



CMU North Injection, CMU B #52

CLOSURE REPORT

API No. 30-025-01480

1RP-4773

Release Date: July 27th, 2017

Unit Letter G, Section 19, Township 17 South, Range 33 East

October 16, 2017

Prepared by:

Michael Burton, C&M Services

P.O Box 3470

Hobbs, NM 88240

Phone: (575)499-5306

Marineburton@gmail.com

Olivia Yu
Environmental Specialist
NM Oil Conservation District-Division 2
1625 N. French
Hobbs, NM 88240

RE: **Linn Energy, CMU North Injection, CMU #52– Closure Report**
UL/G, Section 19, T17S, R33E
API No. 30-025-01480

Ms. Yu,

Linn Energy (Linn) has retained C&M Service, to address environmental issues for the site detailed herein.

Site Assessment and Delineation

On July 27, 2017 C&M personnel responded to the release site and dug up the line so a crew could fix it. C&M then scraped up the affected area to minimize the environmental impact

On July 28, 2017 C&M personnel returned to the site and sampled the spill area. C&M sampled 18 points of the spill area. The samples were tested for chloride levels as well as BTEX. The BTEX samples were performed using a Mini Rae Photo ionization Detector (PID). Clean samples were attained on all of the 18 samples plus 10' and sent to a lab for confirmation.

C&M has conducted a groundwater study of the area and has determined that according to the New Mexico Office of the State Engineer the average depth to groundwater for this area is 100 foot below ground surface. Therefore, no eminent danger of groundwater impact or threat to life is anticipated.

Approvals

On September 1, 2017 Environmental Specialist of NM Oil Conservation District-Division 2, Olivia Yu approved the work plan. On August 22, 2017 Environmental Protection Specialist BLM-CFO, Shelly Tucker approved the work plan.

Site Activities

On September 18, 2017 C&M personnel started the cleanup of the approved work plan. The areas of SP #16, and SP #18 were excavated to 2' BGS. The areas of SP #2, SP #3, SP #11 and SP #13 were excavated to 3' BGS. The areas of SP # 1. SP #4- SP #10, SP#12, SP#14-#15, and SP#17 to 4' BGS and a .20 mil liner was installed as a barrier before backfill. Sidewall samples were taken during the excavation to ensure all contaminated soil was removed. Several sidewall samples were taken to Hall Laboratory for confirmation. All contaminated soil was taken to Lea Land, an approved NM State Disposal. The entire area was backfilled with like topsoil to surface grade, contoured and seeded with BLM LPC seed.

Due to the completion of approved corrective action, C&M, on behalf of Linn Energy, submits the final C-141, and respectfully requests the closure of the regulatory file for this site.

Please feel free to contact me with any questions concerning this remediation plan request.

Sincerely,

A handwritten signature in cursive script that reads "Michael Burton".

Michael Burton
Environmental Superintendent
C&M Service.
P.O Box 3470
Hobbs, NM 88241
Mobile: (575)499-5306
Email: marineburton@gmail.com

Attachments: Final Form C-141
Site/Sample Map
Sample Data
GPS coordinates per sample point

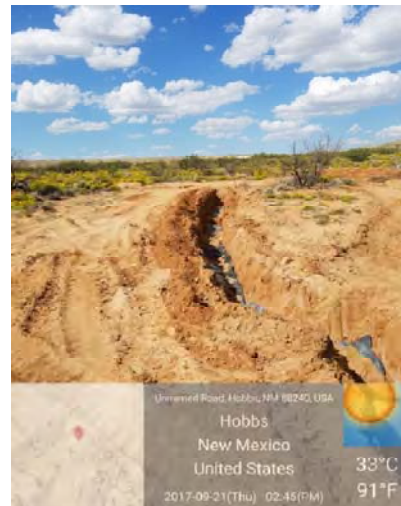


CMU North Injection, CMU B #052

CLOSURE PHOTO PAGE



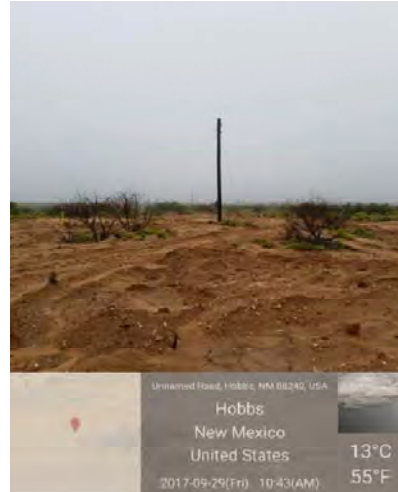
SP 1-3 area



SP 5 area



Back fill area SP 11-15



Back fill area SP16-18



Disking in seed
























Seeding

CMU N Inj. #52

Sample and sidewall points

Legend

-  Background
-  CMU 52 Spill Path
-  MGU #52 release point
-  SP 10
-  SP 11
-  SP 12
-  SP 13
-  SP 14
-  SP 15
-  SP 16
-  SP 17
-  SP 18
-  SP 2
-  SP 3
-  SP 4
-  SP 5
-  SP 6
-  SP 7
-  SP 8
-  SP 9
-  SW

MGU #52 release point

SW 2n

SW 1e

SP 3

SW 3w

SP 4

SW 4e

SP 16

SW 16

SP 5

SW 5w

SP 17

SW 17w

SP 6

SW 18

SW 7e

SP 18

SW 18s

SP 8

SP 9

SW 9w

SP 10

SP 12

SW 11n

SP 11

SP 13

SW 13sw

SP 14

SW 15nw

SP 15

Google Earth
























200 ft

CMU N Inj. #52

Sidewall points.

Legend

-  Background
-  CMU 52 Spill Path
-  MGU #52 release point
-  SP 10
-  SP 11
-  SP 12
-  SP 13
-  SP 14
-  SP 15
-  SP 16
-  SP 17
-  SP 18
-  SP 2
-  SP 3
-  SP 4
-  SP 5
-  SP 6
-  SP 7
-  SP 8
-  SP 9
-  SW

MGU #52 release point

SW 2n
SW 1e
SW 3w
SW 4e
SW 16e
SW 5w
SW 17w
SW 18e
SW 7e
SW 18s
SW 9w
SW 11n
SW 13sw
SW 15nw



200 ft

Liner SP 1-9

Liner outlined in Blue

Legend

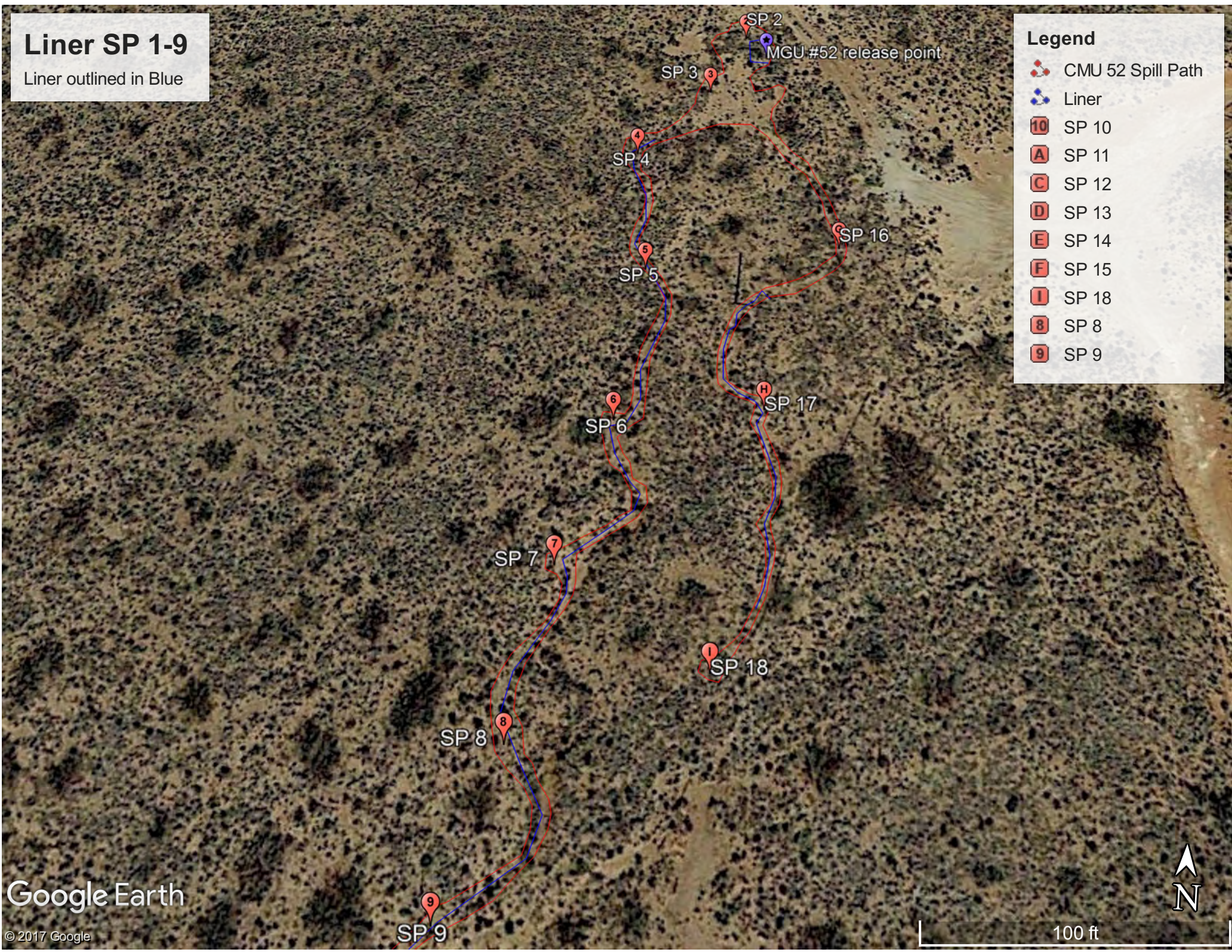
- CMU 52 Spill Path
- Liner
- SP 10
- SP 11
- SP 12
- SP 13
- SP 14
- SP 15
- SP 18
- SP 8
- SP 9

Google Earth

© 2017 Google



100 ft



Liner SP 9-15

Liner outlined in Blue

Legend

- CMU 52 Spill Path
- Liner
- SP 10
- SP 11
- SP 12
- SP 13
- SP 14
- SP 15
- SP 18
- SP 8
- SP 9

SP 13

SP 12

SP 11

SP 10

SP 9

SP 15

SP 14

Google Earth

© 2017 Google

100 ft



Company Name: Linn Energy
Location Name: CMU N INJ CMU #52

SP Date: 10/3/2017
Rel Date: 7/27/2017

[illegible]

	Lab Confirmation Sample
	Field Sampling
	Needs Delineation and confirmation samples

[illegible]

	Lab Confirmation Sample
	Field Sampling
	Needs Delineation and confirmation samples

SWSP11	CHL	PID	SWSP12	CHL	PID	SWSP13	CHL	PID	SWSP14	CHL	PID	SWSP15	CHL	PID
North	<250	0	North	<250	0	North	<250	0	North	<250	0	North	<250	0
South	<250	0	South	<250	0	South	<250	0	South	<250	0	South	<250	0
East	<250	0	East	<250	0	East	<250	0	East	<250	0	East	<250	0
West	<250	0	West	<250	0	West	<250	0	West	<250	0	West	<250	0
Bottom	<250	0				Bottom	<250	0						
North	ND	TPH 0				SW	ND	TPH 0				NW	ND	TPH 0

	Lab Confirmation Sample
	Field Sampling
	Needs Delineation and confirmation samples

SWSP16	CHL	PID	SWSP17	CHL	PID	SWSP18	CHL	PID		CHL	PID		CHL	PID
North	<250	0	North	<250	0	North	<250	0						
South	<250	0	South	<250	0	South	<250	0						
East	<250	0	East	<250	0	East	<250	0						
West	<250	0	West	<250	0	West	<250	0						
Bottom	<250	0				Bottom	<250	0						
East	ND	TPH 0	West	ND	TPH 0	East	ND	TPH 0						
						South	ND	TPH 0						

	Lab Confirmation Sample
	Field Sampling
	Needs Delineation and confirmation samples

Linn Energy
CMU North Injection, CMU B #52
Sample point GPS

Liner

Background 32.822181, -103.700495

SP #1 release point 32.82209, -103.70055

SP #2 32.82212, -103.70058

SP #3 32.82203, -103.70063

SP #4 32.82193, -103.70073

SP #5 32.82176, -103.70071

SP #6 32.82156, -103.70074

SP #7 32.82139, -103.70080

SP #8 32.82120, -103.70084

SP #9 32.82103, -103.70090

SP #10 32.82081, -103.70114

SP #11 32.82062, -103.70133

SP #12 32.82065, -103.70152

SP #13 32.82054, -103.70174

SP #14 32.82051, -103.70149

SP #15 32.82040, -103.70168

SP #16 32.82180, -103.70045

SP #17 32.82158, -103.70055

SP #18 32.82128, -103.70061

Sidewall Labs GPS

SW @ SP1 32.822064, -103.700569

SW @ SP 2 32.822146, -103.700585

SW @ SP 3	32.822007,-103.700659
SW @ SP 4	32.821880,-103.700715
SW @ SP 5	32.821660,-103.700710
SW @ SP 7	32.821304,-103.700808
SW @ SP 9	32.820981,-103.700963
SW @ SP 11	32.820672,-103.701342
SW @ SP 13	32.820503,-103.701745
SW @ SP 15	32.820423,-103.701713
SW @ SP 16	32.821745,-103.700485
SW @ SP 17	32.821496,-103.700546
SW @ SP 18E	32.821351,-103.700548
SW @ SP 18S	32.821266,-103.700606

Curtis and Curtis, Inc.

4500 North Prince
 Clovis, NM 88101
 Phone: (505) 762-4759
 www.curtisseed.com

C & M Services / Mike Burton
 2 Acre LPC Mix, Broadcast Rate
 4 - 1/2 Acre Bags @ 27.88 Bulk Pounds Each
 Job: CMU North Injection #52

Lot#: M-14758

Item	Origin	Purity	Germ	Dormant	Total Germination	Test Date	Total PLS Pounds
Plains Bristlegrass	Oklahoma	18.30%	72.00%	26.00%	98.00%	06/17	20.00
Not Stated							
Sand Bluestem	Texas	18.88%	95.00%	0.00%	95.00%	01/17	20.00
Woodward							
Little Bluestem	Texas	11.96%	90.00%	0.00%	90.00%	06/17	12.00
Cimarron							
Big Bluestem	Kansas	21.97%	98.00%	0.00%	98.00%	08/17	24.00
Kaw							
Coreopsis	Kansas	7.48%	96.00%	0.00%	96.00%	06/17	8.00
Plains							
Sand Dropseed	Colorado	3.82%	31.00%	63.00%	94.00%	05/17	4.00
Not Stated							
Other Crop:	2.05%	There Are 4 Bags For This Mix			Total Bulk Pounds:	111.51	
Weed Seed:	0.05%	This Bag Weighs 27.88 Bulk Pounds					
Inert Matter:	15.49%	Use This Bag For 1/2 Acres					

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Not Stated							
Sand Bluestem	Texas	18.88%	95.00%	0.00%	95.00%	01/17	20.00
Woodward							
Little Bluestem	Texas	11.96%	90.00%	0.00%	90.00%	06/17	12.00
Cimarron							
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Plains							
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Not Stated							
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Lot#: M-14758

Item	Origin	Purity	Germ	Dormant	Total Germination	Test Date	Total PLS Pounds
Plains Bristlegrass	Oklahoma	18.50%	72.00%	26.00%	98.00%	06/17	20.00
Not Stated	Texas	18.88%	95.00%	0.00%	95.00%	06/17	12.00
Sand Bluestem	Texas	11.96%	90.00%	0.00%	98.00%	08/17	24.00
Woodward	Kansas	21.97%	98.00%	0.00%	98.00%	08/17	8.00
Little Bluestem	Kansas	7.48%	96.00%	0.00%	96.00%	05/17	4.00
Cimarron	Colorado	3.82%	31.00%	63.00%	94.00%		
Big Bluestem							
Kaw							
Coreopsis							
Plains							
Sand Dropseed							
Not Stated							
Total Bulk Pounds:							111.51

Other Crop: 2.05%
 Weed Seed: 0.05%
 Inert Matter: 15.49%

There Are 4 Bags For This Mix
 This Bag Weighs 27.88 Bulk Pounds
 Use This Bag For 1/2 Acres

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 Phone: (575) 762-4759
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 Job: CMU North Injection #52

Lot#: M-14758

Item	Origin	Purity	Germ	Dormant	Total Germination	Test Date	Total PLS Pounds
Plains Bristlegrass	Oklahoma	18.50%	72.00%	26.00%	98.00%	06/17	20.00
Not Stated	Texas	18.88%	95.00%	0.00%	95.00%	01/17	20.00
Sand Bluestem	Texas	11.96%	90.00%	0.00%	90.00%	06/17	12.00
Woodward	Kansas	21.97%	98.00%	0.00%	98.00%	08/17	24.00
Little Bluestem	Kansas	7.48%	96.00%	0.00%	96.00%	06/17	8.00
Cimarron	Colorado	3.82%	31.00%	63.00%	94.00%	05/17	4.00
Big Bluestem							
Kaw							
Coreopsis							
Plains							
Sand Dropseed							
Not Stated							
Total Bulk Pounds:							111.51

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There Are 4 Bags For This Mix
 This Bag Weighs 27.88 Bulk Pounds
 Use This Bag For 1/2 Acres



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

October 12, 2017

Mike Burton
CM Services
PO Box 3470
Hobbs, NM 88241
TEL: (575) 499-5306
FAX

RE: CMU N inj 52

OrderNo.: 1710328

Dear Mike Burton:

Hall Environmental Analysis Laboratory received 2 sample(s) on 10/5/2017 for the analyses presented in the following report.

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

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

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

Sincerely,

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

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1710328

Date Reported: 10/12/2017

CLIENT: CM Services

Client Sample ID: SW-SP 18 S

Project: CMU N inj 52

Collection Date: 10/3/2017 5:00:00 PM

Lab ID: 1710328-001

Matrix: SOIL

Received Date: 10/5/2017 9:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	ND	30		mg/Kg	20	10/9/2017 11:23:17 PM	34311
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	12	9.2		mg/Kg	1	10/9/2017 4:27:02 PM	34277
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	10/9/2017 4:27:02 PM	34277
Surr: DNOP	96.3	70-130		%Rec	1	10/9/2017 4:27:02 PM	34277
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	10/9/2017 4:39:45 PM	34265
Surr: BFB	86.7	54-150		%Rec	1	10/9/2017 4:39:45 PM	34265
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	10/9/2017 4:39:45 PM	34265
Toluene	ND	0.047		mg/Kg	1	10/9/2017 4:39:45 PM	34265
Ethylbenzene	ND	0.047		mg/Kg	1	10/9/2017 4:39:45 PM	34265
Xylenes, Total	ND	0.095		mg/Kg	1	10/9/2017 4:39:45 PM	34265
Surr: 4-Bromofluorobenzene	93.1	66.6-132		%Rec	1	10/9/2017 4:39:45 PM	34265

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1710328

Date Reported: 10/12/2017

CLIENT: CM Services

Client Sample ID: SW-SP 18 E

Project: CMU N inj 52

Collection Date: 10/3/2017 5:05:00 PM

Lab ID: 1710328-002

Matrix: SOIL

Received Date: 10/5/2017 9:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	ND	30		mg/Kg	20	10/10/2017 12:00:31 AM	34311
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	10/9/2017 5:50:35 PM	34277
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/9/2017 5:50:35 PM	34277
Surr: DNOP	94.1	70-130		%Rec	1	10/9/2017 5:50:35 PM	34277
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	10/7/2017 2:09:36 AM	34265
Surr: BFB	87.7	54-150		%Rec	1	10/7/2017 2:09:36 AM	34265
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	10/7/2017 2:09:36 AM	34265
Toluene	ND	0.047		mg/Kg	1	10/7/2017 2:09:36 AM	34265
Ethylbenzene	ND	0.047		mg/Kg	1	10/7/2017 2:09:36 AM	34265
Xylenes, Total	ND	0.094		mg/Kg	1	10/7/2017 2:09:36 AM	34265
Surr: 4-Bromofluorobenzene	95.1	66.6-132		%Rec	1	10/7/2017 2:09:36 AM	34265

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1710328

12-Oct-17

Client: CM Services

Project: CMU N inj 52

Sample ID	MB-34311		SampType: mblk		TestCode: EPA Method 300.0: Anions					
Client ID:	PBS		Batch ID: 34311		RunNo: 46232					
Prep Date:	10/9/2017		Analysis Date: 10/9/2017		SeqNo: 1472108		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-34311		SampType: lcs		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 34311		RunNo: 46232					
Prep Date:	10/9/2017		Analysis Date: 10/9/2017		SeqNo: 1472109		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	91.4	90	110			

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
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1710328

12-Oct-17

Client: CM Services
Project: CMU N inj 52

Sample ID	MB-34277		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 34277		RunNo: 46198					
Prep Date:	10/6/2017		Analysis Date: 10/9/2017		SeqNo: 1471363		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.3		10.00		92.9	70	130			

Sample ID	1710328-001AMS		SampType: MS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	SW-SP 18 S		Batch ID: 34277		RunNo: 46198					
Prep Date:	10/6/2017		Analysis Date: 10/9/2017		SeqNo: 1471636		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	58	9.6	48.08	11.92	94.9	55.8	122			
Surr: DNOP	4.8		4.808		99.4	70	130			

Sample ID	1710328-001AMSD		SampType: MSD		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	SW-SP 18 S		Batch ID: 34277		RunNo: 46198					
Prep Date:	10/6/2017		Analysis Date: 10/9/2017		SeqNo: 1471637		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	54	9.8	49.21	11.92	85.3	55.8	122	6.57	20	
Surr: DNOP	4.8		4.921		98.0	70	130	0	0	

Sample ID	LCS-34277		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 34277		RunNo: 46198					
Prep Date:	10/6/2017		Analysis Date: 10/9/2017		SeqNo: 1471655		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	10	50.00	0	91.4	73.2	114			
Surr: DNOP	4.7		5.000		93.3	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1710328

12-Oct-17

Client: CM Services

Project: CMU N inj 52

Sample ID	MB-34265		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS		Batch ID: 34265		RunNo: 46173					
Prep Date:	10/5/2017		Analysis Date: 10/6/2017		SeqNo: 1470392		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	870		1000		87.0	54	150			

Sample ID	LCS-34265		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 34265		RunNo: 46173					
Prep Date:	10/5/2017		Analysis Date: 10/6/2017		SeqNo: 1470393		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	114	76.4	125			
Surr: BFB	990		1000		99.0	54	150			

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
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1710328

12-Oct-17

Client: CM Services

Project: CMU N inj 52

Sample ID	MB-34265		SampType: MBLK		TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBS		Batch ID: 34265		RunNo: 46173					
Prep Date:	10/5/2017		Analysis Date: 10/6/2017		SeqNo: 1470424		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.94		1.000		93.8	66.6	132			

Sample ID	LCS-34265		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS		Batch ID: 34265		RunNo: 46173					
Prep Date:	10/5/2017		Analysis Date: 10/6/2017		SeqNo: 1470425		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.025	1.000	0	97.1	80	120			
Toluene	0.98	0.050	1.000	0	97.6	80	120			
Ethylbenzene	1.0	0.050	1.000	0	100	80	120			
Xylenes, Total	3.0	0.10	3.000	0	101	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		100	66.6	132			

Qualifiers:

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

Sample Log-In Check List

Client Name: **CM SERVICES**

Work Order Number: **1710328**

RcptNo: **1**

Received By: **Richie Eriacho**

10/5/2017 9:45:00 AM

Completed By: **Sophia Campuzano**

10/5/2017 11:06:38 AM

Reviewed By:

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 ☐
10. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐

of preserved
bottles checked
for pH: _____
(<2 or >12 unless noted)
Adjusted? _____
Checked by: _____

Special Handling (if applicable)

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

Person Notified:		Date:	
By Whom:		Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> 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	3.8	Good	Yes			

[illegible]

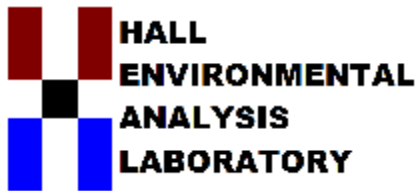
Turn-Around Time:					
<input checked="" type="checkbox"/> Standard		<input type="checkbox"/> Rush			
Project Name: Cmy N ins #52					
Project #:					
Project Manager: Mike Burton					
Sampler: MK Burton					
On Ice: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No					
Sample Temperature: 3.8					
Container Type and # Jar	Preservative Type ICE	HEAL No. 1710328			
↓	↓	-001			
↓	↓	-002			
Received by:		Date	Time		
[Signature]		10/4/17	1400		
Received by:		Date	Time		
[Signature]		10/5/17	0945		

Analysis Request

[illegible]

Remarks:

Received by: <i>[Signature]</i>	Date	Time
	10/17/01	7:40
Received by: <i>[Signature]</i>	Date	Time
	6/15/01	5:40



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

October 11, 2017

Mike Burton
CM Services
PO Box 3470
Hobbs, NM 88241
TEL: (575) 499-5306
FAX

RE: CMU N inj S2

OrderNo.: 1710182

Dear Mike Burton:

Hall Environmental Analysis Laboratory received 12 sample(s) on 10/4/2017 for the analyses presented in the following report.

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

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

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

Sincerely,

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

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1710182

Date Reported: 10/11/2017

CLIENT: CM Services

Client Sample ID: SW-SP2 N

Project: CMU N inj S2

Collection Date: 10/2/2017 3:00:00 PM

Lab ID: 1710182-001

Matrix: SOIL

Received Date: 10/4/2017 9:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	ND	30		mg/Kg	20	10/10/2017 12:49:05 PM	34331
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	10/5/2017 10:29:23 AM	34244
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	10/5/2017 10:29:23 AM	34244
Surr: DNOP	93.5	70-130		%Rec	1	10/5/2017 10:29:23 AM	34244
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	10/5/2017 2:02:05 PM	34233
Surr: BFB	89.3	54-150		%Rec	1	10/5/2017 2:02:05 PM	34233
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	10/5/2017 2:02:05 PM	34233
Toluene	ND	0.047		mg/Kg	1	10/5/2017 2:02:05 PM	34233
Ethylbenzene	ND	0.047		mg/Kg	1	10/5/2017 2:02:05 PM	34233
Xylenes, Total	ND	0.095		mg/Kg	1	10/5/2017 2:02:05 PM	34233
Surr: 4-Bromofluorobenzene	94.6	66.6-132		%Rec	1	10/5/2017 2:02:05 PM	34233

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1710182

Date Reported: 10/11/2017

CLIENT: CM Services

Client Sample ID: SW-SP1 E

Project: CMU N inj S2

Collection Date: 10/2/2017 3:03:00 PM

Lab ID: 1710182-002

Matrix: SOIL

Received Date: 10/4/2017 9:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	ND	30		mg/Kg	20	10/10/2017 1:26:19 PM	34331
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	10/5/2017 11:43:26 AM	34244
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/5/2017 11:43:26 AM	34244
Surr: DNOP	97.5	70-130		%Rec	1	10/5/2017 11:43:26 AM	34244
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	10/5/2017 7:06:25 PM	34233
Surr: BFB	88.8	54-150		%Rec	1	10/5/2017 7:06:25 PM	34233
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	10/5/2017 7:06:25 PM	34233
Toluene	ND	0.046		mg/Kg	1	10/5/2017 7:06:25 PM	34233
Ethylbenzene	ND	0.046		mg/Kg	1	10/5/2017 7:06:25 PM	34233
Xylenes, Total	ND	0.092		mg/Kg	1	10/5/2017 7:06:25 PM	34233
Surr: 4-Bromofluorobenzene	94.4	66.6-132		%Rec	1	10/5/2017 7:06:25 PM	34233

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1710182

Date Reported: 10/11/2017

CLIENT: CM Services

Client Sample ID: SW-SP3 W

Project: CMU N inj S2

Collection Date: 10/2/2017 3:05:00 PM

Lab ID: 1710182-003

Matrix: SOIL

Received Date: 10/4/2017 9:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	ND	30		mg/Kg	20	10/10/2017 1:38:43 PM	34331
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	10/5/2017 12:08:11 PM	34244
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/5/2017 12:08:11 PM	34244
Surr: DNOP	97.1	70-130		%Rec	1	10/5/2017 12:08:11 PM	34244
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	10/5/2017 7:29:48 PM	34233
Surr: BFB	88.5	54-150		%Rec	1	10/5/2017 7:29:48 PM	34233
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	10/5/2017 7:29:48 PM	34233
Toluene	ND	0.046		mg/Kg	1	10/5/2017 7:29:48 PM	34233
Ethylbenzene	ND	0.046		mg/Kg	1	10/5/2017 7:29:48 PM	34233
Xylenes, Total	ND	0.091		mg/Kg	1	10/5/2017 7:29:48 PM	34233
Surr: 4-Bromofluorobenzene	92.9	66.6-132		%Rec	1	10/5/2017 7:29:48 PM	34233

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1710182

Date Reported: 10/11/2017

CLIENT: CM Services

Client Sample ID: SW-SP4 E

Project: CMU N inj S2

Collection Date: 10/2/2017 3:10:00 PM

Lab ID: 1710182-004

Matrix: SOIL

Received Date: 10/4/2017 9:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	ND	30		mg/Kg	20	10/10/2017 1:51:07 PM	34331
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	10/5/2017 12:33:01 PM	34244
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/5/2017 12:33:01 PM	34244
Surr: DNOP	96.5	70-130		%Rec	1	10/5/2017 12:33:01 PM	34244
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/5/2017 7:53:09 PM	34233
Surr: BFB	88.0	54-150		%Rec	1	10/5/2017 7:53:09 PM	34233
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	10/5/2017 7:53:09 PM	34233
Toluene	ND	0.049		mg/Kg	1	10/5/2017 7:53:09 PM	34233
Ethylbenzene	ND	0.049		mg/Kg	1	10/5/2017 7:53:09 PM	34233
Xylenes, Total	ND	0.098		mg/Kg	1	10/5/2017 7:53:09 PM	34233
Surr: 4-Bromofluorobenzene	93.9	66.6-132		%Rec	1	10/5/2017 7:53:09 PM	34233

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1710182

Date Reported: 10/11/2017

CLIENT: CM Services

Client Sample ID: SW-SP5 W

Project: CMU N inj S2

Collection Date: 10/2/2017 3:15:00 PM

Lab ID: 1710182-005

Matrix: SOIL

Received Date: 10/4/2017 9:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	ND	30		mg/Kg	20	10/10/2017 2:03:32 PM	34331
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	10/5/2017 12:57:41 PM	34244
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	10/5/2017 12:57:41 PM	34244
Surr: DNOP	98.2	70-130		%Rec	1	10/5/2017 12:57:41 PM	34244
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	10/5/2017 8:16:32 PM	34233
Surr: BFB	87.3	54-150		%Rec	1	10/5/2017 8:16:32 PM	34233
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	10/5/2017 8:16:32 PM	34233
Toluene	ND	0.048		mg/Kg	1	10/5/2017 8:16:32 PM	34233
Ethylbenzene	ND	0.048		mg/Kg	1	10/5/2017 8:16:32 PM	34233
Xylenes, Total	ND	0.095		mg/Kg	1	10/5/2017 8:16:32 PM	34233
Surr: 4-Bromofluorobenzene	91.2	66.6-132		%Rec	1	10/5/2017 8:16:32 PM	34233

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1710182

Date Reported: 10/11/2017

CLIENT: CM Services

Client Sample ID: SW-SP7 E

Project: CMU N inj S2

Collection Date: 10/2/2017 3:20:00 PM

Lab ID: 1710182-006

Matrix: SOIL

Received Date: 10/4/2017 9:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	ND	30		mg/Kg	20	10/10/2017 2:15:57 PM	34331
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/5/2017 1:22:27 PM	34244
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/5/2017 1:22:27 PM	34244
Surr: DNOP	93.8	70-130		%Rec	1	10/5/2017 1:22:27 PM	34244
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	10/5/2017 8:39:52 PM	34233
Surr: BFB	88.4	54-150		%Rec	1	10/5/2017 8:39:52 PM	34233
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	10/5/2017 8:39:52 PM	34233
Toluene	ND	0.048		mg/Kg	1	10/5/2017 8:39:52 PM	34233
Ethylbenzene	ND	0.048		mg/Kg	1	10/5/2017 8:39:52 PM	34233
Xylenes, Total	ND	0.095		mg/Kg	1	10/5/2017 8:39:52 PM	34233
Surr: 4-Bromofluorobenzene	94.1	66.6-132		%Rec	1	10/5/2017 8:39:52 PM	34233

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1710182

Date Reported: 10/11/2017

CLIENT: CM Services

Client Sample ID: SW-SP9 W

Project: CMU N inj S2

Collection Date: 10/2/2017 3:25:00 PM

Lab ID: 1710182-007

Matrix: SOIL

Received Date: 10/4/2017 9:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	ND	30		mg/Kg	20	10/10/2017 2:53:10 PM	34331
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	10/5/2017 1:47:11 PM	34244
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/5/2017 1:47:11 PM	34244
Surr: DNOP	92.9	70-130		%Rec	1	10/5/2017 1:47:11 PM	34244
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	10/5/2017 9:03:13 PM	34233
Surr: BFB	88.7	54-150		%Rec	1	10/5/2017 9:03:13 PM	34233
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	10/5/2017 9:03:13 PM	34233
Toluene	ND	0.047		mg/Kg	1	10/5/2017 9:03:13 PM	34233
Ethylbenzene	ND	0.047		mg/Kg	1	10/5/2017 9:03:13 PM	34233
Xylenes, Total	ND	0.094		mg/Kg	1	10/5/2017 9:03:13 PM	34233
Surr: 4-Bromofluorobenzene	94.8	66.6-132		%Rec	1	10/5/2017 9:03:13 PM	34233

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1710182

Date Reported: 10/11/2017

CLIENT: CM Services

Client Sample ID: SW-SP11 N

Project: CMU N inj S2

Collection Date: 10/2/2017 3:30:00 PM

Lab ID: 1710182-008

Matrix: SOIL

Received Date: 10/4/2017 9:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	ND	30		mg/Kg	20	10/10/2017 3:05:35 PM	34331
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/5/2017 2:12:07 PM	34244
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/5/2017 2:12:07 PM	34244
Surr: DNOP	92.4	70-130		%Rec	1	10/5/2017 2:12:07 PM	34244
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/5/2017 9:26:34 PM	34233
Surr: BFB	89.5	54-150		%Rec	1	10/5/2017 9:26:34 PM	34233
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	10/5/2017 9:26:34 PM	34233
Toluene	ND	0.049		mg/Kg	1	10/5/2017 9:26:34 PM	34233
Ethylbenzene	ND	0.049		mg/Kg	1	10/5/2017 9:26:34 PM	34233
Xylenes, Total	ND	0.098		mg/Kg	1	10/5/2017 9:26:34 PM	34233
Surr: 4-Bromofluorobenzene	96.0	66.6-132		%Rec	1	10/5/2017 9:26:34 PM	34233

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1710182

Date Reported: 10/11/2017

CLIENT: CM Services

Client Sample ID: SW-SP13 SW

Project: CMU N inj S2

Collection Date: 10/2/2017 3:35:00 PM

Lab ID: 1710182-009

Matrix: SOIL

Received Date: 10/4/2017 9:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	ND	30		mg/Kg	20	10/10/2017 3:18:00 PM	34331
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	10/5/2017 2:36:53 PM	34244
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	10/5/2017 2:36:53 PM	34244
Surr: DNOP	93.0	70-130		%Rec	1	10/5/2017 2:36:53 PM	34244
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	10/5/2017 9:49:54 PM	34233
Surr: BFB	90.5	54-150		%Rec	1	10/5/2017 9:49:54 PM	34233
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	10/5/2017 9:49:54 PM	34233
Toluene	ND	0.046		mg/Kg	1	10/5/2017 9:49:54 PM	34233
Ethylbenzene	ND	0.046		mg/Kg	1	10/5/2017 9:49:54 PM	34233
Xylenes, Total	ND	0.093		mg/Kg	1	10/5/2017 9:49:54 PM	34233
Surr: 4-Bromofluorobenzene	96.7	66.6-132		%Rec	1	10/5/2017 9:49:54 PM	34233

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1710182

Date Reported: 10/11/2017

CLIENT: CM Services

Client Sample ID: SW-SP15 NW

Project: CMU N inj S2

Collection Date: 10/2/2017 3:40:00 PM

Lab ID: 1710182-010

Matrix: SOIL

Received Date: 10/4/2017 9:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	ND	30		mg/Kg	20	10/10/2017 3:30:25 PM	34331
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	10/5/2017 3:01:41 PM	34244
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/5/2017 3:01:41 PM	34244
Surr: DNOP	93.3	70-130		%Rec	1	10/5/2017 3:01:41 PM	34244
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	10/5/2017 10:13:15 PM	34233
Surr: BFB	89.9	54-150		%Rec	1	10/5/2017 10:13:15 PM	34233
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	10/5/2017 10:13:15 PM	34233
Toluene	ND	0.047		mg/Kg	1	10/5/2017 10:13:15 PM	34233
Ethylbenzene	ND	0.047		mg/Kg	1	10/5/2017 10:13:15 PM	34233
Xylenes, Total	ND	0.094		mg/Kg	1	10/5/2017 10:13:15 PM	34233
Surr: 4-Bromofluorobenzene	95.6	66.6-132		%Rec	1	10/5/2017 10:13:15 PM	34233

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1710182

Date Reported: 10/11/2017

CLIENT: CM Services

Client Sample ID: SW-SP16 E

Project: CMU N inj S2

Collection Date: 10/2/2017 3:45:00 PM

Lab ID: 1710182-011

Matrix: SOIL

Received Date: 10/4/2017 9:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	ND	30		mg/Kg	20	10/10/2017 3:42:49 PM	34331
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	10/5/2017 3:34:55 PM	34244
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	10/5/2017 3:34:55 PM	34244
Surr: DNOP	90.9	70-130		%Rec	1	10/5/2017 3:34:55 PM	34244
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	10/5/2017 10:36:33 PM	34233
Surr: BFB	92.0	54-150		%Rec	1	10/5/2017 10:36:33 PM	34233
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	10/5/2017 10:36:33 PM	34233
Toluene	ND	0.048		mg/Kg	1	10/5/2017 10:36:33 PM	34233
Ethylbenzene	ND	0.048		mg/Kg	1	10/5/2017 10:36:33 PM	34233
Xylenes, Total	ND	0.095		mg/Kg	1	10/5/2017 10:36:33 PM	34233
Surr: 4-Bromofluorobenzene	96.9	66.6-132		%Rec	1	10/5/2017 10:36:33 PM	34233

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1710182

Date Reported: 10/11/2017

CLIENT: CM Services

Client Sample ID: SW-SP17 W

Project: CMU N inj S2

Collection Date: 10/2/2017 3:50:00 PM

Lab ID: 1710182-012

Matrix: SOIL

Received Date: 10/4/2017 9:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	ND	30		mg/Kg	20	10/10/2017 3:55:13 PM	34331
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	10/5/2017 3:59:40 PM	34244
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/5/2017 3:59:40 PM	34244
Surr: DNOP	94.2	70-130		%Rec	1	10/5/2017 3:59:40 PM	34244
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	10/6/2017 12:10:08 AM	34233
Surr: BFB	86.8	54-150		%Rec	1	10/6/2017 12:10:08 AM	34233
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	10/6/2017 12:10:08 AM	34233
Toluene	ND	0.047		mg/Kg	1	10/6/2017 12:10:08 AM	34233
Ethylbenzene	ND	0.047		mg/Kg	1	10/6/2017 12:10:08 AM	34233
Xylenes, Total	ND	0.094		mg/Kg	1	10/6/2017 12:10:08 AM	34233
Surr: 4-Bromofluorobenzene	93.1	66.6-132		%Rec	1	10/6/2017 12:10:08 AM	34233

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1710182

11-Oct-17

Client: CM Services
Project: CMU N inj S2

Sample ID	MB-34331		SampType: mblk		TestCode: EPA Method 300.0: Anions					
Client ID:	PBS		Batch ID: 34331		RunNo: 46260					
Prep Date:	10/10/2017		Analysis Date: 10/10/2017		SeqNo: 1473216		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-34331		SampType: lcs		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 34331		RunNo: 46260					
Prep Date:	10/10/2017		Analysis Date: 10/10/2017		SeqNo: 1473217		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.0	90	110			

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
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1710182

11-Oct-17

Client: CM Services
Project: CMU N inj S2

Sample ID	1710182-001AMS	SampType:	MS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	SW-SP2 N	Batch ID:	34244	RunNo:	46122					
Prep Date:	10/4/2017	Analysis Date:	10/5/2017	SeqNo:	1467626	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	42	9.6	47.76	1.915	84.4	55.8	122			
Surr: DNOP	4.4		4.776		92.5	70	130			

Sample ID	1710182-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	SW-SP2 N	Batch ID:	34244	RunNo:	46122					
Prep Date:	10/4/2017	Analysis Date:	10/5/2017	SeqNo:	1467631	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	45	9.9	49.46	1.915	87.2	55.8	122	6.45	20	
Surr: DNOP	4.5		4.946		90.5	70	130	0	0	

Sample ID	LCS-34244	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	34244	RunNo:	46122					
Prep Date:	10/4/2017	Analysis Date:	10/5/2017	SeqNo:	1467640	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	43	10	50.00	0	85.1	73.2	114			
Surr: DNOP	4.3		5.000		86.3	70	130			

Sample ID	MB-34244	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	34244	RunNo:	46122					
Prep Date:	10/4/2017	Analysis Date:	10/5/2017	SeqNo:	1467644	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.3		10.00		92.7	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
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1710182

11-Oct-17

Client: CM Services
Project: CMU N inj S2

Sample ID	MB-34233		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS		Batch ID: 34233		RunNo: 46134					
Prep Date:	10/4/2017		Analysis Date: 10/5/2017		SeqNo: 1468607		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	880		1000		87.8	54	150			

Sample ID	LCS-34233		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 34233		RunNo: 46134					
Prep Date:	10/4/2017		Analysis Date: 10/5/2017		SeqNo: 1468608		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	29	5.0	25.00	0	116	76.4	125			
Surr: BFB	1000		1000		101	54	150			

Sample ID	1710182-002AMS		SampType: MS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	SW-SP1 E		Batch ID: 34233		RunNo: 46134					
Prep Date:	10/4/2017		Analysis Date: 10/5/2017		SeqNo: 1468611		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	32	4.6	23.00	0	140	77.8	128			S
Surr: BFB	940		920.0		102	54	150			

Sample ID	1710182-002AMSD		SampType:	MSD		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	SW-SP1 E		Batch ID:	34233		RunNo:	46134				
Prep Date:	10/4/2017		Analysis Date:	10/5/2017		SeqNo:	1468612		Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Range Organics (GRO)	32	4.7	23.63	0	135	77.8	128	1.09	20	S	
Surr: BFB	960		945.2		101	54	150	0	0		

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1710182

11-Oct-17

Client: CM Services

Project: CMU N inj S2

Sample ID	MB-34233		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	34233		RunNo:	46134			
Prep Date:	10/4/2017		Analysis Date:	10/5/2017		SeqNo:	1468636	Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.94		1.000		94.0	66.6	132			

Sample ID	LCS-34233		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	34233		RunNo:	46134			
Prep Date:	10/4/2017		Analysis Date:	10/5/2017		SeqNo:	1468637	Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	103	80	120			
Toluene	1.0	0.050	1.000	0	104	80	120			
Ethylbenzene	1.1	0.050	1.000	0	105	80	120			
Xylenes, Total	3.2	0.10	3.000	0	106	80	120			
Surr: 4-Bromofluorobenzene	0.97		1.000		96.9	66.6	132			

Sample ID	1710182-001AMS		SampType:	MS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	SW-SP2 N		Batch ID:	34233		RunNo:	46134			
Prep Date:	10/4/2017		Analysis Date:	10/5/2017		SeqNo:	1468639	Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.023	0.9158	0	112	80.9	132			
Toluene	1.0	0.046	0.9158	0.01050	113	79.8	136			
Ethylbenzene	1.1	0.046	0.9158	0	118	79.4	140			
Xylenes, Total	3.3	0.092	2.747	0	119	78.5	142			
Surr: 4-Bromofluorobenzene	0.92		0.9158		101	66.6	132			

Sample ID	1710182-001AMSD		SampType:	MSD		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	SW-SP2 N		Batch ID:	34233		RunNo:	46134			
Prep Date:	10/4/2017		Analysis Date:	10/5/2017		SeqNo:	1468640	Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.024	0.9615	0	108	80.9	132	1.09	20	
Toluene	1.1	0.048	0.9615	0.01050	110	79.8	136	1.98	20	
Ethylbenzene	1.1	0.048	0.9615	0	116	79.4	140	2.89	20	
Xylenes, Total	3.4	0.096	2.885	0	116	78.5	142	2.80	20	
Surr: 4-Bromofluorobenzene	0.96		0.9615		99.4	66.6	132	0	0	

Qualifiers:

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

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

Sample Log-In Check List

Client Name: CM SERVICES

Work Order Number: 1710182

RcptNo: 1

Received By: Sophia Campuzano 10/4/2017 9:10:00 AM

Completed By: Ashley Gallegos 10/4/2017 9:31:16 AM

Reviewed By: SRE 10/04/17

Sophia Campuzano

AG

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 ☐
10. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐

of preserved
bottles checked
for pH: _____
(<2 or >12 unless noted)
Adjusted? _____
Checked by: _____

Special Handling (if applicable)

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

Person Notified:		Date:	
By Whom:		Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> 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	3.6	Good	Yes			

Chain-of-Custody Record

Client: C+M Services
(Linneregg)
 Mailing Address: P.O. Box 3470
Hobbs NM 88240
 Phone #: 575-499-5306
 email or Fax#: Marineburton@gmail.com
 QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)
 Accreditation
☐ NELAP ☐ Other _____
☐ EDD (Type) _____

Turn-Around Time: 5 day Turn
☒ Standard ☐ Rush
 Project Name: CMU N ins
#52
 Project #:

Project Manager:
Mike Burton
 Sampler: Mike Burton
 On Ice: ☒ Yes ☐ No
 Sample Temperature: 36

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.
10-2-17	1500	Soil	SW-SP 2 N	Jar	Ice	-001
10-3-17	1503		SW-SP 1 E			-002
10-3-17	1505		SW-SP 3 W			-003
10-3-17	1510		SW-SP 4 E			-004
10-3-17	1515		SW-SP 5 W			-005
10-3-17	1520		SW-SP 7 E			-006
10-3-17	1525		SW-SP 9 W			-007
10-3-17	1530		SW-SP 11 N			-008
10-3-17	1535		SW-SP 13 SW			-009
10-3-17	1540		SW-SP 15 NW			-010
10-3-17	1545		SW-SP 16 E			-011
10-3-17	1550		SW-SP 17 W			-012

Relinquished by: Mike Burton Date: 10-3-17 Time: 1015
 Relinquished by: Sp1 Date: 10/3/17 Time: 1015
 Received by: Sp1 Date: 10/3/17 Time: 1015
 Received by: Sp1 Date: 10/04/17 Time: 0910



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

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