

K9EPO-190821-C-1440

**Maverick Natural Resources
Humble Yates Battery
2RP-5384
Closure Report
Section 16, Township 18S, Range 28E
Lea County, New Mexico
Revised
August 21, 2019**



Prepared for:

**Maverick Natural Resources
PO Box 678
Andrews, TX**

By:

**Safety & Environmental Solutions, Inc.
703 East Clinton
Hobbs, New Mexico 88240
(575) 397-0510**

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I. Company Contacts

Representative	Company	Telephone	E-mail
Thomas Haigood	Maverick Natural Resources	432-701-7802	Thomas.haigood@mavresources.com
Bob Allen	SESI	575-397-0510	ballen@sesi-nm.com

II. Background

Safety and Environmental Solutions, Inc. (SESI) was engaged by Maverick Natural Resources to perform site assessment of a release area at the Humble Yates Battery. The site is situated in Section 16, Township 18S, Range 28E.

According to the C-141: the cause of release was due to corrosion to the bottom of the crude oil storage tank spilling into the secondary containment. Approximately 10 bbl. of oil began to leak under the containment (berm) wall where the plastic liner appeared to have a breach. The fluid leached under the containment berm traversing approximately 150 yards before being discovered by the relief pumper while making his daily rounds. The impacted area is approximately 1ft. to 2 ft. wide by 100 yards in length (Figure 1).

III. Surface and Ground Water

According to the New Mexico Office of the State Engineer: there is no record of groundwater in the immediate vicinity of this location, however the well depth to water for this area is 300' bgs (Appendix A).

V. Work Performed

On January 08, 2019 SESI personnel met with personnel from Maverick Natural Resources in order to assess the release area. SESI field technician determined locations for advancing auger holes. Immediately south of the bermed area, auger hole one (1) was advanced to a depth of 10" bgs., whereby auger refusal was met. The spill area was photographed and mapped utilizing a handheld Juno 3B for accuracy (Appendix B). The area was flagged for New Mexico One Call clearance.

On January 10, 2019 SESI personnel revisited the site, together with equipment and personnel from Phoenix Construction. The interior of the bermed area has hand excavated and all impacted soil stockpiled for disposal. Equipment began removal and stockpiling of all impacted soil from pasture area. All impacted soil was stockpiled on a 30 mil. liner for future removal and disposal.

On January 11, 2019 SESI personnel returned to the site in order to complete hand excavation activity of the interior bermed area, and to conduction soil delineation. Five (5) sample points were designated in the pasture area, whereby samples were grabbed at surface and 1' bgs. intervals. Refusal was encountered at 1' bgs. A Test Trench was advanced to a depth of 3.5' bgs., to the south of the bermed area where the fluids had pooled. The stock piled soil was transported to R360 for disposal. All of the soil samples were properly packaged, preserved, and transported to Cardinal Laboratories for analyses of Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX Method 8021B), Chloride (CI Method SM4500CI-B), and Total Petroleum Hydrocarbons (TPH 8015M). Below is a tabular recap of the results for ease of reference (Appendix C).

Sample Point ID	BTEX	Chloride	TPH	
			GRO	DRO
SP 1 Surface	.908	<16.0	21.3	450
SP 1 @ 1ft	125	32.	1730	930
SP 2 Surface	537	<16.0	4490	10500
SP 3 Surface	66	336	817	7740
SP 3 @ 1ft	3.63	<16.0	83.1	1580
SP 4 Surface	564	336	5790	21400
SP4 @ 1ft	112	240	1340	6980
Test Trench (TT) 1 Surface	510	208	4850	34100
TT 1 @ 1ft	668	48	7050	26100
TT 1 @ 2ft	4.80	16.	84.9	920

On March 27, 2019 SESI personnel, together with personnel and equipment from Custom Welding of Hobbs returned to the site in order to complete remediation efforts of the test trench area located immediately south of the bermed area, on the pad where fluids had pooled. Due to the aforementioned soil screening levels; TPH was the constituency of concern. It was noted that there were a significant number of lines in this area that had not been previously marked by New Mexico One Call. A line finder was utilized to better determine any lines that might be subsurface. Equipment encountered a line in the test trench area that was “unmarked”, and was not located with the line finder. The excavation was halted for safety reasons, furthermore no additional excavation of the West Sidewall was advanced. All impacted soils were stockpiled on a 30 mil. Liner for future removal. The impaired line was repaired. The excavated area was advanced to a depth of 5ft. bgs. The excavated area was fenced and flagged awaiting confirmation of soil analyses. All soil samples were properly packaged, preserved, and transported to Hall Laboratories for analyses of TPH (Total Petroleum Hydrocarbons) Method 8015M/D and 8015D respectively. For ease of reference the results have been recapped below.

Sample Point ID	TPH	
	GRO	DRO
East SW	ND	330
North SW	43	1700
South SW	51	1300
West SW	300	6300
Bottom	100	2300
SP-1 @ 2ft	ND	220
SP-2 @ 2ft	ND	940
SP-3 @ 3ft	ND	45
SP-4 @ 3ft	ND	34
SP-5 @ 3ft	ND	160

On April 04, 2019 the Remediation Plan-Work Plan was emailed to representatives of the NMOCD and NMSLO respectively. The representative for the NMSLO contacted the Environmental Coordinator with Safety and Environmental Solutions, Inc., regarding the seed mixture requirements for the pasture area, as well as desired soil screening levels for TPH. They requested that TPH levels in the pasture area be excavated to depths whereby TPH levels were <100 mg/kg., regardless of depth to water for the area.

On April 05, 2019, SESI personnel returned to the site, together with personnel and equipment from Custom Welding of Hobbs, NM. Sample points 1, 2, and 5 were located in the pasture area, and excavated further to the extent that field tests for TPH returned results of <100 mg/kg. All stockpiled soil was removed for disposal at Lea Landfill, and NMOCD approved facility. A total of 40 yards of impacted soil was disposed of on this date. The excavated areas were backfilled with like material and restored to grade. The pasture area was backfilled with topsoil and dunal material to support vegetation, and reseeded. All soil samples were packaged, properly preserved and transported to Hall Laboratories via Chain of Custody for analyses of Total Petroleum Hydrocarbons (TPH 8015M). Below is a tabular recap of the results for ease of reference.

Sample Point ID	BTEX	TPH	
		GRO	DRO
SP 1 West Wall	93.5	ND	19
SP 1 East Wall	ND	ND	26
SP 2 West Wall	ND	ND	ND
SP 2 East Wall	ND	ND	13
SP 5 West Wall	ND	ND	ND
SP 5 East Wall	ND	ND	ND

VI. Conclusions

Based on the number of lines and tanks inside the bermed area that encompasses 1,689² ft in a compacted area. Therefore, it is requested that further remediation for the interior of the battery be deferred to such a point in time that the battery is decommissioned. Pursuant to email correspondence and at the request of Mr. Hamlet of the NMOCD; the interior of the bermed area was sampled for confirmation of soil constituencies left in place.

On July 12, 2019 SESI personnel, with the permission of the current operator were on site to extract soil samples from under the liner. Four (4) Auger holes were advanced. The liner integrity appears to be intact and backfilled with fresh like material. All soil was properly contained, preserved, and transported to Hall Environmental analysis Laboratory, Inc., and analyzed for TPH (Total Petroleum Hydrocarbons Method 8015M/D and 8015D), and BTEX (Benzene, toluene, Ethylbenzene, Xylenes, Method 8021B). Below is are the tabulated results (Appendix C):

Sample ID	DRO	MRO	GRO	BTEX	Chlorides
AH-1 @ 1'	8300	3600	100	ND	6500
AH-2 @1'	10000	3900	750	47	5200
AH-3 @1'	73	97	ND	ND	150
AH-4 @1'	9300	5600	920	51	2700

Based on these results: The Chlorides are under the RL's for pad areas; therefore, the constituency of concern would be the Total Petroleum Hydrocarbons. Based on the depth to water for this area, the number of high-pressure lines, as well as production tanks. Remediation of this area would cause a major facility deconstruction, and halt to area production.

The pad area, as well as the pasture area have been remediated in accordance with NMOCD and NMSLO soil screening guidelines ([Appendix D](#)). All pasture areas mapped in the site plan have been reseeded with the required seed mixture, in order to facilitate native vegetation. Based upon the aforementioned soil screening levels, number of lines, and depth to groundwater for the area; no further remediation effort is recommended at this time.

Remedial actions at this site have all been performed with the approval of, and in accordance with all New Mexico Oil Conservation Division (NMOCD) requirements. As a result, we respectfully submit this closure report for your consideration and approval.

VII. Figures & Appendices

Figure 1 – C-141
Appendix A – Groundwater
Appendix B – Site Map
Appendix C – Laboratory Analyses
Appendix D – Site Photograph Documentation

Figure 1
C-141

State of New Mexico
Oil Conservation Division

Incident ID	2RP-5384
District RP	2
Facility ID	
Application ID	

Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

Closure Report Attachment Checklist: *Each of the following items must be included in the closure report.*

- ☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- ☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- ☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- ☒ Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD 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 OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD 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. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Thomas HaigoodTitle: EHS Coordinator *Remediation HSE Specialist*Signature: Date: 05/07/2019email: Thomas.haigood@maverickresources.comTelephone: (432) 701-7802**OCD Only**

Received by: _____ Date: _____

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: _____ Date: _____

Printed Name: _____

Title: _____

Appendix A

Groundwater



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced,

O=orphaned,

C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	Code	Sub-basin	County	Q Q Q	Sec	Tws	Rng	X	Y	DepthWell	DepthWater	Water Column
RA 09588		RA	ED	1 2 33	18S	28E		576976	3619384*	300		

Average Depth to Water: --

Minimum Depth: --

Maximum Depth: --

Record Count: 1

PLSS Search:

Township: 18S **Range:** 28E

*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

4/2/19 1:32 PM

WATER COLUMN/ AVERAGE DEPTH
TO WATER

Appendix B

Site Plan-Map

Breitburn Humble Yates Battery

Battery Sample Positions

Legend

AH

Berm

Test Trench

Appendix C

Laboratory Analyses

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1903E22**

Date Reported:

CLIENT: Safety & Environmental Solutions

Client Sample ID: E-SW

Project: Humble Yates Battery

Collection Date: 3/27/2019 3:00:00 PM

Lab ID: 1903E22-001

Matrix: SOIL

Received Date: 3/29/2019 8:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: Irm
Diesel Range Organics (DRO)	330	9.9		mg/Kg	1	4/1/2019 9:36:05 AM	43976
Motor Oil Range Organics (MRO)	360	49		mg/Kg	1	4/1/2019 9:36:05 AM	43976
Surr: DNOP	90.5	70-130		%Rec	1	4/1/2019 9:36:05 AM	43976
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	4/1/2019 1:10:44 PM	43962
Surr: BFB	104	73.8-119		%Rec	1	4/1/2019 1:10:44 PM	43962

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

Qualifiers:	H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified at testcode

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1903E22**

Date Reported:

CLIENT: Safety & Environmental Solutions

Client Sample ID: N-SW

Project: Humble Yates Battery

Collection Date: 3/27/2019 3:00:00 PM

Lab ID: 1903E22-002

Matrix: SOIL

Received Date: 3/29/2019 8:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: Irm
Diesel Range Organics (DRO)	1700	100		mg/Kg	10	3/30/2019 8:56:18 PM	43976
Motor Oil Range Organics (MRO)	890	510		mg/Kg	10	3/30/2019 8:56:18 PM	43976
Surr: DNOP	0	70-130	S	%Rec	10	3/30/2019 8:56:18 PM	43976
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	43	25		mg/Kg	5	4/1/2019 1:34:09 PM	43962
Surr: BFB	154	73.8-119	S	%Rec	5	4/1/2019 1:34:09 PM	43962

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

Qualifiers:	H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified at testcode

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1903E22**

Date Reported:

CLIENT: Safety & Environmental Solutions

Client Sample ID: S-SW

Project: Humble Yates Battery

Collection Date: 3/27/2019 3:05:00 PM

Lab ID: 1903E22-003

Matrix: SOIL

Received Date: 3/29/2019 8:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: Irm
Diesel Range Organics (DRO)	1300	100		mg/Kg	10	3/30/2019 9:20:23 PM	43976
Motor Oil Range Organics (MRO)	640	500		mg/Kg	10	3/30/2019 9:20:23 PM	43976
Surr: DNOP	0	70-130	S	%Rec	10	3/30/2019 9:20:23 PM	43976
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	51	47		mg/Kg	10	4/1/2019 1:57:28 PM	43962
Surr: BFB	136	73.8-119	S	%Rec	10	4/1/2019 1:57:28 PM	43962

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

Qualifiers:	H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified at testcode

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1903E22**

Date Reported:

CLIENT: Safety & Environmental Solutions

Client Sample ID: W-SW

Project: Humble Yates Battery

Collection Date: 3/27/2019 3:10:00 PM

Lab ID: 1903E22-004

Matrix: SOIL

Received Date: 3/29/2019 8:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: Irm
Diesel Range Organics (DRO)	6300	100		mg/Kg	10	3/30/2019 9:44:30 PM	43976
Motor Oil Range Organics (MRO)	2800	500		mg/Kg	10	3/30/2019 9:44:30 PM	43976
Surr: DNOP	0	70-130	S	%Rec	10	3/30/2019 9:44:30 PM	43976
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	300	48		mg/Kg	10	4/1/2019 2:20:52 PM	43962
Surr: BFB	264	73.8-119	S	%Rec	10	4/1/2019 2:20:52 PM	43962

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

Qualifiers:	H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified at testcode

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1903E22**

Date Reported:

CLIENT: Safety & Environmental Solutions

Client Sample ID: Bottom

Project: Humble Yates Battery

Collection Date: 3/27/2019 3:20:00 PM

Lab ID: 1903E22-005

Matrix: SOIL

Received Date: 3/29/2019 8:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: Irm
Diesel Range Organics (DRO)	2300	100		mg/Kg	10	3/30/2019 10:56:29 PM	43976
Motor Oil Range Organics (MRO)	1100	500		mg/Kg	10	3/30/2019 10:56:29 PM	43976
Surr: DNOP	0	70-130	S	%Rec	10	3/30/2019 10:56:29 PM	43976
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	100	47		mg/Kg	10	4/1/2019 2:44:18 PM	43962
Surr: BFB	163	73.8-119	S	%Rec	10	4/1/2019 2:44:18 PM	43962

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

Qualifiers:	H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified at testcode

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1903E22**

Date Reported:

CLIENT: Safety & Environmental Solutions

Client Sample ID: SP-1 @ 2 ft.

Project: Humble Yates Battery

Collection Date: 3/27/2019 4:00:00 PM

Lab ID: 1903E22-006

Matrix: SOIL

Received Date: 3/29/2019 8:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: Irm
Diesel Range Organics (DRO)	220	9.4		mg/Kg	1	4/1/2019 11:12:52 AM	43976
Motor Oil Range Organics (MRO)	150	47		mg/Kg	1	4/1/2019 11:12:52 AM	43976
Surr: DNOP	119	70-130		%Rec	1	4/1/2019 11:12:52 AM	43976
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/1/2019 3:07:44 PM	43962
Surr: BFB	95.0	73.8-119		%Rec	1	4/1/2019 3:07:44 PM	43962

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

Qualifiers:	H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified at testcode

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1903E22**

Date Reported:

CLIENT: Safety & Environmental Solutions

Client Sample ID: SP-2 @ 2 ft.

Project: Humble Yates Battery

Collection Date: 3/27/2019 4:02:00 PM

Lab ID: 1903E22-007

Matrix: SOIL

Received Date: 3/29/2019 8:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: Irm
Diesel Range Organics (DRO)	940	9.9		mg/Kg	1	4/1/2019 11:37:01 AM	43976
Motor Oil Range Organics (MRO)	510	50		mg/Kg	1	4/1/2019 11:37:01 AM	43976
Surr: DNOP	92.5	70-130		%Rec	1	4/1/2019 11:37:01 AM	43976
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	4/1/2019 3:31:19 PM	43962
Surr: BFB	92.0	73.8-119		%Rec	1	4/1/2019 3:31:19 PM	43962

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

Qualifiers:	H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified at testcode

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1903E22**

Date Reported:

CLIENT: Safety & Environmental Solutions

Client Sample ID: SP-3 @ 3 ft.

Project: Humble Yates Battery

Collection Date: 3/27/2019 4:05:00 PM

Lab ID: 1903E22-008

Matrix: SOIL

Received Date: 3/29/2019 8:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: Irm
Diesel Range Organics (DRO)	45	9.8		mg/Kg	1	3/31/2019 12:08:37 AM	43976
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	3/31/2019 12:08:37 AM	43976
Surr: DNOP	84.4	70-130		%Rec	1	3/31/2019 12:08:37 AM	43976
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/1/2019 6:17:02 PM	43962
Surr: BFB	94.3	73.8-119		%Rec	1	4/1/2019 6:17:02 PM	43962

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

Qualifiers:	H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified at testcode

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1903E22**

Date Reported:

CLIENT: Safety & Environmental Solutions

Client Sample ID: SP-4 @ 3 ft.

Project: Humble Yates Battery

Collection Date: 3/27/2019 4:10:00 PM

Lab ID: 1903E22-009

Matrix: SOIL

Received Date: 3/29/2019 8:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: Irm
Diesel Range Organics (DRO)	34	10		mg/Kg	1	3/31/2019 12:32:34 AM	43976
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	3/31/2019 12:32:34 AM	43976
Surr: DNOP	125	70-130		%Rec	1	3/31/2019 12:32:34 AM	43976
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	4/1/2019 6:40:37 PM	43962
Surr: BFB	90.2	73.8-119		%Rec	1	4/1/2019 6:40:37 PM	43962

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

Qualifiers:	H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified at testcode

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1903E22**

Date Reported:

CLIENT: Safety & Environmental Solutions

Client Sample ID: SP-5 @ 3 ft.

Project: Humble Yates Battery

Collection Date: 3/27/2019 4:15:00 PM

Lab ID: 1903E22-010

Matrix: SOIL

Received Date: 3/29/2019 8:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: Irm
Diesel Range Organics (DRO)	160	10		mg/Kg	1	3/31/2019 12:56:33 AM	43976
Motor Oil Range Organics (MRO)	140	50		mg/Kg	1	3/31/2019 12:56:33 AM	43976
Surr: DNOP	87.3	70-130		%Rec	1	3/31/2019 12:56:33 AM	43976
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/1/2019 7:04:15 PM	43962
Surr: BFB	91.5	73.8-119		%Rec	1	4/1/2019 7:04:15 PM	43962

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

Qualifiers:	H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified at testcode



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

April 15, 2019

Dave Boyer
Safety & Environmental Solutions
PO Box 1613
Hobbs, NM 88241
TEL: (575) 397-0510
FAX: (575) 393-4388

RE: Maverick Humble Yates Batt

OrderNo.: 1904494

Dear Dave Boyer:

Hall Environmental Analysis Laboratory received 6 sample(s) on 4/9/2019 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 #NM0901

Sincerely,

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

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1904494**Date Reported: **4/15/2019****CLIENT:** Safety & Environmental Solutions**Client Sample ID:** SP-1 West Wall**Project:** Maverick Humble Yates Batt**Collection Date:** 4/5/2019 8:30:00 AM**Lab ID:** 1904494-001**Matrix:** SOIL**Received Date:** 4/9/2019 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: Irm
Diesel Range Organics (DRO)	19	9.4		mg/Kg	1	4/13/2019 1:01:40 AM	44276
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	4/13/2019 1:01:40 AM	44276
Surr: DNOP	108	70-130		%Rec	1	4/13/2019 1:01:40 AM	44276
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/13/2019 10:16:16 PM	44253
Surr: BFB	93.4	73.8-119		%Rec	1	4/13/2019 10:16:16 PM	44253
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	4/13/2019 10:16:16 PM	44253
Toluene	ND	0.048		mg/Kg	1	4/13/2019 10:16:16 PM	44253
Ethylbenzene	ND	0.048		mg/Kg	1	4/13/2019 10:16:16 PM	44253
Xylenes, Total	ND	0.095		mg/Kg	1	4/13/2019 10:16:16 PM	44253
Surr: 4-Bromofluorobenzene	93.5	80-120		%Rec	1	4/13/2019 10:16:16 PM	44253

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

Qualifiers:	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	ND	Not Detected at the Reporting Limit	PQL	Practical Quantitative Limit
	RL	Reporting Detection Limit	S	% Recovery outside of range due to dilution or matrix
	W	Sample container temperature is out of limit as specified at testcode		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1904494**

Date Reported: **4/15/2019**

CLIENT: Safety & Environmental Solutions

Client Sample ID: SP-1 East Wall

Project: Maverick Humble Yates Batt

Collection Date: 4/5/2019 8:45:00 AM

Lab ID: 1904494-002

Matrix: SOIL

Received Date: 4/9/2019 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: Irm
Diesel Range Organics (DRO)	26	9.7		mg/Kg	1	4/13/2019 1:25:45 AM	44276
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/13/2019 1:25:45 AM	44276
Surr: DNOP	104	70-130		%Rec	1	4/13/2019 1:25:45 AM	44276
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/13/2019 10:39:39 PM	44253
Surr: BFB	91.0	73.8-119		%Rec	1	4/13/2019 10:39:39 PM	44253
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	4/13/2019 10:39:39 PM	44253
Toluene	ND	0.050		mg/Kg	1	4/13/2019 10:39:39 PM	44253
Ethylbenzene	ND	0.050		mg/Kg	1	4/13/2019 10:39:39 PM	44253
Xylenes, Total	ND	0.099		mg/Kg	1	4/13/2019 10:39:39 PM	44253
Surr: 4-Bromofluorobenzene	90.6	80-120		%Rec	1	4/13/2019 10:39:39 PM	44253

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

Qualifiers:	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	ND	Not Detected at the Reporting Limit	PQL	Practical Quantitative Limit
	RL	Reporting Detection Limit	S	% Recovery outside of range due to dilution or matrix
	W	Sample container temperature is out of limit as specified at testcode		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1904494**

Date Reported: **4/15/2019**

CLIENT: Safety & Environmental Solutions

Client Sample ID: SP-2 West Wall

Project: Maverick Humble Yates Batt

Collection Date: 4/5/2019 9:20:00 AM

Lab ID: 1904494-003

Matrix: SOIL

Received Date: 4/9/2019 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: Irm
Diesel Range Organics (DRO)	12	9.8		mg/Kg	1	4/13/2019 1:49:54 AM	44276
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/13/2019 1:49:54 AM	44276
Surr: DNOP	113	70-130		%Rec	1	4/13/2019 1:49:54 AM	44276
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	4/13/2019 11:03:04 PM	44253
Surr: BFB	90.4	73.8-119		%Rec	1	4/13/2019 11:03:04 PM	44253
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	4/13/2019 11:03:04 PM	44253
Toluene	ND	0.047		mg/Kg	1	4/13/2019 11:03:04 PM	44253
Ethylbenzene	ND	0.047		mg/Kg	1	4/13/2019 11:03:04 PM	44253
Xylenes, Total	ND	0.094		mg/Kg	1	4/13/2019 11:03:04 PM	44253
Surr: 4-Bromofluorobenzene	90.7	80-120		%Rec	1	4/13/2019 11:03:04 PM	44253

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

Qualifiers:	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	ND	Not Detected at the Reporting Limit	PQL	Practical Quantitative Limit
	RL	Reporting Detection Limit	S	% Recovery outside of range due to dilution or matrix
	W	Sample container temperature is out of limit as specified at testcode		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1904494**

Date Reported: **4/15/2019**

CLIENT: Safety & Environmental Solutions

Client Sample ID: SP-2 East Wall

Project: Maverick Humble Yates Batt

Collection Date: 4/5/2019 9:45:00 AM

Lab ID: 1904494-004

Matrix: SOIL

Received Date: 4/9/2019 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: Irm
Diesel Range Organics (DRO)	13	9.9		mg/Kg	1	4/13/2019 2:13:51 AM	44276
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	4/13/2019 2:13:51 AM	44276
Surr: DNOP	105	70-130		%Rec	1	4/13/2019 2:13:51 AM	44276
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	4/13/2019 11:26:26 PM	44253
Surr: BFB	89.0	73.8-119		%Rec	1	4/13/2019 11:26:26 PM	44253
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	4/13/2019 11:26:26 PM	44253
Toluene	ND	0.046		mg/Kg	1	4/13/2019 11:26:26 PM	44253
Ethylbenzene	ND	0.046		mg/Kg	1	4/13/2019 11:26:26 PM	44253
Xylenes, Total	ND	0.093		mg/Kg	1	4/13/2019 11:26:26 PM	44253
Surr: 4-Bromofluorobenzene	89.0	80-120		%Rec	1	4/13/2019 11:26:26 PM	44253

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

Qualifiers:	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	ND	Not Detected at the Reporting Limit	PQL	Practical Quantitative Limit
	RL	Reporting Detection Limit	S	% Recovery outside of range due to dilution or matrix
	W	Sample container temperature is out of limit as specified at testcode		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1904494**Date Reported: **4/15/2019****CLIENT:** Safety & Environmental Solutions**Client Sample ID:** SP-5 West Wall**Project:** Maverick Humble Yates Batt**Collection Date:** 4/5/2019 10:15:00 AM**Lab ID:** 1904494-005**Matrix:** SOIL**Received Date:** 4/9/2019 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: Irm
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	4/13/2019 2:37:54 AM	44276
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/13/2019 2:37:54 AM	44276
Surr: DNOP	104	70-130		%Rec	1	4/13/2019 2:37:54 AM	44276
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/14/2019 10:29:45 AM	44270
Surr: BFB	93.4	73.8-119		%Rec	1	4/14/2019 10:29:45 AM	44270
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	4/14/2019 10:29:45 AM	44270
Toluene	ND	0.048		mg/Kg	1	4/14/2019 10:29:45 AM	44270
Ethylbenzene	ND	0.048		mg/Kg	1	4/14/2019 10:29:45 AM	44270
Xylenes, Total	ND	0.096		mg/Kg	1	4/14/2019 10:29:45 AM	44270
Surr: 4-Bromofluorobenzene	94.9	80-120		%Rec	1	4/14/2019 10:29:45 AM	44270

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

Qualifiers:	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	ND	Not Detected at the Reporting Limit	PQL	Practical Quantitative Limit
	RL	Reporting Detection Limit	S	% Recovery outside of range due to dilution or matrix
	W	Sample container temperature is out of limit as specified at testcode		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1904494**Date Reported: **4/15/2019****CLIENT:** Safety & Environmental Solutions**Client Sample ID:** SP-5 East Wall**Project:** Maverick Humble Yates Batt**Collection Date:** 4/5/2019 10:30:00 AM**Lab ID:** 1904494-006**Matrix:** SOIL**Received Date:** 4/9/2019 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: Irm
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	4/13/2019 3:02:01 AM	44276
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/13/2019 3:02:01 AM	44276
Surr: DNOP	106	70-130		%Rec	1	4/13/2019 3:02:01 AM	44276
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	4/14/2019 10:53:08 AM	44270
Surr: BFB	93.0	73.8-119		%Rec	1	4/14/2019 10:53:08 AM	44270
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	4/14/2019 10:53:08 AM	44270
Toluene	ND	0.047		mg/Kg	1	4/14/2019 10:53:08 AM	44270
Ethylbenzene	ND	0.047		mg/Kg	1	4/14/2019 10:53:08 AM	44270
Xylenes, Total	ND	0.094		mg/Kg	1	4/14/2019 10:53:08 AM	44270
Surr: 4-Bromofluorobenzene	94.3	80-120		%Rec	1	4/14/2019 10:53:08 AM	44270

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

Qualifiers:	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	ND	Not Detected at the Reporting Limit	PQL	Practical Quantitative Limit
	RL	Reporting Detection Limit	S	% Recovery outside of range due to dilution or matrix
	W	Sample container temperature is out of limit as specified at testcode		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1904494

15-Apr-19

Client: Safety & Environmental Solutions

Project: Maverick Humble Yates Batt

Sample ID: MB-44276	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 44276	RunNo: 59065								
Prep Date: 4/10/2019	Analysis Date: 4/11/2019	SeqNo: 1988005			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	11		10.00		109	70	130			

Sample ID: LCS-44276	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 44276	RunNo: 59065								
Prep Date: 4/10/2019	Analysis Date: 4/11/2019	SeqNo: 1988539			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	43	10	50.00	0	85.4	63.9	124			
Surr: DNOP	4.7		5.000		94.5	70	130			

Sample ID: MB-44296	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 44296	RunNo: 59115								
Prep Date: 4/11/2019	Analysis Date: 4/12/2019	SeqNo: 1990924			Units: %Rec					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	10		10.00		105	70	130			

Sample ID: LCS-44296	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 44296	RunNo: 59115								
Prep Date: 4/11/2019	Analysis Date: 4/12/2019	SeqNo: 1990925			Units: %Rec					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.6		5.000		92.9	70	130			

Qualifiers:

E Value above quantitation range
ND Not Detected at the Reporting Limit
RL Reporting Detection Limit
W Sample container temperature is out of limit as specified at testcode

H Holding times for preparation or analysis exceeded
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1904494

15-Apr-19

Client: Safety & Environmental Solutions

Project: Maverick Humble Yates Batt

Sample ID: MB-44253	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: 44253	RunNo: 59130								
Prep Date: 4/10/2019	Analysis Date: 4/13/2019	SeqNo: 1990394 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	910		1000		90.5	73.8	119			

Sample ID: LCS-44253	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch ID: 44253	RunNo: 59130								
Prep Date: 4/10/2019	Analysis Date: 4/13/2019	SeqNo: 1990395 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	104	80.1	123			
Surr: BFB	1000		1000		103	73.8	119			

Sample ID: MB-44270	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: 44270	RunNo: 59130								
Prep Date: 4/10/2019	Analysis Date: 4/13/2019	SeqNo: 1990417 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	880		1000		87.7	73.8	119			

Sample ID: LCS-44270	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch ID: 44270	RunNo: 59130								
Prep Date: 4/10/2019	Analysis Date: 4/14/2019	SeqNo: 1990418 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	94.2	80.1	123			
Surr: BFB	980		1000		97.7	73.8	119			

Sample ID: MB-44274	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: 44274	RunNo: 59134								
Prep Date: 4/10/2019	Analysis Date: 4/14/2019	SeqNo: 1990660 Units: %Rec								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	940		1000		93.7	73.8	119			

Sample ID: LCS-44274	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch ID: 44274	RunNo: 59134								
Prep Date: 4/10/2019	Analysis Date: 4/14/2019	SeqNo: 1990661 Units: %Rec								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1100		1000		107	73.8	119			

Qualifiers:

E Value above quantitation range
ND Not Detected at the Reporting Limit
RL Reporting Detection Limit
W Sample container temperature is out of limit as specified at testcode

H Holding times for preparation or analysis exceeded
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1904494

15-Apr-19

Client: Safety & Environmental Solutions

Project: Maverick Humble Yates Batt

Sample ID: MB-44253	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles								
Client ID: PBS	Batch ID: 44253	RunNo: 59130								
Prep Date: 4/10/2019	Analysis Date: 4/13/2019	SeqNo: 1990440 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.90		1.000		90.4	80	120			

Sample ID: LCS-44253	SampType: LCS	TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSS	Batch ID: 44253	RunNo: 59130								
Prep Date: 4/10/2019	Analysis Date: 4/13/2019	SeqNo: 1990441 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.025	1.000	0	92.8	80	120			
Toluene	0.97	0.050	1.000	0	97.1	80	120			
Ethylbenzene	0.96	0.050	1.000	0	96.5	80	120			
Xylenes, Total	2.9	0.10	3.000	0	97.6	80	120			
Surr: 4-Bromofluorobenzene	0.96		1.000		95.5	80	120			

Sample ID: MB-44270	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles								
Client ID: PBS	Batch ID: 44270	RunNo: 59130								
Prep Date: 4/10/2019	Analysis Date: 4/13/2019	SeqNo: 1990477 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.89		1.000		88.6	80	120			

Sample ID: LCS-44270	SampType: LCS	TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSS	Batch ID: 44270	RunNo: 59130								
Prep Date: 4/10/2019	Analysis Date: 4/14/2019	SeqNo: 1990499 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.92	0.025	1.000	0	91.8	80	120			
Toluene	0.96	0.050	1.000	0	95.5	80	120			
Ethylbenzene	0.95	0.050	1.000	0	95.4	80	120			
Xylenes, Total	2.9	0.10	3.000	0	96.2	80	120			
Surr: 4-Bromofluorobenzene	0.91		1.000		90.7	80	120			

Qualifiers:

E Value above quantitation range
ND Not Detected at the Reporting Limit
RL Reporting Detection Limit
W Sample container temperature is out of limit as specified at testcode

H Holding times for preparation or analysis exceeded
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1904494

15-Apr-19

Client: Safety & Environmental Solutions

Project: Maverick Humble Yates Batt

Sample ID: MB-44274	SampType: MBLK			TestCode: EPA Method 8021B: Volatiles						
Client ID: PBS	Batch ID: 44274			RunNo: 59134						
Prep Date: 4/10/2019	Analysis Date: 4/14/2019			SeqNo: 1990691		Units: %Rec				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.93		1.000		92.6	80	120			

Sample ID: LCS-44274	SampType: LCS			TestCode: EPA Method 8021B: Volatiles						
Client ID: LCSS	Batch ID: 44274			RunNo: 59134						
Prep Date: 4/10/2019	Analysis Date: 4/14/2019			SeqNo: 1990692		Units: %Rec				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.93		1.000		92.5	80	120			

Qualifiers:

E Value above quantitation range
ND Not Detected at the Reporting Limit
RL Reporting Detection Limit
W Sample container temperature is out of limit as specified at testcode

H Holding times for preparation or analysis exceeded
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

Sample Log-In Check List

Client Name: **Safety Env Solutions**

Work Order Number: **1904494**

RcptNo: 1

Received By: **Desiree Dominguez** 4/9/2019 9:15:00 AM

Completed By: **Erin Melendrez** 4/9/2019 11:20:03 AM

Reviewed By: **YG 4/9/19**

LB: DAD 4/9/19

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? Yes ☒ No ☐ NA ☐

4. Were all samples received at a temperature of >0° C to 6.0°C Yes ☒ No ☐ NA ☐

5. Sample(s) in proper container(s)? Yes ☒ No ☐

6. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐

7. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐

8. Was preservative added to bottles? Yes ☐ No ☒ NA ☐

9. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒

10. Were any sample containers received broken? Yes ☐ No ☒

11. Does paperwork match bottle labels? Yes ☒ No ☐

(Note discrepancies on chain of custody)

12. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐

13. Is it clear what analyses were requested? Yes ☒ No ☐

14. Were all holding times able to be met? Yes ☒ No ☐

(If no, notify customer for authorization.)

of preserved
bottles checked
for pH:

(≤2 or >12 unless noted)

Adjusted?

Checked by: **DAD 4/9/19**

Special Handling (if applicable)

15. 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:

16. Additional remarks:

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	5.4	Good	Yes			
2	2.2	Good	Yes			

Chain-of-Custody Record

Client: Safety & Environmental Solutions

Mailing Address: 703 E. Clinton
Albuquerque NM 87240

Phone #: 575-390-0570

email or Fax#:

QA/QC Package: ☐ Level 4 (Full Validation)

☒ Standard ☐ Other _____

Accreditation ☐ NELAP ☐ Other _____

☐ EDD (Type) _____

Date	Time	Matrix	Sample Request ID
04/05/830		S	SP-1 Westville
845		S	SP-1 Eastville
0920		S	SP-2 Westville
0945		S	SP-2 Eastville
1015		S	SP-5 Westville
1030		S	SP-5 Eastville

Date: 04/08/2000 Time: 1900

Date: 4/8/19 Time: 1900

Turn-Around Time: 5 day Rush SPB

☒ Standard ☐ Rush

Project Name: McNERRIC

DUMBIE YATES BATT.

Project #: MAV-19-001

Project Manager: Allen, Bob

Sampler: Spencer

On Ice: ☒ Yes ☐ No

Sample Temperature: 5.4°C, 2.2°C

Container Type and #	Preservative Type	HEAL No.
1	Free	1904494
1	Ref	-001
1		-002
1		-003
1		-004
1		-005
1		-006

Received by: Spencer Date: 4/8/19 Time: 0730

Received by: DB courier Date: 4/9/19 Time: 9:15

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

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

Remarks:



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

July 23, 2019

Bob Allen
Safety & Environmental Solutions
PO Box 1613
Hobbs, NM 88241
TEL:
FAX

RE: Maverick Humble Yates

OrderNo.: 1907671

Dear Bob Allen:

Hall Environmental Analysis Laboratory received 4 sample(s) on 7/13/2019 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 #NM0901

Sincerely,

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

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1907671**

Date Reported: **7/23/2019**

CLIENT: Safety & Environmental Solutions

Client Sample ID: AH-1 1FT

Project: Maverick Humble Yates

Collection Date: 7/12/2019 10:30:00 AM

Lab ID: 1907671-001

Matrix: SOIL

Received Date: 7/13/2019 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: BRM
Diesel Range Organics (DRO)	8300	200		mg/Kg	20	7/22/2019 5:57:39 PM
Motor Oil Range Organics (MRO)	3600	1000		mg/Kg	20	7/22/2019 5:57:39 PM
Surr: DNOP	0	70-130	S	%Rec	20	7/22/2019 5:57:39 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	100	25		mg/Kg	5	7/16/2019 8:18:10 PM
Surr: BFB	326	73.8-119	S	%Rec	5	7/16/2019 8:18:10 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.12		mg/Kg	5	7/16/2019 8:18:10 PM
Toluene	ND	0.25		mg/Kg	5	7/16/2019 8:18:10 PM
Ethylbenzene	1.8	0.25		mg/Kg	5	7/16/2019 8:18:10 PM
Xylenes, Total	3.4	0.49		mg/Kg	5	7/16/2019 8:18:10 PM
Surr: 4-Bromofluorobenzene	118	80-120		%Rec	5	7/16/2019 8:18:10 PM
EPA METHOD 300.0: ANIONS						Analyst: MRA
Chloride	6500	300		mg/Kg	100	7/19/2019 5:52:20 PM

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

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1907671**

Date Reported: **7/23/2019**

CLIENT: Safety & Environmental Solutions

Client Sample ID: AH-2 1FT

Project: Maverick Humble Yates

Collection Date: 7/12/2019 10:35:00 AM

Lab ID: 1907671-002

Matrix: SOIL

Received Date: 7/13/2019 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: BRM
Diesel Range Organics (DRO)	10000	190		mg/Kg	20	7/22/2019 6:42:15 PM
Motor Oil Range Organics (MRO)	3900	940		mg/Kg	20	7/22/2019 6:42:15 PM
Surr: DNOP	0	70-130	S	%Rec	20	7/22/2019 6:42:15 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	750	24		mg/Kg	5	7/16/2019 9:03:32 PM
Surr: BFB	979	73.8-119	S	%Rec	5	7/16/2019 9:03:32 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	0.45	0.12		mg/Kg	5	7/16/2019 9:03:32 PM
Toluene	13	0.24		mg/Kg	5	7/16/2019 9:03:32 PM
Ethylbenzene	29	2.4		mg/Kg	50	7/17/2019 12:41:36 PM
Xylenes, Total	47	0.49		mg/Kg	5	7/16/2019 9:03:32 PM
Surr: 4-Bromofluorobenzene	213	80-120	S	%Rec	5	7/16/2019 9:03:32 PM
EPA METHOD 300.0: ANIONS						Analyst: MRA
Chloride	5200	300		mg/Kg	100	7/19/2019 6:04:44 PM

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1907671**Date Reported: **7/23/2019****CLIENT:** Safety & Environmental Solutions**Client Sample ID:** AH-3 1FT**Project:** Maverick Humble Yates**Collection Date:** 7/12/2019 10:50:00 AM**Lab ID:** 1907671-003**Matrix:** SOIL**Received Date:** 7/13/2019 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: BRM
Diesel Range Organics (DRO)	73	9.8		mg/Kg	1	7/18/2019 8:50:27 PM
Motor Oil Range Organics (MRO)	97	49		mg/Kg	1	7/18/2019 8:50:27 PM
Surr: DNOP	114	70-130		%Rec	1	7/18/2019 8:50:27 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/16/2019 10:11:48 PM
Surr: BFB	107	73.8-119		%Rec	1	7/16/2019 10:11:48 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	7/16/2019 10:11:48 PM
Toluene	ND	0.049		mg/Kg	1	7/16/2019 10:11:48 PM
Ethylbenzene	ND	0.049		mg/Kg	1	7/16/2019 10:11:48 PM
Xylenes, Total	ND	0.097		mg/Kg	1	7/16/2019 10:11:48 PM
Surr: 4-Bromofluorobenzene	91.5	80-120		%Rec	1	7/16/2019 10:11:48 PM
EPA METHOD 300.0: ANIONS						Analyst: smb
Chloride	150	60		mg/Kg	20	7/18/2019 1:40:12 PM

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

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1907671**Date Reported: **7/23/2019****CLIENT:** Safety & Environmental Solutions**Client Sample ID:** AH-4 1FT**Project:** Maverick Humble Yates**Collection Date:** 7/12/2019 11:00:00 AM**Lab ID:** 1907671-004**Matrix:** SOIL**Received Date:** 7/13/2019 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: BRM
Diesel Range Organics (DRO)	9300	970		mg/Kg	100	7/18/2019 8:25:35 PM
Motor Oil Range Organics (MRO)	5600	4800		mg/Kg	100	7/18/2019 8:25:35 PM
Surr: DNOP	0	70-130	S	%Rec	100	7/18/2019 8:25:35 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	920	25		mg/Kg	5	7/16/2019 10:34:28 PM
Surr: BFB	1080	73.8-119	S	%Rec	5	7/16/2019 10:34:28 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	0.23	0.12		mg/Kg	5	7/16/2019 10:34:28 PM
Toluene	14	0.25		mg/Kg	5	7/16/2019 10:34:28 PM
Ethylbenzene	21	0.25		mg/Kg	5	7/16/2019 10:34:28 PM
Xylenes, Total	51	0.50		mg/Kg	5	7/16/2019 10:34:28 PM
Surr: 4-Bromofluorobenzene	198	80-120	S	%Rec	5	7/16/2019 10:34:28 PM
EPA METHOD 300.0: ANIONS						Analyst: MRA
Chloride	2700	150		mg/Kg	50	7/19/2019 6:17:09 PM

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1907671

23-Jul-19

Client: Safety & Environmental Solutions

Project: Maverick Humble Yates

Sample ID: MB-46249	SampType: MBLK	TestCode: EPA Method 300.0: Anions
Client ID: PBS	Batch ID: 46249	RunNo: 61478
Prep Date: 7/18/2019	Analysis Date: 7/18/2019	SeqNo: 2085062 Units: mg/Kg
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Chloride	ND	1.5

Sample ID: LCS-46249	SampType: LCS	TestCode: EPA Method 300.0: Anions
Client ID: LCSS	Batch ID: 46249	RunNo: 61478
Prep Date: 7/18/2019	Analysis Date: 7/18/2019	SeqNo: 2085063 Units: mg/Kg
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Chloride	14	1.5 15.00 0 94.8 90 110

Qualifiers:

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

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1907671

23-Jul-19

Client: Safety & Environmental Solutions

Project: Maverick Humble Yates

Sample ID: MB-46237	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 46237	RunNo: 61479								
Prep Date: 7/17/2019	Analysis Date: 7/18/2019	SeqNo: 2084881	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		115	70	130			

Sample ID: LCS-46237	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 46237	RunNo: 61511								
Prep Date: 7/17/2019	Analysis Date: 7/19/2019	SeqNo: 2085058	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	127	63.9	124			S
Surr: DNOP	5.0		5.000		100	70	130			

Sample ID: LCS-46265	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 46265	RunNo: 61511								
Prep Date: 7/18/2019	Analysis Date: 7/19/2019	SeqNo: 2085370	Units: %Rec							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.0		5.000		80.9	70	130			

Sample ID: MB-46265	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 46265	RunNo: 61511								
Prep Date: 7/18/2019	Analysis Date: 7/19/2019	SeqNo: 2085380	Units: %Rec							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.7		10.00		97.0	70	130			

Qualifiers:

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

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1907671

23-Jul-19

Client: Safety & Environmental Solutions

Project: Maverick Humble Yates

Sample ID: MB-46184	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: 46184	RunNo: 61408								
Prep Date: 7/15/2019	Analysis Date: 7/16/2019	SeqNo: 2081931	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	1100		1000		106	73.8	119			

Sample ID: LCS-46184	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch ID: 46184	RunNo: 61408								
Prep Date: 7/15/2019	Analysis Date: 7/16/2019	SeqNo: 2081932	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	95.5	80.1	123			
Surr: BFB	1200		1000		120	73.8	119			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
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1907671

23-Jul-19

Client: Safety & Environmental Solutions

Project: Maverick Humble Yates

Sample ID: MB-46184	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles								
Client ID: PBS	Batch ID: 46184	RunNo: 61408								
Prep Date: 7/15/2019	Analysis Date: 7/16/2019	SeqNo: 2081946	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.92		1.000		92.3	80	120			

Sample ID: LCS-46184	SampType: LCS	TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSS	Batch ID: 46184	RunNo: 61408								
Prep Date: 7/15/2019	Analysis Date: 7/16/2019	SeqNo: 2081947	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.98	0.025	1.000	0	97.6	80	120			
Toluene	1.0	0.050	1.000	0	99.6	80	120			
Ethylbenzene	0.97	0.050	1.000	0	97.2	80	120			
Xylenes, Total	2.9	0.10	3.000	0	97.6	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		105	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 Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit



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

Sample Log-In Check List

Client Name: **Safety Env Solutions**

Work Order Number: **1907671**

RcptNo: 1

Received By: **Isaiah Ortiz**

7/13/2019 8:30:00 AM

IOX

Completed By: **Leah Baca**

7/15/2019 10:32:40 AM

Leah Baca

Reviewed By: *LB*

7/15/19

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? Yes ☒ No ☐ NA ☐
4. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☒ No ☐ NA ☐
5. Sample(s) in proper container(s)? Yes ☒ No ☐
6. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
7. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
8. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
9. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
10. Were any sample containers received broken? Yes ☐ No ☒
11. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐
12. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
13. Is it clear what analyses were requested? Yes ☒ No ☐
14. 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: **DAD 7/15/19**

Special Handling (if applicable)

15. 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: _____

16. Additional remarks:

17. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.1	Good	Yes			

Appendix D

Photograph Documentation

Site Photographs

Humble Yates Battery
Sec.16, TS 18S, R 28E



Fluid inside Berm



Spill Pool area locale of test trench



Removal of saturated pasture soil 1-10-19



Historical impact-abandoned line strike



Line Strike in Test Trench



Test Trench Excavation Line Repair



Lines East of Excavation & on pad



Sample Position 5 Refusal



Sample Position 4 Refusal



Sample Position 3 Refusal



Sample Position 2



Sample Position 1



Removal of |Stockpile



Restored Pad Area



Pad area looking south to SP1



Restored Pasture area looking South



Sample Point 5 looking North



Remediated area south of berm-buried line