SITE INFORMATION

Report Type: Work Plan

General Site Information:						
Site:	**MCA 1C**					
Company:	**ConocoPhillips Company**					
Section, Township and Range	**Unit P**	**Sec. 20**	**T 17S**	**R 32E**		
Lease Number:	**API No. 30-025-23706**					
County:	**Lea County**					
Well GPS:	**32.8131905º N**			**103.7842789º W**		
Spill GPS:	**32.81608º N**			**103.79493º W**		
Surface Owner:	Federal					
Mineral Owner:						
Directions:	From Maljamar, travel south on Maljamar Road (HWY 126A) for 2.7 miles. Turn right onto Conoco Road (HWY 126) and travel for 1.1 miles. Turn left and travel 0.2 miles and site is on your right.					

Release Data:	
Date Released:	11/11/2016
Type Release:	Produced water and Oil
Source of Contamination:	Flow Line
Fluid Released:	1.8 bbls water / 9.2 bbl oil
Fluids Recovered:	8 bbls

Official Communication:			
Name:	Neal Goates		Greg Pope, P.G.
Company:	ConocoPhillips		Tetra Tech
Address:	16290 Katy Fwy		4000 N. Big Spring
			Ste 401
City:	Houston, Texas		Midland, Texas
Phone number:	(832) 486-2425		(432) 687-8110
Fax:	(832) 465-4123		
Email:	n.goates@conocophillips.com		Greg.Pope@tetratech.com

Ranking Criteria		
Depth to Groundwater:	***Ranking Score***	***Site Data***
<50 ft	20	
50-99 ft	*10*	
>100 ft.	**0**	
WellHead Protection:	***Ranking Score***	***Site Data***
Water Source <1,000 ft., Private <200 ft.	*20*	
Water Source >1,000 ft., Private >200 ft.	***0***	*0*
Surface Body of Water:	***Ranking Score***	***Site Data***
<200 ft.	*20*	
200 ft - 1,000 ft.	10	
>1,000 ft.	***0***	*0*
Total Ranking Score:	***0***	

Acceptable Soil RRAL (mg/kg)		
Benzene	***Total BTEX***	***TPH***
10	50	5,000

TETRA TECH

APPROVED
By Olivia Yu at 7:13 am, Aug 03, 2018

NMOCD approves of the delineation completed for 1RP-5141. The proposed remediation plan is approved with one condition: confirmation bottom and sidewalls samples.

July 3, 2018

Ms. Olivia Yu
Environmental Engineer Specialist
Oil Conservation Division, District 1
1625 North French Drive
Hobbs, New Mexico 88240

Re: Work Plan for the ConocoPhillips Company, MCA 1C, Unit P, Section 20, Township 17S, Range 32E, Lea County, New Mexico.

Ms. Yu:

Tetra Tech, Inc. (Tetra Tech) was contacted by ConocoPhillips Company (ConocoPhillips) to assess a release that occurred at the MCA 1C, Unit P, Section 20, Township 17 South, Range 32 East, Lea County, New Mexico (site). The spill site coordinates are N 32.81608º, W 103.79493º. The site location is shown on Figures 1 and 2.

Background

According to the State of New Mexico C-141 Initial Report, the leak was discovered on November 11, 2016, and released approximately 1.8 barrels of produced water and 9.2 barrels of crude oil due to a flow line leak. As part of the emergency response action, ConocoPhillips isolated the well to repair the flowline and recovered approximately eight (8) barrels of fluid. The release occurred in pasture and around active underground pipeline operated by ConocoPhillips and Holly, which measured approximately 140' x 30'. The initial C-141 Form is included in Appendix A.

Groundwater

New Mexico Office of State Engineer's (NMOSE) Water Rights Reporting System, there are no water wells were listed within Section 20. The nearest well reported in the database was located in Section 28 with a depth to water of approximately 81 feet. Tetra Tech previously conducted a soil investigation in Section 30 logging 180 feet below surface and did not encounter groundwater. According to the Chevron Texaco Groundwater Trend map, the average depth to groundwater in this area is greater than 100 feet below surface. The groundwater data is shown in Appendix B.

Tetra Tech
4000 North Big Spring, Suite 401, Midland, TX 79705
Tel 432.682.4559 Fax 432.682.3946 www.tetratech.com

Regulatory

A risk-based evaluation was performed for the site in accordance with the New Mexico Oil Conservation Division (NMOCD) Guidelines for Remediation of Leaks, Spills and Releases, dated August 13, 1993. The guidelines require a risk-based evaluation of the site to determine recommended remedial action levels (RRAL) for benzene, toluene, ethylbenzene and xylene (collectively referred to as BTEX) and total petroleum hydrocarbons (TPH) in soil. The proposed RRAL for benzene was determined to be 10 parts per million (ppm) or milligrams per kilogram (mg/kg) and 50 ppm for total BTEX (sum of benzene, toluene, ethylbenzene, and xylene). Based upon the depth to groundwater, the proposed RRAL for TPH is 5,000 mg/kg.

Soil Assessment and Analytical Results

On August 31, 2017, Tetra Tech personnel were onsite to further evaluate and sample the release area. A total of four (4) soil borings (B-1 through B-4) were installed in the spill area to assess and define the extents of the impacted soils. Soil samples were collected and field screened with a PID and for chlorides. Three (3) soil samples were selected from each soil boring location for analysis of TPH by EPA method 8015B modified and BTEX by EPA Method 8260. All of the samples collected were analyzed for chloride by EPA method 300.0. The soil analytical results are summarized in Table 1. The laboratory analytical reports and chain-of-custody document are included in Appendix C.

Referring to Table 1, all of the samples selected for BTEX were below the RRALs. The TPH concentrations for soil borings (B-1 and B-2) were below the RRAL and soil borings (B-3 and B-4) were above the RRAL. Soil borings (B-3 and B-4) declined below the RRAL at 4-5' below surface. The chloride concentrations were not detected in the subsurface soils greater than 600 mg/kg in B-1 and B-2. The soil borings (B-3 and B-4) had chloride spikes at 4-5' depth interval, but decreased below 600 mg/kg at 6-7' below surface.

Work Plan

Based on the results, ConocoPhillips proposes to remove the impacted material as highlighted (green) in Table 1 and shown on Figure 4. To remove the TPH exceeding the RRAL, the area of B-3 and B-4 will be excavated to a depth of approximately 4-5' below surface. Once excavated to the appropriate depth, the excavation will then be backfilled with clean material to surface grade. All of the excavated material will be transported offsite for proper disposal.

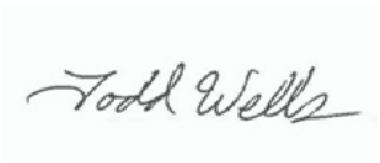
The proposed excavation depths may not be reached due to wall cave-ins and safety concerns for onsite personnel. In addition, impacted soil around oil and gas equipment, structures or lines may not be feasible or practicable to be removed due to safely concerns for onsite personnel. Due to proximity of the ConocoPhillips and Holly underground pipelines, ConocoPhillips will excavate the impacted soils to the maximum extent practicable.

TETRA TECH

Conclusion

Upon completion, a final report detailing the remediation activities will be submitted to the NMOCD. If you have any questions or comments concerning the assessment or the proposed remediation activities for this site, please call at (432) 682-4559.

Respectfully submitted,
TETRA TECH, Inc.

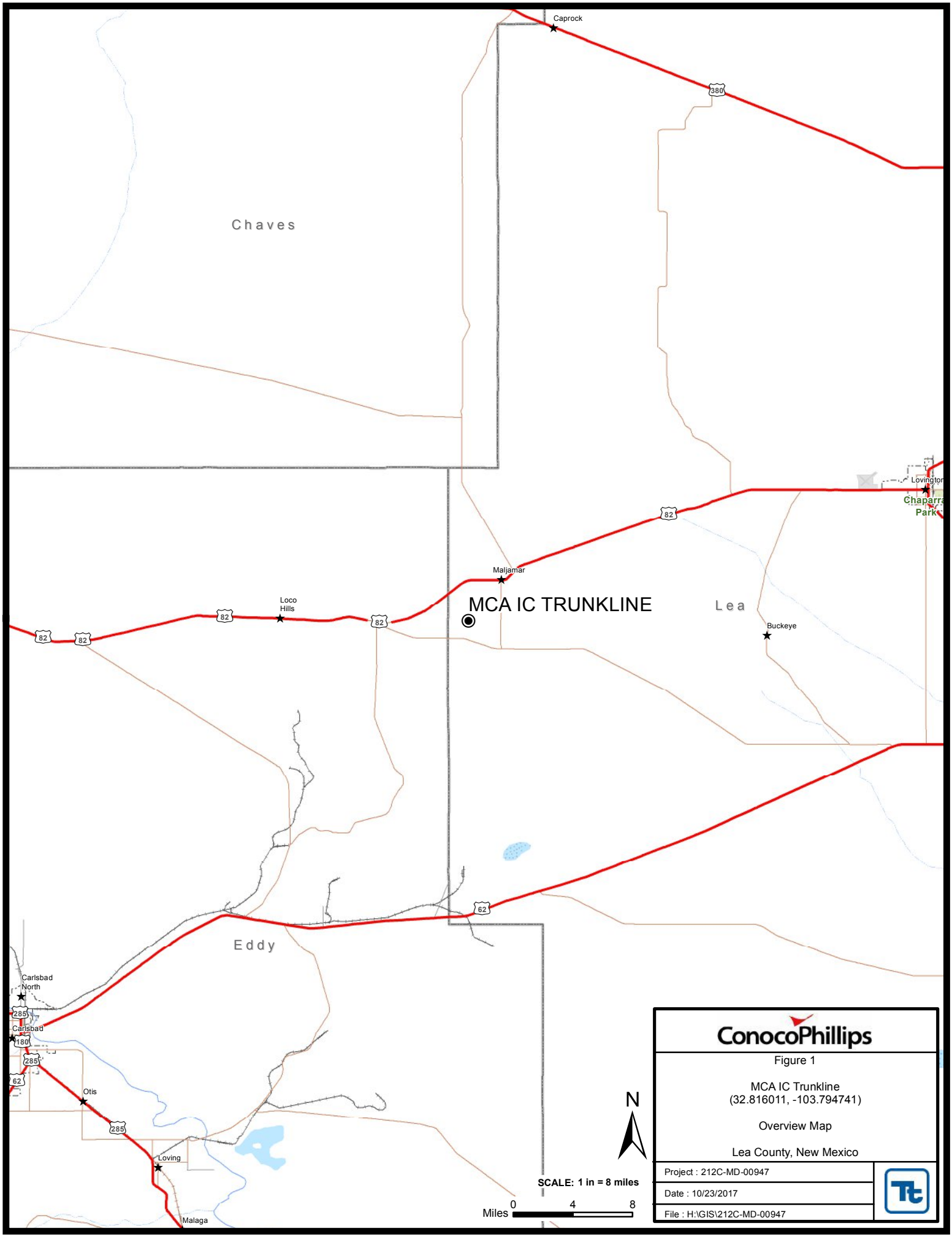


Todd Wells
Senior Project Manager

Greg W. Pope, P.G.
Program Manager

cc: Neal Goates – ConocoPhillips

Figures



ConocoPhillips

Figure 1

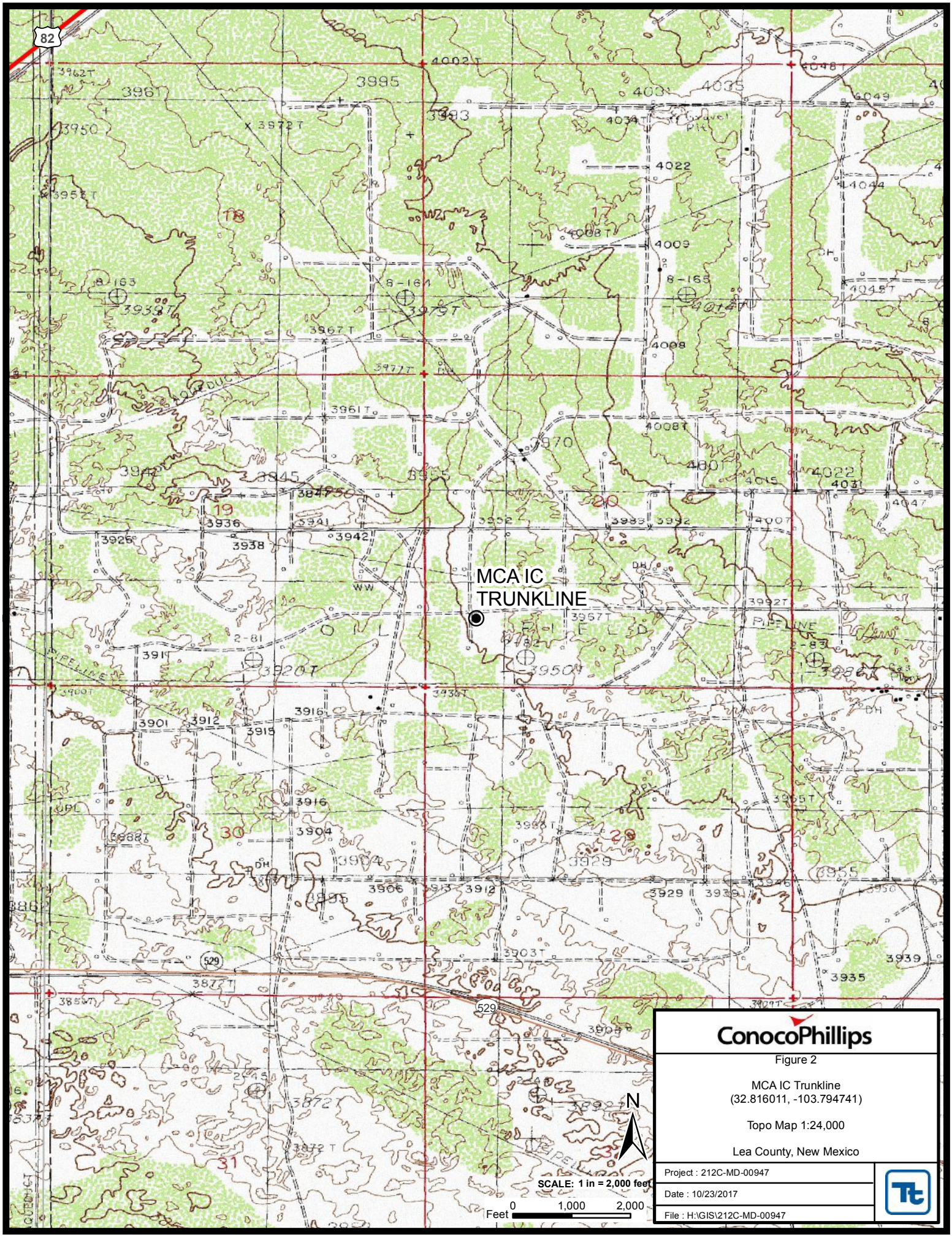
MCA IC Trunkline
(32.816011, -103.794741)

Overview Map

Lea County, New Mexico

Project : 212C-MD-00947	
Date : 10/23/2017	
File : H:\GIS\212C-MD-00947	

Mapped By: Isabel Marmolejo



ConocoPhillips

Figure 2

MCA IC Trunkline
(32.816011, -103.794741)

Topo Map 1:24,000

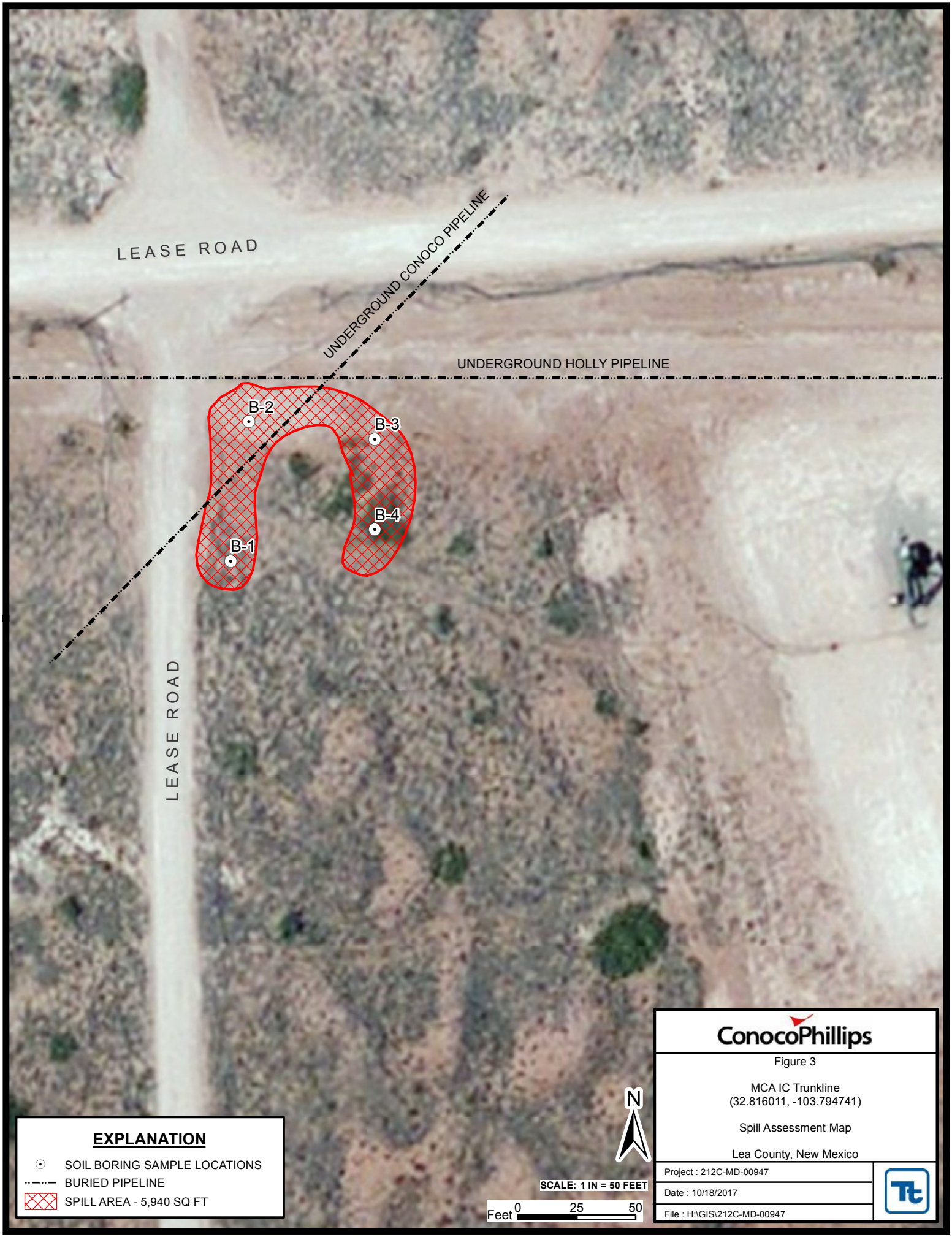
Lea County, New Mexico

Project : 212C-MD-00947

Date : 10/23/2017

File : H:\GIS\212C-MD-00947

Mapped By: Isabel Marmolejo


LEASE ROAD
UNDERGROUND CONOCO PIPELINE
UNDERGROUND HOLLY PIPELINE
B-2
B-3
B-4
B-1
LEASE ROAD
EXPLANATION
SOIL BORING SAMPLE LOCATIONS
BURIED PIPELINE
SPILL AREA - 5,940 SQ FT
N
SCALE: 1 IN = 50 FEET
Feet 0 25 50
ConocoPhillips
Figure 3
MCA IC Trunkline
(32.816011, -103.794741)
Spill Assessment Map
Lea County, New Mexico
Project : 212C-MD-00947
Date : 10/18/2017
File : H:\GIS\212C-MD-00947
Mapped By: Isabel Marmolejo


LEASE ROAD
UNDERGROUND CONOCO PIPELINE
UNDERGROUND HOLLY PIPELINE
B-2
B-3
4' - 5' DEEP
B-4
B-1
LEASE ROAD
EXPLANATION
SOIL BORING SAMPLE LOCATIONS
BURIED PIPELINE
EXCAVATED AREA
N
SCALE: 1 IN = 50 FEET
Feet 0 25 50
ConocoPhillips
Figure 4
MCA IC Trunkline
(32.816011, -103.794741)
Excavation Areas & Depths Map
Lea County, New Mexico
Project : 212C-MD-00947
Date : 10/18/2017
File : H:\GIS\212C-MD-00947
Mapped By: Isabel Marmolejo

Tables

Table 1
ConocoPhillips
MCA 1C Trunkline
Lea County, New Mexico

Sample ID	Sample Date	Sample Depth (ft)	Soil Status		Field PID (PPM)	TPH GRO mg/kg	Organics			BTEX					Chlorides	
			In-situ	Removed			Diesel Range Organics mg/kg	Oil Range Organics mg/kg	Total Organics	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	Total BTEX (mg/kg)	Field Chlorides (PPM)	Chlorides (mg/kg)
B-1	08/31/17	0-1	X		415	<12.7	1,130	1,480	2,610	<0.0026	<0.0026	<0.0026	<0.0077	-	53.5	<125
	"	2-3	X		362	-	-	-	-	-	-	-	-	-	43	<125
	"	4-5	X		434	<11.9	34.3	23.3	57.6	<0.0024	<0.0024	<0.0024	<0.0071	-	281	161
	"	6-7	X		232	-	-	-	-	-	-	-	-	-	197	<129
	"	14-15	X		212	<12.8	<6.3	17.2	17.2	<0.0025	<0.0025	<0.0025	<0.0076	-	241	<124
B-2	08/31/17	0-1	X		48.0	<10.1	1,710	2,050	3,760	<0.0020	<0.0020	<0.0020	<0.0006	-	441	179
	"	2-3	X		51.4	-	-	-	-	-	-	-	-	-	1.41 PPT	338
	"	4-5	X		17.3	<10.7	1,820	1,350	3,170	<0.0022	<0.0022	<0.0022	<0.0065	-	379	169
	"	6-7	X		3.0	<10.4	<5.2	6.3	6.3	<0.0021	<0.0021	<0.0021	<0.0063	-	251	125
	"	16-17	X		1.2	<10.3	<5.1	6.4	6.4	<0.0021	<0.0021	<0.0021	<0.0063	-	109	<103
B-3	08/31/17	0-1	X		579	-	-	-	-	-	-	-	-	-	728	168
	"	2-3	X		800	224	6,060	3,000	9,284	<0.010	0.17	6.1	6.9	13.2	1.24	769
	"	4-5	X		90.3	24.1	676	440	1,140	<0.012	<0.012	<0.012	<0.035	-	1.51	1,530
	"	6-7	X		80.3	-	-	-	-	-	-	-	-	-	1.49	204
	"	8-9	X		45.7	-	-	-	-	-	-	-	-	-	195	335
	"	9-10	X		53.8	<11.4	83.9	57.8	141.7	<0.0023	<0.0023	<0.0023	<0.0068	-	379	209
	"	19-20	X		10.4	<10.4	39.2	24	63.0	<0.0021	<0.0021	<0.0021	<0.0063	-	217	<106
B-4	08/31/17	0-1	X		270	-	-	-	-	-	-	-	-	-	35.7	<112
	"	2-3	X		1506	772	6,440	3,860	11,072	<0.011	0.32	2.3	5.4	8.0	46	<108
	"	4-5	X		227	31.1	642	443	1,116	<0.0023	0.0052	0.030	0.066	0.1012	4.60 ppt	1,650
	"	6-7	X		70.4	-	-	-	-	-	-	-	-	-	205	<109
	"	8-9	X		87.4	-	-	-	-	-	-	-	-	-	181	<127
	"	9-10	X		2.3	<10.9	10.8	7.8	18.6	<0.0022	<0.0022	<0.0022	<0.0065	-	165	<108
	"	19-20	X		2.0	<10.5	98.5	60.9	159.4	<0.0021	<0.0021	<0.0021	<0.0064	-	117	<102

(-) Not Analyzed

Proposed Excavation Depth

Photos

ConocoPhillips
MCA 1C
Lea County, New Mexico

View Southeast Area of B-1

View Northeast– Area of B-2

Appendix A

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised August 8, 2011

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

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: **ConocoPhillips**	Contact: **Cullen Rosine**
Address: **29 Vacuum Complex Lane**	Telephone No. **575-391-3133**
Facility Name: **MCA 1C**	Facility Type: **Flow line**

Surface Owner: Federal	Mineral Owner: N/A	API No. 30-025-23706

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
M	20	17S	32E					**Lea**

Latitude 32.8131905 **Longitude** -103.7842789 NAD83

NATURE OF RELEASE

Type of Release: **1.8 BBL Produce Water & 9.2 Oil**	Volume of Release: **11 BBL**	Volume Recovered: 8 BBL
Source of Release: **Flow line**	Date and Hour of Occurrence **11/11/2016 1030hrs**	Date and Hour of Discovery **SAME**
Was Immediate Notice Given? ☐ Yes ☒ No ☐ Not Required	If YES, To Whom? Kristen Lynch	
By Whom? **Cullen Rosine**	Date and Hour: **11/15/16 1235 hrs via email**	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

N/A

Describe Cause of Problem and Remedial Action Taken. *

On November 11, 2016 at 1030hrs a flow line leak occurred on the MCA 1C header trunk line. Total spill volume was 11 BBL of which 8 BBL were recovered. Spill site will be remediated according to NMOCD and COPC guidelines.

Describe Area Affected and Cleanup Action Taken. *

Area 1: 93ft x 51ft x 2 inches
Area 2: 120ft x 15ft x 1 inch

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

Signature: Cullen Rosine	OIL CONSERVATION DIVISION	
Printed Name: Cullen Rosine	Approved by Environmental Specialist:	
Title:HSE Specialist	Approval Date:	Expiration Date:
E-mail Address: ***Cullen.j.rosine@cop.com***	Conditions of Approval:	Attached ☐
Date: 11/15/16 Phone:575-391-3133		

* Attach Additional Sheets If Necessary

nOY1821258273

1RP-5141

pOY1821258767

Appendix B

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	Depth Well	Depth Water	Water Column
L 03980		L	LE	2	2	2	01	17S	32E	620466	3637594*	270	200	70
L 03980 S		L	LE	4	4	4	02	17S	32E	618870	3636170*	255	179	76
L 03980 S2		L	LE	3	2	3	01	17S	32E	619470	3636581*	225	175	50
L 04019		L	LE	4	3	4	02	17S	32E	618468	3636166*	182		
L 04020		L	LE	3	3	4	02	17S	32E	618268	3636166*	200		
L 04021	R	L	LE	3	4	4	02	17S	32E	618670	3636170*	190		
L 04021 POD3		L	LE		3	4	03	17S	32E	616761	3636252*	247		
L 04021 S		L	LE	2	4	4	03	17S	32E	617262	3636354*	260		
L 13047 POD1		L	LE				11	17S	32E	618187	3635254*	140		
L 13050 POD1		L	LE	2	2	1	10	17S	32E	616463	3635945*	156	132	24
RA 08855			LE	4	1	1	10	17S	32E	616061	3635742*	158		
RA 09505			LE	2	2	1	10	17S	32E	616462	3635944	147		
RA 09505 S			LE	2	2	1	10	17S	32E	616463	3635945*	144		
RA 10175			LE		2	1	28	17S	32E	614814	3631005*	158		
RA 11684 POD1			LE	1	1	4	11	17S	32E	618216	3635124	275		
RA 11684 POD2			LE	1	1	4	11	17S	32E	618313	3635248	275		
RA 11684 POD3			LE	3	3	1	11	17S	32E	618262	3635371	275		
RA 11684 POD4			LE	1	3	2	11	17S	32E	618334	3635521	275		
RA 11684 POD5			LE	3	1	4	11	17S	32E	618353	3635047	275		
RA 11734 POD1			LE	2	2	1	10	17S	32E	616556	3635929	165		
RA 11911 POD1			LE	1	3	1	24	17S	32E	619192	3632296	35		
RA 12020 POD1			LE	2	2	1	28	17S	32E	614828	3630954	120	81	39
RA 12042 POD1			LE	2	2	1	28	17S	32E	614891	3631181	400		

***UTM location was derived from PLSS - see Help**

Average Depth to Water: **153 feet**

Minimum Depth: **81 feet**

Maximum Depth: **200 feet**

Record Count: 23

PLSS Search:

Township: 17S **Range:** 32E

Appendix C

Pace Analytical Services, LLC
400 West Bethany Drive - Suite 190
Allen, TX 75013
(972)727-1123

September 27, 2017

Greg Pope
TetraTech
4000 N. Big Spring St.
Ste 401
Midland, TX 79705

RE: Project: 212C-MD-00947/COP MCA 1C Trunk
Pace Project No.: 7573254

Dear Greg Pope:
Enclosed are the analytical results for sample(s) received by the laboratory on September 06, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Melissa McCullough
melissa.mccullough@pacelabs.com
(972)727-1123
Project Manager

Enclosures

cc: Todd Wells, TetraTech

Pace Analytical Services, LLC
400 West Bethany Drive - Suite 190
Allen, TX 75013
(972)727-1123

CERTIFICATIONS

Project: 212C-MD-00947/COP MCA 1C Trunk
Pace Project No.: 7573254

Kansas Certification IDs
9608 Loiret Boulevard, Lenexa, KS 66219
WY STR Certification #: 2456.01
Arkansas Certification #: 15-016-0
Illinois Certification #: 003097
Iowa Certification #: 118
Kansas/NELAP Certification #: E-10116
Louisiana Certification #: 03055
Nevada Certification #: KS000212008A
Oklahoma Certification #: 9205/9935
Texas Certification #: T104704407
Utah Certification #: KS00021
Kansas Field Laboratory Accreditation: # E-92587
Missouri Certification: 10070

Dallas Certification IDs:
400 West Bethany Dr Suite 190, Allen, TX 75013
EPA# TX00074
Florida Certification #: E871118
Texas Certification #: T104704232
Kansas Certification #: E-10388
Arkansas Certification #: 88-0647
Oklahoma Certification #: TX00074
Louisiana Certification #: 30686
Iowa Certification #: 408
Florida Certification #: E871118
Nevada Certification #: TX00074

Pace Analytical Services, LLC
400 West Bethany Drive - Suite 190
Allen, TX 75013
(972)727-1123

SAMPLE SUMMARY

Project: 212C-MD-00947/COP MCA 1C Trunk
Pace Project No.: 7573254

Lab ID	Sample ID	Matrix	Date Collected	Date Received
7573254001	**B-1 (0-1')**	Solid	08/31/17 11:05	09/06/17 09:25
7573254002	**B-1 (2'-3')**	Solid	08/31/17 11:05	09/06/17 09:25
7573254003	**B-1 (4'-5')**	Solid	08/31/17 11:05	09/06/17 09:25
7573254004	**B-1 (14'-15')**	Solid	08/31/17 11:05	09/06/17 09:25
7573254005	**B-2 (0-1')**	Solid	08/31/17 12:00	09/06/17 09:25
7573254006	**B-2 (2'-3')**	Solid	08/31/17 12:00	09/06/17 09:25
7573254007	**B-2 (4'-5')**	Solid	08/31/17 12:00	09/06/17 09:25
7573254008	**B-2 (6'-7')**	Solid	08/31/17 12:00	09/06/17 09:25
7573254009	**B-2 (16'-17')**	Solid	08/31/17 12:00	09/06/17 09:25
7573254010	**B-3 (0'-1')**	Solid	08/31/17 13:15	09/06/17 09:25
7573254011	**B-3 (2'-3')**	Solid	08/31/17 13:15	09/06/17 09:25
7573254012	**B-3 (4'-5')**	Solid	08/31/17 13:15	09/06/17 09:25
7573254013	**B-3 (6'-7')**	Solid	08/31/17 13:15	09/06/17 09:25
7573254014	**B-3 (8'-9')**	Solid	08/31/17 13:15	09/06/17 09:25
7573254015	**B-3 (9'-10')**	Solid	08/31/17 13:15	09/06/17 09:25
7573254016	**B-3 (19'-20')**	Solid	08/31/17 13:15	09/06/17 09:25
7573254017	**B-4 (0'-1')**	Solid	08/31/17 14:30	09/06/17 09:25
7573254018	**B-4 (2'-3')**	Solid	08/31/17 14:30	09/06/17 09:25
7573254019	**B-4 (4'-5')**	Solid	08/31/17 14:30	09/06/17 09:25
7573254020	**B-4 (6'-7')**	Solid	08/31/17 14:30	09/06/17 09:25
7573254021	**B-4 (8'-9')**	Solid	08/31/17 14:30	09/06/17 09:25
7573254022	**B-4 (9'-10')**	Solid	08/31/17 14:30	09/06/17 09:25
7573254023	**B-4 (19'-20')**	Solid	08/31/17 14:30	09/06/17 09:25
7573254024	**B-1 (6'-7')**	Solid	08/31/17 11:05	09/06/17 09:25

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
400 West Bethany Drive - Suite 190
Allen, TX 75013
(972)727-1123

SAMPLE ANALYTE COUNT

Project: 212C-MD-00947/COP MCA 1C Trunk
Pace Project No.: 7573254

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
7573254001	**B-1 (0-1')**	EPA 8015B	JS	2	PASI-D
		EPA 8015B Modified	JS	2	PASI-D
		EPA 8015B	JTK	2	PASI-K
		EPA 8260	ZST	7	PASI-D
		ASTM D2974-07	DAT	1	PASI-D
		EPA 300.0	OL	1	PASI-K
7573254002	**B-1 (2'-3')**	ASTM D2974-07	DAT	1	PASI-D
		EPA 300.0	OL	1	PASI-K
7573254003	**B-1 (4'-5')**	EPA 8015B	JS	2	PASI-D
		EPA 8015B Modified	JS	2	PASI-D
		EPA 8015B	JTK	2	PASI-K
		EPA 8260	ZST	7	PASI-D
		ASTM D2974-07	DAT	1	PASI-D
		EPA 300.0	OL	1	PASI-K
7573254004	**B-1 (14'-15')**	EPA 8015B	JS	2	PASI-D
		EPA 8015B Modified	JS	2	PASI-D
		EPA 8015B	JTK	2	PASI-K
		EPA 8260	ZST	7	PASI-D
		ASTM D2974-07	DAT	1	PASI-D
		EPA 300.0	OL	1	PASI-K
7573254005	**B-2 (0-1')**	EPA 8015B	JS	2	PASI-D
		EPA 8015B Modified	JS	2	PASI-D
		EPA 8015B	JTK	2	PASI-K
		EPA 8260	ZST	7	PASI-D
		ASTM D2974-07	DAT	1	PASI-D
		EPA 300.0	OL	1	PASI-K
7573254006	**B-2 (2'-3')**	ASTM D2974-07	DAT	1	PASI-D
		EPA 300.0	OL	1	PASI-K
7573254007	**B-2 (4'-5')**	EPA 8015B	JS	2	PASI-D
		EPA 8015B Modified	JS	2	PASI-D
		EPA 8015B	JTK	2	PASI-K
		EPA 8260	ZST	7	PASI-D
		ASTM D2974-07	DAT	1	PASI-D
		EPA 300.0	OL	1	PASI-K
7573254008	**B-2 (6'-7')**	EPA 8015B	JS	2	PASI-D
		EPA 8015B Modified	JS	2	PASI-D
		EPA 8015B	JTK	2	PASI-K

Pace Analytical Services, LLC
400 West Bethany Drive - Suite 190
Allen, TX 75013
(972)727-1123

SAMPLE ANALYTE COUNT

Project: 212C-MD-00947/COP MCA 1C Trunk
Pace Project No.: 7573254

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 8260	DJF	7	PASI-D
		ASTM D2974-07	DAT	1	PASI-D
		EPA 300.0	OL	1	PASI-K
7573254009	**B-2 (16'-17')**	EPA 8015B	JS	2	PASI-D
		EPA 8015B Modified	JS	2	PASI-D
		EPA 8015B	JTK	2	PASI-K
		EPA 8260	DJF	7	PASI-D
		ASTM D2974-07	DAT	1	PASI-D
		EPA 300.0	OL	1	PASI-K
7573254010	**B-3 (0'-1')**	ASTM D2974-07	DAT	1	PASI-D
		EPA 300.0	OL	1	PASI-K
7573254011	**B-3 (2'-3')**	EPA 8015B	JS	2	PASI-D
		EPA 8015B Modified	JS	2	PASI-D
		EPA 8015B	JTK	2	PASI-K
		EPA 8260	DJF	7	PASI-D
		ASTM D2974-07	DAT	1	PASI-D
		EPA 300.0	OL	1	PASI-K
7573254012	**B-3 (4'-5')**	EPA 8015B	JS	2	PASI-D
		EPA 8015B Modified	JS	2	PASI-D
		EPA 8015B	JTK	2	PASI-K
		EPA 8260	DJF	7	PASI-D
		ASTM D2974-07	DAT	1	PASI-D
		EPA 300.0	OL	1	PASI-K
7573254013	**B-3 (6'-7')**	ASTM D2974-07	DAT	1	PASI-D
		EPA 300.0	OL	1	PASI-K
7573254014	**B-3 (8'-9')**	ASTM D2974-07	DAT	1	PASI-D
		EPA 300.0	OL	1	PASI-K
7573254015	**B-3 (9'-10')**	EPA 8015B	JS	2	PASI-D
		EPA 8015B Modified	JS	1	PASI-D
		EPA 8015B	JTK	2	PASI-K
		EPA 8260	DJF	7	PASI-D
		ASTM D2974-07	DAT	1	PASI-D
		EPA 300.0	OL	1	PASI-K
7573254016	**B-3 (19'-20')**	EPA 8015B	JS	2	PASI-D
		EPA 8015B Modified	JS	2	PASI-D
		EPA 8015B	JTK	2	PASI-K
		EPA 8260	DJF	7	PASI-D

Pace Analytical Services, LLC
400 West Bethany Drive - Suite 190
Allen, TX 75013
(972)727-1123

SAMPLE ANALYTE COUNT

Project: 212C-MD-00947/COP MCA 1C Trunk
Pace Project No.: 7573254

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		ASTM D2974-07	DAT	1	PASI-D
		EPA 300.0	OL	1	PASI-K
7573254017	**B-4 (0'-1')**	ASTM D2974-07	DAT	1	PASI-D
		EPA 300.0	OL	1	PASI-K
7573254018	**B-4 (2'-3')**	EPA 8015B	JS	2	PASI-D
		EPA 8015B Modified	JS	2	PASI-D
		EPA 8015B	JTK	2	PASI-K
		EPA 8260	DJF	7	PASI-D
		ASTM D2974-07	DAT	1	PASI-D
		EPA 300.0	OL	1	PASI-K
7573254019	**B-4 (4'-5')**	EPA 8015B	JS	2	PASI-D
		EPA 8015B Modified	JS	2	PASI-D
		EPA 8015B	JTK	2	PASI-K
		EPA 8260	DJF	7	PASI-D
		ASTM D2974-07	DAT	1	PASI-D
		EPA 300.0	OL	1	PASI-K
7573254020	**B-4 (6'-7')**	ASTM D2974-07	DAT	1	PASI-D
		EPA 300.0	OL	1	PASI-K
7573254021	**B-4 (8'-9')**	ASTM D2974-07	DAT	1	PASI-D
		EPA 300.0	OL	1	PASI-K
7573254022	**B-4 (9'-10')**	EPA 8015B	JS	2	PASI-D
		EPA 8015B Modified	JS	2	PASI-D
		EPA 8015B	JTK	2	PASI-K
		EPA 8260	DJF	7	PASI-D
		ASTM D2974-07	DAT	1	PASI-D
		EPA 300.0	OL	1	PASI-K
7573254023	**B-4 (19'-20')**	EPA 8015B	JS	2	PASI-D
		EPA 8015B Modified	JS	2	PASI-D
		EPA 8015B	JTK	2	PASI-K
		EPA 8260	DJF	7	PASI-D
		ASTM D2974-07	DAT	1	PASI-D
		EPA 300.0	OL	1	PASI-K
7573254024	**B-1 (6'-7')**	ASTM D2974-07	DAT	1	PASI-D
		EPA 300.0	OL	1	PASI-K

Pace Analytical Services, LLC
400 West Bethany Drive - Suite 190
Allen, TX 75013
(972)727-1123

ANALYTICAL RESULTS

Project: 212C-MD-00947/COP MCA 1C Trunk
Pace Project No.: 7573254

Sample: B-1 (0-1') **Lab ID: 7573254001** Collected: 08/31/17 11:05 Received: 09/06/17 09:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
Diesel Range Organics	**1480**	mg/kg	62.9	10	09/12/17 09:30	09/15/17 03:20		
Surrogates								
a-Pinene (S)	32	%.	10-87	10	09/12/17 09:30	09/15/17 03:20		
8015M Oil Range Organics	Analytical Method: EPA 8015B Modified Preparation Method: EPA 3546							
Oil Range Organics	**1130**	mg/kg	62.9	10	09/12/17 09:30	09/13/17 05:41		N2
Surrogates								
a-Pinene (S)	44	%.	17-70	10	09/12/17 09:30	09/13/17 05:41		
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	12.7	1	09/08/17 00:00	09/08/17 18:04		
Surrogates								
4-Bromofluorobenzene (S)	94	%	64-122	1	09/08/17 00:00	09/08/17 18:04	460-00-4	
8260 MSV UST Soil Low Level	Analytical Method: EPA 8260 Preparation Method: EPA 5030 Low							
Benzene	ND	mg/kg	0.0026	1	09/06/17 15:00	09/07/17 08:56	71-43-2	
Ethylbenzene	ND	mg/kg	0.0026	1	09/06/17 15:00	09/07/17 08:56	100-41-4	
Toluene	ND	mg/kg	0.0026	1	09/06/17 15:00	09/07/17 08:56	108-88-3	
Xylene (Total)	ND	mg/kg	0.0077	1	09/06/17 15:00	09/07/17 08:56	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	112	%.	70-130	1	09/06/17 15:00	09/07/17 08:56	17060-07-0	
4-Bromofluorobenzene (S)	102	%.	70-130	1	09/06/17 15:00	09/07/17 08:56	460-00-4	
Toluene-d8 (S)	96	%.	70-130	1	09/06/17 15:00	09/07/17 08:56	2037-26-5	
Percent Moisture	Analytical Method: ASTM D2974-07							
Percent Moisture	**21.5**	%		1		09/08/17 11:26		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Preparation Method: EPA 300.0							
Chloride	ND	mg/kg	125	10	09/08/17 14:00	09/10/17 12:40	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
400 West Bethany Drive - Suite 190
Allen, TX 75013
(972)727-1123

ANALYTICAL RESULTS

Project: 212C-MD-00947/COP MCA 1C Trunk
Pace Project No.: 7573254

Sample: B-1 (2'-3') **Lab ID: 7573254002** Collected: 08/31/17 11:05 Received: 09/06/17 09:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture	Analytical Method: ASTM D2974-07							
Percent Moisture	**20.5**	%		1		09/08/17 11:29		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Preparation Method: EPA 300.0							
Chloride	ND	mg/kg	125	10	09/08/17 14:00	09/10/17 13:24	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
400 West Bethany Drive - Suite 190
Allen, TX 75013
(972)727-1123

ANALYTICAL RESULTS

Project: 212C-MD-00947/COP MCA 1C Trunk
Pace Project No.: 7573254

Sample: B-1 (4'-5') **Lab ID: 7573254003** Collected: 08/31/17 11:05 Received: 09/06/17 09:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
Diesel Range Organics	**34.3**	mg/kg	5.9	1	09/12/17 09:30	09/14/17 18:42		
Surrogates								
a-Pinene (S)	16	%.	10-87	1	09/12/17 09:30	09/14/17 18:42		
8015M Oil Range Organics	Analytical Method: EPA 8015B Modified Preparation Method: EPA 3546							
Oil Range Organics	**23.3**	mg/kg	5.9	1	09/12/17 09:30	09/13/17 17:30		N2
Surrogates								
a-Pinene (S)	21	%.	17-70	1	09/12/17 09:30	09/13/17 17:30		
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	11.9	1	09/08/17 00:00	09/08/17 19:05		
Surrogates								
4-Bromofluorobenzene (S)	110	%	64-122	1	09/08/17 00:00	09/08/17 19:05	460-00-4	
8260 MSV UST Soil Low Level	Analytical Method: EPA 8260 Preparation Method: EPA 5030 Low							
Benzene	ND	mg/kg	0.0024	1	09/06/17 15:00	09/07/17 09:22	71-43-2	
Ethylbenzene	ND	mg/kg	0.0024	1	09/06/17 15:00	09/07/17 09:22	100-41-4	
Toluene	ND	mg/kg	0.0024	1	09/06/17 15:00	09/07/17 09:22	108-88-3	
Xylene (Total)	ND	mg/kg	0.0071	1	09/06/17 15:00	09/07/17 09:22	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	112	%.	70-130	1	09/06/17 15:00	09/07/17 09:22	17060-07-0	
4-Bromofluorobenzene (S)	102	%.	70-130	1	09/06/17 15:00	09/07/17 09:22	460-00-4	
Toluene-d8 (S)	99	%.	70-130	1	09/06/17 15:00	09/07/17 09:22	2037-26-5	
Percent Moisture	Analytical Method: ASTM D2974-07							
Percent Moisture	**15.8**	%		1		09/08/17 11:30		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Preparation Method: EPA 300.0							
Chloride	**161**	mg/kg	115	10	09/08/17 14:00	09/10/17 13:54	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
400 West Bethany Drive - Suite 190
Allen, TX 75013
(972)727-1123

ANALYTICAL RESULTS

Project: 212C-MD-00947/COP MCA 1C Trunk
Pace Project No.: 7573254

Sample: B-1 (14'-15') **Lab ID: 7573254004** Collected: 08/31/17 11:05 Received: 09/06/17 09:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
Diesel Range Organics	ND	mg/kg	6.3	1	09/12/17 09:30	09/12/17 22:49		2t
Surrogates								
a-Pinene (S)	35	%.	10-87	1	09/12/17 09:30	09/12/17 22:49		
8015M Oil Range Organics	Analytical Method: EPA 8015B Modified Preparation Method: EPA 3546							
Oil Range Organics	**17.2**	mg/kg	6.3	1	09/12/17 09:30	09/12/17 22:49		N2
Surrogates								
a-Pinene (S)	43	%.	17-70	1	09/12/17 09:30	09/12/17 22:49		
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	12.8	1	09/08/17 00:00	09/08/17 19:21		
Surrogates								
4-Bromofluorobenzene (S)	93	%	64-122	1	09/08/17 00:00	09/08/17 19:21	460-00-4	
8260 MSV UST Soil Low Level	Analytical Method: EPA 8260 Preparation Method: EPA 5030 Low							
Benzene	ND	mg/kg	0.0025	1	09/06/17 15:00	09/07/17 09:48	71-43-2	
Ethylbenzene	ND	mg/kg	0.0025	1	09/06/17 15:00	09/07/17 09:48	100-41-4	
Toluene	ND	mg/kg	0.0025	1	09/06/17 15:00	09/07/17 09:48	108-88-3	
Xylene (Total)	ND	mg/kg	0.0076	1	09/06/17 15:00	09/07/17 09:48	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	105	%.	70-130	1	09/06/17 15:00	09/07/17 09:48	17060-07-0	
4-Bromofluorobenzene (S)	102	%.	70-130	1	09/06/17 15:00	09/07/17 09:48	460-00-4	
Toluene-d8 (S)	99	%.	70-130	1	09/06/17 15:00	09/07/17 09:48	2037-26-5	
Percent Moisture	Analytical Method: ASTM D2974-07							
Percent Moisture	**21.6**	%		1		09/08/17 11:30		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Preparation Method: EPA 300.0							
Chloride	ND	mg/kg	124	10	09/08/17 14:00	09/10/17 14:09	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
400 West Bethany Drive - Suite 190
Allen, TX 75013
(972)727-1123

ANALYTICAL RESULTS

Project: 212C-MD-00947/COP MCA 1C Trunk
Pace Project No.: 7573254

Sample: B-2 (0-1') **Lab ID: 7573254005** Collected: 08/31/17 12:00 Received: 09/06/17 09:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
Diesel Range Organics	**1710**	mg/kg	99.8	20	09/12/17 09:30	09/15/17 14:40		
Surrogates								
a-Pinene (S)	42	%.	10-87	20	09/12/17 09:30	09/15/17 14:40		
8015M Oil Range Organics	Analytical Method: EPA 8015B Modified Preparation Method: EPA 3546							
Oil Range Organics	**2050**	mg/kg	99.8	20	09/12/17 09:30	09/12/17 21:05		M3,N2
Surrogates								
a-Pinene (S)	62	%.	17-70	20	09/12/17 09:30	09/12/17 21:05		
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	10.1	1	09/08/17 00:00	09/08/17 19:39		
Surrogates								
4-Bromofluorobenzene (S)	91	%	64-122	1	09/08/17 00:00	09/08/17 19:39	460-00-4	
8260 MSV UST Soil Low Level	Analytical Method: EPA 8260 Preparation Method: EPA 5030 Low							
Benzene	ND	mg/kg	0.0020	1	09/06/17 15:00	09/07/17 10:14	71-43-2	
Ethylbenzene	ND	mg/kg	0.0020	1	09/06/17 15:00	09/07/17 10:14	100-41-4	
Toluene	ND	mg/kg	0.0020	1	09/06/17 15:00	09/07/17 10:14	108-88-3	
Xylene (Total)	ND	mg/kg	0.0060	1	09/06/17 15:00	09/07/17 10:14	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	113	%.	70-130	1	09/06/17 15:00	09/07/17 10:14	17060-07-0	
4-Bromofluorobenzene (S)	112	%.	70-130	1	09/06/17 15:00	09/07/17 10:14	460-00-4	
Toluene-d8 (S)	101	%.	70-130	1	09/06/17 15:00	09/07/17 10:14	2037-26-5	
Percent Moisture	Analytical Method: ASTM D2974-07							
Percent Moisture	**0.87**	%		1		09/08/17 11:30		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Preparation Method: EPA 300.0							
Chloride	**179**	mg/kg	98.3	10	09/08/17 14:00	09/10/17 14:24	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
400 West Bethany Drive - Suite 190
Allen, TX 75013
(972)727-1123

ANALYTICAL RESULTS

Project: 212C-MD-00947/COP MCA 1C Trunk
Pace Project No.: 7573254

Sample: B-2 (2'-3') **Lab ID: 7573254006** Collected: 08/31/17 12:00 Received: 09/06/17 09:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture	Analytical Method: ASTM D2974-07							
Percent Moisture	**1.6**	%		1		09/08/17 11:30		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Preparation Method: EPA 300.0							
Chloride	**338**	mg/kg	101	10	09/08/17 14:00	09/10/17 15:09	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
400 West Bethany Drive - Suite 190
Allen, TX 75013
(972)727-1123

ANALYTICAL RESULTS

Project: 212C-MD-00947/COP MCA 1C Trunk
Pace Project No.: 7573254

Sample: B-2 (4'-5') **Lab ID: 7573254007** Collected: 08/31/17 12:00 Received: 09/06/17 09:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
Diesel Range Organics	**1820**	mg/kg	53.4	10	09/12/17 09:30	09/15/17 04:11		
Surrogates								
a-Pinene (S)	39	%.	10-87	10	09/12/17 09:30	09/15/17 04:11		
8015M Oil Range Organics	Analytical Method: EPA 8015B Modified Preparation Method: EPA 3546							
Oil Range Organics	**1350**	mg/kg	53.4	10	09/12/17 09:30	09/13/17 06:33		N2
Surrogates								
a-Pinene (S)	45	%.	17-70	10	09/12/17 09:30	09/13/17 06:33		
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	10.7	1	09/08/17 00:00	09/08/17 20:30		
Surrogates								
4-Bromofluorobenzene (S)	90	%	64-122	1	09/08/17 00:00	09/08/17 20:30	460-00-4	
8260 MSV UST Soil Low Level	Analytical Method: EPA 8260 Preparation Method: EPA 5030 Low							
Benzene	ND	mg/kg	0.0022	1	09/06/17 15:00	09/07/17 10:39	71-43-2	
Ethylbenzene	ND	mg/kg	0.0022	1	09/06/17 15:00	09/07/17 10:39	100-41-4	
Toluene	ND	mg/kg	0.0022	1	09/06/17 15:00	09/07/17 10:39	108-88-3	
Xylene (Total)	ND	mg/kg	0.0065	1	09/06/17 15:00	09/07/17 10:39	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	110	%.	70-130	1	09/06/17 15:00	09/07/17 10:39	17060-07-0	
4-Bromofluorobenzene (S)	104	%.	70-130	1	09/06/17 15:00	09/07/17 10:39	460-00-4	
Toluene-d8 (S)	100	%.	70-130	1	09/06/17 15:00	09/07/17 10:39	2037-26-5	
Percent Moisture	Analytical Method: ASTM D2974-07							
Percent Moisture	**7.4**	%		1		09/08/17 11:30		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Preparation Method: EPA 300.0							
Chloride	**169**	mg/kg	106	10	09/08/17 14:00	09/10/17 15:24	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
400 West Bethany Drive - Suite 190
Allen, TX 75013
(972)727-1123

ANALYTICAL RESULTS

Project: 212C-MD-00947/COP MCA 1C Trunk
Pace Project No.: 7573254

Sample: B-2 (6'-7') **Lab ID: 7573254008** Collected: 08/31/17 12:00 Received: 09/06/17 09:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
Diesel Range Organics	ND	mg/kg	5.2	1	09/12/17 09:30	09/13/17 02:15		1t
Surrogates								
a-Pinene (S)	24	%.	10-87	1	09/12/17 09:30	09/13/17 02:15		
8015M Oil Range Organics	Analytical Method: EPA 8015B Modified Preparation Method: EPA 3546							
Oil Range Organics	**6.3**	mg/kg	5.2	1	09/12/17 09:30	09/14/17 17:24		N2
Surrogates								
a-Pinene (S)	32	%.	17-70	1	09/12/17 09:30	09/14/17 17:24		
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	10.4	1	09/08/17 00:00	09/08/17 20:48		
Surrogates								
4-Bromofluorobenzene (S)	97	%	64-122	1	09/08/17 00:00	09/08/17 20:48	460-00-4	
8260 MSV UST Soil Low Level	Analytical Method: EPA 8260 Preparation Method: EPA 5030 Low							
Benzene	ND	mg/kg	0.0021	1	09/06/17 16:00	09/07/17 08:47	71-43-2	
Ethylbenzene	ND	mg/kg	0.0021	1	09/06/17 16:00	09/07/17 08:47	100-41-4	
Toluene	ND	mg/kg	0.0021	1	09/06/17 16:00	09/07/17 08:47	108-88-3	
Xylene (Total)	ND	mg/kg	0.0063	1	09/06/17 16:00	09/07/17 08:47	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	100	%.	70-130	1	09/06/17 16:00	09/07/17 08:47	17060-07-0	
4-Bromofluorobenzene (S)	105	%.	70-130	1	09/06/17 16:00	09/07/17 08:47	460-00-4	
Toluene-d8 (S)	95	%.	70-130	1	09/06/17 16:00	09/07/17 08:47	2037-26-5	
Percent Moisture	Analytical Method: ASTM D2974-07							
Percent Moisture	**4.6**	%		1		09/08/17 11:31		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Preparation Method: EPA 300.0							
Chloride	**125**	mg/kg	105	10	09/08/17 14:00	09/10/17 15:38	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
400 West Bethany Drive - Suite 190
Allen, TX 75013
(972)727-1123

ANALYTICAL RESULTS

Project: 212C-MD-00947/COP MCA 1C Trunk
Pace Project No.: 7573254

Sample: B-2 (16'-17') **Lab ID: 7573254009** Collected: 08/31/17 12:00 Received: 09/06/17 09:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
Diesel Range Organics	ND	mg/kg	5.1	1	09/12/17 09:30	09/13/17 02:41		1t
Surrogates								
a-Pinene (S)	28	%.	10-87	1	09/12/17 09:30	09/13/17 02:41		
8015M Oil Range Organics	Analytical Method: EPA 8015B Modified Preparation Method: EPA 3546							
Oil Range Organics	**6.4**	mg/kg	5.1	1	09/12/17 09:30	09/14/17 17:50		N2
Surrogates								
a-Pinene (S)	38	%.	17-70	1	09/12/17 09:30	09/14/17 17:50		
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	10.3	1	09/08/17 00:00	09/08/17 21:04		
Surrogates								
4-Bromofluorobenzene (S)	94	%	64-122	1	09/08/17 00:00	09/08/17 21:04	460-00-4	
8260 MSV UST Soil Low Level	Analytical Method: EPA 8260 Preparation Method: EPA 5030 Low							
Benzene	ND	mg/kg	0.0021	1	09/06/17 16:00	09/07/17 09:10	71-43-2	
Ethylbenzene	ND	mg/kg	0.0021	1	09/06/17 16:00	09/07/17 09:10	100-41-4	
Toluene	ND	mg/kg	0.0021	1	09/06/17 16:00	09/07/17 09:10	108-88-3	
Xylene (Total)	ND	mg/kg	0.0062	1	09/06/17 16:00	09/07/17 09:10	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	99	%.	70-130	1	09/06/17 16:00	09/07/17 09:10	17060-07-0	
4-Bromofluorobenzene (S)	102	%.	70-130	1	09/06/17 16:00	09/07/17 09:10	460-00-4	
Toluene-d8 (S)	97	%.	70-130	1	09/06/17 16:00	09/07/17 09:10	2037-26-5	
Percent Moisture	Analytical Method: ASTM D2974-07							
Percent Moisture	**3.6**	%		1		09/08/17 11:31		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Preparation Method: EPA 300.0							
Chloride	ND	mg/kg	103	10	09/08/17 14:00	09/10/17 15:53	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
400 West Bethany Drive - Suite 190
Allen, TX 75013
(972)727-1123

ANALYTICAL RESULTS

Project: 212C-MD-00947/COP MCA 1C Trunk
Pace Project No.: 7573254

Sample: B-3 (0'-1') **Lab ID: 7573254010** Collected: 08/31/17 13:15 Received: 09/06/17 09:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture	Analytical Method: ASTM D2974-07							
Percent Moisture	**0.84**	%		1		09/08/17 11:31		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Preparation Method: EPA 300.0							
Chloride	**168**	mg/kg	99.5	10	09/08/17 14:00	09/10/17 16:08	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
400 West Bethany Drive - Suite 190
Allen, TX 75013
(972)727-1123

ANALYTICAL RESULTS

Project: 212C-MD-00947/COP MCA 1C Trunk
Pace Project No.: 7573254

Sample: B-3 (2'-3') **Lab ID: 7573254011** Collected: 08/31/17 13:15 Received: 09/06/17 09:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
Diesel Range Organics	**6060**	mg/kg	254	50	09/12/17 09:30	09/15/17 02:28		
Surrogates								
a-Pinene (S)	151	%.	10-87	50	09/12/17 09:30	09/15/17 02:28		S2
8015M Oil Range Organics	Analytical Method: EPA 8015B Modified Preparation Method: EPA 3546							
Oil Range Organics	**3000**	mg/kg	254	50	09/12/17 09:30	09/13/17 08:16		N2
Surrogates								
a-Pinene (S)	233	%.	17-70	50	09/12/17 09:30	09/13/17 08:16		S2
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	**224**	mg/kg	10.2	1	09/08/17 00:00	09/08/17 21:21		
Surrogates								
4-Bromofluorobenzene (S)	96	%	64-122	1	09/08/17 00:00	09/08/17 21:21	460-00-4	
8260 MSV UST Soil Low Level	Analytical Method: EPA 8260 Preparation Method: EPA 5030 Low							
Benzene	ND	mg/kg	0.010	5	09/06/17 16:00	09/07/17 12:02	71-43-2	D3
Ethylbenzene	**6.1**	mg/kg	0.10	50	09/06/17 16:00	09/07/17 23:12	100-41-4	
Toluene	**0.17**	mg/kg	0.010	5	09/06/17 16:00	09/07/17 12:02	108-88-3	
Xylene (Total)	**6.9**	mg/kg	0.31	50	09/06/17 16:00	09/07/17 23:12	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	88	%.	70-130	5	09/06/17 16:00	09/07/17 12:02	17060-07-0	
4-Bromofluorobenzene (S)	126	%.	70-130	50	09/06/17 16:00	09/07/17 23:12	460-00-4	
Toluene-d8 (S)	107	%.	70-130	5	09/06/17 16:00	09/07/17 12:02	2037-26-5	
Percent Moisture	Analytical Method: ASTM D2974-07							
Percent Moisture	**2.9**	%		1		09/08/17 11:31		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Preparation Method: EPA 300.0							
Chloride	**769**	mg/kg	102	10	09/08/17 14:00	09/10/17 16:23	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
400 West Bethany Drive - Suite 190
Allen, TX 75013
(972)727-1123

ANALYTICAL RESULTS

Project: 212C-MD-00947/COP MCA 1C Trunk
Pace Project No.: 7573254

Sample: B-3 (4'-5') **Lab ID: 7573254012** Collected: 08/31/17 13:15 Received: 09/06/17 09:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
Diesel Range Organics	**676**	mg/kg	29.3	5	09/12/17 09:30	09/15/17 05:03		
Surrogates								
a-Pinene (S)	33	%.	10-87	5	09/12/17 09:30	09/15/17 05:03		
8015M Oil Range Organics	Analytical Method: EPA 8015B Modified Preparation Method: EPA 3546							
Oil Range Organics	**440**	mg/kg	29.3	5	09/12/17 09:30	09/12/17 23:14		N2
Surrogates								
a-Pinene (S)	34	%.	17-70	5	09/12/17 09:30	09/12/17 23:14		
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	**24.1**	mg/kg	11.9	1	09/08/17 00:00	09/08/17 21:37		
Surrogates								
4-Bromofluorobenzene (S)	88	%	64-122	1	09/08/17 00:00	09/08/17 21:37	460-00-4	
8260 MSV UST Soil Low Level	Analytical Method: EPA 8260 Preparation Method: EPA 5030 Low							
Benzene	ND	mg/kg	0.012	5	09/06/17 16:00	09/07/17 22:49	71-43-2	D3
Ethylbenzene	ND	mg/kg	0.012	5	09/06/17 16:00	09/07/17 22:49	100-41-4	D3
Toluene	ND	mg/kg	0.012	5	09/06/17 16:00	09/07/17 22:49	108-88-3	D3
Xylene (Total)	ND	mg/kg	0.035	5	09/06/17 16:00	09/07/17 22:49	1330-20-7	D3
Surrogates								
1,2-Dichloroethane-d4 (S)	88	%.	70-130	5	09/06/17 16:00	09/07/17 22:49	17060-07-0	
4-Bromofluorobenzene (S)	104	%.	70-130	5	09/06/17 16:00	09/07/17 22:49	460-00-4	
Toluene-d8 (S)	98	%.	70-130	5	09/06/17 16:00	09/07/17 22:49	2037-26-5	
Percent Moisture	Analytical Method: ASTM D2974-07							
Percent Moisture	**15.4**	%		1		09/08/17 11:31		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Preparation Method: EPA 300.0							
Chloride	**1530**	mg/kg	118	10	09/08/17 14:00	09/10/17 16:38	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
400 West Bethany Drive - Suite 190
Allen, TX 75013
(972)727-1123

ANALYTICAL RESULTS

Project: 212C-MD-00947/COP MCA 1C Trunk
Pace Project No.: 7573254

Sample: B-3 (6'-7') **Lab ID: 7573254013** Collected: 08/31/17 13:15 Received: 09/06/17 09:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture	Analytical Method: ASTM D2974-07							
Percent Moisture	**12.8**	%		1		09/08/17 11:32		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Preparation Method: EPA 300.0							
Chloride	**204**	mg/kg	113	10	09/08/17 14:00	09/10/17 16:53	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
400 West Bethany Drive - Suite 190
Allen, TX 75013
(972)727-1123

ANALYTICAL RESULTS

Project: 212C-MD-00947/COP MCA 1C Trunk
Pace Project No.: 7573254

Sample: B-3 (8'-9') **Lab ID: 7573254014** Collected: 08/31/17 13:15 Received: 09/06/17 09:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture	Analytical Method: ASTM D2974-07							
Percent Moisture	**13.0**	%		1		09/08/17 11:32		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Preparation Method: EPA 300.0							
Chloride	**335**	mg/kg	114	10	09/08/17 14:00	09/10/17 17:08	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
400 West Bethany Drive - Suite 190
Allen, TX 75013
(972)727-1123

ANALYTICAL RESULTS

Project: 212C-MD-00947/COP MCA 1C Trunk
Pace Project No.: 7573254

Sample: B-3 (9'-10') **Lab ID: 7573254015** Collected: 08/31/17 13:15 Received: 09/06/17 09:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
Diesel Range Organics	**83.9**	mg/kg	5.6	1	09/12/17 09:30	09/14/17 23:52		
Surrogates								
a-Pinene (S)	30	%.	10-87	1	09/12/17 09:30	09/14/17 23:52		
8015M Oil Range Organics	Analytical Method: EPA 8015B Modified Preparation Method: EPA 3546							
Oil Range Organics	**57.8**	mg/kg	5.6	1	09/12/17 09:30	09/13/17 04:50		N2
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	11.4	1	09/08/17 00:00	09/08/17 21:54		
Surrogates								
4-Bromofluorobenzene (S)	90	%	64-122	1	09/08/17 00:00	09/08/17 21:54	460-00-4	
8260 MSV UST Soil Low Level	Analytical Method: EPA 8260 Preparation Method: EPA 5030 Low							
Benzene	ND	mg/kg	0.0023	1	09/06/17 16:00	09/07/17 20:53	71-43-2	
Ethylbenzene	ND	mg/kg	0.0023	1	09/06/17 16:00	09/07/17 20:53	100-41-4	
Toluene	ND	mg/kg	0.0023	1	09/06/17 16:00	09/07/17 20:53	108-88-3	
Xylene (Total)	ND	mg/kg	0.0068	1	09/06/17 16:00	09/07/17 20:53	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	93	%.	70-130	1	09/06/17 16:00	09/07/17 20:53	17060-07-0	
4-Bromofluorobenzene (S)	102	%.	70-130	1	09/06/17 16:00	09/07/17 20:53	460-00-4	
Toluene-d8 (S)	96	%.	70-130	1	09/06/17 16:00	09/07/17 20:53	2037-26-5	
Percent Moisture	Analytical Method: ASTM D2974-07							
Percent Moisture	**11.9**	%		1		09/08/17 11:32		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Preparation Method: EPA 300.0							
Chloride	**209**	mg/kg	114	10	09/08/17 14:00	09/10/17 17:23	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
400 West Bethany Drive - Suite 190
Allen, TX 75013
(972)727-1123

ANALYTICAL RESULTS

Project: 212C-MD-00947/COP MCA 1C Trunk
Pace Project No.: 7573254

Sample: B-3 (19'-20') **Lab ID: 7573254016** Collected: 08/31/17 13:15 Received: 09/06/17 09:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
Diesel Range Organics	**39.2**	mg/kg	5.2	1	09/12/17 09:30	09/15/17 14:15		
Surrogates								
a-Pinene (S)	31	%.	10-87	1	09/12/17 09:30	09/15/17 14:15		
8015M Oil Range Organics	Analytical Method: EPA 8015B Modified Preparation Method: EPA 3546							
Oil Range Organics	**23.8**	mg/kg	5.2	1	09/12/17 09:30	09/13/17 03:06		N2
Surrogates								
a-Pinene (S)	35	%.	17-70	1	09/12/17 09:30	09/13/17 03:06		
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	10.4	1	09/08/17 00:00	09/08/17 22:10		
Surrogates								
4-Bromofluorobenzene (S)	101	%	64-122	1	09/08/17 00:00	09/08/17 22:10	460-00-4	
8260 MSV UST Soil Low Level	Analytical Method: EPA 8260 Preparation Method: EPA 5030 Low							
Benzene	ND	mg/kg	0.0021	1	09/06/17 16:00	09/07/17 21:16	71-43-2	
Ethylbenzene	ND	mg/kg	0.0021	1	09/06/17 16:00	09/07/17 21:16	100-41-4	
Toluene	ND	mg/kg	0.0021	1	09/06/17 16:00	09/07/17 21:16	108-88-3	
Xylene (Total)	ND	mg/kg	0.0063	1	09/06/17 16:00	09/07/17 21:16	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	92	%.	70-130	1	09/06/17 16:00	09/07/17 21:16	17060-07-0	
4-Bromofluorobenzene (S)	102	%.	70-130	1	09/06/17 16:00	09/07/17 21:16	460-00-4	
Toluene-d8 (S)	97	%.	70-130	1	09/06/17 16:00	09/07/17 21:16	2037-26-5	
Percent Moisture	Analytical Method: ASTM D2974-07							
Percent Moisture	**4.1**	%		1		09/08/17 11:32		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Preparation Method: EPA 300.0							
Chloride	ND	mg/kg	106	10	09/08/17 14:00	09/10/17 18:08	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
400 West Bethany Drive - Suite 190
Allen, TX 75013
(972)727-1123

ANALYTICAL RESULTS

Project: 212C-MD-00947/COP MCA 1C Trunk
Pace Project No.: 7573254

Sample: B-4 (0'-1') **Lab ID: 7573254017** Collected: 08/31/17 14:30 Received: 09/06/17 09:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture	Analytical Method: ASTM D2974-07							
Percent Moisture	**13.7**	%		1		09/08/17 11:32		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Preparation Method: EPA 300.0							
Chloride	ND	mg/kg	112	10	09/08/17 14:00	09/10/17 18:23	16887-00-6	

Pace Analytical Services, LLC
400 West Bethany Drive - Suite 190
Allen, TX 75013
(972)727-1123

ANALYTICAL RESULTS

Project: 212C-MD-00947/COP MCA 1C Trunk
Pace Project No.: 7573254

Sample: B-4 (2'-3') **Lab ID: 7573254018** Collected: 08/31/17 14:30 Received: 09/06/17 09:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
Diesel Range Organics	**6440**	mg/kg	270	50	09/12/17 09:30	09/15/17 01:36		
Surrogates								
a-Pinene (S)	184	%.	10-87	50	09/12/17 09:30	09/15/17 01:36		S2
8015M Oil Range Organics	Analytical Method: EPA 8015B Modified Preparation Method: EPA 3546							
Oil Range Organics	**3860**	mg/kg	270	50	09/12/17 09:30	09/13/17 07:25		N2
Surrogates								
a-Pinene (S)	220	%.	17-70	50	09/12/17 09:30	09/13/17 07:25		S2
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	**772**	mg/kg	109	10	09/08/17 00:00	09/13/17 15:28		
Surrogates								
4-Bromofluorobenzene (S)	116	%	64-122	10	09/08/17 00:00	09/13/17 15:28	460-00-4	
8260 MSV UST Soil Low Level	Analytical Method: EPA 8260 Preparation Method: EPA 5030 Low							
Benzene	ND	mg/kg	0.011	5	09/06/17 16:00	09/07/17 12:49	71-43-2	D3
Ethylbenzene	**2.3**	mg/kg	0.11	50	09/06/17 16:00	09/07/17 23:35	100-41-4	
Toluene	**0.32**	mg/kg	0.011	5	09/06/17 16:00	09/07/17 12:49	108-88-3	
Xylene (Total)	**5.4**	mg/kg	0.33	50	09/06/17 16:00	09/07/17 23:35	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	87	%.	70-130	5	09/06/17 16:00	09/07/17 12:49	17060-07-0	
4-Bromofluorobenzene (S)	85	%.	70-130	50	09/06/17 16:00	09/07/17 23:35	460-00-4	
Toluene-d8 (S)	126	%.	70-130	5	09/06/17 16:00	09/07/17 12:49	2037-26-5	
Percent Moisture	Analytical Method: ASTM D2974-07							
Percent Moisture	**8.5**	%		1		09/08/17 11:32		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Preparation Method: EPA 300.0							
Chloride	ND	mg/kg	108	10	09/08/17 14:00	09/10/17 18:37	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
400 West Bethany Drive - Suite 190
Allen, TX 75013
(972)727-1123

ANALYTICAL RESULTS

Project: 212C-MD-00947/COP MCA 1C Trunk
Pace Project No.: 7573254

Sample: B-4 (4'-5') **Lab ID: 7573254019** Collected: 08/31/17 14:30 Received: 09/06/17 09:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
Diesel Range Organics	**642**	mg/kg	28.7	5	09/12/17 09:30	09/15/17 05:54		
Surrogates								
a-Pinene (S)	35	%.	10-87	5	09/12/17 09:30	09/15/17 05:54		
8015M Oil Range Organics	Analytical Method: EPA 8015B Modified Preparation Method: EPA 3546							
Oil Range Organics	**443**	mg/kg	28.7	5	09/12/17 09:30	09/13/17 00:06		N2
Surrogates								
a-Pinene (S)	44	%.	17-70	5	09/12/17 09:30	09/13/17 00:06		
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	**31.1**	mg/kg	11.8	1	09/08/17 00:00	09/08/17 22:41		
Surrogates								
4-Bromofluorobenzene (S)	96	%	64-122	1	09/08/17 00:00	09/08/17 22:41	460-00-4	
8260 MSV UST Soil Low Level	Analytical Method: EPA 8260 Preparation Method: EPA 5030 Low							
Benzene	ND	mg/kg	0.0023	1	09/06/17 16:00	09/07/17 21:39	71-43-2	
Ethylbenzene	**0.030**	mg/kg	0.0023	1	09/06/17 16:00	09/07/17 21:39	100-41-4	
Toluene	**0.0052**	mg/kg	0.0023	1	09/06/17 16:00	09/07/17 21:39	108-88-3	
Xylene (Total)	**0.066**	mg/kg	0.0070	1	09/06/17 16:00	09/07/17 21:39	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	91	%.	70-130	1	09/06/17 16:00	09/07/17 21:39	17060-07-0	
4-Bromofluorobenzene (S)	103	%.	70-130	1	09/06/17 16:00	09/07/17 21:39	460-00-4	
Toluene-d8 (S)	98	%.	70-130	1	09/06/17 16:00	09/07/17 21:39	2037-26-5	
Percent Moisture	Analytical Method: ASTM D2974-07							
Percent Moisture	**14.2**	%		1		09/08/17 11:32		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Preparation Method: EPA 300.0							
Chloride	**1650**	mg/kg	115	10	09/08/17 14:00	09/10/17 18:52	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
400 West Bethany Drive - Suite 190
Allen, TX 75013
(972)727-1123

ANALYTICAL RESULTS

Project: 212C-MD-00947/COP MCA 1C Trunk
Pace Project No.: 7573254

Sample: B-4 (6'-7') **Lab ID: 7573254020** Collected: 08/31/17 14:30 Received: 09/06/17 09:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture	Analytical Method: ASTM D2974-07							
Percent Moisture	**7.0**	%		1		09/08/17 11:32		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Preparation Method: EPA 300.0							
Chloride	ND	mg/kg	109	10	09/08/17 14:00	09/10/17 19:07	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
400 West Bethany Drive - Suite 190
Allen, TX 75013
(972)727-1123

ANALYTICAL RESULTS

Project: 212C-MD-00947/COP MCA 1C Trunk
Pace Project No.: 7573254

Sample: B-4 (8'-9') **Lab ID: 7573254021** Collected: 08/31/17 14:30 Received: 09/06/17 09:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture	Analytical Method: ASTM D2974-07							
Percent Moisture	**23.0**	%		1		09/08/17 11:00		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Preparation Method: EPA 300.0							
Chloride	ND	mg/kg	127	10	09/09/17 14:00	09/10/17 19:52	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
400 West Bethany Drive - Suite 190
Allen, TX 75013
(972)727-1123

ANALYTICAL RESULTS

Project: 212C-MD-00947/COP MCA 1C Trunk
Pace Project No.: 7573254

Sample: B-4 (9'-10') **Lab ID: 7573254022** Collected: 08/31/17 14:30 Received: 09/06/17 09:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
Diesel Range Organics	**10.8**	mg/kg	5.4	1	09/12/17 09:30	09/14/17 18:16		
Surrogates								
a-Pinene (S)	25	%.	10-87	1	09/12/17 09:30	09/14/17 18:16		
8015M Oil Range Organics	Analytical Method: EPA 8015B Modified Preparation Method: EPA 3546							
Oil Range Organics	**7.8**	mg/kg	5.4	1	09/12/17 09:30	09/14/17 18:16		N2
Surrogates								
a-Pinene (S)	30	%.	17-70	1	09/12/17 09:30	09/14/17 18:16		
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	10.9	1	09/08/17 00:00	09/08/17 22:59		
Surrogates								
4-Bromofluorobenzene (S)	97	%	64-122	1	09/08/17 00:00	09/08/17 22:59	460-00-4	
8260 MSV UST Soil Low Level	Analytical Method: EPA 8260 Preparation Method: EPA 5030 Low							
Benzene	ND	mg/kg	0.0022	1	09/06/17 16:00	09/07/17 22:02	71-43-2	
Ethylbenzene	ND	mg/kg	0.0022	1	09/06/17 16:00	09/07/17 22:02	100-41-4	
Toluene	ND	mg/kg	0.0022	1	09/06/17 16:00	09/07/17 22:02	108-88-3	
Xylene (Total)	ND	mg/kg	0.0065	1	09/06/17 16:00	09/07/17 22:02	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	90	%.	70-130	1	09/06/17 16:00	09/07/17 22:02	17060-07-0	
4-Bromofluorobenzene (S)	101	%.	70-130	1	09/06/17 16:00	09/07/17 22:02	460-00-4	
Toluene-d8 (S)	98	%.	70-130	1	09/06/17 16:00	09/07/17 22:02	2037-26-5	
Percent Moisture	Analytical Method: ASTM D2974-07							
Percent Moisture	**7.7**	%		1		09/08/17 11:00		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Preparation Method: EPA 300.0							
Chloride	ND	mg/kg	108	10	09/09/17 14:00	09/10/17 21:06	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
400 West Bethany Drive - Suite 190
Allen, TX 75013
(972)727-1123

ANALYTICAL RESULTS

Project: 212C-MD-00947/COP MCA 1C Trunk
Pace Project No.: 7573254

Sample: B-4 (19'-20') **Lab ID: 7573254023** Collected: 08/31/17 14:30 Received: 09/06/17 09:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
Diesel Range Organics	**98.5**	mg/kg	5.3	1	09/12/17 09:30	09/15/17 00:44		
Surrogates								
a-Pinene (S)	37	%.	10-87	1	09/12/17 09:30	09/15/17 00:44		
8015M Oil Range Organics	Analytical Method: EPA 8015B Modified Preparation Method: EPA 3546							
Oil Range Organics	**60.9**	mg/kg	5.3	1	09/12/17 09:30	09/13/17 03:58		N2
Surrogates								
a-Pinene (S)	41	%.	17-70	1	09/12/17 09:30	09/13/17 03:58		
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	10.5	1	09/08/17 00:00	09/08/17 23:48		
Surrogates								
4-Bromofluorobenzene (S)	102	%	64-122	1	09/08/17 00:00	09/08/17 23:48	460-00-4	
8260 MSV UST Soil Low Level	Analytical Method: EPA 8260 Preparation Method: EPA 5030 Low							
Benzene	ND	mg/kg	0.0021	1	09/06/17 16:00	09/07/17 22:26	71-43-2	
Ethylbenzene	ND	mg/kg	0.0021	1	09/06/17 16:00	09/07/17 22:26	100-41-4	
Toluene	ND	mg/kg	0.0021	1	09/06/17 16:00	09/07/17 22:26	108-88-3	
Xylene (Total)	ND	mg/kg	0.0064	1	09/06/17 16:00	09/07/17 22:26	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	91	%.	70-130	1	09/06/17 16:00	09/07/17 22:26	17060-07-0	
4-Bromofluorobenzene (S)	103	%.	70-130	1	09/06/17 16:00	09/07/17 22:26	460-00-4	
Toluene-d8 (S)	97	%.	70-130	1	09/06/17 16:00	09/07/17 22:26	2037-26-5	
Percent Moisture	Analytical Method: ASTM D2974-07							
Percent Moisture	**5.9**	%		1		09/08/17 11:00		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Preparation Method: EPA 300.0							
Chloride	ND	mg/kg	102	10	09/09/17 14:00	09/10/17 21:36	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
400 West Bethany Drive - Suite 190
Allen, TX 75013
(972)727-1123

ANALYTICAL RESULTS

Project: 212C-MD-00947/COP MCA 1C Trunk
Pace Project No.: 7573254

Sample: B-1 (6'-7') **Lab ID: 7573254024** Collected: 08/31/17 11:05 Received: 09/06/17 09:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture	Analytical Method: ASTM D2974-07							
Percent Moisture	**21.8**	%		1		09/08/17 11:00		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Preparation Method: EPA 300.0							
Chloride	ND	mg/kg	129	10	09/09/17 14:00	09/10/17 21:51	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
400 West Bethany Drive - Suite 190
Allen, TX 75013
(972)727-1123

QUALITY CONTROL DATA

Project: 212C-MD-00947/COP MCA 1C Trunk
Pace Project No.: 7573254

QC Batch: 493355 Analysis Method: EPA 8015B
QC Batch Method: EPA 5035A/5030B Analysis Description: Gasoline Range Organics
Associated Lab Samples: 7573254001, 7573254003, 7573254004, 7573254005, 7573254007, 7573254008, 7573254009, 7573254011, 7573254012, 7573254015, 7573254016, 7573254018, 7573254019, 7573254022, 7573254023

METHOD BLANK: 2018560 Matrix: Solid
Associated Lab Samples: 7573254001, 7573254003, 7573254004, 7573254005, 7573254007, 7573254008, 7573254009, 7573254011, 7573254012, 7573254015, 7573254016, 7573254018, 7573254019, 7573254022, 7573254023

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH-GRO	mg/kg	ND	10.0	09/08/17 16:22	
4-Bromofluorobenzene (S)	%	96	64-122	09/08/17 16:22	

LABORATORY CONTROL SAMPLE: 2018561

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH-GRO	mg/kg	50	54.2	108	85-130	
4-Bromofluorobenzene (S)	%			95	64-122	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2018562 2018563

Parameter	Units	7573254001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
TPH-GRO	mg/kg	ND	63.5	63.5	72.1	69.2	105	100	85-125	4	12	
4-Bromofluorobenzene (S)	%						112	93	64-122			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
400 West Bethany Drive - Suite 190
Allen, TX 75013
(972)727-1123

QUALITY CONTROL DATA

Project: 212C-MD-00947/COP MCA 1C Trunk
Pace Project No.: 7573254

QC Batch: 83147 Analysis Method: EPA 8260
QC Batch Method: EPA 5030 Low Analysis Description: 8260 MSV Soil Low Level
Associated Lab Samples: 7573254001, 7573254003, 7573254004, 7573254005, 7573254007

METHOD BLANK: 366155 Matrix: Solid
Associated Lab Samples: 7573254001, 7573254003, 7573254004, 7573254005, 7573254007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	mg/kg	ND	0.0020	09/06/17 17:12	
Ethylbenzene	mg/kg	ND	0.0020	09/06/17 17:12	
Toluene	mg/kg	ND	0.0020	09/06/17 17:12	
Xylene (Total)	mg/kg	ND	0.0060	09/06/17 17:12	
1,2-Dichloroethane-d4 (S)	%.	109	70-130	09/06/17 17:12	
4-Bromofluorobenzene (S)	%.	104	70-130	09/06/17 17:12	
Toluene-d8 (S)	%.	98	70-130	09/06/17 17:12	

LABORATORY CONTROL SAMPLE: 366156

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	mg/kg	.02	0.022	108	74-130	
Ethylbenzene	mg/kg	.02	0.021	108	77-127	
Toluene	mg/kg	.02	0.021	104	74-127	
Xylene (Total)	mg/kg	.06	0.062	104	74-128	
1,2-Dichloroethane-d4 (S)	%.			106	70-130	
4-Bromofluorobenzene (S)	%.			101	70-130	
Toluene-d8 (S)	%.			100	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 366157 366158

Parameter	Units	7573160001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Benzene	mg/kg	ND	.023	.023	0.022	0.021	95	90	32-152	5	20	
Ethylbenzene	mg/kg	ND	.023	.023	0.021	0.020	89	84	18-166	7	20	
Toluene	mg/kg	ND	.023	.023	0.021	0.019	90	84	18-166	8	20	
Xylene (Total)	mg/kg	0.026	.07	.07	0.068	0.065	61	56	10-172	5	20	
1,2-Dichloroethane-d4 (S)	%.						110	109	70-130			
4-Bromofluorobenzene (S)	%.						105	104	70-130			
Toluene-d8 (S)	%.						100	100	70-130			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
400 West Bethany Drive - Suite 190
Allen, TX 75013
(972)727-1123

QUALITY CONTROL DATA

Project: 212C-MD-00947/COP MCA 1C Trunk
Pace Project No.: 7573254

QC Batch: 83201 Analysis Method: EPA 8260
QC Batch Method: EPA 5030 Low Analysis Description: 8260 MSV Soil Low Level
Associated Lab Samples: 7573254008, 7573254009, 7573254011, 7573254012, 7573254015, 7573254016, 7573254018, 7573254019, 7573254022, 7573254023

METHOD BLANK: 366385 Matrix: Solid
Associated Lab Samples: 7573254008, 7573254009, 7573254011, 7573254012, 7573254015, 7573254016, 7573254018, 7573254019, 7573254022, 7573254023

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	mg/kg	ND	0.0020	09/07/17 05:40	
Ethylbenzene	mg/kg	ND	0.0020	09/07/17 05:40	
Toluene	mg/kg	ND	0.0020	09/07/17 05:40	
Xylene (Total)	mg/kg	ND	0.0060	09/07/17 05:40	
1,2-Dichloroethane-d4 (S)	%.	96	70-130	09/07/17 05:40	
4-Bromofluorobenzene (S)	%.	101	70-130	09/07/17 05:40	
Toluene-d8 (S)	%.	96	70-130	09/07/17 05:40	

LABORATORY CONTROL SAMPLE: 366386

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	mg/kg	.02	0.017	87	74-130	
Ethylbenzene	mg/kg	.02	0.018	90	77-127	
Toluene	mg/kg	.02	0.018	90	74-127	
Xylene (Total)	mg/kg	.06	0.054	90	74-128	
1,2-Dichloroethane-d4 (S)	%.			97	70-130	
4-Bromofluorobenzene (S)	%.			103	70-130	
Toluene-d8 (S)	%.			97	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 366387 366388

Parameter	Units	7573252001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Benzene	mg/kg	ND	.022	.022	0.016	0.017	73	76	32-152	4	20	
Ethylbenzene	mg/kg	ND	.022	.022	0.012	0.012	54	56	18-166	3	20	
Toluene	mg/kg	ND	.022	.022	0.015	0.015	67	69	18-166	4	20	
Xylene (Total)	mg/kg	ND	.066	.067	0.034	0.035	52	53	10-172	3	20	
1,2-Dichloroethane-d4 (S)	%.						94	94	70-130			
4-Bromofluorobenzene (S)	%.						107	105	70-130			
Toluene-d8 (S)	%.						99	99	70-130			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
400 West Bethany Drive - Suite 190
Allen, TX 75013
(972)727-1123

QUALITY CONTROL DATA

Project: 212C-MD-00947/COP MCA 1C Trunk
Pace Project No.: 7573254

QC Batch: 83396 Analysis Method: EPA 8015B
QC Batch Method: EPA 3546 Analysis Description: EPA 8015B
Associated Lab Samples: 7573254001, 7573254003, 7573254004, 7573254005, 7573254007, 7573254008, 7573254009, 7573254011, 7573254012, 7573254015, 7573254016, 7573254018, 7573254019, 7573254022, 7573254023

METHOD BLANK: 367392 Matrix: Solid
Associated Lab Samples: 7573254001, 7573254003, 7573254004, 7573254005, 7573254007, 7573254008, 7573254009, 7573254011, 7573254012, 7573254015, 7573254016, 7573254018, 7573254019, 7573254022, 7573254023

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Diesel Range Organics	mg/kg	ND	4.9	09/12/17 18:29	2t
a-Pinene (S)	%.	24	10-87	09/12/17 18:29	

LABORATORY CONTROL SAMPLE: 367393

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Diesel Range Organics	mg/kg	50	33.0	66	42-124	
a-Pinene (S)	%.			14	10-87	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 367394 367395

Parameter	Units	7573351001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Diesel Range Organics	mg/kg	80.4	54.4	54.4	158	133	143	97	10-172	17	20	
a-Pinene (S)	%.						21	20	10-87			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
400 West Bethany Drive - Suite 190
Allen, TX 75013
(972)727-1123

QUALITY CONTROL DATA

Project: 212C-MD-00947/COP MCA 1C Trunk
Pace Project No.: 7573254

QC Batch: 83399 Analysis Method: EPA 8015B Modified
QC Batch Method: EPA 3546 Analysis Description: EPA 8015 ORO
Associated Lab Samples: 7573254001, 7573254003, 7573254004, 7573254005, 7573254007, 7573254008, 7573254009, 7573254011, 7573254012, 7573254015, 7573254016, 7573254018, 7573254019, 7573254022, 7573254023

METHOD BLANK: 367396 Matrix: Solid
Associated Lab Samples: 7573254001, 7573254003, 7573254004, 7573254005, 7573254007, 7573254008, 7573254009, 7573254011, 7573254012, 7573254015, 7573254016, 7573254018, 7573254019, 7573254022, 7573254023

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Oil Range Organics	mg/kg	ND	4.9	09/12/17 16:46	N2
a-Pinene (S)	%.	35	17-70	09/12/17 16:46	

LABORATORY CONTROL SAMPLE: 367397

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Oil Range Organics	mg/kg	49.8	40.1	81	48-145	N2
a-Pinene (S)	%.			41	17-70	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 367398 367399

Parameter	Units	7573254005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Oil Range Organics	mg/kg	2050	1010	1000	2140	2580	9	53	10-196	18	40	M3,N2
a-Pinene (S)	%.						53	58	17-70			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
400 West Bethany Drive - Suite 190
Allen, TX 75013
(972)727-1123

QUALITY CONTROL DATA

Project: 212C-MD-00947/COP MCA 1C Trunk
Pace Project No.: 7573254

QC Batch: 83277 Analysis Method: ASTM D2974-07
QC Batch Method: ASTM D2974-07 Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 7573254021, 7573254022, 7573254023, 7573254024

SAMPLE DUPLICATE: 366759

Parameter	Units	60252250001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	24.9	21.1	16	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
400 West Bethany Drive - Suite 190
Allen, TX 75013
(972)727-1123

QUALITY CONTROL DATA

Project: 212C-MD-00947/COP MCA 1C Trunk
Pace Project No.: 7573254

QC Batch: 83281 Analysis Method: ASTM D2974-07
QC Batch Method: ASTM D2974-07 Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 7573254001, 7573254002, 7573254003, 7573254004, 7573254005, 7573254006, 7573254007, 7573254008, 7573254009, 7573254010, 7573254011, 7573254012, 7573254013, 7573254014, 7573254015, 7573254016, 7573254017, 7573254018, 7573254019, 7573254020

SAMPLE DUPLICATE: 366761

Parameter	Units	7573254001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	21.5	21.7	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
400 West Bethany Drive - Suite 190
Allen, TX 75013
(972)727-1123

QUALITY CONTROL DATA

Project: 212C-MD-00947/COP MCA 1C Trunk
Pace Project No.: 7573254

QC Batch: 493414 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 7573254001, 7573254002, 7573254003, 7573254004, 7573254005, 7573254006, 7573254007, 7573254008, 7573254009, 7573254010, 7573254011, 7573254012, 7573254013, 7573254014, 7573254015, 7573254016, 7573254017, 7573254018, 7573254019, 7573254020

METHOD BLANK: 2018817 Matrix: Solid
Associated Lab Samples: 7573254001, 7573254002, 7573254003, 7573254004, 7573254005, 7573254006, 7573254007, 7573254008, 7573254009, 7573254010, 7573254011, 7573254012, 7573254013, 7573254014, 7573254015, 7573254016, 7573254017, 7573254018, 7573254019, 7573254020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/kg	ND	100	09/10/17 12:10	

LABORATORY CONTROL SAMPLE: 2018818

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/kg	500	464	93	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2018819 2018820

Parameter	Units	7573254001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/kg	ND	642	614	564	539	80	80	80-120	4	15	

MATRIX SPIKE SAMPLE: 2018821

Parameter	Units	7573254002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/kg	ND	625	581	84	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
400 West Bethany Drive - Suite 190
Allen, TX 75013
(972)727-1123

QUALITY CONTROL DATA

Project: 212C-MD-00947/COP MCA 1C Trunk
Pace Project No.: 7573254

QC Batch: 493416 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 7573254021, 7573254022, 7573254023, 7573254024

METHOD BLANK: 2018822 Matrix: Solid
Associated Lab Samples: 7573254021, 7573254022, 7573254023, 7573254024

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/kg	ND	100	09/12/17 08:44	

LABORATORY CONTROL SAMPLE: 2018823

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/kg	500	464	93	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2018824 2018825

Parameter	Units	7573254021 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/kg	ND	628	645	621	635	88	88	80-120	2	15	

MATRIX SPIKE SAMPLE: 2018826

Parameter	Units	7573254022 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/kg	ND	545	556	90	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
400 West Bethany Drive - Suite 190
Allen, TX 75013
(972)727-1123

QUALIFIERS

Project: 212C-MD-00947/COP MCA 1C Trunk
Pace Project No.: 7573254

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The Nelac Institute

LABORATORIES

PASI-D	Pace Analytical Services - Dallas
PASI-K	Pace Analytical Services - Kansas City

ANALYTE QUALIFIERS

1t	The beginning continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased high.
2t	The ending continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased high.
D3	Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
M3	Matrix spike recovery was outside laboratory control limits due to matrix interferences.
N2	The lab does not hold NELAC/TNI accreditation for this parameter.
S2	Surrogate recovery outside laboratory control limits due to matrix interferences (confirmed by similar results from sample re-analysis).

Pace Analytical Services, LLC
400 West Bethany Drive - Suite 190
Allen, TX 75013
(972)727-1123

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 212C-MD-00947/COP MCA 1C Trunk
Pace Project No.: 7573254

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
7573254001	**B-1 (0-1')**	EPA 3546	83396	EPA 8015B	83503
7573254003	**B-1 (4'-5')**	EPA 3546	83396	EPA 8015B	83503
7573254004	**B-1 (14'-15')**	EPA 3546	83396	EPA 8015B	83503
7573254005	**B-2 (0-1')**	EPA 3546	83396	EPA 8015B	83503
7573254007	**B-2 (4'-5')**	EPA 3546	83396	EPA 8015B	83503
7573254008	**B-2 (6'-7')**	EPA 3546	83396	EPA 8015B	83503
7573254009	**B-2 (16'-17')**	EPA 3546	83396	EPA 8015B	83503
7573254011	**B-3 (2'-3')**	EPA 3546	83396	EPA 8015B	83503
7573254012	**B-3 (4'-5')**	EPA 3546	83396	EPA 8015B	83503
7573254015	**B-3 (9'-10')**	EPA 3546	83396	EPA 8015B	83503
7573254016	**B-3 (19'-20')**	EPA 3546	83396	EPA 8015B	83503
7573254018	**B-4 (2'-3')**	EPA 3546	83396	EPA 8015B	83503
7573254019	**B-4 (4'-5')**	EPA 3546	83396	EPA 8015B	83503
7573254022	**B-4 (9'-10')**	EPA 3546	83396	EPA 8015B	83503
7573254023	**B-4 (19'-20')**	EPA 3546	83396	EPA 8015B	83503
7573254001	**B-1 (0-1')**	EPA 3546	83399	EPA 8015B Modified	83504
7573254003	**B-1 (4'-5')**	EPA 3546	83399	EPA 8015B Modified	83504
7573254004	**B-1 (14'-15')**	EPA 3546	83399	EPA 8015B Modified	83504
7573254005	**B-2 (0-1')**	EPA 3546	83399	EPA 8015B Modified	83504
7573254007	**B-2 (4'-5')**	EPA 3546	83399	EPA 8015B Modified	83504
7573254008	**B-2 (6'-7')**	EPA 3546	83399	EPA 8015B Modified	83504
7573254009	**B-2 (16'-17')**	EPA 3546	83399	EPA 8015B Modified	83504
7573254011	**B-3 (2'-3')**	EPA 3546	83399	EPA 8015B Modified	83504
7573254012	**B-3 (4'-5')**	EPA 3546	83399	EPA 8015B Modified	83504
7573254015	**B-3 (9'-10')**	EPA 3546	83399	EPA 8015B Modified	83504
7573254016	**B-3 (19'-20')**	EPA 3546	83399	EPA 8015B Modified	83504
7573254018	**B-4 (2'-3')**	EPA 3546	83399	EPA 8015B Modified	83504
7573254019	**B-4 (4'-5')**	EPA 3546	83399	EPA 8015B Modified	83504
7573254022	**B-4 (9'-10')**	EPA 3546	83399	EPA 8015B Modified	83504
7573254023	**B-4 (19'-20')**	EPA 3546	83399	EPA 8015B Modified	83504
7573254001	**B-1 (0-1')**	EPA 5035A/5030B	493355	EPA 8015B	494028
7573254003	**B-1 (4'-5')**	EPA 5035A/5030B	493355	EPA 8015B	494028
7573254004	**B-1 (14'-15')**	EPA 5035A/5030B	493355	EPA 8015B	494028
7573254005	**B-2 (0-1')**	EPA 5035A/5030B	493355	EPA 8015B	494028
7573254007	**B-2 (4'-5')**	EPA 5035A/5030B	493355	EPA 8015B	494028
7573254008	**B-2 (6'-7')**	EPA 5035A/5030B	493355	EPA 8015B	494028
7573254009	**B-2 (16'-17')**	EPA 5035A/5030B	493355	EPA 8015B	494028
7573254011	**B-3 (2'-3')**	EPA 5035A/5030B	493355	EPA 8015B	494028
7573254012	**B-3 (4'-5')**	EPA 5035A/5030B	493355	EPA 8015B	494028
7573254015	**B-3 (9'-10')**	EPA 5035A/5030B	493355	EPA 8015B	494028
7573254016	**B-3 (19'-20')**	EPA 5035A/5030B	493355	EPA 8015B	494028
7573254018	**B-4 (2'-3')**	EPA 5035A/5030B	493355	EPA 8015B	494081
7573254019	**B-4 (4'-5')**	EPA 5035A/5030B	493355	EPA 8015B	494028
7573254022	**B-4 (9'-10')**	EPA 5035A/5030B	493355	EPA 8015B	494028
7573254023	**B-4 (19'-20')**	EPA 5035A/5030B	493355	EPA 8015B	494028
7573254001	**B-1 (0-1')**	EPA 5030 Low	83147	EPA 8260	83178
7573254003	**B-1 (4'-5')**	EPA 5030 Low	83147	EPA 8260	83178

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
400 West Bethany Drive - Suite 190
Allen, TX 75013
(972)727-1123

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 212C-MD-00947/COP MCA 1C Trunk
Pace Project No.: 7573254

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
7573254004	**B-1 (14'-15')**	EPA 5030 Low	83147	EPA 8260	83178
7573254005	**B-2 (0-1')**	EPA 5030 Low	83147	EPA 8260	83178
7573254007	**B-2 (4'-5')**	EPA 5030 Low	83147	EPA 8260	83178
7573254008	**B-2 (6'-7')**	EPA 5030 Low	83201	EPA 8260	83211
7573254009	**B-2 (16'-17')**	EPA 5030 Low	83201	EPA 8260	83211
7573254011	**B-3 (2'-3')**	EPA 5030 Low	83201	EPA 8260	83211
7573254012	**B-3 (4'-5')**	EPA 5030 Low	83201	EPA 8260	83211
7573254015	**B-3 (9'-10')**	EPA 5030 Low	83201	EPA 8260	83211
7573254016	**B-3 (19'-20')**	EPA 5030 Low	83201	EPA 8260	83211
7573254018	**B-4 (2'-3')**	EPA 5030 Low	83201	EPA 8260	83211
7573254019	**B-4 (4'-5')**	EPA 5030 Low	83201	EPA 8260	83211
7573254022	**B-4 (9'-10')**	EPA 5030 Low	83201	EPA 8260	83211
7573254023	**B-4 (19'-20')**	EPA 5030 Low	83201	EPA 8260	83211
7573254001	**B-1 (0-1')**	ASTM D2974-07	83281		
7573254002	**B-1 (2'-3')**	ASTM D2974-07	83281		
7573254003	**B-1 (4'-5')**	ASTM D2974-07	83281		
7573254004	**B-1 (14'-15')**	ASTM D2974-07	83281		
7573254005	**B-2 (0-1')**	ASTM D2974-07	83281		
7573254006	**B-2 (2'-3')**	ASTM D2974-07	83281		
7573254007	**B-2 (4'-5')**	ASTM D2974-07	83281		
7573254008	**B-2 (6'-7')**	ASTM D2974-07	83281		
7573254009	**B-2 (16'-17')**	ASTM D2974-07	83281		
7573254010	**B-3 (0'-1')**	ASTM D2974-07	83281		
7573254011	**B-3 (2'-3')**	ASTM D2974-07	83281		
7573254012	**B-3 (4'-5')**	ASTM D2974-07	83281		
7573254013	**B-3 (6'-7')**	ASTM D2974-07	83281		
7573254014	**B-3 (8'-9')**	ASTM D2974-07	83281		
7573254015	**B-3 (9'-10')**	ASTM D2974-07	83281		
7573254016	**B-3 (19'-20')**	ASTM D2974-07	83281		
7573254017	**B-4 (0'-1')**	ASTM D2974-07	83281		
7573254018	**B-4 (2'-3')**	ASTM D2974-07	83281		
7573254019	**B-4 (4'-5')**	ASTM D2974-07	83281		
7573254020	**B-4 (6'-7')**	ASTM D2974-07	83281		
7573254021	**B-4 (8'-9')**	ASTM D2974-07	83277		
7573254022	**B-4 (9'-10')**	ASTM D2974-07	83277		
7573254023	**B-4 (19'-20')**	ASTM D2974-07	83277		
7573254024	**B-1 (6'-7')**	ASTM D2974-07	83277		
7573254001	**B-1 (0-1')**	EPA 300.0	493414	EPA 300.0	493541
7573254002	**B-1 (2'-3')**	EPA 300.0	493414	EPA 300.0	493541
7573254003	**B-1 (4'-5')**	EPA 300.0	493414	EPA 300.0	493541
7573254004	**B-1 (14'-15')**	EPA 300.0	493414	EPA 300.0	493541
7573254005	**B-2 (0-1')**	EPA 300.0	493414	EPA 300.0	493541
7573254006	**B-2 (2'-3')**	EPA 300.0	493414	EPA 300.0	493541
7573254007	**B-2 (4'-5')**	EPA 300.0	493414	EPA 300.0	493541
7573254008	**B-2 (6'-7')**	EPA 300.0	493414	EPA 300.0	493541
7573254009	**B-2 (16'-17')**	EPA 300.0	493414	EPA 300.0	493541
7573254010	**B-3 (0'-1')**	EPA 300.0	493414	EPA 300.0	493541

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
400 West Bethany Drive - Suite 190
Allen, TX 75013
(972)727-1123

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 212C-MD-00947/COP MCA 1C Trunk
Pace Project No.: 7573254

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
7573254011	**B-3 (2'-3')**	EPA 300.0	493414	EPA 300.0	493541
7573254012	**B-3 (4'-5')**	EPA 300.0	493414	EPA 300.0	493541
7573254013	**B-3 (6'-7')**	EPA 300.0	493414	EPA 300.0	493541
7573254014	**B-3 (8'-9')**	EPA 300.0	493414	EPA 300.0	493541
7573254015	**B-3 (9'-10')**	EPA 300.0	493414	EPA 300.0	493541
7573254016	**B-3 (19'-20')**	EPA 300.0	493414	EPA 300.0	493541
7573254017	**B-4 (0'-1')**	EPA 300.0	493414	EPA 300.0	493541
7573254018	**B-4 (2'-3')**	EPA 300.0	493414	EPA 300.0	493541
7573254019	**B-4 (4'-5')**	EPA 300.0	493414	EPA 300.0	493541
7573254020	**B-4 (6'-7')**	EPA 300.0	493414	EPA 300.0	493541
7573254021	**B-4 (8'-9')**	EPA 300.0	493416	EPA 300.0	493542
7573254022	**B-4 (9'-10')**	EPA 300.0	493416	EPA 300.0	493542
7573254023	**B-4 (19'-20')**	EPA 300.0	493416	EPA 300.0	493542
7573254024	**B-1 (6'-7')**	EPA 300.0	493416	EPA 300.0	493542

Pace Analytical®	Document Name: Sample Condition Upon Receipt	Document Revised: 7/25/16 Page 1 of 1
	Document No.: F-DAL-C-001-rev.06	Issuing Authority: Pace Dallas Quality Office

Sample Condition Upon Receipt

☒Dallas ☐Ft Worth ☐San Angelo

WO# : 7573254

7573254

Client Name: Tetra Tech Project Work order:

Courier: FedEX ☑ UPS ☐ USPS ☐ Client ☐ Courier ☐ LSO ☐ PACE ☐ Other:____

Tracking#: 7420 8979 6186

Custody Seal on Cooler/Box: Yes ☑ No ☐ **Seals Intact:** Yes ☑ No ☐ NA ☐

Packing Material: Bubble Wrap ☐ Bubble Bags ☑ Foam ☐ None ☐ Other ☐

Thermometer Used: IR-CS4 Type of Ice: Wet ☑ Blue ☐ None ☐ Sample Received on ice, cooling process has begun ☑

Cooler Temp °C: 0.2 (Recorded) +0.2 (Correction Factor) 0.4 (Actual) Temp should be above freezing to 6°C

Chain of Custody Present	Yes ☑ No ☐ NA ☐	1
Chain of Custody filled out	Yes ☑ No ☐ NA ☐	2
Chain of Custody relinquished	Yes ☑ No ☐ NA ☐	3
Sampler name & signature on COC	Yes ☐ No ☑ NA ☐	4
Sample received within HT	Yes ☑ No ☐ NA ☐	5
Short HT analyses (<72 hrs)	Yes ☐ No ☑ NA ☐	6
Rush TAT requested	Yes ☐ No ☑ NA ☐	7
Sufficient Volume received	Yes ☑ No ☐ NA ☐	8
Correct Container used Pace Container used	Yes ☑ No ☐ NA ☐ Yes ☑ No ☐ NA ☐	9
Container Intact	Yes ☑ No ☐ NA ☐	10
Unpreserved 5035A soil frozen within 48 hrs	Yes ☐ No ☐ NA ☑	11
Filtered volume received for Dissolved tests	Yes ☐ No ☐ NA ☑	12
Sample labels match COC Include date/time/ID/analyses Matrix: Solid	Yes ☑ No ☐ NA ☐	13
All containers needing preservation have been checked	Yes ☐ No ☐ NA ☑	14a. Lot# of pH strip:____ Original pH: <☐ or >☐ 2☐ 9☐ 12☐ or received Neutral ☐ Lot# of Iodine strip:____ Lot# of Lead Acetate strip:____
Do containers require preservation at the lab	Yes ☐ No ☐ NA ☑	14b. Preservation: Lot# and adjusted pH: pH<2 ☐ pH>9 ☐ pH>12 ☐
All containers needing preservation are found to be in Compliance with EPA recommendation **Exception:** VOA, coliform, O&G	Yes ☐ No ☐ NA ☑ Yes ☐ No ☑	14c.
Are soil samples (volatiles) received in	Bulk ☑ Terracore ☐ EnCore ☐ NA☐	15.
Trip Blank present Trip Blank Custody Seals Intact Pace Trip Blank Lot# (if purchased):____	Yes ☐ No ☑ NA ☐ Yes ☐ No ☐ NA ☑	16. TMS 9/06/17
Headspace in VOA (>6mm)	Yes ☐ No ☐ NA ☑	17.
Project sampled in USDA Regulated Area:	Yes ☐ No ☑ NA ☐	18. List State ____

Client Notification/Resolution/Comments:

Person Contacted: Greg Pope Date: 09/06/2017

Comments/Resolution: Sample B-1 (6'-7') sample jar was broken in the bubble bag. Run sample only for chloride per Greg. MM 09/06/2017

Person Examining Contents: TMS Date: 9/06/17 Project Manager Review: MM

Analysis Request of Chain of Custody Record

Tetra Tech, Inc.

4000 N. Big Spring Street, Ste
401 Midland,Texas 79705
Tel (432) 682-4559
Fax (432) 682-3946

7513254

Client Name:	ConocoPhillips	**Site Manager:**	Greg Pope
Project Name:	COP MCA 1C Trunkline		
Project Location: (county, state)	Lea Co, New Mexico	**Project #:**	212C-MD-00947
Invoice to:	Tetra Tech, Inc.		
Receiving Laboratory:	Pace Analytical	**Sampler Signature:**	
Comments:			

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING YEAR: DATE	SAMPLING TIME	MATRIX: WATER	MATRIX: SOIL	MATRIX:	PRESERVATIVE METHOD: HCL	PRESERVATIVE METHOD: HNO_3	PRESERVATIVE METHOD: ICE	PRESERVATIVE METHOD:	PRESERVATIVE METHOD:	# CONTAINERS	FILTERED (Y/N)	BTEX 8260B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride 300.0	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance					Hold
001	B-1 (0-1')	8/31/2017	11:05		X				X			1		X		X												X								
002	B-1 (2'-3')	8/31/2017	11:05		X				X			1																X								
003	B-1 (4'-5')	8/31/2017	11:05		X				X			1		X		X												X								
9/06/17 TMS 004	B-1 (6'-7')	8/31/2017	11:05		X				X			1		X		X												X								
9/06/17 TMS 005 004	B-1 (14'-15')	8/31/2017	11:05		X				X			1		X		X												X								
9/06/17 TMS 005 006	B-2 (0-1')	8/31/2017	12:00		X				X			1		X		X												X								
9/06/17 TMS 006 007	B-2 (2'-3')	8/31/2017	12:00		X				X			1																X								
9/06/17 TMS 007 008	B-2 (4'-5')	8/31/2017	12:00		X				X			1		X		X												X								
9/06/17 TMS 008 009	B-2 (6'-7')	8/31/2017	12:00		X				X			1		X		X												X								
9/06/17 TMS 009 010	B-2 (16'-17')	8/31/2017	12:00		X				X			1		X		X												X								

Relinquished by:	Date: 9/5/17	Time: 17:00	Received by: Daniel Palma/Pace
Relinquished by:	Date:	Time:	Received by:
Relinquished by:	Date:	Time:	Received by:

Date: 9/6/17 Time: 0925

LAB USE ONLY

Sample Temperature
C54
0,4°

REMARKS:

Standard TAT

☐ RUSH: Same Day 24 hr 48 hr 72 hr

☐ Rush Charges Authorized

☐ Special Report Limits or TRRP Report

(Circle) HAND DELIVERED FEDEX UPS Tracking #: _____

ORIGINAL COPY

Tetra Tech, Inc.

4000 N. Big Spring Street, Ste
401 Midland,Texas 79705
Tel (432) 682-4559
Fax (432) 682-3946

7573254

Client Name:	ConocoPhillips	**Site Manager:**	Greg Pope
Project Name:	COP MCA 1C Trunkline		
Project Location: (county, state)	Lea Co, New Mexico	**Project #:**	212C-MD-00947
Invoice to:	Tetra Tech, Inc.		
Receiving Laboratory:	Pace Analytical	**Sampler Signature:**	
Comments:			

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING YEAR: DATE	SAMPLING TIME	MATRIX WATER	MATRIX SOIL	MATRIX	PRESERVATIVE METHOD HCL	PRESERVATIVE METHOD HNO_3	PRESERVATIVE METHOD ICE	PRESERVATIVE METHOD	PRESERVATIVE METHOD	# CONTAINERS	FILTERED (Y/N)	BTEX 8260B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride 300.0	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance					Hold
010	B-3 (0-1')	8/31/2017	13:15		X				X			1																X								
011	B-3 (2'-3')	8/31/2017	13:15		X				X			1		X		X												X								
012	B-3 (4'-5')	8/31/2017	13:15		X				X			1		X		X												X								
013	B-3 (6'-7')	8/31/2017	13:15		X				X			1																X								
014	B-3 (8'-9')	8/31/2017	13:15		X				X			1																X								
015	B-3 (9'-10')	8/31/2017	13:15		X				X			1		X		X												X								
016	B-3 (19'-20')	8/31/2017	13:15		X				X			1		X		X												X								
017	B-4 (0-1')	8/31/2017	14:30		X				X			1																X								
018	B-4 (2'-3')	8/31/2017	14:30		X				X			1		X		X												X								
019	B-4 (4'-5')	8/31/2017	14:30		X				X			1		X		X												X								

Relinquished by:	Date: 9/5/17 Time: 17:00	Received by: Daniel Padma/Pace	Date: 9/6/17 Time: 0925
Relinquished by:	Date: Time:	Received by:	Date: Time:
Relinquished by:	Date: Time:	Received by:	Date: Time:

LAB USE ONLY

Sample Temperature
CS4
0.4

REMARKS:

Standard TAT

☐ RUSH: Same Day 24 hr 48 hr 72 hr

☐ Rush Charges Authorized

☐ Special Report Limits or TRRP Report

(Circle) HAND DELIVERED FEDEX UPS Tracking #: _____

ORIGINAL COPY

Analysis Request of Chain of Custody Record

Tetra Tech, Inc.

4000 N. Big Spring Street, Ste
401 Midland,Texas 79705
Tel (432) 682-4559
Fax (432) 682-3946

7573254

Client Name:	ConocoPhillips	**Site Manager:**	Greg Pope
Project Name:	COP MCA 1C Trunkline		
Project Location: (county, state)	Lea Co, New Mexico	**Project #:**	212C-MD-00947
Invoice to:	Tetra Tech, Inc.		
Receiving Laboratory:	Pace Analytical	**Sampler Signature:**	
Comments:			

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING DATE	SAMPLING TIME	MATRIX: WATER	MATRIX: SOIL	MATRIX:	PRESERVATIVE METHOD: HCL	PRESERVATIVE METHOD: HNO_3	PRESERVATIVE METHOD: ICE	PRESERVATIVE METHOD:	PRESERVATIVE METHOD:	# CONTAINERS	FILTERED (Y/N)	BTEX 8260B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride 300.0	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance				Hold
020	B-4 (6'-7')	8/31/2017	14:30		X				X			1																X							
021	B-4 (8'-9')	8/31/2017	14:30		X				X			1																X							
022	B-4 (9'-10')	8/31/2017	14:30		X				X			1		X		X												X							
023	B-4 (19'-20')	8/31/2017	14:30		X				X			1		X		X												X							

Relinquished by:		Date:	Time:	Received by:	Date:	Time:
		5/5/17	17:00	Daniel Palma/Pace	9/6/17	0925
Relinquished by:		Date:	Time:	Received by:	Date:	Time:
Relinquished by:		Date:	Time:	Received by:	Date:	Time:

LAB USE ONLY

Sample Temperature
C54
0.4°

REMARKS:

Standard TAT

☐ RUSH: Same Day 24 hr 48 hr 72 hr

☐ Rush Charges Authorized

☐ Special Report Limits or TRRP Report

(Circle) HAND DELIVERED FEDEX UPS Tracking #: _____

ORIGINAL COPY

Pace Analytical
www.pacelabs.com

Sample Condition Upon Receipt

WO#: 60252625

60252625

Client Name: PASI Dallas

Courier: FedEx ☒ UPS ☐ VIA ☐ Clay ☐ PEX ☐ ECI ☐ Pace ☐ Xroads ☐ Client ☐ Other ☐

Tracking #: _____ Pace Shipping Label Used? Yes ☐ No ☐

Custody Seal on Cooler/Box Present: Yes ☒ No ☐ Seals intact: Yes ☒ No ☐

Packing Material: Bubble Wrap ☐ Bubble Bags ☒ Foam ☐ None ☐ Other ☐

Thermometer Used: CF 0.0 T-266 / CF +0.3 T-239 **Type of Ice:** (Wet) Blue None

Cooler Temperature (°C): **As-read** 3.5 **Corr. Factor** (CF 0.0) CF +0.3 **Corrected** 3.5

Date and initials of person examining contents: JB 9/7

Temperature should be above freezing to 6°C

Chain of Custody present:	☒Yes ☐No ☐N/A	
Chain of Custody relinquished:	☒Yes ☐No ☐N/A	
Samples arrived within holding time:	☒Yes ☐No ☐N/A	
Short Hold Time analyses (<72hr):	☐Yes ☒No ☐N/A	
Rush Turn Around Time requested:	☐Yes ☒No ☐N/A	
Sufficient volume:	☒Yes ☐No ☐N/A	
Correct containers used:	☒Yes ☐No ☐N/A	
Pace containers used:	☒Yes ☐No ☐N/A	
Containers intact:	☒Yes ☐No ☐N/A	
Unpreserved 5035A / TX1005/1006 soils frozen in 48hrs?	☐Yes ☐No ☒N/A	
Filtered volume received for dissolved tests?	☐Yes ☐No ☒N/A	
Sample labels match COC: Date / time / ID / analyses	☒Yes ☐No ☐N/A	
Samples contain multiple phases? Matrix: SL	☐Yes ☒No ☐N/A	
Containers requiring pH preservation in compliance? (HNO_3, H_2SO_4, HCl<2; NaOH>9 Sulfide, NaOH>10 Cyanide) (Exceptions: VOA, Micro, O&G, KS TPH, OK-DRO)	☐Yes ☐No ☒N/A	
Cyanide water sample checks: ☒N/A Lead acetate strip turns dark? (Record only) Potassium iodide test strip turns blue/purple? (Preserve)	☐Yes ☐No ☐Yes ☐No	
Trip Blank present:	☐Yes ☐No ☒N/A	
Headspace in VOA vials (>6mm):	☐Yes ☐No ☒N/A	
Samples from USDA Regulated Area: State: NM	☐Yes ☒No ☐N/A	
Additional labels attached to 5035A / TX1005 vials in the field?	☐Yes ☐No ☒N/A	

Client Notification/ Resolution: Copy COC to Client? Y / N Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: JWS Date: 9/7/17

Chain of Custody

Pace Analytical®
www.pacelabs.com

Workorder: 7573254 **Workorder Name:** 212C-MD-00947/COP MCA 1C Trunk **Owner Received Date:** 9/6/2017 **Results Requested By:** 9/13/2017

Report To	Subcontract To
Melissa McCullough Pace Analytical Dallas 400 West Bethany Drive Suite 190 Allen, TX 75013 Phone (972)727-1123	Pace Analytical Kansas 9608 Loiret Blvd. Lenexa, KS 66219 Phone (913)599-5665

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers: Unpreserved	Requested Analysis: Chloride 300	Requested Analysis: TPH GRO 8015	LAB USE ONLY
1	B-1 (0-1')	PS	8/31/2017 11:05	7573254001	Solid	1	X	X	J6Fn
2	B-1 (2'-3')	PS	8/31/2017 11:05	7573254002	Solid	1	X		
3	B-1 (4'-5')	PS	8/31/2017 11:05	7573254003	Solid	1	X	X	
4	B-1 (14'-15')	PS	8/31/2017 11:05	7573254004	Solid	1	X	X	
5	B-2 (0-1')	PS	8/31/2017 12:00	7573254005	Solid	1	X	X	
6	B-2 (2'-3')	PS	8/31/2017 12:00	7573254006	Solid	1	X		
7	B-2 (4'-5')	PS	8/31/2017 12:00	7573254007	Solid	1	X	X	
8	B-2 (6'-7')	PS	8/31/2017 12:00	7573254008	Solid	1	X	X	
9	B-2 (16'-17')	PS	8/31/2017 12:00	7573254009	Solid	1	X	X	
10	B-3 (0'-1')	PS	8/31/2017 13:15	7573254010	Solid	1	X		
11	B-3 (2'-3')	PS	8/31/2017 13:15	7573254011	Solid	1	X	X	
12	B-3 (4'-5')	PS	8/31/2017 13:15	7573254012	Solid	1	X	X	
13	B-3 (6'-7')	PS	8/31/2017 13:15	7573254013	Solid	1	X		
14	B-3 (8'-9')	PS	8/31/2017 13:15	7573254014	Solid	1	X		
15	B-3 (9'-10')	PS	8/31/2017 13:15	7573254015	Solid	1	X	X	
16	B-3 (19'-20')	PS	8/31/2017 13:15	7573254016	Solid	1	X	X	
17	B-4 (0'-1')	PS	8/31/2017 14:30	7573254017	Solid	1	X		
18	B-4 (2'-3')	PS	8/31/2017 14:30	7573254018	Solid	1	X	X	
19	B-4 (4'-5')	PS	8/31/2017 14:30	7573254019	Solid	1	X	X	↓

Chain of Custody

Pace Analytical®
www.pacelabs.com

Workorder: 7573254 **Workorder Name:** 212C-MD-00947/COP MCA 1C Trunk **Owner Received Date:** 9/6/2017 **Results Requested By:** 9/13/2017

Report To	Subcontract To
Melissa McCullough Pace Analytical Dallas 400 West Bethany Drive Suite 190 Allen, TX 75013 Phone (972)727-1123	Pace Analytical Kansas 9608 Loiret Blvd. Lenexa, KS 66219 Phone (913)599-5665

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers: Unpreserved	Requested Analysis: Chloride 300	Requested Analysis: TPH 8015	LAB USE ONLY
20	B-4 (6'-7')	PS	8/31/2017 14:30	7573254020	Solid	1	X		J6Fu
21	B-4 (8'-9')	PS	8/31/2017 14:30	7573254021	Solid	1	X		
22	B-4 (9'-10')	PS	8/31/2017 14:30	7573254022	Solid	1	X	X	
23	B-4 (19'-20')	PS	8/31/2017 14:30	7573254023	Solid	1	X	X	
24	B-1 (6'-7')	PS	8/31/2017 11:05	7573254024	Solid	1	X		

Transfers	Released By	Date/Time	Received By	Date/Time
1	Melissa McCullough PAD	9-6-17 1500	[signature]	9/7/17 0845
2				
3				

Comments

Cooler Temperature on Receipt 3.5 °C | **Custody Seal** (Y) or N | **Received on Ice** (Y) or N | **Samples Intact** (Y) or N

****In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document. This chain of custody is considered complete as is since this information is available in the owner laboratory.*