: _Ric OGGED EE ELEV DWATE KS:	Arriba, BY: <u>Jef</u> 'ATION (R ELEV	Juan 28-6 #155N New Mexico f Walker (msl): No survey dat ATION (msl):	ta available	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	OIA (mdd)	Total BTEX (mg/kg)	Total TPH (mg/kg)			
-10 —					Silt: sandy, fine, brown to red brown, slightly moist to dry, no odor some clay, slightly moist to moist Clay: firm, brown, moist, no odor grey to greenish, weathered shale texture, moist Sandstone: light brown to yellow brown, fine, well cemented						
-20 —					50% recovery, well cemented, no odor 30% recovery	0.1					
-25 —					85% recovery, trace sand and gravel	0.6					

Sand: trace to some silt, light brown, firm, slightly moist, no odor Clay: greenish gray to brown, firm, slightly moist, no odor, weathered shale texture Sandstone: light brown to yellow brown, well cemented, fine grained, quarts rich with minor black -70% recovery, rounded/subrounded	LOCATION FIELD LOCATION SURFACTOR GROUND REMARK	ON: _Ric DGGED E ELEV DWATE (S:	Arriba, BY: <u>Jef</u> ATION (luan 28-6 #155N New Mexico f Walker (msl): No survey dat ATION (msl):	ta available	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:						
Sand: trace to some silt, light brown, fine grain, lightly moist, no odor Clay: greenish gray to brown, firm, slightly moist, no odor, weathered shale texture Sandstone: light brown to yellow brown, well cemented, fine grained, quarts rich with minor black ~70% recovery, rounded/subrounded	DEPTH (bgs) - ft	SAMPLE TO LAB	SAMPLEID				OIA)	Total BTEX (mg/kg)	Total TPH (mg/kg)			
grains 75% recovery, very well cemented 3.1	-10					Sand: trace to some silt, light brown, fine grain, lightly moist, no odor Clay: greenish gray to brown, firm, slightly moist, no odor, weathered shale texture Sandstone: light brown to yellow brown, well cemented, fine grained, quarts rich with minor black ~70% recovery, rounded/subrounded grains						

TD = 42.5 feet bgs

LOCATI FIELD L SURFAC	ON: Riconstruction Ri	o Arriba, BY: Jeff /ATION (R ELEVA	luan 28-6 #155N New Mexico f Walker msl): No survey dat ATION (msl):	ta available	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	OID (mdd)	Total BTEX (mg/kg)	Total TPH (mg/kg)				
-10 —					Imported Backfill							
-20 —					Sandstone: brown, well cemented, HC odor	155						
-25 —					very well cemented, blocky	9.7						
-30 —	X	CH11-32.5		_		0.7	<0.0275	<11.45				

LOCATION: Riv FIELD LOGGED SURFACE ELEN GROUNDWATE	o Arriba,) BY: <u>Jef</u> /ATION (R ELEV/	f Walker (msl): No survey da ATION (msl):		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	OIA (mdd)	Total BTEX (mg/kg)	Total TPH (mg/kg)			
-30 —	CH10-42.5			50% recovery, core not as massive, less cemented 50% recovery, tan to rust, iron banding	0.8	0.017	<12.2			

LOCATION: FIELD LOGO SURFACE E GROUNDW/ REMARKS:	Rio Arriba, GED BY: Jef LEVATION ATER ELEV	Juan 28-6 #155N New Mexico If Walker (msl): No survey dat ATION (msl):	a available	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 ID	STRATAGRAPHIC SEQUENCE	COMPLETION	CLASSIFICATION AND DESCRIPTION	(mdd)	Total BTEX (mg/kg)	Total TPH (mg/kg)		
-30 — -35 — -40 —	CH9-32			tan to rust, some greenish, 80% recovery less competent	0.5	0.017	<12.2		





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

alice.flanagan@pacelabs.com

Project Manager

Enclosures

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







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 lowa 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



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





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:





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:





Project:

11119528 COP SAN JUAN 28-6 UNI

Pace Project No.:

60222998

Method:

EPA 8270 by SIM

Client:

Description: 8270 MSSV PAH by SIM 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:





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.



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

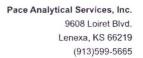
Matrix: Solid

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.	Qua
8015B Diesel Range Organics	Analytical Met	nod: EPA 8015	B Preparation Me	ethod: E	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		07/17/16 21:02		
o-Terphenyl (S)	96	%	57-108	1	07/14/16 00:00	07/17/16 21:02	92-94-4	
TNRCC 1005 TPH	Analytical Met	nod: TNRCC 1	005 Preparation I	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	
I-Chlorooctane (S)	97	%	70-130	1	07/15/16 15:05	07/16/16 00:43	3386-33-2	
3270 MSSV PAH by SIM	Analytical Met	nod: EPA 8270	by SIM Preparat	ion Met	hod: 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		07/15/16 17:31		
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		07/15/16 17:31		
Benzo(g,h,i)perylene	ND	ug/kg	3.4	1		07/15/16 17:31		
Benzo(k)fluoranthene	ND	ug/kg	3.4	1		07/15/16 17:31		
Chrysene	ND	ug/kg	3.4	1		07/15/16 17:31		
Dibenz(a,h)anthracene	ND	ug/kg	3.4	1		07/15/16 17:31		
Fluoranthene	ND	ug/kg	3.4	1		07/15/16 17:31		
luorene	ND	ug/kg	3.4	1		07/15/16 17:31		
ndeno(1,2,3-cd)pyrene	ND	ug/kg	3.4	1		07/15/16 17:31		
Naphthalene	ND	ug/kg	3.4	1		07/15/16 17:31		
Phenanthrene	ND	ug/kg	3.4	1		07/15/16 17:31		
Pyrene	ND	ug/kg	3.4	1		07/15/16 17:31		
Surrogates	7,15	49/119	0.1	•	01711110 00.00	07710710 17701	120 00 0	
2-Fluorobiphenyl (S)	75	%	62-105	1	07/14/16 00:00	07/15/16 17:31	321-60-8	
erphenyl-d14 (S)	91	%	61-123	1	07/14/16 00:00	07/15/16 17:31	1718-51-0	
260 MSV GRO and Oxygenates	Analytical Meth	nod: EPA 5035/	V8260					
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		
Toluene	ND	mg/kg	0.0052	1		07/12/16 13:24		
PH-GRO	ND	mg/kg	0.52	1		07/12/16 13:24		
(ylene (Total)	ND	mg/kg	0.010	1		07/12/16 13:24	1330-20-7	
Surrogates		5.3						
Toluene-d8 (S)	100	%	80-120	1		07/12/16 13:24	2037-26-5	
1-Bromofluorobenzene (S)	94	%	81-117	1		07/12/16 13:24		
I,2-Dichloroethane-d4 (S)	103	%	83-120	1		07/12/16 13:24		

REPORT OF LABORATORY ANALYSIS

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Project:

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Pace Project No.:

60222998

Sample: SL-11119528-070616-JW-

Date: 07/18/2016 03:11 PM

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 Met	hod: ASTM D2	2974					
Percent Moisture	3.9	%	0.50	1		07/15/16 00:00		



Project:

11119528 COP SAN JUAN 28-6 UNI

Pace Project No.: 60222998

B8-37

Date: 07/18/2016 03:11 PM

Sample: SL-11119528-070616-JW-

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.	Qua
8015B Diesel Range Organics	Analytical Met	hod: EPA 8015B	Preparation Me	ethod: E	EPA 3546			
TPH-DRO Surrogates	11.0	mg/kg	10.1	1	07/14/16 00:00	07/17/16 21:11		
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 Met	hod: TNRCC 100	05 Preparation I	Method	: TNRCC 1005			
ГРН (C06-C12)	ND	mg/kg	20.0	1	07/15/16 15:05	07/16/16 01:25		
ГРН (>C12-C28)	ND	mg/kg	20.0	1	07/15/16 15:05	07/16/16 01:25		
ГРН (>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		07/16/16 01:25		
-Chlorooctane (S)	100	%	70-130	1	07/15/16 15:05	07/16/16 01:25	3386-33-2	
270 MSSV PAH by SIM	Analytical Met	nod: EPA 8270 b	y SIM Preparat	ion Met	hod: EPA 3546			
cenaphthene	ND	ug/kg	3.3	1	07/14/16 00:00	07/15/16 17:49	83-32-9	
cenaphthylene	ND	ug/kg	3.3	1	07/14/16 00:00	07/15/16 17:49	208-96-8	
nthracene	ND	ug/kg	3.3	1	07/14/16 00:00	07/15/16 17:49	120-12-7	
enzo(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	
luoranthene	ND	ug/kg	3.3	1	07/14/16 00:00	07/15/16 17:49	206-44-0	
luorene	ND	ug/kg	3.3	1	07/14/16 00:00	07/15/16 17:49	86-73-7	
ndeno(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		07/15/16 17:49		
erphenyl-d14 (S)	93	%	61-123	1	07/14/16 00:00	07/15/16 17:49	1718-51-0	
260 MSV GRO and Oxygenates	Analytical Meth	nod: EPA 5035A/	8260					
Benzene	ND	mg/kg	0.0052	1		07/12/16 13:39		
Ethylbenzene	ND	mg/kg	0.0052	1		07/12/16 13:39	100-41-4	
oluene	ND	mg/kg	0.0052	1		07/12/16 13:39	108-88-3	
PH-GRO	ND	mg/kg	0.52	1		07/12/16 13:39		
(ylene (Total)	ND	mg/kg	0.010	1		07/12/16 13:39	1330-20-7	
Surrogates								
oluene-d8 (S)	100	%	80-120	1		07/12/16 13:39		
-Bromofluorobenzene (S)	94	%	81-117	1		07/12/16 13:39		
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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Project:

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Pace Project No.:

Date: 07/18/2016 03:11 PM

60222998

Sample: SL-11119528-070616-JW-

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.

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



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

		Blank	Reporting		
Parameter	Units	Result	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					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% 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	
(ylene (Total)	mg/kg	.3	0.27	91	69-116	
1,2-Dichloroethane-d4 (S)	%			102	83-120	
4-Bromofluorobenzene (S)	%			105	81-117	
oluene-d8 (S)	%			97	80-120	

MATRIX SPIKE & MATRIX SP	IKE DUPLIC	ATE: 17919	90		1791991							
Parameter	Units	60223055003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec	RPD	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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Project:

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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

3208

Matrix: Solid

Associated Lab Samples:

60222998001, 60222998002

Blank	Reporting		
Result	Limit	Analyzed	Qualifiers
ND	9.9	07/17/16 20:46	

n-Tetracosane (S) p-Terphenyl (S)

TPH-DRO

TPH-DRO n-Tetracosane (S) p-Terphenyl (S) mg/kg % %

Units

96 97 49-133 07/17/16 20:46 57-108 07/17/16 20:46

LABORATORY CONTROL SAMPLE: 1

Parameter

Parameter

1793209

Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
mg/kg	81.9	80.3	98	77-122	
%			100	49-133	
%			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	RPD	Max RPD	Qual
TPH-DRO	mg/kg	ND	90.9	87.8	104	119	106	127	44-138	14	71	
n-Tetracosane (S) p-Terphenyl (S)	%						106 103	101 94	49-133 57-108		58 56	

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Project:

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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

		Blank	Reporting			
Parameter	Units	Result	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		
ndeno(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					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% 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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Project:

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Pace Project No.: 60222998

Date: 07/18/2016 03:11 PM

MATRIX SPIKE & MATRIX S	PIKE DUPLICA	TE: 17932	16		1793217							
			MS	MSD								
	6	0223055003	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qua
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	
luorene	ug/kg	ND	35.6	36.9	30.0	31.1	84	84	19-148	3	54	
ndeno(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	
erphenyl-d14 (S)	%						94	97	61-123		46	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project:

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Pace Project No.:

60222998

QC Batch:

438486

Analysis Method:

TNRCC 1005

QC Batch Method:

TNRCC 1005

Analysis Description:

Matrix: Solid

TX1005 TPH GCS

Associated Lab Samples: 60222998001, 60222998002

METHOD BLANK: 1793263

Date: 07/18/2016 03:11 PM

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	

PH Total (C06-C35)	& LCSD: 1793264		17	93265						
		Spike	LCS	LCSD	LCS	LCSD	% Rec		Max	
Parameter	Units	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	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 SP	PIKE DUPLIC	CATE: 17932	66		1793267							
			MS	MSD								
		60223055003	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	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			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.





Project:

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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:

METHOD BLANK: 1794213

60222998001, 60222998002

Matrix: Solid

Associated Lab Samples:

60222998001, 60222998002

Blank

Reporting

Limit

Analyzed

Parameter Percent Moisture

Units %

Result ND

07/15/16 00:00 0.50

Qualifiers

SAMPLE DUPLICATE: 1794214

Date: 07/18/2016 03:11 PM

Parameter

60222660001 Result

Dup Result

RPD

Max RPD

Qualifiers

Percent Moisture

Units %

4.8

5.2

7

20

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.





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.

Date: 07/18/2016 03:11 PM



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9608 Loiret Blvd. Lenexa, KS 66219 (913)599-5665

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project:

11119528 COP SAN JUAN 28-6 UNI

Pace Project No.: 6

Date: 07/18/2016 03:11 PM

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



Sample Condition Upon Receipt ESI Tech Spec Client

WO#: 60222998

Client Name: GHD GP-NM		Optional
Courier: FedEx 10 UPS VIA Clay PEX ECI C	Pace Other Client	Proj Due Date:
Tracking #: 6703 1645 2844 Pace Shipping Label	Used? Yes № No 🗆	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: T-239 / T-262 Type of Ice: Week B	lue None Samples received of	n ice, cooling process has begun.
Cooler Temperature: 5.4 (circ	Date and initi	als of person examining
Temperature should be above freezing to 6°C	contents:	5 7/7/10 1705
Chain of Custody present: → Tres □No □N/A	1.	
Chain of Custody filled out: ☐ Yes ☐ No ☐ N/A	2,	
Chain of Custody relinquished: ✓ Yes ☐ No ☐ N/A	3.	- W
Sampler name & signature on COC: ☐ Yes ☐ No ☐ N/A	4.	
Samples arrived within holding time:	5.	
Short Hold Time analyses (<72hr): □Yes ¬No □N/A	6.	
Rush Turn Around Time requested: □Yes ☑No □N/A	7.	
Sufficient volume:	8.	
Correct containers used:	Balk soil samples	received for 6260.
Pace containers used: 12 Yes □No □N/A	9.	
Containers intact:	10.	
Unpreserved 5035A soils frozen w/in 48hrs? ☐ Tes ☐ No ☐ N/A	11.	
Filtered volume received for dissolved tests?	12.	
Sample labels match COC: Zees No N/A		
Includes date/time/ID/analyses Matrix: 🛶 ौ 👉	13.	
All containers needing preservation have been checked.		
All containers needing preservation are found to be in compliance Yes No N/A with EPA recommendation.	14.	¥
Exceptions: VOA, Coliform, O&G, WI-DRO (water)		# of added servative
Trip Blank present: □Yes ₩No □N/A	*	
Pace Trip Blank lot # (if purchased):	15. no trip bla	K
Headspace in VOA vials (>6mm): ☐Yes ➡No ☐N/A		
	16.	
Project sampled in USDA Regulated Area: □Yes ⊁No □N/A	17. List State: VM	
Additional labels attached to 5035A vials in the field?	18.	
Client Notification/ Resolution: Copy COC to Client? Y /		/ / N
Person Contacted: Date/Time:	Temp L	og: Record start and finish times
Comments/ Resolution:	when ur sample	packing cooler, if >20 min, recheck temps.
	Start:	1500 Start:
	End:	1505 End:
Project Manager Review: AAF	Date: 07/07/16 Temp:	Temp:



CHAIN-OF-CUSTODY / Analytical Request Document The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

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