State of New Mexico **Energy Minerals and Natural Resources**

Form C-141 Revised April 3, 2017

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

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

Release Notification and Corrective Action

	OPERATOR	Initial Report	Final Report
Name of Company Hilcorp Energy Company	Contact Clara Cardoza		
Address 382 Rd 3100 Aztec NM 87410	Telephone No. 505-564-0733		
Facility Name Hubbell Federal #1M	Facility Type Well		

Surface Owner Federal (SF-078716-A)

Mineral Owner Federal

API No. 30-045-32809

LOCATION OF RELEASE

	Section 07	Township 29N	Range 10W	Feet from the 1090	North/South Line South	Feet from the 900	East/West Line East	County San Juan
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Latitude <u>36.7363281</u> Longitude <u>-107.9198074</u> NAD83 NATURE OF RELEASE

	1511 CD 1 45111	10111
Type of Release Hydrocarbon	Volume of Release 15 bbl	Volume Recovered 9 bbls
Source of Release Tank	Date and Hour of Occurrence	Date and Hour of Discovery
	Unknown	12/20/2017 04:00 pm n
Was Immediate Notice Given?	If YES, To Whom?	NWOOD
🗌 Yes 🗌 No 🛛 Not Required		
By Whom?	Date and Hour	AUG 0 6 2018
		NISTRICT III
Was a Watercourse Reached?	If YES, Volume Impacting the Wat	ercourse.
🗌 Yes 🖾 No		
If a Watercourse was Impacted, Describe Fully.*		

Describe Cause of Problem and Remedial Action Taken.*

During field operator's routine visit to site found the oil dump leaking and immediately shut in the location. A spec truck was called out to transfer remaining contents of the tank to prevent further loss. Also, was able to recover 9 bbls of product that was at the surface. Leak on the dump line was caused by corrosion.

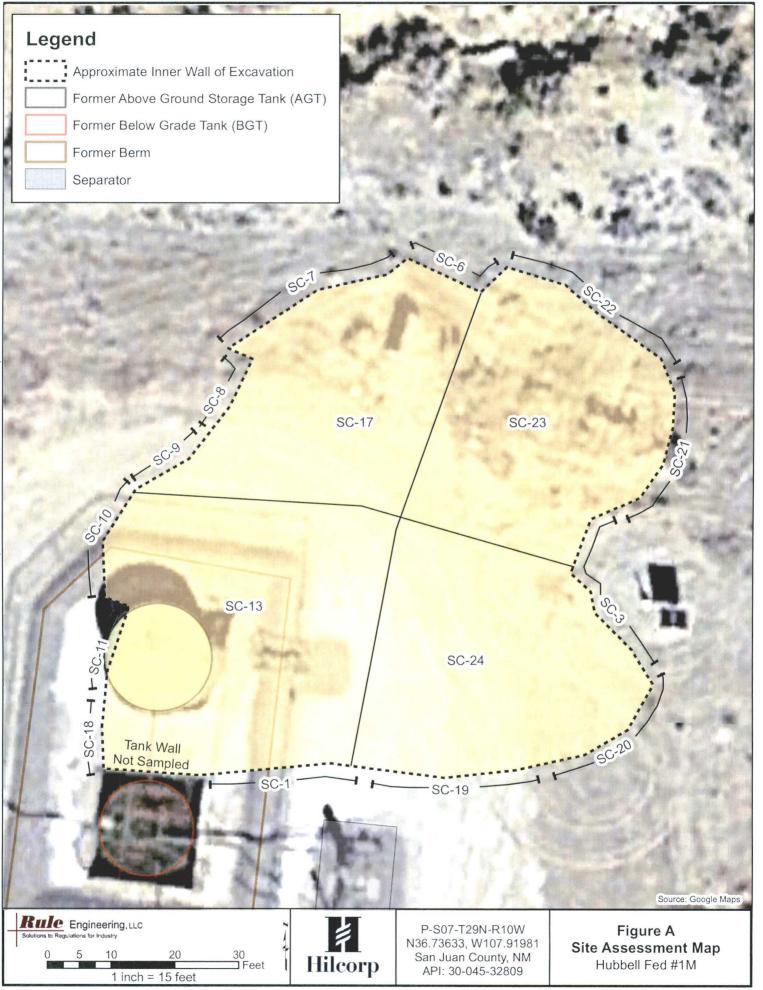
Describe Area Affected and Cleanup Action Taken.*

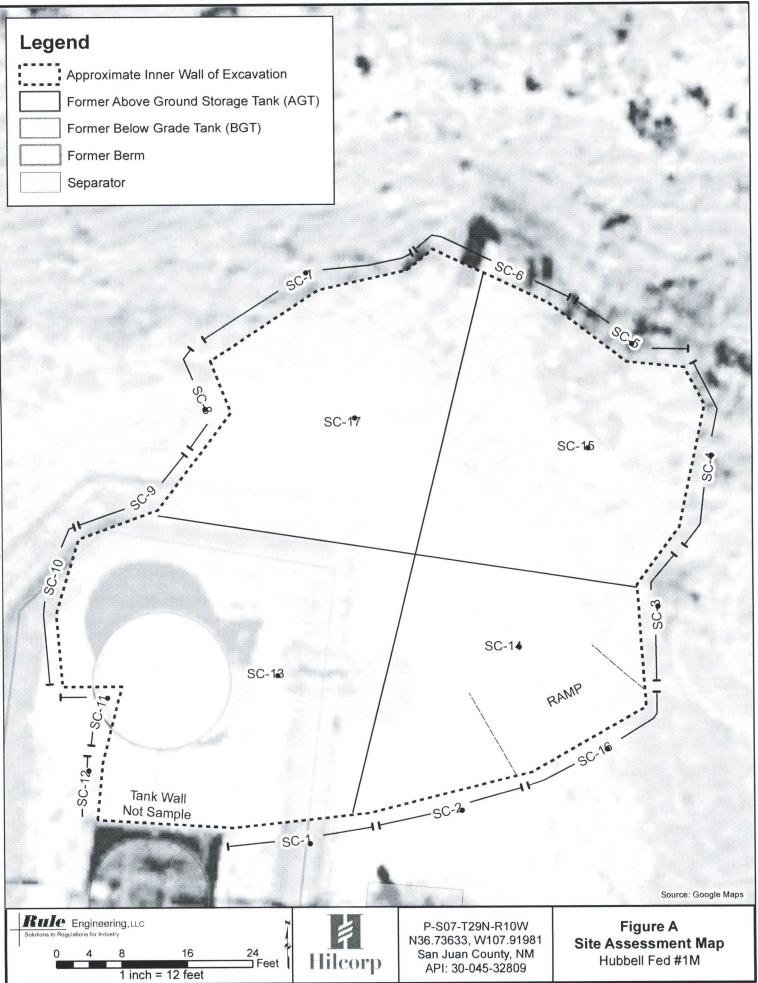
Hydrocarbon was contained in the bermed area and a truck was called to remove free standing liquid and impacted soil. Confirmation sampling will be scheduled early 2018. Excavation revealed a historic release on this location. A total of 2,050 cubic yards of impacted soil was removed and taken to the Envirotech landfarm. Attached are confirmation lab results and a final excavation figure. Also included is the email in which NMOCD granting Hilcorp approval to spray SC-23 with potassium permanganate and backfill the excavation.

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

An n n -	OIL CONSERVATION DIVISION
Signature: March Config-	
Printed Name: Clara Cardoza	Approved by Environmental Specialist:
Title: Environmental Specialist	Approval Date: Expiration Date:
E-mail Address: ccardoza@hilcorp.com	Conditions of Approval: Attached
Date: 08/03/2018 Phone: 505-564-0733	
* Attach Additional Sheets If Necessary	IT I TIME AND ALL

NNF18905718401







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

January 30, 2018

Heather Woods Rule Engineering LLC 501 Airport Dr., Ste 205 Farmington, NM 87401 TEL: (505) 325-1055 FAX

OrderNo.: 1801A87

RE: Hubbell Fed 1M

Dear Heather Woods:

Hall Environmental Analysis Laboratory received 17 sample(s) on 1/24/2018 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 <u>www.hallenvironmental.com</u> or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Date Reported: 1/30/2018

CLIENT: Rule Engineering LLC Project: Hubbell Fed 1M Lab ID: 1801A87-001	Client Sample ID: SC-1 Collection Date: 1/23/2018 2:40:00 PM Matrix: SOIL Received Date: 1/24/2018 7:00:00 AM					
Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANG	GE ORGANICS				Analyst	: том
Diesel Range Organics (DRO)	70	9.5	mg/Kg	1	1/25/2018 10:44:37 AN	36180
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	1/25/2018 10:44:37 AN	36180
Surr: DNOP	87.1	70-130	%Rec	1	1/25/2018 10:44:37 AN	36180
EPA METHOD 8015D: GASOLINE RAN	IGE				Analyst	NSB
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	1/25/2018 11:57:41 AN	36169
Surr: BFB	90.4	15-316	%Rec	1	1/25/2018 11:57:41 AN	36169
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.024	mg/Kg	1	1/25/2018 11:57:41 AN	36169
Toluene	ND	0.048	mg/Kg	1	1/25/2018 11:57:41 AN	36169
Ethylbenzene	ND	0.048	mg/Kg	1	1/25/2018 11:57:41 AM	36169
Xylenes, Total	ND	0.096	mg/Kg	1	1/25/2018 11:57:41 AM	36169
Surr: 4-Bromofluorobenzene	89.8	80-120	%Rec	1	1/25/2018 11:57:41 AM	36169

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

Qualifiers:

- * Value exceeds Maximum Contaminant Level.D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded

Hall Environmental Analysis Laboratory, Inc.

- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative 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 Page 1 of 21
- 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.

CLIENT: Rule Engineering LLC

Hubbell Fed 1M

Project:

Client Sample ID: SC-2 Collection Date: 1/23/2018 2:46:00 PM Received Date: 1/24/2018 7:00:00 AM

Lab ID: 1801A87-002	Matrix:	SOIL	Received 1	Received Date: 1/24/2018 7:00:00 AM			
Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch	
EPA METHOD 8015M/D: DIESEL RA	NGE ORGANICS	5			Analys	t: TOM	
Diesel Range Organics (DRO)	140	10	mg/Kg	1	1/25/2018 11:57:57 AM	36180	
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	1/25/2018 11:57:57 AN	1 36180	
Surr: DNOP	95.4	70-130	%Rec	1	1/25/2018 11:57:57 AN	1 36180	
EPA METHOD 8015D: GASOLINE RA	NGE				Analys	t: NSB	
Gasoline Range Organics (GRO)	10	4.9	mg/Kg	1	1/25/2018 1:08:24 PM	36169	
Surr: BFB	135	15-316	%Rec	1	1/25/2018 1:08:24 PM	36169	
EPA METHOD 8021B: VOLATILES					Analys	NSB	
Benzene	ND	0.024	mg/Kg	1	1/25/2018 1:08:24 PM	36169	
Toluene	ND	0.049	mg/Kg	1	1/25/2018 1:08:24 PM	36169	
Ethylbenzene	ND	0.049	mg/Kg	1	1/25/2018 1:08:24 PM	36169	
Xylenes, Total	ND	0.098	mg/Kg	1	1/25/2018 1:08:24 PM	36169	
Surr: 4-Bromofluorobenzene	91.1	80-120	%Rec	1	1/25/2018 1:08:24 PM	36169	

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	Е	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 2 of 21
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	PQL	Practical Quanitative 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.

Date Reported: 1/30/2018

CLIENT: Rule Engineering LLC	Client Sample ID: SC-3							
Project: Hubbell Fed 1M			Collection 1	Date: 1/2	23/2018 2:53:00 PM			
Lab ID: 1801A87-003	Matrix: S	SOIL	Received	Date: 1/2	24/2018 7:00:00 AM			
Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch		
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANICS				Analyst	TOM		
Diesel Range Organics (DRO)	ND	9.4	mg/Kg	1	1/25/2018 12:22:21 PM	36180		
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	1/25/2018 12:22:21 PM	36180		
Surr: DNOP	88.8	70-130	%Rec	1	1/25/2018 12:22:21 PM	36180		
EPA METHOD 8015D: GASOLINE RAI	NGE				Analyst	NSB		
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	1/25/2018 2:19:15 PM	36169		
Surr: BFB	85.0	15-316	%Rec	1	1/25/2018 2:19:15 PM	36169		
EPA METHOD 8021B: VOLATILES					Analyst	NSB		
Benzene	ND	0.024	mg/Kg	1	1/25/2018 2:19:15 PM	36169		
Toluene	ND	0.049	mg/Kg	1	1/25/2018 2:19:15 PM	36169		
Ethylbenzene	ND	0.049	mg/Kg	1	1/25/2018 2:19:15 PM	36169		
Xylenes, Total	ND	0.098	mg/Kg	1	1/25/2018 2:19:15 PM	36169		
Surr: 4-Bromofluorobenzene	89.5	80-120	%Rec	1	1/25/2018 2:19:15 PM	36169		

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	Е	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 3 of 21
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	PQL	Practical Quanitative 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.

Date Reported: 1/30/2018

CLIENT: Rule Engineering LLC	Client Sample ID: SC-4						
Project: Hubbell Fed 1M			Collection 1	Date: 1/2	23/2018 3:00:00 PM		
Lab ID: 1801A87-004	Matrix:	SOIL	Received 1	Date: 1/2	24/2018 7:00:00 AM		
Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch	
EPA METHOD 8015M/D: DIESEL RAN	IGE ORGANICS				Analyst	том	
Diesel Range Organics (DRO)	490	9.2	mg/Kg	1	1/25/2018 12:46:33 PM	36180	
Motor Oil Range Organics (MRO)	120	46	mg/Kg	1	1/25/2018 12:46:33 PM	36180	
Surr: DNOP	92.9	70-130	%Rec	1	1/25/2018 12:46:33 PM	36180	
EPA METHOD 8015D: GASOLINE RA	NGE				Analyst	NSB	
Gasoline Range Organics (GRO)	170	24	mg/Kg	5	1/25/2018 2:42:44 PM	36169	
Surr: BFB	210	15-316	%Rec	5	1/25/2018 2:42:44 PM	36169	
EPA METHOD 8021B: VOLATILES					Analyst	NSB	
Benzene	ND	0.12	mg/Kg	5	1/25/2018 2:42:44 PM	36169	
Toluene	1.4	0.24	mg/Kg	5	1/25/2018 2:42:44 PM	36169	
Ethylbenzene	0.90	0.24	mg/Kg	5	1/25/2018 2:42:44 PM	36169	
Xylenes, Total	11	0.48	mg/Kg	5	1/25/2018 2:42:44 PM	36169	
Surr: 4-Bromofluorobenzene	100	80-120	%Rec	5	1/25/2018 2:42:44 PM	36169	

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

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 Quanitative 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 Page 4 of 21
- 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.

CLIENT: Rule Engineering LLC

Project: Hubbell Fed 1M

Client Sample ID: SC-5 Collection Date: 1/23/2018 3:02:00 PM Received Date: 1/24/2018 7:00:00 AM

Lab ID: 1801A87-005	Matrix: S	SOIL	Received I	Date: 1/24/2018 7:00:00 AM	
Analyses	Result	PQL Qu	al Units	DF Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANG	GE ORGANICS			Analyst	: TOM
Diesel Range Organics (DRO)	3100	97	mg/Kg	10 1/25/2018 1:10:59 PM	36180
Motor Oil Range Organics (MRO)	590	490	mg/Kg	10 1/25/2018 1:10:59 PM	36180
Surr: DNOP	0	70-130	S %Rec	10 1/25/2018 1:10:59 PM	36180
EPA METHOD 8015D: GASOLINE RAN	IGE			Analyst	NSB
Gasoline Range Organics (GRO)	2100	120	mg/Kg	25 1/25/2018 3:29:56 PM	36169
Surr: BFB	300	15-316	%Rec	25 1/25/2018 3:29:56 PM	36169
EPA METHOD 8021B: VOLATILES				Analyst	: NSB
Benzene	1.0	0.60	mg/Kg	25 1/25/2018 3:29:56 PM	36169
Toluene	45	1.2	mg/Kg	25 1/25/2018 3:29:56 PM	36169
Ethylbenzene	15	1.2	mg/Kg	25 1/25/2018 3:29:56 PM	36169
Xylenes, Total	180	2.4	mg/Kg	25 1/25/2018 3:29:56 PM	36169
Surr: 4-Bromofluorobenzene	110	80-120	%Rec	25 1/25/2018 3:29:56 PM	36169

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

Qualifiers:

*

- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded

Value exceeds Maximum Contaminant Level.

- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative 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 Page 5 of 21
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Date Reported: 1/30/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC

Project: Hubbell Fed 1M

Client Sample ID: SC-6 Collection Date: 1/23/2018 3:05:00 PM

Lab ID: 1801A87-006	Matrix:	SOIL	Received I	Received Date: 1/24/2018 7:00:00 AM			
Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch	
EPA METHOD 8015M/D: DIESEL RAM	GE ORGANICS				Analyst	TOM	
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	1/25/2018 1:35:13 PM	36180	
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	1/25/2018 1:35:13 PM	36180	
Surr: DNOP	88.9	70-130	%Rec	1	1/25/2018 1:35:13 PM	36180	
EPA METHOD 8015D: GASOLINE RA	NGE				Analyst	NSB	
Gasoline Range Organics (GRO)	ND	4.6	mg/Kg	1	1/25/2018 4:17:07 PM	36169	
Surr: BFB	82.4	15-316	%Rec	1	1/25/2018 4:17:07 PM	36169	
EPA METHOD 8021B: VOLATILES					Analyst	NSB	
Benzene	ND	0.023	mg/Kg	1	1/25/2018 4:17:07 PM	36169	
Toluene	ND	0.046	mg/Kg	1	1/25/2018 4:17:07 PM	36169	
Ethylbenzene	ND	0.046	mg/Kg	1	1/25/2018 4:17:07 PM	36169	
Xylenes, Total	ND	0.093	mg/Kg	1	1/25/2018 4:17:07 PM	36169	
Surr: 4-Bromofluorobenzene	88.5	80-120	%Rec	1	1/25/2018 4:17:07 PM	36169	

Qualifiers:	*	Value exceeds	Maximum	Contaminant Level.	
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- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative 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 Page 6 of 21
- 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.

CLIENT: Rule Engineering LLC

Project: Hubbell Fed 1M

Client Sample ID: SC-7 Collection Date: 1/23/2018 3:10:00 PM Received Date: 1/24/2018 7:00:00 AM

Lab ID: 1801A87-007	Matrix: S	SOIL	Received I	Received Date: 1/24/2018 7:00:00 AM			
Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch	
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANICS	5			Analyst	TOM	
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	1/25/2018 1:59:37 PM	36180	
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	1/25/2018 1:59:37 PM	36180	
Surr: DNOP	93.9	70-130	%Rec	1	1/25/2018 1:59:37 PM	36180	
EPA METHOD 8015D: GASOLINE RA	NGE				Analyst	NSB	
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	1/25/2018 4:40:37 PM	36169	
Surr: BFB	82.4	15-316	%Rec	1	1/25/2018 4:40:37 PM	36169	
EPA METHOD 8021B: VOLATILES					Analyst	NSB	
Benzene	ND	0.024	mg/Kg	1	1/25/2018 4:40:37 PM	36169	
Toluene	ND	0.047	mg/Kg	1	1/25/2018 4:40:37 PM	36169	
Ethylbenzene	ND	0.047	mg/Kg	1	1/25/2018 4:40:37 PM	36169	
Xylenes, Total	ND	0.094	mg/Kg	1	1/25/2018 4:40:37 PM	36169	
Surr: 4-Bromofluorobenzene	87.7	80-120	%Rec	1	1/25/2018 4:40:37 PM	36169	

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

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 Quanitative 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 Page 7 of 21
- 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.

CLIENT: Rule Engineering LLC

Project:

Hubbell Fed 1M

Client Sample ID: SC-8 Collection Date: 1/23/2018 3:13:00 PM Received Date: 1/24/2018 7:00:00 AM

Lab ID: 1801A87-008	Matrix:	SOIL	Received I	Received Date: 1/24/2018 7:00:00 AM				
Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch		
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS	5			Analyst	TOM		
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	1/25/2018 2:23:56 PM	36180		
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	1/25/2018 2:23:56 PM	36180		
Surr: DNOP	88.0	70-130	%Rec	1	1/25/2018 2:23:56 PM	36180		
EPA METHOD 8015D: GASOLINE RANGE	Ξ				Analyst	NSB		
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	1/25/2018 6:37:39 PM	36169		
Surr: BFB	81.5	15-316	%Rec	1	1/25/2018 6:37:39 PM	36169		
EPA METHOD 8021B: VOLATILES					Analyst	NSB		
Benzene	ND	0.024	mg/Kg	1	1/25/2018 6:37:39 PM	36169		
Toluene	ND	0.049	mg/Kg	1	1/25/2018 6:37:39 PM	36169		
Ethylbenzene	ND	0.049	mg/Kg	1	1/25/2018 6:37:39 PM	36169		
Xylenes, Total	ND	0.097	mg/Kg	1	1/25/2018 6:37:39 PM	36169		
Surr: 4-Bromofluorobenzene	86.7	80-120	%Rec	1	1/25/2018 6:37:39 PM	36169		

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

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 Quanitative 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 Page 8 of 21
- 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.

CLIENT: Rule Engineering LLC

Client Sample ID: SC-9 Collection Date: 1/23/2018 3:16:00 PM

Project:	Hubbell Fed 1M	Collection Date: 1/23/2018 3:16:00 PM							
Lab ID:	1801A87-009	Matrix: S	Matrix: SOIL			Received Date: 1/24/2018 7:00:00 AM			
Analyses		Result	PQL Qu	al Units	DF	Date Analyzed	Batch		
EPA MET	HOD 8015M/D: DIESEL RA	ANGE ORGANICS				Analyst	TOM		
Diesel R	ange Organics (DRO)	ND	9.8	mg/Kg	1	1/25/2018 3:05:50 PM	36180		
Motor Oi	I Range Organics (MRO)	ND	49	mg/Kg	1	1/25/2018 3:05:50 PM	36180		
Surr: [ONOP	87.5	70-130	%Rec	1	1/25/2018 3:05:50 PM	36180		
EPA MET	HOD 8015D: GASOLINE R	ANGE				Analyst	NSB		
Gasoline	Range Organics (GRO)	ND	4.7	mg/Kg	1	1/25/2018 7:01:05 PM	36169		
Surr: E	3FB	84.7	15-316	%Rec	1	1/25/2018 7:01:05 PM	36169		
EPA MET	HOD 8021B: VOLATILES					Analyst	NSB		
Benzene		ND	0.023	mg/Kg	1	1/25/2018 7:01:05 PM	36169		
Toluene		ND	0.047	mg/Kg	1	1/25/2018 7:01:05 PM	36169		
Ethylben	zene	ND	0.047	mg/Kg	1	1/25/2018 7:01:05 PM	36169		
Xylenes,	Total	ND	0.093	mg/Kg	1	1/25/2018 7:01:05 PM	36169		
Surr: 4	4-Bromofluorobenzene	90.7	80-120	%Rec	1	1/25/2018 7:01:05 PM	36169		

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	Е	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 9 of 21
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	PQL	Practical Quanitative 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

Date Reported: 1/30/2018

CLIENT: Rule Engineering LLC Project: Hubbell Fed 1M Lab ID: 1801A87-010	Client Sample ID: SC-10 Collection Date: 1/23/2018 3:20:00 PM Matrix: SOIL Received Date: 1/24/2018 7:00:00 AM							
Analyses	Matrix: S Result		al Units		Date Analyzed	Batch		
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANICS	;	da yana ƙasar ƙ		Analyst	: ТОМ		
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	1/25/2018 3:30:05 PM	36180		
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	1/25/2018 3:30:05 PM	36180		
Surr: DNOP	84.8	70-130	%Rec	1	1/25/2018 3:30:05 PM	36180		
EPA METHOD 8015D: GASOLINE RAI	NGE				Analyst	NSB		
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	1/25/2018 7:24:28 PM	36169		
Surr: BFB	82.8	15-316	%Rec	1	1/25/2018 7:24:28 PM	36169		
EPA METHOD 8021B: VOLATILES					Analyst	: NSB		
Benzene	ND	0.025	mg/Kg	1	1/25/2018 7:24:28 PM	36169		
Toluene	ND	0.050	mg/Kg	1	1/25/2018 7:24:28 PM	36169		
Ethylbenzene	ND	0.050	mg/Kg	1	1/25/2018 7:24:28 PM	36169		
Xylenes, Total	ND	0.099	mg/Kg	1	1/25/2018 7:24:28 PM	36169		
Surr: 4-Bromofluorobenzene	86.0	80-120	%Rec	1	1/25/2018 7:24:28 PM	36169		

Hall Environmental Analysis Laboratory, Inc.

Oualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	Е	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 10 of 2
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	PQL	Practical Quanitative 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

Date Reported: 1/30/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC

Project: Hubbell Fed 1M

Client Sample ID: SC-11 Collection Date: 1/23/2018 3:24:00 PM

Lab ID: 1801A87-011	Matrix: SOIL		Received	Date: 1/24/2018 7:00:00 AM
Analyses	Result	PQL Qua	l Units	DF Date Analyzed Batch
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS	6		Analyst: TOM
Diesel Range Organics (DRO)	ND	9.0	mg/Kg	1 1/25/2018 3:54:25 PM 36180
Motor Oil Range Organics (MRO)	ND	45	mg/Kg	1 1/25/2018 3:54:25 PM 36180
Surr: DNOP	91.0	70-130	%Rec	1 1/25/2018 3:54:25 PM 36180
EPA METHOD 8015D: GASOLINE RANG	E			Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1 1/25/2018 7:47:50 PM 36169
Surr: BFB	84.1	15-316	%Rec	1 1/25/2018 7:47:50 PM 36169
EPA METHOD 8021B: VOLATILES				Analyst: NSB
Benzene	ND	0.025	mg/Kg	1 1/25/2018 7:47:50 PM 36169
Toluene	ND	0.049	mg/Kg	1 1/25/2018 7:47:50 PM 36169
Ethylbenzene	ND	0.049	mg/Kg	1 1/25/2018 7:47:50 PM 36169
Xylenes, Total	ND	0.098	mg/Kg	1 1/25/2018 7:47:50 PM 36169
Surr: 4-Bromofluorobenzene	89.4	80-120	%Rec	1 1/25/2018 7:47:50 PM 36169

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

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 Quanitative 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 limitsPage 11 of 21
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Date Reported: 1/30/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC

Client Sample ID: SC-12 Collection Date: 1/23/2018 3:28:00 PM

Project:	Hubbell Fed 1M			Collection I	Collection Date: 1/23/2018 3:28:00 PM				
Lab ID:	1801A87-012	Matrix: S	SOIL	Received I	Received Date: 1/24/2018 7:00:00 AM				
Analyses		Result	PQL Qu	al Units	DF	Date Analyzed	Batch		
EPA MET	HOD 8015M/D: DIESEL RA	NGE ORGANICS				Analyst	TOM		
Diesel R	ange Organics (DRO)	160	10	mg/Kg	1	1/25/2018 4:18:47 PM	36180		
Motor Oi	I Range Organics (MRO)	ND	50	mg/Kg	1	1/25/2018 4:18:47 PM	36180		
Surr: [DNOP	93.8	70-130	%Rec	1	1/25/2018 4:18:47 PM	36180		
EPA MET	HOD 8015D: GASOLINE R	ANGE				Analyst	NSB		
Gasoline	e Range Organics (GRO)	ND	4.8	mg/Kg	1	1/25/2018 8:11:12 PM	36169		
Surr: E	BFB	85.6	15-316	%Rec	1	1/25/2018 8:11:12 PM	36169		
EPA MET	HOD 8021B: VOLATILES					Analyst	NSB		
Benzene		ND	0.024	mg/Kg	1	1/25/2018 8:11:12 PM	36169		
Toluene		ND	0.048	mg/Kg	1	1/25/2018 8:11:12 PM	36169		
Ethylben	zene	ND	0.048	mg/Kg	1	1/25/2018 8:11:12 PM	36169		
Xylenes,	Total	ND	0.097	mg/Kg	1	1/25/2018 8:11:12 PM	36169		
Surr: 4	4-Bromofluorobenzene	88.7	80-120	%Rec	1	1/25/2018 8:11:12 PM	36169		

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

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 Quanitative 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 Page 12 of 21
- 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.

CLIENT: Rule Engineering LLC Client Sample ID: SC-13 Hubbell Fed 1M Collection Date: 1/23/2018 3:35:00 PM **Project:** Lab ID: Received Date: 1/24/2018 7:00:00 AM 1801A87-013 Matrix: SOIL PQL Qual Units Analyses Result **DF** Date Analyzed Batch EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: TOM 1/25/2018 4:43:19 PM Diesel Range Organics (DRO) 36 9.2 mg/Kg 1 36180 Motor Oil Range Organics (MRO) ND 46 mg/Kg 1 1/25/2018 4:43:19 PM 36180 Surr: DNOP 88.4 70-130 %Rec 1/25/2018 4:43:19 PM 36180 1 EPA METHOD 8015D: GASOLINE RANGE Analyst: NSB Gasoline Range Organics (GRO) 1/25/2018 8:34:34 PM 36169 ND 4.9 mg/Kg 1 Surr: BFB 86.5 %Rec 1/25/2018 8:34:34 PM 36169 15-316 1 EPA METHOD 8021B: VOLATILES Analyst: NSB Benzene ND 1/25/2018 8:34:34 PM 36169 0.024 mg/Kg 1 Toluene ND 0.049 1/25/2018 8:34:34 PM 36169 mg/Kg 1 Ethylbenzene ND 0.049 mg/Kg 1 1/25/2018 8:34:34 PM 36169 Xylenes, Total ND 0.098 mg/Kg 1/25/2018 8:34:34 PM 36169 1 Surr: 4-Bromofluorobenzene 89.1 80-120 %Rec 1/25/2018 8:34:34 PM 36169 1

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
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- Practical Quanitative Limit PQL

Oualifiers:

- S % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank В
- E Value above quantitation range
- Analyte detected below quantitation limits Page 13 of 21 J
- Р Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Date Reported: 1/30/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC

Project: Hubbell Fed 1M

Client Sample ID: SC-14 Collection Date: 1/23/2018 3:40:00 PM Received Date: 1/24/2018 7:00:00 AM

Lab ID: 1801A87-014	Matrix: S	Matrix: SOIL		Received Date: 1/24/2018 7:00:00 AM			
Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch	
EPA METHOD 8015M/D: DIESEL RAM	IGE ORGANICS	5			Analyst	t: TOM	
Diesel Range Organics (DRO)	210	9.2	mg/Kg	1	1/25/2018 5:07:39 PM	36180	
Motor Oil Range Organics (MRO)	56	46	mg/Kg	1	1/25/2018 5:07:39 PM	36180	
Surr: DNOP	103	70-130	%Rec	1	1/25/2018 5:07:39 PM	36180	
EPA METHOD 8015D: GASOLINE RA	NGE				Analyst	t: NSB	
Gasoline Range Organics (GRO)	11	4.8	mg/Kg	1	1/25/2018 11:10:51 AN	36169	
Surr: BFB	142	15-316	%Rec	1	1/25/2018 11:10:51 AN	1 36169	
EPA METHOD 8021B: VOLATILES					Analyst	I: NSB	
Benzene	ND	0.024	mg/Kg	1	1/25/2018 11:10:51 AN	36169	
Toluene	ND	0.048	mg/Kg	1	1/25/2018 11:10:51 AN	1 36169	
Ethylbenzene	ND	0.048	mg/Kg	1	1/25/2018 11:10:51 AM	36169	
Xylenes, Total	ND	0.096	mg/Kg	1	1/25/2018 11:10:51 AN	1 36169	
Surr: 4-Bromofluorobenzene	91.8	80-120	%Rec	1	1/25/2018 11:10:51 AM	<mark>36169</mark>	

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	Е	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 14 of 21
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	PQL	Practical Quanitative 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

Date Reported: 1/30/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC Client Sample ID: SC-15 Hubbell Fed 1M Collection Date: 1/23/2018 3:45:00 PM **Project:** Lab ID: 1801A87-015 Matrix: SOIL Received Date: 1/24/2018 7:00:00 AM Analyses Result PQL Qual Units **DF** Date Analyzed Batch EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: TOM 1/25/2018 5:32:04 PM Diesel Range Organics (DRO) 710 9.7 mg/Kg 1 36180 Motor Oil Range Organics (MRO) 180 48 mg/Kg 1 1/25/2018 5:32:04 PM 36180 Surr: DNOP 103 %Rec 1/25/2018 5:32:04 PM 36180 70-130 1 EPA METHOD 8015D: GASOLINE RANGE Analyst: NSB Gasoline Range Organics (GRO) 310 5.0 mg/Kg 1 1/25/2018 8:57:55 PM 36169 Surr: BFB 1210 15-316 S %Rec 1 1/25/2018 8:57:55 PM 36169 **EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene ND 0.025 mg/Kg 1 1/25/2018 8:57:55 PM 36169 Toluene 1.8 0.050 mg/Kg 1 1/25/2018 8:57:55 PM 36169 Ethylbenzene 2.1 0.050 mg/Kg 1 1/25/2018 8:57:55 PM 36169 Xylenes, Total 28 2.0 20 1/26/2018 9:42:54 AM mg/Kg 36169 Surr: 4-Bromofluorobenzene 227 80-120 S %Rec 1 1/25/2018 8:57:55 PM 36169

Kelei to the Q	le Summary	report and	i sample logi	II CHECKHST IO	r naggeu Q	C data and prese	rvation information

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte dete
	D	Sample Diluted Due to Matrix	Е	Value above
	Н	Holding times for preparation or analysis exceeded	J	Analyte dete
	ND	Not Detected at the Reporting Limit	Р	Sample pH 1
	PQL	Practical Quanitative Limit	RL	Reporting D
	S	% Recovery outside of range due to dilution or matrix	W	Sample cont

- tected in the associated Method Blank
- ve quantitation range
- etected below quantitation limitsPage 15 of 21
- Not In Range
- Detection Limit
- ntainer temperature is out of limit as specified

Date Reported: 1/30/2018

1/25/2018 9:44:38 PM

1/25/2018 9:44:38 PM

36169 36169

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC Client Sample ID: SC-16 Collection Date: 1/23/2018 2:50:00 PM Hubbell Fed 1M **Project:** Lab ID: 1801A87-016 Received Date: 1/24/2018 7:00:00 AM Matrix: SOIL PQL Qual Units Analyses Result **DF** Date Analyzed Batch EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: TOM Diesel Range Organics (DRO) 360 1/25/2018 5:56:19 PM 36180 9.6 mg/Kg 1 Motor Oil Range Organics (MRO) 97 48 mg/Kg 1 1/25/2018 5:56:19 PM 36180 Surr: DNOP 98.3 70-130 %Rec 1 1/25/2018 5:56:19 PM 36180 EPA METHOD 8015D: GASOLINE RANGE Analyst: NSB Gasoline Range Organics (GRO) 1/25/2018 9:44:38 PM 36169 85 4.6 mg/Kg 1 Surr: BFB 420 15-316 S %Rec 1 1/25/2018 9:44:38 PM 36169 EPA METHOD 8021B: VOLATILES Analyst: NSB Benzene 1/25/2018 9:44:38 PM 36169 ND 0.023 mg/Kg 1 Toluene 0.64 0.046 mg/Kg 1/25/2018 9:44:38 PM 36169 1 Ethylbenzene 0.45 0.046 mg/Kg 1 1/25/2018 9:44:38 PM 36169

0.092

80-120

mg/Kg

%Rec

1

1

5.8

108

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

Qualifiers: * Value exceeds Maximum Contaminant Level.

Xylenes, Total

Surr: 4-Bromofluorobenzene

- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative 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 Page 16 of 21
- 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.

Lab Order **1801A8**7 Date Reported: **1/30/2018**

CLIENT: Rule Engineering LLC Project: Hubbell Fed 1M	Client Sample ID: SC-17								
Lab ID: 1801A87-017	Matrix:	SOIL		Collection Date: 1/23/2018 3:50:00 PM Received Date: 1/24/2018 7:00:00 AM					
Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch			
EPA METHOD 8015M/D: DIESEL RA	NGE ORGANICS	5			Analyst	TOM			
Diesel Range Organics (DRO)	390	9.0	mg/Kg	1	1/25/2018 6:20:41 PM	36180			
Motor Oil Range Organics (MRO)	120	45	mg/Kg	1	1/25/2018 6:20:41 PM	36180			
Surr: DNOP	97.3	70-130	%Rec	1	1/25/2018 6:20:41 PM	36180			
EPA METHOD 8015D: GASOLINE RA	ANGE				Analyst	NSB			
Gasoline Range Organics (GRO)	20	5.0	mg/Kg	1	1/25/2018 10:31:22 PM	36169			
Surr: BFB	169	15-316	%Rec	1	1/25/2018 10:31:22 PM	36169			
EPA METHOD 8021B: VOLATILES					Analyst	NSB			
Benzene	ND	0.025	mg/Kg	1	1/25/2018 10:31:22 PM	36169			
Toluene	ND	0.050	mg/Kg	1	1/25/2018 10:31:22 PM	36169			
Ethylbenzene	0.072	0.050	mg/Kg	1	1/25/2018 10:31:22 PM	36169			
Xylenes, Total	0.99	0.10	mg/Kg	1	1/25/2018 10:31:22 PM	36169			
Surr: 4-Bromofluorobenzene	92.5	80-120	%Rec	1	1/25/2018 10:31:22 PM	36169			

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

Qualifiers: *

- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded

Value exceeds Maximum Contaminant Level.

- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative 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 Page 17 of 21
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

WO#:	1801A87
	30-Jan-18

Client:	0	neering LL	.C								
Project:	Hubbell F	ed IM									
Sample ID 18	ID 1801A87-001AMS SampType: MS TestCode: EPA Method 8015M/D: Diesel Range Organics										
Client ID: SC	-1	Batch	ID: 36	180	F	RunNo: 4	8689				
Prep Date: 1	/24/2018	Analysis Da	ite: 1/	25/2018	5	SeqNo: 1	566349	Units: mg/k	ζg		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Orga	nics (DRO)	100	9.3	46.69	69.73	67.1	55.8	125			
Surr: DNOP		4.0		4.669		85.8	70	130			
Sample ID 18	01A87-001AMS) SampTy	pe: MS	SD	Tes	tCode: E	PA Method	8015M/D: Di	esel Range	e Organics	
Client ID: SC	-1	Batch	ID: 36	180	F	RunNo: 4	8689				
Prep Date: 1	/24/2018	Analysis Da	ite: 1/	25/2018	5	SeqNo: 1	566350	Units: mg/k	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Orga	nics (DRO)	100	9.3	46.38	69.73	70.2	55.8	125	1.23	20	
Surr: DNOP		3.9		4.638		85.0	70	130	0	0	
Sample ID LC	S-36180	SampTy	pe: LC	s	Tes	tCode: E	PA Method	8015M/D: Di	esel Range	e Organics	
Client ID: LC	SS	Batch	ID: 36	180	E	RunNo: 4	8689				
Prep Date: 1/	/24/2018	Analysis Da	ite: 1/	25/2018	5	SeqNo: 1	566352	Units: mg/k	ζg		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Orga	nics (DRO)	44	10	50.00	0	88.4	70	130			
Surr: DNOP		3.9		5.000		78.6	70	130			
Sample ID ME	3-36180	SampTy	pe: ME	BLK	Tes	tCode: E	PA Method	8015M/D: Di	esel Range	e Organics	
Client ID: PB	S	Batch	ID: 36	180	F	RunNo: 4	8689				
Prep Date: 1/	/24/2018	Analysis Da	ite: 1/	25/2018	5	SeqNo: 1	566353	Units: mg/k	ζg		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Orga		ND	10								
Motor Oil Range Or	rganics (MRO)	ND	50								
Surr: DNOP		9.0		10.00		89.6	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 Quanitative 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
- Page 18 of 21

WO#:	1801A87
	30-Jan-18

Client: Project:	Rule Eng Hubbell F	ineering LL Fed 1M	С								
Sample ID	MB-36169	SampTy	pe: ME	BLK	Tes	tCode: E	PA Method	8015D: Gasol	ine Rang	e	
Client ID:	PBS	Batch I	D: 36	169	F	RunNo:	48706				
Prep Date:	1/24/2018	Analysis Da	te: 1/	25/2018	0	SeqNo:	1566641	Units: mg/Kg	3		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Surr: BFB	e Organics (GRO)	ND 870	5.0	1000		86.6	15	316			
Sample ID	LCS-36169	SampTy	be: LC	s	Tes	tCode: E	PA Method	8015D: Gasol	ine Rang	е	
Client ID:	LCSS	Batch I	D: 36	169	F	RunNo:	48706				
Prep Date:	1/24/2018	Analysis Da	te: 1/	25/2018	5	SeqNo:	1566642	Units: mg/Kg	9		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range	e Organics (GRO)	26	5.0	25.00	0	102	75.9	131			
Surr: BFB		950		1000		94.8	15	316			
Sample ID	1801A87-002AMS	SampTy	be: MS	6	Tes	tCode: E	PA Method	8015D: Gasol	ine Rang	e	
Client ID:	SC-2	Batch I	D: 36	169	F	RunNo:	48706				
Prep Date:	1/24/2018	Analysis Da	te: 1/	25/2018	5	SeqNo:	1566645	Units: mg/Kg	3		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range	e Organics (GRO)	34	4.7	23.54	9.971	103	77.8	128			
Surr: BFB		1300		941.6		133	15	316			
Sample ID	1801A87-002AMSI	D SampTy	be: MS	SD	Tes	tCode: E	PA Method	8015D: Gasol	ine Rang	e	
Client ID:	SC-2	Batch I	D: 36	169	F	RunNo:	48706				
Prep Date:	1/24/2018	Analysis Da	te: 1/	25/2018	5	SeqNo:	1566646	Units: mg/Kg	9		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
	e Organics (GRO)	36	4.8	24.25	9.971	106	77.8	128	4.41	20	
Surr: BFB		1400		969.9		141	15	316	0	0	
Sample ID	MB-36205	SampTy	pe: ME	3LK	Tes	tCode: E	PA Method	8015D: Gasol	ine Rang	e	
Client ID:	PBS	Batch I	D: 36	205	F	RunNo:	48738		0		
Prep Date:		Analysis Da					1567794	Units: %Rec			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB		830		1000		83.1	15	316			
Sample ID	LCS-36205	SampTy	be: LC	s	Tes	tCode: E	PA Method	8015D: Gasol	ine Rang	e	
Client ID:	LCSS	Batch I	D: 36	205	F	RunNo:	48738				
Prep Date:	1/25/2018	Analysis Da			S	SeqNo:	1567795	Units: %Rec			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB		1000		1000		102	15	316			

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 Quanitative 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

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QC SUMMARY REPORT	
Hall Environmental Analysis Laboratory, Inc.	

WO#:	1801A87
	30-Jan-18

Client: Project:	Rule Eng Hubbell F	ineering L Fed 1M	LC								
Sample ID	MB-36169	SampT	ype: MI	BLK	Tes	tCode: E	PA Method	8021B: Vola	tiles		
Client ID:	PBS	Batch	n ID: 36	169	F	RunNo: 4	\$8706				
Prep Date:	1/24/2018	Analysis D	ate: 1/	/25/2018	Ş	SeqNo: 1	566667	Units: mg/ł	٢g		
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-Brom	ofluorobenzene	0.93		1.000		93.0	80	120			
Sample ID	LCS-36169	SampT	ype: LC	s	Tes	tCode: E	PA Method	8021B: Vola	tiles		
Client ID:	LCSS	Batch	1D: 36	169	F	RunNo: 4	8706				
Prep Date:	1/24/2018	Analysis D	ate: 1/	25/2018	S	SeqNo: 1	566668	Units: mg/k	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		0.95	0.025	1.000	0	94.9	77.3	128			
Toluene		0.94	0.050	1.000	0	94.4	79.2	125			
Ethylbenzene		0.93	0.050	1.000	0	93.2	80.7	127			
Xylenes, Total		2.8	0.10	3.000	0	94.9	81.6	129			
Surr: 4-Brom	ofluorobenzene	0.93		1.000		93.0	80	120			
Sample ID	1801A87-001AMS	SampT	ype: MS	5	Tes	tCode: E	PA Method	8021B: Vola	tiles		
Client ID:	SC-1	Batch	1D: 36	169	F	RunNo: 4	8706				
Prep Date:	1/24/2018	Analysis D	ate: 1/	25/2018	0	SeqNo: 1	566670	Units: mg/h	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		0.87	0.024	0.9443	0	92.0	80.9	132			
Toluene		0.90	0.047	0.9443	0.009885	94.2	79.8	136			
Ethylbenzene		0.87	0.047	0.9443	0.009693	91.1	79.4	140			
Xylenes, Total		2.7	0.094	2.833	0.03580	94.0	78.5	142			
Surr: 4-Brom	ofluorobenzene	0.88		0.9443		93.6	80	120			
Sample ID	1801A87-001AMS	D SampT	ype: MS	SD	Tes	tCode: E	PA Method	8021B: Vola	tiles		
Client ID:	SC-1	Batch	ID: 36	169	F	RunNo: 4	8706				
Prep Date:	1/24/2018	Analysis D	ate: 1/	25/2018	S	SeqNo: 1	566671	Units: mg/k	٢g		
Analyte		Result	PQL		SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		0.87	0.023	0.9355	0	93.0	80.9	132	0.0439	20	
Toluene		0.88	0.047	0.9355	0.009885	92.9	79.8	136	2.36	20	
Ethylbenzene		0.87	0.047	0.9355	0.009693	92.3	79.4	140	0.376	20	
Xylenes, Total		2.7	0.094	2.806	0.03580	93.9	78.5	142	1.05	20	
	ofluorobenzene	0.82		0.9355		87.4	80	120	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 Quanitative 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

Page 20 of 21

WO#:	1801A87
	30-Jan-18

	ngineering LLC I Fed 1M				
Sample ID MB-36205	SampType: MBLK	TestCode: EPA Method	8021B: Volatiles		
Client ID: PBS	Batch ID: 36205	RunNo: 48738			
Prep Date: 1/25/2018	Analysis Date: 1/26/2018	SeqNo: 1567836	Units: %Rec		
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual	Í.
Surr: 4-Bromofluorobenzene	0.89 1.000	89.3 80	120		
Sample ID LCS-36205	SampType: LCS	TestCode: EPA Method	8021B: Volatiles		
Client ID: LCSS	Batch ID: 36205	RunNo: 48738			
Prep Date: 1/25/2018	Analysis Date: 1/26/2018	SeqNo: 1567837	Units: %Rec		
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual	I
Surr: 4-Bromofluorobenzene	0.97 1.000	97.2 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
- PQL Practical Quanitative 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
- Page 21 of 21
- rage

HALL ENVIRON ANALYSI LABORA	Hall Environmental Albi TEL: 505-345-3975 Website: www.ha	4901 uquerqu FAX: 5	Hawkins NE e, NM 87109 05-345-4107	mple Log-In Check List			
Client Name: R	ULE ENGINEERING LL	Work Order Number:	1801	A87		RcptNo:	1
	Anne Thome	1/24/2018 7:00:00 AM		C	Arre An Arre An	~	
Completed By: A Reviewed By:	IND	1/24/2018 8:10:08 AM		0	Jane Hr	~	
Chain of Custo							
1. Is Chain of Custo	ody complete?		Yes	\checkmark	No	Not Present	
2. How was the sar	nple delivered?		Couri	er			
Log In 3. Was an attempt	made to cool the samples?		Yes		No 🗌	NA 🗌	
4. Were all samples	received at a temperature	of >0° C to 6.0°C	Yes	\checkmark	No 🗌	NA 🗌	
5. Sample(s) in prop	per container(s)?		Yes	\checkmark	No 🗌		
6. Sufficient sample	volume for indicated test(s))?	Yes		No 🗌		
7. Are samples (exc	ept VOA and ONG) properly	y preserved?	Yes	\checkmark	No 🗌		
8. Was preservative	added to bottles?		Yes [No 🗹	NA 🗌	
9. VOA vials have z	ero headspace?		Yes [No 🗌	No VOA Vials 🗹	
	e containers received broke	n?	Yes		No 🗹	# of preserved bottles checked	
11. Does paperwork r (Note discrepanci	match bottle labels? les on chain of custody)		Yes		No 🗌		>12 unless noted)
12. Are matrices corre	ectly identified on Chain of	Custody?	Yes		No 🗌	Adjusted?	
13. Is it clear what an	alyses were requested?				No 🗌		
14. Were all holding t (If no, notify custo	imes able to be met? omer for authorization.)		Yes		No	Checked by:	
Special Handling	r (if applicable)						
	d of all discrepancies with t	his order?	Yes		No 🗌	NA 🗹	
Person Not	tified:	Date		. <u>0. 7 % 6 7 10 10 10</u>	and the state of the second		
By Whom:		Via:	eMai	I Phone	e 🗌 Fax	In Person	
Regarding:			NAME AN ADDRESS OF A DR	na n		a produkana ina mangana na kana ka ang kana kana kana kan	
Client Instru	uctions:	annan mannana an annana an ann an an an an an a					
16. Additional remar							
	Temp °C Condition Se		eal Da	te Sigi	ned By		
1 1.	.0 Good Not	Present		<u> </u>			

C	Chain-	of-Cu	stody Record	Turn-Around	Time:										_				 	
Client:	hule	EALLSADU	ring, LLC	□ Standard	Z Rush	3-Day		State of the second												
		J		Project Name	:											al.co				
Mailing	Address	501	Airport Drive	Hubbe Project #:	11 Epd	IM		49	01 H	awki								109		
Suite	7:5	Form	ington, NM	Project #:	1-0-	2)5-34							4107			
Phone	#: 565	793	9486													uest				
			Que Keryneery.com	Project Mana	ger:		1)	nly)	RO)					04)						
	Package:		•			х	s (8021)	as o	WII			13)		04,SI	PCB's					
Star			Level 4 (Full Validation)	Heather	· Woods	5	B's (H (G	RO			SIMS)		2,P(32 P					
Accred		Other	r	Sampler: Ju On Ice:	istin Va	<u>dez</u>	-HAB	+ TPI	SO/E	418.1)	04.1)	8270		03,NC	/ 808		(A)			or N)
	O (Type)			Sample Temp				BE	(GF	d 4	od 5(0 or	etals	UNC)	ides	(A)	07-			Z
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL NO.	BTEX + MTBE	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method	EDB (Method 504.1)	PAH's (8310 or	RCRA 8 Metals	Anions (F,Cl,NO ₃ ,NO ₂ ,PO ₄ ,SO ₄)	8081 Pesticides / 8082	8260B (VOA)	8270 (Semi-VOA)			Air Bubbles (Y or N)
23/18	1440	Soil	SC-1	(1402 For	Cool	100	X		X											
1	1446		56-2	1	1	762	1		1											
	14:53		51-3			203														
	1500		51-4			-004														
	ISUZ.		56-5-			-705												-		
	1505		SC-Go			- Ocle														
	150		SC-7			707														
	1573		Sc - 8			-708							2							
	1516		56-9			-709														
	1570		56-10			-010														
	1524		SL-11			-011														
1	1525	1	56-12		1	-012	1		1											
Date: Time: Relinquished by: Date: Time: Relinquished by: Time: Relinquished by: Time: Relinquished by: Time: Relinquished by: Time: Relinquished by:			Received by:	()	Date Time <u> Date 123/15 1761</u> Date Time <i>G1/24/18</i> 0700		nark		K	5:1		to	H	<i>i</i>][CD (C				

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

С	hain	of-Cu	stody Record	Turn-Around	Time:					_						_					
			Aprily, LCC	□ Standard	Rush	3-Day															
,			<u>, , , , , , , , , , , , , , , , , , , </u>	Project Name	e:											al.co		R.P	i i c	/K	
Mailing	Address	501 4	hisport Hoive	Hubbill Project #:	Fed L	M		49	01 H								M 87	109			
Suite	2/05	- Far	nington NM	Project #:			1)5-34							4107				
			9486													uest	and the second se				
email o			Would in in the and the con			ſ	TMB's (8021)	+ TPH (Gas only)	/ MRO)			S)		4,SO4)	PCB's						
Z Stan			Level 4 (Full Validation)	Heatne	r Wood	5	8) 94	(Ga	RO			SIMS)		PO	2 PC						
Accredi		Othe	r	Sampler:);, On Ice:	stin Val	dez	BWH	TPH	0/0	8.1)	4.1)			3,NO	/ 808		()				(Z
	(Type)			Sample Tem	perature:			H +	(GR	d 41	d 50	or 8	tals	NO,	des	3	VOA				<u>ک</u>
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	A Station States	BTEX + MTBE	BTEX + MTBE	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	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)
23/18	1535	Soil	56-13	(1) yoz Jar	Cool	013	+														
i	1540		56-14		1	-014															
	1545		56-15			-05															
	1450		56-16			-016															
V	1550	R.	56-17		J	-017	J		V												
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123/15	1701	1 Use	- Unes-	Christen	Walter	1/23/18 1761	Ĩ) Mc	c.t	M	11	t		Hi	llæ	570					
Date:	Time: 1920	Relinquishe	stul allor	Received by	mh	Daté Time 01/24/18 0700															

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



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

February 05, 2018

Heather Woods Rule Engineering LLC 501 Airport Dr., Ste 205 Farmington, NM 87401 TEL: (505) 325-1055 FAX

OrderNo.: 1802001

RE: Hubbell Fed 1M

Dear Heather Woods:

Hall Environmental Analysis Laboratory received 7 sample(s) on 2/1/2018 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 <u>www.hallenvironmental.com</u> or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Date Reported: 2/5/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC

Project: Hubbell Fed 1M

Client Sample ID: SC-18 Collection Date: 1/31/2018 9:42:00 AM Received Date: 2/1/2018 7:00:00 AM

Lab ID: 1802001-001	Matrix:	SOIL	Received I	Date: 2/1/2018 7:00:00 AM	
Analyses	Result	PQL Qu	al Units	DF Date Analyzed B	Batch
EPA METHOD 8015D MOD: GASOLI	NE RANGE			Analyst: A	AG
Gasoline Range Organics (GRO)	ND	4.3	mg/Kg	1 2/1/2018 11:22:36 AM	M48843
Surr: BFB	107	70-130	%Rec	1 2/1/2018 11:22:36 AM	M48843
EPA METHOD 8015M/D: DIESEL RA	NGE ORGANICS	6		Analyst: T	МО
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1 2/1/2018 10:52:12 AM 3	36295
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1 2/1/2018 10:52:12 AM 3	36295
Surr: DNOP	103	70-130	%Rec	1 2/1/2018 10:52:12 AM 3	36295
EPA METHOD 8260B: VOLATILES S	HORT LIST			Analyst: A	٩G
Benzene	ND	0.021	mg/Kg	1 2/1/2018 11:22:36 AM S	548843
Toluene	ND	0.043	mg/Kg	1 2/1/2018 11:22:36 AM S	548843
Ethylbenzene	ND	0.043	mg/Kg	1 2/1/2018 11:22:36 AM S	548843
Xylenes, Total	ND	0.085	mg/Kg	1 2/1/2018 11:22:36 AM S	548843
Surr: 4-Bromofluorobenzene	112	70-130	%Rec	1 2/1/2018 11:22:36 AM S	548843
Surr: Toluene-d8	94.0	70-130	%Rec	1 2/1/2018 11:22:36 AM S	548843

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

Qualifiers:

- * Value exceeds Maximum Contaminant Level.D Sample Diluted Due to Matrix
- Sample Difuted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative 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 Page 1 of 11
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Date Reported: 2/5/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC

Project: Hubbell Fed 1M

Client Sample ID: SC-19 Collection Date: 1/31/2018 9:53:00 AM

Lab ID: 1802001-002	Matrix:	SOIL	Received I	Date: 2/1/2018 7:00:00 AM
Analyses	Result	PQL Qu	al Units	DF Date Analyzed Batch
EPA METHOD 8015D MOD: GASOLINE F	RANGE			Analyst: AG
Gasoline Range Organics (GRO)	ND	3.9	mg/Kg	1 2/1/2018 11:45:32 AM M4884
Surr: BFB	104	70-130	%Rec	1 2/1/2018 11:45:32 AM M4884
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS	6		Analyst: TOM
Diesel Range Organics (DRO)	13	9.4	mg/Kg	1 2/1/2018 11:14:19 AM 36295
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1 2/1/2018 11:14:19 AM 36295
Surr: DNOP	103	70-130	%Rec	1 2/1/2018 11:14:19 AM 36295
EPA METHOD 8260B: VOLATILES SHOP	RT LIST			Analyst: AG
Benzene	ND	0.020	mg/Kg	1 2/1/2018 11:45:32 AM S4884
Toluene	ND	0.039	mg/Kg	1 2/1/2018 11:45:32 AM S4884
Ethylbenzene	ND	0.039	mg/Kg	1 2/1/2018 11:45:32 AM S4884
Xylenes, Total	ND	0.078	mg/Kg	1 2/1/2018 11:45:32 AM S4884
Surr: 4-Bromofluorobenzene	108	70-130	%Rec	1 2/1/2018 11:45:32 AM S4884
Surr: Toluene-d8	95.7	70-130	%Rec	1 2/1/2018 11:45:32 AM S4884

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 2 of 11
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	PQL	Practical Quanitative 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

Date Reported: 2/5/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC

Project: Hubbell Fed 1M

Client Sample ID: SC-20 Collection Date: 1/31/2018 10:00:00 AM

Lab ID: 1802001-003	Matrix:	SOIL	Received Date: 2/1/2018 7:00:00 AM						
Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch			
EPA METHOD 8015D MOD: GASOLINE F	RANGE				Analyst	AG			
Gasoline Range Organics (GRO)	ND	20	mg/Kg	5	2/1/2018 12:08:32 PM	M48843			
Surr: BFB	102	70-130	%Rec	5	2/1/2018 12:08:32 PM	M48843			
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS	;			Analyst	TOM			
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	2/1/2018 11:36:12 AM	36295			
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	2/1/2018 11:36:12 AM	36295			
Surr: DNOP	104	70-130	%Rec	1	2/1/2018 11:36:12 AM	36295			
EPA METHOD 8260B: VOLATILES SHOP	T LIST				Analyst	AG			
Benzene	ND	0.10	mg/Kg	5	2/1/2018 12:08:32 PM	S48843			
Toluene	ND	0.20	mg/Kg	5	2/1/2018 12:08:32 PM	S48843			
Ethylbenzene	ND	0.20	mg/Kg	5	2/1/2018 12:08:32 PM	S48843			
Xylenes, Total	ND	0.41	mg/Kg	5	2/1/2018 12:08:32 PM	S48843			
Surr: 4-Bromofluorobenzene	107	70-130	%Rec	5	2/1/2018 12:08:32 PM	S48843			
Surr: Toluene-d8	97.4	70-130	%Rec	5	2/1/2018 12:08:32 PM	S48843			

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

Qualifiers: *

- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

Value exceeds Maximum Contaminant Level.

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 3 of 11
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Date Reported: 2/5/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC

Project: Hubbell Fed 1M

Client Sample ID: SC-21 Collection Date: 1/31/2018 10:07:00 AM D. . . ID + 2/1/2010 7.00.00 AM

Lab ID: 1802001-004	Matrix:	SOIL	Received I	Date: 2/	1/2018 7:00:00 AM	
Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOL	INE RANGE				Analyst	AG
Gasoline Range Organics (GRO)	ND	3.6	mg/Kg	1	2/1/2018 12:31:31 PM	M48843
Surr: BFB	106	70-130	%Rec	1	2/1/2018 12:31:31 PM	M48843
EPA METHOD 8015M/D: DIESEL RA	ANGE ORGANICS	;			Analyst	TOM
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	2/1/2018 11:58:22 AM	36295
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	2/1/2018 11:58:22 AM	36295
Surr: DNOP	105	70-130	%Rec	1	2/1/2018 11:58:22 AM	36295
EPA METHOD 8260B: VOLATILES	SHORT LIST				Analyst	AG
Benzene	ND	0.018	mg/Kg	1	2/1/2018 12:31:31 PM	S48843
Toluene	ND	0.036	mg/Kg	1	2/1/2018 12:31:31 PM	S48843
Ethylbenzene	ND	0.036	mg/Kg	1	2/1/2018 12:31:31 PM	S48843
Xylenes, Total	ND	0.072	mg/Kg	1	2/1/2018 12:31:31 PM	S48843
Surr: 4-Bromofluorobenzene	112	70-130	%Rec	1	2/1/2018 12:31:31 PM	S48843
Surr: Toluene-d8	93.2	70-130	%Rec	1	2/1/2018 12:31:31 PM	S48843

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

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 Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits Page 4 of 11 J
- Р Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Date Reported: 2/5/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC

Client Sample ID: SC-22

Project: Hubbell Fed 1M			Collection I	Date: 1/3	31/2018 10:10:00 AM	
Lab ID: 1802001-005	Matrix: S	SOIL	Received I	Date: 2/1	/2018 7:00:00 AM	
Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOL	INE RANGE				Analyst	AG
Gasoline Range Organics (GRO)	ND	4.2	mg/Kg	1	2/1/2018 12:54:26 PM	M48843
Surr: BFB	108	70-130	%Rec	1	2/1/2018 12:54:26 PM	M48843
EPA METHOD 8015M/D: DIESEL RA	ANGE ORGANICS				Analyst	: TOM
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	2/1/2018 12:20:23 PM	36295
Motor Oil Range Organics (MRO)	ND	51	mg/Kg	1	2/1/2018 12:20:23 PM	36295
Surr: DNOP	105	70-130	%Rec	1	2/1/2018 12:20:23 PM	36295
EPA METHOD 8260B: VOLATILES	SHORT LIST				Analyst	AG
Benzene	ND	0.021	mg/Kg	1	2/1/2018 12:54:26 PM	S48843
Toluene	ND	0.042	mg/Kg	1	2/1/2018 12:54:26 PM	S48843
Ethylbenzene	ND	0.042	mg/Kg	1	2/1/2018 12:54:26 PM	S48843
Xylenes, Total	ND	0.085	mg/Kg	1	2/1/2018 12:54:26 PM	S48843
Surr: 4-Bromofluorobenzene	113	70-130	%Rec	1	2/1/2018 12:54:26 PM	S48843
Surr: Toluene-d8	94.8	70-130	%Rec	1	2/1/2018 12:54:26 PM	S48843

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 5 of 1
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	PQL	Practical Quanitative 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

Date Reported: 2/5/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC Project: Hubbell Fed 1M Client Sample ID: SC-23 Collection Date: 1/31/2018 10:19:00 AM

riojeetti maooenrioa mi			concetton	Dutter 1/.	01/2010 10.19.00 I HH	
Lab ID: 1802001-006	Matrix: S	SOIL	Received 1	Date: 2/	1/2018 7:00:00 AM	
Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOL	INE RANGE				Analys	: AG
Gasoline Range Organics (GRO)	230	24	mg/Kg	5	2/1/2018 1:17:22 PM	M48843
Surr: BFB	98.1	70-130	%Rec	5	2/1/2018 1:17:22 PM	M48843
EPA METHOD 8015M/D: DIESEL RA	ANGE ORGANICS	;			Analyst	TOM
Diesel Range Organics (DRO)	410	9.3	mg/Kg	1	2/1/2018 12:42:36 PM	36295
Motor Oil Range Organics (MRO)	100	47	mg/Kg	1	2/1/2018 12:42:36 PM	36295
Surr: DNOP	111	70-130	%Rec	1	2/1/2018 12:42:36 PM	36295
EPA METHOD 8260B: VOLATILES	SHORT LIST				Analyst	AG
Benzene	ND	0.12	mg/Kg	5	2/1/2018 1:17:22 PM	S48843
Toluene	0.79	0.24	mg/Kg	5	2/1/2018 1:17:22 PM	S48843
Ethylbenzene	0.53	0.24	mg/Kg	5	2/1/2018 1:17:22 PM	S48843
Xylenes, Total	6.8	0.47	mg/Kg	5	2/1/2018 1:17:22 PM	S48843
Surr: 4-Bromofluorobenzene	104	70-130	%Rec	5	2/1/2018 1:17:22 PM	S48843
Surr: Toluene-d8	95.2	70-130	%Rec	5	2/1/2018 1:17:22 PM	S48843

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

Qualifiers:	*
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- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded

Value exceeds Maximum Contaminant Level.

- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative 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 Page 6 of 11
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Analytical Report Lab Order 1802001 Date Reported: 2/5/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC

Project: Hubbell Fed 1M

Client Sample ID: SC-24 Collection Date: 1/31/2018 10:32:00 AM

Lab ID: 1802001-007	Matrix:	SOIL	Received I	Date: 2/1	/2018 7:00:00 AM	
Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLIN	E RANGE				Analys	t: AG
Gasoline Range Organics (GRO)	5.2	3.7	mg/Kg	1	2/1/2018 1:40:19 PM	M48843
Surr: BFB	111	70-130	%Rec	1	2/1/2018 1:40:19 PM	M48843
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANICS	5			Analys	TOM
Diesel Range Organics (DRO)	41	9.8	mg/Kg	1	2/1/2018 1:04:34 PM	36295
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	2/1/2018 1:04:34 PM	36295
Surr: DNOP	107	70-130	%Rec	1	2/1/2018 1:04:34 PM	36295
EPA METHOD 8260B: VOLATILES SH	ORT LIST				Analys	: AG
Benzene	ND	0.018	mg/Kg	1	2/1/2018 1:40:19 PM	S48843
Toluene	ND	0.037	mg/Kg	1	2/1/2018 1:40:19 PM	S48843
Ethylbenzene	ND	0.037	mg/Kg	1	2/1/2018 1:40:19 PM	S48843
Xylenes, Total	ND	0.074	mg/Kg	1	2/1/2018 1:40:19 PM	S48843
Surr: 4-Bromofluorobenzene	116	70-130	%Rec	1	2/1/2018 1:40:19 PM	S48843
Surr: Toluene-d8	93.7	70-130	%Rec	1	2/1/2018 1:40:19 PM	S48843

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected
	D	Sample Diluted Due to Matrix	Е	Value above qu
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected
	ND	Not Detected at the Reporting Limit	Р	Sample pH Nor
	PQL	Practical Quanitative Limit	RL	Reporting Dete
	S	% Recovery outside of range due to dilution or matrix	W	Sample contair

- ted in the associated Method Blank
- quantitation range
- ted below quantitation limits Page 7 of 11
- ot In Range
- tection Limit
- iner temperature is out of limit as specified

WO#:	1802001
	05-Feb-18

Client: Project:	Rule Eng Hubbell I	ineering LL Fed 1M	С								
Sample ID	LCS-36295	SampTyp	be: LC	s	Tes	tCode: E	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID:	LCSS	Batch I	D: 36	295	F	RunNo: 4	8827				
Prep Date:	2/1/2018	Analysis Dat	te: 2/	1/2018	S	SeqNo: 1	571272	Units: mg/k	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range (Organics (DRO)	49	10	50.00	0	98.7	70	130			
Surr: DNOP		4.6		5.000		91.4	70	130			
Sample ID	MB-36295	SampTyp	pe: ME	BLK	Tes	tCode: E	PA Method	8015 M /D: Di	esel Range	e Organics	
Client ID:	PBS	Batch I	D: 36	295	F	RunNo: 4	8827				
Prep Date:	2/1/2018	Analysis Dat	te: 2/	1/2018	S	SeqNo: 1	571273	Units: mg/k	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range (Organics (DRO)	ND	10								
Motor Oil Rang	e Organics (MRO)	ND	50								
Surr: DNOP		10		10.00		102	70	130			
Sample ID	1802001-001AMS	SampTyp	be: MS	6	Tes	tCode: E	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID:	SC-18	Batch I	D: 36	295	F	RunNo: 4	8827				
Prep Date:	2/1/2018	Analysis Dat	te: 2/	1/2018	S	SeqNo: 1	571811	Units: mg/k	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range (Organics (DRO)	51	9.4	46.95	7.554	91.7	55.8	125			
Surr: DNOP		4.8		4.695		103	70	130			
Sample ID	1802001-001AMS	D SampTyp	oe: MS	SD	Tes	tCode: E	PA Method	8015 M /D: Di	esel Rang	e Organics	
Client ID:	SC-18	Batch I	D: 36	295	F	RunNo: 4	8827				
Prep Date:	2/1/2018	Analysis Dat	te: 2/	1/2018	S	SeqNo: 1	571812	Units: mg/k	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range (Organics (DRO)	51	10	49.90	7.554	86.7	55.8	125	0.428	20	
Surr: DNOP		4.9		4.990		98.1	70	130	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative 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
- Page 8 of 11

Client:	Rule Engineering LLC
Project:	Hubbell Fed 1M

BachQC <th cols<="" th=""><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th></th>	<th></th>											
Prep Date: Analysis Date: 211/2018 Set No: 1571/16 Units: mg/Kg Analyte Result PQL SPK value SPK ref Val %REC LowLinit HighLinit %RPD RPDLinit Qual Benzene 0.89 0.225 1.000 0 89.0 80 120 Server <	Sample ID 100ng Ics	SampT	Type: LC	S4	Tes	tCode: E	PA Method	8260B: Vola	tiles Short	List		
Analyte Result POL SPK ref Val %REC LowLinit HighLinit %RPD RPDLinit Qual Benzene 0.99 0.050 1.000 0 98.7 80 120 Toluene 0.99 0.050 1.000 0 98.7 80 120 Sterytem 1.0 0.050 1.000 0 98.7 80 120 Sterytem 0.050 1.000 0 98.7 80 120 120 Sterr 4Brondhurobenzene 0.43 0.5000 94.2 70 130 130 130 Surr Toluene 48 0.47 0.5000 94.2 70 130 140	Client ID: BatchQC	Batch	h ID: S4	8843	F	RunNo: 4	8843					
Benzene 0.89 0.025 1.000 0 89.0 80 120 Toluene 0.99 0.050 1.000 0 98.7 80 120 Kylenes, Total 3.0 0.10 3.000 0 99.3 80 120 Surr, Harmonfluorobenzene 0.43 0.5000 66.8 70 130 Surr, Toluene d8 0.47 0.5000 94.2 70 130 Sample ID rb SampType: MBLK TestCade: EPA Method 82608: Volatiles Short List Client ID: PBS Batch ID: S48843 RunNo: 48843 Prep Date: Analyte Result POL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Benzene ND 0.050 57 70 130 Surr: 45/monfluorobenzene ND 0.050 Surr: Folgenerofluorobenzene ND 0.050 95.7 70 130 Surr: Folgenerofluorobenzene ND 0.050 Surr: Folgenze Analysis Date: </td <td>Prep Date:</td> <td>Analysis D</td> <td>Date: 2/</td> <td>1/2018</td> <td>S</td> <td>SeqNo: 1</td> <td>571716</td> <td>Units: mg/k</td> <td>٢g</td> <td></td> <td></td>	Prep Date:	Analysis D	Date: 2/	1/2018	S	SeqNo: 1	571716	Units: mg/k	٢g			
Toluene 0.99 0.050 1.00 0 98.7 80 120 Emplonemene 1.00 0.050 1.00 0 101 800 120 Surr 4-Bromofuorobenzene 0.43 0.500 99.3 80.40 120 Surr 4-Bromofuorobenzene 0.47 0.500 94.2 70 130 Same 10 th Same 10 5800 5800 100 94.2 70 130 Same 10 th Same 10 States 10 S	Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Ethylbenzene Vylenes, Total 1.0 0.050 1.00 0 101 8.0 1.20 Sum: 4 Brownohluozobenzene Sum: Toluene d8 0.47 0.500 99.3 8.0 1.20 Sum: 4 Brownohluozobenzene Sum: Toluene d8 0.47 0.500 94.2 70 1.30 Sample ID rb Rsut PIL SPK rafue SeqNo: 1571726 Units: mg/K2 Analyte Rsut POL SPK rafue SeqNo: 1571726 Units: mg/K2 VIII Qual Sample ID ND 0.050 VIII YIII YIIII YIIIII YIIIIII YIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	Benzene	0.89	0.025	1.000	0	89.0	80	120				
Xydenes, Total 3.0 0.10 3.00 0 99.3 80 120 Surr. Homonluorobenzene 0.43 0.5000 86.8 70 130 Surr. Homonluorobenzene 0.47 0.5000 86.8 70 130 Sample ID rb Sample ID Sample ID Sale 3 <td< td=""><td>Toluene</td><td>0.99</td><td>0.050</td><td>1.000</td><td>0</td><td>98.7</td><td>80</td><td>120</td><td></td><td></td><td></td></td<>	Toluene	0.99	0.050	1.000	0	98.7	80	120				
Surr. 4Bromefluorobenzene Surr. Toluened8 0.43 0.5000 86.8 70 130 Sample ID nb SampType: MBLK TestCode: EPA Method 8260B: Volatiles Short List Client ID: PBS Batch ID: S48843 RunNo: 48843 Prep Date: Analysis Date: 2/1/2018 SeqNo: 1571726 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLint HighLintt %RPD RPDLintt Qual Benzene ND 0.025 Service FPT 70 130 Service	Ethylbenzene	1.0	0.050	1.000	0	101	80	120				
Sum: Toluene-d80.470.500094.270130Sample IDrbSam_T-yeeMBL/EstEode:EPA Method 8260B:Volatiles Short ListClient ID:PBSBat-hD:S48443RunNo:48843Prep Date:Analysis Dat:2/1/2018SeqNo:1571726Units: mg/KgAnalyteResultPOLSPK valueSPK ref Val%RE V4/REVLowLimitHighLimit%RPDRPDLimitQualBenzeneND0.025Sample ID0.05010770130100100Sum: 4-Bornofluorobenzene0.530.500095.770130100100Sum: 4-Bornofluorobenzene0.530.500095.770130100100Sum: 4-Bornofluorobenzene0.530.500095.770130100100Sum: 4-Bornofluorobenzene0.530.500095.770130100100Sum: 4-Bornofluorobenzene0.530.500095.770130100100Sum: 4-Bornofluorobenzene0.530.500095.770130100100100Sum: 4-Bornofluorobenzene0.530.0290.7849086.580120100100Sum: 4-Bornofluorobenzene0.740.0390.7849094.480120100100100Sum: 4-Bornofluorobenzene0.740.3920.29394.780120	Xylenes, Total	3.0	0.10	3.000	0	99.3	80	120				
Sample ID rb SampType: MBL/ TestCode: EPA Method 8260B: Volatiles Short List Client ID: PBS Batch ID: \$48843 RunNo: 48843 Prep Date: Analysis Date: 2/1/2018 SeqNo: 1571726 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Benzene ND 0.025 Qual <	Surr: 4-Bromofluorobenzene	0.43		0.5000		86.8	70	130				
Client ID: PBS Batch ID: S48843 RunNo: 48843 Prep Date: Analysis Date: 2/1/2018 SeqNo: 1571726 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Benzene ND 0.055 -	Surr: Toluene-d8	0.47		0.5000		94.2	70	130				
Prep Date: Analysis Date: 2 /1/2018 SeqNo: 1571726 Units: mg/Kg Analyte Result POL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Benzene ND 0.055 K<	Sample ID rb	SampT	ype: ME	3LK	Tes	tCode: El	PA Method	8260B: Vola	tiles Short	List		
Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Benzene ND 0.055 Qual Benzene ND 0.050	Client ID: PBS	Batcl	h ID: S4	8843	F	RunNo: 4	8843					
Benzene ND 0.025 Toluene ND 0.050 Ethylbenzene ND 0.050 Xylenes, Total ND 0.050 Surr: 4-Bromofluorobenzene 0.53 0.5000 107 70 130 Surr: 4-Bromofluorobenzene 0.53 0.5000 95.7 70 130 Sample ID 1802001-002ams SampType: MS4 TestCode: EPA Method 8260B: Volatiles Short List Client ID: SC-19 Batch ID: S48843 RunNo: 48843 Prep Date: Analysis Date: 2/1/2018 SeqNo: 1572330 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Benzene 0.68 0.020 0 86.5 80 120 Toluene 0.77 0.039 0.7849 0 97.8 80 120 Surr: 4Bromofluorobenzene 0.36 0.3924 91.8 70 130 Surr: Toluene-48	Prep Date:	Analysis E	Date: 2/	1/2018	S	SeqNo: 1	571726	Units: mg/M	٢g			
Toluene ND 0.050 Ethylbenzene ND 0.050 Kylenes, Total ND 0.050 Surr: Alsomofluorobenzene 0.53 0.500 107 70 130 Surr: Toluene-d8 0.48 0.500 95.7 70 130 Sample ID 1802001-002ams Sampt-viewe-d8 0.48 Festore	Analyte			SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Ethylbenzene ND 0.050 Xylenes, Total ND 0.10 Surr: 4-Bromofluorobenzene 0.53 0.5000 95.7 70 130 Surr: Toluene-d8 0.48 0.5000 95.7 70 130 Sample ID 1802001-002ams SampType: MS+ TestCode: EPA Method 8260B: Volatiles Short List Client ID: SC-19 Batch IS SeqNo: 1572330 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Benzene 0.68 0.020 0.7849 0 94.4 80 120	Benzene	ND										
ND 0.10 Surr: 4-Bromofluorobenzene 0.53 0.5000 107 70 130 Surr: Toluene-d8 0.48 0.5000 95.7 70 130 Sample ID 1802001-002ams Sampt-ye: MS TestCode: EPA Method Se0B: Volatiles Short List Client ID: SC-19 Batch ID: S48843 RunNo: 48843 Prep Date: Analyts POL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Benzene 0.68 0.020 0.7849 0 96.5 80 120 Environmofluorobenzene Qual Surr: 4-Bromofluorobenzene 0.77 0.039 0.7849 0 97.8 80 120 Environmofluorobenzene Surr: 4-Bromofluorobenzene 0.36 0.3924 91.8 70 130 Environmofluorobenzene Surr: 4-Bromofluorobenzene 0.37 0.3924 91.8 70 130 Environmofluorobenzene Surr: 4-Bromofluorobenzene 0.37 0.3924 91.8 70 130 Environmofluorobenzene Surr: 4-Bromofluorobenzene <		ND										
Surr: 4-Bromofluorobenzene 0.53 0.500 107 70 130 Surr: Toluene-d8 0.48 0.5000 95.7 70 130 Sample ID 1802001-002ams SampType: MS4 TestCode: EPA Method 860B: Volatiles Short List Istematication Client ID: SC-19 Batch ID: S48843 RunNo: 48843 Units: mg/Kg Analyte Result POL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Benzene 0.68 0.020 0.7849 0 86.5 80 120 Ethylbenzon Value Server Value 90 86.5 80 120 Ethylbenzon Value Server Value 90 <td></td> <td>ND</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>		ND										
Surr. Toluene-d8 0.48 0.5000 95.7 70 130 Sample ID 1802001-002ams SamrType: KI TestCode: EPA Method 8260B: Volatiles Short List Client ID: SC-19 Batch ID: S48843 RunNo: 48843 Prep Date: Analyts PQL SPK value SPK ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Benzene 0.68 0.020 0.7849 0 86.5 80 120 Toluene 0.77 0.039 0.7849 0 97.8 800 120 Sum: Abrownotluorobenzene 0.36 0.3924 91.8 70 130 120 Sur: Toluene-d8 0.37 0.3924 94.9 70 130 120 Sur: Toluene-d8 0.37 0.3924 94.9 70 130 120 Sur: Toluene-d8 0.37 0.3924 94.9 70 130 130 Sur: Toluene-d8		ND	0.10									
Sample ID 1802001-002ams SampType: MS4 TestCode: EPA Method 8260B: Volatiles Short List Client ID: SC-19 Batch ID: S48843 RunNo: 48843 Prep Date: Analysis Date: 2/1/2018 SeqNo: 1572330 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Benzene 0.68 0.020 0.7849 0 96.5 80 120<	Surr: 4-Bromofluorobenzene	0.53		0.5000		107						
Client ID: SC-19 Batch ID: S48843 RunNo: 48843 Prep Date: Analysis Date: $2/1/2018$ SeqNo: 1572330 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val $\% REC$ LowLimit HighLimit $\% RPD$ RPDLimit Qual Benzene 0.68 0.020 0.7849 0 86.5 80 120 56.4 56.7	Surr: Toluene-d8	0.48		0.5000		95.7	70	130				
Prep Date: Analysis Date: 2/1/2018 SeqNo: 1572330 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Benzene 0.68 0.020 0.7849 0 86.5 80 120	Sample ID 1802001-002ams	SampT	ype: MS	54	Tes	tCode: El	PA Method	8260B: Vola	tiles Short	List		
Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Benzene 0.68 0.020 0.7849 0 86.5 80 120	Client ID: SC-19	Batch	h ID: S4	8843	F	RunNo: 4	8843					
Benzene 0.68 0.020 0.7849 0 86.5 80 120 Toluene 0.74 0.039 0.7849 0 94.4 80 120 Ethylbenzene 0.77 0.039 0.7849 0 97.8 80 120 Xylenes, Total 2.3 0.078 2.355 0.02933 94.7 80 120 Surr: 4-Bromofluorobenzene 0.36 0.3924 91.8 70 130 Surr: Toluene-d8 0.37 0.3924 94.9 70 130 Sample ID 1802001-002amsd SampType: MSD4 TestCode: EPA Method 8260B: Volatiles Short List Client ID: SC-19 Batch ID: S48843 RunNo: 48843 Prep Date: Analysis Date: 2/1/2018 SeqNo: 1572331 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Benzen	Prep Date:	Analysis D	Date: 2/	1/2018	S	SeqNo: 1	572330	Units: mg/k	ξg			
Toluene 0.74 0.039 0.7849 0 94.4 80 120 Ethylbenzene 0.77 0.039 0.7849 0 97.8 80 120 Xylenes, Total 2.3 0.078 2.355 0.02933 94.7 80 120 Surr: 4-Bromofluorobenzene 0.36 0.3924 91.8 70 130 91.8 91.8 70 130 Surr: Toluene-d8 0.37 0.3924 94.9 70 130 91.8 70 130 Surr: Toluene-d8 0.37 0.3924 94.9 70 130 91.8 70 130 Sample ID 1802001-002amsd SampTy:: MSD4 TestCode: EPA Method ScoB: Volatiles Short List 91.8 70 130 Prep Date: Analysis Date: 2/1/2018 RunNo: 48843 91.8 91.8 757.331 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Benzene 0.64 0.020 0.7849 0 <t< td=""><td>Analyte</td><td>Result</td><td></td><td></td><td>SPK Ref Val</td><td>%REC</td><td>LowLimit</td><td></td><td>%RPD</td><td>RPDLimit</td><td>Qual</td></t<>	Analyte	Result			SPK Ref Val	%REC	LowLimit		%RPD	RPDLimit	Qual	
Ethylbenzene 0.77 0.039 0.7849 0 97.8 80 120 Xylenes, Total 2.3 0.078 2.355 0.02933 94.7 80 120 Surr: 4-Bromofluorobenzene 0.36 0.3924 91.8 70 130 Surr: Toluene-d8 0.37 0.3924 94.9 70 130 Sample ID 1802001-002amsd SampType: MSD4 TestCode: EPA Method 8260B: Volatiles Short List Client ID: SC-19 Batch ID: S48843 RunNo: 48843 RunNo: 48843 Prep Date: Analysis Date: 2/1/2018 SeqNc: 1572331 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Benzene 0.64 0.020 0.7849 0 81.8 80 120 5.63 0 Toluene 0.72 0.039 0.7849 0 91.3 80 120 5.72 0	Benzene	0.68	0.020	0.7849	0	86.5	80	120				
Xylenes, Total 2.3 0.078 2.355 0.02933 94.7 80 120 Surr: 4-Bromofluorobenzene 0.36 0.3924 91.8 70 130 Surr: Toluene-d8 0.37 0.3924 94.9 70 130 Sample ID 1802001-002amsd SampType: MSD4 TestCode: EPA Method 8260B: Volatiles Short List Client ID: SC-19 Batch ID: S48843 RunNo: 48843 Prep Date: Analysis Date: 2/1/2018 SeqNo: 1572331 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Benzene 0.64 0.020 0.7849 0 81.8 80 120 5.63 0 Toluene 0.72 0.039 0.7849 0 91.3 80 120 3.27 0 Ethylbenzene 0.72 0.039 0.7849 0 92.4 80 120 5.72 0												
Surr: 4-Bromofluorobenzene 0.36 0.3924 91.8 70 130 Surr: Toluene-d8 0.37 0.3924 94.9 70 130 Sample ID 1802001-002amsd SampType: MSD4 TestCode: EPA Method 8260B: Volatiles Short List Client ID: SC-19 Batch ID: S48843 RunNo: 48843 Prep Date: Analysis Date: 2/1/2018 SeqNo: 1572331 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Benzene 0.64 0.020 0.7849 0 81.8 80 120 5.63 0 Toluene 0.72 0.039 0.7849 0 91.3 80 120 3.27 0 Ethylbenzene 0.72 0.039 0.7849 0 92.4 80 120 5.72 0												
Surr: Toluene-d8 0.37 0.3924 94.9 70 130 Sample ID 1802001-002amsd SampType: MSD4 TestCode: EPA Method Sc0B: Volatiles Short List Client ID: SC-19 Batch ID: S48843 RunNo: 48433 Prep Date: Analysis Date: 2/1/2018 SeqNo: 1572331 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Benzene 0.64 0.020 0.7849 0 81.8 80 120 5.63 0 Toluene 0.72 0.039 0.7849 0 91.3 80 120 3.27 0 Ethylbenzene 0.72 0.039 0.7849 0 92.4 80 120 5.72 0			0.078		0.02933							
Sample ID 1802001-002amsd SampType: MSD4 TestCode: EPA Method 8260B: Volatiles Short List Client ID: SC-19 Batch ID: S48843 RunNo: 48843 Prep Date: Analysis Date: 2/1/2018 SeqNo: 1572331 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Benzene 0.64 0.020 0.7849 0 81.8 80 120 5.63 0 Toluene 0.72 0.039 0.7849 0 91.3 80 120 3.27 0 Ethylbenzene 0.72 0.039 0.7849 0 92.4 80 120 5.72 0												
Client ID: SC-19 Batch ID: S48843 RunNo: 48843 Prep Date: Analysis Date: 2/1/2018 SeqNo: 1572331 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Benzene 0.64 0.020 0.7849 0 81.8 80 120 5.63 0 Toluene 0.72 0.039 0.7849 0 91.3 80 120 3.27 0 Ethylbenzene 0.72 0.039 0.7849 0 92.4 80 120 5.72 0	Surr: Toluene-d8	0.37		0.3924		94.9	70	130				
Prep Date: Analysis Date: 2/1/2018 SeqNo: 1572331 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Benzene 0.64 0.020 0.7849 0 81.8 80 120 5.63 0 Toluene 0.72 0.039 0.7849 0 91.3 80 120 3.27 0 Ethylbenzene 0.72 0.039 0.7849 0 92.4 80 120 5.72 0	Sample ID 1802001-002ams	d SampT	ype: MS	SD4	Tes	tCode: E	PA Method	8260B: Vola	tiles Short	List		
Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Benzene 0.64 0.020 0.7849 0 81.8 80 120 5.63 0 Toluene 0.72 0.039 0.7849 0 91.3 80 120 3.27 0 Ethylbenzene 0.72 0.039 0.7849 0 92.4 80 120 5.72 0	Client ID: SC-19	Batcl	h ID: S4	8843	F	RunNo: 4	8843					
Benzene0.640.0200.7849081.8801205.630Toluene0.720.0390.7849091.3801203.270Ethylbenzene0.720.0390.7849092.4801205.720	Prep Date:	Analysis D	Date: 2/	1/2018	S	SeqNo: 1	572331	Units: mg/h	(g			
Toluene 0.72 0.039 0.7849 0 91.3 80 120 3.27 0 Ethylbenzene 0.72 0.039 0.7849 0 92.4 80 120 5.72 0								-			Qual	
Ethylbenzene 0.72 0.039 0.7849 0 92.4 80 120 5.72 0												
Xylenes, Total 2.2 0.078 2.355 0.02933 91.8 80 120 3.09 0												
	Xylenes, Total	2.2	0.078	2.355	0.02933	91.8	80	120	3.09	0		

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Holding times for preparation or analysis exceeded Η
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S
- В Analyte detected in the associated Method Blank

Е Value above quantitation range

J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Detection Limit

Sample container temperature is out of limit as specified W

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Client: Rule Engineering LLC Project: Hubbell Fed 1M

Sample ID 1802001-002amsc	SampTy	pe: MS	SD4	Test	tCode: El	PA Method	8260B: Volat	tiles Short	List	
Client ID: SC-19	Batch	ID: S4	8843	R	RunNo: 4	8843				
Prep Date:	Analysis Da	te: 2/	1/2018	S	eqNo: 1	572331	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.36		0.3924		92.8	70	130	0	0	
Surr: Toluene-d8	0.37		0.3924		93.8	70	130	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative 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
- Page 10 of 11

WO#: **1802001** *05-Feb-18*

Client: Project:	Rule Engi Hubbell F	ineering LL Fed 1M	.C								
Sample ID	2.5ug gro lcs	SampTy	pe: LC	s	Tes	tCode: E	PA Method	8015D Mod:	Gasoline	Range	
Client ID:	LCSS	Batch	ID: M4	18843	F	RunNo: 4	8843				
Prep Date:		Analysis Da	ate: 2/	1/2018	S	eqNo: 1	571713	Units: mg/k	٢g		
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	70	130			
Surr: BFB		430		500.0		85.8	70	130			
Sample ID	rb	SampTy	pe: ME	BLK	Tes	tCode: E	PA Method	8015D Mod:	Gasoline	Range	
Client ID:	PBS	Batch	ID: M4	48843	F	RunNo: 4	8843				
Prep Date:		Analysis Da	ate: 2/	1/2018	S	SeqNo: 1	571714	Units: mg/k	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range	e Organics (GRO)	ND	5.0								
Surr: BFB		510		500.0		102	70	130			
Sample ID	1802001-001ams	SampTy	pe: MS	3	Tes	tCode: E	PA Method	8015D Mod:	Gasoline	Range	
Client ID:	SC-18	Batch	ID: M4	18843	F	RunNo: 4	8843				
Prep Date:		Analysis Da	ate: 2/	1/2018	S	SeqNo: 1	572140	Units: mg/k	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range	e Organics (GRO)	20	4.3	21.26	0	95.7	64.7	142			
Surr: BFB		400		425.2		95.3	70	130			
Sample ID	1802001-001amsd	SampTy	pe: MS	SD	Tes	tCode: E	PA Method	8015D Mod:	Gasoline	Range	
Client ID:	SC-18	Batch	ID: M4	18843	F	RunNo: 4	8843				
Prep Date:		Analysis Da	ate: 2/	1/2018	S	SeqNo: 1	572141	Units: mg/k	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
	e Organics (GRO)	20	4.3	21.26	0	95.2	64.7	142	0.587	20	
Surr: BFB		400		425.2		93.3	70	130	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative 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

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HALL ENVIRONMENTAL ANALYSIS LABORATORY	TEL: 505-345-3975	4901 Hawkins N querque, NM 8710	^E 9 San	nple Log-In C	heck List
Client Name: RULE ENGINEERING LL	Work Order Number:	1802001		RcptNo:	1
Received By: Anne Thorne 2/1	/2018 7:00:00 AM		Anne An	_	
Completed By: Anne Thorne 2/1	/2018 7:22:04 AM		am An		
Reviewed By: M 2/1 2018					
Chain of Custody					
1. Is Chain of Custody complete?		Yes 🔽	No 🗌	Not Present	
2. How was the sample delivered?		Courier			
 Log In 3. Was an attempt made to cool the samples? 4. Were all samples received at a temperature of >0 5. Sample(s) in proper container(s)? 6. Sufficient sample volume for indicated test(s)? 7. Are samples (except VOA and ONG) properly press. 8. Was preservative added to bottles? 9. VOA vials have zero headspace? 	served?	Yes ♥ Yes ♥ Yes ♥ Yes ♥ Yes □ Yes □	No No No No No No No	NA 🗌 NA 🗌 NA 🗍 No VOA Vials 🗹	
10. Were any sample containers received broken?		Yes 🗀	No 🗹	# of preserved bottles checked	
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)		Yes 🗹	No 🗌	for pH: (<2 or	>12 unless noted)
12. Are matrices correctly identified on Chain of Custo	ody?	Yes 🗸	No 🗌	Adjusted?	
13. Is it clear what analyses were requested?		Yes 🔽	No 🗌		
 Were all holding times able to be met? (If no, notify customer for authorization.) 		Yes 🗹	No 🗌	Checked by:	
Special Handling (if applicable)					
15. Was client notified of all discrepancies with this o	rder?	Yes	No 🗌	NA 🗹	1

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

16. Additional remarks:

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.3	Good	Yes			

С	hain	-of-Cu	stody Record	Turn-Around	Time:				n la s	-											
Client:	Rule	Envinee	King, LLC	□ Standard	⊠⁄ Rush	Sume Day												_			
		L	.),	Project Name	ANALYSIS LABORATORY																
Mailing	Address	501 1	tinport Drive	Habbell	4901 Hawkins NE - Albuquerque, NM 87109																
Sui	e 70	15 Fain	sington, kokking	Project #:			Tel. 505-345-3975 Fax 505-345-4107														
Phone #	#: 50S	793	9486				Analysis Request														
email or	email or Fax#: ; valde z@ rule engineering				ger:	GR.	(only)	/ MRO)					0 ₄)							
	Package:						(8021)	IS OI	/ MF			(S		4,S(PCB's						
Z Stan	dard		Level 4 (Full Validation)	Heath	er wo	ods	8) 5	TPH (Gas	DRO			SIMS)		PO	2 PC						
Accredit				Sampler: St	rstin 1	laldez	TIMES	Hd	-	7	=	8270		NO2	8082						7
		□ Othe	r	On Ice:	X Yes	□ No	+	+	RO	418.	504	r 82	S	03,	/ S		(YC				or
	(Type)_				perature: 2,3	-CF-1.0=113	Ħ	MTBE .	00	pol	por	10 0	etal	CI,N	cide	(Y)	i-V				s (Y
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	X + TNTEBE	+	TPH 8015B (GRO	TPH (Method 418.1)	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)
				Meott Kot		1802001	BTEX	BTEX	TP-	TPH	EDE	PAF	RCF	Anic	808	826(827(Air E
1/31/10	942	Soul	56-18	(i) Hoz Glass	Cold	-201	+		×	<u> </u>			_								
1	953		56-19		1	-202	4		X												
	1000		56-20		/	-203	+		×					-							
	1007		56-21			204	¥		×												
	1010		56-22			705	4		X												
	1019		51-23			206	4		X												
V	1032	L	8C-24		K	707	4		X												
																				+	+
																				-	
														_						+	
Pate:	Time:	Relinquishe	ed by:-	Received by:	l	Date Time	Ren	narks	;;								II				
1/31/18	1705	Aux	million	1 chow	+ 1 Jai	+ 'bilis 1705	5	1.0	[21		to	1	J:[[00	\sim					
Date:	Time:	Refinquishe	ed by:	Received by:) /	Date Time	[INC	UT	U		10	1	1.11		ľ					
131/15	18471	ha-	+1 Lete	Y (1	n 1	02/01/18															
If	necessary	samples subn	nitted to Hall Environmental may be subc	ontracted to other ad	credited laboratorie	s. This serves as notice of this	possil	oility. A	Any su	b-contr	acted	data	will be	clearl	y nota	ted or	the ar	nalytica	al repor	t.	

Clara Cardoza

From: Sent:	Fields, Vanessa, EMNRD <vanessa.fields@state.nm.us> Friday, February 2, 2018 3:46 PM</vanessa.fields@state.nm.us>
То:	Clara Cardoza; Smith, Cory, EMNRD; whitney thomas (l1thomas@blm.gov); 'Adeloye, Abiodun'
Subject:	RE: Hubbell Fed #1M Preliminary Sample Results

Good afternoon Clara.

Per our phone conversation today the OCD grants approval to spray potassium permanganate on the base of the excavation and backfill.

Thank you,

Vanessa Fields **Environmental Specialist Oil Conservation Division** Energy, Minerals, & Natural Resources 1000 Rio Brazos, Aztec, NM 87410 (505)334-6178 ext 119 Cell: (505) 419-0463 vanessa.fields@state.nm.us

From: Clara Cardoza [mailto:ccardoza@hilcorp.com] Sent: Friday, February 2, 2018 7:37 AM To: Fields, Vanessa, EMNRD; Smith, Cory, EMNRD; whitney thomas (l1thomas@blm.gov); 'Adeloye, Abiodun' Subject: FW: Hubbell Fed #1M Preliminary Sample Results

Attached please find the lab results from the confirmation re-sampling done at the Hubbell Fed 1M on Wednesday January 31st. Also attached for your convenience are the sample location maps after the first sample event and the updated map depicting the 2nd sample even from Wednesday. Although the TPH level remains above the closure standard for SC-23 base, BTEX is low and as demonstrated during sampling the base is terminated at a hard competent sandstone.. Hilcorp requests a variance on SC-23, to spray with potassium permanganate and be allowed to backfill this excavation as we believe the contaminates do not pose a present or foreseeable threat or an environmental risk to water, humans or animals.

Thank you for your consideration.

Respectfully submitted,

Clara M Cardoza **Environmental Specialist** 505-564-0733 (0) 505-793-2784 (C)



Please consider the environment before printing this e-mail