Souder, Miller & Associates♦201 S. Halagueno St.♦Carlsbad, NM 88220
(575) 689-8801

March 3, 2020

C2698-200304-C-1410

#5E27950-BG32

NMOCD District 1
1625 N. French Drive
Hobbs, New Mexico 88240

SUBJECT: Remediation Closure Report for the Will Kane 15 WA Fee #006 Release (NRM2002935153, Receipt No. EGKU9191216C1410), Lea County, New Mexico

To Whom it May Concern:

On behalf of Marathon Oil Permian, LLC (Marathon), Souder, Miller & Associates (SMA) has prepared this Remediation Closure Report that describes the remediation of a release of liquids related to oil and gas production activities at the Will Kane 15 WA Fee #006 site. The site is in Unit O, Section 15, Township 24S, Range 34E, Lea County, New Mexico, on private land. Figure 1 illustrates the vicinity and site location on an USGS 7.5 minute quadrangle map.

Table 1 summarizes release information and Closure Criteria.

Table 1: Release Information and Closure Criteria			
Name	Will Kane 15 WA Fee #006	Company	Marathon Oil Permian, LLC
API Number	30-025-45997	Location	32.21170365° -103.45367498°
Incident Number	NRM2002935153, Receipt No. EGKU9191216C1410		
Estimated Date of Release	12/12/2019	Date Reported to NMOCD	12/13/2019
Land Owner	Private	Reported To	NMOCD
Source of Release	Low pressure flare		
Released Volume	0.31 bbls	Released Material	Crude Oil
Recovered Volume	0 bbls	Net Release	0.31 bbls
NMOCD Closure Criteria	>100 feet to groundwater		
SMA Response Dates	December 19, 2019		

1.0 Background

On December 12, 2019, a fire occurred on the Will Kane 15 WA Fee #006 site due to a low-pressure flare being swamped. Initial response activities were conducted by Marathon, and included source elimination and site security activities. The charred area was surface scraped to approximately six (6) inches below grade surface (bgs). Figure 1 illustrates the vicinity and site location; Figure 2 illustrates the release location. The C-141 form is included in Appendix A.

2.0 Site Information and Closure Criteria

The Will Kane 15 WA Fee #006 is located approximately 16 miles northwest of Jal, New Mexico on privately-owned land at an elevation of approximately 3,508 feet above mean sea level (amsl).

Based upon information found in NMOSE Well Record & Log for C-03932 (Appendix B), depth to groundwater in the area is estimated to be 431 feet bgs. There is one known water source within ½-mile of the location, according to the New Mexico Office of the State Engineer (NMOSE) online water well database (https://gis.ose.state.nm.us/gisapps/ose_pod_locations/; accessed 12/12/2019). The nearest significant watercourse is an unnamed playa, located approximately 6,000 feet to the north. Figure 2 illustrates the site with 200 and 300-foot radii to indicate that it does not lie within a sensitive area as described in 19.15.29.12.C(4) NMAC.

Based on the information presented herein, the applicable NMOCD Closure Criteria for this site is for a groundwater depth of greater than 100 feet bgs. The site has been restored to meet the standards of Table I of 19.15.29.12 NMAC.

Table 2 demonstrates the Closure Criteria applicable to this location. Pertinent well data is attached in Appendix B.

3.0 Release Characterization and Remediation Activities

On December 19, 2019, SMA personnel arrived on site in response to the release associated with Will Kane 15 WA Fee #006. SMA performed site delineation activities by collecting soil samples around the release site and throughout the visibly stained area. Soil samples were field screened for chloride using an electrical conductivity (EC) meter and for hydrocarbon impacts using a calibrated MiniRAE 2000 photoionization detector (PID).

A total of five (5) sample locations (L1-L5) were investigated using a hand-auger, to depths up to one (1) foot bgs. Two samples were collected at each sampling location and field-screened using the methods above. Based on field screening results, the area was then surface scraped to approximately six (6) inches bgs.

A total of ten (10) samples were collected for laboratory analysis for total chloride using EPA Method 300.0; benzene, toluene, ethylbenzene and total xylenes (BTEX) using EPA Method 8021B; and motor, diesel and gasoline range organics (MRO, DRO, and GRO) by EPA Method 8015D. Laboratory samples were collected in accordance with the sampling protocol included in Appendix C. Samples were placed into laboratory supplied glassware, labeled, and maintained on ice until delivery to Hall Environmental Analysis Laboratory in Albuquerque, New Mexico (Appendix D).

Figure 3 shows sample locations. Laboratory results are summarized in Table 3. Laboratory reports are included in Appendix D.

The surface scraped soils were removed and replaced with clean backfill material to return the surface to previous contours. The contaminated soil was transported and disposed of at R360, an NMOCD permitted disposal facility.

SMA recommends no further action.

5.0 Scope and Limitations

The scope of our services included: assessment sampling; verifying release stabilization; regulatory liaison; remediation; and preparing this closure report. 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 Ashley Maxwell or Shawna Chubbuck at 505-325-7535.

Submitted by:
SOUDER, MILLER & ASSOCIATES

Ashley Maxwell
Project Scientist

Reviewed by:

Shawna Chubbuck
Senior Scientist

ATTACHMENTS:

Figures:

Figure 1: Vicinity and Well Head Protection Map
Figure 2: Surface Water Radius Map
Figure 3: Site and Sample Location Map

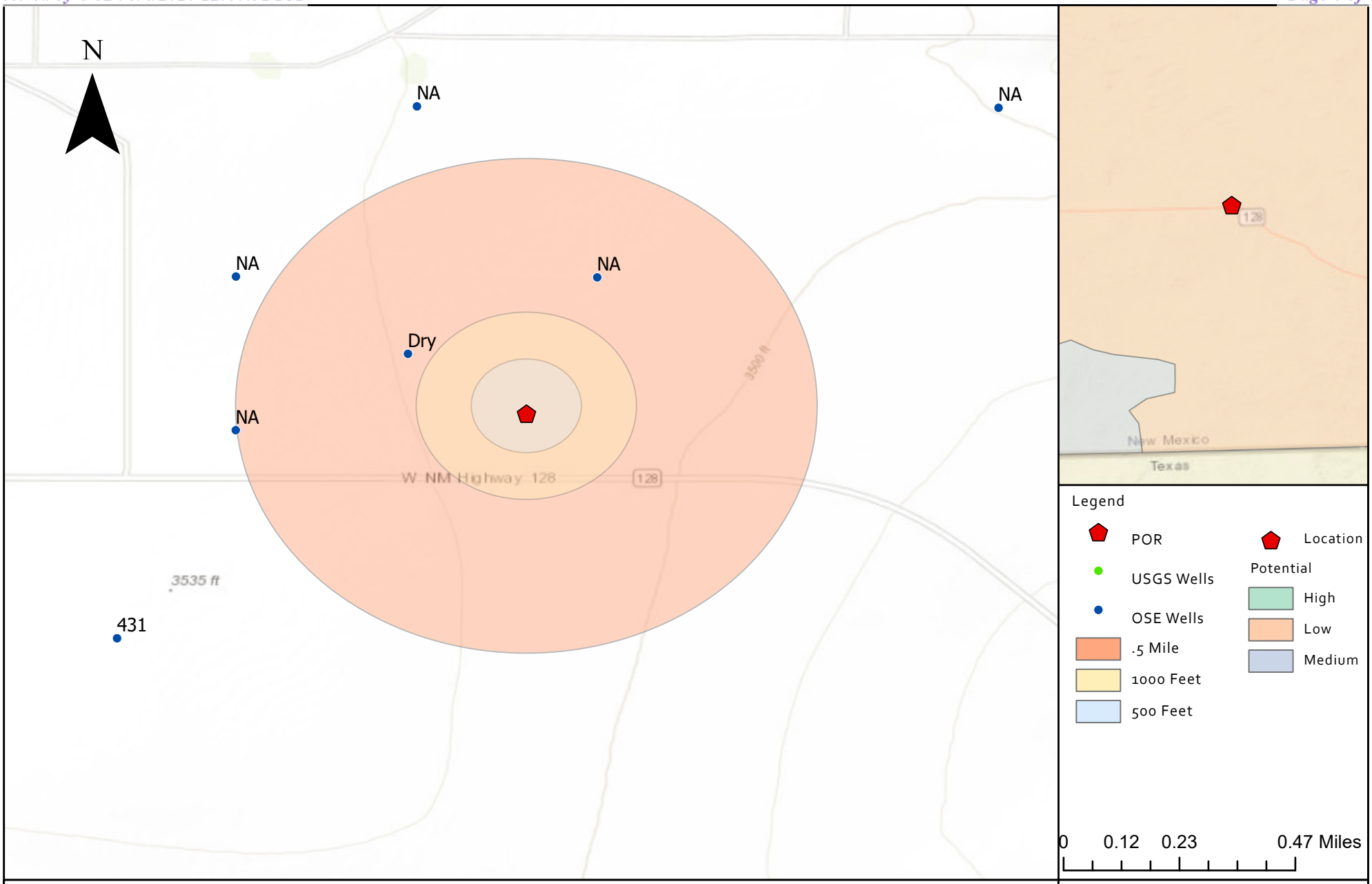
Tables:

Table 2: NMOCD Closure Criteria Justification
Table 3: Summary of Sample Results

Appendices:

Appendix A: Form C141
Appendix B: NMOSE Wells Report
Appendix C: Site Photography and Field Notes
Appendix D: Laboratory Analytical Reports

FIGURES



Regional Vicinity & Wellhead Protection Map
Will Kane 15 WA Fee #006 - Marathon Oil
UL: O S: 15 T: 24S R: 34E Lea County, New Mexico

Figure 1

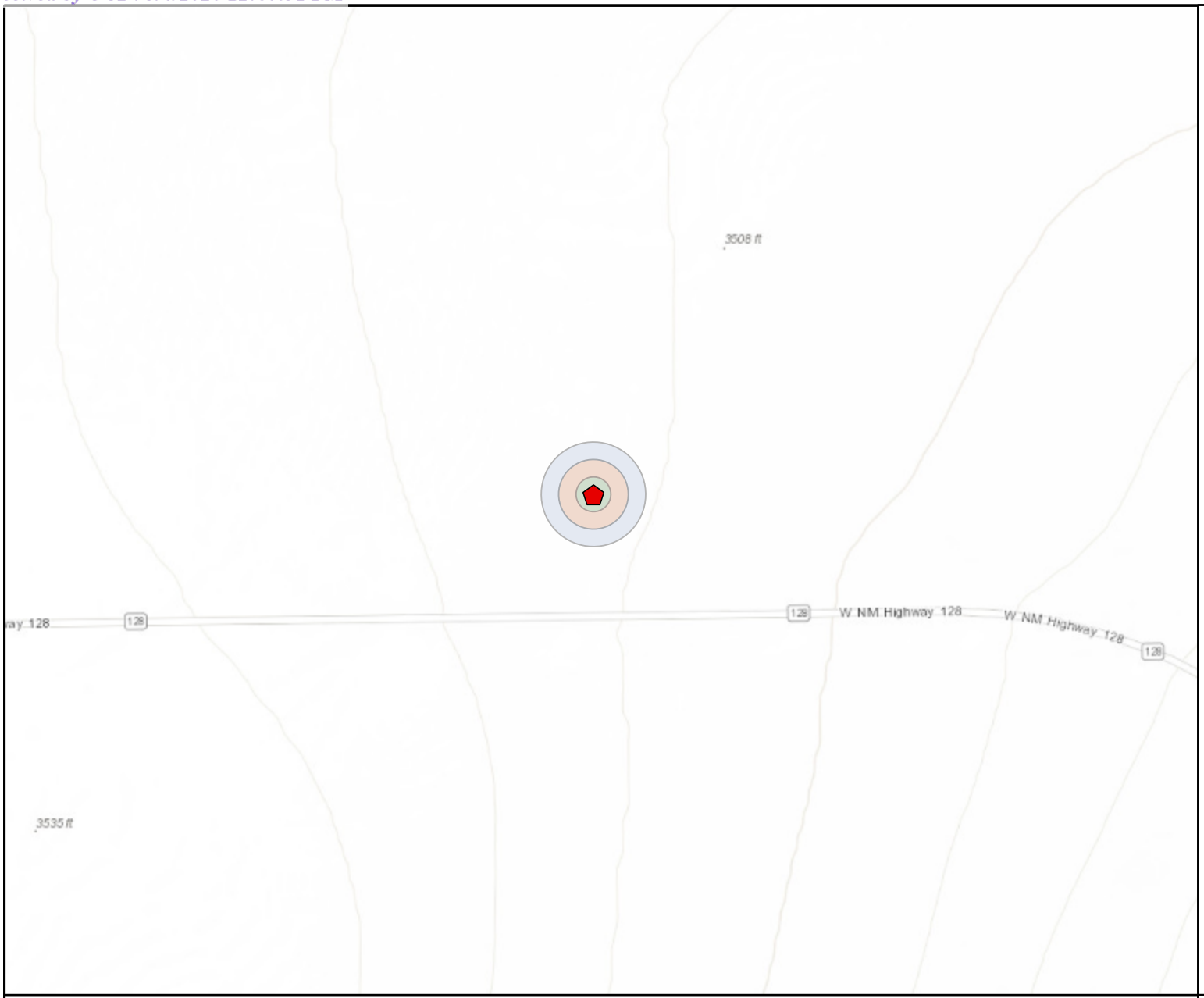
Date Saved: 9/30/2019

Revisions
By: Date: Descr:
By: Date: Descr:

Drawn Lynn A. Acosta
Date 1/21/2020
Checked
Approved

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

\\192.168.22.10\Projects\5-Marathon MSA 2019 (5E27950)\BG13 - Madera 25 Fed Com 5H\Report\ARCGIS\MARATHON_MIT.aprx



Legend

- Point of Release

Buffer Distance

- 100 Feet
- 200 Feet
- 300 Feet
- Streams Canals
- Rivers
- Flowlines_SENM
- NM Wetlands
- Lakes_Playas
- FEMA_Flood_Zones_2011

N

0 265 530 1,060 US Feet

Surface Water Protection Map
Will Kane 15 WA FEE #006 - Marathon Oil
UL: O S: 15 T: 24S R: 34E Lea County, New Mexico

Figure 2

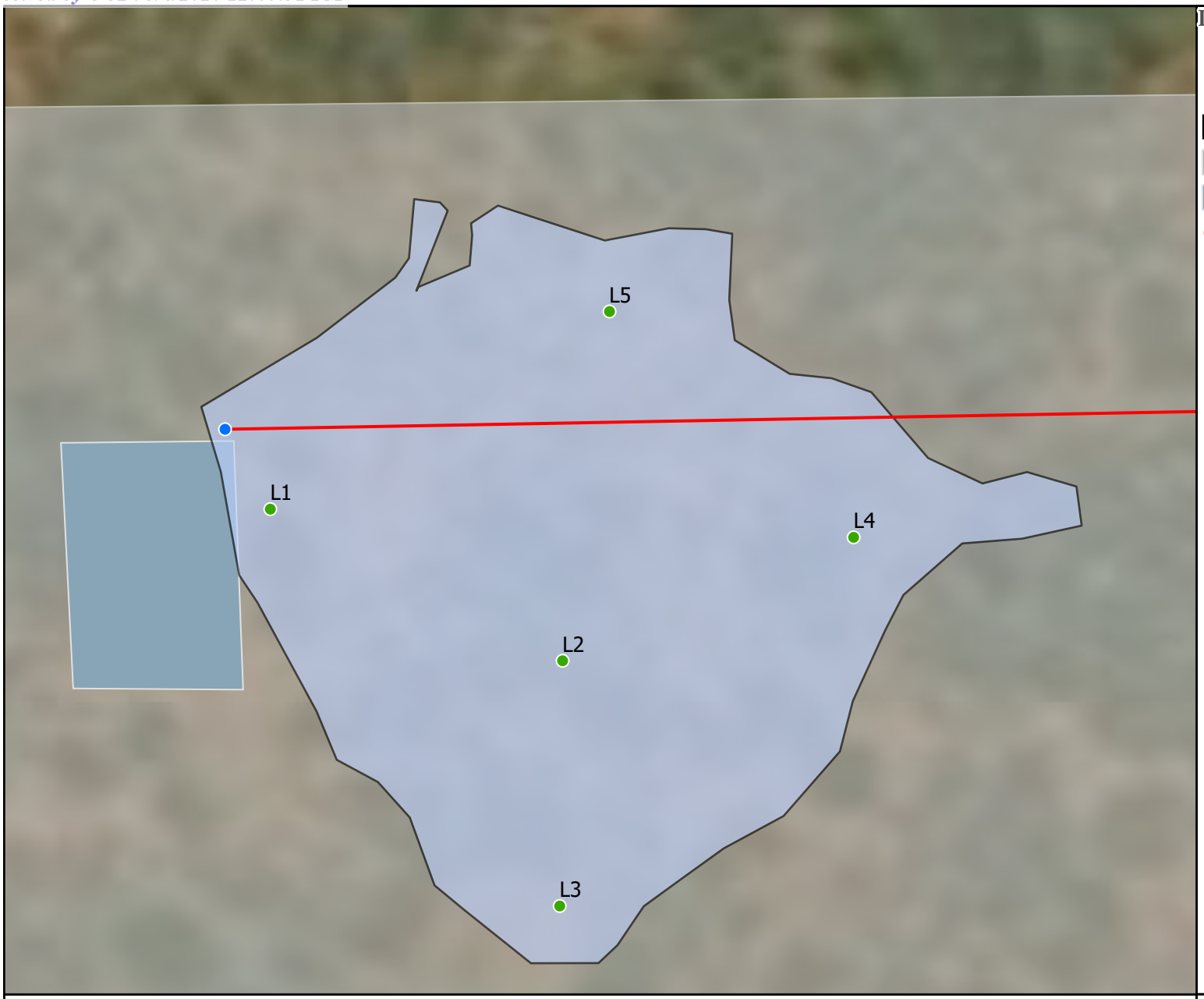
\\192.168.22.10\Projects\5-Marathon MSA 2019 (5E27950)\GIS\ARCGIS\MARATHON_MIT.aprx

Date Saved: 12/19/2019

Revisions
By: Date: Descr:
By: Date: Descr:

Drawn Lynn A. Acosta
Date 12/19/2019
Checked
Approved

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



Legend

- Point of Release
- Sample Locations
- Release Area
- Well Pad
- Equipment
- Pipelines

N

0 7.5 15 30

Feet

Site and Sample Location Map
Will Kane 15 WA FEE #006 - Marathon Oil
UL: O S: 15 T: 24S R: 34E Lea County, New Mexico

Figure 3

\\192.168.22.10\Projects\5-Marathon MSA 2019 (5E27950)\GIS\ARCGIS\MARATHON_MIT.aprx

Date Saved: 1/22/2020

Revisions

By:_____ Date:_____ Descr:_____

By:_____ Date:_____ Descr:_____

Drawn *Lynn A. Acosta*
Date *1/31/2020*
Checked
Approved

SMA

201 South Halagueno Street
Carlsbad, New Mexico 88220
(575) 689-7040
Serving the Southwest & Rocky Mountains

TABLES

Table 2:
NMOCD Closure Criteria

Marathon Oil Permian LLC
Will Kane 15 WA FEE #006 (1RP-TBD)

Site Information (19.15.29.11.A(2, 3, and 4) NMAC)		Source/Notes
Depth to Groundwater (feet bgs)	431	New Mexico Office of the State Engineer
Hortizontal Distance From All Water Sources Within 1/2 Mile (ft)	-	
Hortizontal Distance to Nearest Significant Watercourse (ft)	6,000	US Topographic Map

Closure Criteria (19.15.29.12.B(4) and Table 1 NMAC)						
Depth to Groundwater		**Closure Criteria (units in mg/kg)**				
		Chloride *numerical limit or background, whichever is greater	**TPH**	**GRO + DRO**	**BTEX**	**Benzene**
< 50' BGS		600	100		50	10
51' to 100'		10000	2500	1000	50	10
>100'	x	20000	2500	1000	50	10
Surface Water	**yes or no**	**if yes, then**				
<300' from continuously flowing watercourse or other significant watercourse?	No	600	100		50	10
<200' from lakebed, sinkhole or playa lake?	No					
Water Well or Water Source						
<500 feet from spring or a private, domestic fresh water well used by less than 5 households for domestic or stock watering purposes?	No					
<1000' from fresh water well or spring?	No					
Human and Other Areas						
<300' from an occupied permanent residence, school, hospital, institution or church?	No					
within incorporated municipal boundaries or within a defined municipal fresh water well field?	No					
<100' from wetland?	No					
within area overlying a subsurface mine	No					
within an unstable area?	No (Low)					
within a 100-year floodplain?	No					

Table 3:
Summary of Sample Results

Marathon Oil Permian LLC
Will Kane 15 WA FEE #006 (1RP-TBD)

Sample ID	Sample Date	Depth (feet bgs)	BTEX mg/Kg	Benzene mg/Kg	GRO mg/Kg	DRO mg/Kg	MRO mg/Kg	**Total TPH** mg/Kg	Cl- mg/Kg
NMOCD Closure Criteria			50	10	1000			2500	20000
L1	12/19/2019	0.5	<0.222	<0.025	<4.9	250	230	480	<60
		1	<0.219	<0.024	<4.9	<9.6	<48	<62.5	<61
L2	12/19/2019	0.5	<0.225	<0.025	<5.0	38	63	101	<60
		1	<0.225	<0.025	<5.0	<9.5	<47	<61.5	<61
L3	12/19/2019	0.5	<0.219	<0.024	<4.9	31	<48	31	<61
		1	-	-	-	-	-	-	<60
L4	12/19/2019	0.5	<0.224	<0.025	<5.0	42	52	94	<60
		1	-	-	-	-	-	-	<60
L5	12/19/2019	0.5	<0.220	<0.024	<4.9	16	<48	16	<60
		1	-	-	-	-	-	-	<60

"--" = Not Analyzed

APPENDIX A
FORM C141

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 Department

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

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party Marathon Oil Permian LLC	OGRID 372098
Contact Name Melodie Sanjari	Contact Telephone 575-988-0561
Contact email msanjari@marathonoil.com	Incident # *(assigned by OCD)*
Contact mailing address 4111 S. Tidwell Rd., Carlsbad, NM 8220	

Location of Release Source

Latitude 32.21170365 Longitude -103.45367498
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Will Kane 15 WA FEE #006	Site Type Oil and gas drilling facility
Date Release Discovered 12/12/2019	API# *(if applicable)* 30-025-45997

Unit Letter	Section	Township	Range	County
O	15	24S	34E	Lea

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☒ Private (*Name:* _____)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

☒ Crude Oil	Volume Released (bbls) 0.31	Volume Recovered (bbls)
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

At approx. 1000 hrs on 12-12-19, a low pressure flare was swamped resulting in a fire, causing an overspray of less than 1 bbl. oil onto the pad in a 20 x 30' area. The flow back crew immediately shut all 4 wells in. Jal F.D. was called at 1010 hrs. arrived at 1032 hrs. and fire was completely extinguished at 1051 hrs.

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? NMAC 19.15.29.7(A)2.a. - Fire
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? Yes by Marathon to NMOCD District I on 12/13/2019 via email	

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

☒ The source of the release has been stopped.

☒ The impacted area has been secured to protect human health and the environment.

☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.

☒ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

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.

Printed Name: Melodie Sanjari Title: Environmental Professional

Signature: Melodie Sanjari Date: 12/16/2019

email: msanjari@marathonoil.com Telephone: 575-988-0561

OCD Only

Received by: _____ Date: _____

Incident ID	
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	431 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☒ No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: ***Each of the following items must be included in the report.***

☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
☒ Field data
☒ Data table of soil contaminant concentration data
☒ Depth to water determination
☐ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
☐ Boring or excavation logs
☒ Photographs including date and GIS information
☒ Topographic/Aerial maps
☒ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

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.

Printed Name: Melodie Sanjari Title: Environmental Professional

Signature: Melodie Sanjari Date: 1/21/2020

email: msanjari@marathonoil.com Telephone: 575-988-0561

OCD Only

Received by: _____ Date: _____

Form C-141
Page 6

State of New Mexico
Oil Conservation Division

Incident ID	NRM2002935153
District RP	
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) **N/A**

☒ 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: Melodie Sanjari Title: Environmental Professional

Signature: Melodie Sanjari Date: 3/4/2020

email: msanjari@marathonoil.com Telephone: 575-988-0561

OCD Only

Received by: Victoria Venegas Date: 03/04/2020

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: 04/17/2020

Printed Name: Victoria Venegas Title: Engineering Tech. III

APPENDIX B
NMOSE WELLS REPORT

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	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
C 03932 POD13		CUB	LE	4	2	3	15	24S	34E	645314	3565203	486	90		
C 03943 POD1		CUB	LE	2	4	2	21	24S	34E	644523	3564266	1386	610	431	179

Average Depth to Water: **431 feet**

Minimum Depth: **431 feet**

Maximum Depth: **431 feet**

Record Count: 2

UTMNAD83 Radius Search (in meters):

Easting (X): 645729 **Northing (Y):** 3564950 **Radius:** 2500

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION

OSE POD NUMBER (WELL NUMBER)	OSE FILE NUMBER(S)
S15-BH-03	C 03932
WELL OWNER NAME(S)	**PHONE (OPTIONAL)**
Bryce Krager % Parkhill, Smith & Cooper Attention: R.H. Holder	
WELL OWNER MAILING ADDRESS	**CITY / STATE / ZIP**
4222 85th Street	Lubbock / Texas / 79423

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	32	12	50.55	N
	LONGITUDE	103	27	28.96	W

* ACCURACY REQUIRED: ONE TENTH OF A SECOND

* DATUM REQUIRED: WGS 84

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS – PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE

SW 1/4 of SW 1/4 of NW 1/4 of SE 1/4 of Section 15, Township 24S, Range 34E

2. DRILLING & CASING INFORMATION

LICENSE NUMBER	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
WD-1222	Lee Peterson	Peterson Drilling & Testing, Inc.

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
02/10/16	02/11/16		90'	

COMPLETED WELL IS: ☐ ARTESIAN ☑ DRY HOLE ☐ SHALLOW (UNCONFINED) — STATIC WATER LEVEL IN COMPLETED WELL (FT)

DRILLING FLUID: ☑ AIR ☐ MUD ADDITIVES – SPECIFY:

DRILLING METHOD: ☑ ROTARY ☐ HAMMER ☐ CABLE TOOL ☐ OTHER – SPECIFY:

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)

3. ANNULAR MATERIAL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 10/29/15)

FILE NUMBER	C-3932	POD NUMBER	13	TRN NUMBER	581433
LOCATION	24S.34E.15.4.2.3		EXPL		PAGE 1 OF 2

4. HYDROGEOLOGIC LOG OF WELL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES **(attach supplemental sheets to fully describe all units)**	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm)
0	6	6	Light Reddish Brown Fine Sand	Y ✓ N	
6	13	7	Light Reddish Brown Sand with Caliche	Y ✓ N	
13	19	6	Light Reddish Brown Fine Sand	Y ✓ N	
19	29	10	Tan-White Caliche with Light Reddish Brown Sand	Y ✓ N	
29	39	10	Light Reddish Brown Sand	Y ✓ N	
39	45	6	Gray to Dark Gray Sand	Y ✓ N	
45	54	9	Gray-Dark Gray Sand with Sandstone Pebbles	Y ✓ N	
54	55	1	Dark Reddish Brown to Light Reddish Brown Silty Claystone	Y ✓ N	
55	58	3	Green to Gray Shale	Y ✓ N	
58	62	4	Dark Reddish Brown Silty Claystone	Y ✓ N	
62	74	12	Dark Reddish Brown Claystone	Y ✓ N	
74	75	1	Light Brown to Gray Silty Clay	Y ✓ N	
75	77	2	Dark Reddish Brown Claystone	Y ✓ N	
77	79	2	Light Brown to Gray Silty Clay	Y ✓ N	
79	80	1	Dark Reddish Brown Claystone	Y ✓ N	
80	82	2	Light Brown to Gray Sandy Silt	Y ✓ N	
82	87	5	Dark Reddish Brown Clayey Silt	Y ✓ N	
87	90	3	Light Brown to Gray Silty Sand	Y N	
				Y N	
				Y N	
				Y N	

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:

☐ PUMP ☐ AIR LIFT ☐ BAILER ☐ OTHER – SPECIFY:

TOTAL ESTIMATED WELL YIELD (gpm): 0.00

5. TEST; RIG SUPERVISION

WELL TEST: TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.

MISCELLANEOUS INFORMATION: Boring location drilled only as a soil boring and plugged after completion per well plugging plan.

PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE:

6. SIGNATURE

THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 20 DAYS AFTER COMPLETION OF WELL DRILLING:

Lee Patterson — 2/26/16

SIGNATURE OF DRILLER / PRINT SIGNEE NAME — DATE

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 06/08/2012)

FILE NUMBER	C-3932	POD NUMBER	13	TRN NUMBER	581433
LOCATION	24S.34E.13.4.2.3		EXPL		PAGE 2 OF 2

Tom Blaine, P.E.
State Engineer

Roswell Office
1900 WEST SECOND STREET
ROSWELL, NM 88201

STATE OF NEW MEXICO
OFFICE OF THE STATE ENGINEER

Trn Nbr: 581433
File Nbr: C 03932
Well File Nbr: C 03932 POD13

Mar. 28, 2016

ROBERT H HOLDER
BRYCE KRAGER
4222 85TH ST
LUBBOCK, TX 79423

Greetings:

The above numbered permit was issued in your name on 01/27/2016.

The Well Record was received in this office on 03/01/2016, stating that it had been completed on 02/11/2016, and was a dry well. The well is to be plugged or capped or otherwise maintained in a manner satisfactory to the State Engineer.

Please note that another well can be drilled under this permit if the well is completed and the well log filed on or before 01/14/2017.

If you have any questions, please feel free to contact us.

Sincerely,

Deborah Dunaway
(575)622-6521

drywell

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION

OSE POD NUMBER (WELL NUMBER)	OSE FILE NUMBER(S)
S15-BH-03	C 03932
WELL OWNER NAME(S)	**PHONE (OPTIONAL)**
Bryce Krager % Parkhill, Smith & Cooper Attention: R.H. Holder	
WELL OWNER MAILING ADDRESS	**CITY / STATE / ZIP**
4222 85th Street	Lubbock Texas 79423

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	32	12	50.55	N
	LONGITUDE	103	27	28.96	W

* ACCURACY REQUIRED: ONE TENTH OF A SECOND

* DATUM REQUIRED: WGS 84

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS – PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE

SW 1/4 of SW 1/4 of NW 1/4 of SE 1/4 of Section 15, Township 24S, Range 34E

2. DRILLING & CASING INFORMATION

LICENSE NUMBER	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
WD-1222	Lee Peterson	Peterson Drilling & Testing, Inc.

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
02/10/16	02/11/16		90'	

COMPLETED WELL IS: ☐ ARTESIAN ☑ DRY HOLE ☐ SHALLOW (UNCONFINED) — STATIC WATER LEVEL IN COMPLETED WELL (FT)

DRILLING FLUID: ☑ AIR ☐ MUD ADDITIVES – SPECIFY:

DRILLING METHOD: ☑ ROTARY ☐ HAMMER ☐ CABLE TOOL ☐ OTHER – SPECIFY:

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)

3. ANNULAR MATERIAL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 10/29/15)

FILE NUMBER	C-3932	POD NUMBER	13	TRN NUMBER	581433
LOCATION	24S.34E.15.3.2.4			EXPL	PAGE 1 OF 2

4. HYDROGEOLOGIC LOG OF WELL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES **(attach supplemental sheets to fully describe all units)**	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm)
0	6	6	Light Reddish Brown Fine Sand	Y ✓ N	
6	13	7	Light Reddish Brown Sand with Caliche	Y ✓ N	
13	19	6	Light Reddish Brown Fine Sand	Y ✓ N	
19	29	10	Tan-White Caliche with Light Reddish Brown Sand	Y ✓ N	
29	39	10	Light Reddish Brown Sand	Y ✓ N	
39	45	6	Gray to Dark Gray Sand	Y ✓ N	
45	54	9	Gray-Dark Gray Sand with Sandstone Pebbles	Y ✓ N	
54	55	1	Dark Reddish Brown to Light Reddish Brown Silty Claystone	Y ✓ N	
55	58	3	Green to Gray Shale	Y ✓ N	
58	62	4	Dark Reddish Brown Silty Claystone	Y ✓ N	
62	74	12	Dark Reddish Brown Claystone	Y ✓ N	
74	75	1	Light Brown to Gray Silty Clay	Y ✓ N	
75	77	2	Dark Reddish Brown Claystone	Y ✓ N	
77	79	2	Light Brown to Gray Silty Clay	Y ✓ N	
79	80	1	Dark Reddish Brown Claystone	Y ✓ N	
80	82	2	Light Brown to Gray Sandy Silt	Y ✓ N	
82	87	5	Dark Reddish Brown Clayey Silt	Y ✓ N	
87	90	3	Light Brown to Gray Silty Sand	Y N	
				Y N	
				Y N	
				Y N	

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:

☐ PUMP ☐ AIR LIFT ☐ BAILER ☐ OTHER – SPECIFY:

TOTAL ESTIMATED WELL YIELD (gpm): 0.00

5. TEST; RIG SUPERVISION

WELL TEST: TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.

MISCELLANEOUS INFORMATION: Boring location drilled only as a soil boring and plugged after completion per well plugging plan.

PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE:

6. SIGNATURE

THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 20 DAYS AFTER COMPLETION OF WELL DRILLING:

Lee Peterson — 2/26/16

SIGNATURE OF DRILLER / PRINT SIGNEE NAME — DATE

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 06/08/2012)

FILE NUMBER	C-3932	POD NUMBER	13	TRN NUMBER	581433
LOCATION	24S.34E.13.3.2.4		EXPL		PAGE 2 OF 2

Tom Blaine, P.E.
State Engineer

Roswell Office
1900 WEST SECOND STREET
ROSWELL, NM 88201

STATE OF NEW MEXICO
OFFICE OF THE STATE ENGINEER

Trn Nbr: 581433
File Nbr: C 03932
Well File Nbr: C 03932 POD13

Apr. 12, 2016

ROBERT H. HOLDER
BRYCE KARGER
4222 85TH ST.
LUBBOCK, TX 79423

Greetings:

The above numbered permit was issued in your name on 01/27/2016.

The Well Record was received in this office on 03/01/2016, stating that it had been completed on 02/11/2016, and was a dry well. The well is to be plugged or capped or otherwise maintained in a manner satisfactory to the State Engineer.

Please note that another well can be drilled under this permit if the well is completed and the well log filed on or before 01/14/2017.

If you have any questions, please feel free to contact us.

Sincerely,

Deborah Dunaway
(575)622-6521

drywell

APPENDIX C
SITE PHOTOGRAPHY
&
FIELD NOTES


NE
E
SE
30
60
90
120
76°E (T) 32°12'43"N, 103°27'16"W ±16ft 3512ft
Will Kane 15 WA FEE #6
Lynn A. Acosta
Marathon Oil
19 Dec 2019, 09:52:57


NE
E
SE
0
60
90
120
150
101°E (T) 32°12'44"N, 103°27'16"W ±16ft 3514ft
Will Kane 15 WA FEE #6
Lynn A. Acosta
Marathon Oil
19 Dec 2019, 09:53:10

SMA Field Screening

Location Name: Will Kane 15 WH Fee #6

Date: 12/19/19

Sample Name:	Soil Type:	Depth (BGS)	Collection Time:	EC (ppm)	Temp (°C)	PID Reading	PF
L1	Caliche	0.5'	1024	0.11	15.7	13.0	—
	Sand	1'	1031	0.08	16.2	7.4	—
L2	" "	0.5'	1043	0.10	12.2	14.4	—
	Sand	1'	1047	0.04	15.9	3.0	—
L3	Caliche	0.5	1100	0.10	13.3	3.3	—
	Sand	1'	1103	0.07	16.5	2.6	—
L4	Caliche	0.5'	1114	0.11	16.7	3.6	—
	Sand	1'	1117	0.05	13.6	2.5	—
L5	Sand	0.5'	1131	0.05	13.8	2.5	—
	" "	1'	1136	0.02	16.7	2.0	—

APPENDIX D

LABORATORY ANALYTICAL REPORTS

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

December 30, 2019

Ashley Maxwell
Souder, Miller & Associates
201 S Halagueno
Carlsbad, NM 88221
TEL: (575) 689-8801
FAX

RE: Will Kane 6 OrderNo.: 1912A95

Dear Ashley Maxwell:

Hall Environmental Analysis Laboratory received 10 sample(s) on 12/20/2019 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,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1912A95**
Date Reported: **12/30/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L1-0.5'
Project: Will Kane 6
Collection Date: 12/19/2019 10:24:00 AM
Lab ID: 1912A95-001 **Matrix:** SOIL **Received Date:** 12/20/2019 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	60		mg/Kg	20	12/23/2019 8:56:35 PM	49494
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	250	9.9		mg/Kg	1	12/27/2019 10:19:18 AM	49535
Motor Oil Range Organics (MRO)	230	50		mg/Kg	1	12/27/2019 10:19:18 AM	49535
Surr: DNOP	93.9	70-130		%Rec	1	12/27/2019 10:19:18 AM	49535
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	12/27/2019 11:14:08 AM	49528
Surr: BFB	76.6	66.6-105		%Rec	1	12/27/2019 11:14:08 AM	49528
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	12/27/2019 11:14:08 AM	49528
Toluene	ND	0.049		mg/Kg	1	12/27/2019 11:14:08 AM	49528
Ethylbenzene	ND	0.049		mg/Kg	1	12/27/2019 11:14:08 AM	49528
Xylenes, Total	ND	0.099		mg/Kg	1	12/27/2019 11:14:08 AM	49528
Surr: 4-Bromofluorobenzene	93.9	80-120		%Rec	1	12/27/2019 11:14:08 AM	49528

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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **1912A95**
Date Reported: **12/30/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L1-1'
Project: Will Kane 6
Collection Date: 12/19/2019 10:31:00 AM
Lab ID: 1912A95-002 **Matrix:** SOIL **Received Date:** 12/20/2019 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	61		mg/Kg	20	12/23/2019 9:33:38 PM	49494
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	12/27/2019 12:32:31 PM	49535
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	12/27/2019 12:32:31 PM	49535
Surr: DNOP	72.6	70-130		%Rec	1	12/27/2019 12:32:31 PM	49535
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	12/27/2019 11:37:36 AM	49528
Surr: BFB	80.0	66.6-105		%Rec	1	12/27/2019 11:37:36 AM	49528
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	12/27/2019 11:37:36 AM	49528
Toluene	ND	0.049		mg/Kg	1	12/27/2019 11:37:36 AM	49528
Ethylbenzene	ND	0.049		mg/Kg	1	12/27/2019 11:37:36 AM	49528
Xylenes, Total	ND	0.097		mg/Kg	1	12/27/2019 11:37:36 AM	49528
Surr: 4-Bromofluorobenzene	98.0	80-120		%Rec	1	12/27/2019 11:37:36 AM	49528

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

Qualifiers:

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

Analytical Report
Lab Order **1912A95**
Date Reported: **12/30/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L2-0.5'
Project: Will Kane 6
Collection Date: 12/19/2019 10:43:00 AM
Lab ID: 1912A95-003 **Matrix:** SOIL **Received Date:** 12/20/2019 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	60		mg/Kg	20	12/23/2019 10:10:41 PM	49494
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	38	9.5		mg/Kg	1	12/27/2019 12:54:38 PM	49535
Motor Oil Range Organics (MRO)	63	47		mg/Kg	1	12/27/2019 12:54:38 PM	49535
Surr: DNOP	77.2	70-130		%Rec	1	12/27/2019 12:54:38 PM	49535
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	12/27/2019 12:01:19 PM	49528
Surr: BFB	80.3	66.6-105		%Rec	1	12/27/2019 12:01:19 PM	49528
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	12/27/2019 12:01:19 PM	49528
Toluene	ND	0.050		mg/Kg	1	12/27/2019 12:01:19 PM	49528
Ethylbenzene	ND	0.050		mg/Kg	1	12/27/2019 12:01:19 PM	49528
Xylenes, Total	ND	0.10		mg/Kg	1	12/27/2019 12:01:19 PM	49528
Surr: 4-Bromofluorobenzene	97.0	80-120		%Rec	1	12/27/2019 12:01:19 PM	49528

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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **1912A95**
Date Reported: **12/30/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L2-1'
Project: Will Kane 6
Collection Date: 12/19/2019 10:47:00 AM
Lab ID: 1912A95-004 **Matrix:** SOIL **Received Date:** 12/20/2019 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	61		mg/Kg	20	12/23/2019 10:23:01 PM	49494
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	12/27/2019 1:16:38 PM	49535
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	12/27/2019 1:16:38 PM	49535
Surr: DNOP	77.2	70-130		%Rec	1	12/27/2019 1:16:38 PM	49535
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	12/27/2019 12:24:55 PM	49528
Surr: BFB	78.3	66.6-105		%Rec	1	12/27/2019 12:24:55 PM	49528
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	12/27/2019 12:24:55 PM	49528
Toluene	ND	0.050		mg/Kg	1	12/27/2019 12:24:55 PM	49528
Ethylbenzene	ND	0.050		mg/Kg	1	12/27/2019 12:24:55 PM	49528
Xylenes, Total	ND	0.10		mg/Kg	1	12/27/2019 12:24:55 PM	49528
Surr: 4-Bromofluorobenzene	96.1	80-120		%Rec	1	12/27/2019 12:24:55 PM	49528

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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **1912A95**
Date Reported: **12/30/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L3-0.5'
Project: Will Kane 6
Collection Date: 12/19/2019 11:00:00 AM
Lab ID: 1912A95-005 **Matrix:** SOIL **Received Date:** 12/20/2019 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	60		mg/Kg	20	12/23/2019 10:35:23 PM	49494
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	31	9.6		mg/Kg	1	12/27/2019 9:42:53 AM	49535
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	12/27/2019 9:42:53 AM	49535
Surr: DNOP	95.2	70-130		%Rec	1	12/27/2019 9:42:53 AM	49535
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	12/27/2019 12:48:31 PM	49528
Surr: BFB	78.2	66.6-105		%Rec	1	12/27/2019 12:48:31 PM	49528
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	12/27/2019 12:48:31 PM	49528
Toluene	ND	0.049		mg/Kg	1	12/27/2019 12:48:31 PM	49528
Ethylbenzene	ND	0.049		mg/Kg	1	12/27/2019 12:48:31 PM	49528
Xylenes, Total	ND	0.097		mg/Kg	1	12/27/2019 12:48:31 PM	49528
Surr: 4-Bromofluorobenzene	96.3	80-120		%Rec	1	12/27/2019 12:48:31 PM	49528

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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **1912A95**
Date Reported: **12/30/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L3-1'
Project: Will Kane 6
Collection Date: 12/19/2019 11:03:00 AM
Lab ID: 1912A95-006 **Matrix:** SOIL **Received Date:** 12/20/2019 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	60		mg/Kg	20	12/23/2019 10:47:43 PM	49494

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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **1912A95**
Date Reported: **12/30/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L4-0.5'
Project: Will Kane 6
Collection Date: 12/19/2019 11:14:00 AM
Lab ID: 1912A95-007 **Matrix:** SOIL **Received Date:** 12/20/2019 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	60		mg/Kg	20	12/23/2019 11:00:05 PM	49494
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	42	9.1		mg/Kg	1	12/27/2019 10:07:05 AM	49535
Motor Oil Range Organics (MRO)	52	45		mg/Kg	1	12/27/2019 10:07:05 AM	49535
Surr: DNOP	91.6	70-130		%Rec	1	12/27/2019 10:07:05 AM	49535
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	12/27/2019 1:11:59 PM	49528
Surr: BFB	78.5	66.6-105		%Rec	1	12/27/2019 1:11:59 PM	49528
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	12/27/2019 1:11:59 PM	49528
Toluene	ND	0.050		mg/Kg	1	12/27/2019 1:11:59 PM	49528
Ethylbenzene	ND	0.050		mg/Kg	1	12/27/2019 1:11:59 PM	49528
Xylenes, Total	ND	0.099		mg/Kg	1	12/27/2019 1:11:59 PM	49528
Surr: 4-Bromofluorobenzene	97.3	80-120		%Rec	1	12/27/2019 1:11:59 PM	49528

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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **1912A95**
Date Reported: **12/30/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L4-1'
Project: Will Kane 6
Collection Date: 12/19/2019 11:17:00 AM
Lab ID: 1912A95-008 **Matrix:** SOIL **Received Date:** 12/20/2019 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	60		mg/Kg	20	12/23/2019 11:12:26 PM	49494

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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **1912A95**
Date Reported: **12/30/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L5-0.5'
Project: Will Kane 6
Collection Date: 12/19/2019 11:31:00 AM
Lab ID: 1912A95-009 **Matrix:** SOIL **Received Date:** 12/20/2019 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	60		mg/Kg	20	12/23/2019 11:24:49 PM	49494
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	16	9.7		mg/Kg	1	12/27/2019 10:31:24 AM	49535
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	12/27/2019 10:31:24 AM	49535
Surr: DNOP	91.8	70-130		%Rec	1	12/27/2019 10:31:24 AM	49535
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	12/27/2019 1:35:30 PM	49528
Surr: BFB	78.1	66.6-105		%Rec	1	12/27/2019 1:35:30 PM	49528
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	12/27/2019 1:35:30 PM	49528
Toluene	ND	0.049		mg/Kg	1	12/27/2019 1:35:30 PM	49528
Ethylbenzene	ND	0.049		mg/Kg	1	12/27/2019 1:35:30 PM	49528
Xylenes, Total	ND	0.098		mg/Kg	1	12/27/2019 1:35:30 PM	49528
Surr: 4-Bromofluorobenzene	93.6	80-120		%Rec	1	12/27/2019 1:35:30 PM	49528

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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **1912A95**
Date Reported: **12/30/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L5-1'
Project: Will Kane 6
Collection Date: 12/19/2019 11:36:00 AM
Lab ID: 1912A95-010 **Matrix:** SOIL **Received Date:** 12/20/2019 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	60		mg/Kg	20	12/23/2019 11:37:09 PM	49494

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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1912A95**
30-Dec-19

Client: Souder, Miller & Associates
Project: Will Kane 6

Sample ID: **MB-49494** SampType: **mblk** TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS** Batch ID: **49494** RunNo: **65358**
Prep Date: **12/23/2019** Analysis Date: **12/23/2019** SeqNo: **2246271** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-49494** SampType: **lcs** TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS** Batch ID: **49494** RunNo: **65358**
Prep Date: **12/23/2019** Analysis Date: **12/23/2019** SeqNo: **2246272** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.4	90	110			

Qualifiers:

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

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1912A95**
30-Dec-19

Client: Souder, Miller & Associates
Project: Will Kane 6

Sample ID: **1912A95-001AMS** SampType: **MS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **L1-0.5'** Batch ID: **49535** RunNo: **65437**
Prep Date: **12/27/2019** Analysis Date: **12/27/2019** SeqNo: **2247850** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	370	9.1	45.70	247.2	261	57	142			S
Surr: DNOP	4.7		4.570		104	70	130			

Sample ID: **1912A95-001AMSD** SampType: **MSD** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **L1-0.5'** Batch ID: **49535** RunNo: **65437**
Prep Date: **12/27/2019** Analysis Date: **12/27/2019** SeqNo: **2247851** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	260	9.8	48.92	247.2	34.0	57	142	32.6	20	RS
Surr: DNOP	3.9		4.892		79.0	70	130	0	0	

Sample ID: **LCS-49535** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS** Batch ID: **49535** RunNo: **65437**
Prep Date: **12/27/2019** Analysis Date: **12/27/2019** SeqNo: **2247854** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	51	10	50.00	0	101	63.9	124			
Surr: DNOP	4.5		5.000		90.0	70	130			

Sample ID: **MB-49535** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS** Batch ID: **49535** RunNo: **65437**
Prep Date: **12/27/2019** Analysis Date: **12/27/2019** SeqNo: **2247855** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.2		10.00		92.0	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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1912A95**
30-Dec-19

Client: Souder, Miller & Associates
Project: Will Kane 6

Sample ID: **MB-49528** SampType: **MBLK** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS** Batch ID: **49528** RunNo: **65453**
Prep Date: **12/26/2019** Analysis Date: **12/27/2019** SeqNo: **2248318** 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	820		1000		82.2	66.6	105			

Sample ID: **LCS-49528** SampType: **LCS** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS** Batch ID: **49528** RunNo: **65453**
Prep Date: **12/26/2019** Analysis Date: **12/27/2019** SeqNo: **2248319** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	89.4	80	120			
Surr: BFB	870		1000		87.2	66.6	105			

Qualifiers:

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

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1912A95**
30-Dec-19

Client: Souder, Miller & Associates
Project: Will Kane 6

Sample ID: **MB-49528** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS** Batch ID: **49528** RunNo: **65453**
Prep Date: **12/26/2019** Analysis Date: **12/27/2019** SeqNo: **2248345** 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	1.0		1.000		100	80	120			

Sample ID: **LCS-49528** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS** Batch ID: **49528** RunNo: **65453**
Prep Date: **12/26/2019** Analysis Date: **12/27/2019** SeqNo: **2248346** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.025	1.000	0	97.3	80	120			
Toluene	0.96	0.050	1.000	0	96.3	80	120			
Ethylbenzene	0.97	0.050	1.000	0	97.0	80	120			
Xylenes, Total	3.0	0.10	3.000	0	98.6	80	120			
Surr: 4-Bromofluorobenzene	0.98		1.000		98.3	80	120			

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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: 1912A95 RcptNo: 1

Received By: **Leah Baca** 12/20/2019 9:15:00 AM Leah Baca
Completed By: **Michelle Garcia** 12/20/2019 11:56:13 AM Michelle Garcia
Reviewed By: LB 12/20/19

Chain of Custody

1. Is Chain of Custody sufficiently 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. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes ☐ No ☐ NA ☑
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: 12/20/19

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	3.2	Good	Yes			

Chain-of-Custody Record

Client: SMA - Carlsbad

Mailing Address:

Phone #:

email or Fax#:

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☐ Standard ☑ Rush 5 day turn

Project Name: Will Kane #6

Project #:

Project Manager: Ashley Maxwell

Sampler: LAA

On Ice: ☑ Yes ☐ No

# of Coolers: ~~3.3~~ (1)

Cooler Temp(including CF): 3.3 - 0.5 (-.2) = 3.2°C

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 1912A95	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
12/19/19	1024	Soil	L1-0.5'	4oz		001	X	X					X			
	1031		L1-1'			002	X	X					X			
	1043		L2-0.5'			003	X	X					X			
	~~1047~~ 1047		L2-1'			004	X	X					X			
	1100		L3-0.5'			005	X	X					X			
	1103		L3-1'			006							X			
	1114		L4-0.5'			007	X	X					X			
	1117		L4-1'			008							X			
	1131		L5-0.5'			009	X	X					X			
	1136		L5-1'			010							X			

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
12/19/19	1400				12/19	1400
12/19	1900			Courier	12/20	0915

Remarks: Direct Bill: Marathon Oil

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