



January 07, 2016

NMOCD District II
Attn. Heather Patterson
1301 W Grand Ave
Artesia, NM 88210

SUBJECT: FINAL CLOSURE REPORT FOR INCIDENT 2RP -3382 ILLUSTRATED MAN FEE COM 1H, API# 30-015-41025, EDDY COUNTY, NEW MEXICO

Dear Ms. Patterson:

On behalf of COG Operating (COG), Souder Miller & Associates (SMA) is pleased to submit the attached Final Closure Report summarizing the soil remediation of the release located on the Illustrated Man Fee Com 1H in Eddy County, New Mexico. The purpose of the Final Closure Report is to obtain approval from the New Mexico Oil Conservation Division (NMOCD) for closure of the release that occurred on October 12, 2015.

At the request of COG, SMA assessed, delineated and remediated soil affected by the crude oil release associated with the Illustrated Man Fee Com 1H well location. The release was initially reported to NMOCD by COG Operating on October 26, 2015 and was a result of a corrosion hole in the production tank bottom. The table below summarizes information regarding the release. Results of the assessment and delineation follow in the attached report.

Table 1: Release information and Site Ranking					
Name	Illustrated Man Fee Com 1				
Location	Incident Number	API Number	Section, Township, Range		
		2RP - 3382	30-015-41025	SW/NE (UL D)	Section 12
Estimated Date of Release	Discovered October 12, 2015				
Date Reported to NMOCD	October 26, 2015				
Reported by	Amanda Trujillo Davis , COG Operating LLC				
Land Owner	Federal				
Reported To	NM Oil Conservation Division (NMOCD)				
Source of Release	Corrosion Hole in the Tank				
Released Material	Produced Oil				
Released Volume	40 bbls Crude Oil				
Recovered Volume	35 bbls Crude Oil				
Net Release	5 bbls Crude Oil				
Nearest Waterway	Pecos River is ~0.90 miles east of the location.				

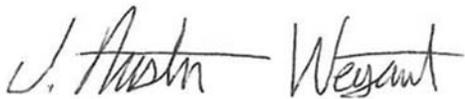


Depth to Groundwater	Estimated to be 43ft
Nearest Domestic Water Source	Greater than 1,000 feet
NMOCD Ranking	20
SMA Response Dates	Initial: November 3, 2015 Mitigation Activities: November 24, 2015
Subcontractors	Hungry Horse
Disposal Facility	Lea Land, LLC
Estimated Yd ³ Contaminated Soil Excavated and Disposed	35

A copy of the C-141 Initial is located in Appendix B. For questions or comments pertaining to the release or the attached Request for Closure, please feel free to contact either of us.

Submitted by:

SOUDER, MILLER & ASSOCIATES



Austin Weyant
Project Scientist

Reviewed by:



Cynthia Gray, CHMM
Senior Scientist



SOIL REMEDIATION FINAL CLOSURE REPORT FOR INCIDENT 2RP-3382

COG OPERATING LLC

ILLUSTRATED MAN FEE COM 1H
API# 30-015-41025
UL D SECTION 12, T25S R28E, NMPM
EDDY COUNTY, NM



Prepared for:
COG Operating LLC
2407 Pecos Ave
Artesia, NM 88210

Prepared by:
Souder, Miller & Associates
201 S. Halagueno
Carlsbad, NM 88221
575-689-7040

January 7, 2016
SMA Reference
5B23978 BG9



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Table 1: Release Information and Site Ranking

Table 2: Summary of Laboratory Analyses

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1.0 Introduction

On behalf of COG Operating LLC (COG), SMA has prepared this report that describes the assessment, initial delineation and mitigation of a release associated with the Illustrated Man Fee COM 1H release site. The site is located in Unit D Section 12, T 25S, R 28 E NMPM, Eddy County, New Mexico, on federal land administered by the Bureau of Land Management (BLM). Figure 1 shows the vicinity and location of the site.

2.0 Site Ranking and Land Jurisdiction Introduction

The release site is located approximately 0.9 miles (> 1,000 feet) west of Pecos River, on federal land under BLM jurisdiction with an elevation of approximately 2,940 feet above sea level. After evaluation of the site using aerial photography and topographic maps, depth to groundwater is estimated to be less than 50 feet below ground surface (bgs). Figure 2 depicts the site details, well pad and sample locations.

SMA searched the New Mexico State Engineer's Office online water well database for water wells in the vicinity of the release. No well is located within a 1000 foot radius of the site. The physical location of this release is within the jurisdiction of NMOCD.

This release location has been assigned a NMOCD ranking of 20 under NMOCD "Guidelines for Remediation" which requires a soil remediation standard of 10 parts per million (ppm) benzene, 50 ppm combined benzene, toluene, ethyl-benzene, and total xylenes (BTEX), and 100 ppm total petroleum hydrocarbons (TPH). Table 1 illustrates site ranking rationale.

3.0 Assessment and Initial Results

On November 2, 2015, after receiving 811 clearance, SMA field personnel assessed the release site utilizing a gas powered auger, a Photo Ionization Detector (PID), and a mobile chlorides titration kit. The affected area was found to be 150 feet long and 20 feet wide. Delineation samples were taken to depths of three feet bgs. Using field screening, samples at two locations were found to have higher than background levels of chloride. For additional information on the initial soil results and site assessment, please refer to the NMOCD approved work plan (Soil Remediation Work Plan for Incident 2RP-3382.) Sample locations are noted on Figure 2 "Site Details and Sample Location Map". All samples were collected and processed according to NMOCD soil sampling procedures. The samples were sent under chain-of-custody protocols to Hall Environmental Analysis Laboratory for analysis for Benzene and Total BTEX using EPA Method 8021B, DRO and GRO by EPA Method 8015D, and total Chlorides using EPA Method 300.0.

4.0 Soil Remediation Summary

SMA began the excavation of affected soils on 11/24/15, with approval from area utilities owners via 811 and NMOCD. SMA continuously guided the excavation activities by collecting composite soil samples for field screening with a mobile chlorides titration unit (EPA 4500) and a calibrated PID. Delineation was performed to a depth of 3 feet bgs to define the plume limits by NMOCD standards. Excavation occurred to a depth of eight inches bgs on east and north of tank battery, a depth sufficient to remove the contaminated soil. Also south from the tank battery the well pad area was scraped three inches bgs to remove contaminated soil. Discrete final closure samples were collected within the excavation. Approximately 35 cubic yards of hydrocarbon contaminated soil was removed and replaced with clean backfill material sufficient to bring the contours to

surface grade. The contaminated soil was transported for proper disposal at Lea Land, near Carlsbad, NM.

5.0 Conclusions and Recommendations

NMOCD Guidelines for Remediation of Leaks, Spills, and Releases have established the following action levels for contaminants of concern with a site ranking of 20: 10 ppm (mg/kg) Benzene, 50 ppm total BTEX, and 100 ppm TPH. The release consisted of produced and associated petroleum found during the initial assessment and delineation.

All closure confirmation samples were taken as discrete samples to ensure that the contaminated soil was removed.

Soil sample location are illustrated in Figure 2. A summary of the laboratory analyses is included in Table 2. Laboratory reports are included in Appendix A.

6.0 Closure and Limitations

Closure standards have been achieved for the crude oil release 2RP-3382 on the Illustrated Man Fee COM #001H well pad.

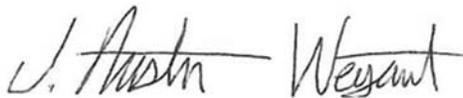
The scope of our services consisted of the performance of a preliminary spill assessment, verification of release stabilization, regulatory liaison, and preparation of this Remediation Work Plan. All work has been performed in accordance with generally accepted professional environmental consulting practices for oil and gas releases in the Permian Basin in New Mexico.

If there are any questions regarding this report, please contact either Austin Weyant at 575-689-7040 or Cindy Gray at 505-325-7535.

Submitted by:

Reviewed by:

SOUDER, MILLER & ASSOCIATES



Austin Weyant
Project Scientist



Cynthia Gray, CHMM
Senior Scientist

Figures:

Figure 1: Vicinity Map

Figure 2: Site Details and Sample Locations Map

Tables:

Table 1: Release Information and Site Ranking

Table 2: Summary of Laboratory Analyses

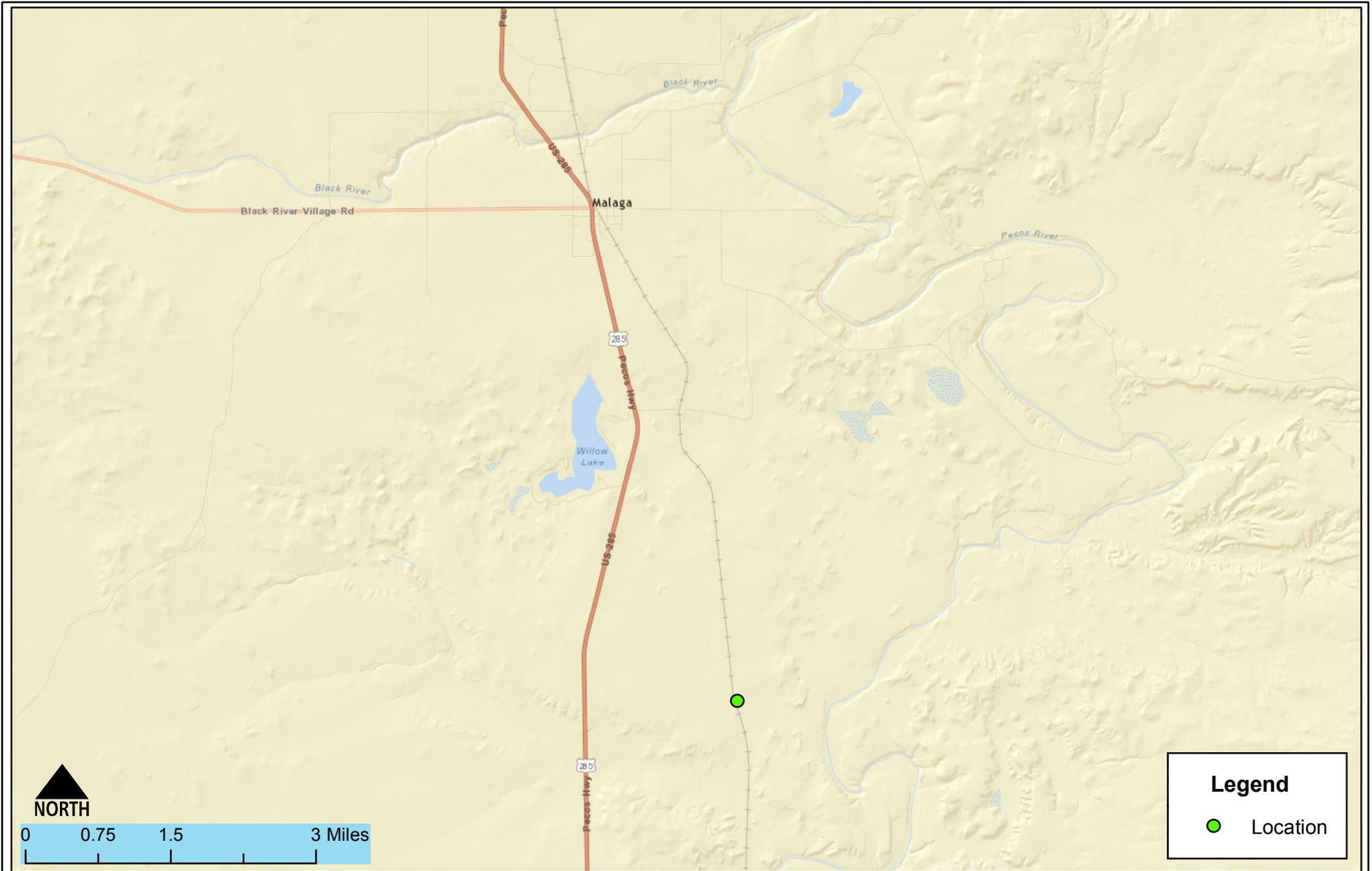
Appendices:

Appendix A: Laboratory Analytical Reports

Appendix B: Form C141 Final

FIGURE 1

VICINITY MAP



Legend

- Location

Vicinity Map
 COG- Illustrated Man Fee Com #1H
 Malaga, New Mexico

Figure 1

Date Saved: 11/17/2015	By: _____	Date: _____	Revisions	Descr: _____
	By: _____	Date: _____		Descr: _____
Copyright 2015 Souder, Miller & Associates - All Rights Reserved				

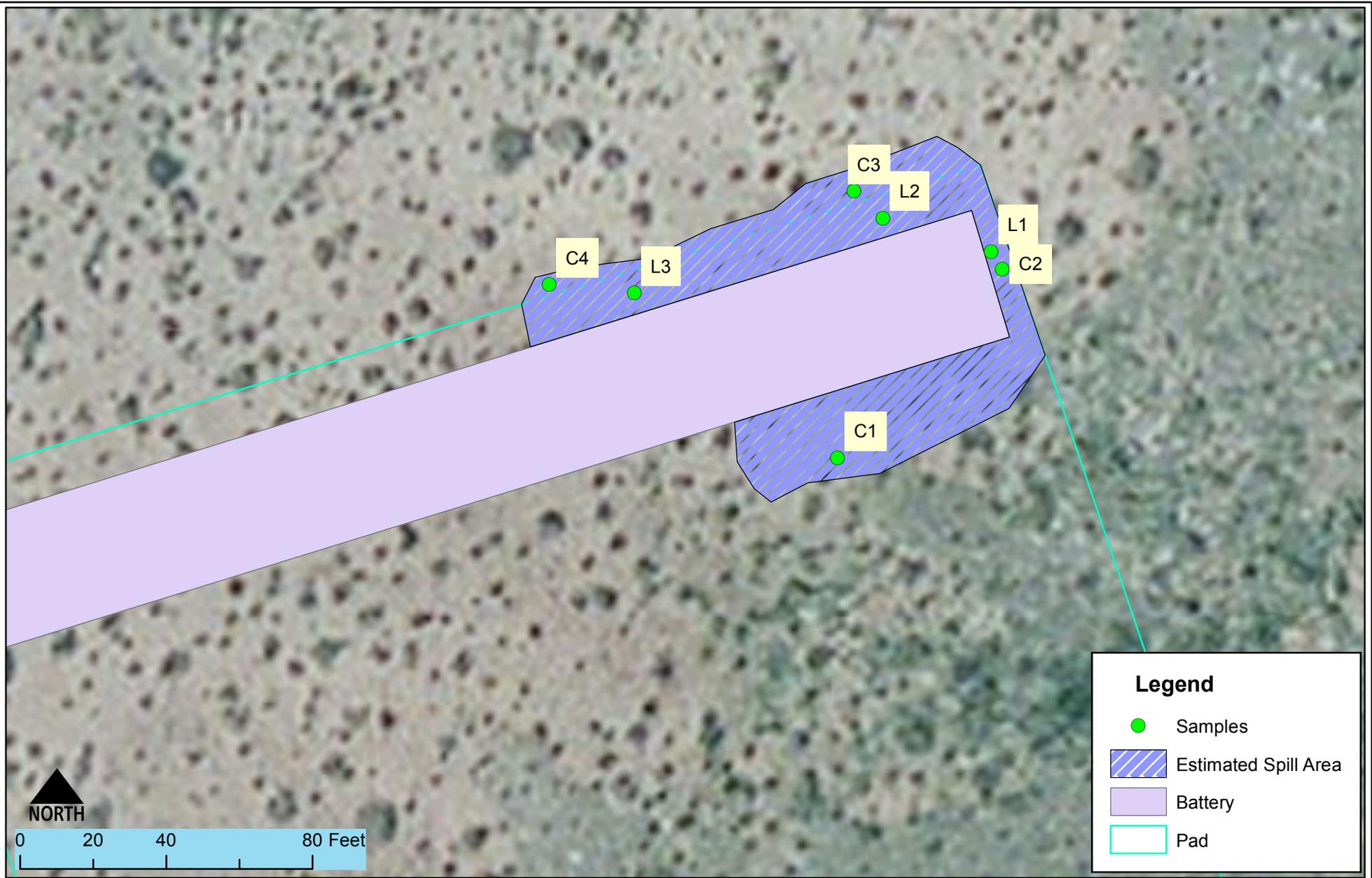
Drawn	<u>Lucas Middleton</u>
Checked	_____
Approved	_____



201 South Halaguena Street
 Carlsbad, New Mexico 88221
 (575) 689-7040
 www.soudermiller.com
 Serving the Southwest & Rocky Mountains

FIGURE 2

SITE DETAILS AND SAMPLE LOCATIONS MAP



Site Detail and Sample Locations
 COG-Illustrated Man Fee Com #1H
 Malaga, New Mexico

Figure 2

Date Saved: 11/18/2015	By: _____	Date: _____	Revisions	Descr: _____
	By: _____	Date: _____		Descr: _____
Copyright 2015 Souder, Miller & Associates - All Rights Reserved				

Drawn	<u>Lucas Middleton</u>
Checked	_____
Approved	_____



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TABLE 1

RELEASE INFORMATION AND SITE RANKING

Table 1: Release information and Site Ranking					
Name	Illustrated Man Fee Com 1				
Location	Incident Number	API Number	Section, Township, Range		
	2RP -3382	30-015-41025	N/S (UL D)	Section 12	T 25S, R 28E NMPM
Estimated Date of Release	Discovered October 12, 2015				
Date Reported to NMOCD	October 26, 2015				
Reported by	Amanda Trujillo Davis , COG Operating LLC				
Land Owner	Federal				
Reported To	NM Oil Conservation Division (NMOCD)				
Source of Release	Battery/Surface Facilities				
Released Material	Oil				
Released Volume	40 bbls Oil				
Recovered Volume	39 bbls Oil				
Net Release	1 bbl Oil				
Nearest Waterway	Pecos River is ~0.90 miles east of the location.				
Depth to Groundwater	Estimated to be 43ft				
Nearest Domestic Water Source	Greater than 1000ft				
NMOCD Ranking	20				
SMA Response Dates	Initial: November 3, 2015 Mitigation Activities: November 24, 2015				
Subcontractors	Hungry Horse				
Disposal Facility	Lea Land, LLC				
Estimated Yd ³ Contaminated Soil Excavated and Disposed	35				

TABLE 2

SUMMARY OF LABORATORY ANALYSES

Table 2: Summary of Laboratory Analyses

Analytical Report- 1511281 1601183	Sample Number on Figure 2 Map	Sample Date	Depth	BTEX ppm	Benzene mg/Kg	GRO mg/Kg	DRO mg/Kg	Cl- mg/Kg
1511281-001	BG1	11/3/2015	6"	BDL	BDL	BDL	BDL	BDL
1511281-002	C1	11/3/2015	Surface	32.2	0.61	320	22,000	N/A
1511281-003	C2	11/3/2015	Surface	BDL	BDL	BDL	BDL	N/A
1511281-004	C3	11/3/2015	Surface	BDL	BDL	BDL	BDL	1,200
1511281-005	C4	11/3/2015	Surface	BDL	BDL	BDL	BDL	3,800
1511281-006	L1-3	11/3/2015	3'	9.5	BDL	290	3,200	N/A
1511281-007	L2-3	11/3/2015	3'	BDL	BDL	12	320	N/A
1511281-008	L3-2	11/3/2015	2'	BDL	BDL	BDL	BDL	N/A
1511281-009	L4-1	11/3/2015	1'	BDL	BDL	BDL	BDL	N/A
1601183-001	C3-1	1/5/2015	1'	N/A	N/A	N/A	N/A	BDL
1601183-002	C4-1	1/5/2015	1'	N/A	N/A	N/A	N/A	520

APPENDIX A

LABORATORY ANALYTICAL REPORTS



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

January 11, 2016

Austin Weyant
Souder, Miller & Associates
201 S Halagueno
Carlsbad, NM 88221
TEL: (575) 689-7040
FAX

RE: Illustrated Man Fee Com

OrderNo.: 1601183

Dear Austin Weyant:

Hall Environmental Analysis Laboratory received 2 sample(s) on 1/7/2016 for the analyses presented in the following report.

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

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

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

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written in a cursive style.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1601183

Date Reported: 1/11/2016

CLIENT: Souder, Miller & Associates

Client Sample ID: IL-C3-1

Project: Illustrated Man Fee Com

Collection Date: 1/5/2016 10:00:00 AM

Lab ID: 1601183-001

Matrix: SOIL

Received Date: 1/7/2016 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	ND	30		mg/Kg	20	1/7/2016 9:32:26 PM	23106

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1601183

Date Reported: 1/11/2016

CLIENT: Souder, Miller & Associates

Client Sample ID: IL-C4-1

Project: Illustrated Man Fee Com

Collection Date: 1/5/2016 10:00:00 AM

Lab ID: 1601183-002

Matrix: SOIL

Received Date: 1/7/2016 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	520	30		mg/Kg	20	1/7/2016 9:44:51 PM	23106

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1601183

11-Jan-16

Client: Souder, Miller & Associates

Project: Illustrated Man Fee Com

Sample ID	MB-23106	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	23106	RunNo:	31326					
Prep Date:	1/7/2016	Analysis Date:	1/7/2016	SeqNo:	959120	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-23106	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	23106	RunNo:	31326					
Prep Date:	1/7/2016	Analysis Date:	1/7/2016	SeqNo:	959121	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.5	90	110			

Qualifiers:

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

Sample Log-In Check List

Client Name: SMA-CARLSBAD

Work Order Number: 1601183

RcptNo: 1

Received by/date: SA 01/07/16
 Logged By: **Lindsay Mangin** 1/7/2016 10:00:00 AM
 Completed By: **Lindsay Mangin** 1/7/2016 12:57:49 PM
 Reviewed By: AG 01/07/16

Lindsay Mangin
Lindsay Mangin

Chain of Custody

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

Log In

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

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

Special Handling (if applicable)

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

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

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	5.7	Good	Yes			



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

November 12, 2015

Austin Weyant
Souder, Miller & Associates
201 S Halagueno
Carlsbad, NM 88221
TEL: (575) 689-7040
FAX

RE: Illustrated Man

OrderNo.: 1511281

Dear Austin Weyant:

Hall Environmental Analysis Laboratory received 9 sample(s) on 11/4/2015 for the analyses presented in the following report.

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

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

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

Sincerely,

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

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511281

Date Reported: 11/12/2015

CLIENT: Souder, Miller & Associates

Client Sample ID: BG1 6"

Project: Illustrated Man

Collection Date: 11/3/2015 11:06:00 AM

Lab ID: 1511281-001

Matrix: SOIL

Received Date: 11/4/2015 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	ND	30		mg/Kg	20	11/10/2015 1:24:56 PM	22269
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	11/10/2015 4:05:02 PM	22220
Surr: DNOP	127	70-130		%REC	1	11/10/2015 4:05:02 PM	22220
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	11/10/2015 11:01:59 PM	22241
Surr: BFB	86.0	75.4-113		%REC	1	11/10/2015 11:01:59 PM	22241
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.099		mg/Kg	1	11/10/2015 11:01:59 PM	22241
Benzene	ND	0.050		mg/Kg	1	11/10/2015 11:01:59 PM	22241
Toluene	ND	0.050		mg/Kg	1	11/10/2015 11:01:59 PM	22241
Ethylbenzene	ND	0.050		mg/Kg	1	11/10/2015 11:01:59 PM	22241
Xylenes, Total	ND	0.099		mg/Kg	1	11/10/2015 11:01:59 PM	22241
Surr: 4-Bromofluorobenzene	108	80-120		%REC	1	11/10/2015 11:01:59 PM	22241

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511281

Date Reported: 11/12/2015

CLIENT: Souder, Miller & Associates

Client Sample ID: C1

Project: Illustrated Man

Collection Date: 11/3/2015 9:54:00 AM

Lab ID: 1511281-002

Matrix: SOIL

Received Date: 11/4/2015 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	22000	990		mg/Kg	100	11/10/2015 4:26:19 PM	22220
Surr: DNOP	0	70-130	S	%REC	100	11/10/2015 4:26:19 PM	22220
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	320	47		mg/Kg	10	11/10/2015 11:25:06 PM	22241
Surr: BFB	161	75.4-113	S	%REC	10	11/10/2015 11:25:06 PM	22241
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.95		mg/Kg	10	11/10/2015 11:25:06 PM	22241
Benzene	0.61	0.47		mg/Kg	10	11/10/2015 11:25:06 PM	22241
Toluene	8.8	0.47		mg/Kg	10	11/10/2015 11:25:06 PM	22241
Ethylbenzene	2.8	0.47		mg/Kg	10	11/10/2015 11:25:06 PM	22241
Xylenes, Total	20	0.95		mg/Kg	10	11/10/2015 11:25:06 PM	22241
Surr: 4-Bromofluorobenzene	128	80-120	S	%REC	10	11/10/2015 11:25:06 PM	22241

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511281

Date Reported: 11/12/2015

CLIENT: Souder, Miller & Associates

Client Sample ID: C2

Project: Illustrated Man

Collection Date: 11/3/2015 10:15:00 AM

Lab ID: 1511281-003

Matrix: SOIL

Received Date: 11/4/2015 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	11/11/2015 12:00:34 PM	22220
Surr: DNOP	95.3	70-130		%REC	1	11/11/2015 12:00:34 PM	22220
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	11/11/2015 12:58:02 AM	22241
Surr: BFB	86.4	75.4-113		%REC	1	11/11/2015 12:58:02 AM	22241
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.097		mg/Kg	1	11/11/2015 12:58:02 AM	22241
Benzene	ND	0.048		mg/Kg	1	11/11/2015 12:58:02 AM	22241
Toluene	ND	0.048		mg/Kg	1	11/11/2015 12:58:02 AM	22241
Ethylbenzene	ND	0.048		mg/Kg	1	11/11/2015 12:58:02 AM	22241
Xylenes, Total	ND	0.097		mg/Kg	1	11/11/2015 12:58:02 AM	22241
Surr: 4-Bromofluorobenzene	109	80-120		%REC	1	11/11/2015 12:58:02 AM	22241

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511281

Date Reported: 11/12/2015

CLIENT: Souder, Miller & Associates

Client Sample ID: C3

Project: Illustrated Man

Collection Date: 11/3/2015 10:18:00 AM

Lab ID: 1511281-004

Matrix: SOIL

Received Date: 11/4/2015 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	1200	75		mg/Kg	50	11/11/2015 3:23:48 PM	22269
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	11/11/2015 12:42:11 PM	22220
Surr: DNOP	92.2	70-130		%REC	1	11/11/2015 12:42:11 PM	22220
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	11/11/2015 1:21:17 AM	22241
Surr: BFB	86.1	75.4-113		%REC	1	11/11/2015 1:21:17 AM	22241
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.097		mg/Kg	1	11/11/2015 1:21:17 AM	22241
Benzene	ND	0.049		mg/Kg	1	11/11/2015 1:21:17 AM	22241
Toluene	ND	0.049		mg/Kg	1	11/11/2015 1:21:17 AM	22241
Ethylbenzene	ND	0.049		mg/Kg	1	11/11/2015 1:21:17 AM	22241
Xylenes, Total	ND	0.097		mg/Kg	1	11/11/2015 1:21:17 AM	22241
Surr: 4-Bromofluorobenzene	108	80-120		%REC	1	11/11/2015 1:21:17 AM	22241

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511281

Date Reported: 11/12/2015

CLIENT: Souder, Miller & Associates

Client Sample ID: C4

Project: Illustrated Man

Collection Date: 11/3/2015 10:48:00 AM

Lab ID: 1511281-005

Matrix: SOIL

Received Date: 11/4/2015 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	3800	150		mg/Kg	100	11/11/2015 3:36:13 PM	22269
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	11/10/2015 5:30:21 PM	22220
Surr: DNOP	95.9	70-130		%REC	1	11/10/2015 5:30:21 PM	22220
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	11/11/2015 1:44:32 AM	22241
Surr: BFB	86.5	75.4-113		%REC	1	11/11/2015 1:44:32 AM	22241
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.096		mg/Kg	1	11/11/2015 1:44:32 AM	22241
Benzene	ND	0.048		mg/Kg	1	11/11/2015 1:44:32 AM	22241
Toluene	ND	0.048		mg/Kg	1	11/11/2015 1:44:32 AM	22241
Ethylbenzene	ND	0.048		mg/Kg	1	11/11/2015 1:44:32 AM	22241
Xylenes, Total	ND	0.096		mg/Kg	1	11/11/2015 1:44:32 AM	22241
Surr: 4-Bromofluorobenzene	108	80-120		%REC	1	11/11/2015 1:44:32 AM	22241

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511281

Date Reported: 11/12/2015

CLIENT: Souder, Miller & Associates

Client Sample ID: L1-3'

Project: Illustrated Man

Collection Date: 11/3/2015 10:00:00 AM

Lab ID: 1511281-006

Matrix: SOIL

Received Date: 11/4/2015 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	3200	99		mg/Kg	10	11/10/2015 5:51:35 PM	22220
Surr: DNOP	0	70-130	S	%REC	10	11/10/2015 5:51:35 PM	22220
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	290	24		mg/Kg	5	11/11/2015 2:07:45 AM	22241
Surr: BFB	287	75.4-113	S	%REC	5	11/11/2015 2:07:45 AM	22241
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.48		mg/Kg	5	11/11/2015 2:07:45 AM	22241
Benzene	ND	0.12		mg/Kg	5	11/11/2015 2:07:45 AM	22241
Toluene	1.6	0.24		mg/Kg	5	11/11/2015 2:07:45 AM	22241
Ethylbenzene	1.0	0.24		mg/Kg	5	11/11/2015 2:07:45 AM	22241
Xylenes, Total	6.9	0.48		mg/Kg	5	11/11/2015 2:07:45 AM	22241
Surr: 4-Bromofluorobenzene	140	80-120	S	%REC	5	11/11/2015 2:07:45 AM	22241

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511281

Date Reported: 11/12/2015

CLIENT: Souder, Miller & Associates

Client Sample ID: L2-3'

Project: Illustrated Man

Collection Date: 11/3/2015 10:31:00 AM

Lab ID: 1511281-007

Matrix: SOIL

Received Date: 11/4/2015 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	320	9.4		mg/Kg	1	11/10/2015 6:12:57 PM	22220
Surr: DNOP	98.4	70-130		%REC	1	11/10/2015 6:12:57 PM	22220
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	12	5.0		mg/Kg	1	11/11/2015 2:31:00 AM	22241
Surr: BFB	149	75.4-113	S	%REC	1	11/11/2015 2:31:00 AM	22241
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.10		mg/Kg	1	11/11/2015 2:31:00 AM	22241
Benzene	ND	0.050		mg/Kg	1	11/11/2015 2:31:00 AM	22241
Toluene	ND	0.050		mg/Kg	1	11/11/2015 2:31:00 AM	22241
Ethylbenzene	ND	0.050		mg/Kg	1	11/11/2015 2:31:00 AM	22241
Xylenes, Total	ND	0.10		mg/Kg	1	11/11/2015 2:31:00 AM	22241
Surr: 4-Bromofluorobenzene	121	80-120	S	%REC	1	11/11/2015 2:31:00 AM	22241

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

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: L3-2'

Project: Illustrated Man

Collection Date: 11/3/2015 10:38:00 AM

Lab ID: 1511281-008

Matrix: SOIL

Received Date: 11/4/2015 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	11/10/2015 6:34:14 PM	22220
Surr: DNOP	96.9	70-130		%REC	1	11/10/2015 6:34:14 PM	22220
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	11/11/2015 2:54:18 AM	22241
Surr: BFB	86.4	75.4-113		%REC	1	11/11/2015 2:54:18 AM	22241
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.093		mg/Kg	1	11/11/2015 2:54:18 AM	22241
Benzene	ND	0.046		mg/Kg	1	11/11/2015 2:54:18 AM	22241
Toluene	ND	0.046		mg/Kg	1	11/11/2015 2:54:18 AM	22241
Ethylbenzene	ND	0.046		mg/Kg	1	11/11/2015 2:54:18 AM	22241
Xylenes, Total	ND	0.093		mg/Kg	1	11/11/2015 2:54:18 AM	22241
Surr: 4-Bromofluorobenzene	111	80-120		%REC	1	11/11/2015 2:54:18 AM	22241

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511281

Date Reported: 11/12/2015

CLIENT: Souder, Miller & Associates

Client Sample ID: L4-1'

Project: Illustrated Man

Collection Date: 11/3/2015 10:48:00 AM

Lab ID: 1511281-009

Matrix: SOIL

Received Date: 11/4/2015 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	11/10/2015 6:55:38 PM	22220
Surr: DNOP	95.4	70-130		%REC	1	11/10/2015 6:55:38 PM	22220
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	11/11/2015 3:17:27 AM	22241
Surr: BFB	86.6	75.4-113		%REC	1	11/11/2015 3:17:27 AM	22241
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.094		mg/Kg	1	11/11/2015 3:17:27 AM	22241
Benzene	ND	0.047		mg/Kg	1	11/11/2015 3:17:27 AM	22241
Toluene	ND	0.047		mg/Kg	1	11/11/2015 3:17:27 AM	22241
Ethylbenzene	ND	0.047		mg/Kg	1	11/11/2015 3:17:27 AM	22241
Xylenes, Total	ND	0.094		mg/Kg	1	11/11/2015 3:17:27 AM	22241
Surr: 4-Bromofluorobenzene	109	80-120		%REC	1	11/11/2015 3:17:27 AM	22241

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511281

12-Nov-15

Client: Souder, Miller & Associates

Project: Illustrated Man

Sample ID	MB-22269	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	22269	RunNo:	30148					
Prep Date:	11/10/2015	Analysis Date:	11/10/2015	SeqNo:	918734	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-22269	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	22269	RunNo:	30148					
Prep Date:	11/10/2015	Analysis Date:	11/10/2015	SeqNo:	918735	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.7	90	110			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511281

12-Nov-15

Client: Souder, Miller & Associates

Project: Illustrated Man

Sample ID MB-22220	SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: PBS	Batch ID: 22220		RunNo: 30124							
Prep Date: 11/6/2015	Analysis Date: 11/10/2015		SeqNo: 917919		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	12		10.00		117	70	130			

Sample ID LCS-22220	SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: LCSS	Batch ID: 22220		RunNo: 30124							
Prep Date: 11/6/2015	Analysis Date: 11/10/2015		SeqNo: 917920		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	63	10	50.00	0	126	57.4	139			
Surr: DNOP	7.4		5.000		147	70	130			S

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511281

12-Nov-15

Client: Souder, Miller & Associates

Project: Illustrated Man

Sample ID MB-22241	SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: PBS	Batch ID: 22241		RunNo: 30136							
Prep Date: 11/9/2015	Analysis Date: 11/10/2015		SeqNo: 918420		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	860		1000		85.6	75.4	113			

Sample ID LCS-22241	SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: LCSS	Batch ID: 22241		RunNo: 30136							
Prep Date: 11/9/2015	Analysis Date: 11/10/2015		SeqNo: 918421		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	101	79.6	122			
Surr: BFB	930		1000		92.7	75.4	113			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511281

12-Nov-15

Client: Souder, Miller & Associates

Project: Illustrated Man

Sample ID MB-22241	SampType: MBLK		TestCode: EPA Method 8021B: Volatiles							
Client ID: PBS	Batch ID: 22241		RunNo: 30136							
Prep Date: 11/9/2015	Analysis Date: 11/10/2015		SeqNo: 918501		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	0.10								
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		109	80	120			

Sample ID LCS-22241	SampType: LCS		TestCode: EPA Method 8021B: Volatiles							
Client ID: LCSS	Batch ID: 22241		RunNo: 30136							
Prep Date: 11/9/2015	Analysis Date: 11/10/2015		SeqNo: 918502		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	0.93	0.10	1.000	0	93.2	67.2	121			
Benzene	0.99	0.050	1.000	0	99.0	80	120			
Toluene	0.98	0.050	1.000	0	98.1	80	120			
Ethylbenzene	1.0	0.050	1.000	0	101	80	120			
Xylenes, Total	3.0	0.10	3.000	0	101	80	120			
Surr: 4-Bromofluorobenzene	1.2		1.000		115	80	120			

Qualifiers:

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



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

Sample Log-In Check List

Client Name: SMA-CARLSBAD

Work Order Number: 1511281

RcptNo: 1

Received by/date:

AT

11/04/15

Logged By:

Lindsay Mangin

11/4/2015 12:15:00 PM

Lindsay Mangin

Completed By:

Lindsay Mangin

11/6/2015 1:14:53 PM

Lindsay Mangin

Reviewed By:

KS

11/07/15

Chain of Custody

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

Log In

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

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

Special Handling (if applicable)

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

Person Notified:

Date:

By Whom:

Via: eMail Phone Fax In Person

Regarding:

Client Instructions:

- 17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	5.4	Good	Not Present			

APPENDIX B

FORM C141 FINAL

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

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 8, 2011

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: COG Operating LLC	Contact: Robert McNeill
Address: 600 West Illinois Avenue, Midland TX 79701	Telephone No. 432-230-0077
Facility Name: ILLUSTRATED MAN FEE COM #001H	Facility Type: Battery

Surface Owner: Fee	Mineral Owner:	API No. 30-015-41025
--------------------	----------------	----------------------

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
D	12	25S	28E	170'	North	900'	West	Eddy

Latitude 32.1515999 Longitude -104.0465775

NATURE OF RELEASE

Type of Release: Oil	Volume of Release: 40 bbls Oil	Volume Recovered: 35 bbls Oil
Source of Release: Hole in tank	Date and Hour of Occurrence: 10/12/2015 10:00 am	Date and Hour of Discovery: 10/12/2015 10:00 am
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Mike Bratcher - NMOCD	
By Whom? Amanda Trujillo Davis	Date and Hour: Wed 10/14/2015 4:25 PM	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

This release was caused by a hole in the bottom of the production tank. Vacuum trucks were dispatched to recover standing fluid.

Describe Area Affected and Cleanup Action Taken.*

This release occurred within a lined containment; however impacted areas appeared on the outside of the containment. This release was addressed per the approved workplan and under the guidance of NMOCD and the BLM.

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

Signature: 	<u>OIL CONSERVATION DIVISION</u>	
Printed Name: Amanda Trujillo Davis	Approved by Environmental Specialist:	
Title: Senior Environmental Coordinator	Approval Date:	Expiration Date:
E-mail Address: atrujillo@concho.com	Conditions of Approval:	
Date: December 29, 2015 Phone: 575-748-6940	Attached <input type="checkbox"/>	

* Attach Additional Sheets If Necessary