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	NRM2027337168
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party Harvest Midstream Company	OGRID 373888
Contact Name Kijun Hong	Contact Telephone 505-632-4475
Contact email khong@harvestmidstream.com	Incident # *(assigned by OCD)* NRM2027337168
Contact mailing address 1755 Arroyo Dr., Bloomfield, NM 87413	

Location of Release Source

Latitude 36.60968 Longitude -107.83648
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Hanks 2 Pipeline	Site Type Natural Gas Pipeline
Date Release Discovered 8/13/20	API# *(if applicable)*

Unit Letter	Section	Township	Range	County
D	6	27N	9W	San Juan

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

Nature and Volume of Release

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

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l?	☐ Yes ☐ No
☒ Condensate	Volume Released (bbls) <1	Volume Recovered (bbls) <1
☒ Natural Gas	Volume Released (Mcf) 1	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

Natural gas 2"-pipeline leak discovered during a proactive leak survey. A leak occurred on the well tie line for the Hargrave 1. Final investigation determined the pipe failure was caused by external corrosion and it has been repaired.

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	NRM2027337168
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? 19.15.29.7(A)(2b): may with reasonable probability reach a watercourse Site is within an unnamed wash that is a tributary to Armenta Canyon wash 2.1 miles downstream
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? No immediate notice	

Initial Response

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

☒ The source of the release has been stopped.
☒ The impacted area has been secured to protect human health and the environment.
☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
☒ All free liquids and recoverable materials have been removed and managed appropriately.

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

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

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

Printed Name: Kijun Hong
Title: Environmental Specialist
Signature:
Date: 3/25/2021
email: khong@harvestmidstream.com
Telephone: 505-632-4475

OCD Only

Received by:
Date:

State of New Mexico
Oil Conservation Division

Incident ID	NRM2027337168
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	<50 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☒ Yes ☐ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☒ Yes ☐ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☒ No

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

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

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

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

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	NRM2027337168
District RP	
Facility ID	
Application ID	

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

Printed Name: Kijun Hong Title: Environmental Specialist

Signature: Date: 3/25/2021

email: khong@harvestmidstream.com Telephone: 505-632-4475

OCD Only

Received by: Date:

Form C-141
Page 6

State of New Mexico
Oil Conservation Division

Incident ID	NRM2027337168
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: Kijun Hong Title: Environmental Specialist

Signature: Kijun Hong Date: 3/25/2021

email: khong@harvestmidstream.com Telephone: 505-632-4475

OCD Only

Received by: _____ Date: _____

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

Closure Approved by: Nelson Velez Date: 11/02/2022

Printed Name: Nelson Velez Title: Environmental Specialist - Adv

March 26, 2021

Cory Smith
Oil Conservation Division
Energy, Minerals, & Natural Resources
1000 Rio Brazos
Aztec, New Mexico 87410
Email: Cory.Smith@state.nm.us

RE: CLOSURE REPORT (REVISED)
Hanks 2 Pipeline Release
NMOCD Incident No. NRM2027337168
NW¼ NW¼, Section 6, T27N, R9W
San Juan County, New Mexico

Dear Mr. Smith:

Harvest Midstream Company (Harvest) completed an excavation clearance of a release at the Hanks 2 Pipeline location in October 2020. The release consisted of approximately 1 mcf of natural gas and less than one barrel (bbl) of condensate and was discovered on August 13, 2020. It is classified as a major release because it occurred at a pipeline crossing of an unnamed dry tributary arroyo of Armenta Wash. Harvest collected soil samples to confirm all impacted soils were removed. The excavation was then backfilled with clean soil, and all excavated soil was disposed of at an appropriate facility.

TIMELINE:

- *August 13, 2020: release discovered.*
- *September 25, 2020: Harvest notified NMOCD that it intended to conduct field sampling at Hanks 2 on September 28, 2020. NMOCD informed Harvest that they were unaware of a release at Hanks 2.*
- *September 28, 2020: C-141 Release Notification submitted. NMOCD rejected the C-141 because it was missing the first page.*
- *September 29, 2020: Harvest resubmitted the C-141 Release Notification with corrections.*
- *September 29, 2020: Harvest notified NMOCD of confirmation sampling on October 1, 2020.*
- *October 1, 2020: Harvest performed excavation and confirmation soil sampling.*
- *October 2, 2020: Harvest provided NMOCD with preliminary analytical results showing exceedances in the bottom soil*

sample and requested permission to excavate further and re-sample on October 5, 2020.

- *October 2, 2020: NMOCD notified Harvest that the re-submitted C-141 Release Notification did not identify the volume of the release.*
- *October 5, 2020: Harvest performed further excavation and confirmation soil re-sampling.*
- *October 7, 2020: Harvest received analytical results from October 5 sampling events showing soils below standards.*
- *October 15, 2020: C-141 Site Assessment Characterization and C-141 Closure submitted.*
- *January 19, 2021: C-141 Release Notification re-submitted January 19, 2021 (release volume added).*
- *February 23, 2021: C-141 rejected by NMOCD.*

1.0 Site Information

1.1 Location

Site Name – Hanks 2 Pipeline
Legal Description – NW¼ NW¼, Section 6, T27N, R9W, San Juan County, New Mexico
Release Latitude/Longitude – N36.60968, W107.83648
Land Jurisdiction – Bureau of Land Management
Figure 1. Topographic Site Location Map
Figure 2. Aerial Site Location Map

1.2 Release Information

On August 13, 2020, a third-party line leak survey discovered a line leak on the Hanks 2 pipeline at the well tie line for the Hargrave 1. Personnel blew down the pipeline and isolated the leak, which was caused by external corrosion. The site was excavated, and the pipe was replaced. The initial release was of approximately 1 Mcf of natural gas and less than one bbl of barrel condensate. Due to the proximity to a watercourse, the release was classified as “major”.

2.0 Site Ranking

In accordance with NMAC 19.15.29.12 Table I (August 2018), release closure criteria are based on the minimum depth to groundwater within the horizontal extent of the release area:

- **Depth to Groundwater:** Cathodic reports could not be located for oil and gas wells within one-half mile. Depth to water records could not located for any wells within one-half mile. However, the site is within a wash that is a tributary of Armenta Canyon wash. Depth to groundwater is less than 50 ft bgs.
- **Sensitive Receptor Determination:** The release site is located within a small wash that is a tributary of Armenta Canyon wash. It is designated as a wetland by the National Wetlands Inventory.

NMOCD Action levels are:

- 10 mg/kg benzene and 50 mg/kg total benzene, toluene, ethylbenzene, and xylene (BTEX);
- 100 mg/kg total petroleum hydrocarbons (TPH) as gasoline range organics (GRO), diesel range organics (DRO), and motor oil range organics (MRO);
- 600 mg/kg chloride.

3.0 Confirmation Soil Sampling

Notification of soil confirmation sampling was initially made to NMOCD on September 25, 2020, and subsequent notification of a change of sampling date was made on September 29, 2020. Project notifications are attached. Soil confirmation samples were collected by Harvest on October 1, 2020, including collection of six confirmation soil samples from the walls and base of the repair trench. A final composite sample was collected by Harvest on October 5, 2020, after additional soils were removed from the excavation base. The final excavation measured approximately 45 ft by 30 ft by 14 ft deep and included 400 cubic yards of overburden and contaminated soil. Harvest collected six 5-point composite samples including one from each side wall and two from the base.

Sample locations and final excavation extents are presented on Figure 3, and excavation progress is documented in the photograph log. 400 cubic yards of soil were disposed of at Envirotech Remediation Facility (Permit No. NM-01-0011) in Hilltop, New Mexico.

3.1 Field Data

On October 1, 2020, excavation composite benzene and volatile organic compound (VOC) readings were recorded at 80 ppm and 1107 ppm, respectively. Clearance of soil samples was achieved through laboratory analysis. Field notes from the October 1 and 5, 2020 field sampling and excavation are attached.

3.2 Laboratory Analyses

The samples collected for laboratory analysis were placed into new, clean, laboratory-supplied containers, which were then labeled, placed on ice, and logged onto sample chain of custody records. The samples were maintained on ice until delivery to the analytical laboratory, Hall Environmental Analysis Laboratory (Hall) in Albuquerque, New Mexico. All samples were laboratory analyzed for:

- BTEX per U.S. Environmental Protection Agency (USEPA) Method 8021B;
- TPH as GRO, DRO, MRO per USEPA Method 8015M/D; and
- Chlorides per USEPA Method 300.0.

3.3 Laboratory Analytical Results

All laboratory analytical results indicated benzene, total BTEX, and chlorides in all samples were below applicable action levels. In contrast, TPH (as GRO, DRO, and MRO) results exceeded the action level of 100 mg/kg in one sample, Hanks 2 North Bottom, with 213 mg/kg. Additional soils were removed from the base of the excavation, and a subsequent sample at that location reported 20 mg/kg TPH. The laboratory analytical reports are attached.

4.0 Conclusions

Harvest completed an excavation clearance of petroleum hydrocarbon impacted soils at the Hanks 2 Pipeline in October 2020 resulting from a release reported on August 13, 2020. Laboratory analytical results reported final benzene, total BTEX, TPH (as GRO/DRO/MRO), and chloride concentrations as *below* applicable NMOCD action levels. No further action is recommended at this time.

If you have any questions about this report or site conditions, please do not hesitate to contact Elizabeth McNally at (505) 564-2281.

Sincerely,

David J. Reese
Environmental Scientist

Elizabeth McNally, P.E.
Principal

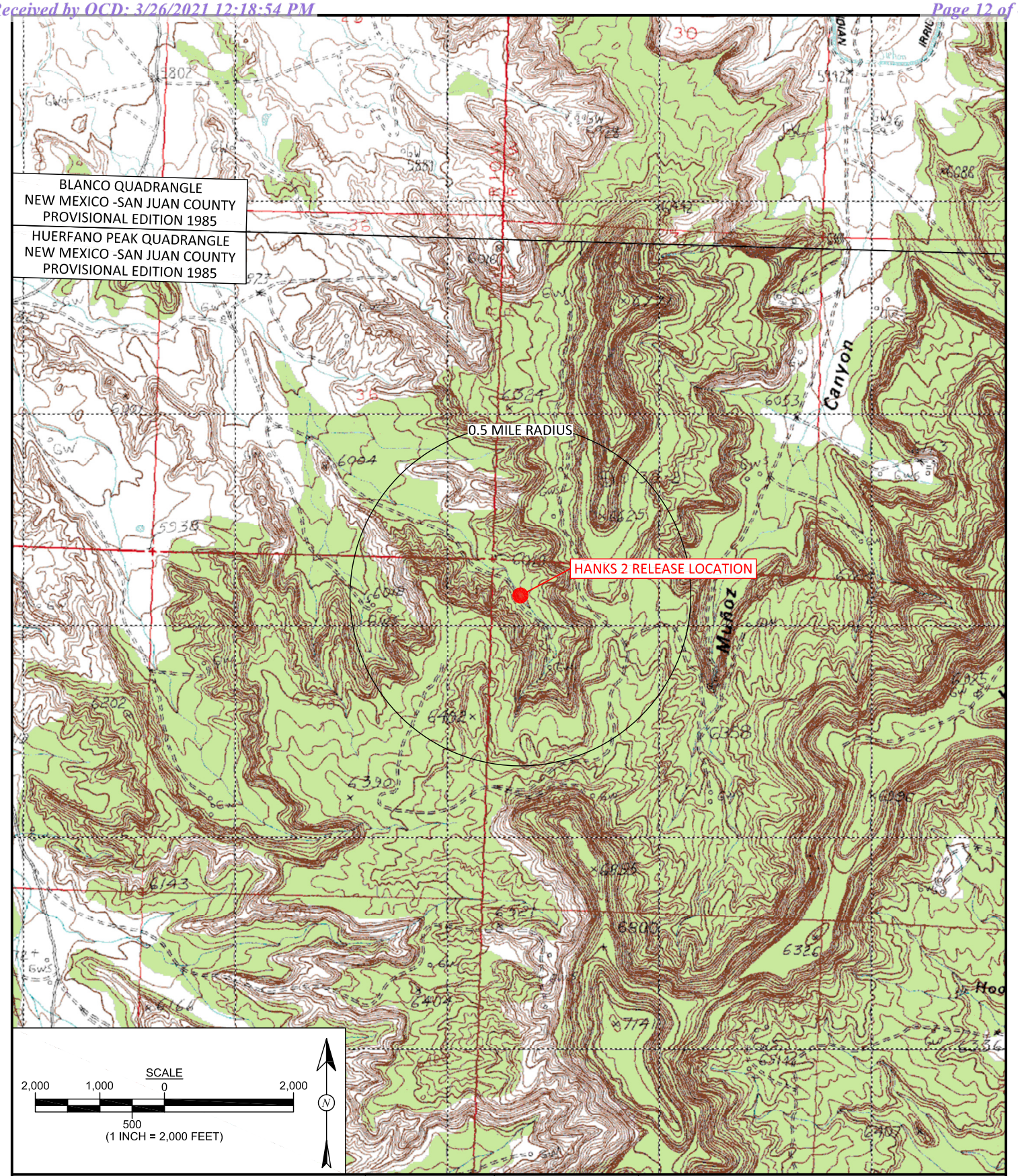
Attachments:

Figure 1. Topographic Site Location Map
Figure 2. Aerial Site Location Map
Figure 3. Excavation Area and Soil Sample Locations
Photograph Log
Excavation Log with Field Notes (October 1 and 5, 2020)
Hall Analytical Reports 2010109 and 2010212
NMOCD Site Assessment/Characterization Ranking
Sampling Notification—September 29, 2020

Cc:
Kijun Hong
Harvest Midstream Company
1755 Arroyo Dr.
Bloomfield, New Mexico 87413
Email: khong@harvestmidstream.com

Tamara Faust and Sherrie Landon
Bureau of Land Management
Farmington Field Office
6251 College Blvd., Suite A
Farmington, New Mexico 87402
Email: tfaust@blm.gov and *slandon@blm.gov*

https://animasenvironmental.sharepoint.com/sites/HarvestMidstream/Shared Documents/Hanks 2 C-141/Reports/Hanks 2 Pipeline Exc Clearance Report 031221.docx

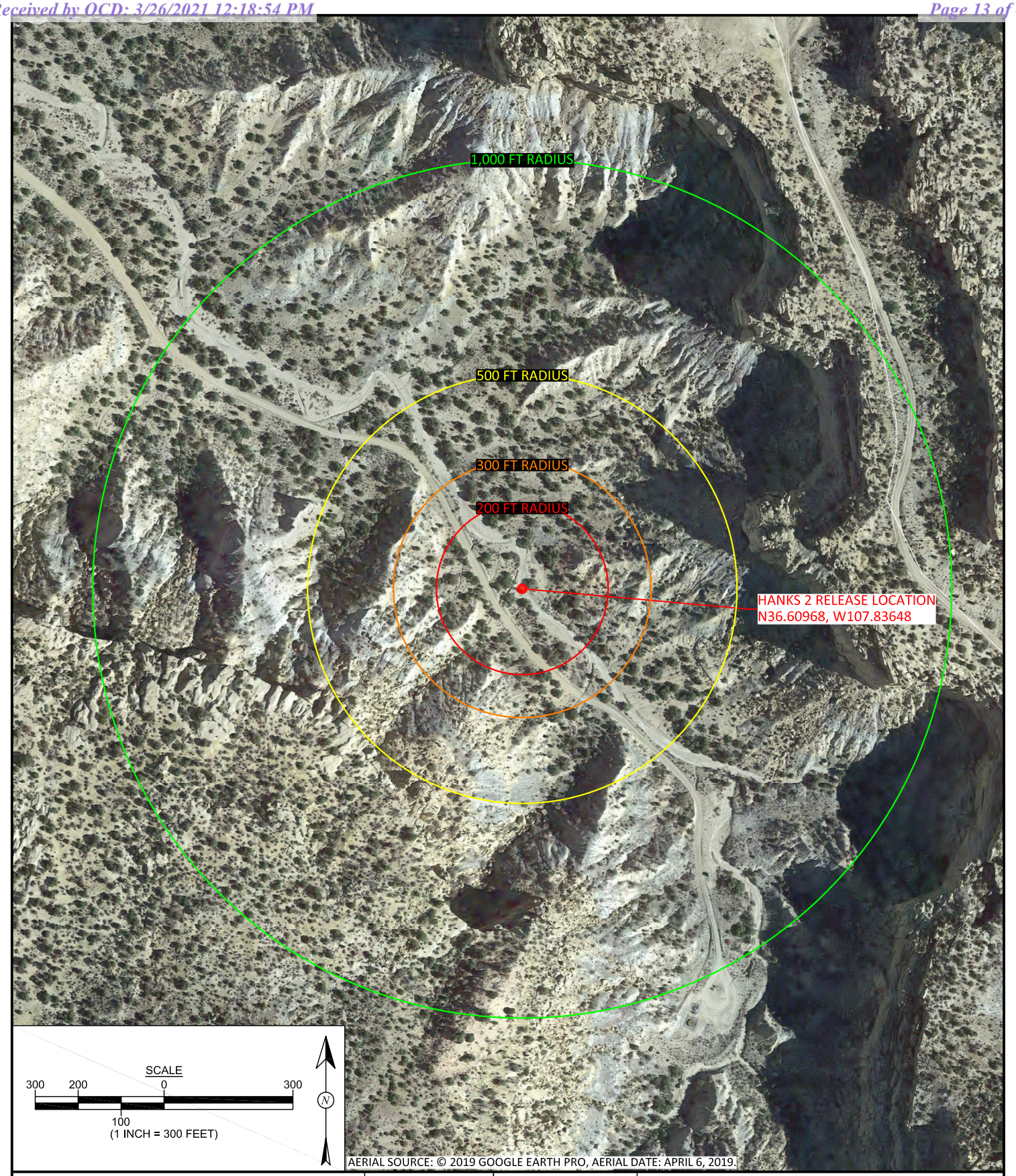


animas environmental services
Farmington, NM • Durango, CO
animasenvironmental.com

DRAWN BY: C. Lameman	**DATE DRAWN:** September 14, 2020
REVISIONS BY: C. Lameman	**DATE REVISED:** September 14, 2020
CHECKED BY: E. McNally	**DATE CHECKED:** September 14, 2020
APPROVED BY: E. McNally	**DATE APPROVED:** September 14, 2020

FIGURE 1

TOPOGRAPHIC SITE LOCATION MAP
HARVEST FOUR CORNERS
HANKS 2 PIPELINE RELEASE
NW¼ NW¼, SECTION 6, T27N, R9W
SAN JUAN COUNTY, NEW MEXICO
N36.60968, W107.83648



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DRAWN BY: C. Lameman	**DATE DRAWN:** September 14, 2020
REVISIONS BY: C. Lameman	**DATE REVISED:** September 14, 2020
CHECKED BY: E. McNally	**DATE CHECKED:** September 14, 2020
APPROVED BY: E. McNally	**DATE APPROVED:** September 14, 2020

FIGURE 2

AERIAL SITE MAP
HARVEST FOUR CORNERS
HANKS 2 PIPELINE RELEASE
NW¼ NW¼, SECTION 6, T27N, R9W
SAN JUAN COUNTY, NEW MEXICO
N36.60968, W107.83648

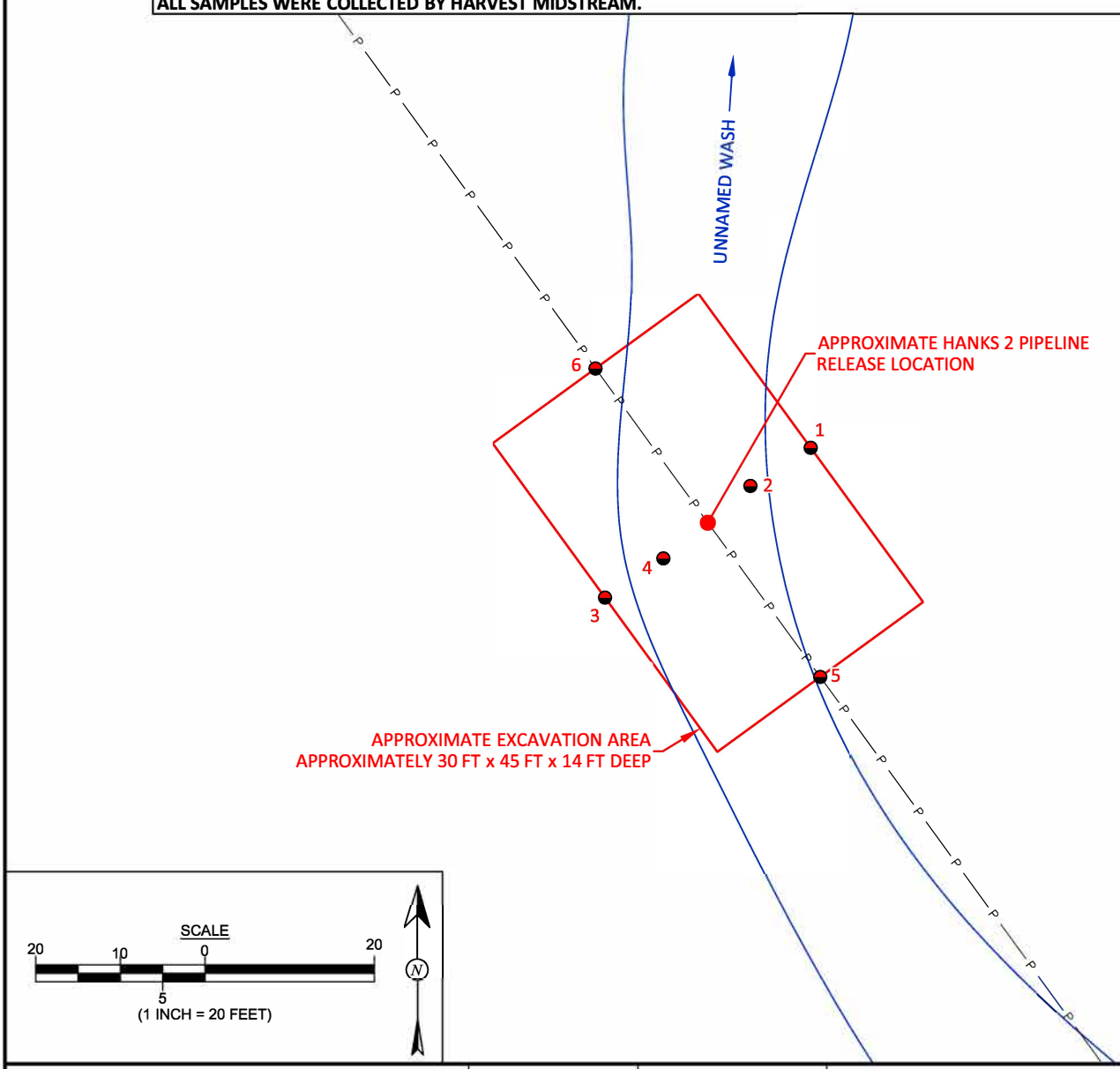
LEGEND

- SAMPLE LOCATIONS
- P — APPROXIMATE BURIED PIPELINE

Laboratory Analytical Results

Number	Lab Sample ID	Date	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)	TPH-MRO (mg/kg)	Chlorides (mg/kg)
	NMOCD ACTION LEVEL		10	50		100		600
1	Hanks 2 North Wall	10/1/20	<0.021	<0.190	<4.2	<9.9	<49	<60
2	Hanks #2 North Bottom #2	10/5/20	<0.089	<0.809	<18	20	<49	<60
3	Hanks 2 South Wall	10/1/20	<0.098	<0.888	<20	<9.3	<47	<60
4	Hanks 2 South Bottom	10/1/20	<0.021	<0.185	<4.1	<9.6	<48	<60
5	Hanks 2 East Wall	10/1/20	<0.018	<0.161	<3.6	<9.5	<48	<60
6	Hanks 2 West Wall	10/1/20	<0.020	<0.180	<4.0	<8.6	<43	<60

ALL SAMPLES WERE ANALYZED PER USEPA METHOD 8260B, 8015D AND 300.0.
ALL SAMPLES WERE COLLECTED BY HARVEST MIDSTREAM.



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Farmington, NM • Durango, CO
animasenvironmental.com

DRAWN BY: C. Lameman	DATE DRAWN: October 13, 2020
REVISIONS BY: C. Lameman	DATE REVISED: March 17, 2021
CHECKED BY: D. Reese	DATE CHECKED: March 17, 2021
APPROVED BY: E. McNally	DATE APPROVED: March 17, 2021

FIGURE 3

EXCAVATION AREA MAP AND SOIL SAMPLE LOCATIONS
HARVEST FOUR CORNERS
HANKS 2 PIPELINE RELEASE
NW¼ NW¼, SECTION 6, T27N, R9W
SAN JUAN COUNTY, NEW MEXICO
N36.60968, W107.83648

Hanks 2
NMOCD Incident No. NRM2027337168
Pipeline Release Excavation Clearance

Photo 1: Excavated pipeline, October 1, 2020.

Photo 2: Final excavation extents, October 5, 2020.

Hanks 2
NMOCD Incident No. NRM2027337168
Pipeline Release Excavation Clearance

Photo 3: Final excavation extents, October 5, 2020.

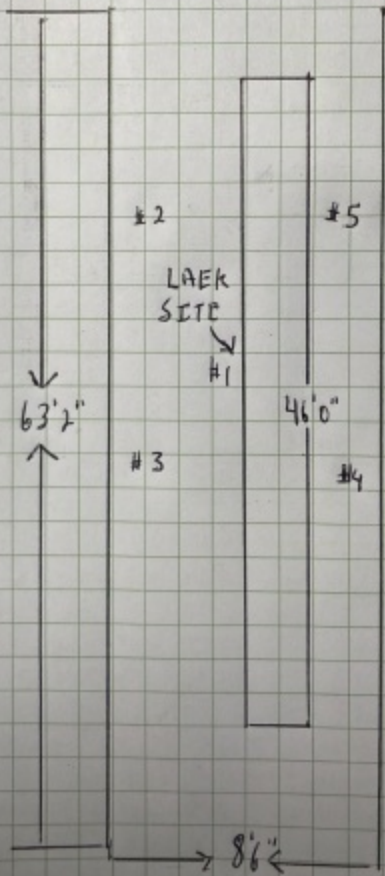
Photo 4: Backfilled excavation, October 7, 2020.

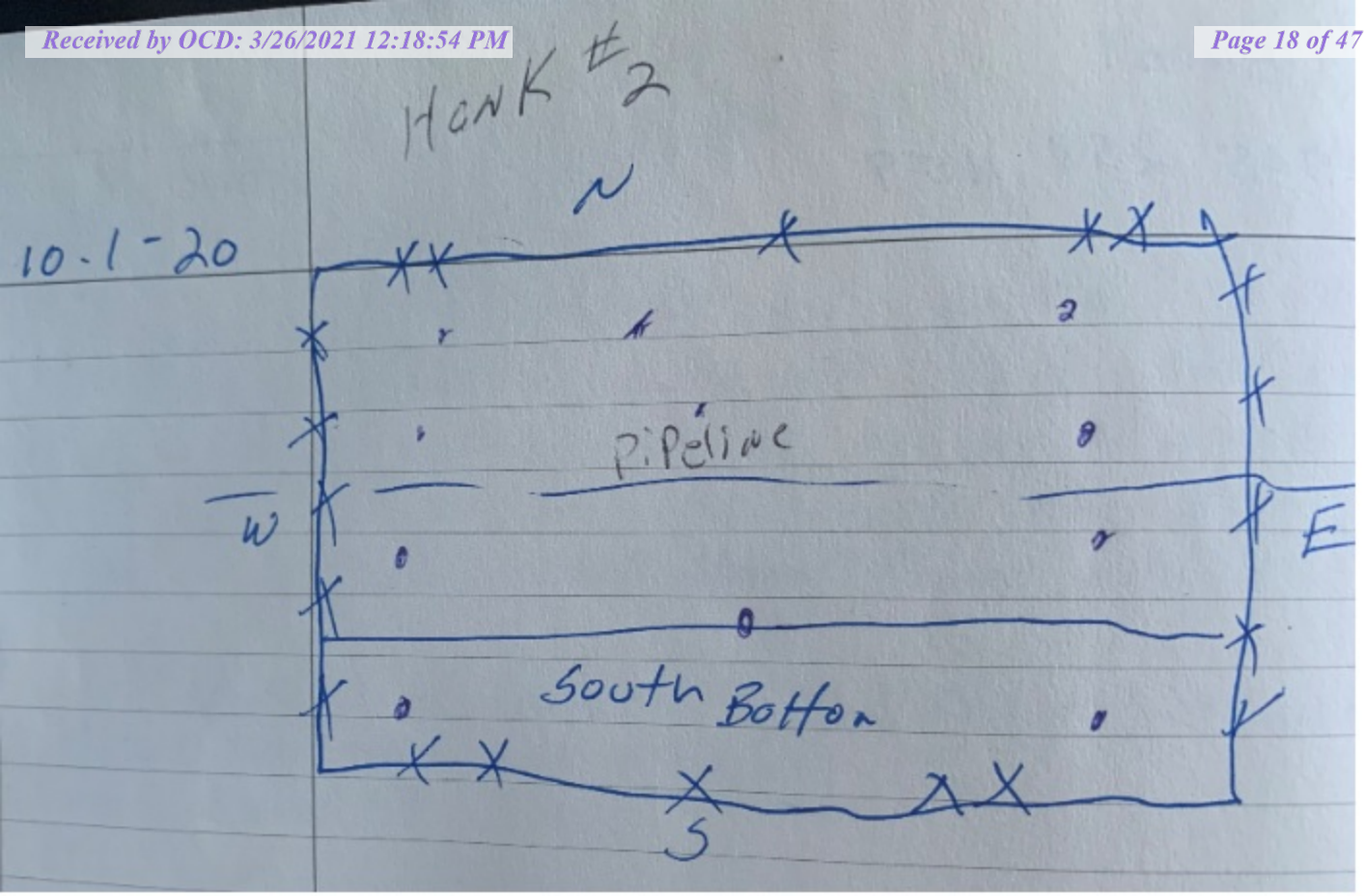
HANK 2 LINC LEAK
RR5200813A

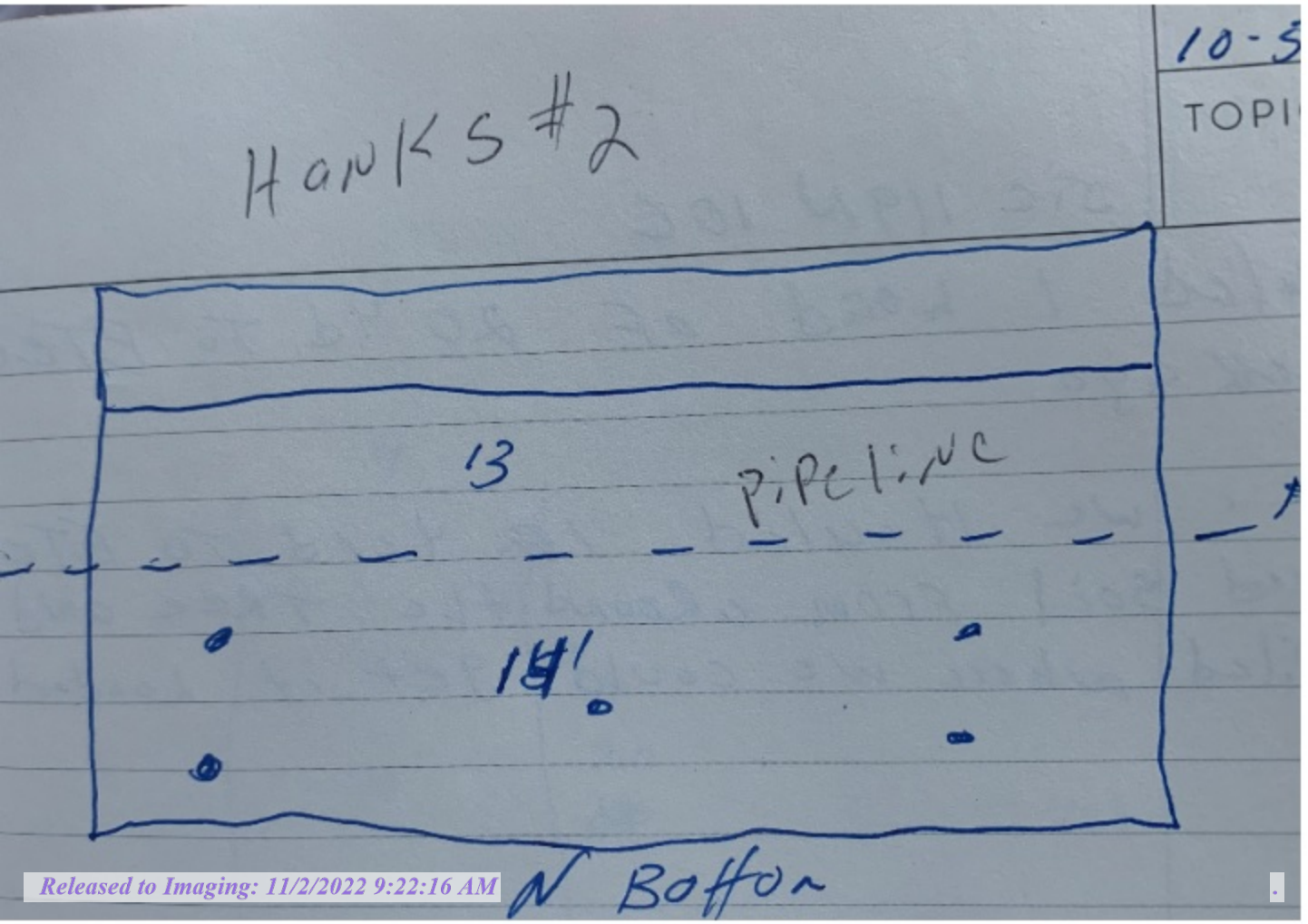
SAMPLES 1-5 COMPOSITE

BNZ 80.24
VOC 1106.92

DITCH DEPTH 4'6"




Hank #2
N
10-1-20
Pipeline
W
E
South Botton
S


10-5
TOPI
Hanks #2
13
Pipeline
14'
N Botton

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

October 06, 2020

Kijun Hong

Harvest
1755 Arroyo Dr.
Bloomfield, NM 87413
TEL: (505) 632-4475
FAX:

RE: Hanks #2 OrderNo.: 2010109

Dear Kijun Hong:

Hall Environmental Analysis Laboratory received 6 sample(s) on 10/2/2020 for the analyses presented in the following report.

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

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

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2010109**
Date Reported: **10/6/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Harvest
Client Sample ID: Hanks 2 North Wall
Project: Hanks #2
Collection Date: 10/1/2020 12:40:00 PM
Lab ID: 2010109-001 **Matrix:** SOIL **Received Date:** 10/2/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	60		mg/Kg	20	10/2/2020 11:32:13 AM	55613
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	10/2/2020 9:12:07 AM	55609
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/2/2020 9:12:07 AM	55609
Surr: DNOP	104	30.4-154		%Rec	1	10/2/2020 9:12:07 AM	55609
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	4.2		mg/Kg	1	10/2/2020 10:44:38 AM	R72336
Surr: BFB	85.8	75.3-105		%Rec	1	10/2/2020 10:44:38 AM	R72336
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.021		mg/Kg	1	10/2/2020 10:44:38 AM	BS7233E
Toluene	ND	0.042		mg/Kg	1	10/2/2020 10:44:38 AM	BS7233E
Ethylbenzene	ND	0.042		mg/Kg	1	10/2/2020 10:44:38 AM	BS7233E
Xylenes, Total	ND	0.085		mg/Kg	1	10/2/2020 10:44:38 AM	BS7233E
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	10/2/2020 10:44:38 AM	BS7233E

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

Qualifiers:

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

Analytical Report
Lab Order **2010109**
Date Reported: **10/6/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Harvest
Client Sample ID: Hanks 2 North Bottom
Project: Hanks #2
Collection Date: 10/1/2020 12:50:00 PM
Lab ID: 2010109-002 **Matrix:** SOIL **Received Date:** 10/2/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	60		mg/Kg	20	10/2/2020 11:44:38 AM	55613
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	72	10		mg/Kg	1	10/2/2020 9:35:56 AM	55609
Motor Oil Range Organics (MRO)	120	50		mg/Kg	1	10/2/2020 9:35:56 AM	55609
Surr: DNOP	111	30.4-154		%Rec	1	10/2/2020 9:35:56 AM	55609
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	21	18		mg/Kg	5	10/2/2020 11:07:59 AM	R72336
Surr: BFB	127	75.3-105	S	%Rec	5	10/2/2020 11:07:59 AM	R72336
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.091		mg/Kg	5	10/2/2020 11:07:59 AM	BS7233E
Toluene	ND	0.18		mg/Kg	5	10/2/2020 11:07:59 AM	BS7233E
Ethylbenzene	ND	0.18		mg/Kg	5	10/2/2020 11:07:59 AM	BS7233E
Xylenes, Total	ND	0.36		mg/Kg	5	10/2/2020 11:07:59 AM	BS7233E
Surr: 4-Bromofluorobenzene	107	80-120		%Rec	5	10/2/2020 11:07:59 AM	BS7233E

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

Qualifiers:

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

Analytical Report
Lab Order **2010109**
Date Reported: **10/6/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Harvest
Client Sample ID: Hanks 2 South Wall
Project: Hanks #2
Collection Date: 10/1/2020 1:00:00 PM
Lab ID: 2010109-003 **Matrix:** SOIL **Received Date:** 10/2/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	60		mg/Kg	20	10/2/2020 11:57:03 AM	55613
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	10/2/2020 9:59:47 AM	55609
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	10/2/2020 9:59:47 AM	55609
Surr: DNOP	109	30.4-154		%Rec	1	10/2/2020 9:59:47 AM	55609
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	20		mg/Kg	5	10/2/2020 11:31:20 AM	R72336
Surr: BFB	90.2	75.3-105		%Rec	5	10/2/2020 11:31:20 AM	R72336
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.098		mg/Kg	5	10/2/2020 11:31:20 AM	BS7233E
Toluene	ND	0.20		mg/Kg	5	10/2/2020 11:31:20 AM	BS7233E
Ethylbenzene	ND	0.20		mg/Kg	5	10/2/2020 11:31:20 AM	BS7233E
Xylenes, Total	ND	0.39		mg/Kg	5	10/2/2020 11:31:20 AM	BS7233E
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	5	10/2/2020 11:31:20 AM	BS7233E

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

Qualifiers:

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

Analytical Report
Lab Order **2010109**
Date Reported: **10/6/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Harvest
Client Sample ID: Hanks 2 South Bottom
Project: Hanks #2
Collection Date: 10/1/2020 1:10:00 PM
Lab ID: 2010109-004 **Matrix:** SOIL **Received Date:** 10/2/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	60		mg/Kg	20	10/2/2020 12:09:27 PM	55613
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	10/2/2020 9:07:05 AM	55609
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/2/2020 9:07:05 AM	55609
Surr: DNOP	94.6	30.4-154		%Rec	1	10/2/2020 9:07:05 AM	55609
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	4.1		mg/Kg	1	10/2/2020 11:54:43 AM	R72336
Surr: BFB	89.2	75.3-105		%Rec	1	10/2/2020 11:54:43 AM	R72336
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.021		mg/Kg	1	10/2/2020 11:54:43 AM	BS7233E
Toluene	ND	0.041		mg/Kg	1	10/2/2020 11:54:43 AM	BS7233E
Ethylbenzene	ND	0.041		mg/Kg	1	10/2/2020 11:54:43 AM	BS7233E
Xylenes, Total	ND	0.082		mg/Kg	1	10/2/2020 11:54:43 AM	BS7233E
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	10/2/2020 11:54:43 AM	BS7233E

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

Qualifiers:

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

Analytical Report
Lab Order **2010109**
Date Reported: **10/6/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Harvest
Client Sample ID: Hanks 2 East Wall
Project: Hanks #2
Collection Date: 10/1/2020 1:20:00 AM
Lab ID: 2010109-005 **Matrix:** SOIL **Received Date:** 10/2/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	60		mg/Kg	20	10/2/2020 12:21:51 PM	55613
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	10/2/2020 9:30:28 AM	55609
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/2/2020 9:30:28 AM	55609
Surr: DNOP	95.0	30.4-154		%Rec	1	10/2/2020 9:30:28 AM	55609
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	3.6		mg/Kg	1	10/2/2020 12:18:11 PM	R72336
Surr: BFB	85.3	75.3-105		%Rec	1	10/2/2020 12:18:11 PM	R72336
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.018		mg/Kg	1	10/2/2020 12:18:11 PM	BS7233E
Toluene	ND	0.036		mg/Kg	1	10/2/2020 12:18:11 PM	BS7233E
Ethylbenzene	ND	0.036		mg/Kg	1	10/2/2020 12:18:11 PM	BS7233E
Xylenes, Total	ND	0.071		mg/Kg	1	10/2/2020 12:18:11 PM	BS7233E
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	10/2/2020 12:18:11 PM	BS7233E

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

Qualifiers:

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

Analytical Report
Lab Order **2010109**
Date Reported: **10/6/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Harvest
Client Sample ID: Hanks 2 West Wall
Project: Hanks #2
Collection Date: 10/1/2020 1:30:00 PM
Lab ID: 2010109-006 **Matrix:** SOIL **Received Date:** 10/2/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	60		mg/Kg	20	10/2/2020 12:34:15 PM	55613
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	8.6		mg/Kg	1	10/2/2020 9:53:50 AM	55609
Motor Oil Range Organics (MRO)	ND	43		mg/Kg	1	10/2/2020 9:53:50 AM	55609
Surr: DNOP	94.8	30.4-154		%Rec	1	10/2/2020 9:53:50 AM	55609
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	4.0		mg/Kg	1	10/2/2020 12:41:45 PM	R72336
Surr: BFB	87.4	75.3-105		%Rec	1	10/2/2020 12:41:45 PM	R72336
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.020		mg/Kg	1	10/2/2020 12:41:45 PM	BS7233E
Toluene	ND	0.040		mg/Kg	1	10/2/2020 12:41:45 PM	BS7233E
Ethylbenzene	ND	0.040		mg/Kg	1	10/2/2020 12:41:45 PM	BS7233E
Xylenes, Total	ND	0.080		mg/Kg	1	10/2/2020 12:41:45 PM	BS7233E
Surr: 4-Bromofluorobenzene	107	80-120		%Rec	1	10/2/2020 12:41:45 PM	BS7233E

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

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2010109**

06-Oct-20

Client: Harvest

Project: Hanks #2

Sample ID: **LCS-55609**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **55609**	RunNo: **72343**
Prep Date: **10/2/2020**	Analysis Date: **10/2/2020**	SeqNo: **2537274** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	42	10	50.00	0	84.4	70	130			
Surr: DNOP	4.7		5.000		94.4	30.4	154			

Sample ID: **MB-55609**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **55609**	RunNo: **72343**
Prep Date: **10/2/2020**	Analysis Date: **10/2/2020**	SeqNo: **2537275** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		105	30.4	154			

Sample ID: **2010109-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **Hanks 2 North Wall**	Batch ID: **55609**	RunNo: **72343**
Prep Date: **10/2/2020**	Analysis Date: **10/2/2020**	SeqNo: **2537575** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	35	8.5	42.44	0	82.8	15	184			
Surr: DNOP	4.0		4.244		95.1	30.4	154			

Sample ID: **2010109-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **Hanks 2 North Wall**	Batch ID: **55609**	RunNo: **72343**
Prep Date: **10/2/2020**	Analysis Date: **10/2/2020**	SeqNo: **2537576** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	43	9.5	47.62	0	90.8	15	184	20.7	23.9	
Surr: DNOP	4.7		4.762		99.7	30.4	154	0	0	

Qualifiers:

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

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2010109**
06-Oct-20

Client: Harvest
Project: Hanks #2

Sample ID: **2.5ug gro lcs**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **R72336**	RunNo: **72336**
Prep Date:	Analysis Date: **10/2/2020**	SeqNo: **2537634** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	92.4	72.5	106			
Surr: BFB	1000		1000		100	75.3	105			

Sample ID: **mb**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **R72336**	RunNo: **72336**
Prep Date:	Analysis Date: **10/2/2020**	SeqNo: **2537641** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1000		1000		105	75.3	105			

Sample ID: **2010109-001ams**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **Hanks 2 North Wall**	Batch ID: **R72336**	RunNo: **72336**
Prep Date:	Analysis Date: **10/2/2020**	SeqNo: **2538215** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	19	4.2	21.13	0	87.9	61.3	114			
Surr: BFB	850		845.3		101	75.3	105			

Sample ID: **2010109-001amsd**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **Hanks 2 North Wall**	Batch ID: **R72336**	RunNo: **72336**
Prep Date:	Analysis Date: **10/2/2020**	SeqNo: **2538216** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	18	4.2	21.13	0	87.0	61.3	114	1.10	20	
Surr: BFB	860		845.3		102	75.3	105	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2010109**

06-Oct-20

Client: Harvest

Project: Hanks #2

Sample ID: **100ng btex lcs**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **BS72336**	RunNo: **72336**
Prep Date:	Analysis Date: **10/2/2020**	SeqNo: **2537643** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.025	1.000	0	93.3	80	120			
Toluene	0.98	0.050	1.000	0	98.4	80	120			
Ethylbenzene	1.0	0.050	1.000	0	100	80	120			
Xylenes, Total	3.0	0.10	3.000	0	101	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		105	80	120			

Sample ID: **mb**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **BS72336**	RunNo: **72336**
Prep Date:	Analysis Date: **10/2/2020**	SeqNo: **2537650** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.2		1.000		118	80	120			

Sample ID: **2010109-002ams**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **Hanks 2 North Botto**	Batch ID: **BS72336**	RunNo: **72336**
Prep Date:	Analysis Date: **10/2/2020**	SeqNo: **2538242** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	3.5	0.091	3.642	0	96.2	76.3	120			
Toluene	3.7	0.18	3.642	0.04770	102	78.5	120			
Ethylbenzene	3.8	0.18	3.642	0.07501	103	78.1	124			
Xylenes, Total	12	0.36	10.92	0.2899	104	79.3	125			
Surr: 4-Bromofluorobenzene	4.0		3.642		111	80	120			

Sample ID: **2010109-002amsd**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **Hanks 2 North Botto**	Batch ID: **BS72336**	RunNo: **72336**
Prep Date:	Analysis Date: **10/2/2020**	SeqNo: **2538243** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	3.5	0.091	3.642	0	96.9	76.3	120	0.704	20	
Toluene	3.7	0.18	3.642	0.04770	101	78.5	120	0.546	20	
Ethylbenzene	3.8	0.18	3.642	0.07501	103	78.1	124	0.171	20	
Xylenes, Total	12	0.36	10.92	0.2899	104	79.3	125	0.0903	20	
Surr: 4-Bromofluorobenzene	4.2		3.642		116	80	120	0	0	

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: Harvest | Work Order Number: 2010109 | RcptNo: 1

Received By: **Cheyenne Cason** 10/2/2020 8:00:00 AM

Completed By: **Juan Rojas** 10/2/2020 8:08:44 AM

Reviewed By: CM 10/2/20

Chain of Custody

1. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2. How was the sample delivered?	Courier		

Log In

3. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
5. Sample(s) in proper container(s)?	Yes ☑	No ☐	
6. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
7. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
8. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
9. Received at least 1 vial with headspace <1/4" for AQ VOA?	Yes ☐	No ☐	NA ☑
10. Were any sample containers received broken?	Yes ☐	No ☑	
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
12. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
13. Is it clear what analyses were requested?	Yes ☑	No ☐	
14. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: JR 10/2/20

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	4.3	Good				

Chain-of-Custody Record

Client: Harvest midstream

Mailing Address: 1755 ARROYO DR

Bloomfield NM 87413

Phone #: 505-632-4475

email or Fax#: KHong@Harvestmidstream.com

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation

☐ NELAP ☐ Other _____

☐ EDD (Type) _____

Turn-Around Time: Same Day

☐ Standard ☑ Rush 10-2-20

Project Name: HANKS #2

Project #:

Project Manager: KiJun Hong

Sampler: Morgan Killion

On Ice: ☑ Yes ☐ No

Sample Temperature: 4.4-0.1=4.3

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 2010109	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Chloride				Air Bubbles (Y or N)
10/1/20	12:40	soil	Hanks 2 North wall	1-402	Cool	-001	X		X									X				
10/1/20	12:50	soil	Hanks 2 North Botton	1-402		-002	X		X									X				
10/1/20	1:00	soil	Hanks 2 south wall	1-402		-003	X		X									X				
10/1/20	1:10	soil	Hanks 2 South Botton	1-402		-004	X		X									X				
↓	1:20	soil	Hanks 2 East Wall	1-402		-005	X		X									X				
	1:30	soil	Hanks 2 west Wall	1-402	↓	-006	X		X									X				

Date:	Time:	Relinquished by:	Received by:	Date	Time
10/1/20	1514	Morgan Killion	Chantal Walker	10/1/2020	1514
10/1/20	1843	Chantal Walker	[illegible]	10/2/20	0840

Remarks: Morgan Killion@Yahoo.com

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

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Hall Environmental Analysis Laboratory
4901 Hawkins NE
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TEL: 505-345-3975 FAX: 505-345-4107
Website: clients.hallenvironmental.com

October 07, 2020

Kijun Hong

Harvest
1755 Arroyo Dr.
Bloomfield, NM 87413
TEL: (505) 632-4475
FAX

RE: Hanks 2 OrderNo.: 2010212

Dear Kijun Hong:

Hall Environmental Analysis Laboratory received 1 sample(s) on 10/6/2020 for the analyses presented in the following report.

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

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

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2010212**
Date Reported: **10/7/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Harvest
Client Sample ID: Hanks #2 North Bottom #2
Project: Hanks 2
Collection Date: 10/5/2020 1:15:00 PM
Lab ID: 2010212-001 **Matrix:** MEOH (SOIL) **Received Date:** 10/6/2020 8:03:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	10/6/2020 11:25:41 AM	55664
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	20	9.8		mg/Kg	1	10/6/2020 9:55:49 AM	55660
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/6/2020 9:55:49 AM	55660
Surr: DNOP	107	30.4-154		%Rec	1	10/6/2020 9:55:49 AM	55660
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	18		mg/Kg	5	10/6/2020 9:38:58 AM	G72412
Surr: BFB	88.0	75.3-105		%Rec	5	10/6/2020 9:38:58 AM	G72412
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.089		mg/Kg	5	10/6/2020 9:38:58 AM	B72412
Toluene	ND	0.18		mg/Kg	5	10/6/2020 9:38:58 AM	B72412
Ethylbenzene	ND	0.18		mg/Kg	5	10/6/2020 9:38:58 AM	B72412
Xylenes, Total	ND	0.36		mg/Kg	5	10/6/2020 9:38:58 AM	B72412
Surr: 4-Bromofluorobenzene	98.6	80-120		%Rec	5	10/6/2020 9:38:58 AM	B72412

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

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2010212**

07-Oct-20

Client: Harvest

Project: Hanks 2

Sample ID: **MB-55664**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS**	Batch ID: **55664**	RunNo: **72421**
Prep Date: **10/6/2020**	Analysis Date: **10/6/2020**	SeqNo: **2542585** Units: **mg/Kg**

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

Sample ID: **LCS-55664**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS**	Batch ID: **55664**	RunNo: **72421**
Prep Date: **10/6/2020**	Analysis Date: **10/6/2020**	SeqNo: **2542586** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	91.5	90	110			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2010212**

07-Oct-20

Client: Harvest

Project: Hanks 2

Sample ID: **LCS-55660** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **LCSS** Batch ID: **55660** RunNo: **72414**

Prep Date: **10/6/2020** Analysis Date: **10/6/2020** SeqNo: **2540357** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	45	10	50.00	0	89.5	70	130			
Surr: DNOP	4.8		5.000		95.5	30.4	154			

Sample ID: **MB-55660** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **PBS** Batch ID: **55660** RunNo: **72414**

Prep Date: **10/6/2020** Analysis Date: **10/6/2020** SeqNo: **2540358** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		106	30.4	154			

Sample ID: **2010212-001AMS** SampType: **MS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **Hanks #2 North Bott** Batch ID: **55660** RunNo: **72414**

Prep Date: **10/6/2020** Analysis Date: **10/6/2020** SeqNo: **2542369** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	54	9.1	45.54	20.31	74.0	15	184			
Surr: DNOP	4.7		4.554		103	30.4	154			

Sample ID: **2010212-001AMSD** SampType: **MSD** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **Hanks #2 North Bott** Batch ID: **55660** RunNo: **72414**

Prep Date: **10/6/2020** Analysis Date: **10/6/2020** SeqNo: **2542370** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	53	8.7	43.63	20.31	74.3	15	184	2.45	23.9	
Surr: DNOP	4.5		4.363		103	30.4	154	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2010212**

07-Oct-20

Client: Harvest

Project: Hanks 2

Sample ID: **mb1**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **G72412**	RunNo: **72412**
Prep Date:	Analysis Date: **10/6/2020**	SeqNo: **2541949** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	800		1000		79.9	75.3	105			

Sample ID: **2.5ug gro lcsb**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **G72412**	RunNo: **72412**
Prep Date:	Analysis Date: **10/6/2020**	SeqNo: **2541950** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	5.0	25.00	0	83.7	72.5	106			
Surr: BFB	990		1000		98.5	75.3	105			

Sample ID: **2010212-001ams**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **Hanks #2 North Bott**	Batch ID: **G72412**	RunNo: **72412**
Prep Date:	Analysis Date: **10/6/2020**	SeqNo: **2541951** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	75	18	89.10	0	84.7	61.3	114			
Surr: BFB	3500		3564		96.8	75.3	105			

Sample ID: **2010212-001amsd**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **Hanks #2 North Bott**	Batch ID: **G72412**	RunNo: **72412**
Prep Date:	Analysis Date: **10/6/2020**	SeqNo: **2541952** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	77	18	89.10	0	86.5	61.3	114	2.10	20	
Surr: BFB	3800		3564		107	75.3	105	0	0	S

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2010212**

07-Oct-20

Client: Harvest

Project: Hanks 2

Sample ID: **mb1**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **B72412**	RunNo: **72412**
Prep Date:	Analysis Date: **10/6/2020**	SeqNo: **2541955** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.99		1.000		99.3	80	120			

Sample ID: **2010212-001AMS**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **Hanks #2 North Bott**	Batch ID: **B72412**	RunNo: **72412**
Prep Date:	Analysis Date: **10/6/2020**	SeqNo: **2541957** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	3.3	0.089	3.564	0	91.9	76.3	120			
Toluene	3.4	0.18	3.564	0	96.6	78.5	120			
Ethylbenzene	3.5	0.18	3.564	0	98.3	78.1	124			
Xylenes, Total	11	0.36	10.69	0.08482	97.5	79.3	125			
Surr: 4-Bromofluorobenzene	3.7		3.564		104	80	120			

Sample ID: **2010212-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **Hanks #2 North Bott**	Batch ID: **B72412**	RunNo: **72412**
Prep Date:	Analysis Date: **10/6/2020**	SeqNo: **2541958** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	3.2	0.089	3.564	0	91.1	76.3	120	0.852	20	
Toluene	3.5	0.18	3.564	0	96.9	78.5	120	0.289	20	
Ethylbenzene	3.5	0.18	3.564	0	99.6	78.1	124	1.29	20	
Xylenes, Total	11	0.36	10.69	0.08482	99.2	79.3	125	1.75	20	
Surr: 4-Bromofluorobenzene	3.7		3.564		105	80	120	0	0	

Sample ID: **100ng btex lcs**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **B72412**	RunNo: **72412**
Prep Date:	Analysis Date: **10/6/2020**	SeqNo: **2541959** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.84	0.025	1.000	0	83.5	80	120			
Toluene	0.88	0.050	1.000	0	88.4	80	120			
Ethylbenzene	0.89	0.050	1.000	0	88.7	80	120			
Xylenes, Total	2.6	0.10	3.000	0	88.1	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		103	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
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H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
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Website: clients.hallenvironmental.com

Sample Log-In Check List

Client Name: **Harvest** Work Order Number: **2010212** RcptNo: **1**

Received By: **Cheyenne Cason** **10/6/2020 8:03:00 AM**

Completed By: **Isaiah Ortiz** **10/6/2020 8:13:53 AM** I-OK

Reviewed By: DAD 10/6/20

Chain of Custody

1. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2. How was the sample delivered?	Courier		

Log In

3. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
5. Sample(s) in proper container(s)?	Yes ☑	No ☐	
6. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
7. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
8. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
9. Received at least 1 vial with headspace <1/4" for AQ VOA?	Yes ☐	No ☐	NA ☑
10. Were any sample containers received broken?	Yes ☐	No ☑	
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
12. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
13. Is it clear what analyses were requested?	Yes ☑	No ☐	
14. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: CM 10/6/20

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.7	Good	Yes			

Chain-of-Custody Record

Client: Harvest Midstream

Mailing Address: 1755 ARROYO DR
Bloomfield NM 87413

Phone #: 505-632-4472

email or Fax#: Khong@harvestmidstream.com

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

Accreditation
☐ NELAP ☐ Other _____

☐ EDD (Type) _____

Turn-Around Time: Same Day
☐ Standard ☑ Rush 10-6-20

Project Name:
HANKS #2

Project #:

Project Manager:
KIJUN HONG

Sampler: Morgan Killgor

On Ice: ☑ Yes ☐ No

Sample Temperature: 2.7 +0 = 2.7

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www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 2010212	BTEX + ~~MTBE~~ + ~~TMB's~~ (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Chloride				Air Bubbles (Y or N)
10/5/20	1:15	soil	HANKS #2 North Bottom #2	1-402	Cool	001	X		X									X				

Date:	Time:	Relinquished by:	Received by:	Date	Time
10/5/20	1619	Morgan Killgor	[signature]	10/5/2020	1619
10/5/20	1813	[signature]	[signature]	10/6/20	0803

Remarks: Seal intact on cooler one 10/6/20

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

NMOCD Site Assessment/Characterization, Remediation & Closure

Site Name:	**Hanks 2 Pipeline**
API #:	not applicable
Lat/Long:	N36.60968 W107.83648
TRS:	NW/NW-6-27N-9W
Land Jurisdiction:	Federal - BLM
County:	San Juan
Determination made by:	David Reese, CHMM/Environmental Scientist
Date:	9/14/2020

Wellhead Protection Area Assessment:

Determine the horizontal distance from all known water sources within 1/2 mile of the release including private and domestic water sources. Water sources are wells, springs or other sources of fresh water extraction. Private and domestic water sources are those water sources used by less than five households for domestic or stock purposes. (NMAC 19.15.29.11A.3)

Water Source Type (well/spring/stock pond)	ID (if available)	Latitude	Longitude	Distance
none within 1/2 mile				

Distance to Nearest Significant Watercourse (NMAC 19.15.29.11A.4)

release location is within a wash tributary to Armenta Canyon Wash, which flows to San Juan River

Depth to Groundwater Determination (NMAC 19.15.29.11A.2)

Cathodic Report/Site Specific Hydrogeology	none available
Elevation Differential	release location is within wash
Water Wells	no registered wells within 1/2 mile
Cathodic Report Nearby Wells	none available for nearby wells

Sensitive Receptor Determination **If a release occurs within the following areas, the RP must treat the release as if it occurred less than 50 ft to Groundwater (NMAC 19.15.29.12C.4):*	**Yes**	**No**
<300' of any continuously flowing watercourse or any other significant watercourse	☑	☐
<200' of any lakebed, sinkhole or playa lake (measured from the Ordinary High Water Mark)	☐	☑
<300' of an occupied permanent residence, school, hospital, institution or church	☐	☑
<500' of a spring or private/domestic water well used by <5 households for domestic or stock watering purposes	☐	☑
<1000' of any water well or spring	☐	☑
within incorporated municipal boundaries or within a defined municipal fresh water well field	☐	☑
<300' of a wetland	☑	☐
within the area overlying a subsurface mine	☐	☑
within an unstable area	☐	☑
within a 100-year floodplain	☐	☑

Explain any 'Yes' Marks:

Release location is within a wash that is a tributary of Armenta Canyon Wash. Designated as a wetland by Nat. Wetlands Inventory. Also, not shown as within a 100-year floodplain despite being located within a wash.

Actual Depth to Groundwater is: **≤50** ☑ **50-100** ☐ **>100** ☐

***Treat Depth to Groundwater as if it's ≤ 50 ft?** Yes ☑ No ☐

	≤50	**50-100**	**>100**
Release Action Levels are... Benzene	**10**	**10**	**10**
BTEX (mg/kg)	**50**	**50**	**50**
8015 TPH (GRO/DRO) (mg/kg)	**Not Applicable**	**1,000**	**1,000**
8015 TPH (GRO/DRO/MRO) (mg/kg)	**100**	**2,500**	**2,500**
Chlorides (mg/kg)	**600**	**10,000**	**20,000**

NMAC 19.15.29.12 Table I. Release Action Levels are determined by the depth below bottom of pit to groundwater.

New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

No PODs found.

UTMNAD83 Radius Search (in meters):

Easting (X): 246307 **Northing (Y):** 4055322 **Radius:** 805

PIN
- Approximate location based on user input and does not represent an authoritative property location

MAP PANELS
- Selected FloodMap Boundary
- Digital Data Available
- No Digital Data Available
- Unmapped

OTHER AREAS
- NO SCREEN — Area of Minimal Flood Hazard Zone X
- Effective LOMRs
- Area of Undetermined Flood Hazard Zone D
- Otherwise Protected Area

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) Zone A, V, A99
- With BFE or Depth
- Regulatory Floodway Zone AE, AO, AH, VE, AR

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
- Future Conditions 1% Annual Chance Flood Hazard Zone X
- Area with Reduced Flood Risk due to Levee. See Notes. Zone X
- Area with Flood Risk due to Levee Zone D

OTHER FEATURES
- 20.2 / 17.5 — Cross Sections with 1% Annual Chance Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

National Wetlands Inventory
surface waters and wetlands

ABOUT | GET DATA | PRINT | FIND LOCATION

BASEMAPS >

MAP LAYERS >

- [x] Wetlands
- [ ] Riparian
- [ ] Riparian Mapping Areas
- [x] Data Source
  - Source Type
  - Image Scale
  - Image Year
- [ ] Areas of Interest
- [ ] FWS Managed Lands
- [ ] Historic Wetland Data

Measure

LEGEND

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

1:9,028
36.614 | -107.836

USDA FSA | Esri, HERE, Garmin, iPC | U.S. Fish and Wildlife Service, National Standards and Su...

POWERED BY esri

Angela Ledgerwood

From: Karen Lupton <klupton@animasenvironmental.com>
Sent: Friday, September 25, 2020 10:34 AM
To: Cory Smith (cory.smith@state.nm.us)
Cc: Kijun Hong
Subject: [EXTERNAL] Project Notification for Harvest Midstream Hanks 2

Hi Cory:

Harvest Midtstream will be pulling samples at the Hanks 2 site on Monday, September 28th at 9:00AM. Morgan Killion will be onsite to conducting the sampling.

Thank you!

Karen Lupton
Director of Operations
klupton@animasenvironmental.com
Animas Environmental Services, LLC
www.animasenvironmental.com
624 E Comanche, Farmington, NM 87401
P.O. Box 8, Farmington, NM 87499-0008
(Tel) 505.564.2281

From: Karen Lupton
To: Cory Smith (cory.smith@state.nm.us)
Cc: aadeloye@blm.gov; Kijun Hong; morgankillion@yahoo.com; Elizabeth McNally (emcnally@animasenvironmental.com); David Reese (dreese@animasenvironmental.com)
Subject: Sampling Notification for Harvest Midstream Hanks 2
Date: Tuesday, September 29, 2020 12:30:00 PM

Hello All:

This notification is for sampling at the Harvest Hanks 2 site. Sampling is scheduled for Thursday, October 1st at 12:30PM. Morgan Killion will be onsite to pull samples.

Animas Environmental Services apologizes for the oversight on the first notification and has taken measures to ensure that all appropriate parties are notified in a timely manner going forward.

Please do not hesitate to reach out with any questions or concerns.

Thank you,

Karen Lupton
Director of Operations
klupton@animasenvironmental.com
Animas Environmental Services, LLC
www.animasenvironmental.com
624 E Comanche, Farmington, NM 87401
P.O. Box 8, Farmington, NM 87499-0008
(Tel) 505.564.2281

Angela Ledgerwood

From: Kijun Hong <khong@harvestmidstream.com>
Sent: Tuesday, March 23, 2021 3:12 PM
To: Angela Ledgerwood
Subject: FW: [EXTERNAL] RE: Hanks 2 resample

From: Smith, Cory, EMNRD [mailto:Cory.Smith@state.nm.us]
Sent: Friday, October 2, 2020 6:16 PM
To: Kijun Hong; aadeloye@blm.gov; dmankiew@blm.gov; g1smith@blm.gov
Cc: Morgan Killion - Intermountain Construction (morgankillion@yahoo.com); Lloyd Bell; Joseph Pruitt; McNally, Elizabeth; Powell, Brandon, EMNRD
Subject: [EXTERNAL] RE: Hanks 2 resample

Kijun,

OCD approves Harvest request for the short sampling notice with the condition that the surface owner is also ok with the sample notice.

In addition what time on Monday does Harvest propose to sample?

OCD approval does not relieve Harvest of any other requirements that maybe imposed by other regulatory agencies.

Cory Smith
Environmental Specialist
Oil Conservation Division
Energy, Minerals, & Natural Resources
1000 Rio Brazos, Aztec, NM 87410
(505)334-6178 ext 115
cory.smith@state.nm.us

From: Kijun Hong <khong@harvestmidstream.com>
Sent: Friday, October 2, 2020 4:50 PM
To: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>; aadeloye@blm.gov; dmankiew@blm.gov; g1smith@blm.gov
Cc: Morgan Killion - Intermountain Construction (morgankillion@yahoo.com) <morgankillion@yahoo.com>; Lloyd Bell <lbell@harvestmidstream.com>; Joseph Pruitt <jpruitt@harvestmidstream.com>; McNally, Elizabeth <emcnally@animasenvironmental.com>
Subject: [EXT] Hanks 2 resample
Importance: High

Our preliminary results for the bottom sample (see attached) came back slightly exceeding closure limits.

We would like to dig further and sample again Monday afternoon with BLM and OCD approval. We would appreciate your response ASAP as crews are standing by. We apologies for the short notice.

If this is not acceptable, please let this serve as 48 hour notice for confirmation sampling Tuesday afternoon.

Thank You,
Kijun

Kijun Hong | Harvest Midstream Company| Environmental Specialist | Four Corners
Office: 505-632-4475 | Cell: 505-436-8457 | 1755 Arroyo Dr., Bloomfield, NM 87413

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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

Operator: Harvest Four Corners, LLC 1111 Travis Street Houston, TX 77002	OGRID: 373888
	Action Number: 22147
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
nvelez	None	11/2/2022