

Incident ID	nAPP2102629238
District RP	
Facility ID	
Application ID	

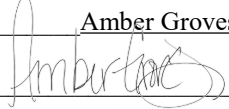
Closure

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

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

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

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Amber Groves Title: Remediation Coordinator
Signature:  Date: 5/18/2021
email: algroves@paalp.com Telephone: 575-200-5517

OCD Only

Received by: Chad Hensley Date: 08/03/2021

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

Closure Approved by:  Date: 08/03/2021
Printed Name: Chad Hensley Title: Environmental Specialist Advanced



12600 WEST CO RD 91

MIDLAND, TX 79707

OFFICE: 432.653.4203

SOIL REMEDIATION ACTIVITIES REPORT AND CLOSURE REQUEST

PLAINS PIPELINE, L.P.

HUDSON FEDERAL 4" PIPELINE RELEASE

LEA COUNTY, NM

NMOCD INCIDENT #: nAPP2102629238

SRS #: 2021-004

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May 19, 2021

New Mexico Oil Conservation Division District I
1625 N. French Dr.
Hobbs, New Mexico 88240

Re: Soil Remediation Activities Report and Closure Request

Hudson Federal 4" Pipeline Release

Unit Letter C, Section 10, Township 20S, Range 34E

GPS: N 32.594895°, W -103.550685°

Lea County, New Mexico

NMOCD Incident #: nAPP2102629238

SRS #: 2021-004

1. Introduction

Dean Companies, Inc. (Dean) is pleased to present this Soil Remediation Activities Report and Closure Request to Plains Pipeline, L.P. (Plains) to document the field soil remediation activities that were conducted at the Hudson Federal 4" Pipeline Release site. The crude oil release occurred, approximately 16.78 miles east of Monument in Lea County, New Mexico in Unit Letter C, Section 10, Township 20S, and Range 34E. The GPS coordinates for the site is N 32.594895° and W -103.550685°. A "Site Location Map" and "Topographic Map" are provided as Figures 1 and 2, respectively.

2. Release Description and Response

On January 21, 2021, a crude oil release occurred at the Hudson Federal 4" Pipeline and was attributed to a fusion failure on a 4" poly pipeline. Approximately eight and five one hundredths (8.05) barrels (bbls) of crude was released with six and three quarters (6.75) bbls recovered for a net loss of one and three tenths (1.3) bbls of crude. The release was located in an open pasture owned by the Bureau of

Land Management (BLM) and measured approximately eighty-five (85) feet (ft) in length by eighty-five (85) ft in width with a maximum depth of twenty-three (23) ft below ground surface (bgs).

On January 22, 2021, Dean was assigned management oversight responsibilities for impacted soil delineation, remediation, soil sampling, site restoration, and reporting activities by Plains. On January 28, 2021, Plains submitted the initial C-141 Form to the NMOCD. In addition, the C-141 was also sent to the BLM, subsequent to immediate notification on January 21, 2021. See Appendix A for filed C-141.

3. NMOCD Regulatory Limits

New Mexico Oil Conservation Division (NMOCD) assessment and cleanup levels for hydrocarbon and produced water releases are based on depth to groundwater and follow the criteria in the revised August 2018 Title 19 Chapter 15 Part 29 New Mexico Administration Code (19.15.29 NMAC) regulations. Groundwater databases maintained by the New Mexico Office of the State Engineer (NMOSE) and the New Mexico Bureau of Geology & Mineral Resources (NMBGMR) were accessed to determine if any registered water wells were located in or near Unit Letter C, Section 10, Township 20S, and Range 34E. Neither of the two databases identified any registered water wells within a half mile of Unit Letter C, Section 10, Township 20S, and Range 34E. In addition, according to the Bureau of Land Management (BLM), the site is located in an area of low potential karst topography. See Figure 3 "Site Location Relative to Known Regional Karst Topography". As outlined in 19.15.29.12.B. (4) NMAC, the release does not occur in referenced sensitive areas, with the nearest water body feature being the Monument Draw located approximately 19.73 miles east southeast of the site. With the release located in a pasture, and in accordance with the BLM, the NMOCD restoration and cleanup levels for soils impacted by hydrocarbons in areas of low potential karst topography are as follow:

- Chloride 600 mg/Kg
- Total TPH 100 mg/Kg
- Benzene 10 mg/Kg
- Total BTEX 50 mg/Kg

4. Initial Soil Assessment Activities and Sample Analysis

On January 22, 2021, initial soil assessment activities were performed at the release site. A hand auger was utilized to collect soil samples from the site to determine depth of hydrocarbon impacts. Soil samples were collected at two (2) ft. intervals beginning at one (1) ft below ground surface (bgs) to maximum depths ranging from three (3) ft. to fifteen (15) ft bgs across five (5) auger hole locations (AH-

1 through AH-5) and placed into laboratory-provided sample containers, labeled, stored on ice, and transported under proper chain-of-custody documentation to Permian Basin Environmental Lab of Midland, Texas, (PBELAB). Samples were analyzed for total petroleum hydrocarbons (TPH) utilizing Method SW-846 8015M, benzene, toluene, ethylbenzene, and xylenes (BTEX) utilizing Method SW-846 8021B, and chlorides utilizing Method 300.0. See Figure 4 "Initial Site Delineation Details Location Map". The Benzene concentrations exceeded the NMOCD standards of 10 milligrams per kilogram (mg/Kg) for soil samples AH-1 @ 1' (12.9 mg/Kg), AH-1 @ 7' (10.6 mg/Kg), and AH-1 @ 9' (13.4 mg/Kg). All remaining soil samples analyzed for Benzene were either below method detection limits or the NMOCD standard of 10 mg/Kg. Total BTEX concentrations exceeded the NMOCD standards of 50 mg/Kg for soil samples AH-1 @ 1' (414.8 mg/Kg), AH-1 @ 3' (251.05), AH-1 @ 5' (220.78 mg/Kg), AH-1 @ 7' (158.7 mg/Kg), AH-1 @ 9' (97.99 mg/Kg), and AH-1 @ 11' (61.7 mg/Kg). All remaining soil samples analyzed for Total BTEX were either below method detection limits or the NMOCD standard of 50 mg/Kg. The Total TPH exceeded the NMOCD standards of 100 mg/Kg for soil samples AH-1 @ 1' (38,360 mg/Kg), AH-1 @ 3' (19,820 mg/Kg), AH-1 @ 5' (14,560 mg/Kg), AH-1 @ 7' (26,130 mg/Kg), AH-1 @ 9' (40,870 mg/Kg), AH-1 @ 11' (15,720 mg/Kg), AH-1 @ 13' (9,930 mg/Kg), and AH-5 @ 1' (3,540 mg/Kg). All remaining soil samples analyzed for Total TPH were either below method detection limit or the NMOCD standards of 100 mg/Kg. During the initial sampling, Augur Hole AH-1 TPH concentration was not delineated with depth. In order to complete delineation, a trackhoe was utilized on January 27, 2021 and additional samples were collected at two (2) foot intervals from twenty-one (21) to twenty-five (25) feet bgs and submitted to the lab for analysis of TPH. Of the three soil samples submitted for analysis, only AH-1 @ 21' exceeded the NMOCD standard with a concentration of 15,590 mg/Kg. The Chloride concentrations for all samples were below the NMOCD standard of 600 mg/Kg for all samples analyzed. See Table 1 for delineation analytical results. Laboratory reports containing analytical methods, results, and chain-of-custody documents are included in Appendix B.

5. Soil Delineation and Remediation with Confirmation Soil Sampling

Between January 23 and March 3, 2021, Dean Personnel conducted oversight of soil delineation, remediation and backfilling activities at the Hudson Federal 4" Pipeline Release site. Remediation commenced utilizing a backhoe, excavator, and hand excavation of hydrocarbon impacted soils adjacent to the pipeline with the excavated soils stockpiled on plastic. In order to complete delineation and remediation at the site, field screening utilizing a photoionization detector (PID) and chloride test kits was conducted on the soils. Based on field PID, chloride screening, and analytical results, the site was excavated to a maximum depth of twenty-three (23) ft bgs. The release was contained to the area within the field located adjacent to the pipeline with final dimensions of approximately eighty-five (85)

feet (ft) in length by eighty-five (85) ft in width. See Site Photographs in Appendix C. Approximately 2,412 cubic yards of soil were removed and stockpiled on plastic at the site.

On February 3, 2021, ten (10) bottom hole samples (BH-1 @ 23', BH-2 @ 17', BH-3 @ 13', BH-4 @ 13', BH-5 @ 13', BH-6 @ 13', BH-7 @ 13', BH-8 @ 13', BH-9 @ 13' and BH-10 @ 13') were collected based on a 200 square foot grid 5-point composite and submitted for analysis of BTEX, Total TPH, and Chlorides. See Figure 5 "Site Details and Bottom Hole Soil Sample Location Map". All soil sample concentrations were below method detection limits for Benzene, Total BTEX and Total TPH. Chlorides were below the NMOCD standard of 600 mg/Kg with results ranging from <1.04 mg/Kg (BH-9 @ 13') to 36.2 mg/Kg (BH-1 @ 23'). See Table 2 Confirmation-Concentrations of Benzene, BTEX, TPH, and Chlorides in soil for analytical results.

On February 3, 2021, thirty-four (34) side wall samples (NW-1 through NW-4, NBF-1, NBF-2, SW-1 through SW-5, SBF-1, SBF-2, SEW-1, SEW-2, SEBF-1 through SEBF-3, EW-1 through EW-9, EBF-1 through EBF-4, and WW-1 through WW-3, ranging in depths from one and a half (1.5) ft bgs to eighteen (18) ft bgs were collected based on a 200 square foot grid 5-point composite and submitted for analysis of Benzene, Total BTEX, Total TPH, and Chlorides. See Figure 6 "Site Details and Confirmation Wall Hole Soil Sample Location Map". All soil sample concentrations were below method detection limits for both Benzene and Total TPH. The Total BTEX was either below method detection limits or the NMOCD standards of 50 mg/Kg total BTEX. Chloride concentrations ranged from below method detection limits on a majority of samples to 69.7 mg/Kg (WW-1 @ 18') and were below the NMOCD standards of 600 mg/Kg.

6. Site Extension Request

On April 22, 2021, Plains requested an extension of NMOCD Incident #: nAPP2102629238 which was granted on April 26, 2021 by the NMOCD until May 22, 2021. See Appendix E for copies of the extension requests and approvals. See Appendix D for a copy of the extension request and approval.

7. Soil Disposal, Site Restoration and Closure Request

Between February 10 and March 3, 2021, approximately 2,412 cubic yards of soil were transported offsite for disposal at Lacy Ace Land Farm in Eunice, New Mexico. The site was then backfilled with locally sourced non-impacted soils and brought up to surface grade and contoured to match surrounding topography. Manifests are available upon request.

In accordance with 19.15.290.13 NMAC, the site will be reseeded utilizing BLM # 1 seed per BLM guidance, when growing conditions are ideal and danger of frost is not present. The seed will be

broadcast at double the recommended rate and harrowed for completion. Erosion control methods will be implemented, as needed, to increase long term stability of the site. The site will be monitored by Plains for desired achievement growth of native grasses and re-seeded if necessary.

With the completion of site remediation activities, Plains respectfully requests the NMOCD approval of closure of NMOCD incident # nAPP2102629238. Plains also request BLM approval of remediation requirements being met. An updated C-141 closure can be found as the cover page for this report.

If you have any questions, or if additional information is required, please feel free to contact Amber Groves (email: ALGroves@paalp.com, cell: 575.200.7717) of Plains or Sylwia Reynolds (email: sylwiareynolds@deandigs.com, cell: 432.999.8675) or Jeff Kindley (email: jeffreykindley@deandigs.com cell: 432.230.0920) of Dean.

Sincerely,


Sylwia Reynolds

Project Manager


Jeffrey Kindley, PG.

Professional Geologist

TABLES



Chemistry Table 1
Delineation Concentrations of Benzene, BTEX, TPH, and Chlorides in Soil
Plains Pipeline, L.P.
Hudson Federal 4 Remediation
Lea County, New Mexico

SAMPLE INFORMATION					METHODS: EPA SW 846-8021B, 5030					METHOD: E 300	METHODS: EPA SW 846-8015M				
SAMPLE ID	SAMPLE DATE	SAMPLE DEPTH	SAMPLE METHOD	MATRIX	BENZENE (mg/kg)	TOLUENE (mg/kg)	ETHYL-BENZENE (mg/kg)	XYLENE (mg/kg)	Total BTEX (mg/kg)	CHLORIDES (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	GRO +DRO (mg/kg)	ORO (mg/kg)	TOTAL TPH (mg/kg)
AH-1 @ 1'	01/22/21	1 FT	GRAB	SOIL	12.9	95	82.4	224.5	414.8	99.4	11,900	22,300	34,200	4,160	38,360
AH-1 @ 3'	01/22/21	3 FT	GRAB	SOIL	6.25	53.5	49	142.3	251.05	48.9	5,730	11,900	17,630	2,190	19,820
AH-1 @ 5'	01/22/21	5 FT	GRAB	SOIL	7.38	55.1	42.1	116.2	220.78	7.14	4,400	8,710	13,110	1,450	14,560
AH-1 @ 7'	01/22/21	7 FT	GRAB	SOIL	10.6	38.8	34.9	74.4	158.7	-	9,490	14,500	23,990	2,140	26,130
AH-1 @ 9'	01/22/21	9 FT	GRAB	SOIL	13.4	42.8	39.1	89.4	184.7	-	16,200	21,300	37,500	3,370	40,870
AH-1 @ 11'	01/22/21	11 FT	GRAB	SOIL	5.29	22.1	20.4	50.2	97.99	-	4,410	9,630	14,040	1,680	15,720
AH-1 @ 13'	01/22/21	13 FT	GRAB	SOIL	2.02	5.9	15	38.78	61.7	-	2,360	6,490	8,850	1,080	9,930
AH-1 @ 15'	01/22/21	15 FT	GRAB	SOIL	0.00222	0.00501	0.00587	0.02778	0.04088	-	<27.2	90.5	90.5	<27.2	90.5
AH-1 @ 21'	01/27/21	21 FT	GRAB	SOIL	-	-	-	-	-	-	6,550	7,780	14,330	1,260	15,590
AH-1 @ 23'	01/27/21	23 FT	GRAB	SOIL	-	-	-	-	-	-	<29.8	<29.8	<29.8	<29.8	<29.8
AH-1 @ 25'	01/27/21	25 FT	GRAB	SOIL	-	-	-	-	-	-	<29.8	<29.8	<29.8	<29.8	<29.8
AH-2 @ 1'	01/22/21	1 FT	GRAB	SOIL	<0.00101	<0.00101	<0.00101	<0.00101	<0.00101	6.98	<25.3	<25.3	<25.3	<25.3	<25.3
AH-2 @ 3'	01/22/21	3 FT	GRAB	SOIL	-	-	-	-	-	6.04	<25.5	<25.5	<25.5	<25.5	<25.5
AH-2 @ 5'	01/22/21	5 FT	GRAB	SOIL	-	-	-	-	-	6.34	<25.5	<25.5	<25.5	<25.5	<25.5
AH-3 @ 1'	01/22/21	1 FT	GRAB	SOIL	<0.00101	<0.00101	<0.00101	<0.00101	<0.00101	1.83	<25.3	<25.3	<25.3	<25.3	<25.3
AH-3 @ 3'	01/22/21	3 FT	GRAB	SOIL	-	-	-	-	-	5.31	<25.5	<25.5	<25.5	<25.5	<25.5
AH-3 @ 5'	01/22/21	5 FT	GRAB	SOIL	-	-	-	-	-	6.24	<25.3	<25.3	<25.3	<25.3	<25.3
AH-4 @ 1'	01/22/21	1 FT	GRAB	SOIL	<0.00101	<0.00101	<0.00101	<0.00101	<0.00101	6.51	<25.3	<25.3	<25.3	<25.3	<25.3
AH-4 @ 3'	01/22/21	3 FT	GRAB	SOIL	-	-	-	-	-	5.27	<25.8	<25.8	<25.8	<25.8	<25.8
AH-4 @ 5'	01/22/21	5 FT	GRAB	SOIL	-	-	-	-	-	6.41	<25.3	<25.3	<25.3	<25.3	<25.3
AH-5 @ 1'	01/22/21	1 FT	GRAB	SOIL	0.494	7.60	8.68	27.94	44.714	2.81	1,090	2,450	3,540	335	3,875
AH-5 @ 3'	01/22/21	3 FT	GRAB	SOIL	-	-	-	-	-	13.8	<26.0	<26.0	<26.0	<26.0	<26.0
NMOCD Recommended Remediation Action Level					10	-	-	-	50	20,000	-	-	1,000	-	2,500

Exceeds NMOCD Recommended RAL



Chemistry Table 2
Confirmation Concentrations of Benzene, BTEX, TPH, and Chlorides in Soil
Plains Pipeline, L.P.
Hudson Federal 4 Remediation

SAMPLE INFORMATION					METHODS: EPA SW 846-8021B, 5030					METHOD: E 300	METHODS: EPA SW 846-8015M				
SAMPLE ID	SAMPLE DATE	SAMPLE DEPTH	SAMPLE METHOD	MATRIX	BENZENE (mg/kg)	TOLUENE (mg/kg)	ETHYL-BENZENE (mg/kg)	XYLENE (mg/kg)	Total BTEX (mg/kg)	CHLORIDES (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	GRO +DRO (mg/kg)	ORO (mg/kg)	TOTAL TPH (mg/kg)
BH-1 @ 23'	02/03/21	23 FT	COMP	SOIL	<0.00104	<0.00104	<0.00104	<0.00104	<0.00104	36.2	<26.0	<26.0	<26.0	<26.0	<26.0
BH-2 @ 17'	02/03/21	17 FT	COMP	SOIL	<0.00102	<0.00102	<0.00102	<0.00102	<0.00102	25.1	<25.5	<25.5	<25.5	<25.5	<25.5
BH-3 @ 13'	02/03/21	13 FT	COMP	SOIL	<0.00105	<0.00105	<0.00105	<0.00105	<0.00105	5.87	<26.3	<26.3	<26.3	<26.3	<26.3
BH-4 @ 13'	02/03/21	13 FT	COMP	SOIL	<0.00104	<0.00104	<0.00104	<0.00104	<0.00104	6.15	<26.0	<26.0	<26.0	<26.0	<26.0
BH-5 @ 13'	02/03/21	13 FT	COMP	SOIL	<0.00105	<0.00105	<0.00105	<0.00105	<0.00105	2.18	<26.3	<26.3	<26.3	<26.3	<26.3
BH-6 @ 13'	02/03/21	13 FT	COMP	SOIL	<0.00104	<0.00104	<0.00104	<0.00104	<0.00104	8.45	<26.0	<26.0	<26.0	<26.0	<26.0
BH-7 @ 13'	02/03/21	13 FT	COMP	SOIL	<0.00103	<0.00103	<0.00103	<0.00103	<0.00103	29.6	<25.8	<25.8	<25.8	<25.8	<25.8
BH-8 @ 13'	02/03/21	13 FT	COMP	SOIL	<0.00104	<0.00104	<0.00104	<0.00104	<0.00104	29.7	<26.0	<26.0	<26.0	<26.0	<26.0
BH-9 @ 13'	02/03/21	13 FT	COMP	SOIL	<0.00104	<0.00104	<0.00104	<0.00104	<0.00104	<1.04	<26.0	<26.0	<26.0	<26.0	<26.0
BH-10 @ 13'	02/03/21	13 FT	COMP	SOIL	<0.00109	<0.00109	<0.00109	<0.00109	<0.00109	12.3	<27.2	<27.2	<27.2	<27.2	<27.2
NW-1 @ 18'	02/03/21	18 FT	COMP	SOIL	<0.00102	<0.00102	<0.00102	<0.00102	<0.00102	33.9	<25.5	<25.5	<25.5	<25.5	<25.5
NW-2 @ 11'	02/03/21	11 FT	COMP	SOIL	<0.00102	0.00106	<0.00102	0.00379	0.00485	21.8	<25.5	<25.5	<25.5	<25.5	<25.5
NW-3 @ 6'	02/03/21	6 FT	COMP	SOIL	<0.00100	0.00118	0.00179	0.00829	0.01126	<1.00	<25.0	<25.0	<25.0	<25.0	<25.0
NW-4 @ 1.5'	02/03/21	1.5 FT	COMP	SOIL	<0.00101	0.00208	0.00136	0.00567	0.00911	<1.01	<25.3	<25.3	<25.3	<25.3	<25.3
NBF-1 @ 10'	02/03/21	10 FT	COMP	SOIL	<0.00102	<0.00102	<0.00102	<0.00102	<0.00102	<1.02	<25.5	<25.5	<25.5	<25.5	<25.5
NBF-2 @ 3'	02/03/21	3 FT	COMP	SOIL	<0.00101	<0.00101	<0.00101	<0.00101	<0.00101	13.9	<25.3	<25.3	<25.3	<25.3	<25.3
SW-1 @ 18'	02/03/21	18 FT	COMP	SOIL	<0.00103	<0.00103	<0.00103	<0.00103	<0.00103	23.7	<25.8	<25.8	<25.8	<25.8	<25.8
SW-2 @ 16'	02/03/21	16 FT	COMP	SOIL	<0.00103	<0.00103	<0.00103	<0.00103	<0.00103	9.05	<25.8	<25.8	<25.8	<25.8	<25.8
SW-3 @ 11'	02/03/21	11 FT	COMP	SOIL	<0.00104	<0.00104	<0.00104	<0.00104	<0.00104	<1.04	<26.0	<26.0	<26.0	<26.0	<26.0
SW-4 @ 8'	02/03/21	8 FT	COMP	SOIL	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<1.00	<25.0	<25.0	<25.0	<25.0	<25.0
SW-5 @ 2.5'	02/03/21	2.5 FT	COMP	SOIL	<0.00102	<0.00102	<0.00102	<0.00102	<0.00102	<1.02	<25.5	<25.5	<25.5	<25.5	<25.5



Chemistry Table 2
Confirmation Concentrations of Benzene, BTEX, TPH, and Chlorides in Soil
Plains Pipeline, L.P.
Hudson Federal 4 Remediation

SAMPLE INFORMATION					METHODS: EPA SW 846-8021B, 5030					METHOD: E 300	METHODS: EPA SW 846-8015M				
SAMPLE ID	SAMPLE DATE	SAMPLE DEPTH	SAMPLE METHOD	MATRIX	BENZENE (mg/kg)	TOLUENE (mg/kg)	ETHYL- BENZENE (mg/kg)	XYLENE (mg/kg)	Total BTEX (mg/kg)	CHLORIDES (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	GRO +DRO (mg/kg)	ORO (mg/kg)	TOTAL TPH (mg/kg)
SBF-1 @ 10'	02/03/21	10 FT	COMP	SOIL	<0.00104	<0.00104	<0.00104	<0.00104	<0.00104	<1.04	<26.0	<26.0	<26.0	<26.0	<26.0
SBF-2 @ 5'	02/03/21	5 FT	COMP	SOIL	<0.00101	<0.00101	<0.00101	<0.00101	<0.00101	<1.01	<25.3	<25.3	<25.3	<25.3	<25.3
SEW-1 @ 16'	02/03/21	16 FT	COMP	SOIL	<0.00103	<0.00103	<0.00103	<0.00103	<0.00103	48.8	<25.8	<25.8	<25.8	<25.8	<25.8
SEW-2 @ 15'	02/03/21	15 FT	COMP	SOIL	<0.00102	<0.00102	<0.00102	<0.00102	<0.00102	<1.02	<25.5	<25.5	<25.5	<25.5	<25.5
SEBF-1 @ 13'	02/03/21	13 FT	COMP	SOIL	<0.00104	<0.00104	<0.00104	<0.00104	<0.00104	9.17	<26.0	<26.0	<26.0	<26.0	<26.0
SEBF-2 @ 11'	02/03/21	11 FT	COMP	SOIL	<0.00103	<0.00103	<0.00103	<0.00103	<0.00103	<1.03	<25.8	<25.8	<25.8	<25.8	<25.8
SEBF-3 @ 10'	02/03/21	10 FT	COMP	SOIL	<0.00103	<0.00103	<0.00103	<0.00103	<0.00103	<1.03	<25.8	<25.8	<25.8	<25.8	<25.8
EW-1 @ 18'	02/03/21	18 FT	COMP	SOIL	<0.00101	<0.00101	<0.00101	<0.00101	<0.00101	42.2	<25.3	<25.3	<25.3	<25.3	<25.3
EW-2 @ 18'	02/03/21	18 FT	COMP	SOIL	<0.00102	<0.00102	<0.00102	<0.00102	<0.00102	37.6	<25.5	<25.5	<25.5	<25.5	<25.5
EW-3 @ 16'	02/03/21	16 FT	COMP	SOIL	<0.00102	<0.00102	<0.00102	<0.00102	<0.00102	48.5	<25.5	<25.5	<25.5	<25.5	<25.5
EW-4 @ 11'	02/03/21	11 FT	COMP	SOIL	<0.00103	<0.00103	<0.00103	<0.00103	<0.00103	<1.03	<25.8	<25.8	<25.8	<25.8	<25.8
EW-5 @ 8'	02/03/21	8 FT	COMP	SOIL	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<1.00	<25.0	<25.0	<25.0	<25.0	<25.0
EW-6 @ 2.5'	02/03/21	2.5 FT	COMP	SOIL	<0.00101	<0.00101	<0.00101	<0.00101	<0.00101	<1.01	<25.3	<25.3	<25.3	<25.3	<25.3
EW-7 @ 11'	02/03/21	11 FT	COMP	SOIL	<0.00102	<0.00102	<0.00102	<0.00102	<0.00102	<1.02	<25.5	<25.5	<25.5	<25.5	<25.5
EW-8 @ 8'	02/03/21	8 FT	COMP	SOIL	<0.00101	<0.00101	<0.00101	<0.00101	<0.00101	<1.01	<25.3	<25.3	<25.3	<25.3	<25.3
EW-9 @ 1.5'	02/03/21	1.5 FT	COMP	SOIL	<0.00101	<0.00101	<0.00101	<0.00101	<0.00101	<1.01	<25.3	<25.3	<25.3	<25.3	<25.3
EBF-1 @ 10'	02/03/21	10 FT	COMP	SOIL	<0.00103	<0.00103	<0.00103	<0.00103	<0.00103	<1.03	<25.8	<25.8	<25.8	<25.8	<25.8
EBF-2 @ 10'	02/03/21	10 FT	COMP	SOIL	<0.00104	<0.00104	<0.00104	<0.00104	<0.00104	<1.04	<26.0	<26.0	<26.0	<26.0	<26.0
EBF-3 @ 5'	02/03/21	5 FT	COMP	SOIL	<0.00101	<0.00101	<0.00101	<0.00101	<0.00101	<1.01	<25.3	<25.3	<25.3	<25.3	<25.3
EBF-4 @ 3'	02/03/21	3 FT	COMP	SOIL	<0.00101	<0.00101	<0.00101	<0.00101	<0.00101	<1.01	<25.3	<25.3	<25.3	<25.3	<25.3
WW-1 @ 18'	02/03/21	18 FT	COMP	SOIL	<0.00102	<0.00102	<0.00102	<0.00102	<0.00102	69.7	<25.5	<25.5	<25.5	<25.5	<25.5



Chemistry Table 2
Confirmation Concentrations of Benzene, BTEX, TPH, and Chlorides in Soil
Plains Pipeline, L.P.
Hudson Federal 4 Remediation

SAMPLE INFORMATION					METHODS: EPA SW 846-8021B, 5030					METHOD: E 300	METHODS: EPA SW 846-8015M				
SAMPLE ID	SAMPLE DATE	SAMPLE DEPTH	SAMPLE METHOD	MATRIX	BENZENE (mg/kg)	TOLUENE (mg/kg)	ETHYL-BENZENE (mg/kg)	XYLENE (mg/kg)	Total BTEX (mg/kg)	CHLORIDES (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	GRO +DRO (mg/kg)	ORO (mg/kg)	TOTAL TPH (mg/kg)
WW-2 @ 6'	02/03/21	6 FT	COMP	SOIL	<0.00102	<0.00102	<0.00102	<0.00102	<0.00102	<1.02	<25.5	<25.5	<25.5	<25.5	<25.5
WW-3 @ 6'	02/03/21	6 FT	COMP	SOIL	<0.00106	<0.00106	<0.00106	<0.00106	<0.00106	<1.06	<26.6	<26.6	<26.6	<26.6	<26.6
NMOCD Recommended Remediation Action Level					10	-	-	-	50	600	-	-	-	-	100

Exceeds NMOCD Recommended RAL

FIGURES

Figure 1

Site Location Map

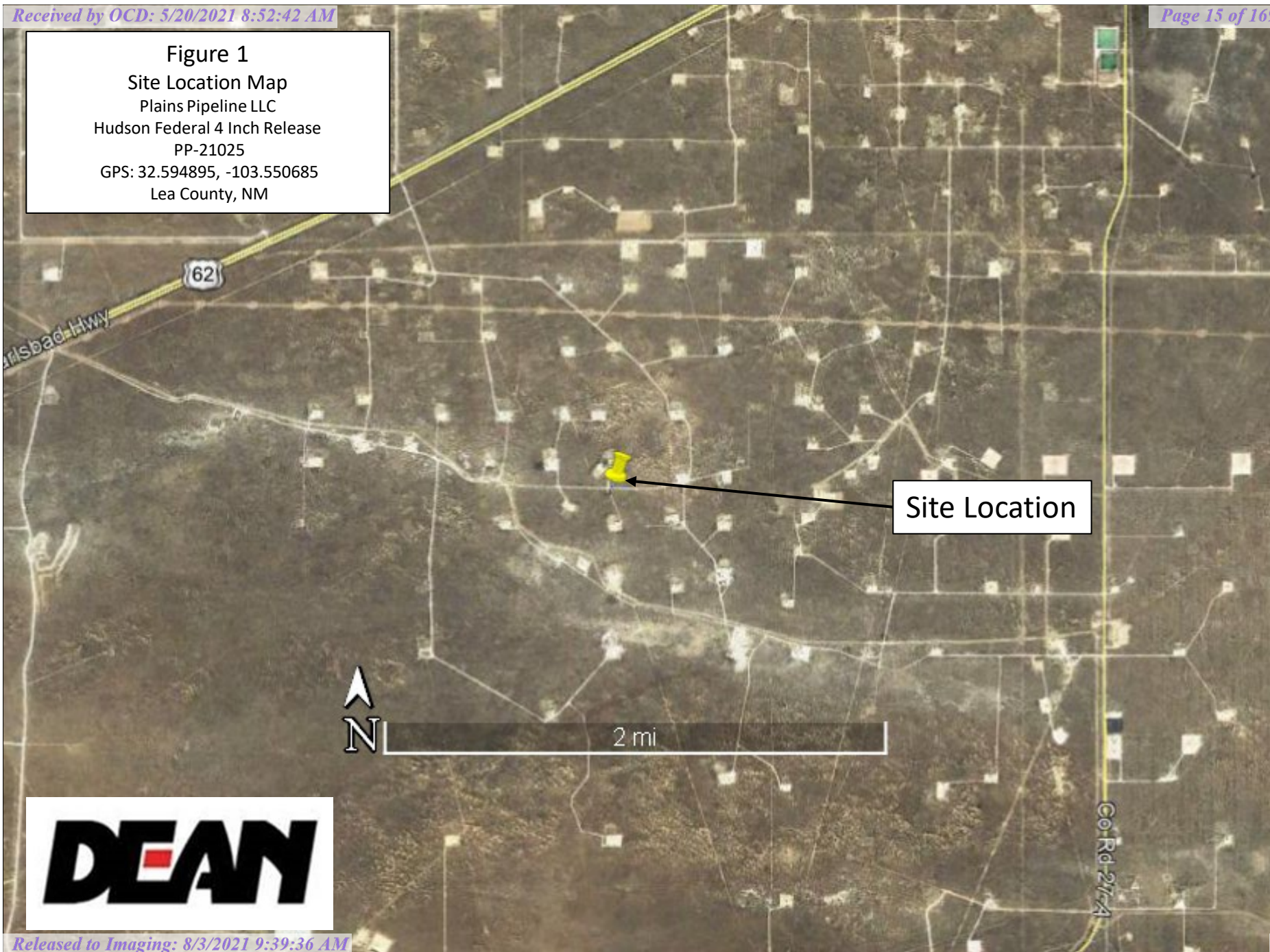
Plains Pipeline LLC

Hudson Federal 4 Inch Release

PP-21025

GPS: 32.594895, -103.550685

Lea County, NM



Site Location

N

2 mi

DEAN

Figure 2

Topographic Map
Plains Pipeline LLC
Hudson Federal 4 Inch Release
PP-21025
GPS: 32.594895, -103.550685
Lea County, NM

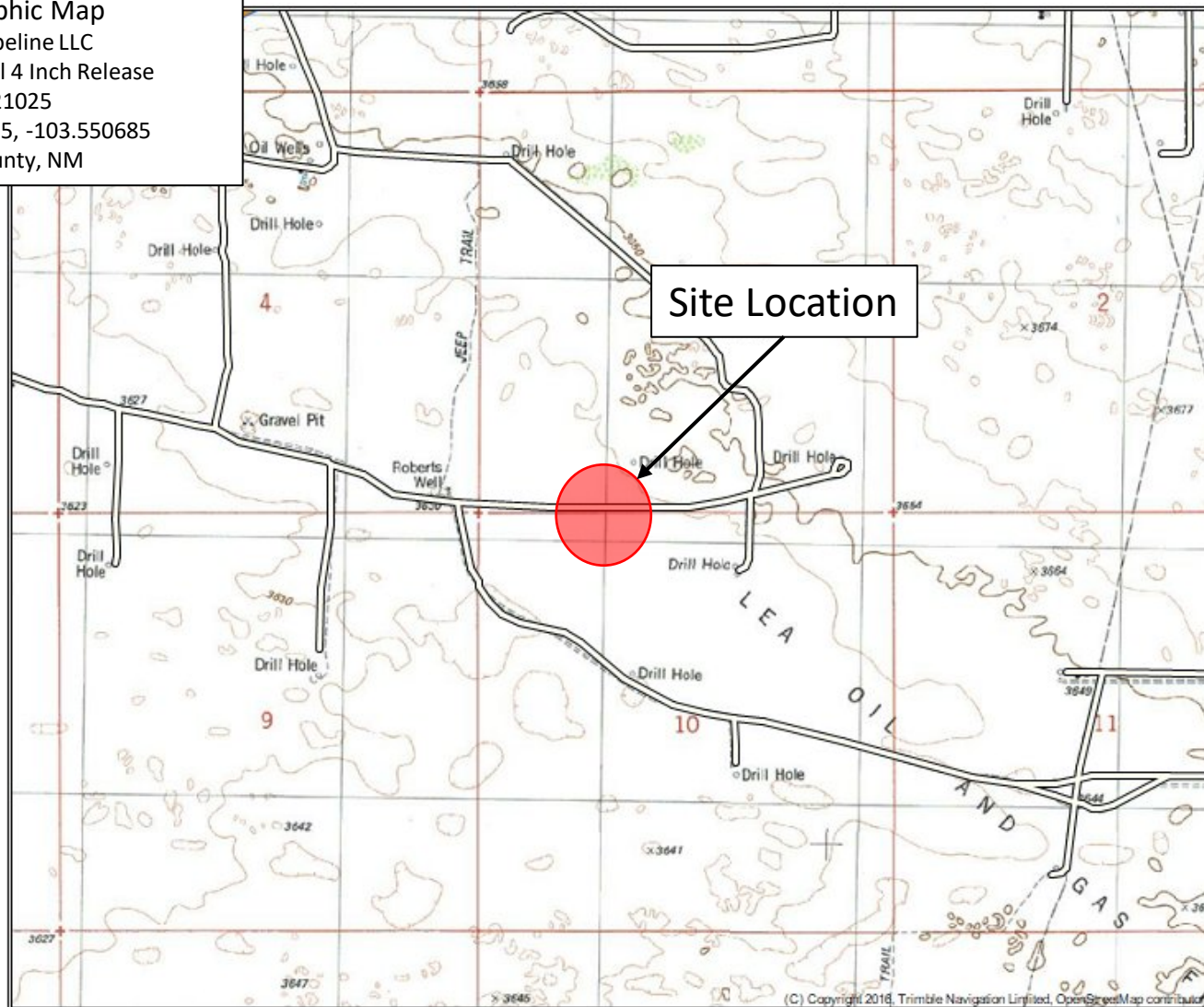
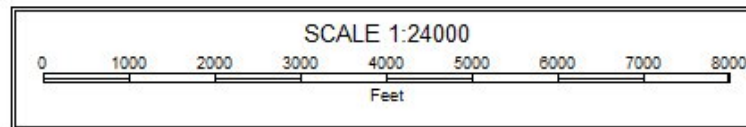
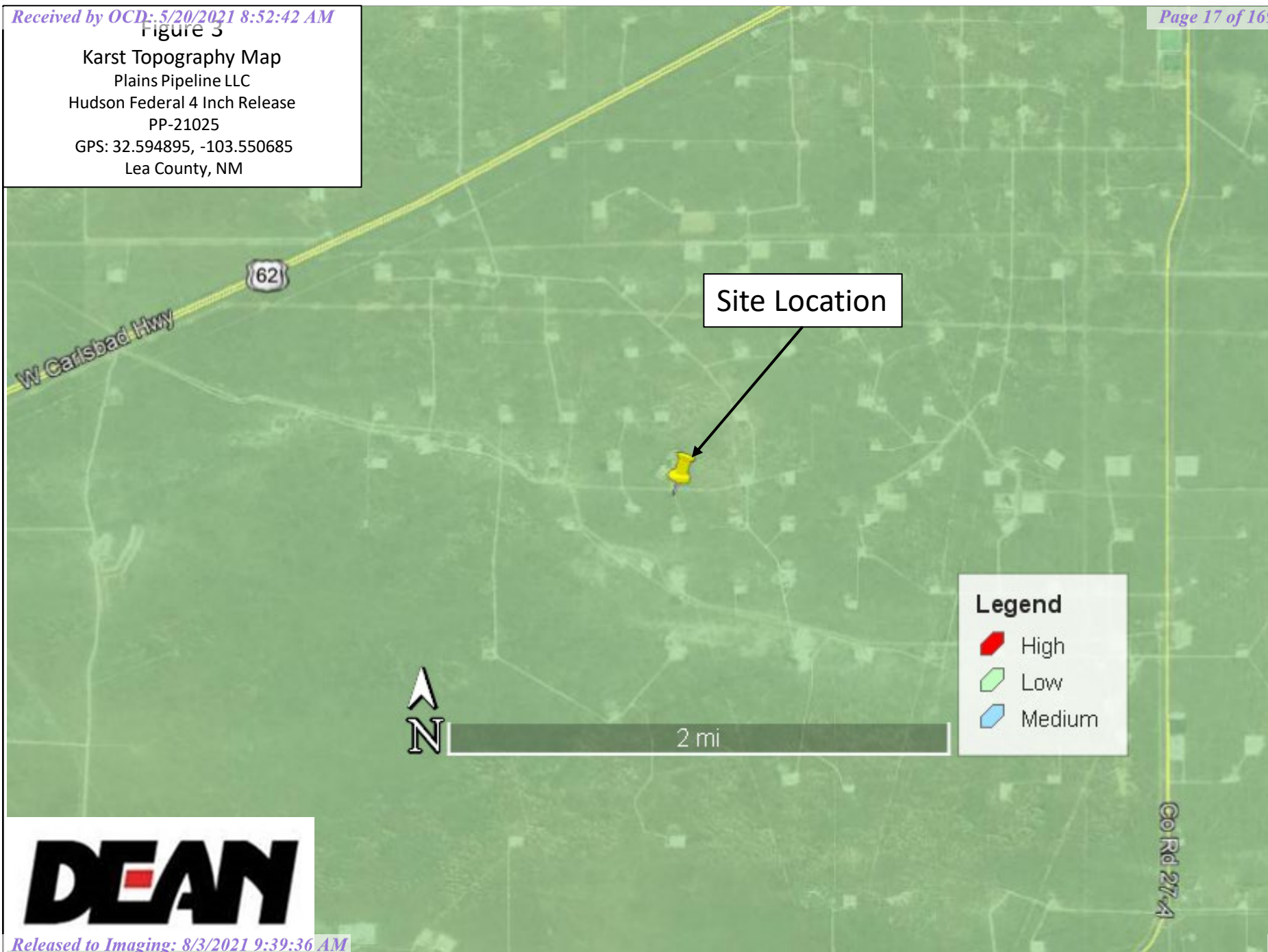
**DEAN**

Figure 3

Karst Topography Map
Plains Pipeline LLC
Hudson Federal 4 Inch Release
PP-21025
GPS: 32.594895, -103.550685
Lea County, NM



DEAN

Figure 4

Initial Site Delineation Details Location Map

Plains Pipeline LLC

Hudson Federal 4 Inch Release

PP-21025

GPS: 32.594895, -103.550685

Lea County, NM

Legend

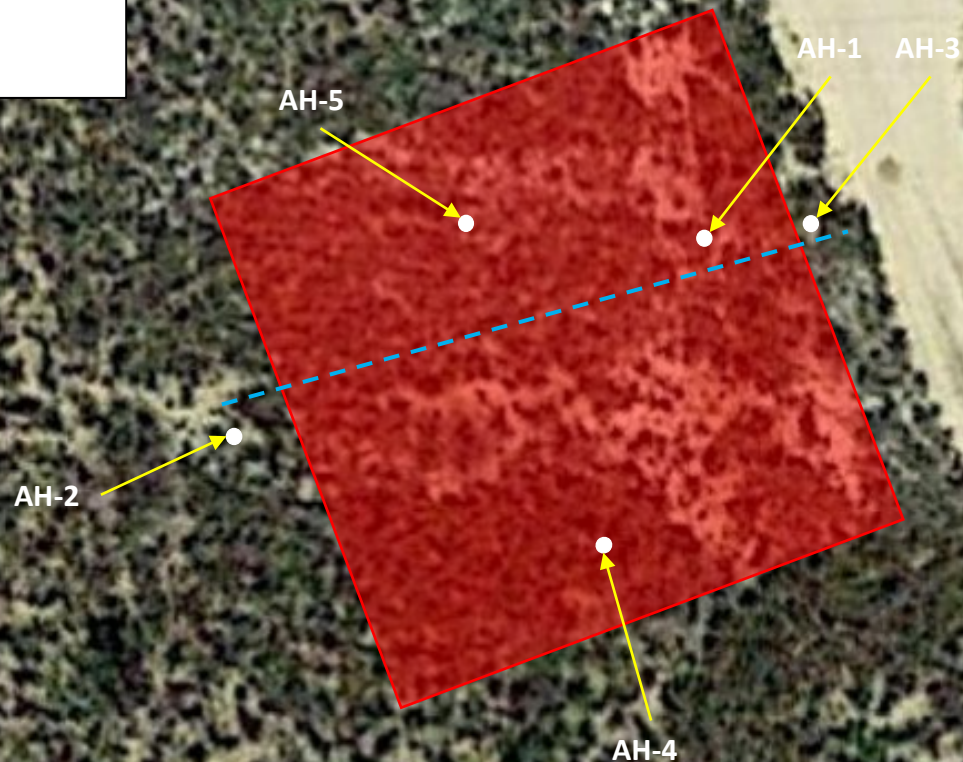
Release Area:



Sample Point:



Existing Poly Line:



100 ft

DEAN

Site Details and Confirmation Soil Sample Location Map

Plains Pipeline LLC
Hudson Federal 4 Inch Release
PP-21025
GPS: 32.594895, -103.550685
Lea County, NM

Legend

Excavation Area:



Sample Point:



5 FT Deep Excavation Area:



10 FT Deep Excavation Area:



13 FT Deep Excavation Area:



11 FT Deep Excavation Area:



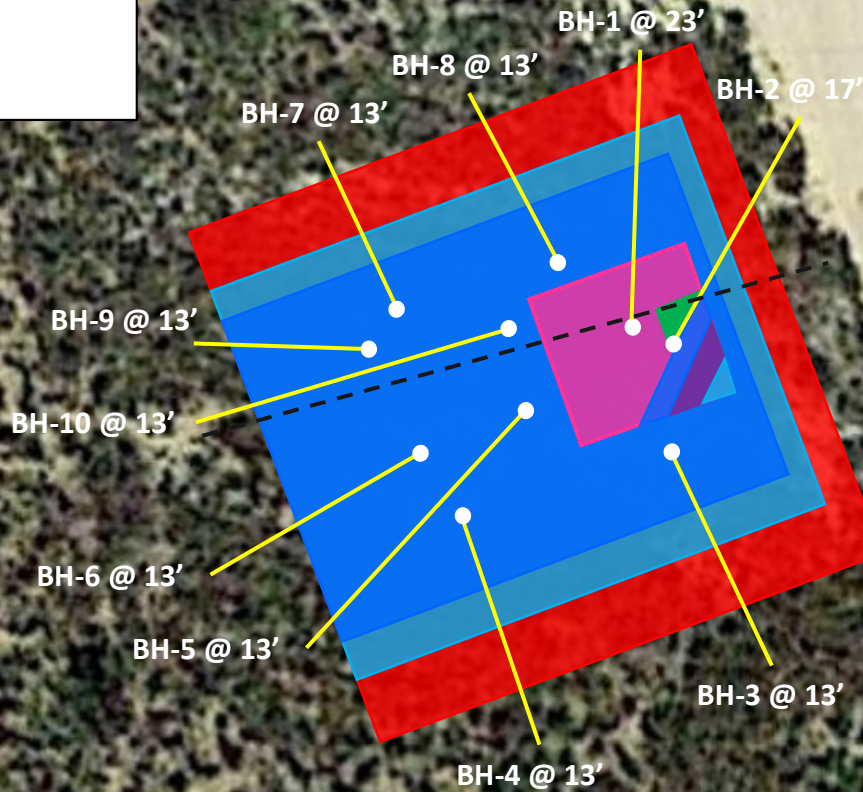
17 FT Deep Excavation Area:



23 FT Deep Excavation Area:



Existing Poly Line:



100 ft

DEAN

Figure 6

Site Details and Confirmation Wall Soil Sample

Location Map

Plains Pipeline LLC

Hudson Federal 4 Inch Release

PP-21025

GPS: 32.594895, -103.550685

Lea County, NM

Legend

Excavation Area:



Sample Point:



5 FT Deep Excavation Area:



10 FT Deep Excavation Area:



13 FT Deep Excavation Area:



11 FT Deep Excavation Area:



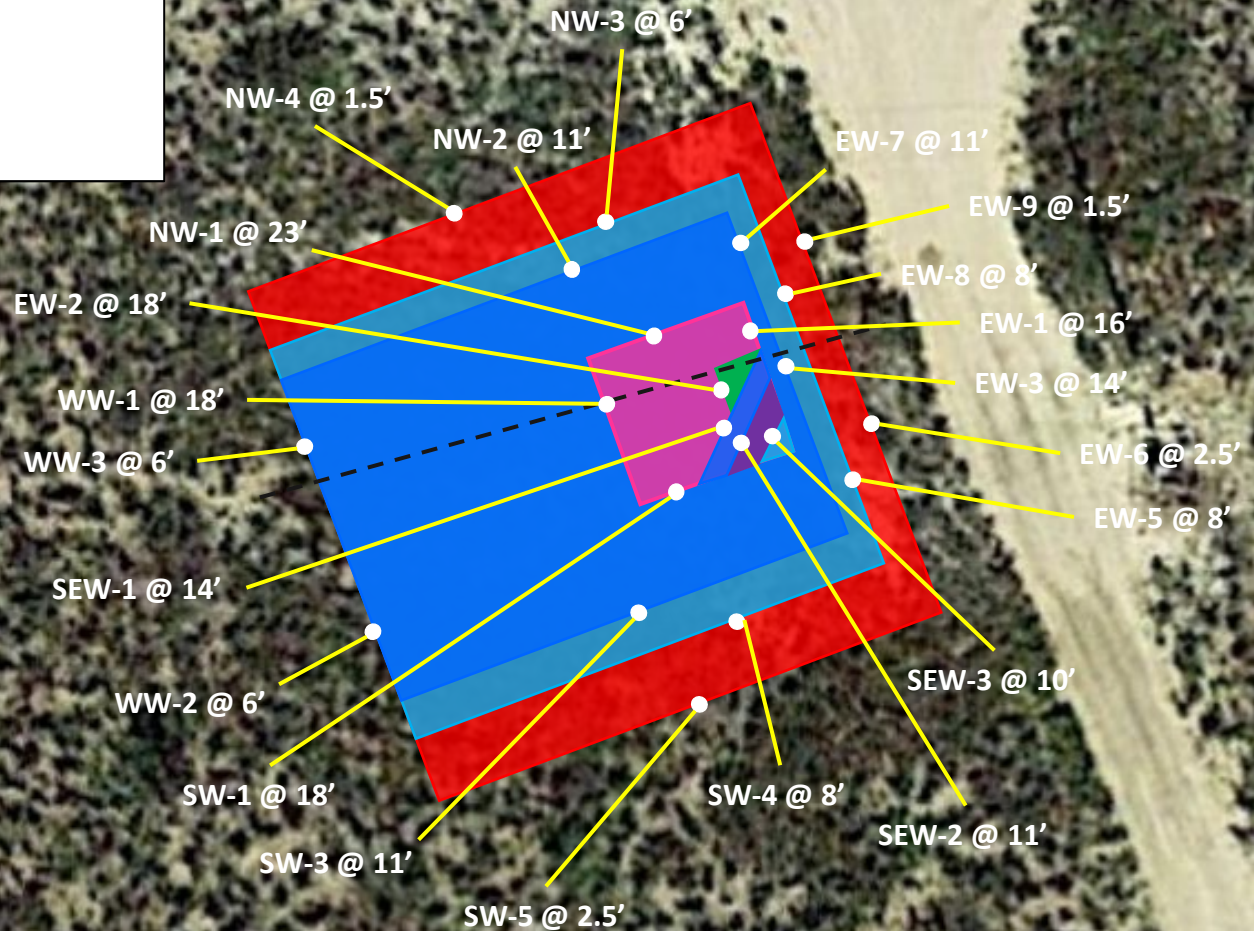
17 FT Deep Excavation Area:



23 FT Deep Excavation Area:



Existing Poly Line:



100 ft

DEAN

Figure 6 Cont'd.

Site Details and Confirmation Wall Soil Sample
Location Map
Plains Pipeline LLC
Hudson Federal 4 Inch Release
PP-21025
GPS: 32.594895, -103.550685
Lea County, NM

Legend

Excavation Area:



Sample Point:



5 FT Deep Excavation Area:



10 FT Deep Excavation Area:



13 FT Deep Excavation Area:



11 FT Deep Excavation Area:



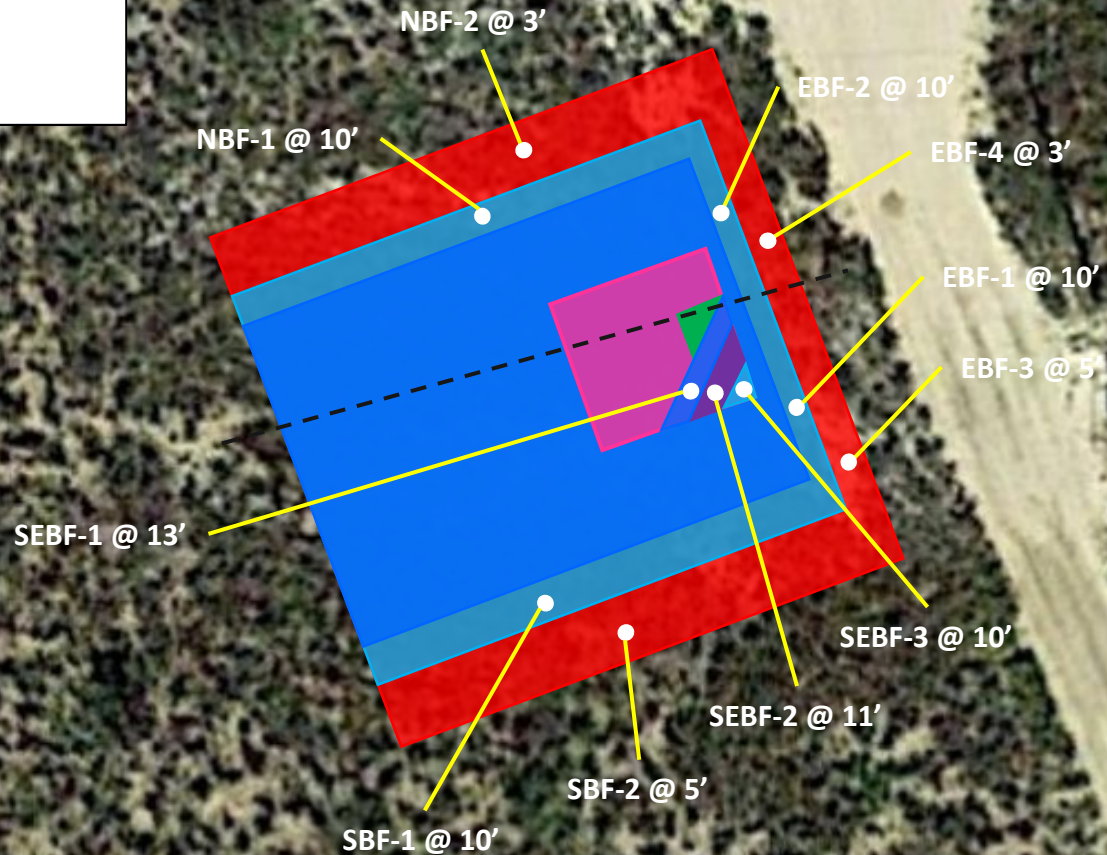
17 FT Deep Excavation Area:



23 FT Deep Excavation Area:



Existing Poly Line:



100 ft

DEAN

APPENDIX A
NMOCD C-141 FORMS

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

State of New Mexico
Energy Minerals and Natural
Resources Department

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

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

Incident ID	nAPP2102629238
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party Plains Pipeline, L.P.	OGRID 713291
Contact Name Amber Groves	Contact Telephone 575-200-5517
Contact email algroves@paalp.com	Incident # (assigned by OCD)
Contact mailing address 3112 W. US Hwy 82, Lovington, NM 88260	

Location of Release Source

Latitude 32.594895

Longitude -103.550685

(NAD 83 in decimal degrees to 5 decimal places)

Site Name Plains Hudson Federal 4"	Site Type Pipeline
Date Release Discovered 1/21/2021	API# (if applicable)

Unit Letter	Section	Township	Range	County
C	10	20S	34E	Lea

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

Nature and Volume of Release

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

<input checked="" type="checkbox"/> Crude Oil	Volume Released (bbls) 8.05 bbls	Volume Recovered (bbls) 6.75 bbls
<input type="checkbox"/> Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

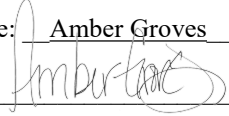
Fusion Failure on a 4" poly pipeline.

Incident ID	nAPP2102629238
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? 	

Initial Response

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

<input checked="" type="checkbox"/> The source of the release has been stopped.	
<input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment.	
<input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.	
<input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why: 	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name: <u>Amber Groves</u>	Title: <u>Remediation Coordinator</u>
Signature: <u></u>	Date: <u>1/28/2021</u>
email: <u>algroves@paalp.com</u>	Telephone: <u>(575)200-5517</u>
<u>OCD Only</u>	
Received by: _____	Date: _____

Amber L Groves

From: David Guerrero Jr
Sent: Monday, January 25, 2021 8:54 AM
To: Amber L Groves; Camille J Bryant; Jose C DeLao
Cc: C. Drew Engstrom; William M Gilliland, Jr.
Subject: Hudson Federal 4" Loss Justification

Amount lost for the Hudson Federal 4" release is approximately 8.05bbbls of crude.

Majority of this amount is based on the measurements of the release area and the use of Liquid Spill Calculations:

1. $35' \times 10' \times 1" \times .015 = 5.25\text{bbbls}$
2. $10' \times 10' \times 1" \times .015 = 1.5\text{bbbls}$

The remainder of the amount of release is based on calculations for the saturated soil:

- At an approximate 20% Pore space of soil
 1. $35' \times 10' \times 1" = 1.0\text{bbbls}$
 2. $10' \times 10' \times 1" = 0.3\text{bbbls}$

Thank you,

DAVID GUERRERO JR
PLAINS ALL AMERICAN
DISTRICT MANAGER, PPN
(432) 202-9397 | (432) 758-8002
DGUERRERO@PAALP.COM

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 16081

CONDITIONS OF APPROVAL

Operator:	PLAINS MARKETING L.P.	333 Clay St, Ste 1600	Houston, TX77002	OGRID:	34053	Action Number:	16081	Action Type:	C-141
OCD Reviewer	Condition								
marcus	None								

APPENDIX B

LABORATORY ANALYTICAL REPORTS

**PERMIAN BASIN
ENVIRONMENTAL LAB, LP
1400 Rankin Hwy
Midland, TX 79701**



Analytical Report

Prepared for:

Sylwia Reynolds
Dean
12600 W County Rd 91
Midland, TX 79707

Project: Hudson Federal 4 Remediation

Project Number: PP-21025

Location: Lea County, NM

Lab Order Number: 1A27005



Current Certification

Report Date: 02/05/21

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
AH-1 @ 1'	1A27005-01	Soil	01/22/21 08:18	01-26-2021 16:30
AH-1 @ 3'	1A27005-02	Soil	01/22/21 08:22	01-26-2021 16:30
AH-1 @ 5'	1A27005-03	Soil	01/22/21 08:25	01-26-2021 16:30
AH-1 @ 7'	1A27005-04	Soil	01/22/21 08:30	01-26-2021 16:30
AH-1 @ 9'	1A27005-05	Soil	01/22/21 08:40	01-26-2021 16:30
AH-1 @ 11'	1A27005-06	Soil	01/22/21 10:10	01-26-2021 16:30
AH-1 @ 13'	1A27005-07	Soil	01/22/21 10:30	01-26-2021 16:30
AH-1 @ 15'	1A27005-08	Soil	01/25/21 08:38	01-26-2021 16:30
AH-3 @ 1'	1A27005-10	Soil	01/22/21 10:38	01-26-2021 16:30
AH-3 @ 3'	1A27005-11	Soil	01/22/21 10:44	01-26-2021 16:30
AH-3 @ 5'	1A27005-12	Soil	01/22/21 10:51	01-26-2021 16:30
AH-2 @ 1'	1A27005-16	Soil	01/22/21 08:58	01-26-2021 16:30
AH-2 @ 3'	1A27005-17	Soil	01/22/21 09:03	01-26-2021 16:30
AH-2 @ 5'	1A27005-18	Soil	01/22/21 09:06	01-26-2021 16:30
AH-4 @ 1'	1A27005-22	Soil	01/25/21 09:03	01-26-2021 16:30
AH-4 @ 3'	1A27005-23	Soil	01/25/21 09:07	01-26-2021 16:30
AH-4 @ 5'	1A27005-24	Soil	01/25/21 09:15	01-26-2021 16:30
AH-5 @ 1'	1A27005-28	Soil	01/25/21 09:52	01-26-2021 16:30
AH-5 @ 5'	1A27005-29	Soil	01/25/21 10:06	01-26-2021 16:30

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

AH-1 @ 1'
1A27005-01 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	12.9	0.521	mg/kg dry	500	P1A2705	01/27/21 14:04	01/27/21 21:57	EPA 8021B	
Toluene	95.0	0.521	mg/kg dry	500	P1A2705	01/27/21 14:04	01/27/21 21:57	EPA 8021B	
Ethylbenzene	82.4	0.521	mg/kg dry	500	P1A2705	01/27/21 14:04	01/27/21 21:57	EPA 8021B	
Xylene (p/m)	175	1.04	mg/kg dry	500	P1A2705	01/27/21 14:04	01/27/21 21:57	EPA 8021B	
Xylene (o)	49.5	0.521	mg/kg dry	500	P1A2705	01/27/21 14:04	01/27/21 21:57	EPA 8021B	
Surrogate: 4-Bromofluorobenzene	62.5 %		80-120		P1A2705	01/27/21 14:04	01/27/21 21:57	EPA 8021B	S-GC
Surrogate: 1,4-Difluorobenzene	98.4 %		80-120		P1A2705	01/27/21 14:04	01/27/21 21:57	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	99.4	1.04	mg/kg dry	1	P1A2903	01/29/21 11:28	01/29/21 17:31	EPA 300.0	
% Moisture	4.0	0.1	%	1	P1A2803	01/28/21 10:50	01/28/21 10:59	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	11900	521	mg/kg dry	20	P1A2703	01/27/21 13:55	01/28/21 13:18	TPH 8015M	
>C12-C28	22300	521	mg/kg dry	20	P1A2703	01/27/21 13:55	01/28/21 13:18	TPH 8015M	
>C28-C35	4160	521	mg/kg dry	20	P1A2703	01/27/21 13:55	01/28/21 13:18	TPH 8015M	
Surrogate: 1-Chlorooctane	137 %		70-130		P1A2703	01/27/21 13:55	01/28/21 13:18	TPH 8015M	
Surrogate: o-Terphenyl	134 %		70-130		P1A2703	01/27/21 13:55	01/28/21 13:18	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	38400	521	mg/kg dry	20	[CALC]	01/27/21 13:55	01/28/21 13:18	calc	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

AH-1 @ 3'
1A27005-02 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	6.25	0.515	mg/kg dry	500	P1A2705	01/27/21 14:04	01/27/21 22:17	EPA 8021B	
Toluene	53.5	0.515	mg/kg dry	500	P1A2705	01/27/21 14:04	01/27/21 22:17	EPA 8021B	
Ethylbenzene	49.0	0.515	mg/kg dry	500	P1A2705	01/27/21 14:04	01/27/21 22:17	EPA 8021B	
Xylene (p/m)	115	1.03	mg/kg dry	500	P1A2705	01/27/21 14:04	01/27/21 22:17	EPA 8021B	
Xylene (o)	27.3	0.515	mg/kg dry	500	P1A2705	01/27/21 14:04	01/27/21 22:17	EPA 8021B	
<i>Surrogate: 1,4-Difluorobenzene</i>		98.6 %		80-120	P1A2705	01/27/21 14:04	01/27/21 22:17	EPA 8021B	
<i>Surrogate: 4-Bromofluorobenzene</i>		65.9 %		80-120	P1A2705	01/27/21 14:04	01/27/21 22:17	EPA 8021B	S-GC

General Chemistry Parameters by EPA / Standard Methods

Chloride	48.9	1.03	mg/kg dry	1	P1A2903	01/29/21 11:28	01/29/21 18:20	EPA 300.0	
% Moisture	3.0	0.1	%	1	P1A2803	01/28/21 10:50	01/28/21 10:59	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	5730	515	mg/kg dry	20	P1A2703	01/27/21 13:55	01/27/21 23:01	TPH 8015M	
>C12-C28	11900	515	mg/kg dry	20	P1A2703	01/27/21 13:55	01/27/21 23:01	TPH 8015M	
>C28-C35	2190	515	mg/kg dry	20	P1A2703	01/27/21 13:55	01/27/21 23:01	TPH 8015M	
<i>Surrogate: 1-Chlorooctane</i>		109 %		70-130	P1A2703	01/27/21 13:55	01/27/21 23:01	TPH 8015M	
<i>Surrogate: o-Terphenyl</i>		127 %		70-130	P1A2703	01/27/21 13:55	01/27/21 23:01	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	19800	515	mg/kg dry	20	[CALC]	01/27/21 13:55	01/27/21 23:01	calc	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

AH-1 @ 5'
1A27005-03 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	7.38	0.515	mg/kg dry	500	P1A2705	01/27/21 14:04	01/27/21 22:38	EPA 8021B	
Toluene	55.1	0.515	mg/kg dry	500	P1A2705	01/27/21 14:04	01/27/21 22:38	EPA 8021B	
Ethylbenzene	42.1	0.515	mg/kg dry	500	P1A2705	01/27/21 14:04	01/27/21 22:38	EPA 8021B	
Xylene (p/m)	92.0	1.03	mg/kg dry	500	P1A2705	01/27/21 14:04	01/27/21 22:38	EPA 8021B	
Xylene (o)	24.2	0.515	mg/kg dry	500	P1A2705	01/27/21 14:04	01/27/21 22:38	EPA 8021B	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>67.1 %</i>			<i>80-120</i>	<i>P1A2705</i>	<i>01/27/21 14:04</i>	<i>01/27/21 22:38</i>	<i>EPA 8021B</i>	<i>S-GC</i>
<i>Surrogate: 1,4-Difluorobenzene</i>	<i>98.7 %</i>			<i>80-120</i>	<i>P1A2705</i>	<i>01/27/21 14:04</i>	<i>01/27/21 22:38</i>	<i>EPA 8021B</i>	

General Chemistry Parameters by EPA / Standard Methods

Chloride	7.14	1.03	mg/kg dry	1	P1A2903	01/29/21 11:28	01/29/21 18:36	EPA 300.0	
% Moisture	3.0	0.1	%	1	P1A2803	01/28/21 10:50	01/28/21 10:59	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	4400	515	mg/kg dry	20	P1A2805	01/28/21 12:50	01/28/21 22:37	TPH 8015M	
>C12-C28	8710	515	mg/kg dry	20	P1A2805	01/28/21 12:50	01/28/21 22:37	TPH 8015M	
>C28-C35	1450	515	mg/kg dry	20	P1A2805	01/28/21 12:50	01/28/21 22:37	TPH 8015M	
<i>Surrogate: 1-Chlorooctane</i>	<i>77.0 %</i>			<i>70-130</i>	<i>P1A2805</i>	<i>01/28/21 12:50</i>	<i>01/28/21 22:37</i>	<i>TPH 8015M</i>	
<i>Surrogate: o-Terphenyl</i>	<i>85.2 %</i>			<i>70-130</i>	<i>P1A2805</i>	<i>01/28/21 12:50</i>	<i>01/28/21 22:37</i>	<i>TPH 8015M</i>	
Total Petroleum Hydrocarbon C6-C35	14600	515	mg/kg dry	20	[CALC]	01/28/21 12:50	01/28/21 22:37	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

AH-1 @ 7'
1A27005-04 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	10.6	0.106	mg/kg dry	100	P1A2705	01/27/21 14:04	01/27/21 22:59	EPA 8021B	
Toluene	38.8	0.106	mg/kg dry	100	P1A2705	01/27/21 14:04	01/27/21 22:59	EPA 8021B	
Ethylbenzene	34.9	0.106	mg/kg dry	100	P1A2705	01/27/21 14:04	01/27/21 22:59	EPA 8021B	
Xylene (p/m)	54.9	0.213	mg/kg dry	100	P1A2705	01/27/21 14:04	01/27/21 22:59	EPA 8021B	
Xylene (o)	19.5	0.106	mg/kg dry	100	P1A2705	01/27/21 14:04	01/27/21 22:59	EPA 8021B	
<i>Surrogate: 1,4-Difluorobenzene</i>		92.3 %		80-120	P1A2705	01/27/21 14:04	01/27/21 22:59	EPA 8021B	
<i>Surrogate: 4-Bromofluorobenzene</i>		58.5 %		80-120	P1A2705	01/27/21 14:04	01/27/21 22:59	EPA 8021B	S-GC

General Chemistry Parameters by EPA / Standard Methods

% Moisture	6.0	0.1	%	1	P1A2803	01/28/21 10:50	01/28/21 10:59	ASTM D2216	
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Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	9490	532	mg/kg dry	20	P1A2805	01/28/21 12:50	01/28/21 22:59	TPH 8015M	
>C12-C28	14500	532	mg/kg dry	20	P1A2805	01/28/21 12:50	01/28/21 22:59	TPH 8015M	
>C28-C35	2410	532	mg/kg dry	20	P1A2805	01/28/21 12:50	01/28/21 22:59	TPH 8015M	
<i>Surrogate: 1-Chlorooctane</i>		88.4 %		70-130	P1A2805	01/28/21 12:50	01/28/21 22:59	TPH 8015M	
<i>Surrogate: o-Terphenyl</i>		93.2 %		70-130	P1A2805	01/28/21 12:50	01/28/21 22:59	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	26400	532	mg/kg dry	20	[CALC]	01/28/21 12:50	01/28/21 22:59	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

AH-1 @ 9'
1A27005-05 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	13.4	0.109	mg/kg dry	100	P1A2705	01/27/21 14:04	01/28/21 10:31	EPA 8021B	
Toluene	42.8	0.109	mg/kg dry	100	P1A2705	01/27/21 14:04	01/28/21 10:31	EPA 8021B	
Ethylbenzene	39.1	0.109	mg/kg dry	100	P1A2705	01/27/21 14:04	01/28/21 10:31	EPA 8021B	
Xylene (p/m)	66.9	0.217	mg/kg dry	100	P1A2705	01/27/21 14:04	01/28/21 10:31	EPA 8021B	
Xylene (o)	22.5	0.109	mg/kg dry	100	P1A2705	01/27/21 14:04	01/28/21 10:31	EPA 8021B	
<i>Surrogate: 1,4-Difluorobenzene</i>		87.0 %		80-120	P1A2705	01/27/21 14:04	01/28/21 10:31	EPA 8021B	
<i>Surrogate: 4-Bromofluorobenzene</i>		42.4 %		80-120	P1A2705	01/27/21 14:04	01/28/21 10:31	EPA 8021B	S-GC

General Chemistry Parameters by EPA / Standard Methods

% Moisture	8.0	0.1	%	1	P1A2803	01/28/21 10:50	01/28/21 10:59	ASTM D2216	
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Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	16200	543	mg/kg dry	20	P1A2805	01/28/21 12:50	01/28/21 23:22	TPH 8015M	
>C12-C28	21300	543	mg/kg dry	20	P1A2805	01/28/21 12:50	01/28/21 23:22	TPH 8015M	
>C28-C35	3370	543	mg/kg dry	20	P1A2805	01/28/21 12:50	01/28/21 23:22	TPH 8015M	
<i>Surrogate: 1-Chlorooctane</i>		91.4 %		70-130	P1A2805	01/28/21 12:50	01/28/21 23:22	TPH 8015M	
<i>Surrogate: o-Terphenyl</i>		143 %		70-130	P1A2805	01/28/21 12:50	01/28/21 23:22	TPH 8015M	S-GC
Total Petroleum Hydrocarbon C6-C35	40900	543	mg/kg dry	20	[CALC]	01/28/21 12:50	01/28/21 23:22	calc	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

AH-1 @ 11'
1A27005-06 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	5.29	0.108	mg/kg dry	100	P1A2705	01/27/21 14:04	01/28/21 10:51	EPA 8021B	
Toluene	22.1	0.108	mg/kg dry	100	P1A2705	01/27/21 14:04	01/28/21 10:51	EPA 8021B	
Ethylbenzene	20.4	0.108	mg/kg dry	100	P1A2705	01/27/21 14:04	01/28/21 10:51	EPA 8021B	
Xylene (p/m)	36.8	0.215	mg/kg dry	100	P1A2705	01/27/21 14:04	01/28/21 10:51	EPA 8021B	
Xylene (o)	13.4	0.108	mg/kg dry	100	P1A2705	01/27/21 14:04	01/28/21 10:51	EPA 8021B	
<i>Surrogate: 1,4-Difluorobenzene</i>		101 %		80-120	P1A2705	01/27/21 14:04	01/28/21 10:51	EPA 8021B	
<i>Surrogate: 4-Bromofluorobenzene</i>		76.9 %		80-120	P1A2705	01/27/21 14:04	01/28/21 10:51	EPA 8021B	S-GC

General Chemistry Parameters by EPA / Standard Methods

% Moisture	7.0	0.1	%	1	P1A2803	01/28/21 10:50	01/28/21 10:59	ASTM D2216	
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Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	4410	538	mg/kg dry	20	P1A2805	01/28/21 12:50	01/28/21 23:45	TPH 8015M	
>C12-C28	9630	538	mg/kg dry	20	P1A2805	01/28/21 12:50	01/28/21 23:45	TPH 8015M	
>C28-C35	1680	538	mg/kg dry	20	P1A2805	01/28/21 12:50	01/28/21 23:45	TPH 8015M	
<i>Surrogate: 1-Chlorooctane</i>		70.6 %		70-130	P1A2805	01/28/21 12:50	01/28/21 23:45	TPH 8015M	
<i>Surrogate: o-Terphenyl</i>		106 %		70-130	P1A2805	01/28/21 12:50	01/28/21 23:45	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	15700	538	mg/kg dry	20	[CALC]	01/28/21 12:50	01/28/21 23:45	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

AH-1 @ 13'
1A27005-07 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	2.02	0.108	mg/kg dry	100	P1A2705	01/27/21 14:04	01/28/21 11:12	EPA 8021B	
Toluene	5.90	0.108	mg/kg dry	100	P1A2705	01/27/21 14:04	01/28/21 11:12	EPA 8021B	
Ethylbenzene	15.0	0.108	mg/kg dry	100	P1A2705	01/27/21 14:04	01/28/21 11:12	EPA 8021B	
Xylene (p/m)	29.8	0.215	mg/kg dry	100	P1A2705	01/27/21 14:04	01/28/21 11:12	EPA 8021B	
Xylene (o)	8.98	0.108	mg/kg dry	100	P1A2705	01/27/21 14:04	01/28/21 11:12	EPA 8021B	
<i>Surrogate: 1,4-Difluorobenzene</i>		110 %		80-120	P1A2705	01/27/21 14:04	01/28/21 11:12	EPA 8021B	
<i>Surrogate: 4-Bromofluorobenzene</i>		71.9 %		80-120	P1A2705	01/27/21 14:04	01/28/21 11:12	EPA 8021B	S-GC

General Chemistry Parameters by EPA / Standard Methods

% Moisture	7.0	0.1	%	1	P1A2803	01/28/21 10:50	01/28/21 10:59	ASTM D2216	
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Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	2360	538	mg/kg dry	20	P1A2805	01/28/21 12:50	01/29/21 00:08	TPH 8015M	
>C12-C28	6490	538	mg/kg dry	20	P1A2805	01/28/21 12:50	01/29/21 00:08	TPH 8015M	
>C28-C35	1080	538	mg/kg dry	20	P1A2805	01/28/21 12:50	01/29/21 00:08	TPH 8015M	
<i>Surrogate: 1-Chlorooctane</i>		71.2 %		70-130	P1A2805	01/28/21 12:50	01/29/21 00:08	TPH 8015M	
<i>Surrogate: o-Terphenyl</i>		78.4 %		70-130	P1A2805	01/28/21 12:50	01/29/21 00:08	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	9930	538	mg/kg dry	20	[CALC]	01/28/21 12:50	01/29/21 00:08	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

AH-1 @ 15'
1A27005-08 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	0.00222	0.00109	mg/kg dry	1	P1A2807	01/28/21 13:45	01/29/21 10:01	EPA 8021B	
Toluene	0.00501	0.00109	mg/kg dry	1	P1A2807	01/28/21 13:45	01/29/21 10:01	EPA 8021B	
Ethylbenzene	0.00587	0.00109	mg/kg dry	1	P1A2807	01/28/21 13:45	01/29/21 10:01	EPA 8021B	
Xylene (p/m)	0.0229	0.00217	mg/kg dry	1	P1A2807	01/28/21 13:45	01/29/21 10:01	EPA 8021B	
Xylene (o)	0.00488	0.00109	mg/kg dry	1	P1A2807	01/28/21 13:45	01/29/21 10:01	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		98.6 %	80-120		P1A2807	01/28/21 13:45	01/29/21 10:01	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		89.9 %	80-120		P1A2807	01/28/21 13:45	01/29/21 10:01	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

% Moisture	8.0	0.1	%	1	P1A2803	01/28/21 10:50	01/28/21 10:59	ASTM D2216	
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Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	27.2	mg/kg dry	1	P1A2806	01/28/21 13:00	01/28/21 17:08	TPH 8015M	
>C12-C28	90.5	27.2	mg/kg dry	1	P1A2806	01/28/21 13:00	01/28/21 17:08	TPH 8015M	
>C28-C35	ND	27.2	mg/kg dry	1	P1A2806	01/28/21 13:00	01/28/21 17:08	TPH 8015M	
Surrogate: 1-Chlorooctane		84.7 %	70-130		P1A2806	01/28/21 13:00	01/28/21 17:08	TPH 8015M	
Surrogate: o-Terphenyl		89.2 %	70-130		P1A2806	01/28/21 13:00	01/28/21 17:08	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	90.5	27.2	mg/kg dry	1	[CALC]	01/28/21 13:00	01/28/21 17:08	calc	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

AH-3 @ 1'
1A27005-10 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00101	mg/kg dry	1	P1A2807	01/28/21 13:45	01/28/21 17:34	EPA 8021B	
Toluene	ND	0.00101	mg/kg dry	1	P1A2807	01/28/21 13:45	01/28/21 17:34	EPA 8021B	
Ethylbenzene	ND	0.00101	mg/kg dry	1	P1A2807	01/28/21 13:45	01/28/21 17:34	EPA 8021B	
Xylene (p/m)	ND	0.00202	mg/kg dry	1	P1A2807	01/28/21 13:45	01/28/21 17:34	EPA 8021B	
Xylene (o)	ND	0.00101	mg/kg dry	1	P1A2807	01/28/21 13:45	01/28/21 17:34	EPA 8021B	
Surrogate: 1,4-Difluorobenzene	94.2 %		80-120		P1A2807	01/28/21 13:45	01/28/21 17:34	EPA 8021B	
Surrogate: 4-Bromofluorobenzene	92.9 %		80-120		P1A2807	01/28/21 13:45	01/28/21 17:34	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	1.83	1.01	mg/kg dry	1	P1A2903	01/29/21 11:28	01/29/21 20:31	EPA 300.0	
% Moisture	1.0	0.1	%	1	P1A2803	01/28/21 10:50	01/28/21 10:59	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.3	mg/kg dry	1	P1A2806	01/28/21 13:00	01/28/21 17:54	TPH 8015M	
>C12-C28	ND	25.3	mg/kg dry	1	P1A2806	01/28/21 13:00	01/28/21 17:54	TPH 8015M	
>C28-C35	ND	25.3	mg/kg dry	1	P1A2806	01/28/21 13:00	01/28/21 17:54	TPH 8015M	
Surrogate: 1-Chlorooctane	78.8 %		70-130		P1A2806	01/28/21 13:00	01/28/21 17:54	TPH 8015M	
Surrogate: o-Terphenyl	82.9 %		70-130		P1A2806	01/28/21 13:00	01/28/21 17:54	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.3	mg/kg dry	1	[CALC]	01/28/21 13:00	01/28/21 17:54	calc	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

AH-3 @ 3'
1A27005-11 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods

Chloride	5.31	1.02	mg/kg dry	1	P1A2904	01/29/21 11:30	01/29/21 22:09	EPA 300.0	
% Moisture	2.0	0.1	%	1	P1A2803	01/28/21 10:50	01/28/21 10:59	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.5	mg/kg dry	1	P1A2806	01/28/21 13:00	01/28/21 18:17	TPH 8015M	
>C12-C28	ND	25.5	mg/kg dry	1	P1A2806	01/28/21 13:00	01/28/21 18:17	TPH 8015M	
>C28-C35	ND	25.5	mg/kg dry	1	P1A2806	01/28/21 13:00	01/28/21 18:17	TPH 8015M	
Surrogate: 1-Chlorooctane		79.0 %	70-130		P1A2806	01/28/21 13:00	01/28/21 18:17	TPH 8015M	
Surrogate: o-Terphenyl		82.8 %	70-130		P1A2806	01/28/21 13:00	01/28/21 18:17	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.5	mg/kg dry	1	[CALC]	01/28/21 13:00	01/28/21 18:17	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

AH-3 @ 5'
1A27005-12 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods

Chloride	6.24	1.01	mg/kg dry	1	P1A2904	01/29/21 11:30	01/29/21 22:58	EPA 300.0	
% Moisture	1.0	0.1	%	1	P1A2803	01/28/21 10:50	01/28/21 10:59	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.3	mg/kg dry	1	P1A2806	01/28/21 13:00	01/28/21 18:41	TPH 8015M	
>C12-C28	ND	25.3	mg/kg dry	1	P1A2806	01/28/21 13:00	01/28/21 18:41	TPH 8015M	
>C28-C35	ND	25.3	mg/kg dry	1	P1A2806	01/28/21 13:00	01/28/21 18:41	TPH 8015M	
Surrogate: 1-Chlorooctane		79.2	%	70-130	P1A2806	01/28/21 13:00	01/28/21 18:41	TPH 8015M	
Surrogate: o-Terphenyl		83.1	%	70-130	P1A2806	01/28/21 13:00	01/28/21 18:41	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.3	mg/kg dry	1	[CALC]	01/28/21 13:00	01/28/21 18:41	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

AH-2 @ 1'
1A27005-16 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00101	mg/kg dry	1	P1A2807	01/28/21 13:45	01/28/21 19:39	EPA 8021B	
Toluene	ND	0.00101	mg/kg dry	1	P1A2807	01/28/21 13:45	01/28/21 19:39	EPA 8021B	
Ethylbenzene	ND	0.00101	mg/kg dry	1	P1A2807	01/28/21 13:45	01/28/21 19:39	EPA 8021B	
Xylene (p/m)	ND	0.00202	mg/kg dry	1	P1A2807	01/28/21 13:45	01/28/21 19:39	EPA 8021B	
Xylene (o)	ND	0.00101	mg/kg dry	1	P1A2807	01/28/21 13:45	01/28/21 19:39	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		94.4 %	80-120		P1A2807	01/28/21 13:45	01/28/21 19:39	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		95.8 %	80-120		P1A2807	01/28/21 13:45	01/28/21 19:39	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	6.98	1.01	mg/kg dry	1	P1A2904	01/29/21 11:30	01/30/21 00:03	EPA 300.0	
% Moisture	1.0	0.1	%	1	P1A2803	01/28/21 10:50	01/28/21 10:59	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.3	mg/kg dry	1	P1A2806	01/28/21 13:00	01/28/21 20:15	TPH 8015M	
>C12-C28	ND	25.3	mg/kg dry	1	P1A2806	01/28/21 13:00	01/28/21 20:15	TPH 8015M	
>C28-C35	ND	25.3	mg/kg dry	1	P1A2806	01/28/21 13:00	01/28/21 20:15	TPH 8015M	
Surrogate: 1-Chlorooctane		78.7 %	70-130		P1A2806	01/28/21 13:00	01/28/21 20:15	TPH 8015M	
Surrogate: o-Terphenyl		82.5 %	70-130		P1A2806	01/28/21 13:00	01/28/21 20:15	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.3	mg/kg dry	1	[CALC]	01/28/21 13:00	01/28/21 20:15	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

AH-2 @ 3'
1A27005-17 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods

Chloride	6.04	1.02	mg/kg dry	1	P1A2904	01/29/21 11:30	01/30/21 00:19	EPA 300.0
% Moisture	2.0	0.1	%	1	P1A2803	01/28/21 10:50	01/28/21 10:59	ASTM D2216

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.5	mg/kg dry	1	P1A2806	01/28/21 13:00	01/28/21 20:39	TPH 8015M
>C12-C28	ND	25.5	mg/kg dry	1	P1A2806	01/28/21 13:00	01/28/21 20:39	TPH 8015M
>C28-C35	ND	25.5	mg/kg dry	1	P1A2806	01/28/21 13:00	01/28/21 20:39	TPH 8015M
Surrogate: 1-Chlorooctane		78.2 %	70-130		P1A2806	01/28/21 13:00	01/28/21 20:39	TPH 8015M
Surrogate: o-Terphenyl		82.0 %	70-130		P1A2806	01/28/21 13:00	01/28/21 20:39	TPH 8015M
Total Petroleum Hydrocarbon C6-C35	ND	25.5	mg/kg dry	1	[CALC]	01/28/21 13:00	01/28/21 20:39	calc

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

AH-2 @ 5'
1A27005-18 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods

Chloride	6.34	1.02	mg/kg dry	1	P1A2904	01/29/21 11:30	01/30/21 00:35	EPA 300.0	
% Moisture	2.0	0.1	%	1	P1A2803	01/28/21 10:50	01/28/21 10:59	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.5	mg/kg dry	1	P1A2806	01/28/21 13:00	01/28/21 21:50	TPH 8015M	
>C12-C28	ND	25.5	mg/kg dry	1	P1A2806	01/28/21 13:00	01/28/21 21:50	TPH 8015M	
>C28-C35	ND	25.5	mg/kg dry	1	P1A2806	01/28/21 13:00	01/28/21 21:50	TPH 8015M	
Surrogate: 1-Chlorooctane		81.2 %	70-130		P1A2806	01/28/21 13:00	01/28/21 21:50	TPH 8015M	
Surrogate: o-Terphenyl		86.3 %	70-130		P1A2806	01/28/21 13:00	01/28/21 21:50	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.5	mg/kg dry	1	[CALC]	01/28/21 13:00	01/28/21 21:50	calc	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

AH-4 @ 1'
1A27005-22 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00101	mg/kg dry	1	P1A2807	01/28/21 13:45	01/28/21 22:26	EPA 8021B	
Toluene	ND	0.00101	mg/kg dry	1	P1A2807	01/28/21 13:45	01/28/21 22:26	EPA 8021B	
Ethylbenzene	ND	0.00101	mg/kg dry	1	P1A2807	01/28/21 13:45	01/28/21 22:26	EPA 8021B	
Xylene (p/m)	ND	0.00202	mg/kg dry	1	P1A2807	01/28/21 13:45	01/28/21 22:26	EPA 8021B	
Xylene (o)	ND	0.00101	mg/kg dry	1	P1A2807	01/28/21 13:45	01/28/21 22:26	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		92.5 %	80-120		P1A2807	01/28/21 13:45	01/28/21 22:26	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		94.4 %	80-120		P1A2807	01/28/21 13:45	01/28/21 22:26	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	6.51	1.01	mg/kg dry	1	P1A2904	01/29/21 11:30	01/30/21 02:46	EPA 300.0	
% Moisture	1.0	0.1	%	1	P1A2803	01/28/21 10:50	01/28/21 10:59	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.3	mg/kg dry	1	P1A2806	01/28/21 13:00	01/28/21 23:24	TPH 8015M	
>C12-C28	ND	25.3	mg/kg dry	1	P1A2806	01/28/21 13:00	01/28/21 23:24	TPH 8015M	
>C28-C35	ND	25.3	mg/kg dry	1	P1A2806	01/28/21 13:00	01/28/21 23:24	TPH 8015M	
Surrogate: 1-Chlorooctane		78.5 %	70-130		P1A2806	01/28/21 13:00	01/28/21 23:24	TPH 8015M	
Surrogate: o-Terphenyl		81.9 %	70-130		P1A2806	01/28/21 13:00	01/28/21 23:24	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.3	mg/kg dry	1	[CALC]	01/28/21 13:00	01/28/21 23:24	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

AH-4 @ 3'
1A27005-23 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods

Chloride	5.27	1.03	mg/kg dry	1	P1A2904	01/29/21 11:30	01/30/21 03:02	EPA 300.0
% Moisture	3.0	0.1	%	1	P1A2803	01/28/21 10:50	01/28/21 10:59	ASTM D2216

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.8	mg/kg dry	1	P1A2806	01/28/21 13:00	01/28/21 23:47	TPH 8015M
>C12-C28	ND	25.8	mg/kg dry	1	P1A2806	01/28/21 13:00	01/28/21 23:47	TPH 8015M
>C28-C35	ND	25.8	mg/kg dry	1	P1A2806	01/28/21 13:00	01/28/21 23:47	TPH 8015M
Surrogate: 1-Chlorooctane		76.2 %	70-130		P1A2806	01/28/21 13:00	01/28/21 23:47	TPH 8015M
Surrogate: o-Terphenyl		79.8 %	70-130		P1A2806	01/28/21 13:00	01/28/21 23:47	TPH 8015M
Total Petroleum Hydrocarbon C6-C35	ND	25.8	mg/kg dry	1	[CALC]	01/28/21 13:00	01/28/21 23:47	calc

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

AH-4 @ 5'
1A27005-24 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods

Chloride	6.41	1.01	mg/kg dry	1	P1A2904	01/29/21 11:30	01/30/21 03:18	EPA 300.0	
% Moisture	1.0	0.1	%	1	P1A2803	01/28/21 10:50	01/28/21 10:59	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.3	mg/kg dry	1	P1A2806	01/28/21 13:00	01/29/21 00:11	TPH 8015M	
>C12-C28	ND	25.3	mg/kg dry	1	P1A2806	01/28/21 13:00	01/29/21 00:11	TPH 8015M	
>C28-C35	ND	25.3	mg/kg dry	1	P1A2806	01/28/21 13:00	01/29/21 00:11	TPH 8015M	
Surrogate: 1-Chlorooctane		78.8 %	70-130		P1A2806	01/28/21 13:00	01/29/21 00:11	TPH 8015M	
Surrogate: o-Terphenyl		82.3 %	70-130		P1A2806	01/28/21 13:00	01/29/21 00:11	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.3	mg/kg dry	1	[CALC]	01/28/21 13:00	01/29/21 00:11	calc	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

AH-5 @ 1'
1A27005-28 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	0.494	0.102	mg/kg dry	100	P1A2902	01/29/21 11:21	01/29/21 14:09	EPA 8021B	
Toluene	7.60	0.204	mg/kg dry	100	P1A2902	01/29/21 11:21	01/29/21 14:09	EPA 8021B	
Ethylbenzene	8.68	0.102	mg/kg dry	100	P1A2902	01/29/21 11:21	01/29/21 14:09	EPA 8021B	
Xylene (p/m)	22.0	0.204	mg/kg dry	100	P1A2902	01/29/21 11:21	01/29/21 14:09	EPA 8021B	
Xylene (o)	5.94	0.102	mg/kg dry	100	P1A2902	01/29/21 11:21	01/29/21 14:09	EPA 8021B	
<i>Surrogate: 1,4-Difluorobenzene</i>		99.2 %		80-120	P1A2902	01/29/21 11:21	01/29/21 14:09	EPA 8021B	
<i>Surrogate: 4-Bromofluorobenzene</i>		77.4 %		80-120	P1A2902	01/29/21 11:21	01/29/21 14:09	EPA 8021B	S-GC

General Chemistry Parameters by EPA / Standard Methods

Chloride	2.81	1.02	mg/kg dry	1	P1A2904	01/29/21 11:30	01/30/21 04:23	EPA 300.0	
% Moisture	2.0	0.1	%	1	P1A2803	01/28/21 10:50	01/28/21 10:59	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	1090	128	mg/kg dry	5	P1A2809	01/28/21 15:49	01/29/21 04:19	TPH 8015M	
>C12-C28	2450	128	mg/kg dry	5	P1A2809	01/28/21 15:49	01/29/21 04:19	TPH 8015M	
>C28-C35	335	128	mg/kg dry	5	P1A2809	01/28/21 15:49	01/29/21 04:19	TPH 8015M	
<i>Surrogate: 1-Chlorooctane</i>		108 %		70-130	P1A2809	01/28/21 15:49	01/29/21 04:19	TPH 8015M	
<i>Surrogate: o-Terphenyl</i>		92.2 %		70-130	P1A2809	01/28/21 15:49	01/29/21 04:19	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	3880	128	mg/kg dry	5	[CALC]	01/28/21 15:49	01/29/21 04:19	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

AH-5 @ 5'
1A27005-29 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods

Chloride	13.8	1.04	mg/kg dry	1	P1A2904	01/29/21 11:30	01/30/21 04:39	EPA 300.0	
% Moisture	4.0	0.1	%	1	P1A2803	01/28/21 10:50	01/28/21 10:59	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	26.0	mg/kg dry	1	P1A2809	01/28/21 15:49	01/29/21 04:41	TPH 8015M	
>C12-C28	ND	26.0	mg/kg dry	1	P1A2809	01/28/21 15:49	01/29/21 04:41	TPH 8015M	
>C28-C35	ND	26.0	mg/kg dry	1	P1A2809	01/28/21 15:49	01/29/21 04:41	TPH 8015M	
Surrogate: 1-Chlorooctane		79.5 %	70-130		P1A2809	01/28/21 15:49	01/29/21 04:41	TPH 8015M	
Surrogate: o-Terphenyl		83.8 %	70-130		P1A2809	01/28/21 15:49	01/29/21 04:41	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	26.0	mg/kg dry	1	[CALC]	01/28/21 15:49	01/29/21 04:41	calc	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

BTEX by 8021B - Quality Control
Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch P1A2705 - General Preparation (GC)**Blank (P1A2705-BLK1)**

Prepared & Analyzed: 01/27/21

Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 1,4-Difluorobenzene	0.112		"	0.120		93.3	80-120			
Surrogate: 4-Bromofluorobenzene	0.107		"	0.120		89.0	80-120			

LCS (P1A2705-BS1)

Prepared & Analyzed: 01/27/21

Benzene	0.105	0.00100	mg/kg wet	0.100		105	70-130			
Toluene	0.107	0.00100	"	0.100		107	70-130			
Ethylbenzene	0.107	0.00100	"	0.100		107	70-130			
Xylene (p/m)	0.236	0.00200	"	0.200		118	70-130			
Xylene (o)	0.110	0.00100	"	0.100		110	70-130			
Surrogate: 4-Bromofluorobenzene	0.107		"	0.120		89.3	80-120			
Surrogate: 1,4-Difluorobenzene	0.117		"	0.120		97.4	80-120			

LCS Dup (P1A2705-BS1)

Prepared & Analyzed: 01/27/21

Benzene	0.101	0.00100	mg/kg wet	0.100		101	70-130	4.49	20	
Toluene	0.103	0.00100	"	0.100		103	70-130	3.73	20	
Ethylbenzene	0.106	0.00100	"	0.100		106	70-130	1.66	20	
Xylene (p/m)	0.225	0.00200	"	0.200		113	70-130	4.79	20	
Xylene (o)	0.104	0.00100	"	0.100		104	70-130	5.50	20	
Surrogate: 1,4-Difluorobenzene	0.118		"	0.120		98.7	80-120			
Surrogate: 4-Bromofluorobenzene	0.105		"	0.120		87.5	80-120			

Calibration Check (P1A2705-CCV1)

Prepared & Analyzed: 01/27/21

Benzene	0.108	0.00100	mg/kg wet	0.100		108	80-120			
Toluene	0.103	0.00100	"	0.100		103	80-120			
Ethylbenzene	0.106	0.00100	"	0.100		106	80-120			
Xylene (p/m)	0.232	0.00200	"	0.200		116	80-120			
Xylene (o)	0.110	0.00100	"	0.100		110	80-120			
Surrogate: 4-Bromofluorobenzene	0.102		"	0.120		85.2	75-125			
Surrogate: 1,4-Difluorobenzene	0.111		"	0.120		92.6	75-125			

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1400 Rankin HWY Midland, TX 79701 432-686-7235

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Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

BTEX by 8021B - Quality Control
Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch P1A2705 - General Preparation (GC)**Calibration Check (P1A2705-CCV2)**

Prepared & Analyzed: 01/27/21

Benzene	0.106	0.00100	mg/kg wet	0.100		106	80-120			
Toluene	0.115	0.00100	"	0.100		115	80-120			
Ethylbenzene	0.112	0.00100	"	0.100		112	80-120			
Xylene (p/m)	0.236	0.00200	"	0.200		118	80-120			
Xylene (o)	0.119	0.00100	"	0.100		119	80-120			
Surrogate: 1,4-Difluorobenzene	0.114		"	0.120		94.9	75-125			
Surrogate: 4-Bromofluorobenzene	0.110		"	0.120		91.4	75-125			

Calibration Check (P1A2705-CCV3)

Prepared: 01/27/21 Analyzed: 01/28/21

Benzene	0.103	0.00100	mg/kg wet	0.100		103	80-120			
Toluene	0.114	0.00100	"	0.100		114	80-120			
Ethylbenzene	0.118	0.00100	"	0.100		118	80-120			
Xylene (p/m)	0.237	0.00200	"	0.200		118	80-120			
Xylene (o)	0.120	0.00100	"	0.100		120	80-120			
Surrogate: 1,4-Difluorobenzene	0.112		"	0.120		93.2	75-125			
Surrogate: 4-Bromofluorobenzene	0.109		"	0.120		91.1	75-125			

Matrix Spike (P1A2705-MS1)

Source: 1A22020-01

Prepared: 01/27/21 Analyzed: 01/28/21

Benzene	0.0836	0.00109	mg/kg dry	0.109	ND	76.9	80-120			QM-07
Toluene	0.0933	0.00109	"	0.109	ND	85.9	80-120			
Ethylbenzene	0.100	0.00109	"	0.109	ND	92.1	80-120			
Xylene (p/m)	0.196	0.00217	"	0.217	ND	90.2	80-120			
Xylene (o)	0.104	0.00109	"	0.109	ND	95.4	80-120			
Surrogate: 4-Bromofluorobenzene	0.135		"	0.130		104	80-120			
Surrogate: 1,4-Difluorobenzene	0.127		"	0.130		97.2	80-120			

Matrix Spike Dup (P1A2705-MSD1)

Source: 1A22020-01

Prepared: 01/27/21 Analyzed: 01/28/21

Benzene	0.0857	0.00109	mg/kg dry	0.109	ND	78.8	80-120	2.44	20	QM-07
Toluene	0.0947	0.00109	"	0.109	ND	87.1	80-120	1.43	20	
Ethylbenzene	0.0983	0.00109	"	0.109	ND	90.5	80-120	1.84	20	
Xylene (p/m)	0.195	0.00217	"	0.217	ND	89.5	80-120	0.751	20	
Xylene (o)	0.103	0.00109	"	0.109	ND	95.2	80-120	0.252	20	
Surrogate: 1,4-Difluorobenzene	0.132		"	0.130		101	80-120			
Surrogate: 4-Bromofluorobenzene	0.128		"	0.130		98.2	80-120			

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Project Manager: Sylwia Reynolds

Fax:

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Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch P1A2807 - General Preparation (GC)**Blank (P1A2807-BLK1)**

Prepared & Analyzed: 01/28/21

Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 1,4-Difluorobenzene	0.110		"	0.120		91.6	80-120			
Surrogate: 4-Bromofluorobenzene	0.110		"	0.120		91.3	80-120			

LCS (P1A2807-BS1)

Prepared & Analyzed: 01/28/21

Benzene	0.104	0.00100	mg/kg wet	0.100		104	70-130			
Toluene	0.111	0.00100	"	0.100		111	70-130			
Ethylbenzene	0.117	0.00100	"	0.100		117	70-130			
Xylene (p/m)	0.239	0.00200	"	0.200		119	70-130			
Xylene (o)	0.117	0.00100	"	0.100		117	70-130			
Surrogate: 1,4-Difluorobenzene	0.121		"	0.120		100	80-120			
Surrogate: 4-Bromofluorobenzene	0.114		"	0.120		95.2	80-120			

LCS Dup (P1A2807-BS1)

Prepared & Analyzed: 01/28/21

Benzene	0.0983	0.00100	mg/kg wet	0.100		98.3	70-130	5.24	20	
Toluene	0.105	0.00100	"	0.100		105	70-130	5.81	20	
Ethylbenzene	0.113	0.00100	"	0.100		113	70-130	2.84	20	
Xylene (p/m)	0.232	0.00200	"	0.200		116	70-130	2.83	20	
Xylene (o)	0.112	0.00100	"	0.100		112	70-130	4.23	20	
Surrogate: 1,4-Difluorobenzene	0.117		"	0.120		97.1	80-120			
Surrogate: 4-Bromofluorobenzene	0.111		"	0.120		92.5	80-120			

Calibration Check (P1A2807-CCV1)

Prepared & Analyzed: 01/28/21

Benzene	0.104	0.00100	mg/kg wet	0.100		104	80-120			
Toluene	0.108	0.00100	"	0.100		108	80-120			
Ethylbenzene	0.109	0.00100	"	0.100		109	80-120			
Xylene (p/m)	0.239	0.00200	"	0.200		120	80-120			
Xylene (o)	0.117	0.00100	"	0.100		117	80-120			
Surrogate: 1,4-Difluorobenzene	0.113		"	0.120		94.4	75-125			
Surrogate: 4-Bromofluorobenzene	0.105		"	0.120		87.8	75-125			

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Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch P1A2807 - General Preparation (GC)**Calibration Check (P1A2807-CCV2)**

Prepared & Analyzed: 01/28/21

Benzene	0.106	0.00100	mg/kg wet	0.100		106	80-120			
Toluene	0.108	0.00100	"	0.100		108	80-120			
Ethylbenzene	0.106	0.00100	"	0.100		106	80-120			
Xylene (p/m)	0.231	0.00200	"	0.200		115	80-120			
Xylene (o)	0.113	0.00100	"	0.100		113	80-120			
Surrogate: 1,4-Difluorobenzene	0.118		"	0.120		98.3	75-125			
Surrogate: 4-Bromofluorobenzene	0.107		"	0.120		88.9	75-125			

Calibration Check (P1A2807-CCV3)

Prepared: 01/28/21 Analyzed: 01/29/21

Benzene	0.108	0.00100	mg/kg wet	0.100		108	80-120			
Toluene	0.106	0.00100	"	0.100		106	80-120			
Ethylbenzene	0.106	0.00100	"	0.100		106	80-120			
Xylene (p/m)	0.236	0.00200	"	0.200		118	80-120			
Xylene (o)	0.117	0.00100	"	0.100		117	80-120			
Surrogate: 1,4-Difluorobenzene	0.108		"	0.120		90.0	75-125			
Surrogate: 4-Bromofluorobenzene	0.107		"	0.120		89.5	75-125			

Matrix Spike (P1A2807-MS1)

Source: 1A27005-10

Prepared: 01/28/21 Analyzed: 01/29/21

Benzene	0.0874	0.00101	mg/kg dry	0.101	ND	86.6	80-120			
Toluene	0.0868	0.00101	"	0.101	ND	86.0	80-120			
Ethylbenzene	0.0937	0.00101	"	0.101	ND	92.7	80-120			
Xylene (p/m)	0.184	0.00202	"	0.202	ND	91.0	80-120			
Xylene (o)	0.0898	0.00101	"	0.101	ND	88.9	80-120			
Surrogate: 4-Bromofluorobenzene	0.111		"	0.121		91.8	80-120			
Surrogate: 1,4-Difluorobenzene	0.115		"	0.121		94.9	80-120			

Matrix Spike Dup (P1A2807-MSD1)

Source: 1A27005-10

Prepared: 01/28/21 Analyzed: 01/29/21

Benzene	0.0901	0.00101	mg/kg dry	0.101	ND	89.2	80-120	2.96	20	
Toluene	0.0937	0.00101	"	0.101	ND	92.8	80-120	7.68	20	
Ethylbenzene	0.102	0.00101	"	0.101	ND	101	80-120	8.66	20	
Xylene (p/m)	0.195	0.00202	"	0.202	ND	96.7	80-120	6.04	20	
Xylene (o)	0.0950	0.00101	"	0.101	ND	94.1	80-120	5.67	20	
Surrogate: 4-Bromofluorobenzene	0.113		"	0.121		92.8	80-120			
Surrogate: 1,4-Difluorobenzene	0.117		"	0.121		96.7	80-120			

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Project Number: PP-21025
Project Manager: Sylwia Reynolds

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Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch P1A2902 - General Preparation (GC)**Blank (P1A2902-BLK1)**

Prepared & Analyzed: 01/29/21

Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.00200	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 1,4-Difluorobenzene	0.119		"	0.120		99.1	80-120			
Surrogate: 4-Bromofluorobenzene	0.122		"	0.120		102	80-120			

LCS (P1A2902-BS1)

Prepared & Analyzed: 01/29/21

Benzene	0.0984	0.00100	mg/kg wet	0.100		98.4	70-130			
Toluene	0.101	0.00200	"	0.100		101	70-130			
Ethylbenzene	0.105	0.00100	"	0.100		105	70-130			
Xylene (p/m)	0.225	0.00200	"	0.200		113	70-130			
Xylene (o)	0.109	0.00100	"	0.100		109	70-130			
Surrogate: 1,4-Difluorobenzene	0.119		"	0.120		98.9	80-120			
Surrogate: 4-Bromofluorobenzene	0.113		"	0.120		94.0	80-120			

LCS Dup (P1A2902-BSD1)

Prepared & Analyzed: 01/29/21

Benzene	0.102	0.00100	mg/kg wet	0.100		102	70-130	3.65	20	
Toluene	0.111	0.00200	"	0.100		111	70-130	9.39	20	
Ethylbenzene	0.111	0.00100	"	0.100		111	70-130	5.84	20	
Xylene (p/m)	0.236	0.00200	"	0.200		118	70-130	4.50	20	
Xylene (o)	0.115	0.00100	"	0.100		115	70-130	5.54	20	
Surrogate: 1,4-Difluorobenzene	0.121		"	0.120		101	80-120			
Surrogate: 4-Bromofluorobenzene	0.115		"	0.120		95.7	80-120			

Calibration Check (P1A2902-CCV1)

Prepared & Analyzed: 01/29/21

Benzene	0.102	0.00100	mg/kg wet	0.100		102	80-120			
Toluene	0.109	0.00200	"	0.100		109	80-120			
Ethylbenzene	0.112	0.00100	"	0.100		112	80-120			
Xylene (p/m)	0.239	0.00200	"	0.200		120	80-120			
Xylene (o)	0.117	0.00100	"	0.100		117	80-120			
Surrogate: 1,4-Difluorobenzene	0.118		"	0.120		98.3	75-125			
Surrogate: 4-Bromofluorobenzene	0.112		"	0.120		93.2	75-125			

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch P1A2902 - General Preparation (GC)**Calibration Check (P1A2902-CCV2)**

Prepared & Analyzed: 01/29/21

Benzene	0.109	0.00100	mg/kg wet	0.100		109	80-120			
Toluene	0.110	0.00200	"	0.100		110	80-120			
Ethylbenzene	0.110	0.00100	"	0.100		110	80-120			
Xylene (p/m)	0.238	0.00200	"	0.200		119	80-120			
Xylene (o)	0.118	0.00100	"	0.100		118	80-120			
Surrogate: 4-Bromofluorobenzene	0.114		"	0.120		95.4	75-125			
Surrogate: 1,4-Difluorobenzene	0.119		"	0.120		99.6	75-125			

Calibration Check (P1A2902-CCV3)

Prepared & Analyzed: 01/29/21

Benzene	0.108	0.00100	mg/kg wet	0.100		108	80-120			
Toluene	0.113	0.00200	"	0.100		113	80-120			
Ethylbenzene	0.118	0.00100	"	0.100		118	80-120			
Xylene (p/m)	0.238	0.00200	"	0.200		119	80-120			
Xylene (o)	0.118	0.00100	"	0.100		118	80-120			
Surrogate: 4-Bromofluorobenzene	0.110		"	0.120		91.8	75-125			
Surrogate: 1,4-Difluorobenzene	0.118		"	0.120		98.4	75-125			

Matrix Spike (P1A2902-MS1)

Source: 1A29011-01

Prepared & Analyzed: 01/29/21

Benzene	0.0838	0.00103	mg/kg dry	0.103	ND	81.3	80-120			
Toluene	0.0811	0.00206	"	0.103	ND	78.7	80-120			QM-07
Ethylbenzene	0.0852	0.00103	"	0.103	ND	82.6	80-120			
Xylene (p/m)	0.165	0.00206	"	0.206	ND	80.1	80-120			
Xylene (o)	0.0791	0.00103	"	0.103	ND	76.7	80-120			
Surrogate: 4-Bromofluorobenzene	0.117		"	0.124		94.8	80-120			
Surrogate: 1,4-Difluorobenzene	0.124		"	0.124		99.9	80-120			

Matrix Spike Dup (P1A2902-MSD1)

Source: 1A29011-01

Prepared & Analyzed: 01/29/21

Benzene	0.0877	0.00103	mg/kg dry	0.103	ND	85.0	80-120	4.50	20	
Toluene	0.0841	0.00206	"	0.103	ND	81.6	80-120	3.66	20	
Ethylbenzene	0.0906	0.00103	"	0.103	ND	87.8	80-120	6.11	20	
Xylene (p/m)	0.175	0.00206	"	0.206	ND	84.9	80-120	5.73	20	
Xylene (o)	0.0841	0.00103	"	0.103	ND	81.5	80-120	6.05	20	
Surrogate: 4-Bromofluorobenzene	0.119		"	0.124		95.9	80-120			
Surrogate: 1,4-Difluorobenzene	0.125		"	0.124		101	80-120			

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General Chemistry Parameters by EPA / Standard Methods - Quality Control
Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch P1A2803 - * DEFAULT PREP *****

Blank (P1A2803-BLK1)	Prepared & Analyzed: 01/28/21									
% Moisture	ND	0.1	%							
Blank (P1A2803-BLK2)	Prepared & Analyzed: 01/28/21									
% Moisture	ND	0.1	%							
Blank (P1A2803-BLK3)	Prepared & Analyzed: 01/28/21									
% Moisture	ND	0.1	%							
Blank (P1A2803-BLK4)	Prepared & Analyzed: 01/28/21									
% Moisture	ND	0.1	%							
Blank (P1A2803-BLK5)	Prepared & Analyzed: 01/28/21									
% Moisture	ND	0.1	%							
Duplicate (P1A2803-DUP1)	Source: 1A26009-04		Prepared & Analyzed: 01/28/21							
% Moisture	3.0	0.1	%		3.0			0.00	20	
Duplicate (P1A2803-DUP2)	Source: 1A27001-02		Prepared & Analyzed: 01/28/21							
% Moisture	25.0	0.1	%		24.0			4.08	20	
Duplicate (P1A2803-DUP3)	Source: 1A27002-12		Prepared & Analyzed: 01/28/21							
% Moisture	17.0	0.1	%		17.0			0.00	20	
Duplicate (P1A2803-DUP4)	Source: 1A27003-05		Prepared & Analyzed: 01/28/21							
% Moisture	15.0	0.1	%		16.0			6.45	20	
Duplicate (P1A2803-DUP5)	Source: 1A27003-20		Prepared & Analyzed: 01/28/21							
% Moisture	17.0	0.1	%		18.0			5.71	20	

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Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch P1A2803 - * DEFAULT PREP *****

Duplicate (P1A2803-DUP6)	Source: 1A27004-10		Prepared & Analyzed: 01/28/21							
% Moisture	18.0	0.1	%		18.0			0.00	20	
Duplicate (P1A2803-DUP7)	Source: 1A27005-01		Prepared & Analyzed: 01/28/21							
% Moisture	3.0	0.1	%		4.0			28.6	20	R3
Duplicate (P1A2803-DUP8)	Source: 1A27005-11		Prepared & Analyzed: 01/28/21							
% Moisture	2.0	0.1	%		2.0			0.00	20	
Duplicate (P1A2803-DUP9)	Source: 1A27005-26		Prepared & Analyzed: 01/28/21							
% Moisture	5.0	0.1	%		4.0			22.2	20	R3

Batch P1A2903 - * DEFAULT PREP *****

Blank (P1A2903-BLK1)	Prepared & Analyzed: 01/29/21									
Chloride	ND	1.00	mg/kg wet							
LCS (P1A2903-BS1)	Prepared & Analyzed: 01/29/21									
Chloride	383	1.00	mg/kg wet	400		95.6	90-110			
LCS Dup (P1A2903-BSD1)	Prepared & Analyzed: 01/29/21									
Chloride	384	1.00	mg/kg wet	400		96.1	90-110	0.485	20	
Calibration Check (P1A2903-CCV1)	Prepared & Analyzed: 01/29/21									
Chloride	19.4		mg/kg	20.0		96.9	90-110			
Calibration Check (P1A2903-CCV2)	Prepared & Analyzed: 01/29/21									
Chloride	19.3		mg/kg	20.0		96.6	90-110			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

General Chemistry Parameters by EPA / Standard Methods - Quality Control
Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch P1A2903 - * DEFAULT PREP *****

Matrix Spike (P1A2903-MS1)		Source: 1A27003-18		Prepared & Analyzed: 01/29/21						
Chloride	17200	60.2	mg/kg dry	6020	10800	107	80-120			
Matrix Spike (P1A2903-MS2)		Source: 1A27005-01		Prepared & Analyzed: 01/29/21						
Chloride	625	1.04	mg/kg dry	521	99.4	101	80-120			
Matrix Spike Dup (P1A2903-MSD1)		Source: 1A27003-18		Prepared & Analyzed: 01/29/21						
Chloride	17000	60.2	mg/kg dry	6020	10800	102	80-120	1.54	20	
Matrix Spike Dup (P1A2903-MSD2)		Source: 1A27005-01		Prepared & Analyzed: 01/29/21						
Chloride	580	1.04	mg/kg dry	521	99.4	92.3	80-120	7.41	20	

Batch P1A2904 - * DEFAULT PREP *****

Blank (P1A2904-BLK1)		Prepared & Analyzed: 01/29/21								
Chloride	ND	1.00	mg/kg wet							
LCS (P1A2904-BS1)		Prepared & Analyzed: 01/29/21								
Chloride	383	1.00	mg/kg wet	400		95.7	90-110			
LCS Dup (P1A2904-BSD1)		Prepared & Analyzed: 01/29/21								
Chloride	379	1.00	mg/kg wet	400		94.8	90-110	0.950	20	
Calibration Check (P1A2904-CCV1)		Prepared & Analyzed: 01/29/21								
Chloride	19.0		mg/kg	20.0		95.0	90-110			
Calibration Check (P1A2904-CCV2)		Prepared: 01/29/21 Analyzed: 01/30/21								
Chloride	19.1		mg/kg	20.0		95.3	90-110			

Permian Basin Environmental Lab, L.P.

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General Chemistry Parameters by EPA / Standard Methods - Quality Control
Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch P1A2904 - * DEFAULT PREP *****

Matrix Spike (P1A2904-MS1)		Source: 1A27005-11			Prepared & Analyzed: 01/29/21					
Chloride	477	1.02	mg/kg dry	510	5.31	92.4	80-120			
Matrix Spike (P1A2904-MS2)		Source: 1A27005-21			Prepared: 01/29/21 Analyzed: 01/30/21					
Chloride	474	1.05	mg/kg dry	526	6.38	88.8	80-120			
Matrix Spike Dup (P1A2904-MSD1)		Source: 1A27005-11			Prepared & Analyzed: 01/29/21					
Chloride	469	1.02	mg/kg dry	510	5.31	90.8	80-120	1.72	20	
Matrix Spike Dup (P1A2904-MSD2)		Source: 1A27005-21			Prepared: 01/29/21 Analyzed: 01/30/21					
Chloride	489	1.05	mg/kg dry	526	6.38	91.7	80-120	3.18	20	

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Dean
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Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control
Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch P1A2703 - TX 1005**Blank (P1A2703-BLK1)**

Prepared & Analyzed: 01/27/21

C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	107		"	100		107	70-130			
Surrogate: o-Terphenyl	60.8		"	50.0		122	70-130			

LCS (P1A2703-BS1)

Prepared & Analyzed: 01/27/21

C6-C12	975	25.0	mg/kg wet	1000		97.5	75-125			
>C12-C28	1080	25.0	"	1000		108	75-125			
Surrogate: 1-Chlorooctane	112		"	100		112	70-130			
Surrogate: o-Terphenyl	60.9		"	50.0		122	70-130			

LCS Dup (P1A2703-BSD1)

Prepared & Analyzed: 01/27/21

C6-C12	968	25.0	mg/kg wet	1000		96.8	75-125	0.714	20	
>C12-C28	1060	25.0	"	1000		106	75-125	1.84	20	
Surrogate: 1-Chlorooctane	114		"	100		114	70-130			
Surrogate: o-Terphenyl	60.5		"	50.0		121	70-130			

Calibration Check (P1A2703-CCV1)

Prepared & Analyzed: 01/27/21

C6-C12	483	25.0	mg/kg wet	500		96.6	85-115			
>C12-C28	536	25.0	"	500		107	85-115			
Surrogate: 1-Chlorooctane	117		"	100		117	70-130			
Surrogate: o-Terphenyl	58.1		"	50.0		116	70-130			

Calibration Check (P1A2703-CCV2)

Prepared & Analyzed: 01/27/21

C6-C12	463	25.0	mg/kg wet	500		92.6	85-115			
>C12-C28	501	25.0	"	500		100	85-115			
Surrogate: 1-Chlorooctane	113		"	100		113	70-130			
Surrogate: o-Terphenyl	56.1		"	50.0		112	70-130			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control
Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch P1A2703 - TX 1005

Matrix Spike (P1A2703-MS1)	Source: 1A26011-03			Prepared: 01/27/21		Analyzed: 01/28/21				
C6-C12	1990	147	mg/kg dry	1180	250	148	75-125			QM-05
>C12-C28	7290	147	"	1180	2490	408	75-125			QM-05
Surrogate: 1-Chlorooctane	108		"	118		92.1	70-130			
Surrogate: o-Terphenyl	64.8		"	58.8		110	70-130			

Matrix Spike Dup (P1A2703-MSD1)	Source: 1A26011-03			Prepared: 01/27/21		Analyzed: 01/28/21				
C6-C12	2270	147	mg/kg dry	1180	250	172	75-125	14.8	20	QM-05
>C12-C28	7910	147	"	1180	2490	461	75-125	12.2	20	QM-05
Surrogate: 1-Chlorooctane	112		"	118		94.9	70-130			
Surrogate: o-Terphenyl	65.4		"	58.8		111	70-130			

Batch P1A2805 - TX 1005

Blank (P1A2805-BLK1)	Prepared & Analyzed: 01/28/21									
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	77.2		"	100		77.2	70-130			
Surrogate: o-Terphenyl	39.2		"	50.0		78.4	70-130			

LCS (P1A2805-BS1)	Prepared & Analyzed: 01/28/21									
C6-C12	1140	25.0	mg/kg wet	1000		114	75-125			
>C12-C28	1220	25.0	"	1000		122	75-125			
Surrogate: 1-Chlorooctane	110		"	100		110	70-130			
Surrogate: o-Terphenyl	46.7		"	50.0		93.4	70-130			

LCS Dup (P1A2805-BSD1)	Prepared & Analyzed: 01/28/21									
C6-C12	1120	25.0	mg/kg wet	1000		112	75-125	2.07	20	
>C12-C28	1240	25.0	"	1000		124	75-125	2.20	20	
Surrogate: 1-Chlorooctane	107		"	100		107	70-130			
Surrogate: o-Terphenyl	45.6		"	50.0		91.2	70-130			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control
Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch P1A2805 - TX 1005**Calibration Check (P1A2805-CCV1)**

Prepared & Analyzed: 01/28/21

C6-C12	524	25.0	mg/kg wet	500		105	85-115			
>C12-C28	557	25.0	"	500		111	85-115			
Surrogate: 1-Chlorooctane	91.9		"	100		91.9	70-130			
Surrogate: o-Terphenyl	42.4		"	50.0		84.9	70-130			

Calibration Check (P1A2805-CCV2)

Prepared & Analyzed: 01/28/21

C6-C12	491	25.0	mg/kg wet	500		98.3	85-115			
>C12-C28	539	25.0	"	500		108	85-115			
Surrogate: 1-Chlorooctane	79.3		"	100		79.3	70-130			
Surrogate: o-Terphenyl	35.2		"	50.0		70.4	70-130			

Matrix Spike (P1A2805-MS1)

Source: 1A27002-06

Prepared: 01/28/21 Analyzed: 01/29/21

C6-C12	1070	28.1	mg/kg dry	1120	ND	95.4	75-125			
>C12-C28	1340	28.1	"	1120	38.2	116	75-125			
Surrogate: 1-Chlorooctane	110		"	112		97.6	70-130			
Surrogate: o-Terphenyl	44.0		"	56.2		78.2	70-130			

Matrix Spike Dup (P1A2805-MSD1)

Source: 1A27002-06

Prepared: 01/28/21 Analyzed: 01/29/21

C6-C12	1090	28.1	mg/kg dry	1120	ND	97.4	75-125	2.01	20	
>C12-C28	1290	28.1	"	1120	38.2	111	75-125	3.93	20	
Surrogate: 1-Chlorooctane	98.1		"	112		87.3	70-130			
Surrogate: o-Terphenyl	41.5		"	56.2		73.8	70-130			

Batch P1A2806 - TX 1005**Blank (P1A2806-BLK1)**

Prepared & Analyzed: 01/28/21

C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	77.2		"	100		77.2	70-130			
Surrogate: o-Terphenyl	40.7		"	50.0		81.4	70-130			

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control
Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch P1A2806 - TX 1005**LCS (P1A2806-BS1)**

Prepared & Analyzed: 01/28/21

C6-C12	1090	25.0	mg/kg wet	1000		109	75-125			
>C12-C28	1220	25.0	"	1000		122	75-125			
Surrogate: 1-Chlorooctane	91.3		"	100		91.3	70-130			
Surrogate: o-Terphenyl	40.9		"	50.0		81.7	70-130			

LCS Dup (P1A2806-BS1)

Prepared & Analyzed: 01/28/21

C6-C12	1080	25.0	mg/kg wet	1000		108	75-125	1.60	20	
>C12-C28	1210	25.0	"	1000		121	75-125	0.854	20	
Surrogate: 1-Chlorooctane	88.8		"	100		88.8	70-130			
Surrogate: o-Terphenyl	40.1		"	50.0		80.3	70-130			

Calibration Check (P1A2806-CCV1)

Prepared & Analyzed: 01/28/21

C6-C12	561	25.0	mg/kg wet	500		112	85-115			
>C12-C28	538	25.0	"	500		108	85-115			
Surrogate: 1-Chlorooctane	83.0		"	100		83.0	70-130			
Surrogate: o-Terphenyl	40.6		"	50.0		81.3	70-130			

Calibration Check (P1A2806-CCV2)

Prepared & Analyzed: 01/28/21

C6-C12	511	25.0	mg/kg wet	500		102	85-115			
>C12-C28	556	25.0	"	500		111	85-115			
Surrogate: 1-Chlorooctane	74.0		"	100		74.0	70-130			
Surrogate: o-Terphenyl	36.6		"	50.0		73.2	70-130			

Calibration Check (P1A2806-CCV3)

Prepared: 01/28/21 Analyzed: 01/29/21

C6-C12	528	25.0	mg/kg wet	500		106	85-115			
>C12-C28	565	25.0	"	500		113	85-115			
Surrogate: 1-Chlorooctane	75.9		"	100		75.9	70-130			
Surrogate: o-Terphenyl	37.2		"	50.0		74.4	70-130			

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Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control
Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch P1A2806 - TX 1005

Matrix Spike (P1A2806-MS1)	Source: 1A27005-27			Prepared: 01/28/21		Analyzed: 01/29/21				
C6-C12	1020	26.6	mg/kg dry	1060	13.8	94.8	75-125			
>C12-C28	1130	26.6	"	1060	ND	107	75-125			
Surrogate: 1-Chlorooctane	89.1		"	106		83.7	70-130			
Surrogate: o-Terphenyl	40.6		"	53.2		76.4	70-130			

Matrix Spike Dup (P1A2806-MSD1)	Source: 1A27005-27			Prepared: 01/28/21		Analyzed: 01/29/21				
C6-C12	1040	26.6	mg/kg dry	1060	13.8	96.2	75-125	1.41	20	
>C12-C28	1150	26.6	"	1060	ND	108	75-125	1.10	20	
Surrogate: 1-Chlorooctane	91.1		"	106		85.7	70-130			
Surrogate: o-Terphenyl	41.0		"	53.2		77.1	70-130			

Batch P1A2809 - TX 1005

Blank (P1A2809-BLK1)				Prepared: 01/28/21		Analyzed: 01/29/21				
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	78.9		"	100		78.9	70-130			
Surrogate: o-Terphenyl	42.1		"	50.0		84.2	70-130			

LCS (P1A2809-BS1)				Prepared: 01/28/21		Analyzed: 01/29/21				
C6-C12	1060	25.0	mg/kg wet	1000		106	75-125			
>C12-C28	1240	25.0	"	1000		124	75-125			
Surrogate: 1-Chlorooctane	103		"	100		103	70-130			
Surrogate: o-Terphenyl	43.8		"	50.0		87.6	70-130			

LCS Dup (P1A2809-BSD1)				Prepared: 01/28/21		Analyzed: 01/29/21				
C6-C12	1090	25.0	mg/kg wet	1000		109	75-125	2.84	20	
>C12-C28	1200	25.0	"	1000		120	75-125	3.32	20	
Surrogate: 1-Chlorooctane	92.4		"	100		92.4	70-130			
Surrogate: o-Terphenyl	39.7		"	50.0		79.5	70-130			

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Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control
Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch P1A2809 - TX 1005**Calibration Check (P1A2809-CCV1)**

Prepared: 01/28/21 Analyzed: 01/29/21

C6-C12	504	25.0	mg/kg wet	500		101	85-115			
>C12-C28	554	25.0	"	500		111	85-115			
Surrogate: 1-Chlorooctane	82.1		"	100		82.1	70-130			
Surrogate: o-Terphenyl	39.0		"	50.0		78.0	70-130			

Calibration Check (P1A2809-CCV2)

Prepared: 01/28/21 Analyzed: 01/29/21

C6-C12	539	25.0	mg/kg wet	500		108	85-115			
>C12-C28	523	25.0	"	500		105	85-115			
Surrogate: 1-Chlorooctane	91.7		"	100		91.7	70-130			
Surrogate: o-Terphenyl	41.4		"	50.0		82.8	70-130			

Calibration Check (P1A2809-CCV3)

Prepared: 01/28/21 Analyzed: 01/29/21

C6-C12	573	25.0	mg/kg wet	500		115	85-115			
>C12-C28	538	25.0	"	500		108	85-115			
Surrogate: 1-Chlorooctane	90.8		"	100		90.8	70-130			
Surrogate: o-Terphenyl	40.3		"	50.0		80.6	70-130			

Matrix Spike (P1A2809-MS1)

Source: 1A28009-02

Prepared: 01/28/21 Analyzed: 01/29/21

C6-C12	1320	28.7	mg/kg dry	1150	ND	114	75-125			
>C12-C28	1640	28.7	"	1150	ND	143	75-125			QM-05
Surrogate: 1-Chlorooctane	136		"	115		119	70-130			
Surrogate: o-Terphenyl	52.7		"	57.5		91.7	70-130			

Matrix Spike Dup (P1A2809-MSD1)

Source: 1A28009-02

Prepared: 01/28/21 Analyzed: 01/29/21

C6-C12	1290	28.7	mg/kg dry	1150	ND	112	75-125	1.69	20	
>C12-C28	1570	28.7	"	1150	ND	137	75-125	4.38	20	QM-05
Surrogate: 1-Chlorooctane	131		"	115		114	70-130			
Surrogate: o-Terphenyl	50.2		"	57.5		87.4	70-130			

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Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

Notes and Definitions

S-GC Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.

ROI Received on Ice

R3 The RPD exceeded the acceptance limit due to sample matrix effects.

QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.

QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.

BULK Samples received in Bulk soil containers

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

LCS Laboratory Control Spike

MS Matrix Spike

Dup Duplicate

Report Approved By:



Date:

2/5/2021

Brent Barron, Laboratory Director/Technical Director

Permian Basin Environmental Lab, L.P.

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Dean 12600 W County Rd 91 Midland TX, 79707	Project: Hudson Federal 4 Remediation Project Number: PP-21025 Project Manager: Sylwia Reynolds	Fax:
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CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Permian Basin Environmental Lab, LP
1400 Rankin Hwy
Midland, Texas 79701

Phone: 432-686-7235

1 of 4

Project Manager: Sylvia Reynolds

Company Name: Dean

Company Address: 12600 WCR 91

City/State/Zip: Midland TX 79707

Telephone No: 432-230-0920

Sampler Signature: Joe Bellor

(lab use only)

ORDER #: 1A27005

Project Name: Hudson Federal

Project #: PP-21025

Project Loc: Lee County, New Mexico

PO #: SRS # TGD

Report Format: ☒ Standard ☐ TRAP ☐ NPDES

elizabethstuart@deandis.com Alyssa C. Gualy, urn

sylviareynolds@deandis.com
jeffindley@deandis.com
kaylanlongee@deanequil.com

Analyze For:

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total #. of Containers	Preservation & # of Containers										Matrix
								Ice	HNO ₃ 250 ml Poly	HCl	H ₂ SO ₄	NaOH	Na ₂ S ₂ O ₃	None 1L Poly	NaOH/ZnAc	DW=Drinking Water	SL=Sludge	
1	AH-1 @ 1 Ft	1'	1'	01/26/21	8:18		1	<input checked="" type="checkbox"/>										Soil
2	AH-1 @ 3 Ft	3'	3'	01/26/21	8:22		1	<input checked="" type="checkbox"/>										Soil
3	AH-1 @ 5 Ft	5'	5'	01/22/21	8:25		1	<input checked="" type="checkbox"/>										Soil
4	AH-1 @ 7 Ft	7'	7'	01/22/21	8:30		1	<input checked="" type="checkbox"/>										Soil
5	AH-1 @ 9 Ft	9'	9'	01/22/21	8:40		1	<input checked="" type="checkbox"/>										Soil
6	AH-1 @ 11 Ft	11'	11'	01/22/21	10:10		1	<input checked="" type="checkbox"/>										Soil
7	AH-1 @ 13 Ft	13'	13'	01/23/21	10:30		1	<input checked="" type="checkbox"/>										Soil
8	AH-1 @ 15 Ft	15'	15'	01/25/21	8:38		1	<input checked="" type="checkbox"/>										Soil
9	AH-1 @ 17 Ft	17'	17'	01/25/21	8:59		1	<input checked="" type="checkbox"/>										Soil

Initial Instructions: * IF CHLORIDES are ≥ 1000 mg/kg run next day Sample. ☐ IF TPH is ≥ 100 ppm (total) run next day Sample.

Quished by: Justin Kennedy Date: 01/26/21 Time: 16:30

Quished by: Justin Kennedy Date: 01/26/21 Time: 16:30

Quished by: Justin Kennedy Date: 01/26/21 Time: 16:30

Quished by: Justin Kennedy Date: 01/26/21 Time: 16:30

Laboratory Comments: Sample Containers in field? Y
VOCs Free of Headspaces? Y
Labels on container(s)? Y
Custody seals on container(s)? Y
Sample Hand Delivered by Sampler/Client Rep.? Y
Temperature Upon Receipt: 39 °C (101 °F)
Adjusted: 49 °C (120 °F)



CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Permian Basin Environmental Lab, LP
10014 S. County Road 1213
Midland, Texas 79706

Phone: 432-686-7235

Project Manager: Sylvia Reynolds

Company Name Dean Davido

Company Address: 12600 WCE 91

City/State/Zip: Midland TX 79707

Telephone No: 432-230-0920

Sampler Signature: Joe Ballac

Fax No:

e-mail:

kyam longae & deen d'ys: com
 sylwae r'ynnos & deen d'ys: com
 7:17 r'ynby @ deen d'ys: com
 skae r'uanwa & deen d'ys: com

Report Format:

Aligmas 2 pailp. com

PO# 285# 1BD

Project Loc: Los County, New Mexico

Project Name: Hudson Federal

Project #: PR-21025

(lab use only)

ORDER #:

ORDER #

LAB # (lab use only)		FIELD CODE		Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total #. of Containers	Ice	HNO ₃	HCl	H ₂ SO ₄	NaOH	Na ₂ S ₂ O ₃	None	Other (Specify)	DW=Drinking Water SL=Sludge	GW = Groundwater S=Soil/Solid	NP=Non-Potable Specify Other	TPH: TX 1005 TX 1006	Anions (Cl, SO ₄ , Alkalinity)	BTEX 8021B/5030 or BTEX 82	TPH 8015m	Chlorides
28	AA-5 @ 1 Ft	1'	1'	01/25/21	952				1	✓								Soil					✓	✓	✓
29	AA-5 @ 5 Ft	5'	5'	01/25/21	1006				1	✓								Soil					✓	✓	✓
30	AA-5 @ 7 Ft *	7'	7'	01/25/21	1008				1	✓								Soil					✓	✓	✓
31	AA-5 @ 9 Ft ↓	9'	9'	01/25/21	1022				1	✓								Soil					✓	✓	✓

Special Instructions: * If Collection on 2 10,000gpm run next day sample. A If everyone is 2.10 mg/kg on total BTEX is 2 50 gpm, run next day sample. If If total TPA is 2 100gpm run next day sample until <100 gpm.

Relinquished by: *Jeffery Kinley* Date: *01/26/21* Time: *16:30* Received by: *Theresa Blodgett*

Relinquished by: _____ Date: _____ Time: _____ Received by: _____

Relinquished by: _____ Date: *1/16/21* Time: *16:30* Received by: _____

Adjusted: *4.9* °C Factor: *1.12*

Temperature Upon Receipt: *3.9* °C

by Sampler/Client Rep. ? *UPS* *DHL* *FedEx* *Lone Star*

Laboratory Comments:

Sample Containers Intact: *Y* *N*

VOCs Free of Headspace: *Y* *N*

Labels on containers: *Y* *N*

Custody seals on container(s): *Y* *N*

Custody seals on cooler(s): *Y* *N*

Sample Hand Delivered: *Y* *N*

by Sampler/Client Rep. ? *UPS* *DHL* *FedEx* *Lone Star*

RUSH TAT (Pre-Schedule) 24

Standard TAT

**PERMIAN BASIN
ENVIRONMENTAL LAB, LP
1400 Rankin Hwy
Midland, TX 79701**



Analytical Report

Prepared for:

Sylwia Reynolds
Dean
12600 W County Rd 91
Midland, TX 79707

Project: Hudson Federal
Project Number: PP-21025
Location: Lea County, TX
Lab Order Number: 1A28006



NELAP/TCEQ # T104704516-17-8

Report Date: 01/29/21

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
AH-1 @ 21'	1A28006-01	Soil	01/27/21 08:24	01-28-2021 14:00
AH-1 @ 23'	1A28006-02	Soil	01/27/21 08:40	01-28-2021 14:00
AH-1 @ 25'	1A28006-03	Soil	01/27/21 09:38	01-28-2021 14:00

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

AH-1 @ 21'
1A28006-01 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods

% Moisture	7.0	0.1	%	1	P1A2901	01/29/21	01/29/21	ASTM D2216
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Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	6550	269	mg/kg dry	10	P1A2809	01/28/21	01/29/21	TPH 8015M
>C12-C28	7780	269	mg/kg dry	10	P1A2809	01/28/21	01/29/21	TPH 8015M
>C28-C35	1260	269	mg/kg dry	10	P1A2809	01/28/21	01/29/21	TPH 8015M
Surrogate: 1-Chlorooctane		72.6 %	70-130		P1A2809	01/28/21	01/29/21	TPH 8015M
Surrogate: o-Terphenyl		75.6 %	70-130		P1A2809	01/28/21	01/29/21	TPH 8015M
Total Petroleum Hydrocarbon C6-C35	15600	269	mg/kg dry	10	[CALC]	01/28/21	01/29/21	calc

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

AH-1 @ 23'
1A28006-02 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods

% Moisture	16.0	0.1	%	1	P1A2901	01/29/21	01/29/21	ASTM D2216
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Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	29.8	mg/kg dry	1	P1A2809	01/28/21	01/29/21	TPH 8015M
>C12-C28	ND	29.8	mg/kg dry	1	P1A2809	01/28/21	01/29/21	TPH 8015M
>C28-C35	ND	29.8	mg/kg dry	1	P1A2809	01/28/21	01/29/21	TPH 8015M
Surrogate: 1-Chlorooctane		78.5 %	70-130		P1A2809	01/28/21	01/29/21	TPH 8015M
Surrogate: o-Terphenyl		84.4 %	70-130		P1A2809	01/28/21	01/29/21	TPH 8015M
Total Petroleum Hydrocarbon C6-C35	ND	29.8	mg/kg dry	1	[CALC]	01/28/21	01/29/21	calc

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

AH-1 @ 25'
1A28006-03 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods

% Moisture	16.0	0.1	%	1	P1A2901	01/29/21	01/29/21	ASTM D2216
------------	------	-----	---	---	---------	----------	----------	------------

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	29.8	mg/kg dry	1	P1A2809	01/28/21	01/29/21	TPH 8015M
>C12-C28	ND	29.8	mg/kg dry	1	P1A2809	01/28/21	01/29/21	TPH 8015M
>C28-C35	ND	29.8	mg/kg dry	1	P1A2809	01/28/21	01/29/21	TPH 8015M
Surrogate: 1-Chlorooctane		82.6 %	70-130		P1A2809	01/28/21	01/29/21	TPH 8015M
Surrogate: o-Terphenyl		87.2 %	70-130		P1A2809	01/28/21	01/29/21	TPH 8015M
Total Petroleum Hydrocarbon C6-C35	ND	29.8	mg/kg dry	1	[CALC]	01/28/21	01/29/21	calc

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

General Chemistry Parameters by EPA / Standard Methods - Quality Control
Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	--------------------	-------	----------------	------------------	------	----------------	-----	--------------	-------

Batch P1A2901 - * DEFAULT PREP *******Blank (P1A2901-BLK1)**

Prepared & Analyzed: 01/29/21

% Moisture	ND	0.1	%
------------	----	-----	---

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control
Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	--------------------	-------	----------------	------------------	------	----------------	-----	--------------	-------

Batch P1A2809 - TX 1005**Blank (P1A2809-BLK1)**

Prepared: 01/28/21 Analyzed: 01/29/21

C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	78.9		"	100		78.9	70-130			
Surrogate: o-Terphenyl	42.1		"	50.0		84.2	70-130			

LCS (P1A2809-BS1)

Prepared: 01/28/21 Analyzed: 01/29/21

C6-C12	1060	25.0	mg/kg wet	1000		106	75-125			
>C12-C28	1240	25.0	"	1000		124	75-125			
Surrogate: 1-Chlorooctane	103		"	100		103	70-130			
Surrogate: o-Terphenyl	43.8		"	50.0		87.6	70-130			

LCS Dup (P1A2809-BSD1)

Prepared: 01/28/21 Analyzed: 01/29/21

C6-C12	1090	25.0	mg/kg wet	1000		109	75-125	2.84	20	
>C12-C28	1200	25.0	"	1000		120	75-125	3.32	20	
Surrogate: 1-Chlorooctane	92.4		"	100		92.4	70-130			
Surrogate: o-Terphenyl	39.7		"	50.0		79.5	70-130			

Calibration Check (P1A2809-CCV1)

Prepared: 01/28/21 Analyzed: 01/29/21

C6-C12	504	25.0	mg/kg wet	500		101	85-115			
>C12-C28	554	25.0	"	500		111	85-115			
Surrogate: 1-Chlorooctane	82.1		"	100		82.1	70-130			
Surrogate: o-Terphenyl	39.0		"	50.0		78.0	70-130			

Calibration Check (P1A2809-CCV2)

Prepared: 01/28/21 Analyzed: 01/29/21

C6-C12	539	25.0	mg/kg wet	500		108	85-115			
>C12-C28	523	25.0	"	500		105	85-115			
Surrogate: 1-Chlorooctane	91.7		"	100		91.7	70-130			
Surrogate: o-Terphenyl	41.4		"	50.0		82.8	70-130			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

Notes and Definitions

ROI Received on Ice
BULK Samples received in Bulk soil containers
DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference
LCS Laboratory Control Spike
MS Matrix Spike
Dup Duplicate

Report Approved By:



Date:

1/29/2021

Brent Barron, Laboratory Director/Technical Director

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

If you have received this material in error, please notify us immediately at 432-686-7235.

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

PERM LAB

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Permian Basin Environmental Lab, LP
1400 Rankin HWY
Midland, Texas 79701

Phone: 432-686-7235

Plains

Project Name: Hudson Federal 4" RemediationProject #: PP-21025Project Loc: Lee County, New MexicoPO #: SRS # TBD

Page 9 of 9

Project Manager: Jeff KindleyCompany Name: Perm ServiceCompany Address: 12600 WCE 91City/State/Zip: Midland, TX 79707Telephone No: 432-230-0920

Fax No:

Sampler Signature: Joe Belle

e-mail:

Report Format:

☒ Standard☐ TRRP☐ NPDES

(Lab use only)

ORDER #: 1A260016

Sylvia Payton IDS @ dandys.com
Jeff Kindley @ dandys.com
Kayla Longue @ dandys.com
Elizbeth Grant @ dandys.com
Steven Coanora @ dandys.com

LAB # (lab use only)		Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total #. of Containers	Ice	HNO ₃	HCl	H ₂ SO ₄	NaOH	Na ₂ S ₂ O ₃	None	Other (Specify)	DW=Drinking Water SL=Sludge GW = Groundwater S=Soil/Solid NP=Non-Potable Specify Other	TPH: TX 1005 TX 1006	Anions (Cl, SO ₄ , Alkalinity)	BTEX 8021B/5030 or BTEX 8260	TPH 8015M EX	RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
1	AH-1 @ 21 ft	21'	21'	01/29/21	8:24		1	✓													✓	
2	AH-1 @ 23 ft	23'	23'	01/27/21	8:40		1	✓													✓	
3	AH-1 @ 25 ft	25'	25'	01/27/21	9:38		1	✓													✓	

Special Instructions:

Relinquished by:

Date

Time

Received by:

Date

Time

Relinquished by:

Date

Time

Received by:

Date

Time

Relinquished by:

Date

Time

Received by:

Date

Time

**PERMIAN BASIN
ENVIRONMENTAL LAB, LP
1400 Rankin Hwy
Midland, TX 79701**



Analytical Report

Prepared for:

Sylwia Reynolds
Dean
12600 W County Rd 91
Midland, TX 79707

Project: Hudson Federal 4 Remediation

Project Number: PP-21025

Location: Lea County, New Mexico

Lab Order Number: 1B03011



Current Certification

Report Date: 02/05/21

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH-1 @ 23'	1B03011-01	Soil	02/03/21 08:02	02-03-2021 15:15
BH-2 @ 17'	1B03011-02	Soil	02/03/21 08:22	02-03-2021 15:15
NW-1 @ 18'	1B03011-03	Soil	02/03/21 08:08	02-03-2021 15:15
SW-1 @ 18'	1B03011-04	Soil	02/03/21 08:12	02-03-2021 15:15
SW-2 @ 16'	1B03011-05	Soil	02/03/21 08:18	02-03-2021 15:15
SEW-1 @ 16'	1B03011-06	Soil	02/03/21 08:25	02-03-2021 15:15
EW-1 @ 18'	1B03011-07	Soil	02/03/21 08:00	02-03-2021 15:15
EW-2 @ 18'	1B03011-08	Soil	02/03/21 08:16	02-03-2021 15:15
EW-3 @ 16'	1B03011-09	Soil	02/03/21 08:28	02-03-2021 15:15
WW-1 @ 18'	1B03011-10	Soil	02/03/21 08:30	02-03-2021 15:15

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

BH-1 @ 23'
1B03011-01 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	--------------------	-------	----------	-------	----------	----------	--------	-------

Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00104	mg/kg dry	1	P1B0405	02/04/21 13:05	02/04/21 16:34	EPA 8021B	
Toluene	ND	0.00104	mg/kg dry	1	P1B0405	02/04/21 13:05	02/04/21 16:34	EPA 8021B	
Ethylbenzene	ND	0.00104	mg/kg dry	1	P1B0405	02/04/21 13:05	02/04/21 16:34	EPA 8021B	
Xylene (p/m)	ND	0.00208	mg/kg dry	1	P1B0405	02/04/21 13:05	02/04/21 16:34	EPA 8021B	
Xylene (o)	ND	0.00104	mg/kg dry	1	P1B0405	02/04/21 13:05	02/04/21 16:34	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		114 %	80-120		P1B0405	02/04/21 13:05	02/04/21 16:34	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		109 %	80-120		P1B0405	02/04/21 13:05	02/04/21 16:34	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	36.2	1.04	mg/kg dry	1	P1B0303	02/03/21 16:25	02/03/21 18:27	EPA 300.0	
% Moisture	4.0	0.1	%	1	P1B0403	02/04/21 09:59	02/04/21 10:03	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	26.0	mg/kg dry	1	P1B0309	02/03/21 15:23	02/04/21 01:42	TPH 8015M	
>C12-C28	ND	26.0	mg/kg dry	1	P1B0309	02/03/21 15:23	02/04/21 01:42	TPH 8015M	
>C28-C35	ND	26.0	mg/kg dry	1	P1B0309	02/03/21 15:23	02/04/21 01:42	TPH 8015M	
Surrogate: 1-Chlorooctane		80.7 %	70-130		P1B0309	02/03/21 15:23	02/04/21 01:42	TPH 8015M	
Surrogate: o-Terphenyl		86.2 %	70-130		P1B0309	02/03/21 15:23	02/04/21 01:42	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	26.0	mg/kg dry	1	[CALC]	02/03/21 15:23	02/04/21 01:42	calc	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

BH-2 @ 17'
1B03011-02 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-------	----------	-------	----------	----------	--------	-------

Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00102	mg/kg dry	1	P1B0405	02/04/21 13:05	02/04/21 16:55	EPA 8021B	
Toluene	ND	0.00102	mg/kg dry	1	P1B0405	02/04/21 13:05	02/04/21 16:55	EPA 8021B	
Ethylbenzene	ND	0.00102	mg/kg dry	1	P1B0405	02/04/21 13:05	02/04/21 16:55	EPA 8021B	
Xylene (p/m)	ND	0.00204	mg/kg dry	1	P1B0405	02/04/21 13:05	02/04/21 16:55	EPA 8021B	
Xylene (o)	ND	0.00102	mg/kg dry	1	P1B0405	02/04/21 13:05	02/04/21 16:55	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		110 %	80-120		P1B0405	02/04/21 13:05	02/04/21 16:55	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		107 %	80-120		P1B0405	02/04/21 13:05	02/04/21 16:55	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	25.1	1.02	mg/kg dry	1	P1B0303	02/03/21 16:25	02/03/21 19:16	EPA 300.0	
% Moisture	2.0	0.1	%	1	P1B0403	02/04/21 09:59	02/04/21 10:03	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.5	mg/kg dry	1	P1B0309	02/03/21 15:23	02/04/21 02:05	TPH 8015M	
>C12-C28	ND	25.5	mg/kg dry	1	P1B0309	02/03/21 15:23	02/04/21 02:05	TPH 8015M	
>C28-C35	ND	25.5	mg/kg dry	1	P1B0309	02/03/21 15:23	02/04/21 02:05	TPH 8015M	
Surrogate: 1-Chlorooctane		80.6 %	70-130		P1B0309	02/03/21 15:23	02/04/21 02:05	TPH 8015M	
Surrogate: o-Terphenyl		87.3 %	70-130		P1B0309	02/03/21 15:23	02/04/21 02:05	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.5	mg/kg dry	1	[CALC]	02/03/21 15:23	02/04/21 02:05	calc	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

NW-1 @ 18'
1B03011-03 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00102	mg/kg dry	1	P1B0405	02/04/21 13:05	02/04/21 17:16	EPA 8021B	
Toluene	ND	0.00102	mg/kg dry	1	P1B0405	02/04/21 13:05	02/04/21 17:16	EPA 8021B	
Ethylbenzene	ND	0.00102	mg/kg dry	1	P1B0405	02/04/21 13:05	02/04/21 17:16	EPA 8021B	
Xylene (p/m)	ND	0.00204	mg/kg dry	1	P1B0405	02/04/21 13:05	02/04/21 17:16	EPA 8021B	
Xylene (o)	ND	0.00102	mg/kg dry	1	P1B0405	02/04/21 13:05	02/04/21 17:16	EPA 8021B	
Surrogate: 1,4-Difluorobenzene	108 %		80-120		P1B0405	02/04/21 13:05	02/04/21 17:16	EPA 8021B	
Surrogate: 4-Bromofluorobenzene	110 %		80-120		P1B0405	02/04/21 13:05	02/04/21 17:16	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	33.9	1.02	mg/kg dry	1	P1B0303	02/03/21 16:25	02/03/21 19:32	EPA 300.0	
% Moisture	2.0	0.1	%	1	P1B0403	02/04/21 09:59	02/04/21 10:03	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.5	mg/kg dry	1	P1B0309	02/03/21 15:23	02/04/21 02:28	TPH 8015M	
>C12-C28	ND	25.5	mg/kg dry	1	P1B0309	02/03/21 15:23	02/04/21 02:28	TPH 8015M	
>C28-C35	ND	25.5	mg/kg dry	1	P1B0309	02/03/21 15:23	02/04/21 02:28	TPH 8015M	
Surrogate: 1-Chlorooctane	83.2 %		70-130		P1B0309	02/03/21 15:23	02/04/21 02:28	TPH 8015M	
Surrogate: o-Terphenyl	90.6 %		70-130		P1B0309	02/03/21 15:23	02/04/21 02:28	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.5	mg/kg dry	1	[CALC]	02/03/21 15:23	02/04/21 02:28	calc	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

SW-1 @ 18'
1B03011-04 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00103	mg/kg dry	1	P1B0405	02/04/21 13:05	02/04/21 17:36	EPA 8021B	
Toluene	ND	0.00103	mg/kg dry	1	P1B0405	02/04/21 13:05	02/04/21 17:36	EPA 8021B	
Ethylbenzene	ND	0.00103	mg/kg dry	1	P1B0405	02/04/21 13:05	02/04/21 17:36	EPA 8021B	
Xylene (p/m)	ND	0.00206	mg/kg dry	1	P1B0405	02/04/21 13:05	02/04/21 17:36	EPA 8021B	
Xylene (o)	ND	0.00103	mg/kg dry	1	P1B0405	02/04/21 13:05	02/04/21 17:36	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		113 %	80-120		P1B0405	02/04/21 13:05	02/04/21 17:36	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		112 %	80-120		P1B0405	02/04/21 13:05	02/04/21 17:36	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	23.7	1.03	mg/kg dry	1	P1B0303	02/03/21 16:25	02/03/21 19:49	EPA 300.0	
% Moisture	3.0	0.1	%	1	P1B0403	02/04/21 09:59	02/04/21 10:03	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.8	mg/kg dry	1	P1B0309	02/03/21 15:23	02/04/21 02:51	TPH 8015M	
>C12-C28	ND	25.8	mg/kg dry	1	P1B0309	02/03/21 15:23	02/04/21 02:51	TPH 8015M	
>C28-C35	ND	25.8	mg/kg dry	1	P1B0309	02/03/21 15:23	02/04/21 02:51	TPH 8015M	
Surrogate: 1-Chlorooctane		80.9 %	70-130		P1B0309	02/03/21 15:23	02/04/21 02:51	TPH 8015M	
Surrogate: o-Terphenyl		88.3 %	70-130		P1B0309	02/03/21 15:23	02/04/21 02:51	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.8	mg/kg dry	1	[CALC]	02/03/21 15:23	02/04/21 02:51	calc	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

SW-2 @ 16'
1B03011-05 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00103	mg/kg dry	1	P1B0405	02/04/21 13:05	02/04/21 17:57	EPA 8021B	
Toluene	ND	0.00103	mg/kg dry	1	P1B0405	02/04/21 13:05	02/04/21 17:57	EPA 8021B	
Ethylbenzene	ND	0.00103	mg/kg dry	1	P1B0405	02/04/21 13:05	02/04/21 17:57	EPA 8021B	
Xylene (p/m)	ND	0.00206	mg/kg dry	1	P1B0405	02/04/21 13:05	02/04/21 17:57	EPA 8021B	
Xylene (o)	ND	0.00103	mg/kg dry	1	P1B0405	02/04/21 13:05	02/04/21 17:57	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		112 %	80-120		P1B0405	02/04/21 13:05	02/04/21 17:57	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		112 %	80-120		P1B0405	02/04/21 13:05	02/04/21 17:57	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	9.05	1.03	mg/kg dry	1	P1B0303	02/03/21 16:25	02/03/21 20:05	EPA 300.0	
% Moisture	3.0	0.1	%	1	P1B0403	02/04/21 09:59	02/04/21 10:03	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.8	mg/kg dry	1	P1B0309	02/03/21 15:23	02/04/21 03:15	TPH 8015M	
>C12-C28	ND	25.8	mg/kg dry	1	P1B0309	02/03/21 15:23	02/04/21 03:15	TPH 8015M	
>C28-C35	ND	25.8	mg/kg dry	1	P1B0309	02/03/21 15:23	02/04/21 03:15	TPH 8015M	
Surrogate: 1-Chlorooctane		84.1 %	70-130		P1B0309	02/03/21 15:23	02/04/21 03:15	TPH 8015M	
Surrogate: o-Terphenyl		92.4 %	70-130		P1B0309	02/03/21 15:23	02/04/21 03:15	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.8	mg/kg dry	1	[CALC]	02/03/21 15:23	02/04/21 03:15	calc	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

SEW-1 @ 16'
1B03011-06 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00103	mg/kg dry	1	P1B0405	02/04/21 13:05	02/04/21 18:18	EPA 8021B	
Toluene	ND	0.00103	mg/kg dry	1	P1B0405	02/04/21 13:05	02/04/21 18:18	EPA 8021B	
Ethylbenzene	ND	0.00103	mg/kg dry	1	P1B0405	02/04/21 13:05	02/04/21 18:18	EPA 8021B	
Xylene (p/m)	ND	0.00206	mg/kg dry	1	P1B0405	02/04/21 13:05	02/04/21 18:18	EPA 8021B	
Xylene (o)	ND	0.00103	mg/kg dry	1	P1B0405	02/04/21 13:05	02/04/21 18:18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		104 %	80-120		P1B0405	02/04/21 13:05	02/04/21 18:18	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		106 %	80-120		P1B0405	02/04/21 13:05	02/04/21 18:18	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	48.8	1.03	mg/kg dry	1	P1B0303	02/03/21 16:25	02/03/21 20:21	EPA 300.0	
% Moisture	3.0	0.1	%	1	P1B0403	02/04/21 09:59	02/04/21 10:03	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.8	mg/kg dry	1	P1B0309	02/03/21 15:23	02/04/21 03:38	TPH 8015M	
>C12-C28	ND	25.8	mg/kg dry	1	P1B0309	02/03/21 15:23	02/04/21 03:38	TPH 8015M	
>C28-C35	ND	25.8	mg/kg dry	1	P1B0309	02/03/21 15:23	02/04/21 03:38	TPH 8015M	
Surrogate: 1-Chlorooctane		84.1 %	70-130		P1B0309	02/03/21 15:23	02/04/21 03:38	TPH 8015M	
Surrogate: o-Terphenyl		91.7 %	70-130		P1B0309	02/03/21 15:23	02/04/21 03:38	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.8	mg/kg dry	1	[CALC]	02/03/21 15:23	02/04/21 03:38	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

EW-1 @ 18'
1B03011-07 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00101	mg/kg dry	1	P1B0405	02/04/21 13:05	02/04/21 18:39	EPA 8021B	
Toluene	ND	0.00101	mg/kg dry	1	P1B0405	02/04/21 13:05	02/04/21 18:39	EPA 8021B	
Ethylbenzene	ND	0.00101	mg/kg dry	1	P1B0405	02/04/21 13:05	02/04/21 18:39	EPA 8021B	
Xylene (p/m)	ND	0.00202	mg/kg dry	1	P1B0405	02/04/21 13:05	02/04/21 18:39	EPA 8021B	
Xylene (o)	ND	0.00101	mg/kg dry	1	P1B0405	02/04/21 13:05	02/04/21 18:39	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		105 %	80-120		P1B0405	02/04/21 13:05	02/04/21 18:39	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		108 %	80-120		P1B0405	02/04/21 13:05	02/04/21 18:39	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	42.2	1.01	mg/kg dry	1	P1B0303	02/03/21 16:25	02/03/21 20:37	EPA 300.0	
% Moisture	1.0	0.1	%	1	P1B0403	02/04/21 09:59	02/04/21 10:03	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.3	mg/kg dry	1	P1B0309	02/03/21 15:23	02/04/21 04:01	TPH 8015M	
>C12-C28	ND	25.3	mg/kg dry	1	P1B0309	02/03/21 15:23	02/04/21 04:01	TPH 8015M	
>C28-C35	ND	25.3	mg/kg dry	1	P1B0309	02/03/21 15:23	02/04/21 04:01	TPH 8015M	
Surrogate: 1-Chlorooctane		86.8 %	70-130		P1B0309	02/03/21 15:23	02/04/21 04:01	TPH 8015M	
Surrogate: o-Terphenyl		94.7 %	70-130		P1B0309	02/03/21 15:23	02/04/21 04:01	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.3	mg/kg dry	1	[CALC]	02/03/21 15:23	02/04/21 04:01	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

EW-2 @ 18'
1B03011-08 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00102	mg/kg dry	1	P1B0405	02/04/21 13:05	02/04/21 19:00	EPA 8021B	
Toluene	ND	0.00102	mg/kg dry	1	P1B0405	02/04/21 13:05	02/04/21 19:00	EPA 8021B	
Ethylbenzene	ND	0.00102	mg/kg dry	1	P1B0405	02/04/21 13:05	02/04/21 19:00	EPA 8021B	
Xylene (p/m)	ND	0.00204	mg/kg dry	1	P1B0405	02/04/21 13:05	02/04/21 19:00	EPA 8021B	
Xylene (o)	ND	0.00102	mg/kg dry	1	P1B0405	02/04/21 13:05	02/04/21 19:00	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		108 %	80-120		P1B0405	02/04/21 13:05	02/04/21 19:00	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		104 %	80-120		P1B0405	02/04/21 13:05	02/04/21 19:00	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	37.6	1.02	mg/kg dry	1	P1B0303	02/03/21 16:25	02/03/21 20:54	EPA 300.0	
% Moisture	2.0	0.1	%	1	P1B0403	02/04/21 09:59	02/04/21 10:03	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.5	mg/kg dry	1	P1B0309	02/03/21 15:23	02/04/21 04:23	TPH 8015M	
>C12-C28	ND	25.5	mg/kg dry	1	P1B0309	02/03/21 15:23	02/04/21 04:23	TPH 8015M	
>C28-C35	ND	25.5	mg/kg dry	1	P1B0309	02/03/21 15:23	02/04/21 04:23	TPH 8015M	
Surrogate: 1-Chlorooctane		90.3 %	70-130		P1B0309	02/03/21 15:23	02/04/21 04:23	TPH 8015M	
Surrogate: o-Terphenyl		98.5 %	70-130		P1B0309	02/03/21 15:23	02/04/21 04:23	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.5	mg/kg dry	1	[CALC]	02/03/21 15:23	02/04/21 04:23	calc	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

EW-3 @ 16'
1B03011-09 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00102	mg/kg dry	1	P1B0405	02/04/21 13:05	02/04/21 19:20	EPA 8021B	
Toluene	ND	0.00102	mg/kg dry	1	P1B0405	02/04/21 13:05	02/04/21 19:20	EPA 8021B	
Ethylbenzene	ND	0.00102	mg/kg dry	1	P1B0405	02/04/21 13:05	02/04/21 19:20	EPA 8021B	
Xylene (p/m)	ND	0.00204	mg/kg dry	1	P1B0405	02/04/21 13:05	02/04/21 19:20	EPA 8021B	
Xylene (o)	ND	0.00102	mg/kg dry	1	P1B0405	02/04/21 13:05	02/04/21 19:20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		111 %	80-120		P1B0405	02/04/21 13:05	02/04/21 19:20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		111 %	80-120		P1B0405	02/04/21 13:05	02/04/21 19:20	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	48.5	1.02	mg/kg dry	1	P1B0303	02/03/21 16:25	02/03/21 21:10	EPA 300.0	
% Moisture	2.0	0.1	%	1	P1B0403	02/04/21 09:59	02/04/21 10:03	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.5	mg/kg dry	1	P1B0309	02/03/21 15:23	02/04/21 04:46	TPH 8015M	
>C12-C28	ND	25.5	mg/kg dry	1	P1B0309	02/03/21 15:23	02/04/21 04:46	TPH 8015M	
>C28-C35	ND	25.5	mg/kg dry	1	P1B0309	02/03/21 15:23	02/04/21 04:46	TPH 8015M	
Surrogate: 1-Chlorooctane		85.5 %	70-130		P1B0309	02/03/21 15:23	02/04/21 04:46	TPH 8015M	
Surrogate: o-Terphenyl		95.3 %	70-130		P1B0309	02/03/21 15:23	02/04/21 04:46	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.5	mg/kg dry	1	[CALC]	02/03/21 15:23	02/04/21 04:46	calc	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

WW-1 @ 18'
1B03011-10 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00102	mg/kg dry	1	P1B0405	02/04/21 13:05	02/04/21 19:41	EPA 8021B	
Toluene	ND	0.00102	mg/kg dry	1	P1B0405	02/04/21 13:05	02/04/21 19:41	EPA 8021B	
Ethylbenzene	ND	0.00102	mg/kg dry	1	P1B0405	02/04/21 13:05	02/04/21 19:41	EPA 8021B	
Xylene (p/m)	ND	0.00204	mg/kg dry	1	P1B0405	02/04/21 13:05	02/04/21 19:41	EPA 8021B	
Xylene (o)	ND	0.00102	mg/kg dry	1	P1B0405	02/04/21 13:05	02/04/21 19:41	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		115 %	80-120		P1B0405	02/04/21 13:05	02/04/21 19:41	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		112 %	80-120		P1B0405	02/04/21 13:05	02/04/21 19:41	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	69.7	1.02	mg/kg dry	1	P1B0303	02/03/21 16:25	02/03/21 21:26	EPA 300.0	
% Moisture	2.0	0.1	%	1	P1B0403	02/04/21 09:59	02/04/21 10:03	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.5	mg/kg dry	1	P1B0309	02/03/21 15:23	02/04/21 05:09	TPH 8015M	
>C12-C28	ND	25.5	mg/kg dry	1	P1B0309	02/03/21 15:23	02/04/21 05:09	TPH 8015M	
>C28-C35	ND	25.5	mg/kg dry	1	P1B0309	02/03/21 15:23	02/04/21 05:09	TPH 8015M	
Surrogate: 1-Chlorooctane		87.2 %	70-130		P1B0309	02/03/21 15:23	02/04/21 05:09	TPH 8015M	
Surrogate: o-Terphenyl		97.7 %	70-130		P1B0309	02/03/21 15:23	02/04/21 05:09	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.5	mg/kg dry	1	[CALC]	02/03/21 15:23	02/04/21 05:09	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

BTEX by 8021B - Quality Control
Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch P1B0405 - General Preparation (GC)**Blank (P1B0405-BLK1)**

Prepared & Analyzed: 02/04/21

Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 1,4-Difluorobenzene	0.128		"	0.120		107	80-120			
Surrogate: 4-Bromofluorobenzene	0.129		"	0.120		108	80-120			

LCS (P1B0405-BS1)

Prepared & Analyzed: 02/04/21

Benzene	0.0918	0.00100	mg/kg wet	0.100		91.8	70-130			
Toluene	0.110	0.00100	"	0.100		110	70-130			
Ethylbenzene	0.114	0.00100	"	0.100		114	70-130			
Xylene (p/m)	0.228	0.00200	"	0.200		114	70-130			
Xylene (o)	0.108	0.00100	"	0.100		108	70-130			
Surrogate: 4-Bromofluorobenzene	0.128		"	0.120		107	80-120			
Surrogate: 1,4-Difluorobenzene	0.131		"	0.120		109	80-120			

LCS Dup (P1B0405-BSD1)

Prepared & Analyzed: 02/04/21

Benzene	0.0978	0.00100	mg/kg wet	0.100		97.8	70-130	6.22	20	
Toluene	0.119	0.00100	"	0.100		119	70-130	8.41	20	
Ethylbenzene	0.120	0.00100	"	0.100		120	70-130	5.37	20	
Xylene (p/m)	0.236	0.00200	"	0.200		118	70-130	3.77	20	
Xylene (o)	0.119	0.00100	"	0.100		119	70-130	9.93	20	
Surrogate: 4-Bromofluorobenzene	0.130		"	0.120		108	80-120			
Surrogate: 1,4-Difluorobenzene	0.130		"	0.120		109	80-120			

Calibration Blank (P1B0405-CCB1)

Prepared & Analyzed: 02/04/21

Benzene	0.00		mg/kg wet							
Toluene	0.480		"							
Ethylbenzene	0.00		"							
Xylene (p/m)	0.00		"							
Xylene (o)	0.00		"							
Surrogate: 1,4-Difluorobenzene	0.129		"	0.120		108	80-120			
Surrogate: 4-Bromofluorobenzene	0.128		"	0.120		107	80-120			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

BTEX by 8021B - Quality Control
Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch P1B0405 - General Preparation (GC)**Calibration Blank (P1B0405-CCB2)**

Prepared & Analyzed: 02/04/21

Benzene	0.00		mg/kg wet							
Toluene	0.440		"							
Ethylbenzene	0.00		"							
Xylene (p/m)	0.00		"							
Xylene (o)	0.00		"							
Surrogate: 4-Bromofluorobenzene	0.139		"	0.120		116	80-120			
Surrogate: 1,4-Difluorobenzene	0.134		"	0.120		112	80-120			

Calibration Blank (P1B0405-CCB3)

Prepared: 02/04/21 Analyzed: 02/05/21

Benzene	0.00		mg/kg wet							
Toluene	0.710		"							
Ethylbenzene	0.00		"							
Xylene (p/m)	0.200		"							
Xylene (o)	0.00		"							
Surrogate: 4-Bromofluorobenzene	0.137		"	0.120		115	80-120			
Surrogate: 1,4-Difluorobenzene	0.132		"	0.120		110	80-120			

Calibration Check (P1B0405-CCV1)

Prepared & Analyzed: 02/04/21

Benzene	0.101	0.00100	mg/kg wet	0.100		101	80-120			
Toluene	0.119	0.00100	"	0.100		119	80-120			
Ethylbenzene	0.120	0.00100	"	0.100		120	80-120			
Xylene (p/m)	0.238	0.00200	"	0.200		119	80-120			
Xylene (o)	0.117	0.00100	"	0.100		117	80-120			
Surrogate: 4-Bromofluorobenzene	0.127		"	0.120		106	75-125			
Surrogate: 1,4-Difluorobenzene	0.131		"	0.120		109	75-125			

Calibration Check (P1B0405-CCV2)

Prepared & Analyzed: 02/04/21

Benzene	0.0990	0.00100	mg/kg wet	0.100		99.0	80-120			
Toluene	0.103	0.00100	"	0.100		103	80-120			
Ethylbenzene	0.0989	0.00100	"	0.100		98.9	80-120			
Xylene (p/m)	0.223	0.00200	"	0.200		111	80-120			
Xylene (o)	0.0954	0.00100	"	0.100		95.4	80-120			
Surrogate: 4-Bromofluorobenzene	0.137		"	0.120		114	75-125			
Surrogate: 1,4-Difluorobenzene	0.136		"	0.120		114	75-125			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

BTEX by 8021B - Quality Control
Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch P1B0405 - General Preparation (GC)**Calibration Check (P1B0405-CCV3)**

Prepared: 02/04/21 Analyzed: 02/05/21

Benzene	0.0936	0.00100	mg/kg wet				80-120			
Toluene	0.115	0.00100	"				80-120			
Ethylbenzene	0.119	0.00100	"				80-120			
Xylene (p/m)	0.234	0.00200	"				80-120			
Xylene (o)	0.114	0.00100	"				80-120			
Surrogate: 4-Bromofluorobenzene	0.123		"	0.120		102	75-125			
Surrogate: 1,4-Difluorobenzene	0.129		"	0.120		108	75-125			

Matrix Spike (P1B0405-MS1)

Source: 1B03011-01

Prepared: 02/04/21 Analyzed: 02/05/21

Benzene	0.0750	0.00104	mg/kg dry	0.104	ND	72.0	80-120			QM-07
Toluene	0.0909	0.00104	"	0.104	ND	87.3	80-120			
Ethylbenzene	0.112	0.00104	"	0.104	ND	107	80-120			
Xylene (p/m)	0.186	0.00208	"	0.208	ND	89.3	80-120			
Xylene (o)	0.0909	0.00104	"	0.104	ND	87.3	80-120			
Surrogate: 1,4-Difluorobenzene	0.136		"	0.125		109	80-120			
Surrogate: 4-Bromofluorobenzene	0.138		"	0.125		110	80-120			

Matrix Spike Dup (P1B0405-MSD1)

Source: 1B03011-01

Prepared: 02/04/21 Analyzed: 02/05/21

Benzene	0.0786	0.00104	mg/kg dry	0.104	ND	75.5	80-120	4.79	20	QM-07
Toluene	0.0959	0.00104	"	0.104	ND	92.1	80-120	5.33	20	
Ethylbenzene	0.120	0.00104	"	0.104	ND	115	80-120	6.89	20	
Xylene (p/m)	0.199	0.00208	"	0.208	ND	95.4	80-120	6.64	20	
Xylene (o)	0.0979	0.00104	"	0.104	ND	93.9	80-120	7.32	20	
Surrogate: 4-Bromofluorobenzene	0.138		"	0.125		111	80-120			
Surrogate: 1,4-Difluorobenzene	0.135		"	0.125		108	80-120			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

General Chemistry Parameters by EPA / Standard Methods - Quality Control
Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	--------------------	-------	----------------	------------------	------	----------------	-----	--------------	-------

Batch P1B0303 - * DEFAULT PREP *******Blank (P1B0303-BLK1)**

Prepared & Analyzed: 02/03/21

Chloride	ND	1.00	mg/kg wet
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LCS (P1B0303-BS1)

Prepared & Analyzed: 02/03/21

Chloride	379	1.00	mg/kg wet	400	94.8	90-110
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LCS Dup (P1B0303-BSD1)

Prepared & Analyzed: 02/03/21

Chloride	377	1.00	mg/kg wet	400	94.1	90-110	0.720	20
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Calibration Check (P1B0303-CCV1)

Prepared & Analyzed: 02/03/21

Chloride	19.5		mg/kg	20.0	97.6	90-110
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Calibration Check (P1B0303-CCV2)

Prepared & Analyzed: 02/03/21

Chloride	19.8		mg/kg	20.0	98.8	90-110
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Matrix Spike (P1B0303-MS1)**Source: 1B03011-01**

Prepared & Analyzed: 02/03/21

Chloride	554	1.04	mg/kg dry	521	36.2	99.4	80-120
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Matrix Spike Dup (P1B0303-MSD1)**Source: 1B03011-01**

Prepared & Analyzed: 02/03/21

Chloride	511	1.04	mg/kg dry	521	36.2	91.1	80-120	8.13	20
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Batch P1B0403 - * DEFAULT PREP *******Blank (P1B0403-BLK1)**

Prepared & Analyzed: 02/04/21

% Moisture	ND	0.1	%
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Blank (P1B0403-BLK2)

Prepared & Analyzed: 02/04/21

% Moisture	ND	0.1	%
------------	----	-----	---

Permian Basin Environmental Lab, L.P.

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Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

General Chemistry Parameters by EPA / Standard Methods - Quality Control
Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P1B0403 - *** DEFAULT PREP ***										
Blank (P1B0403-BLK3)	Prepared & Analyzed: 02/04/21									
% Moisture	ND	0.1	%							
Blank (P1B0403-BLK4)	Prepared & Analyzed: 02/04/21									
% Moisture	ND	0.1	%							
Duplicate (P1B0403-DUP1)	Source: 1B02012-03		Prepared & Analyzed: 02/04/21							
% Moisture	8.0	0.1	%		8.0			0.00	20	
Duplicate (P1B0403-DUP2)	Source: 1B03002-01		Prepared & Analyzed: 02/04/21							
% Moisture	13.0	0.1	%		13.0			0.00	20	
Duplicate (P1B0403-DUP3)	Source: 1B03004-03		Prepared & Analyzed: 02/04/21							
% Moisture	6.0	0.1	%		7.0			15.4	20	
Duplicate (P1B0403-DUP4)	Source: 1B03006-01		Prepared & Analyzed: 02/04/21							
% Moisture	52.0	0.1	%		54.0			3.77	20	
Duplicate (P1B0403-DUP5)	Source: 1B03010-05		Prepared & Analyzed: 02/04/21							
% Moisture	1.0	0.1	%		1.0			0.00	20	
Duplicate (P1B0403-DUP6)	Source: 1B03010-15		Prepared & Analyzed: 02/04/21							
% Moisture	3.0	0.1	%		4.0			28.6	20	R3
Duplicate (P1B0403-DUP7)	Source: 1B03011-04		Prepared & Analyzed: 02/04/21							
% Moisture	3.0	0.1	%		3.0			0.00	20	

Permian Basin Environmental Lab, L.P.

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Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control
Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	--------------------	-------	----------------	------------------	------	----------------	-----	--------------	-------

Batch P1B0309 - TX 1005**Blank (P1B0309-BLK1)**

Prepared: 02/03/21 Analyzed: 02/04/21

C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	77.4		"	100		77.4	70-130			
Surrogate: o-Terphenyl	41.2		"	50.0		82.3	70-130			

LCS (P1B0309-BS1)

Prepared: 02/03/21 Analyzed: 02/04/21

C6-C12	754	25.0	mg/kg wet	1000		75.4	75-125			
>C12-C28	857	25.0	"	1000		85.7	75-125			
Surrogate: 1-Chlorooctane	96.4		"	100		96.4	70-130			
Surrogate: o-Terphenyl	45.2		"	50.0		90.4	70-130			

LCS Dup (P1B0309-BSD1)

Prepared: 02/03/21 Analyzed: 02/04/21

C6-C12	760	25.0	mg/kg wet	1000		76.0	75-125	0.881	20	
>C12-C28	827	25.0	"	1000		82.7	75-125	3.64	20	
Surrogate: 1-Chlorooctane	91.8		"	100		91.8	70-130			
Surrogate: o-Terphenyl	42.2		"	50.0		84.5	70-130			

Calibration Check (P1B0309-CCV1)

Prepared & Analyzed: 02/03/21

C6-C12	438	25.0	mg/kg wet	500		87.6	85-115			
>C12-C28	470	25.0	"	500		93.9	85-115			
Surrogate: 1-Chlorooctane	85.2		"	100		85.2	70-130			
Surrogate: o-Terphenyl	42.0		"	50.0		84.0	70-130			

Calibration Check (P1B0309-CCV2)

Prepared: 02/03/21 Analyzed: 02/04/21

C6-C12	438	25.0	mg/kg wet	500		87.5	85-115			
>C12-C28	431	25.0	"	500		86.2	85-115			
Surrogate: 1-Chlorooctane	80.0		"	100		80.0	70-130			
Surrogate: o-Terphenyl	37.8		"	50.0		75.7	70-130			

Permian Basin Environmental Lab, L.P.

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Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control
Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	--------------------	-------	----------------	------------------	------	----------------	-----	--------------	-------

Batch P1B0309 - TX 1005**Duplicate (P1B0309-DUP1)****Source: 1B03011-10**

Prepared: 02/03/21 Analyzed: 02/04/21

C6-C12	ND	25.5	mg/kg dry		ND				20	
>C12-C28	17.3	25.5	"		18.3			5.60	20	
Surrogate: 1-Chlorooctane	83.2		"	102		81.5	70-130			
Surrogate: o-Terphenyl	46.5		"	51.0		91.1	70-130			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

Notes and Definitions

R3 The RPD exceeded the acceptance limit due to sample matrix effects.

QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.

BULK Samples received in Bulk soil containers

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

LCS Laboratory Control Spike

MS Matrix Spike

Dup Duplicate

Report Approved By:



Date:

2/5/2021

Brent Barron, Laboratory Director/Technical Director

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If you have received this material in error, please notify us immediately at 432-686-7235.

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

**Permian Basin Environmental Lab, LP
1400 Rankin Hwy
Midland, Texas 79701**

Phone: 432-686-7235

Pg. 1 of 1

Project Manager: Sylvia Reynolds

Company Name _____ Dean _____

Company Address: 12600 West County Rd. 91

City/State/Zip: Midland TX 79707

Telephone No: 432-230-0920

Sampler Signature: Hayden Langford

Fax No.:

e-mail:

sylwiareynolds@deandigs.com

jeffkindley@deandigs.com

almones@paulp.com

Preservation & # of Containers

trix

Analyze For:

Report Format: ☒ Standard ☐ TRRP ☐ NPDES

AFE/ COST CENTER:

WORK ORDER #: SRS # 2021-004

Pioneer Case #:

Project Loc: Ward 11, ERIC, security screening

Project #: 11-2055

900-1

Project Name: Florida Museum of Natural History

FAVORABLE FUTURE + CONVINCE +

Page 21 of 22

(lab use only)	
ORDER #:	1B03011
Kaviamongee@accarequip.com apornes@paarp.com	
Preservation & # of Containers	Matrix
LAB # (lab use only)	
FIELD CODE	
Beginning Depth	
Ending Depth	
Date Sampled	
Time Sampled	
Field Filtered	
Total #. of Containers	
Ice	
HNO ₃ 250,ml Poly	
HCl	
H ₂ SO ₄	
NaOH	
Na ₂ S ₂ O ₃	
None 1L Poly	
NaOH/ZnAc	
DW=Drinking Water SL=Sludge	
GW = Groundwater S=Soil/Solid	
NP=Non-Potable Specify Other	
TPH TX1005 EXT (TEXAS)	
BTEX 8021 B	
TCLP BENZENE	
CHLORIDES	
TCLP METALS	
NORM	
PAINT FILTER	
TOX	
RCI	
pH	
TPH 8015 M (NEW MEXICO)	
7 Day TAT	
24 hour TAT	
Special Instructions:	

Special Instructions:

Laboratory Comments:

VOCs Free of Headspace?

Custody seals on container(s)

Sample Hand Delivered
by Sambar/Client Bar

by Courier? UPS DHL FedEx Lone Star
Temperature Upon Receipt:



CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Permian Basin Environmental Lab, LP
1400 Rankin Hwy
Midland, Texas 79701

Phone: 432-686-7235

Project Manager: Sylvia Reynolds
Company Name: Dean

Project Name: Plains Hudson Federal 4
Project #: PP-2021-004
Pioneer Case #: NED Mexico, Caddy County

Company Address: 12600 West County Rd. 91

City/State/Zip: Midland TX 79707

Telephone No: 432-230-0920

Sampler Signature: Kaylen Longue

ORDER #: 1203011

Fax No: e-mail: sylviareynolds@deandigs.com
jeffkindley@deandigs.com
kavlanlongue@deanequip.com
agmores@paulp.com

Report Format: ☒ Standard ☐ TRRP ☐ NPDES
elizabethstuart@deandigs.com
stevacasanova@deandigs.com
Analyze For:

LAB # (lab use only)		FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total #. of Containers	Ice	HNO ₃ 250,ml Poly	HCl	H ₂ SO ₄	NaOH	Na ₂ S ₂ O ₃	None 1L Poly	NaOH/ZnAc	DW=Drinking Water SL=Sludge GW = Groundwater S=Soil/Solid NP=Non-Potable Specify Other	TPH TX1005 EXT (TEXAS)	BTEX 8021 B	TCLP BENZENE	CHLORIDES	TCLP METALS	NORM	PAINT FILTER	TOX	RCI	pH	TPH 8015 M (NEW MEXICO)	7 Day TAT	24 hour TAT
ID																														
1	BH-1 @ 23'		23'	23'	02/03/21	8:02 am		1	X									S	X	X	X	X	X	X	X	X	X	X	X	
2	BH-2 @ 17'		17'	17'	02/03/21	8:22 am		1	X									S	X	X	X	X	X	X	X	X	X	X	X	
3	NW-1 @ 18'		18'	18'	02/03/21	8:08 am		1	X									S	X	X	X	X	X	X	X	X	X	X	X	
4	SW-1 @ 18'		18'	18'	02/03/21	8:12 am		1	X									S	X	X	X	X	X	X	X	X	X	X	X	
5	SW-2 @ 14'		14'	14'	02/03/21	8:18 am		1	X									S	X	X	X	X	X	X	X	X	X	X	X	
6	SEW-1 @ 14'		14'	14'	02/03/21	8:25 am		1	X									S	X	X	X	X	X	X	X	X	X	X	X	
7	EU-1 @ 18'		18'	18'	02/03/21	8:00 am		1	X									S	X	X	X	X	X	X	X	X	X	X	X	
8	EU-2 @ 18'		18'	18'	02/03/21	8:16 am		1	X									S	X	X	X	X	X	X	X	X	X	X	X	
9	EU-3 @ 14'		14'	14'	02/03/21	8:28 am		1	X									S	X	X	X	X	X	X	X	X	X	X	X	
10	NW-1 @ 18'		18'	18'	02/03/21	8:30 am		1	X									S	X	X	X	X	X	X	X	X	X	X	X	

Special Instructions:

Laboratory Comments:

Received by: [Signature] Date: 02/03/21 Time: 2:15 pm
Received by: [Signature] Date: 02/03/21 Time: 14:15
Received by: [Signature] Date: 2/3/21 Time: 14:15
Laboratory Comments: [Signature]
Sample Containers Intact? [X]
VOCs Free of Headspace? [X]
Labels on container(s)? [X]
Custody seals on container(s)? [X]
Custody seals on cooler(s)? [X]
Sample Hand Delivered by Sampler/Client Rep.? [X]
Temperature Upon Receipt: 13.4 °C
Adjusted: 14.4 °C
Factor: 1.2

**PERMIAN BASIN
ENVIRONMENTAL LAB, LP
1400 Rankin Hwy
Midland, TX 79701**



Analytical Report

Prepared for:

Sylwia Reynolds
Dean
12600 W County Rd 91
Midland, TX 79707

Project: Hudson Federal 4 Remediation

Project Number: PP-21025

Location: Lea County, New Mexico

Lab Order Number: 1B04002



Current Certification

Report Date: 02/07/21

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH-3 @ 13'	1B04002-01	Soil	02/03/21 09:25	02-04-2021 13:18
BH-4 @ 13'	1B04002-02	Soil	02/03/21 09:28	02-04-2021 13:18
BH-5 @ 13'	1B04002-03	Soil	02/03/21 12:00	02-04-2021 13:18
BH-6 @ 13'	1B04002-04	Soil	02/03/21 12:48	02-04-2021 13:18
BH-7 @ 13'	1B04002-05	Soil	02/03/21 12:58	02-04-2021 13:18
BH-8 @ 13'	1B04002-06	Soil	02/03/21 12:56	02-04-2021 13:18
BH-9 @ 13'	1B04002-07	Soil	02/03/21 13:00	02-04-2021 13:18
BH-10 @ 13'	1B04002-08	Soil	02/03/21 13:03	02-04-2021 13:18
NBF-1 @ 10'	1B04002-09	Soil	02/03/21 13:13	02-04-2021 13:18
NBF-2 @ 3'	1B04002-10	Soil	02/03/21 13:17	02-04-2021 13:18
NW-2 @ 11'	1B04002-11	Soil	02/03/21 13:05	02-04-2021 13:18
NW-3 @ 6'	1B04002-12	Soil	02/03/21 13:15	02-04-2021 13:18
NW-4 @ 1.5'	1B04002-13	Soil	02/03/21 13:19	02-04-2021 13:18
EBF-1 @ 10'	1B04002-14	Soil	02/03/21 09:44	02-04-2021 13:18
EBF-2 @ 10'	1B04002-15	Soil	02/03/21 13:07	02-04-2021 13:18
EBF-3 @ 5'	1B04002-16	Soil	02/03/21 10:07	02-04-2021 13:18
EBF-4 @ 3'	1B04002-17	Soil	02/03/21 13:20	02-04-2021 13:18
EW-4 @ 11'	1B04002-18	Soil	02/03/21 09:34	02-04-2021 13:18
EW-5 @ 8'	1B04002-19	Soil	02/03/21 09:45	02-04-2021 13:18
EW-6 @ 2.5'	1B04002-20	Soil	02/03/21 10:07	02-04-2021 13:18
EW-7 @ 11'	1B04002-21	Soil	02/03/21 13:05	02-04-2021 13:18
EW-8 @ 8'	1B04002-22	Soil	02/03/21 13:10	02-04-2021 13:18
EW-9 @ 1.5'	1B04002-23	Soil	02/03/21 13:22	02-04-2021 13:18
SEBF-1 @ 13'	1B04002-24	Soil	02/03/21 12:46	02-04-2021 13:18
SEBF-2 @ 11'	1B04002-25	Soil	02/03/21 12:51	02-04-2021 13:18
SEBF-3 @ 10'	1B04002-26	Soil	02/03/21 12:53	02-04-2021 13:18
SEW-2 @ 15'	1B04002-27	Soil	02/03/21 12:50	02-04-2021 13:18
SW-3 @ 11'	1B04002-28	Soil	02/03/21 09:32	02-04-2021 13:18
SW-4 @ 8'	1B04002-29	Soil	02/03/21 09:42	02-04-2021 13:18
SW-5 @ 2.5'	1B04002-30	Soil	02/03/21 10:02	02-04-2021 13:18
SBF-1 @ 10'	1B04002-31	Soil	02/03/21 09:40	02-04-2021 13:18
SBF-2 @ 5'	1B04002-32	Soil	02/03/21 09:59	02-04-2021 13:18
WW-2 @ 6'	1B04002-33	Soil	02/03/21 10:11	02-04-2021 13:18
WW-3 @ 6'	1B04002-34	Soil	02/03/21 13:23	02-04-2021 13:18

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

BH-3 @ 13'
1B04002-01 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00105	mg/kg dry	1	P1B0405	02/04/21 15:21	02/04/21 20:44	EPA 8021B	
Toluene	ND	0.00105	mg/kg dry	1	P1B0405	02/04/21 15:21	02/04/21 20:44	EPA 8021B	
Ethylbenzene	ND	0.00105	mg/kg dry	1	P1B0405	02/04/21 15:21	02/04/21 20:44	EPA 8021B	
Xylene (p/m)	ND	0.00211	mg/kg dry	1	P1B0405	02/04/21 15:21	02/04/21 20:44	EPA 8021B	
Xylene (o)	ND	0.00105	mg/kg dry	1	P1B0405	02/04/21 15:21	02/04/21 20:44	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		114 %	80-120		P1B0405	02/04/21 15:21	02/04/21 20:44	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		111 %	80-120		P1B0405	02/04/21 15:21	02/04/21 20:44	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	5.87	1.05	mg/kg dry	1	P1B0402	02/04/21 15:02	02/05/21 01:26	EPA 300.0	
% Moisture	5.0	0.1	%	1	P1B0501	02/05/21 09:59	02/05/21 12:34	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	26.3	mg/kg dry	1	P1B0406	02/04/21 13:30	02/04/21 16:15	TPH 8015M	
>C12-C28	ND	26.3	mg/kg dry	1	P1B0406	02/04/21 13:30	02/04/21 16:15	TPH 8015M	
>C28-C35	ND	26.3	mg/kg dry	1	P1B0406	02/04/21 13:30	02/04/21 16:15	TPH 8015M	
Surrogate: 1-Chlorooctane		89.6 %	70-130		P1B0406	02/04/21 13:30	02/04/21 16:15	TPH 8015M	
Surrogate: o-Terphenyl		95.1 %	70-130		P1B0406	02/04/21 13:30	02/04/21 16:15	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	26.3	mg/kg dry	1	[CALC]	02/04/21 13:30	02/04/21 16:15	calc	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

BH-4 @ 13'
1B04002-02 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00104	mg/kg dry	1	P1B0405	02/04/21 15:21	02/04/21 21:05	EPA 8021B	
Toluene	ND	0.00104	mg/kg dry	1	P1B0405	02/04/21 15:21	02/04/21 21:05	EPA 8021B	
Ethylbenzene	ND	0.00104	mg/kg dry	1	P1B0405	02/04/21 15:21	02/04/21 21:05	EPA 8021B	
Xylene (p/m)	ND	0.00208	mg/kg dry	1	P1B0405	02/04/21 15:21	02/04/21 21:05	EPA 8021B	
Xylene (o)	ND	0.00104	mg/kg dry	1	P1B0405	02/04/21 15:21	02/04/21 21:05	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		111 %	80-120		P1B0405	02/04/21 15:21	02/04/21 21:05	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		116 %	80-120		P1B0405	02/04/21 15:21	02/04/21 21:05	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	6.15	1.04	mg/kg dry	1	P1B0402	02/04/21 15:02	02/05/21 01:42	EPA 300.0	
% Moisture	4.0	0.1	%	1	P1B0501	02/05/21 09:59	02/05/21 12:34	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	26.0	mg/kg dry	1	P1B0406	02/04/21 13:30	02/04/21 16:37	TPH 8015M	
>C12-C28	ND	26.0	mg/kg dry	1	P1B0406	02/04/21 13:30	02/04/21 16:37	TPH 8015M	
>C28-C35	ND	26.0	mg/kg dry	1	P1B0406	02/04/21 13:30	02/04/21 16:37	TPH 8015M	
Surrogate: 1-Chlorooctane		91.6 %	70-130		P1B0406	02/04/21 13:30	02/04/21 16:37	TPH 8015M	
Surrogate: o-Terphenyl		96.8 %	70-130		P1B0406	02/04/21 13:30	02/04/21 16:37	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	26.0	mg/kg dry	1	[CALC]	02/04/21 13:30	02/04/21 16:37	calc	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

BH-5 @ 13'
1B04002-03 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00105	mg/kg dry	1	P1B0405	02/04/21 15:21	02/04/21 21:26	EPA 8021B	
Toluene	ND	0.00105	mg/kg dry	1	P1B0405	02/04/21 15:21	02/04/21 21:26	EPA 8021B	
Ethylbenzene	ND	0.00105	mg/kg dry	1	P1B0405	02/04/21 15:21	02/04/21 21:26	EPA 8021B	
Xylene (p/m)	ND	0.00211	mg/kg dry	1	P1B0405	02/04/21 15:21	02/04/21 21:26	EPA 8021B	
Xylene (o)	ND	0.00105	mg/kg dry	1	P1B0405	02/04/21 15:21	02/04/21 21:26	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		108 %	80-120		P1B0405	02/04/21 15:21	02/04/21 21:26	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		112 %	80-120		P1B0405	02/04/21 15:21	02/04/21 21:26	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	2.18	1.05	mg/kg dry	1	P1B0402	02/04/21 15:02	02/05/21 01:59	EPA 300.0	
% Moisture	5.0	0.1	%	1	P1B0501	02/05/21 09:59	02/05/21 12:34	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	26.3	mg/kg dry	1	P1B0406	02/04/21 13:30	02/04/21 17:00	TPH 8015M	
>C12-C28	ND	26.3	mg/kg dry	1	P1B0406	02/04/21 13:30	02/04/21 17:00	TPH 8015M	
>C28-C35	ND	26.3	mg/kg dry	1	P1B0406	02/04/21 13:30	02/04/21 17:00	TPH 8015M	
Surrogate: 1-Chlorooctane		87.5 %	70-130		P1B0406	02/04/21 13:30	02/04/21 17:00	TPH 8015M	
Surrogate: o-Terphenyl		94.4 %	70-130		P1B0406	02/04/21 13:30	02/04/21 17:00	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	26.3	mg/kg dry	1	[CALC]	02/04/21 13:30	02/04/21 17:00	calc	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

BH-6 @ 13'
1B04002-04 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00104	mg/kg dry	1	P1B0405	02/04/21 15:21	02/04/21 21:47	EPA 8021B	
Toluene	ND	0.00104	mg/kg dry	1	P1B0405	02/04/21 15:21	02/04/21 21:47	EPA 8021B	
Ethylbenzene	ND	0.00104	mg/kg dry	1	P1B0405	02/04/21 15:21	02/04/21 21:47	EPA 8021B	
Xylene (p/m)	ND	0.00208	mg/kg dry	1	P1B0405	02/04/21 15:21	02/04/21 21:47	EPA 8021B	
Xylene (o)	ND	0.00104	mg/kg dry	1	P1B0405	02/04/21 15:21	02/04/21 21:47	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		107 %	80-120		P1B0405	02/04/21 15:21	02/04/21 21:47	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		114 %	80-120		P1B0405	02/04/21 15:21	02/04/21 21:47	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	8.45	1.04	mg/kg dry	1	P1B0402	02/04/21 15:02	02/05/21 02:15	EPA 300.0	
% Moisture	4.0	0.1	%	1	P1B0501	02/05/21 09:59	02/05/21 12:34	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	26.0	mg/kg dry	1	P1B0406	02/04/21 13:30	02/04/21 17:23	TPH 8015M	
>C12-C28	ND	26.0	mg/kg dry	1	P1B0406	02/04/21 13:30	02/04/21 17:23	TPH 8015M	
>C28-C35	ND	26.0	mg/kg dry	1	P1B0406	02/04/21 13:30	02/04/21 17:23	TPH 8015M	
Surrogate: 1-Chlorooctane		89.8 %	70-130		P1B0406	02/04/21 13:30	02/04/21 17:23	TPH 8015M	
Surrogate: o-Terphenyl		95.7 %	70-130		P1B0406	02/04/21 13:30	02/04/21 17:23	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	26.0	mg/kg dry	1	[CALC]	02/04/21 13:30	02/04/21 17:23	calc	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

BH-7 @ 13'
1B04002-05 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00103	mg/kg dry	1	P1B0405	02/04/21 15:21	02/04/21 22:07	EPA 8021B	
Toluene	ND	0.00103	mg/kg dry	1	P1B0405	02/04/21 15:21	02/04/21 22:07	EPA 8021B	
Ethylbenzene	ND	0.00103	mg/kg dry	1	P1B0405	02/04/21 15:21	02/04/21 22:07	EPA 8021B	
Xylene (p/m)	ND	0.00206	mg/kg dry	1	P1B0405	02/04/21 15:21	02/04/21 22:07	EPA 8021B	
Xylene (o)	ND	0.00103	mg/kg dry	1	P1B0405	02/04/21 15:21	02/04/21 22:07	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		109 %	80-120		P1B0405	02/04/21 15:21	02/04/21 22:07	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		115 %	80-120		P1B0405	02/04/21 15:21	02/04/21 22:07	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	29.6	1.03	mg/kg dry	1	P1B0402	02/04/21 15:02	02/05/21 02:31	EPA 300.0	
% Moisture	3.0	0.1	%	1	P1B0501	02/05/21 09:59	02/05/21 12:34	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.8	mg/kg dry	1	P1B0406	02/04/21 13:30	02/04/21 17:46	TPH 8015M	
>C12-C28	ND	25.8	mg/kg dry	1	P1B0406	02/04/21 13:30	02/04/21 17:46	TPH 8015M	
>C28-C35	ND	25.8	mg/kg dry	1	P1B0406	02/04/21 13:30	02/04/21 17:46	TPH 8015M	
Surrogate: 1-Chlorooctane		90.8 %	70-130		P1B0406	02/04/21 13:30	02/04/21 17:46	TPH 8015M	
Surrogate: o-Terphenyl		97.1 %	70-130		P1B0406	02/04/21 13:30	02/04/21 17:46	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.8	mg/kg dry	1	[CALC]	02/04/21 13:30	02/04/21 17:46	calc	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

BH-8 @ 13'
1B04002-06 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00104	mg/kg dry	1	P1B0405	02/04/21 15:21	02/04/21 22:28	EPA 8021B	
Toluene	ND	0.00104	mg/kg dry	1	P1B0405	02/04/21 15:21	02/04/21 22:28	EPA 8021B	
Ethylbenzene	ND	0.00104	mg/kg dry	1	P1B0405	02/04/21 15:21	02/04/21 22:28	EPA 8021B	
Xylene (p/m)	ND	0.00208	mg/kg dry	1	P1B0405	02/04/21 15:21	02/04/21 22:28	EPA 8021B	
Xylene (o)	ND	0.00104	mg/kg dry	1	P1B0405	02/04/21 15:21	02/04/21 22:28	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		107 %	80-120		P1B0405	02/04/21 15:21	02/04/21 22:28	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		112 %	80-120		P1B0405	02/04/21 15:21	02/04/21 22:28	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	29.7	1.04	mg/kg dry	1	P1B0410	02/04/21 15:09	02/05/21 09:49	EPA 300.0	
% Moisture	4.0	0.1	%	1	P1B0501	02/05/21 09:59	02/05/21 12:34	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	26.0	mg/kg dry	1	P1B0406	02/04/21 13:30	02/04/21 18:08	TPH 8015M	
>C12-C28	ND	26.0	mg/kg dry	1	P1B0406	02/04/21 13:30	02/04/21 18:08	TPH 8015M	
>C28-C35	ND	26.0	mg/kg dry	1	P1B0406	02/04/21 13:30	02/04/21 18:08	TPH 8015M	
Surrogate: 1-Chlorooctane		88.1 %	70-130		P1B0406	02/04/21 13:30	02/04/21 18:08	TPH 8015M	
Surrogate: o-Terphenyl		94.5 %	70-130		P1B0406	02/04/21 13:30	02/04/21 18:08	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	26.0	mg/kg dry	1	[CALC]	02/04/21 13:30	02/04/21 18:08	calc	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

BH-9 @ 13'
1B04002-07 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00104	mg/kg dry	1	P1B0405	02/04/21 15:21	02/04/21 22:49	EPA 8021B	
Toluene	ND	0.00104	mg/kg dry	1	P1B0405	02/04/21 15:21	02/04/21 22:49	EPA 8021B	
Ethylbenzene	ND	0.00104	mg/kg dry	1	P1B0405	02/04/21 15:21	02/04/21 22:49	EPA 8021B	
Xylene (p/m)	ND	0.00208	mg/kg dry	1	P1B0405	02/04/21 15:21	02/04/21 22:49	EPA 8021B	
Xylene (o)	ND	0.00104	mg/kg dry	1	P1B0405	02/04/21 15:21	02/04/21 22:49	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		112 %	80-120		P1B0405	02/04/21 15:21	02/04/21 22:49	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		107 %	80-120		P1B0405	02/04/21 15:21	02/04/21 22:49	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	ND	1.04	mg/kg dry	1	P1B0410	02/04/21 15:09	02/05/21 10:38	EPA 300.0	
% Moisture	4.0	0.1	%	1	P1B0501	02/05/21 09:59	02/05/21 12:34	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	26.0	mg/kg dry	1	P1B0406	02/04/21 13:30	02/04/21 18:31	TPH 8015M	
>C12-C28	ND	26.0	mg/kg dry	1	P1B0406	02/04/21 13:30	02/04/21 18:31	TPH 8015M	
>C28-C35	ND	26.0	mg/kg dry	1	P1B0406	02/04/21 13:30	02/04/21 18:31	TPH 8015M	
Surrogate: 1-Chlorooctane		83.4 %	70-130		P1B0406	02/04/21 13:30	02/04/21 18:31	TPH 8015M	
Surrogate: o-Terphenyl		90.3 %	70-130		P1B0406	02/04/21 13:30	02/04/21 18:31	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	26.0	mg/kg dry	1	[CALC]	02/04/21 13:30	02/04/21 18:31	calc	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

BH-10 @ 13'
1B04002-08 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00109	mg/kg dry	1	P1B0405	02/04/21 15:21	02/04/21 23:10	EPA 8021B	
Toluene	ND	0.00109	mg/kg dry	1	P1B0405	02/04/21 15:21	02/04/21 23:10	EPA 8021B	
Ethylbenzene	ND	0.00109	mg/kg dry	1	P1B0405	02/04/21 15:21	02/04/21 23:10	EPA 8021B	
Xylene (p/m)	ND	0.00217	mg/kg dry	1	P1B0405	02/04/21 15:21	02/04/21 23:10	EPA 8021B	
Xylene (o)	ND	0.00109	mg/kg dry	1	P1B0405	02/04/21 15:21	02/04/21 23:10	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		109 %	80-120		P1B0405	02/04/21 15:21	02/04/21 23:10	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		113 %	80-120		P1B0405	02/04/21 15:21	02/04/21 23:10	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	12.3	1.09	mg/kg dry	1	P1B0410	02/04/21 15:09	02/05/21 10:54	EPA 300.0	
% Moisture	8.0	0.1	%	1	P1B0501	02/05/21 09:59	02/05/21 12:34	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	27.2	mg/kg dry	1	P1B0406	02/04/21 13:30	02/04/21 18:55	TPH 8015M	
>C12-C28	ND	27.2	mg/kg dry	1	P1B0406	02/04/21 13:30	02/04/21 18:55	TPH 8015M	
>C28-C35	ND	27.2	mg/kg dry	1	P1B0406	02/04/21 13:30	02/04/21 18:55	TPH 8015M	
Surrogate: 1-Chlorooctane		84.6 %	70-130		P1B0406	02/04/21 13:30	02/04/21 18:55	TPH 8015M	
Surrogate: o-Terphenyl		91.5 %	70-130		P1B0406	02/04/21 13:30	02/04/21 18:55	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	27.2	mg/kg dry	1	[CALC]	02/04/21 13:30	02/04/21 18:55	calc	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

NBF-1 @ 10'
1B04002-09 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00102	mg/kg dry	1	P1B0405	02/04/21 15:21	02/04/21 23:31	EPA 8021B	
Toluene	ND	0.00102	mg/kg dry	1	P1B0405	02/04/21 15:21	02/04/21 23:31	EPA 8021B	
Ethylbenzene	ND	0.00102	mg/kg dry	1	P1B0405	02/04/21 15:21	02/04/21 23:31	EPA 8021B	
Xylene (p/m)	ND	0.00204	mg/kg dry	1	P1B0405	02/04/21 15:21	02/04/21 23:31	EPA 8021B	
Xylene (o)	ND	0.00102	mg/kg dry	1	P1B0405	02/04/21 15:21	02/04/21 23:31	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		109 %	80-120		P1B0405	02/04/21 15:21	02/04/21 23:31	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		115 %	80-120		P1B0405	02/04/21 15:21	02/04/21 23:31	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	ND	1.02	mg/kg dry	1	P1B0410	02/04/21 15:09	02/05/21 11:11	EPA 300.0	
% Moisture	2.0	0.1	%	1	P1B0501	02/05/21 09:59	02/05/21 12:34	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.5	mg/kg dry	1	P1B0406	02/04/21 13:30	02/04/21 19:18	TPH 8015M	
>C12-C28	ND	25.5	mg/kg dry	1	P1B0406	02/04/21 13:30	02/04/21 19:18	TPH 8015M	
>C28-C35	ND	25.5	mg/kg dry	1	P1B0406	02/04/21 13:30	02/04/21 19:18	TPH 8015M	
Surrogate: 1-Chlorooctane		81.5 %	70-130		P1B0406	02/04/21 13:30	02/04/21 19:18	TPH 8015M	
Surrogate: o-Terphenyl		89.5 %	70-130		P1B0406	02/04/21 13:30	02/04/21 19:18	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.5	mg/kg dry	1	[CALC]	02/04/21 13:30	02/04/21 19:18	calc	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

NBF-2 @ 3'
1B04002-10 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00101	mg/kg dry	1	P1B0405	02/04/21 15:21	02/04/21 23:52	EPA 8021B	
Toluene	ND	0.00101	mg/kg dry	1	P1B0405	02/04/21 15:21	02/04/21 23:52	EPA 8021B	
Ethylbenzene	ND	0.00101	mg/kg dry	1	P1B0405	02/04/21 15:21	02/04/21 23:52	EPA 8021B	
Xylene (p/m)	ND	0.00202	mg/kg dry	1	P1B0405	02/04/21 15:21	02/04/21 23:52	EPA 8021B	
Xylene (o)	ND	0.00101	mg/kg dry	1	P1B0405	02/04/21 15:21	02/04/21 23:52	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		111 %	80-120		P1B0405	02/04/21 15:21	02/04/21 23:52	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		118 %	80-120		P1B0405	02/04/21 15:21	02/04/21 23:52	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	13.9	1.01	mg/kg dry	1	P1B0410	02/04/21 15:09	02/05/21 11:27	EPA 300.0	
% Moisture	1.0	0.1	%	1	P1B0501	02/05/21 09:59	02/05/21 12:34	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.3	mg/kg dry	1	P1B0406	02/04/21 13:30	02/04/21 19:42	TPH 8015M	
>C12-C28	ND	25.3	mg/kg dry	1	P1B0406	02/04/21 13:30	02/04/21 19:42	TPH 8015M	
>C28-C35	ND	25.3	mg/kg dry	1	P1B0406	02/04/21 13:30	02/04/21 19:42	TPH 8015M	
Surrogate: 1-Chlorooctane		80.4 %	70-130		P1B0406	02/04/21 13:30	02/04/21 19:42	TPH 8015M	
Surrogate: o-Terphenyl		88.9 %	70-130		P1B0406	02/04/21 13:30	02/04/21 19:42	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.3	mg/kg dry	1	[CALC]	02/04/21 13:30	02/04/21 19:42	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

NW-2 @ 11'
1B04002-11 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00102	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 02:38	EPA 8021B	
Toluene	0.00106	0.00102	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 02:38	EPA 8021B	
Ethylbenzene	ND	0.00102	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 02:38	EPA 8021B	
Xylene (p/m)	0.00379	0.00204	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 02:38	EPA 8021B	
Xylene (o)	ND	0.00102	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 02:38	EPA 8021B	
Surrogate: 1,4-Difluorobenzene	109 %		80-120		P1B0412	02/04/21 15:35	02/05/21 02:38	EPA 8021B	
Surrogate: 4-Bromofluorobenzene	114 %		80-120		P1B0412	02/04/21 15:35	02/05/21 02:38	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	21.8	1.02	mg/kg dry	1	P1B0410	02/04/21 15:09	02/05/21 11:43	EPA 300.0	
% Moisture	2.0	0.1	%	1	P1B0501	02/05/21 09:59	02/05/21 12:34	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.5	mg/kg dry	1	P1B0406	02/04/21 13:30	02/04/21 20:52	TPH 8015M	
>C12-C28	ND	25.5	mg/kg dry	1	P1B0406	02/04/21 13:30	02/04/21 20:52	TPH 8015M	
>C28-C35	ND	25.5	mg/kg dry	1	P1B0406	02/04/21 13:30	02/04/21 20:52	TPH 8015M	
Surrogate: 1-Chlorooctane	87.0 %		70-130		P1B0406	02/04/21 13:30	02/04/21 20:52	TPH 8015M	
Surrogate: o-Terphenyl	90.4 %		70-130		P1B0406	02/04/21 13:30	02/04/21 20:52	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.5	mg/kg dry	1	[CALC]	02/04/21 13:30	02/04/21 20:52	calc	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

NW-3 @ 6'
1B04002-12 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00100	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 02:59	EPA 8021B	
Toluene	0.00118	0.00100	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 02:59	EPA 8021B	
Ethylbenzene	0.00179	0.00100	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 02:59	EPA 8021B	
Xylene (p/m)	0.00691	0.00200	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 02:59	EPA 8021B	
Xylene (o)	0.00138	0.00100	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 02:59	EPA 8021B	
Surrogate: 1,4-Difluorobenzene	113 %		80-120		P1B0412	02/04/21 15:35	02/05/21 02:59	EPA 8021B	
Surrogate: 4-Bromofluorobenzene	118 %		80-120		P1B0412	02/04/21 15:35	02/05/21 02:59	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	ND	1.00	mg/kg dry	1	P1B0410	02/04/21 15:09	02/05/21 11:59	EPA 300.0	
% Moisture	ND	0.1	%	1	P1B0501	02/05/21 09:59	02/05/21 12:34	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.0	mg/kg dry	1	P1B0406	02/04/21 13:30	02/04/21 21:16	TPH 8015M	
>C12-C28	ND	25.0	mg/kg dry	1	P1B0406	02/04/21 13:30	02/04/21 21:16	TPH 8015M	
>C28-C35	ND	25.0	mg/kg dry	1	P1B0406	02/04/21 13:30	02/04/21 21:16	TPH 8015M	
Surrogate: 1-Chlorooctane	84.7 %		70-130		P1B0406	02/04/21 13:30	02/04/21 21:16	TPH 8015M	
Surrogate: o-Terphenyl	83.0 %		70-130		P1B0406	02/04/21 13:30	02/04/21 21:16	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.0	mg/kg dry	1	[CALC]	02/04/21 13:30	02/04/21 21:16	calc	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

NW-4 @ 1.5'
1B04002-13 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00101	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 03:20	EPA 8021B	
Toluene	0.00208	0.00101	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 03:20	EPA 8021B	
Ethylbenzene	0.00136	0.00101	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 03:20	EPA 8021B	
Xylene (p/m)	0.00445	0.00202	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 03:20	EPA 8021B	
Xylene (o)	0.00122	0.00101	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 03:20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene	118 %		80-120		P1B0412	02/04/21 15:35	02/05/21 03:20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene	111 %		80-120		P1B0412	02/04/21 15:35	02/05/21 03:20	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	ND	1.01	mg/kg dry	1	P1B0410	02/04/21 15:09	02/05/21 12:16	EPA 300.0	
% Moisture	1.0	0.1	%	1	P1B0501	02/05/21 09:59	02/05/21 12:34	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.3	mg/kg dry	1	P1B0406	02/04/21 13:30	02/04/21 21:39	TPH 8015M	
>C12-C28	ND	25.3	mg/kg dry	1	P1B0406	02/04/21 13:30	02/04/21 21:39	TPH 8015M	
>C28-C35	ND	25.3	mg/kg dry	1	P1B0406	02/04/21 13:30	02/04/21 21:39	TPH 8015M	
Surrogate: 1-Chlorooctane	85.4 %		70-130		P1B0406	02/04/21 13:30	02/04/21 21:39	TPH 8015M	
Surrogate: o-Terphenyl	90.0 %		70-130		P1B0406	02/04/21 13:30	02/04/21 21:39	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.3	mg/kg dry	1	[CALC]	02/04/21 13:30	02/04/21 21:39	calc	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

EBF-1 @ 10'
1B04002-14 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00103	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 03:41	EPA 8021B	
Toluene	ND	0.00103	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 03:41	EPA 8021B	
Ethylbenzene	ND	0.00103	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 03:41	EPA 8021B	
Xylene (p/m)	ND	0.00206	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 03:41	EPA 8021B	
Xylene (o)	ND	0.00103	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 03:41	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		110 %	80-120		P1B0412	02/04/21 15:35	02/05/21 03:41	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		116 %	80-120		P1B0412	02/04/21 15:35	02/05/21 03:41	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	ND	1.03	mg/kg dry	1	P1B0410	02/04/21 15:09	02/05/21 12:32	EPA 300.0	
% Moisture	3.0	0.1	%	1	P1B0501	02/05/21 09:59	02/05/21 12:34	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.8	mg/kg dry	1	P1B0406	02/04/21 13:30	02/04/21 22:02	TPH 8015M	
>C12-C28	ND	25.8	mg/kg dry	1	P1B0406	02/04/21 13:30	02/04/21 22:02	TPH 8015M	
>C28-C35	ND	25.8	mg/kg dry	1	P1B0406	02/04/21 13:30	02/04/21 22:02	TPH 8015M	
Surrogate: 1-Chlorooctane		87.6 %	70-130		P1B0406	02/04/21 13:30	02/04/21 22:02	TPH 8015M	
Surrogate: o-Terphenyl		94.2 %	70-130		P1B0406	02/04/21 13:30	02/04/21 22:02	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.8	mg/kg dry	1	[CALC]	02/04/21 13:30	02/04/21 22:02	calc	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

EBF-2 @ 10'
1B04002-15 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00104	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 04:02	EPA 8021B	
Toluene	ND	0.00104	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 04:02	EPA 8021B	
Ethylbenzene	ND	0.00104	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 04:02	EPA 8021B	
Xylene (p/m)	ND	0.00208	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 04:02	EPA 8021B	
Xylene (o)	ND	0.00104	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 04:02	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		115 %	80-120		P1B0412	02/04/21 15:35	02/05/21 04:02	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		108 %	80-120		P1B0412	02/04/21 15:35	02/05/21 04:02	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	ND	1.04	mg/kg dry	1	P1B0410	02/04/21 15:09	02/05/21 12:48	EPA 300.0	
% Moisture	4.0	0.1	%	1	P1B0501	02/05/21 09:59	02/05/21 12:34	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	26.0	mg/kg dry	1	P1B0406	02/04/21 13:30	02/04/21 22:25	TPH 8015M	
>C12-C28	ND	26.0	mg/kg dry	1	P1B0406	02/04/21 13:30	02/04/21 22:25	TPH 8015M	
>C28-C35	ND	26.0	mg/kg dry	1	P1B0406	02/04/21 13:30	02/04/21 22:25	TPH 8015M	
Surrogate: 1-Chlorooctane		84.5 %	70-130		P1B0406	02/04/21 13:30	02/04/21 22:25	TPH 8015M	
Surrogate: o-Terphenyl		90.5 %	70-130		P1B0406	02/04/21 13:30	02/04/21 22:25	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	26.0	mg/kg dry	1	[CALC]	02/04/21 13:30	02/04/21 22:25	calc	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

EBF-3 @ 5'
1B04002-16 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00101	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 04:22	EPA 8021B	
Toluene	ND	0.00101	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 04:22	EPA 8021B	
Ethylbenzene	ND	0.00101	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 04:22	EPA 8021B	
Xylene (p/m)	ND	0.00202	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 04:22	EPA 8021B	
Xylene (o)	ND	0.00101	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 04:22	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		110 %	80-120		P1B0412	02/04/21 15:35	02/05/21 04:22	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		116 %	80-120		P1B0412	02/04/21 15:35	02/05/21 04:22	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	ND	1.01	mg/kg dry	1	P1B0410	02/04/21 15:09	02/05/21 13:37	EPA 300.0	
% Moisture	1.0	0.1	%	1	P1B0501	02/05/21 09:59	02/05/21 12:34	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.3	mg/kg dry	1	P1B0406	02/04/21 13:30	02/04/21 22:49	TPH 8015M	
>C12-C28	ND	25.3	mg/kg dry	1	P1B0406	02/04/21 13:30	02/04/21 22:49	TPH 8015M	
>C28-C35	ND	25.3	mg/kg dry	1	P1B0406	02/04/21 13:30	02/04/21 22:49	TPH 8015M	
Surrogate: 1-Chlorooctane		84.6 %	70-130		P1B0406	02/04/21 13:30	02/04/21 22:49	TPH 8015M	
Surrogate: o-Terphenyl		91.2 %	70-130		P1B0406	02/04/21 13:30	02/04/21 22:49	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.3	mg/kg dry	1	[CALC]	02/04/21 13:30	02/04/21 22:49	calc	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

EBF-4 @ 3'
1B04002-17 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00101	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 04:43	EPA 8021B	
Toluene	ND	0.00101	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 04:43	EPA 8021B	
Ethylbenzene	ND	0.00101	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 04:43	EPA 8021B	
Xylene (p/m)	ND	0.00202	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 04:43	EPA 8021B	
Xylene (o)	ND	0.00101	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 04:43	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		111 %	80-120		P1B0412	02/04/21 15:35	02/05/21 04:43	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		116 %	80-120		P1B0412	02/04/21 15:35	02/05/21 04:43	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	ND	1.01	mg/kg dry	1	P1B0410	02/04/21 15:09	02/05/21 14:26	EPA 300.0	
% Moisture	1.0	0.1	%	1	P1B0501	02/05/21 09:59	02/05/21 12:34	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.3	mg/kg dry	1	P1B0406	02/04/21 13:30	02/04/21 23:12	TPH 8015M	
>C12-C28	ND	25.3	mg/kg dry	1	P1B0406	02/04/21 13:30	02/04/21 23:12	TPH 8015M	
>C28-C35	ND	25.3	mg/kg dry	1	P1B0406	02/04/21 13:30	02/04/21 23:12	TPH 8015M	
Surrogate: 1-Chlorooctane		80.6 %	70-130		P1B0406	02/04/21 13:30	02/04/21 23:12	TPH 8015M	
Surrogate: o-Terphenyl		86.4 %	70-130		P1B0406	02/04/21 13:30	02/04/21 23:12	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.3	mg/kg dry	1	[CALC]	02/04/21 13:30	02/04/21 23:12	calc	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

EW-4 @ 11'
1B04002-18 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00103	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 05:04	EPA 8021B	
Toluene	ND	0.00103	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 05:04	EPA 8021B	
Ethylbenzene	ND	0.00103	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 05:04	EPA 8021B	
Xylene (p/m)	ND	0.00206	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 05:04	EPA 8021B	
Xylene (o)	ND	0.00103	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 05:04	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		110 %	80-120		P1B0412	02/04/21 15:35	02/05/21 05:04	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		113 %	80-120		P1B0412	02/04/21 15:35	02/05/21 05:04	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	ND	1.03	mg/kg dry	1	P1B0410	02/04/21 15:09	02/05/21 14:42	EPA 300.0	
% Moisture	3.0	0.1	%	1	P1B0501	02/05/21 09:59	02/05/21 12:34	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.8	mg/kg dry	1	P1B0406	02/04/21 13:30	02/04/21 23:36	TPH 8015M	
>C12-C28	ND	25.8	mg/kg dry	1	P1B0406	02/04/21 13:30	02/04/21 23:36	TPH 8015M	
>C28-C35	ND	25.8	mg/kg dry	1	P1B0406	02/04/21 13:30	02/04/21 23:36	TPH 8015M	
Surrogate: 1-Chlorooctane		89.7 %	70-130		P1B0406	02/04/21 13:30	02/04/21 23:36	TPH 8015M	
Surrogate: o-Terphenyl		96.8 %	70-130		P1B0406	02/04/21 13:30	02/04/21 23:36	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.8	mg/kg dry	1	[CALC]	02/04/21 13:30	02/04/21 23:36	calc	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

EW-5 @ 8'
1B04002-19 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00100	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 05:25	EPA 8021B	
Toluene	ND	0.00100	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 05:25	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 05:25	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 05:25	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 05:25	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		119 %	80-120		P1B0412	02/04/21 15:35	02/05/21 05:25	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		112 %	80-120		P1B0412	02/04/21 15:35	02/05/21 05:25	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	ND	1.00	mg/kg dry	1	P1B0410	02/04/21 15:09	02/05/21 14:59	EPA 300.0	
% Moisture	ND	0.1	%	1	P1B0501	02/05/21 09:59	02/05/21 12:34	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.0	mg/kg dry	1	P1B0406	02/04/21 13:30	02/04/21 23:59	TPH 8015M	
>C12-C28	ND	25.0	mg/kg dry	1	P1B0406	02/04/21 13:30	02/04/21 23:59	TPH 8015M	
>C28-C35	ND	25.0	mg/kg dry	1	P1B0406	02/04/21 13:30	02/04/21 23:59	TPH 8015M	
Surrogate: 1-Chlorooctane		86.4 %	70-130		P1B0406	02/04/21 13:30	02/04/21 23:59	TPH 8015M	
Surrogate: o-Terphenyl		93.1 %	70-130		P1B0406	02/04/21 13:30	02/04/21 23:59	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.0	mg/kg dry	1	[CALC]	02/04/21 13:30	02/04/21 23:59	calc	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

EW-6 @ 2.5'
1B04002-20 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00101	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 05:45	EPA 8021B	
Toluene	ND	0.00101	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 05:45	EPA 8021B	
Ethylbenzene	ND	0.00101	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 05:45	EPA 8021B	
Xylene (p/m)	ND	0.00202	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 05:45	EPA 8021B	
Xylene (o)	ND	0.00101	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 05:45	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		116 %	80-120		P1B0412	02/04/21 15:35	02/05/21 05:45	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		113 %	80-120		P1B0412	02/04/21 15:35	02/05/21 05:45	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	ND	1.01	mg/kg dry	1	P1B0410	02/04/21 15:09	02/05/21 15:15	EPA 300.0	
% Moisture	1.0	0.1	%	1	P1B0501	02/05/21 09:59	02/05/21 12:34	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.3	mg/kg dry	1	P1B0406	02/04/21 13:30	02/05/21 00:23	TPH 8015M	
>C12-C28	ND	25.3	mg/kg dry	1	P1B0406	02/04/21 13:30	02/05/21 00:23	TPH 8015M	
>C28-C35	ND	25.3	mg/kg dry	1	P1B0406	02/04/21 13:30	02/05/21 00:23	TPH 8015M	
Surrogate: 1-Chlorooctane		83.2 %	70-130		P1B0406	02/04/21 13:30	02/05/21 00:23	TPH 8015M	
Surrogate: o-Terphenyl		89.3 %	70-130		P1B0406	02/04/21 13:30	02/05/21 00:23	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.3	mg/kg dry	1	[CALC]	02/04/21 13:30	02/05/21 00:23	calc	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

EW-7 @ 11'
1B04002-21 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00102	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 06:48	EPA 8021B	
Toluene	ND	0.00102	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 06:48	EPA 8021B	
Ethylbenzene	ND	0.00102	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 06:48	EPA 8021B	
Xylene (p/m)	ND	0.00204	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 06:48	EPA 8021B	
Xylene (o)	ND	0.00102	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 06:48	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		114 %	80-120		P1B0412	02/04/21 15:35	02/05/21 06:48	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		109 %	80-120		P1B0412	02/04/21 15:35	02/05/21 06:48	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	ND	1.02	mg/kg dry	1	P1B0410	02/04/21 15:09	02/05/21 15:31	EPA 300.0	
% Moisture	2.0	0.1	%	1	P1B0501	02/05/21 09:59	02/05/21 12:34	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.5	mg/kg dry	1	P1B0407	02/04/21 13:30	02/05/21 03:06	TPH 8015M	
>C12-C28	ND	25.5	mg/kg dry	1	P1B0407	02/04/21 13:30	02/05/21 03:06	TPH 8015M	
>C28-C35	ND	25.5	mg/kg dry	1	P1B0407	02/04/21 13:30	02/05/21 03:06	TPH 8015M	
Surrogate: 1-Chlorooctane		87.1 %	70-130		P1B0407	02/04/21 13:30	02/05/21 03:06	TPH 8015M	
Surrogate: o-Terphenyl		91.2 %	70-130		P1B0407	02/04/21 13:30	02/05/21 03:06	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.5	mg/kg dry	1	[CALC]	02/04/21 13:30	02/05/21 03:06	calc	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

EW-8 @ 8'
1B04002-22 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00101	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 07:09	EPA 8021B	
Toluene	ND	0.00101	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 07:09	EPA 8021B	
Ethylbenzene	ND	0.00101	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 07:09	EPA 8021B	
Xylene (p/m)	ND	0.00202	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 07:09	EPA 8021B	
Xylene (o)	ND	0.00101	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 07:09	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		115 %	80-120		P1B0412	02/04/21 15:35	02/05/21 07:09	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		109 %	80-120		P1B0412	02/04/21 15:35	02/05/21 07:09	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	ND	1.01	mg/kg dry	1	P1B0410	02/04/21 15:09	02/05/21 15:48	EPA 300.0	
% Moisture	1.0	0.1	%	1	P1B0501	02/05/21 09:59	02/05/21 12:34	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.3	mg/kg dry	1	P1B0407	02/04/21 13:30	02/05/21 03:29	TPH 8015M	
>C12-C28	ND	25.3	mg/kg dry	1	P1B0407	02/04/21 13:30	02/05/21 03:29	TPH 8015M	
>C28-C35	ND	25.3	mg/kg dry	1	P1B0407	02/04/21 13:30	02/05/21 03:29	TPH 8015M	
Surrogate: 1-Chlorooctane		85.4 %	70-130		P1B0407	02/04/21 13:30	02/05/21 03:29	TPH 8015M	
Surrogate: o-Terphenyl		89.4 %	70-130		P1B0407	02/04/21 13:30	02/05/21 03:29	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.3	mg/kg dry	1	[CALC]	02/04/21 13:30	02/05/21 03:29	calc	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

EW-9 @ 1.5'
1B04002-23 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00101	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 07:29	EPA 8021B	
Toluene	ND	0.00101	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 07:29	EPA 8021B	
Ethylbenzene	ND	0.00101	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 07:29	EPA 8021B	
Xylene (p/m)	ND	0.00202	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 07:29	EPA 8021B	
Xylene (o)	ND	0.00101	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 07:29	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		108 %	80-120		P1B0412	02/04/21 15:35	02/05/21 07:29	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		114 %	80-120		P1B0412	02/04/21 15:35	02/05/21 07:29	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	ND	1.01	mg/kg dry	1	P1B0410	02/04/21 15:09	02/05/21 16:04	EPA 300.0	
% Moisture	1.0	0.1	%	1	P1B0501	02/05/21 09:59	02/05/21 12:34	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.3	mg/kg dry	1	P1B0407	02/04/21 13:30	02/05/21 03:52	TPH 8015M	
>C12-C28	ND	25.3	mg/kg dry	1	P1B0407	02/04/21 13:30	02/05/21 03:52	TPH 8015M	
>C28-C35	ND	25.3	mg/kg dry	1	P1B0407	02/04/21 13:30	02/05/21 03:52	TPH 8015M	
Surrogate: 1-Chlorooctane		85.6 %	70-130		P1B0407	02/04/21 13:30	02/05/21 03:52	TPH 8015M	
Surrogate: o-Terphenyl		92.8 %	70-130		P1B0407	02/04/21 13:30	02/05/21 03:52	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.3	mg/kg dry	1	[CALC]	02/04/21 13:30	02/05/21 03:52	calc	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

SEBF-1 @ 13'
1B04002-24 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00104	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 07:49	EPA 8021B	
Toluene	ND	0.00104	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 07:49	EPA 8021B	
Ethylbenzene	ND	0.00104	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 07:49	EPA 8021B	
Xylene (p/m)	ND	0.00208	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 07:49	EPA 8021B	
Xylene (o)	ND	0.00104	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 07:49	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		113 %	80-120		P1B0412	02/04/21 15:35	02/05/21 07:49	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		120 %	80-120		P1B0412	02/04/21 15:35	02/05/21 07:49	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	9.17	1.04	mg/kg dry	1	P1B0410	02/04/21 15:09	02/05/21 16:20	EPA 300.0	
% Moisture	4.0	0.1	%	1	P1B0501	02/05/21 09:59	02/05/21 12:34	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	26.0	mg/kg dry	1	P1B0407	02/04/21 13:30	02/05/21 04:15	TPH 8015M	
>C12-C28	ND	26.0	mg/kg dry	1	P1B0407	02/04/21 13:30	02/05/21 04:15	TPH 8015M	
>C28-C35	ND	26.0	mg/kg dry	1	P1B0407	02/04/21 13:30	02/05/21 04:15	TPH 8015M	
Surrogate: 1-Chlorooctane		87.6 %	70-130		P1B0407	02/04/21 13:30	02/05/21 04:15	TPH 8015M	
Surrogate: o-Terphenyl		94.0 %	70-130		P1B0407	02/04/21 13:30	02/05/21 04:15	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	26.0	mg/kg dry	1	[CALC]	02/04/21 13:30	02/05/21 04:15	calc	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

SEBF-2 @ 11'
1B04002-25 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00103	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 08:10	EPA 8021B	
Toluene	ND	0.00103	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 08:10	EPA 8021B	
Ethylbenzene	ND	0.00103	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 08:10	EPA 8021B	
Xylene (p/m)	ND	0.00206	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 08:10	EPA 8021B	
Xylene (o)	ND	0.00103	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 08:10	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		111 %	80-120		P1B0412	02/04/21 15:35	02/05/21 08:10	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		116 %	80-120		P1B0412	02/04/21 15:35	02/05/21 08:10	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	ND	1.03	mg/kg dry	1	P1B0410	02/04/21 15:09	02/05/21 16:37	EPA 300.0	
% Moisture	3.0	0.1	%	1	P1B0501	02/05/21 09:59	02/05/21 12:34	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.8	mg/kg dry	1	P1B0407	02/04/21 13:30	02/05/21 04:39	TPH 8015M	
>C12-C28	ND	25.8	mg/kg dry	1	P1B0407	02/04/21 13:30	02/05/21 04:39	TPH 8015M	
>C28-C35	ND	25.8	mg/kg dry	1	P1B0407	02/04/21 13:30	02/05/21 04:39	TPH 8015M	
Surrogate: 1-Chlorooctane		88.4 %	70-130		P1B0407	02/04/21 13:30	02/05/21 04:39	TPH 8015M	
Surrogate: o-Terphenyl		95.3 %	70-130		P1B0407	02/04/21 13:30	02/05/21 04:39	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.8	mg/kg dry	1	[CALC]	02/04/21 13:30	02/05/21 04:39	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

SEBF-3 @ 10'
1B04002-26 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00103	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 08:30	EPA 8021B	
Toluene	ND	0.00103	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 08:30	EPA 8021B	
Ethylbenzene	ND	0.00103	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 08:30	EPA 8021B	
Xylene (p/m)	ND	0.00206	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 08:30	EPA 8021B	
Xylene (o)	ND	0.00103	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 08:30	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		114 %	80-120		P1B0412	02/04/21 15:35	02/05/21 08:30	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		109 %	80-120		P1B0412	02/04/21 15:35	02/05/21 08:30	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	ND	1.03	mg/kg dry	1	P1B0411	02/04/21 15:10	02/05/21 18:15	EPA 300.0	
% Moisture	3.0	0.1	%	1	P1B0501	02/05/21 09:59	02/05/21 12:34	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.8	mg/kg dry	1	P1B0407	02/04/21 13:30	02/05/21 05:02	TPH 8015M	
>C12-C28	ND	25.8	mg/kg dry	1	P1B0407	02/04/21 13:30	02/05/21 05:02	TPH 8015M	
>C28-C35	ND	25.8	mg/kg dry	1	P1B0407	02/04/21 13:30	02/05/21 05:02	TPH 8015M	
Surrogate: 1-Chlorooctane		85.0 %	70-130		P1B0407	02/04/21 13:30	02/05/21 05:02	TPH 8015M	
Surrogate: o-Terphenyl		91.6 %	70-130		P1B0407	02/04/21 13:30	02/05/21 05:02	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.8	mg/kg dry	1	[CALC]	02/04/21 13:30	02/05/21 05:02	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

SEW-2 @ 15'
1B04002-27 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00102	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 08:51	EPA 8021B	
Toluene	ND	0.00102	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 08:51	EPA 8021B	
Ethylbenzene	ND	0.00102	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 08:51	EPA 8021B	
Xylene (p/m)	ND	0.00204	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 08:51	EPA 8021B	
Xylene (o)	ND	0.00102	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 08:51	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		117 %	80-120		P1B0412	02/04/21 15:35	02/05/21 08:51	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		109 %	80-120		P1B0412	02/04/21 15:35	02/05/21 08:51	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	ND	1.02	mg/kg dry	1	P1B0411	02/04/21 15:10	02/05/21 19:04	EPA 300.0	
% Moisture	2.0	0.1	%	1	P1B0501	02/05/21 09:59	02/05/21 12:34	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.5	mg/kg dry	1	P1B0407	02/04/21 13:30	02/05/21 05:25	TPH 8015M	
>C12-C28	ND	25.5	mg/kg dry	1	P1B0407	02/04/21 13:30	02/05/21 05:25	TPH 8015M	
>C28-C35	ND	25.5	mg/kg dry	1	P1B0407	02/04/21 13:30	02/05/21 05:25	TPH 8015M	
Surrogate: 1-Chlorooctane		88.8 %	70-130		P1B0407	02/04/21 13:30	02/05/21 05:25	TPH 8015M	
Surrogate: o-Terphenyl		94.1 %	70-130		P1B0407	02/04/21 13:30	02/05/21 05:25	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.5	mg/kg dry	1	[CALC]	02/04/21 13:30	02/05/21 05:25	calc	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

SW-3 @ 11'
1B04002-28 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00104	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 09:11	EPA 8021B	
Toluene	ND	0.00104	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 09:11	EPA 8021B	
Ethylbenzene	ND	0.00104	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 09:11	EPA 8021B	
Xylene (p/m)	ND	0.00208	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 09:11	EPA 8021B	
Xylene (o)	ND	0.00104	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 09:11	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		118 %	80-120		P1B0412	02/04/21 15:35	02/05/21 09:11	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		111 %	80-120		P1B0412	02/04/21 15:35	02/05/21 09:11	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	ND	1.04	mg/kg dry	1	P1B0411	02/04/21 15:10	02/05/21 19:20	EPA 300.0	
% Moisture	4.0	0.1	%	1	P1B0501	02/05/21 09:59	02/05/21 12:34	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	26.0	mg/kg dry	1	P1B0407	02/04/21 13:30	02/05/21 05:49	TPH 8015M	
>C12-C28	ND	26.0	mg/kg dry	1	P1B0407	02/04/21 13:30	02/05/21 05:49	TPH 8015M	
>C28-C35	ND	26.0	mg/kg dry	1	P1B0407	02/04/21 13:30	02/05/21 05:49	TPH 8015M	
Surrogate: 1-Chlorooctane		88.4 %	70-130		P1B0407	02/04/21 13:30	02/05/21 05:49	TPH 8015M	
Surrogate: o-Terphenyl		95.3 %	70-130		P1B0407	02/04/21 13:30	02/05/21 05:49	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	26.0	mg/kg dry	1	[CALC]	02/04/21 13:30	02/05/21 05:49	calc	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

SW-4 @ 8'
1B04002-29 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00100	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 09:32	EPA 8021B	
Toluene	ND	0.00100	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 09:32	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 09:32	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 09:32	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 09:32	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		113 %	80-120		P1B0412	02/04/21 15:35	02/05/21 09:32	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		108 %	80-120		P1B0412	02/04/21 15:35	02/05/21 09:32	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	ND	1.00	mg/kg dry	1	P1B0411	02/04/21 15:10	02/05/21 19:36	EPA 300.0	
% Moisture	ND	0.1	%	1	P1B0501	02/05/21 09:59	02/05/21 12:34	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.0	mg/kg dry	1	P1B0407	02/04/21 13:30	02/05/21 06:12	TPH 8015M	
>C12-C28	ND	25.0	mg/kg dry	1	P1B0407	02/04/21 13:30	02/05/21 06:12	TPH 8015M	
>C28-C35	ND	25.0	mg/kg dry	1	P1B0407	02/04/21 13:30	02/05/21 06:12	TPH 8015M	
Surrogate: 1-Chlorooctane		84.5 %	70-130		P1B0407	02/04/21 13:30	02/05/21 06:12	TPH 8015M	
Surrogate: o-Terphenyl		92.5 %	70-130		P1B0407	02/04/21 13:30	02/05/21 06:12	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.0	mg/kg dry	1	[CALC]	02/04/21 13:30	02/05/21 06:12	calc	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

SW-5 @ 2.5'
1B04002-30 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00102	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 09:53	EPA 8021B	
Toluene	ND	0.00102	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 09:53	EPA 8021B	
Ethylbenzene	ND	0.00102	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 09:53	EPA 8021B	
Xylene (p/m)	ND	0.00204	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 09:53	EPA 8021B	
Xylene (o)	ND	0.00102	mg/kg dry	1	P1B0412	02/04/21 15:35	02/05/21 09:53	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		110 %	80-120		P1B0412	02/04/21 15:35	02/05/21 09:53	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		116 %	80-120		P1B0412	02/04/21 15:35	02/05/21 09:53	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	ND	1.02	mg/kg dry	1	P1B0411	02/04/21 15:10	02/05/21 19:52	EPA 300.0	
% Moisture	2.0	0.1	%	1	P1B0501	02/05/21 09:59	02/05/21 12:34	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.5	mg/kg dry	1	P1B0407	02/04/21 13:30	02/05/21 06:35	TPH 8015M	
>C12-C28	ND	25.5	mg/kg dry	1	P1B0407	02/04/21 13:30	02/05/21 06:35	TPH 8015M	
>C28-C35	ND	25.5	mg/kg dry	1	P1B0407	02/04/21 13:30	02/05/21 06:35	TPH 8015M	
Surrogate: 1-Chlorooctane		86.9 %	70-130		P1B0407	02/04/21 13:30	02/05/21 06:35	TPH 8015M	
Surrogate: o-Terphenyl		94.7 %	70-130		P1B0407	02/04/21 13:30	02/05/21 06:35	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.5	mg/kg dry	1	[CALC]	02/04/21 13:30	02/05/21 06:35	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

SBF-1 @ 10'
1B04002-31 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00104	mg/kg dry	1	P1B0413	02/04/21 15:46	02/05/21 12:39	EPA 8021B	
Toluene	ND	0.00104	mg/kg dry	1	P1B0413	02/04/21 15:46	02/05/21 12:39	EPA 8021B	
Ethylbenzene	ND	0.00104	mg/kg dry	1	P1B0413	02/04/21 15:46	02/05/21 12:39	EPA 8021B	
Xylene (p/m)	ND	0.00208	mg/kg dry	1	P1B0413	02/04/21 15:46	02/05/21 12:39	EPA 8021B	
Xylene (o)	ND	0.00104	mg/kg dry	1	P1B0413	02/04/21 15:46	02/05/21 12:39	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		110 %	80-120		P1B0413	02/04/21 15:46	02/05/21 12:39	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		117 %	80-120		P1B0413	02/04/21 15:46	02/05/21 12:39	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	ND	1.04	mg/kg dry	1	P1B0411	02/04/21 15:10	02/05/21 20:09	EPA 300.0	
% Moisture	4.0	0.1	%	1	P1B0501	02/05/21 09:59	02/05/21 12:34	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	26.0	mg/kg dry	1	P1B0407	02/04/21 13:30	02/05/21 07:43	TPH 8015M	
>C12-C28	ND	26.0	mg/kg dry	1	P1B0407	02/04/21 13:30	02/05/21 07:43	TPH 8015M	
>C28-C35	ND	26.0	mg/kg dry	1	P1B0407	02/04/21 13:30	02/05/21 07:43	TPH 8015M	
Surrogate: 1-Chlorooctane		91.8 %	70-130		P1B0407	02/04/21 13:30	02/05/21 07:43	TPH 8015M	
Surrogate: o-Terphenyl		101 %	70-130		P1B0407	02/04/21 13:30	02/05/21 07:43	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	26.0	mg/kg dry	1	[CALC]	02/04/21 13:30	02/05/21 07:43	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

SBF-2 @ 5'
1B04002-32 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00101	mg/kg dry	1	P1B0413	02/04/21 15:46	02/05/21 13:00	EPA 8021B	
Toluene	ND	0.00101	mg/kg dry	1	P1B0413	02/04/21 15:46	02/05/21 13:00	EPA 8021B	
Ethylbenzene	ND	0.00101	mg/kg dry	1	P1B0413	02/04/21 15:46	02/05/21 13:00	EPA 8021B	
Xylene (p/m)	ND	0.00202	mg/kg dry	1	P1B0413	02/04/21 15:46	02/05/21 13:00	EPA 8021B	
Xylene (o)	ND	0.00101	mg/kg dry	1	P1B0413	02/04/21 15:46	02/05/21 13:00	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		115 %	80-120		P1B0413	02/04/21 15:46	02/05/21 13:00	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		109 %	80-120		P1B0413	02/04/21 15:46	02/05/21 13:00	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	ND	1.01	mg/kg dry	1	P1B0411	02/04/21 15:10	02/05/21 20:25	EPA 300.0	
% Moisture	1.0	0.1	%	1	P1B0501	02/05/21 09:59	02/05/21 12:34	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.3	mg/kg dry	1	P1B0407	02/04/21 13:30	02/05/21 08:05	TPH 8015M	
>C12-C28	ND	25.3	mg/kg dry	1	P1B0407	02/04/21 13:30	02/05/21 08:05	TPH 8015M	
>C28-C35	ND	25.3	mg/kg dry	1	P1B0407	02/04/21 13:30	02/05/21 08:05	TPH 8015M	
Surrogate: 1-Chlorooctane		89.9 %	70-130		P1B0407	02/04/21 13:30	02/05/21 08:05	TPH 8015M	
Surrogate: o-Terphenyl		99.2 %	70-130		P1B0407	02/04/21 13:30	02/05/21 08:05	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.3	mg/kg dry	1	[CALC]	02/04/21 13:30	02/05/21 08:05	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

WW-2 @ 6'
1B04002-33 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00102	mg/kg dry	1	P1B0413	02/04/21 15:46	02/05/21 13:21	EPA 8021B	
Toluene	ND	0.00102	mg/kg dry	1	P1B0413	02/04/21 15:46	02/05/21 13:21	EPA 8021B	
Ethylbenzene	ND	0.00102	mg/kg dry	1	P1B0413	02/04/21 15:46	02/05/21 13:21	EPA 8021B	
Xylene (p/m)	ND	0.00204	mg/kg dry	1	P1B0413	02/04/21 15:46	02/05/21 13:21	EPA 8021B	
Xylene (o)	ND	0.00102	mg/kg dry	1	P1B0413	02/04/21 15:46	02/05/21 13:21	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		116 %	80-120		P1B0413	02/04/21 15:46	02/05/21 13:21	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		111 %	80-120		P1B0413	02/04/21 15:46	02/05/21 13:21	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	ND	1.02	mg/kg dry	1	P1B0411	02/04/21 15:10	02/05/21 20:41	EPA 300.0	
% Moisture	2.0	0.1	%	1	P1B0501	02/05/21 09:59	02/05/21 12:34	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.5	mg/kg dry	1	P1B0407	02/04/21 13:30	02/05/21 08:28	TPH 8015M	
>C12-C28	ND	25.5	mg/kg dry	1	P1B0407	02/04/21 13:30	02/05/21 08:28	TPH 8015M	
>C28-C35	ND	25.5	mg/kg dry	1	P1B0407	02/04/21 13:30	02/05/21 08:28	TPH 8015M	
Surrogate: 1-Chlorooctane		91.3 %	70-130		P1B0407	02/04/21 13:30	02/05/21 08:28	TPH 8015M	
Surrogate: o-Terphenyl		99.7 %	70-130		P1B0407	02/04/21 13:30	02/05/21 08:28	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.5	mg/kg dry	1	[CALC]	02/04/21 13:30	02/05/21 08:28	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

WW-3 @ 6'
1B04002-34 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00106	mg/kg dry	1	P1B0413	02/04/21 15:46	02/05/21 13:42	EPA 8021B	
Toluene	ND	0.00106	mg/kg dry	1	P1B0413	02/04/21 15:46	02/05/21 13:42	EPA 8021B	
Ethylbenzene	ND	0.00106	mg/kg dry	1	P1B0413	02/04/21 15:46	02/05/21 13:42	EPA 8021B	
Xylene (p/m)	ND	0.00213	mg/kg dry	1	P1B0413	02/04/21 15:46	02/05/21 13:42	EPA 8021B	
Xylene (o)	ND	0.00106	mg/kg dry	1	P1B0413	02/04/21 15:46	02/05/21 13:42	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		116 %	80-120		P1B0413	02/04/21 15:46	02/05/21 13:42	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		110 %	80-120		P1B0413	02/04/21 15:46	02/05/21 13:42	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	ND	1.06	mg/kg dry	1	P1B0411	02/04/21 15:10	02/05/21 20:57	EPA 300.0	
% Moisture	6.0	0.1	%	1	P1B0501	02/05/21 09:59	02/05/21 12:34	ASTM D2216	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	26.6	mg/kg dry	1	P1B0407	02/04/21 13:30	02/05/21 08:50	TPH 8015M	
>C12-C28	ND	26.6	mg/kg dry	1	P1B0407	02/04/21 13:30	02/05/21 08:50	TPH 8015M	
>C28-C35	ND	26.6	mg/kg dry	1	P1B0407	02/04/21 13:30	02/05/21 08:50	TPH 8015M	
Surrogate: 1-Chlorooctane		89.7 %	70-130		P1B0407	02/04/21 13:30	02/05/21 08:50	TPH 8015M	
Surrogate: o-Terphenyl		97.6 %	70-130		P1B0407	02/04/21 13:30	02/05/21 08:50	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	26.6	mg/kg dry	1	[CALC]	02/04/21 13:30	02/05/21 08:50	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

BTEX by 8021B - Quality Control
Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch P1B0405 - General Preparation (GC)**Blank (P1B0405-BLK1)**

Prepared & Analyzed: 02/04/21

Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 1,4-Difluorobenzene	0.128		"	0.120		107	80-120			
Surrogate: 4-Bromofluorobenzene	0.129		"	0.120		108	80-120			

LCS (P1B0405-BS1)

Prepared & Analyzed: 02/04/21

Benzene	0.0918	0.00100	mg/kg wet	0.100		91.8	70-130			
Toluene	0.110	0.00100	"	0.100		110	70-130			
Ethylbenzene	0.114	0.00100	"	0.100		114	70-130			
Xylene (p/m)	0.228	0.00200	"	0.200		114	70-130			
Xylene (o)	0.108	0.00100	"	0.100		108	70-130			
Surrogate: 4-Bromofluorobenzene	0.128		"	0.120		107	80-120			
Surrogate: 1,4-Difluorobenzene	0.131		"	0.120		109	80-120			

LCS Dup (P1B0405-BS1)

Prepared & Analyzed: 02/04/21

Benzene	0.0978	0.00100	mg/kg wet	0.100		97.8	70-130	6.22	20	
Toluene	0.119	0.00100	"	0.100		119	70-130	8.41	20	
Ethylbenzene	0.120	0.00100	"	0.100		120	70-130	5.37	20	
Xylene (p/m)	0.236	0.00200	"	0.200		118	70-130	3.77	20	
Xylene (o)	0.119	0.00100	"	0.100		119	70-130	9.93	20	
Surrogate: 1,4-Difluorobenzene	0.130		"	0.120		109	80-120			
Surrogate: 4-Bromofluorobenzene	0.130		"	0.120		108	80-120			

Calibration Check (P1B0405-CCV1)

Prepared & Analyzed: 02/04/21

Benzene	0.101	0.00100	mg/kg wet	0.100		101	80-120			
Toluene	0.119	0.00100	"	0.100		119	80-120			
Ethylbenzene	0.120	0.00100	"	0.100		120	80-120			
Xylene (p/m)	0.238	0.00200	"	0.200		119	80-120			
Xylene (o)	0.117	0.00100	"	0.100		117	80-120			
Surrogate: 1,4-Difluorobenzene	0.131		"	0.120		109	75-125			
Surrogate: 4-Bromofluorobenzene	0.127		"	0.120		106	75-125			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

BTEX by 8021B - Quality Control
Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch P1B0405 - General Preparation (GC)**Calibration Check (P1B0405-CCV2)**

Prepared & Analyzed: 02/04/21

Benzene	0.0990	0.00100	mg/kg wet	0.100		99.0	80-120			
Toluene	0.103	0.00100	"	0.100		103	80-120			
Ethylbenzene	0.0989	0.00100	"	0.100		98.9	80-120			
Xylene (p/m)	0.223	0.00200	"	0.200		111	80-120			
Xylene (o)	0.0954	0.00100	"	0.100		95.4	80-120			
Surrogate: 1,4-Difluorobenzene	0.136		"	0.120		114	75-125			
Surrogate: 4-Bromofluorobenzene	0.137		"	0.120		114	75-125			

Calibration Check (P1B0405-CCV3)

Prepared: 02/04/21 Analyzed: 02/05/21

Benzene	0.0936	0.00100	mg/kg wet				80-120			
Toluene	0.115	0.00100	"				80-120			
Ethylbenzene	0.119	0.00100	"				80-120			
Xylene (p/m)	0.234	0.00200	"				80-120			
Xylene (o)	0.114	0.00100	"				80-120			
Surrogate: 1,4-Difluorobenzene	0.129		"	0.120		108	75-125			
Surrogate: 4-Bromofluorobenzene	0.123		"	0.120		102	75-125			

Matrix Spike (P1B0405-MS1)

Source: 1B03011-01

Prepared: 02/04/21 Analyzed: 02/05/21

Benzene	0.0750	0.00104	mg/kg dry	0.104	ND	72.0	80-120			QM-07
Toluene	0.0909	0.00104	"	0.104	ND	87.3	80-120			
Ethylbenzene	0.112	0.00104	"	0.104	ND	107	80-120			
Xylene (p/m)	0.186	0.00208	"	0.208	ND	89.3	80-120			
Xylene (o)	0.0909	0.00104	"	0.104	ND	87.3	80-120			
Surrogate: 1,4-Difluorobenzene	0.136		"	0.125		109	80-120			
Surrogate: 4-Bromofluorobenzene	0.138		"	0.125		110	80-120			

Matrix Spike Dup (P1B0405-MSD1)

Source: 1B03011-01

Prepared: 02/04/21 Analyzed: 02/05/21

Benzene	0.0786	0.00104	mg/kg dry	0.104	ND	75.5	80-120	4.79	20	QM-07
Toluene	0.0959	0.00104	"	0.104	ND	92.1	80-120	5.33	20	
Ethylbenzene	0.120	0.00104	"	0.104	ND	115	80-120	6.89	20	
Xylene (p/m)	0.199	0.00208	"	0.208	ND	95.4	80-120	6.64	20	
Xylene (o)	0.0979	0.00104	"	0.104	ND	93.9	80-120	7.32	20	
Surrogate: 1,4-Difluorobenzene	0.135		"	0.125		108	80-120			
Surrogate: 4-Bromofluorobenzene	0.138		"	0.125		111	80-120			

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

BTEX by 8021B - Quality Control
Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch P1B0412 - General Preparation (GC)**Blank (P1B0412-BLK1)**

Prepared: 02/04/21 Analyzed: 02/05/21

Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 4-Bromofluorobenzene	0.141		"	0.120		117	80-120			
Surrogate: 1,4-Difluorobenzene	0.132		"	0.120		110	80-120			

LCS (P1B0412-BS1)

Prepared: 02/04/21 Analyzed: 02/05/21

Benzene	0.0871	0.00100	mg/kg wet	0.100		87.1	70-130			
Toluene	0.106	0.00100	"	0.100		106	70-130			
Ethylbenzene	0.110	0.00100	"	0.100		110	70-130			
Xylene (p/m)	0.212	0.00200	"	0.200		106	70-130			
Xylene (o)	0.112	0.00100	"	0.100		112	70-130			
Surrogate: 1,4-Difluorobenzene	0.129		"	0.120		108	80-120			
Surrogate: 4-Bromofluorobenzene	0.132		"	0.120		110	80-120			

LCS Dup (P1B0412-BSD1)

Prepared: 02/04/21 Analyzed: 02/05/21

Benzene	0.0894	0.00100	mg/kg wet	0.100		89.4	70-130	2.63	20	
Toluene	0.111	0.00100	"	0.100		111	70-130	4.98	20	
Ethylbenzene	0.112	0.00100	"	0.100		112	70-130	2.19	20	
Xylene (p/m)	0.221	0.00200	"	0.200		110	70-130	4.24	20	
Xylene (o)	0.117	0.00100	"	0.100		117	70-130	4.27	20	
Surrogate: 4-Bromofluorobenzene	0.131		"	0.120		110	80-120			
Surrogate: 1,4-Difluorobenzene	0.129		"	0.120		107	80-120			

Calibration Check (P1B0412-CCV1)

Prepared: 02/04/21 Analyzed: 02/05/21

Benzene	0.0936	0.00100	mg/kg wet	0.100		93.6	80-120			
Toluene	0.115	0.00100	"	0.100		115	80-120			
Ethylbenzene	0.119	0.00100	"	0.100		119	80-120			
Xylene (p/m)	0.234	0.00200	"	0.200		117	80-120			
Xylene (o)	0.114	0.00100	"	0.100		114	80-120			
Surrogate: 4-Bromofluorobenzene	0.123		"	0.120		102	75-125			
Surrogate: 1,4-Difluorobenzene	0.129		"	0.120		108	75-125			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

BTEX by 8021B - Quality Control
Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch P1B0412 - General Preparation (GC)**Calibration Check (P1B0412-CCV2)**

Prepared: 02/04/21 Analyzed: 02/05/21

Benzene	0.0905	0.00100	mg/kg wet	0.100		90.5	80-120			
Toluene	0.102	0.00100	"	0.100		102	80-120			
Ethylbenzene	0.103	0.00100	"	0.100		103	80-120			
Xylene (p/m)	0.204	0.00200	"	0.200		102	80-120			
Xylene (o)	0.0964	0.00100	"	0.100		96.4	80-120			
Surrogate: 1,4-Difluorobenzene	0.132		"	0.120		110	75-125			
Surrogate: 4-Bromofluorobenzene	0.137		"	0.120		114	75-125			

Calibration Check (P1B0412-CCV3)

Prepared: 02/04/21 Analyzed: 02/05/21

Benzene	0.0995	0.00100	mg/kg wet	0.100		99.5	80-120			
Toluene	0.117	0.00100	"	0.100		117	80-120			
Ethylbenzene	0.118	0.00100	"	0.100		118	80-120			
Xylene (p/m)	0.236	0.00200	"	0.200		118	80-120			
Xylene (o)	0.115	0.00100	"	0.100		115	80-120			
Surrogate: 1,4-Difluorobenzene	0.134		"	0.120		112	75-125			
Surrogate: 4-Bromofluorobenzene	0.143		"	0.120		119	75-125			

Matrix Spike (P1B0412-MS1)

Source: 1B04002-11

Prepared: 02/04/21 Analyzed: 02/05/21

Benzene	0.0763	0.00102	mg/kg dry	0.102	ND	74.7	80-120			QM-07
Toluene	0.0878	0.00102	"	0.102	0.00106	85.0	80-120			
Ethylbenzene	0.0983	0.00102	"	0.102	0.000796	95.5	80-120			
Xylene (p/m)	0.184	0.00204	"	0.204	0.00379	88.1	80-120			
Xylene (o)	0.0840	0.00102	"	0.102	0.000735	81.6	80-120			
Surrogate: 1,4-Difluorobenzene	0.135		"	0.122		110	80-120			
Surrogate: 4-Bromofluorobenzene	0.143		"	0.122		117	80-120			

Matrix Spike Dup (P1B0412-MSD1)

Source: 1B04002-11

Prepared: 02/04/21 Analyzed: 02/05/21

Benzene	0.0761	0.00102	mg/kg dry	0.102	ND	74.6	80-120	0.214	20	QM-07
Toluene	0.0917	0.00102	"	0.102	0.00106	88.8	80-120	4.35	20	
Ethylbenzene	0.102	0.00102	"	0.102	0.000796	99.7	80-120	4.23	20	
Xylene (p/m)	0.187	0.00204	"	0.204	0.00379	89.8	80-120	1.85	20	
Xylene (o)	0.0860	0.00102	"	0.102	0.000735	83.6	80-120	2.42	20	
Surrogate: 4-Bromofluorobenzene	0.143		"	0.122		117	80-120			
Surrogate: 1,4-Difluorobenzene	0.134		"	0.122		110	80-120			

Permian Basin Environmental Lab, L.P.

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Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

BTEX by 8021B - Quality Control
Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch P1B0413 - General Preparation (GC)**Blank (P1B0413-BLK1)**

Prepared: 02/04/21 Analyzed: 02/05/21

Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 1,4-Difluorobenzene	0.130		"	0.120		108	80-120			
Surrogate: 4-Bromofluorobenzene	0.136		"	0.120		113	80-120			

LCS (P1B0413-BS1)

Prepared: 02/04/21 Analyzed: 02/05/21

Benzene	0.0968	0.00100	mg/kg wet	0.100		96.8	70-130			
Toluene	0.111	0.00100	"	0.100		111	70-130			
Ethylbenzene	0.118	0.00100	"	0.100		118	70-130			
Xylene (p/m)	0.236	0.00200	"	0.200		118	70-130			
Xylene (o)	0.109	0.00100	"	0.100		109	70-130			
Surrogate: 4-Bromofluorobenzene	0.140		"	0.120		116	80-120			
Surrogate: 1,4-Difluorobenzene	0.133		"	0.120		111	80-120			

LCS Dup (P1B0413-BSD1)

Prepared: 02/04/21 Analyzed: 02/05/21

Benzene	0.0993	0.00100	mg/kg wet	0.100		99.3	70-130	2.58	20	
Toluene	0.115	0.00100	"	0.100		115	70-130	3.60	20	
Ethylbenzene	0.117	0.00100	"	0.100		117	70-130	0.179	20	
Xylene (p/m)	0.240	0.00200	"	0.200		120	70-130	1.46	20	
Xylene (o)	0.114	0.00100	"	0.100		114	70-130	3.79	20	
Surrogate: 1,4-Difluorobenzene	0.136		"	0.120		113	80-120			
Surrogate: 4-Bromofluorobenzene	0.141		"	0.120		118	80-120			

Calibration Check (P1B0413-CCV1)

Prepared: 02/04/21 Analyzed: 02/05/21

Benzene	0.0995	0.00100	mg/kg wet	0.100		99.5	80-120			
Toluene	0.117	0.00100	"	0.100		117	80-120			
Ethylbenzene	0.118	0.00100	"	0.100		118	80-120			
Xylene (p/m)	0.236	0.00200	"	0.200		118	80-120			
Xylene (o)	0.115	0.00100	"	0.100		115	80-120			
Surrogate: 4-Bromofluorobenzene	0.143		"	0.120		119	75-125			
Surrogate: 1,4-Difluorobenzene	0.134		"	0.120		112	75-125			

Permian Basin Environmental Lab, L.P.

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Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

General Chemistry Parameters by EPA / Standard Methods - Quality Control
Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch P1B0402 - * DEFAULT PREP *****

Blank (P1B0402-BLK1) Prepared & Analyzed: 02/04/21

Chloride	ND	1.00	mg/kg wet
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LCS (P1B0402-BS1) Prepared & Analyzed: 02/04/21

Chloride	373	1.00	mg/kg wet	400	93.2	90-110
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LCS Dup (P1B0402-BSD1) Prepared & Analyzed: 02/04/21

Chloride	372	1.00	mg/kg wet	400	92.9	90-110	0.274	20
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Calibration Check (P1B0402-CCV1) Prepared & Analyzed: 02/04/21

Chloride	18.2		mg/kg	20.0	90.9	90-110
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Calibration Check (P1B0402-CCV2) Prepared & Analyzed: 02/04/21

Chloride	18.4		mg/kg	20.0	92.2	90-110
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Calibration Check (P1B0402-CCV3) Prepared: 02/04/21 Analyzed: 02/05/21

Chloride	18.3		mg/kg	20.0	91.5	90-110
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Matrix Spike (P1B0402-MS1) Source: 1B04003-01 Prepared & Analyzed: 02/04/21

Chloride	462	1.01	mg/kg dry	505	5.65	90.4	80-120
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Matrix Spike (P1B0402-MS2) Source: 1B04003-11 Prepared & Analyzed: 02/04/21

Chloride	670	1.01	mg/kg dry	505	229	87.2	80-120
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Matrix Spike Dup (P1B0402-MSD1) Source: 1B04003-01 Prepared & Analyzed: 02/04/21

Chloride	463	1.01	mg/kg dry	505	5.65	90.5	80-120	0.142	20
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Matrix Spike Dup (P1B0402-MSD2) Source: 1B04003-11 Prepared: 02/04/21 Analyzed: 02/05/21

Chloride	754	1.01	mg/kg dry	505	229	104	80-120	11.9	20
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1400 Rankin HWY Midland, TX 79701 432-686-7235

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Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

General Chemistry Parameters by EPA / Standard Methods - Quality Control
Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch P1B0410 - * DEFAULT PREP *******Blank (P1B0410-BLK1)**

Prepared: 02/04/21 Analyzed: 02/05/21

Chloride	ND	1.00	mg/kg wet							
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LCS (P1B0410-BS1)

Prepared: 02/04/21 Analyzed: 02/05/21

Chloride	376	1.00	mg/kg wet	400		93.9	90-110			
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LCS Dup (P1B0410-BSD1)

Prepared: 02/04/21 Analyzed: 02/05/21

Chloride	374	1.00	mg/kg wet	400		93.5	90-110	0.470	20	
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Calibration Check (P1B0410-CCV1)

Prepared: 02/04/21 Analyzed: 02/05/21

Chloride	18.2		mg/kg	20.0		91.1	90-110			
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Calibration Check (P1B0410-CCV2)

Prepared: 02/04/21 Analyzed: 02/05/21

Chloride	18.4		mg/kg	20.0		92.1	90-110			
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Matrix Spike (P1B0410-MS1)**Source: 1B04002-06**

Prepared: 02/04/21 Analyzed: 02/05/21

Chloride	503	1.04	mg/kg dry	521	29.7	90.9	80-120			
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Matrix Spike (P1B0410-MS2)**Source: 1B04002-16**

Prepared: 02/04/21 Analyzed: 02/05/21

Chloride	455	1.01	mg/kg dry	505	ND	90.2	80-120			
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Matrix Spike Dup (P1B0410-MSD1)**Source: 1B04002-06**

Prepared: 02/04/21 Analyzed: 02/05/21

Chloride	498	1.04	mg/kg dry	521	29.7	89.9	80-120	1.06	20	
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Matrix Spike Dup (P1B0410-MSD2)**Source: 1B04002-16**

Prepared: 02/04/21 Analyzed: 02/05/21

Chloride	454	1.01	mg/kg dry	505	ND	90.0	80-120	0.220	20	
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Batch P1B0411 - * DEFAULT PREP *******Blank (P1B0411-BLK1)**

Prepared: 02/04/21 Analyzed: 02/05/21

Chloride	ND	1.00	mg/kg wet							
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Permian Basin Environmental Lab, L.P.

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Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

General Chemistry Parameters by EPA / Standard Methods - Quality Control
Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch P1B0411 - * DEFAULT PREP *******LCS (P1B0411-BS1)**

Prepared: 02/04/21 Analyzed: 02/05/21

Chloride	377	1.00	mg/kg wet	400		94.2	90-110			
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LCS Dup (P1B0411-BS1)

Prepared: 02/04/21 Analyzed: 02/05/21

Chloride	378	1.00	mg/kg wet	400		94.4	90-110	0.178	20	
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Calibration Check (P1B0411-CCV1)

Prepared: 02/04/21 Analyzed: 02/05/21

Chloride	18.5		mg/kg	20.0		92.4	90-110			
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Calibration Check (P1B0411-CCV2)

Prepared: 02/04/21 Analyzed: 02/05/21

Chloride	18.6		mg/kg	20.0		92.8	90-110			
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Matrix Spike (P1B0411-MS1)**Source: 1B04002-26**

Prepared: 02/04/21 Analyzed: 02/05/21

Chloride	467	1.03	mg/kg dry	515	ND	90.7	80-120			
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Matrix Spike Dup (P1B0411-MS1)**Source: 1B04002-26**

Prepared: 02/04/21 Analyzed: 02/05/21

Chloride	468	1.03	mg/kg dry	515	ND	90.7	80-120	0.0706	20	
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Batch P1B0501 - * DEFAULT PREP *******Blank (P1B0501-BLK1)**

Prepared & Analyzed: 02/05/21

% Moisture	ND	0.1	%							
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Blank (P1B0501-BLK2)

Prepared & Analyzed: 02/05/21

% Moisture	ND	0.1	%							
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Blank (P1B0501-BLK3)

Prepared & Analyzed: 02/05/21

% Moisture	ND	0.1	%							
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Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

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12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

General Chemistry Parameters by EPA / Standard Methods - Quality Control
Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P1B0501 - *** DEFAULT PREP ***										
Blank (P1B0501-BLK4)										Prepared & Analyzed: 02/05/21
% Moisture	ND	0.1	%							
Duplicate (P1B0501-DUP1)										Prepared & Analyzed: 02/05/21
% Moisture	12.0	0.1	%		12.0			0.00	20	
Duplicate (P1B0501-DUP2)										Prepared & Analyzed: 02/05/21
% Moisture	4.0	0.1	%		5.0			22.2	20	
Duplicate (P1B0501-DUP3)										Prepared & Analyzed: 02/05/21
% Moisture	ND	0.1	%		1.0			200	20	
Duplicate (P1B0501-DUP4)										Prepared & Analyzed: 02/05/21
% Moisture	1.0	0.1	%		1.0			0.00	20	
Duplicate (P1B0501-DUP5)										Prepared & Analyzed: 02/05/21
% Moisture	4.0	0.1	%		1.0			120	20	
Duplicate (P1B0501-DUP6)										Prepared & Analyzed: 02/05/21
% Moisture	4.0	0.1	%		4.0			0.00	20	
Duplicate (P1B0501-DUP7)										Prepared & Analyzed: 02/05/21
% Moisture	9.0	0.1	%		9.0			0.00	20	

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Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control
Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch P1B0406 - TX 1005**Blank (P1B0406-BLK1)**

Prepared & Analyzed: 02/04/21

C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	83.4		"	100		83.4	70-130			
Surrogate: o-Terphenyl	44.1		"	50.0		88.2	70-130			

LCS (P1B0406-BS1)

Prepared & Analyzed: 02/04/21

C6-C12	828	25.0	mg/kg wet	1000		82.8	75-125			
>C12-C28	845	25.0	"	1000		84.5	75-125			
Surrogate: 1-Chlorooctane	89.4		"	100		89.4	70-130			
Surrogate: o-Terphenyl	42.5		"	50.0		85.0	70-130			

LCS Dup (P1B0406-BSD1)

Prepared & Analyzed: 02/04/21

C6-C12	835	25.0	mg/kg wet	1000		83.5	75-125	0.901	20	
>C12-C28	859	25.0	"	1000		85.9	75-125	1.67	20	
Surrogate: 1-Chlorooctane	92.0		"	100		92.0	70-130			
Surrogate: o-Terphenyl	43.6		"	50.0		87.1	70-130			

Calibration Check (P1B0406-CCV1)

Prepared & Analyzed: 02/04/21

C6-C12	466	25.0	mg/kg wet	500		93.2	85-115			
>C12-C28	435	25.0	"	500		87.0	85-115			
Surrogate: 1-Chlorooctane	90.3		"	100		90.3	70-130			
Surrogate: o-Terphenyl	43.2		"	50.0		86.3	70-130			

Calibration Check (P1B0406-CCV2)

Prepared & Analyzed: 02/04/21

C6-C12	440	25.0	mg/kg wet	500		87.9	85-115			
>C12-C28	431	25.0	"	500		86.2	85-115			
Surrogate: 1-Chlorooctane	82.0		"	100		82.0	70-130			
Surrogate: o-Terphenyl	40.0		"	50.0		80.0	70-130			

Permian Basin Environmental Lab, L.P.

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Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control
Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch P1B0406 - TX 1005

Duplicate (P1B0406-DUP1)	Source: 1B04002-20			Prepared: 02/04/21		Analyzed: 02/05/21				
C6-C12	11.0	25.3	mg/kg dry		11.0			0.367	20	
>C12-C28	ND	25.3	"		ND				20	
Surrogate: 1-Chlorooctane	84.8		"	101		84.0	70-130			
Surrogate: o-Terphenyl	45.7		"	50.5		90.4	70-130			

Batch P1B0407 - TX 1005

Blank (P1B0407-BLK1)				Prepared: 02/04/21		Analyzed: 02/05/21				
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	79.0		"	100		79.0	70-130			
Surrogate: o-Terphenyl	42.2		"	50.0		84.5	70-130			

LCS (P1B0407-BS1)				Prepared: 02/04/21		Analyzed: 02/05/21				
C6-C12	814	25.0	mg/kg wet	1000		81.4	75-125			
>C12-C28	862	25.0	"	1000		86.2	75-125			
Surrogate: 1-Chlorooctane	87.4		"	100		87.4	70-130			
Surrogate: o-Terphenyl	41.3		"	50.0		82.6	70-130			

LCS Dup (P1B0407-BSD1)				Prepared: 02/04/21		Analyzed: 02/05/21				
C6-C12	838	25.0	mg/kg wet	1000		83.8	75-125	2.91	20	
>C12-C28	926	25.0	"	1000		92.6	75-125	7.10	20	
Surrogate: 1-Chlorooctane	94.0		"	100		94.0	70-130			
Surrogate: o-Terphenyl	44.1		"	50.0		88.2	70-130			

Calibration Check (P1B0407-CCV1)				Prepared: 02/04/21		Analyzed: 02/05/21				
C6-C12	480	25.0	mg/kg wet	500		96.0	85-115			
>C12-C28	475	25.0	"	500		95.1	85-115			
Surrogate: 1-Chlorooctane	82.7		"	100		82.7	70-130			
Surrogate: o-Terphenyl	40.7		"	50.0		81.4	70-130			

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control
Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch P1B0407 - TX 1005**Calibration Check (P1B0407-CCV2)**

Prepared: 02/04/21 Analyzed: 02/05/21

C6-C12	429	25.0	mg/kg wet	500		85.9	85-115			
>C12-C28	449	25.0	"	500		89.8	85-115			
Surrogate: 1-Chlorooctane	85.3		"	100		85.3	70-130			
Surrogate: o-Terphenyl	42.2		"	50.0		84.3	70-130			

Calibration Check (P1B0407-CCV3)

Prepared: 02/04/21 Analyzed: 02/05/21

C6-C12	450	25.0	mg/kg wet	500		90.1	85-115			
>C12-C28	471	25.0	"	500		94.1	85-115			
Surrogate: 1-Chlorooctane	91.5		"	100		91.5	70-130			
Surrogate: o-Terphenyl	44.3		"	50.0		88.6	70-130			

Duplicate (P1B0407-DUP1)

Source: 1B04002-34

Prepared: 02/04/21 Analyzed: 02/05/21

C6-C12	19.9	26.6	mg/kg dry		12.7			44.7	20	
>C12-C28	15.3	26.6	"		ND				20	
Surrogate: 1-Chlorooctane	98.9		"	106		93.0	70-130			
Surrogate: o-Terphenyl	53.9		"	53.2		101	70-130			

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean
12600 W County Rd 91
Midland TX, 79707

Project: Hudson Federal 4 Remediation
Project Number: PP-21025
Project Manager: Sylwia Reynolds

Fax:

Notes and Definitions

ROI Received on Ice

QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.

BULK Samples received in Bulk soil containers

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

LCS Laboratory Control Spike

MS Matrix Spike

Dup Duplicate

Report Approved By:



Date:

2/7/2021

Brent Barron, Laboratory Director/Technical Director

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

If you have received this material in error, please notify us immediately at 432-686-7235.

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235



CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Permian Basin Environmental Lab, LP
1400 Rankin Hwy
Midland, Texas 79701

Phone: 432-686-7235

PG. 3 of 4

Project Manager: Sylvia Reynolds

Company Name _____ **Dean** _____

Company Address: 12600 WCR 91

City/State/Zip: Midland TX 79707

Telephone No. 432-230-0920

Sampler Signature: JOE BELLOC

Fax No:

e-mail: sylvia.reynolds@deandids.com

kaylanlongee@deanequip.com
stavecasanova@deandis.com

ORDER #: 1804002

Preservation & # of Containers

Ref: 00000000

Analyze For:

Report Format: ☒ Standard ☐ TRRP ☐ NPDES
elizabethhsu@tcdearidgs.com

WORK ORDER #

Project Loc: LEA COUNTY, NEW MEXICO

Project #: PP-21026

PP-21025 HUDSON FEDERAL 4
Project Name: REMEDIATION

Special Instructions:

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Ice	HNO ₃ 250 ml Poly	HCl	H ₂ SO ₄	NaOH	Na ₂ S ₂ O ₃	None 1L Poly	NaOH/ZnAc	GWL=Drinking Water SL=Sludge GW= Groundwater S=Soil/Solid NP=Non-Potable Specify Other	TPH TX1005 EXT (TEXA	BTEX 8021 B	TCLP BENZENE	CHLORIDES	TCLP METALS	NORM	PAINT FILTER	TOX	RCI	pH	TPH 8015 M (NEW MEX	7 Day TAT	24 hour TAT
21	EW-7-2011	11 FT 11 FT	02/03/21	1:05 PM		1	1	X										X	X	X						X		X	X
22	EW-8-2011	8 FT 8 FT	02/03/21	1:10 PM		1	1	X										X	X	X						X		X	X
23	EW-9-2011	13 FT 13 FT	02/03/21	1:22 PM		1	1	X										X	X	X						X		X	X
24	SEBF-1-2013	13 FT 13 FT	02/10/21	12:46 PM		1	1	X										X	X	X						X		X	X
25	SEBF-2-2011	11 FT 11 FT	02/03/21	12:51 PM		1	1	X										X	X	X						X		X	X
26	SEBF-3-2010	10 FT 10 FT	02/03/21	12:55 PM		1	1	X										X	X	X						X		X	X
27	SEW-2-2014	15 FT 15 FT	02/03/21	12:58 PM		1	1	X										X	X	X						X		X	X
28	SW-3-2011	11 FT 11 FT	02/10/21	9:32 AM		1	1	X										X	X	X						X		X	X
29	SW-4-2011	8 FT 8 FT	02/03/21	9:42 AM		1	1	X										X	X	X						X		X	X
30	SW-5-2011	13 FT 13 FT	02/03/21	10:02 AM		1	1	X										X	X	X						X		X	X

Laboratory Comments

Sample Containers Impact VOCs Free of Headspaces?

Labels on container(s)
Custody seals on container(s)

Custody seals on coolers
Sample Hand Delivered

by Samuel Chen Rep. / N
by Courier? UPS DHL FedEx Long Star
Temperature Upon Receipt: 22.14

Received:	12-5	%	0.41
Adjusted:	136	%	Factor

APPENDIX C

PHOTOGRAPHIC DOCUMENTATION

Photograph No 1.

Date: January 24, 2021

Direction: Northwest

Description: View of initial release area.

**Photograph No 2.**

Date: January 28, 2021

Direction: West

Description: View of excavation of pipeline release.



Photograph No 3.

Date: January 29, 2021

Direction: North

Description: View of excavation area.

**Photograph No 4.**

Date: February 2, 2021

Direction: Southeast

Description: View of excavation area.



Photograph No 5.

Date: February 10, 2021

Direction: South

Description: Completed excavation of pit.

**Photograph No 6**

Date: February 23, 2021

Direction: Southeast

Description: Transported impacted soils offsite and backfilling.



Photograph No 7.

Date: February 26, 2021

Direction: North

Description: Backfilling of excavation.

**Photograph No 8.**

Date: February 26, 2021

Direction: South

Description: Spraying backfill soils for compaction.



Photograph No 9.

Date: March 1, 2021

Direction: South

Description: Backfilling of excavation.

**Photograph No 10.**

Date: March 3, 2021

Direction: East

Description: Completed backfilling of site.



APPENDIX D
EXTENSION REQUEST AND NMOCD RESPONSE

Jeff Kindley

From: Amber L Groves <ALGroves@paalp.com>
Sent: Wednesday, May 19, 2021 7:51 AM
To: Jeff Kindley
Subject: FW: (Extension Approval) NAPP2102629238 Plains Hudson Federal 4 "

From: Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>
Sent: Monday, April 26, 2021 8:58 AM
To: Amber L Groves <ALGroves@paalp.com>
Cc: Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Eads, Cristina, EMNRD <Cristina.Eads@state.nm.us>; Hensley, Chad, EMNRD <Chad.Hensley@state.nm.us>
Subject: (Extension Approval) NAPP2102629238 Plains Hudson Federal 4 " [External]

RE: Incident #NAPP2102629238

Amber,

Your request for an extension to **May 22nd, 2021** is approved. Plains is requesting a 30 day extension for nAPP2102629238 Plains Hudson Federal 4". All remediation activities were completed on March 3rd including soil disposal and backfill. The closure report is currently being written and will be submitted within the next 30 days.

Robert Hamlet • Environmental Specialist - Advanced
Environmental Bureau
EMNRD - Oil Conservation Division
811 S. First Street | Artesia, NM 88210
575.909.0302 | robert.hamlet@state.nm.us
<http://www.emnrd.state.nm.us/OCD/>



From: Amber L Groves <ALGroves@paalp.com>
Sent: Thursday, April 22, 2021 10:39 AM
To: Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>; Venegas, Victoria, EMNRD <Victoria.Venegas@state.nm.us>; Eads, Cristina, EMNRD <Cristina.Eads@state.nm.us>
Cc: Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Billings, Bradford, EMNRD <Bradford.Billings@state.nm.us>
Subject: [EXT] nAPP2102629238 Plains Hudson Federal 4 " Extension Request

Good Morning,

Plains would like to respectfully request a 30 day extension for nAPP2102629238 Plains Hudson Federal 4". All remediation activities were completed on March 3rd including soil disposal and backfill. The closure report is currently being written and will be submitted within the next 30 days. Please feel free to give me a call should you have any questions.

Thank you,

D p ehv#0 1#Juryhv#
U hp hgldwlrq#Frruglqdwru#
S o l q v#D o#D p hulfdq#
6445#Z 1#X V#K z | #;5#
Orylqjwrq/#Q P ##;593#
8:805330884: #

Attention:

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This footnote also confirms that this email message has been scanned for Viruses and Content and cleared.

Attention:

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This footnote also confirms that this email message has been scanned for Viruses and Content and cleared.

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720

District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720

District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170

District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 28931

CONDITIONS

Operator: PLAINS MARKETING L.P. 333 Clay St, Ste 1600 Houston, TX 77002	OGRID: 34053
	Action Number: 28931
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
chensley	None	8/3/2021