

Incident ID	nAPP2227246284
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: Dale Woodall Title: Environmental Professional
Signature: Dale Woodall Date: 3/20/2023
email: dale.woodall@dvn.com Telephone: 575-748-1839

OCD Only

Received by: Jocelyn Harimon Date: 03/20/2023

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: Robert Hamlet Date: 8/1/2023
Printed Name: Robert Hamlet Title: Environmental Specialist - Advanced

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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?	<u><50</u> (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas not on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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.

State of New Mexico
Oil Conservation Division

Page 4

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Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____



Pima Environmental Services
5614 N. Lovington Highway
Hobbs, NM 88240
575-964-7740

March 16, 2023

NMOCD District 2
 811 S. First Street
 Artesia, NM 88210

Re: Site Assessment, Remediation, and Closure Report
Merlyn 27 22 Fed 2H
API No. 30-015-42386
GPS: Latitude 32.4396133 Longitude -103.7720556
UL -- D, 34, T21S, R31E
Eddy County, NM
NMOCD Ref. No. NAPP2227246284

Pima Environmental Services, LLC. (Pima) has been contracted by Devon Energy Production Company, LP (Devon) to perform a spill assessment, remediation activities, and submit this closure report for a Crude oil release that occurred at the Merlyn 27 22 Fed 2H (Merlyn). The initial C-141 was submitted on September 29, 2022 (Appendix C). This incident was assigned Incident ID NAPP2227246284 by the New Mexico Oil Conservation Division (NMOCD).

Site Characterization

The Merlyn is located approximately twenty-three (23) miles east of Carlsbad, NM. This spill site is in Unit D, Section 34, Township 21S, Range 31E, Latitude 32.4396133 Longitude -103.7720556, Eddy County, NM. Figure 1 references a Location Map.

Per the New Mexico Bureau of Geology and Mineral Resources, the geology is made up of Interlayered eolian sands and piedmont-slope deposits along the eastern flank of the Pecos River valley, primarily between Roswell and Carlsbad. Typically capped by thin eolian deposits. The soil in this area is made up of Berino complex, 0 to 3 percent slopes according to the United States Department of Agriculture Natural Resources Conservation Service soil survey (Appendix B). The drainage class in this area is well drained. There is a low potential for karst geology to be present around the Merlyn (Figure 3).

According to the New Mexico Office of the State Engineer, depth to the nearest groundwater in this area is 630 feet below grade surface (BGS). According to the United States Geological Survey (USGS), the nearest groundwater is 178 feet BGS. The closest waterway is a Salt Playa located approximately 3.25 miles to the north of this location. See Appendix A for referenced water surveys.

Table 1 NMAC and Closure Criteria 19.15.29

Depth to Groundwater (Appendix A)	Constituent & Limits				
	Chlorides	Total TPH	GRO+DRO	BTEX	Benzene
<50' (Lack of GW Data)	600 mg/kg	100 mg/kg		50 mg/kg	10 mg/kg
51-100'	10,000 mg/kg	2,500 mg/kg	1,000 mg/kg	50 mg/kg	10 mg/kg
>100'	20,000 mg/kg	2,500 mg/kg	1,000 mg/kg	50 mg/kg	10 mg/kg

Reference Figure 2 for a Topographic Map.

Merlyn 27 22 Fed 2H|Devon Energy

Release Information

NAPP2227246284: On July 4, 2022, the LO notice spraying mist coming from the well head causing a fluid release. The released fluids were calculated to be approximately 11 barrels (bbls) of crude oil. Vacuum truck was able to recover approximately 6 bbls of standing fluid.

Remediation Activities, Site Assessment, and Soil Sampling Results

On October 6, and November 9, 2022, Pima mobilized personnel to the site to begin collecting soil samples from spill area. The laboratory results of this sampling event can be found in the following data table. A Site Map can be found in Figure 4.

10-6-22 & 11-9-22 Soil Sample Results

NMOCD Table 1 Closure Criteria 19.15.29 NMAC (Depth to Groundwater is <50')									
DEVON ENERGY - MERLYN 27-22 FED 2H									
Sample Date: 10/6/22 & 11/9/22			NM Approved Laboratory Results						
Sample ID	Date Sampled	Depth (BGS)	BTEX mg/kg	Benzene mg/kg	GRO mg/kg	DRO mg/kg	MRO mg/kg	Total TPH mg/kg	Cl mg/kg
S-1	10/6/2022	1'	ND	ND	ND	26.1	ND	ND	ND
	11/9/2022	2'	ND	ND	ND	ND	ND	0	ND
		3'	ND	ND	ND	ND	ND	0	ND
	10/6/2022	4'	ND	ND	ND	ND	ND	0	ND
S-2	10/6/2022	1'	ND	ND	ND	233	94.6	327.6	ND
	11/9/2022	2'	ND	ND	ND	ND	ND	0	ND
		3'	ND	ND	ND	ND	ND	0	ND
	10/6/2022	4'	ND	ND	ND	30.3	ND	30.3	590
S-3	10/6/2022	1'	ND	ND	ND	648	270	918	661
	11/9/2022	2'	ND	ND	ND	ND	ND	0	ND
		3'	ND	ND	ND	ND	ND	0	ND
	10/6/2022	4'	ND	ND	ND	65.6	ND	65.6	494
S-4	10/6/2022	1'	ND	ND	ND	ND	ND	0	ND
	11/9/2022	2'	ND	ND	ND	ND	ND	0	ND
		3'	ND	ND	ND	ND	ND	0	ND
	10/6/2022	4'	ND	ND	ND	ND	ND	0	21.7
SW-1	10/6/2022	6"	ND	ND	ND	ND	ND	0	38.1
SW-2	10/6/2022	6"	ND	ND	ND	ND	ND	0	ND
SW-3	10/6/2022	6"	ND	ND	ND	ND	ND	0	ND
SW-4	10/6/2022	6"	ND	ND	ND	ND	ND	0	ND
SW-5	10/6/2022	6"	ND	ND	ND	ND	ND	0	ND
BG 1	10/6/2022	6"	ND	ND	ND	ND	ND	0	ND
BG 2	10/6/2022	6"	ND	ND	ND	ND	ND	0	ND

ND- Analyte Not Detected

On January 6, 2023, the Devon Construction Department mobilized personnel and equipment to begin immediate remediation activities. They began excavating the area to a depth of 2' BGS. The contaminated soil 29 cubic yards were hauled to an approved, lined disposal facility and clean backfill material was brought in.

On January 12, 2023, after sending a 48-hour notification (Appendix C), Pima returned to the site to collect confirmation samples of the excavation. The results of this sampling event can be found in the following table. A Confirmation Sample Map can be found in Figure 5.

1-12-23 Confirmation Sample Results

NMOCD Table 1 Closure Criteria 19.15.29 NMAC (Depth to Groundwater is <50')								
DEVON ENERGY - MERLYN 27-22 FED 2H								
Sample Date: 1/12/2023		NM Approved Laboratory Results						
Sample ID	Depth (BGS)	BTEX mg/kg	Benzene mg/kg	GRO mg/kg	DRO mg/kg	MRO mg/kg	Total TPH mg/kg	Cl mg/kg
CS 1	2'	ND	ND	ND	ND	ND	0	20
CS 2	2'	ND	ND	ND	ND	ND	0	ND
CS 3	2'	ND	ND	ND	ND	ND	0	ND
CS 4	2'	ND	ND	ND	ND	ND	0	ND
CSW 1	2'	ND	ND	ND	ND	ND	0	ND
CSW 2	2'	ND	ND	ND	ND	ND	0	ND
CSW 3	2'	ND	ND	ND	ND	ND	0	ND
CSW 4	2'	ND	ND	ND	ND	ND	0	ND
CSW 5	2'	ND	ND	ND	ND	ND	0	ND
CSW 6	2'	ND	ND	ND	ND	ND	0	ND
CSW 7	2'	ND	ND	ND	ND	ND	0	ND
CSW 8	2'	ND	ND	ND	ND	ND	0	ND

ND- Analyte Not Detected

Complete laboratory reports can be found in Appendix E.

Based on the sample results, the bottoms and sidewalls were below NMOCD Closure Criteria 19.15.29 NMAC. The contaminated material was sufficiently removed then transported to an NMOCD approved disposal site. The excavation was then backfilled with clean like material, machine compacted and returned to its previous state. See Appendix D for Photographic Documentation.

Closure Request

After careful review, Pima requests that this incident, NAPP2227246284 be closed. Devon has complied with the applicable closure requirements set forth in rule 19.15.19.12 NMAC.

Should you have any questions or need additional information, please feel free to contact Gio Gomez at 806-782-1151 or gio@pimaoil.com.

Respectfully,



Gio Gomez

Project Manager

Pima Environmental Services, LLC

Attachments

Figures:

- 1- Location Map
- 2- Topographic Map
- 3- Karst Map
- 4- Site Map
- 5- Confirmation Sample Map

Appendices:

- Appendix A – Referenced Water Surveys
- Appendix B – Soil Survey and Geological Data
- Appendix C – C-141 Form and 48 Hour Notification
- Appendix D – Photographic Documentation
- Appendix E – Laboratory Reports



Pima Environmental Services

Figures:

1-Location Map

2-Topographic Map

3-Karst Map



4-Site Map

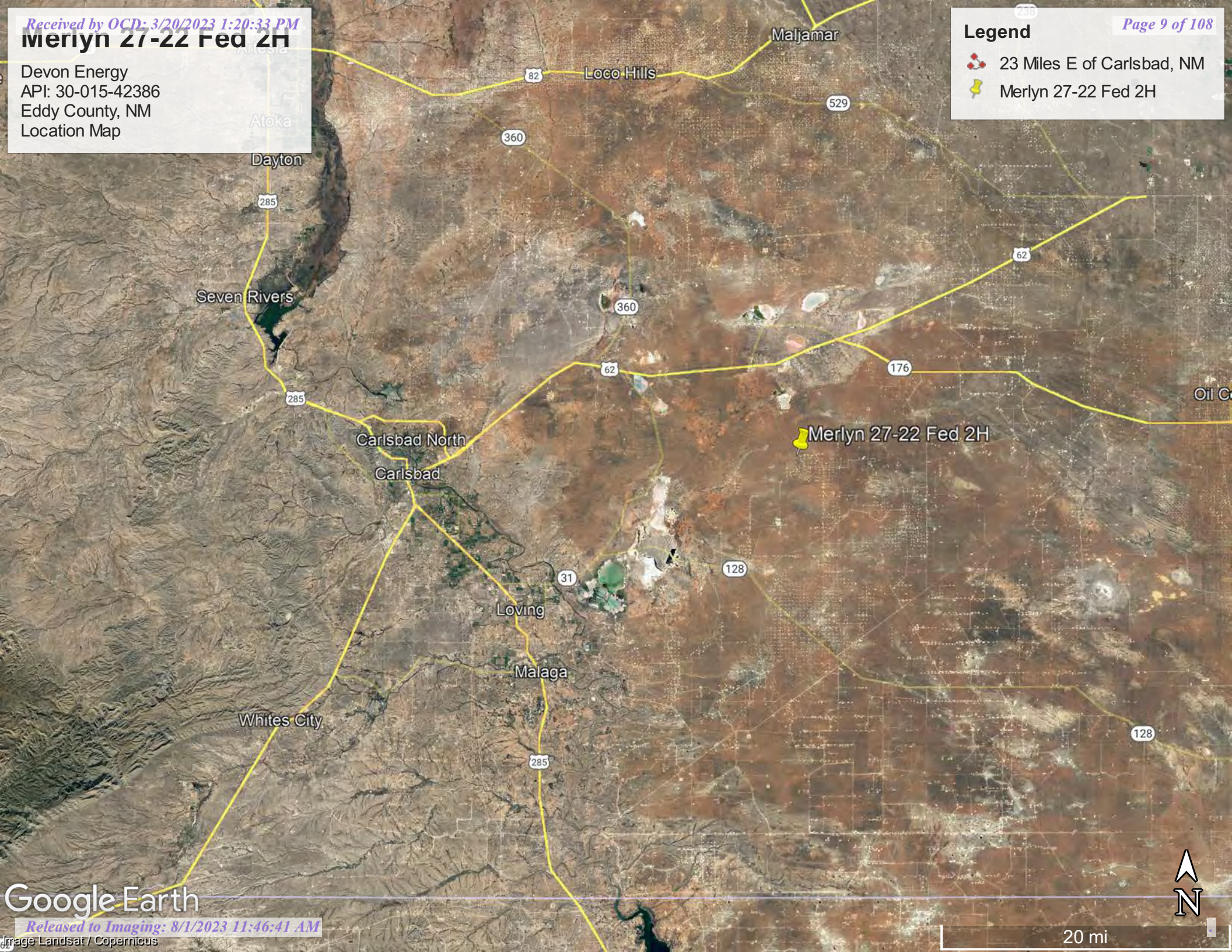
5-Confirmation Site Map

Merlyn 27-22 Fed 2H


Devon Energy
API: 30-015-42386
Eddy County, NM
Location Map

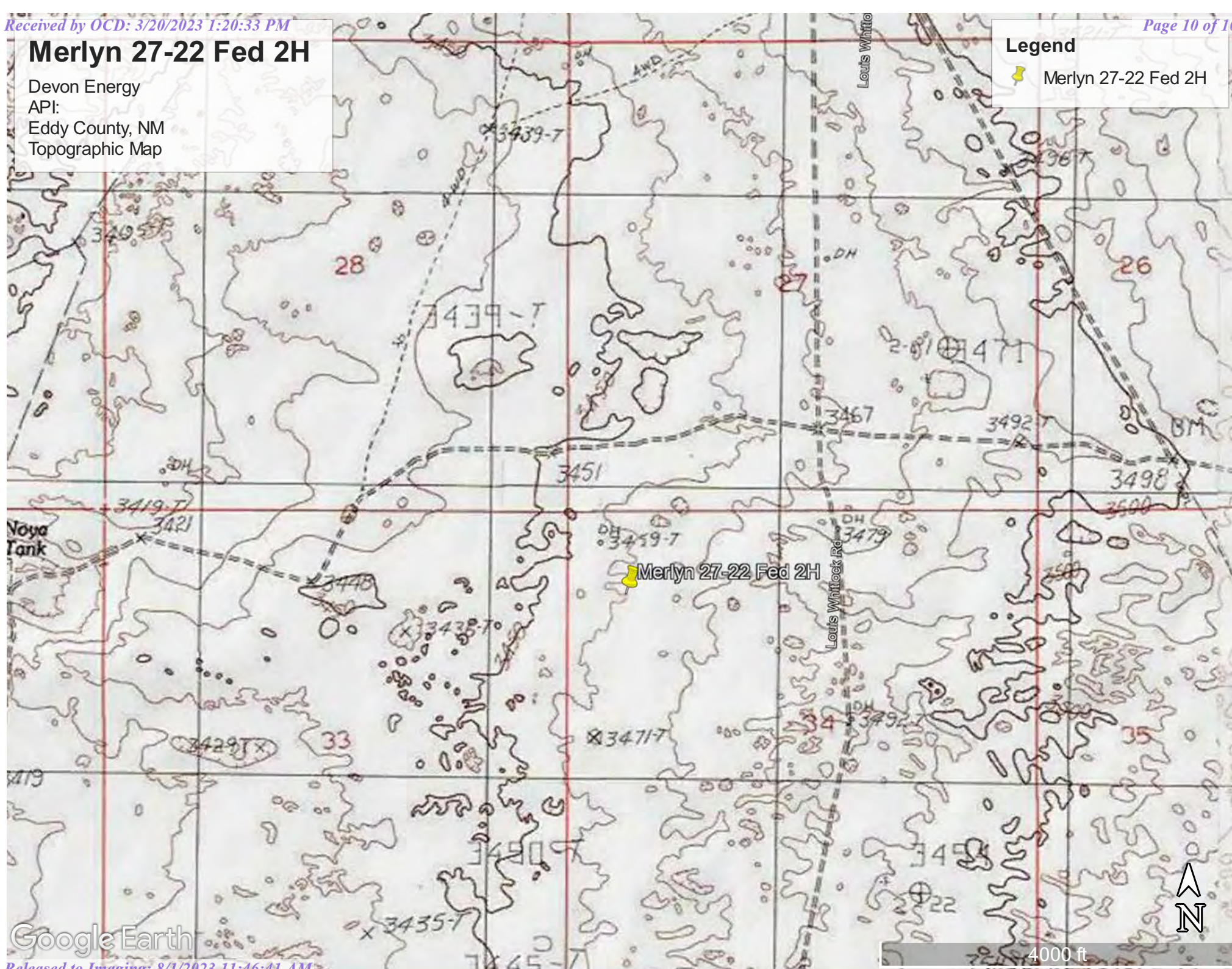
Legend

-  23 Miles E of Carlsbad, NM
-  Merlyn 27-22 Fed 2H



Devon Energy
API:
Eddy County, NM
Topographic Map

 Merlyn 27-22 Fed 2H



Merlyn 27-22 Fed 2H

Devon Energy
API:
Eddy County, NM
Karst Map

Legend

- High Karst
- Low Karst
- Medium Karst
- Merlyn 27-22 Fed 2H

Merlyn 27-22 Fed 2H

Google Earth




1 mi

Merlyn 27-22 Fed 2H

Devon Energy
API#N/A
Eddy County, NM
Site Map

Legend

- Background/Sidewall
- Sample
- Spill Area

 Merlyn 27-22 Fed 2H

BG1

SW3

S1

BG2

S4

SW2

SW4

S2

S3

SW1

SW5



100 ft

Merlyn 27-22 Fed 2H

Devon Energy
API: N/A
Eddy County, NM
Confirmation Sample Map

Legend

- Confirmation Samples
- Confirmation Sidewalls
- Merlyn 27-22 Fed 2H



90 ft



Pima Environmental Services

Appendix A

Water Surveys:

OSE

USGS

Surface Water Map



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

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

(R=POD has been replaced,
O=orphaned,
C=the file is closed)

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	DepthWell	DepthWater	Water Column
C_02949 EXPL		CUB	ED	1	1	4	34	21S	31E	616140	3589231*	924	970		
C_02727		CUB	ED	3	1	1	33	21S	31E	613716	3589809*	1717	913		
C_03233 EXPLORE		CUB	ED	4	4	4	20	21S	31E	613489	3591816*	2780	566		
C_03112 EXPLORE		CUB	ED	3	1	1	09	22S	31E	613753	3586590*	3648	3567		
C_02744		CUB	ED	3	2	1	11	22S	31E	617374	3586631*	3739	4911		
C_03002		CUB	ED	4	2	4	06	22S	31E	611933	3587375*	4274	668		
C_02682		CUB	ED	4	4	4	08	22S	31E	613566	3585379*	4825	4400		
C_02953 EXPL		CUB	ED	1	3	1	16	21S	31E	613662	3594434*	4934			630
C_03003		CUB	ED	3	1	3	31	21S	31E	610511	3588970*	4996	650		

Average Depth to Water: **630 feet**

Minimum Depth: **630 feet**

Maximum Depth: **630 feet**

Record Count: 9

UTM NAD83 Radius Search (in meters):

Easting (X): 615433.65

Northing (Y): 3589828.19

Radius: 5000

*UTM location was derived from PLSS - see Help

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

10/5/22 1:44 PM

WATER COLUMN/ AVERAGE DEPTH TO WATER



[USGS Home](#)
[Contact USGS](#)
[Search USGS](#)

National Water Information System: Web Interface

USGS Water Resources

Data Category:

Groundwater

Geographic Area:

United States

GO

Click to hide News Bulletins

- Explore the *NEW* [USGS National Water Dashboard](#) interactive map to access real-time water data from over 13,500 stations nationwide.
- [Full News](#) 

Groundwater levels for the Nation

 Important: [Next Generation Monitoring Location Page](#)

Search Results -- 1 sites found

site_no list =

- 322557103502401

Minimum number of levels = 1

[Save file of selected sites](#) to local disk for future upload

USGS 322557103502401 21S.30E.36.31321

Available data for this site

Groundwater: Field measurements

GO

Eddy County, New Mexico

Hydrologic Unit Code 13060011

Latitude 32°25'57", Longitude 103°50'24" NAD27

Land-surface elevation 3,231 feet above NAVD88

This well is completed in the Other aquifers (N9999OTHER) national aquifer.

This well is completed in the Rustler Formation (312RSLR) local aquifer.

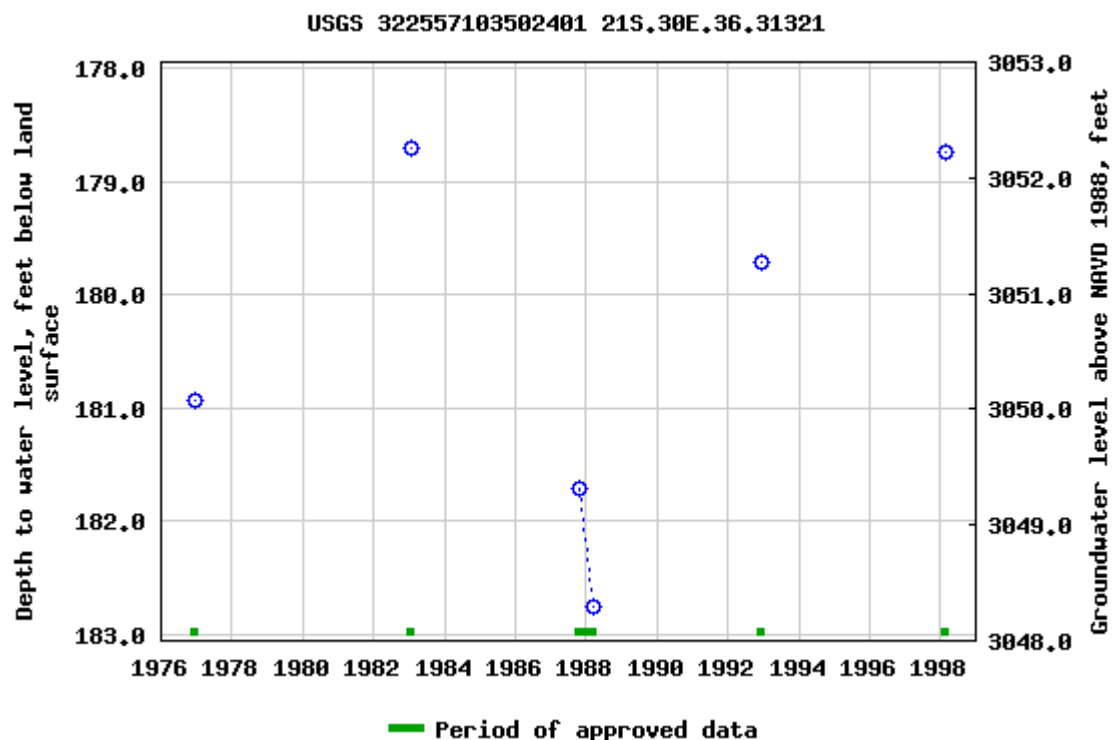
Output formats

[Table of data](#)

[Tab-separated data](#)

[Graph of data](#)

[Reselect period](#)



Breaks in the plot represent a gap of at least one year between field measurements.

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[U.S. Department of the Interior](#) | [U.S. Geological Survey](#)

Title: Groundwater for USA: Water Levels

URL: <https://nwis.waterdata.usgs.gov/nwis/gwlevels?>

Page Contact Information: [USGS Water Data Support Team](#)

Page Last Modified: 2022-10-05 15:49:34 EDT

0.58 0.49 nadww02

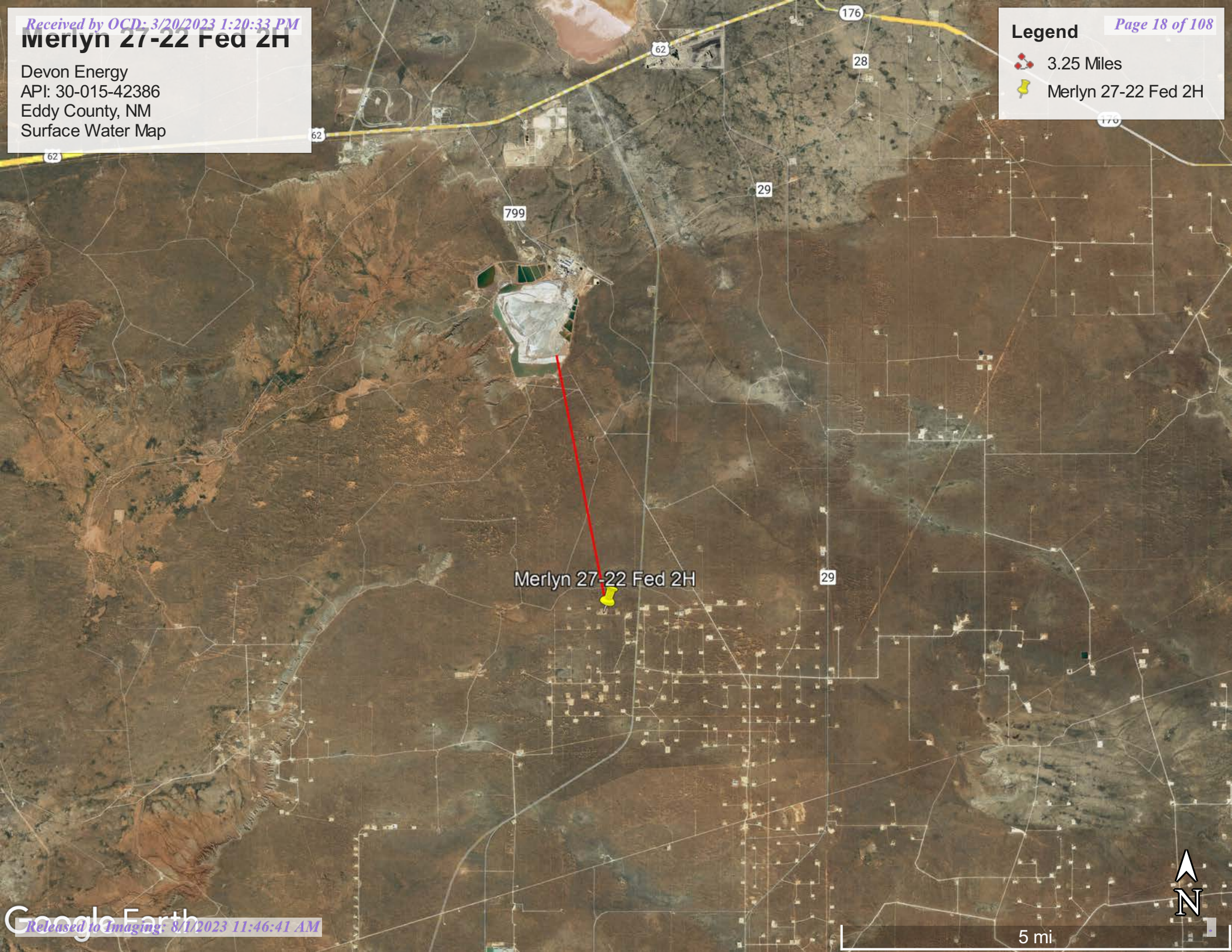


Merlyn 27-22 Fed 2H

Devon Energy
API: 30-015-42386
Eddy County, NM
Surface Water Map

Legend

- 3.25 Miles
- Merlyn 27-22 Fed 2H



Merlyn 27-22 Fed 2H

5 mi





Pima Environmental Services

Appendix B

Soil Survey & Geological Data

FEMA Flood Map

Wetlands Map

Map Unit Description: Berino complex, 0 to 3 percent slopes, eroded---Eddy Area, New Mexico

Eddy Area, New Mexico

BB—Berino complex, 0 to 3 percent slopes, eroded

Map Unit Setting

National map unit symbol: 1w43

Elevation: 2,000 to 5,700 feet

Mean annual precipitation: 5 to 15 inches

Mean annual air temperature: 57 to 70 degrees F

Frost-free period: 180 to 260 days

Farmland classification: Not prime farmland

Map Unit Composition

Berino and similar soils: 60 percent

Pajarito and similar soils: 25 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Berino

Setting

Landform: Plains, fan piedmonts

Landform position (three-dimensional): Riser

Down-slope shape: Convex

Across-slope shape: Linear

Parent material: Mixed alluvium and/or eolian sands

Typical profile

H1 - 0 to 17 inches: fine sand

H2 - 17 to 58 inches: sandy clay loam

H3 - 58 to 60 inches: loamy sand

Properties and qualities

Slope: 0 to 3 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Runoff class: Low

Capacity of the most limiting layer to transmit water

(Ksat): Moderately high to high (0.60 to 2.00 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum content: 40 percent

Maximum salinity: Very slightly saline to slightly saline (2.0 to 4.0 mmhos/cm)

Sodium adsorption ratio, maximum: 1.0

Available water supply, 0 to 60 inches: Moderate (about 8.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Map Unit Description: Berino complex, 0 to 3 percent slopes, eroded---Eddy Area, New Mexico

Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: B
Ecological site: R070BD003NM - Loamy Sand
Hydric soil rating: No

Description of Pajarito

Setting

Landform: Dunes, plains, interdunes
Landform position (three-dimensional): Side slope
Down-slope shape: Convex, linear
Across-slope shape: Convex, linear
Parent material: Mixed alluvium and/or eolian sands

Typical profile

H1 - 0 to 9 inches: loamy fine sand
H2 - 9 to 72 inches: fine sandy loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): High
(2.00 to 6.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 40 percent
Maximum salinity: Nonsaline (0.0 to 1.0 mmhos/cm)
Sodium adsorption ratio, maximum: 1.0
Available water supply, 0 to 60 inches: Moderate (about 8.0 inches)

Interpretive groups

Land capability classification (irrigated): 2e
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: A
Ecological site: R070BD003NM - Loamy Sand
Hydric soil rating: No

Minor Components

Pajarito

Percent of map unit: 4 percent
Ecological site: R070BD003NM - Loamy Sand
Hydric soil rating: No

Wink

Percent of map unit: 4 percent
Ecological site: R070BD003NM - Loamy Sand
Hydric soil rating: No

Cacique

Percent of map unit: 4 percent

Map Unit Description: Berino complex, 0 to 3 percent slopes, eroded---Eddy Area, New Mexico

Ecological site: R070BD004NM - Sandy

Hydric soil rating: No

Kermit

Percent of map unit: 3 percent

Ecological site: R070BD005NM - Deep Sand

Hydric soil rating: No

Data Source Information

Soil Survey Area: Eddy Area, New Mexico

Survey Area Data: Version 18, Sep 8, 2022

National Flood Hazard Layer FIRMette



103°46'38"W 32°26'38"N



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

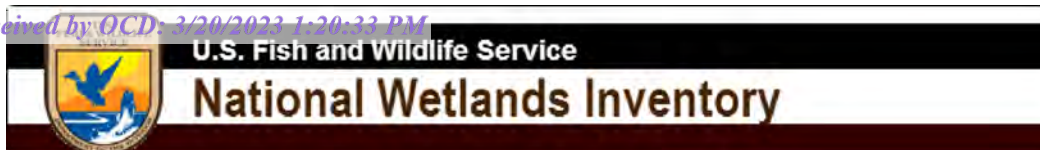
SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of 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
		Area of Minimal Flood Hazard Zone X
OTHER AREAS		Effective LOMRs
		Area of Undetermined Flood Hazard Zone D
GENERAL STRUCTURES		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		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	
MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 10/5/2022 at 3:52 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.



Wetlands Map



October 5, 2022

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond

- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.



Pima Environmental Services

Appendix C

C-141 Form

48-Hour Notification

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	nAPP2227246284
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party Devon Energy Production Company	OGRID 6137
Contact Name Dale Woodall	Contact Telephone 575-748-1838
Contact email dale.woodall@dvn.com	Incident # (assigned by OCD) nAPP2227246284
Contact mailing address 6488 Seven Rivers Hwy Artesia, NM 88210	

Location of Release Source

Latitude 32.4396133 Longitude -103.7720556
(NAD 83 in decimal degrees to 5 decimal places)

Site Name MERLYN 27-22 FED 2H	Site Type active oil
Date Release Discovered 7/4/2022	API# (if applicable) 30-015-42386

Unit Letter	Section	Township	Range	County
D	34	21S	31E	Eddy

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) 11	Volume Recovered (bbls) 6
<input type="checkbox"/> Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of total dissolved solids (TDS) 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 LO received a HT alarm and from the battery he noticed the well was spraying a mist from the well head. The well was shut in and the BOP rams were set. All fluids stayed on pad.

Incident ID	nAPP2227246284
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? Less than 25 bbls
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: Kendra Ruiz	Title: EHS Associate
Signature: <u><i>Kendra Ruiz</i></u>	Date: <u>9/29/2022</u>
email: <u>Kendra.Ruiz@dvn.com</u>	Telephone: <u>575-748-0167</u>
<u>OCD Only</u>	
Received by: <u>Jocelyn Harimon</u>	Date: <u>02/23/2023</u>

Incident ID	nAPP2227246284
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?	<u><50</u> (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas not on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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.

State of New Mexico
Oil Conservation Division

Page 4

Incident ID	nAPP2227246284
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: Dale Woodall Title: Environmental ProfessionalSignature: Dale Woodall Date: 3/20/2023email: dale.woodall@dvn.com Telephone: 575-748-1839**OCD Only**

Received by: _____ Date: _____

Incident ID	nAPP2227246284
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: Dale Woodall Title: Environmental Professional
Signature: Dale Woodall Date: 3/20/2023
email: dale.woodall@dvn.com Telephone: 575-748-1839

OCD Only

Received by: _____ Date: _____

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

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____



Gio PimaOil <gio@pimaoil.com>

Merlyn 27-22 Fed 2H NAPP2227246284 Sampling Confirmation

1 message

Gio PimaOil <gio@pimaoil.com>

Tue, Jan 10, 2023 at 10:04 AM

To: ocdonline@state.nm.us, Tom Pima Oil <tom@pimaoil.com>

Good Morning,

Pima Environmental would like to notify you that we will be collecting confirmation samples at the Merlyn 27-22 Fed 2H for incident **NAPP2227246284**. Pima personnel are scheduled to be on site for this sampling event at approximately 10:00 a.m. on Thursday, January 12, 2023. If you have any questions or concerns, please let me know. Thank you.

--

Gio Gomez

Project Manager

cell-806-782-1151

Office- 575-964-7740

Pima Environmental Services, LLC.



Pima Environmental Services

Appendix D

Photographic Documentation



**SITE PHOTOGRAPHS
DEVON ENERGY
MERLYN 27-22 FED H**

Pre-Excavation



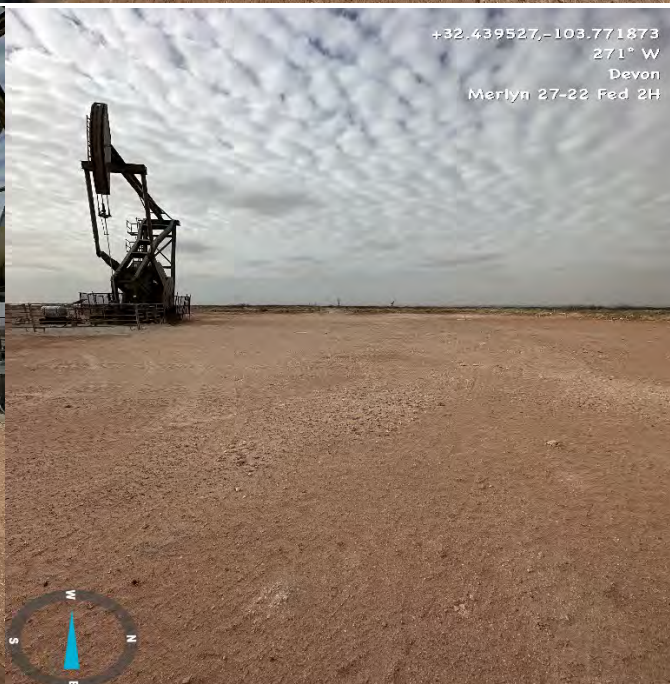
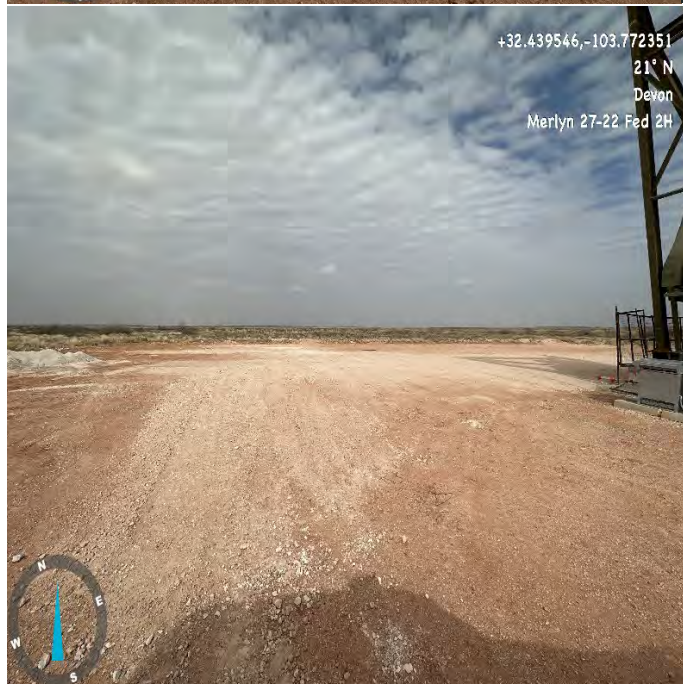
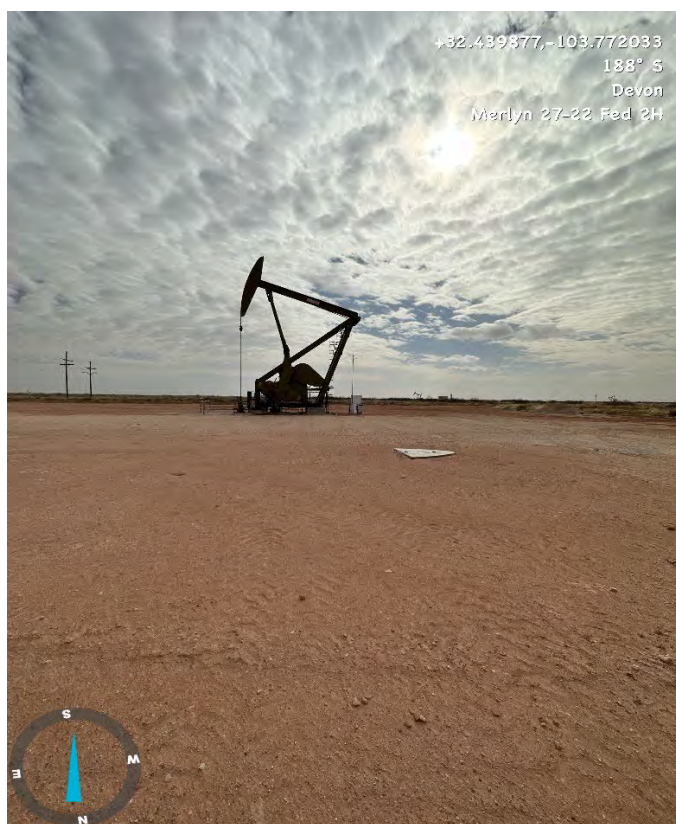


Excavation





Post Excavation





Pima Environmental Services

Appendix E

Laboratory Reports

Report to:
Tom Bynum



envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

Pima Environmental Services-Carlsbad

Project Name: Merlyn 27-2H

Work Order: E210039

Job Number: 01058-0007

Received: 10/10/2022

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
10/13/22

5796 U.S. Hwy 64
Farmington, NM 87401

Phone: (505) 632-1881
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.
Statement of Data Authenticity: Envirotech Inc. attests the data reported has not been altered in any way.
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.
Envirotech Inc. holds the Utah TNI certification NM00979 for data reported.
Envirotech Inc. holds the Texas TNI certification T104704557 for data reported.
Envirotech Inc. holds the NM SDWA certification for data reported. (Lab #NM00979)

Date Reported: 10/13/22

Tom Bynum
PO Box 247
Plains, TX 79355-0247



Project Name: Merlyn 27-2H
Workorder: E210039
Date Received: 10/10/2022 8:25:00AM

Tom Bynum,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 10/10/2022 8:25:00AM, under the Project Name: Merlyn 27-2H.

The analytical test results summarized in this report with the Project Name: Merlyn 27-2H apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

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

Respectfully,

Walter Hinchman
Laboratory Director
Office: 505-632-1881
Cell: 775-287-1762
whinchman@envirotech-inc.com

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Alexa Michaels
Sample Custody Officer
Office: 505-632-1881
labadmin@envirotech-inc.com

Field Offices:

Southern New Mexico Area
Lynn Jarboe
Technical Representative/Client Services
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljjarboe@envirotech-inc.com

West Texas Midland/Odessa Area
Rayny Hagan
Technical Representative
Office: 505-421-LABS(5227)

Envirotech Web Address: www.envirotech-inc.com

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Sample Summary

Pima Environmental Services-Carlsbad	Project Name:	Merlyn 27-2H	Reported: 10/13/22 13:12
PO Box 247	Project Number:	01058-0007	
Plains TX, 79355-0247	Project Manager:	Tom Bynum	

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
S1 - 1'	E210039-01A	Soil	10/06/22	10/10/22	Glass Jar, 2 oz.
S1 - 4'	E210039-02A	Soil	10/06/22	10/10/22	Glass Jar, 2 oz.
S2 - 1'	E210039-03A	Soil	10/06/22	10/10/22	Glass Jar, 2 oz.
S2 - 4'	E210039-04A	Soil	10/06/22	10/10/22	Glass Jar, 2 oz.
S3 - 1'	E210039-05A	Soil	10/06/22	10/10/22	Glass Jar, 2 oz.
S3 - 4'	E210039-06A	Soil	10/06/22	10/10/22	Glass Jar, 2 oz.
S4 - 1'	E210039-07A	Soil	10/06/22	10/10/22	Glass Jar, 2 oz.
S4 - 4'	E210039-08A	Soil	10/06/22	10/10/22	Glass Jar, 2 oz.
SW1	E210039-09A	Soil	10/06/22	10/10/22	Glass Jar, 2 oz.
SW2	E210039-10A	Soil	10/06/22	10/10/22	Glass Jar, 2 oz.
SW3	E210039-11A	Soil	10/06/22	10/10/22	Glass Jar, 2 oz.
SW4	E210039-12A	Soil	10/06/22	10/10/22	Glass Jar, 2 oz.
SW5	E210039-13A	Soil	10/06/22	10/10/22	Glass Jar, 2 oz.
BG1	E210039-14A	Soil	10/06/22	10/10/22	Glass Jar, 2 oz.
BG2	E210039-15A	Soil	10/06/22	10/10/22	Glass Jar, 2 oz.



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: Merlyn 27-2H
Project Number: 01058-0007
Project Manager: Tom Bynum

Reported:
10/13/2022 1:12:08PM

S1 - 1'

E210039-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg	Analyst: IY		Batch: 2242014	
Benzene	ND	0.0250	1	10/10/22	10/11/22	
Ethylbenzene	ND	0.0250	1	10/10/22	10/11/22	
Toluene	ND	0.0250	1	10/10/22	10/11/22	
o-Xylene	ND	0.0250	1	10/10/22	10/11/22	
p,m-Xylene	ND	0.0500	1	10/10/22	10/11/22	
Total Xylenes	ND	0.0250	1	10/10/22	10/11/22	
<i>Surrogate: Bromofluorobenzene</i>	95.8 %	70-130		10/10/22	10/11/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	101 %	70-130		10/10/22	10/11/22	
<i>Surrogate: Toluene-d8</i>	96.7 %	70-130		10/10/22	10/11/22	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: IY		Batch: 2242014	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/10/22	10/11/22	
<i>Surrogate: Bromofluorobenzene</i>	95.8 %	70-130		10/10/22	10/11/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	101 %	70-130		10/10/22	10/11/22	
<i>Surrogate: Toluene-d8</i>	96.7 %	70-130		10/10/22	10/11/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: JL		Batch: 2242015	
Diesel Range Organics (C10-C28)	26.1	25.0	1	10/11/22	10/11/22	
Oil Range Organics (C28-C36)	ND	50.0	1	10/11/22	10/11/22	
<i>Surrogate: n-Nonane</i>	104 %	50-200		10/11/22	10/11/22	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: RAS		Batch: 2242031	
Chloride	ND	20.0	1	10/11/22	10/12/22	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: Merlyn 27-2H
Project Number: 01058-0007
Project Manager: Tom Bynum

Reported:
10/13/2022 1:12:08PM

S1 - 4'

E210039-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2242014
Benzene	ND	0.0250	1	10/10/22	10/11/22	
Ethylbenzene	ND	0.0250	1	10/10/22	10/11/22	
Toluene	ND	0.0250	1	10/10/22	10/11/22	
o-Xylene	ND	0.0250	1	10/10/22	10/11/22	
p,m-Xylene	ND	0.0500	1	10/10/22	10/11/22	
Total Xylenes	ND	0.0250	1	10/10/22	10/11/22	
Surrogate: Bromofluorobenzene	95.3 %	70-130		10/10/22	10/11/22	
Surrogate: 1,2-Dichloroethane-d4	103 %	70-130		10/10/22	10/11/22	
Surrogate: Toluene-d8	95.2 %	70-130		10/10/22	10/11/22	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2242014
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/10/22	10/11/22	
Surrogate: Bromofluorobenzene	95.3 %	70-130		10/10/22	10/11/22	
Surrogate: 1,2-Dichloroethane-d4	103 %	70-130		10/10/22	10/11/22	
Surrogate: Toluene-d8	95.2 %	70-130		10/10/22	10/11/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2242015
Diesel Range Organics (C10-C28)	ND	25.0	1	10/11/22	10/11/22	
Oil Range Organics (C28-C36)	ND	50.0	1	10/11/22	10/11/22	
Surrogate: n-Nonane	110 %	50-200		10/11/22	10/11/22	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2242031
Chloride	ND	20.0	1	10/11/22	10/12/22	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: Merlyn 27-2H
Project Number: 01058-0007
Project Manager: Tom Bynum

Reported:
10/13/2022 1:12:08PM

S2 - 1'

E210039-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2242014
Benzene	ND	0.0250	1	10/10/22	10/11/22	
Ethylbenzene	ND	0.0250	1	10/10/22	10/11/22	
Toluene	ND	0.0250	1	10/10/22	10/11/22	
o-Xylene	ND	0.0250	1	10/10/22	10/11/22	
p,m-Xylene	ND	0.0500	1	10/10/22	10/11/22	
Total Xylenes	ND	0.0250	1	10/10/22	10/11/22	
Surrogate: Bromofluorobenzene	94.9 %	70-130		10/10/22	10/11/22	
Surrogate: 1,2-Dichloroethane-d4	104 %	70-130		10/10/22	10/11/22	
Surrogate: Toluene-d8	95.7 %	70-130		10/10/22	10/11/22	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2242014
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/10/22	10/11/22	
Surrogate: Bromofluorobenzene	94.9 %	70-130		10/10/22	10/11/22	
Surrogate: 1,2-Dichloroethane-d4	104 %	70-130		10/10/22	10/11/22	
Surrogate: Toluene-d8	95.7 %	70-130		10/10/22	10/11/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2242015
Diesel Range Organics (C10-C28)	233	25.0	1	10/11/22	10/11/22	
Oil Range Organics (C28-C36)	94.6	50.0	1	10/11/22	10/11/22	
Surrogate: n-Nonane	115 %	50-200		10/11/22	10/11/22	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2242031
Chloride	ND	20.0	1	10/11/22	10/12/22	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: Merlyn 27-2H
Project Number: 01058-0007
Project Manager: Tom Bynum

Reported:
10/13/2022 1:12:08PM

S2 - 4'

E210039-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2242014
Benzene	ND	0.0250	1	10/10/22	10/11/22	
Ethylbenzene	ND	0.0250	1	10/10/22	10/11/22	
Toluene	ND	0.0250	1	10/10/22	10/11/22	
o-Xylene	ND	0.0250	1	10/10/22	10/11/22	
p,m-Xylene	ND	0.0500	1	10/10/22	10/11/22	
Total Xylenes	ND	0.0250	1	10/10/22	10/11/22	
Surrogate: Bromofluorobenzene	96.0 %	70-130		10/10/22	10/11/22	
Surrogate: 1,2-Dichloroethane-d4	103 %	70-130		10/10/22	10/11/22	
Surrogate: Toluene-d8	96.6 %	70-130		10/10/22	10/11/22	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2242014
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/10/22	10/11/22	
Surrogate: Bromofluorobenzene	96.0 %	70-130		10/10/22	10/11/22	
Surrogate: 1,2-Dichloroethane-d4	103 %	70-130		10/10/22	10/11/22	
Surrogate: Toluene-d8	96.6 %	70-130		10/10/22	10/11/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2242015
Diesel Range Organics (C10-C28)	30.3	25.0	1	10/11/22	10/11/22	
Oil Range Organics (C28-C36)	ND	50.0	1	10/11/22	10/11/22	
Surrogate: n-Nonane	108 %	50-200		10/11/22	10/11/22	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2242031
Chloride	590	20.0	1	10/11/22	10/12/22	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: Merlyn 27-2H
Project Number: 01058-0007
Project Manager: Tom Bynum

Reported:
10/13/2022 1:12:08PM

S3 - 1'

E210039-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2242014
Benzene	ND	0.0250	1	10/10/22	10/11/22	
Ethylbenzene	ND	0.0250	1	10/10/22	10/11/22	
Toluene	ND	0.0250	1	10/10/22	10/11/22	
o-Xylene	ND	0.0250	1	10/10/22	10/11/22	
p,m-Xylene	ND	0.0500	1	10/10/22	10/11/22	
Total Xylenes	ND	0.0250	1	10/10/22	10/11/22	
Surrogate: Bromofluorobenzene	95.3 %	70-130		10/10/22	10/11/22	
Surrogate: 1,2-Dichloroethane-d4	106 %	70-130		10/10/22	10/11/22	
Surrogate: Toluene-d8	96.0 %	70-130		10/10/22	10/11/22	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2242014
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/10/22	10/11/22	
Surrogate: Bromofluorobenzene	95.3 %	70-130		10/10/22	10/11/22	
Surrogate: 1,2-Dichloroethane-d4	106 %	70-130		10/10/22	10/11/22	
Surrogate: Toluene-d8	96.0 %	70-130		10/10/22	10/11/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2242015
Diesel Range Organics (C10-C28)	648	25.0	1	10/11/22	10/11/22	
Oil Range Organics (C28-C36)	270	50.0	1	10/11/22	10/11/22	
Surrogate: n-Nonane	115 %	50-200		10/11/22	10/11/22	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2242031
Chloride	661	20.0	1	10/11/22	10/12/22	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: Merlyn 27-2H
Project Number: 01058-0007
Project Manager: Tom Bynum

Reported:
10/13/2022 1:12:08PM

S3 - 4'

E210039-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2242014
Benzene	ND	0.0250	1	10/10/22	10/11/22	
Ethylbenzene	ND	0.0250	1	10/10/22	10/11/22	
Toluene	ND	0.0250	1	10/10/22	10/11/22	
o-Xylene	ND	0.0250	1	10/10/22	10/11/22	
p,m-Xylene	ND	0.0500	1	10/10/22	10/11/22	
Total Xylenes	ND	0.0250	1	10/10/22	10/11/22	
Surrogate: Bromofluorobenzene	96.2 %	70-130		10/10/22	10/11/22	
Surrogate: 1,2-Dichloroethane-d4	104 %	70-130		10/10/22	10/11/22	
Surrogate: Toluene-d8	96.5 %	70-130		10/10/22	10/11/22	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2242014
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/10/22	10/11/22	
Surrogate: Bromofluorobenzene	96.2 %	70-130		10/10/22	10/11/22	
Surrogate: 1,2-Dichloroethane-d4	104 %	70-130		10/10/22	10/11/22	
Surrogate: Toluene-d8	96.5 %	70-130		10/10/22	10/11/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2242015
Diesel Range Organics (C10-C28)	65.6	25.0	1	10/11/22	10/12/22	
Oil Range Organics (C28-C36)	ND	50.0	1	10/11/22	10/12/22	
Surrogate: n-Nonane	108 %	50-200		10/11/22	10/12/22	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2242031
Chloride	494	20.0	1	10/11/22	10/12/22	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: Merlyn 27-2H
Project Number: 01058-0007
Project Manager: Tom Bynum

Reported:
10/13/2022 1:12:08PM

S4 - 1'

E210039-07

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2242014
Benzene	ND	0.0250	1	10/10/22	10/11/22	
Ethylbenzene	ND	0.0250	1	10/10/22	10/11/22	
Toluene	ND	0.0250	1	10/10/22	10/11/22	
o-Xylene	ND	0.0250	1	10/10/22	10/11/22	
p,m-Xylene	ND	0.0500	1	10/10/22	10/11/22	
Total Xylenes	ND	0.0250	1	10/10/22	10/11/22	
Surrogate: Bromofluorobenzene	94.9 %	70-130		10/10/22	10/11/22	
Surrogate: 1,2-Dichloroethane-d4	104 %	70-130		10/10/22	10/11/22	
Surrogate: Toluene-d8	97.9 %	70-130		10/10/22	10/11/22	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2242014
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/10/22	10/11/22	
Surrogate: Bromofluorobenzene	94.9 %	70-130		10/10/22	10/11/22	
Surrogate: 1,2-Dichloroethane-d4	104 %	70-130		10/10/22	10/11/22	
Surrogate: Toluene-d8	97.9 %	70-130		10/10/22	10/11/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2242015
Diesel Range Organics (C10-C28)	ND	25.0	1	10/11/22	10/12/22	
Oil Range Organics (C28-C36)	ND	50.0	1	10/11/22	10/12/22	
Surrogate: n-Nonane	109 %	50-200		10/11/22	10/12/22	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2242031
Chloride	ND	20.0	1	10/11/22	10/12/22	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: Merlyn 27-2H
Project Number: 01058-0007
Project Manager: Tom Bynum

Reported:
10/13/2022 1:12:08PM

S4 - 4'

E210039-08

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2242014
Benzene	ND	0.0250	1	10/10/22	10/11/22	
Ethylbenzene	ND	0.0250	1	10/10/22	10/11/22	
Toluene	ND	0.0250	1	10/10/22	10/11/22	
o-Xylene	ND	0.0250	1	10/10/22	10/11/22	
p,m-Xylene	ND	0.0500	1	10/10/22	10/11/22	
Total Xylenes	ND	0.0250	1	10/10/22	10/11/22	
Surrogate: Bromofluorobenzene	95.0 %	70-130		10/10/22	10/11/22	
Surrogate: 1,2-Dichloroethane-d4	102 %	70-130		10/10/22	10/11/22	
Surrogate: Toluene-d8	96.7 %	70-130		10/10/22	10/11/22	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2242014
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/10/22	10/11/22	
Surrogate: Bromofluorobenzene	95.0 %	70-130		10/10/22	10/11/22	
Surrogate: 1,2-Dichloroethane-d4	102 %	70-130		10/10/22	10/11/22	
Surrogate: Toluene-d8	96.7 %	70-130		10/10/22	10/11/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2242015
Diesel Range Organics (C10-C28)	ND	25.0	1	10/11/22	10/12/22	
Oil Range Organics (C28-C36)	ND	50.0	1	10/11/22	10/12/22	
Surrogate: n-Nonane	110 %	50-200		10/11/22	10/12/22	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2242031
Chloride	21.7	20.0	1	10/11/22	10/12/22	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: Merlyn 27-2H
Project Number: 01058-0007
Project Manager: Tom Bynum

Reported:
10/13/2022 1:12:08PM

SW1

E210039-09

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2242014
Benzene	ND	0.0250	1	10/10/22	10/11/22	
Ethylbenzene	ND	0.0250	1	10/10/22	10/11/22	
Toluene	ND	0.0250	1	10/10/22	10/11/22	
o-Xylene	ND	0.0250	1	10/10/22	10/11/22	
p,m-Xylene	ND	0.0500	1	10/10/22	10/11/22	
Total Xylenes	ND	0.0250	1	10/10/22	10/11/22	
Surrogate: Bromofluorobenzene	94.6 %	70-130		10/10/22	10/11/22	
Surrogate: 1,2-Dichloroethane-d4	103 %	70-130		10/10/22	10/11/22	
Surrogate: Toluene-d8	97.1 %	70-130		10/10/22	10/11/22	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2242014
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/10/22	10/11/22	
Surrogate: Bromofluorobenzene	94.6 %	70-130		10/10/22	10/11/22	
Surrogate: 1,2-Dichloroethane-d4	103 %	70-130		10/10/22	10/11/22	
Surrogate: Toluene-d8	97.1 %	70-130		10/10/22	10/11/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2242015
Diesel Range Organics (C10-C28)	ND	25.0	1	10/11/22	10/12/22	
Oil Range Organics (C28-C36)	ND	50.0	1	10/11/22	10/12/22	
Surrogate: n-Nonane	117 %	50-200		10/11/22	10/12/22	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2242031
Chloride	38.1	20.0	1	10/11/22	10/12/22	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: Merlyn 27-2H
Project Number: 01058-0007
Project Manager: Tom Bynum

Reported:
10/13/2022 1:12:08PM

SW2

E210039-10

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2242014
Benzene	ND	0.0250	1	10/10/22	10/11/22	
Ethylbenzene	ND	0.0250	1	10/10/22	10/11/22	
Toluene	ND	0.0250	1	10/10/22	10/11/22	
o-Xylene	ND	0.0250	1	10/10/22	10/11/22	
p,m-Xylene	ND	0.0500	1	10/10/22	10/11/22	
Total Xylenes	ND	0.0250	1	10/10/22	10/11/22	
Surrogate: Bromofluorobenzene	97.3 %	70-130		10/10/22	10/11/22	
Surrogate: 1,2-Dichloroethane-d4	103 %	70-130		10/10/22	10/11/22	
Surrogate: Toluene-d8	98.1 %	70-130		10/10/22	10/11/22	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2242014
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/10/22	10/11/22	
Surrogate: Bromofluorobenzene	97.3 %	70-130		10/10/22	10/11/22	
Surrogate: 1,2-Dichloroethane-d4	103 %	70-130		10/10/22	10/11/22	
Surrogate: Toluene-d8	98.1 %	70-130		10/10/22	10/11/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2242015
Diesel Range Organics (C10-C28)	ND	25.0	1	10/11/22	10/12/22	
Oil Range Organics (C28-C36)	ND	50.0	1	10/11/22	10/12/22	
Surrogate: n-Nonane	113 %	50-200		10/11/22	10/12/22	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2242031
Chloride	ND	20.0	1	10/11/22	10/13/22	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: Merlyn 27-2H
Project Number: 01058-0007
Project Manager: Tom Bynum

Reported:
10/13/2022 1:12:08PM

SW3

E210039-11

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2242014
Benzene	ND	0.0250	1	10/10/22	10/11/22	
Ethylbenzene	ND	0.0250	1	10/10/22	10/11/22	
Toluene	ND	0.0250	1	10/10/22	10/11/22	
o-Xylene	ND	0.0250	1	10/10/22	10/11/22	
p,m-Xylene	ND	0.0500	1	10/10/22	10/11/22	
Total Xylenes	ND	0.0250	1	10/10/22	10/11/22	
Surrogate: Bromofluorobenzene	94.3 %	70-130		10/10/22	10/11/22	
Surrogate: 1,2-Dichloroethane-d4	103 %	70-130		10/10/22	10/11/22	
Surrogate: Toluene-d8	97.3 %	70-130		10/10/22	10/11/22	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2242014
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/10/22	10/11/22	
Surrogate: Bromofluorobenzene	94.3 %	70-130		10/10/22	10/11/22	
Surrogate: 1,2-Dichloroethane-d4	103 %	70-130		10/10/22	10/11/22	
Surrogate: Toluene-d8	97.3 %	70-130		10/10/22	10/11/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2242015
Diesel Range Organics (C10-C28)	ND	25.0	1	10/11/22	10/12/22	
Oil Range Organics (C28-C36)	ND	50.0	1	10/11/22	10/12/22	
Surrogate: n-Nonane	114 %	50-200		10/11/22	10/12/22	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2242031
Chloride	ND	20.0	1	10/11/22	10/13/22	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: Merlyn 27-2H
Project Number: 01058-0007
Project Manager: Tom Bynum

Reported:
10/13/2022 1:12:08PM

SW4

E210039-12

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2242014
Benzene	ND	0.0250	1	10/10/22	10/11/22	
Ethylbenzene	ND	0.0250	1	10/10/22	10/11/22	
Toluene	ND	0.0250	1	10/10/22	10/11/22	
o-Xylene	ND	0.0250	1	10/10/22	10/11/22	
p,m-Xylene	ND	0.0500	1	10/10/22	10/11/22	
Total Xylenes	ND	0.0250	1	10/10/22	10/11/22	
Surrogate: Bromofluorobenzene	95.0 %	70-130		10/10/22	10/11/22	
Surrogate: 1,2-Dichloroethane-d4	101 %	70-130		10/10/22	10/11/22	
Surrogate: Toluene-d8	98.4 %	70-130		10/10/22	10/11/22	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2242014
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/10/22	10/11/22	
Surrogate: Bromofluorobenzene	95.0 %	70-130		10/10/22	10/11/22	
Surrogate: 1,2-Dichloroethane-d4	101 %	70-130		10/10/22	10/11/22	
Surrogate: Toluene-d8	98.4 %	70-130		10/10/22	10/11/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2242015
Diesel Range Organics (C10-C28)	ND	25.0	1	10/11/22	10/12/22	
Oil Range Organics (C28-C36)	ND	50.0	1	10/11/22	10/12/22	
Surrogate: n-Nonane	116 %	50-200		10/11/22	10/12/22	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2242031
Chloride	ND	20.0	1	10/11/22	10/13/22	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: Merlyn 27-2H
Project Number: 01058-0007
Project Manager: Tom Bynum

Reported:
10/13/2022 1:12:08PM

SW5

E210039-13

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2242014
Benzene	ND	0.0250	1	10/10/22	10/11/22	
Ethylbenzene	ND	0.0250	1	10/10/22	10/11/22	
Toluene	ND	0.0250	1	10/10/22	10/11/22	
o-Xylene	ND	0.0250	1	10/10/22	10/11/22	
p,m-Xylene	ND	0.0500	1	10/10/22	10/11/22	
Total Xylenes	ND	0.0250	1	10/10/22	10/11/22	
Surrogate: Bromofluorobenzene	95.9 %	70-130		10/10/22	10/11/22	
Surrogate: 1,2-Dichloroethane-d4	102 %	70-130		10/10/22	10/11/22	
Surrogate: Toluene-d8	95.4 %	70-130		10/10/22	10/11/22	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2242014
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/10/22	10/11/22	
Surrogate: Bromofluorobenzene	95.9 %	70-130		10/10/22	10/11/22	
Surrogate: 1,2-Dichloroethane-d4	102 %	70-130		10/10/22	10/11/22	
Surrogate: Toluene-d8	95.4 %	70-130		10/10/22	10/11/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2242015
Diesel Range Organics (C10-C28)	ND	25.0	1	10/11/22	10/12/22	
Oil Range Organics (C28-C36)	ND	50.0	1	10/11/22	10/12/22	
Surrogate: n-Nonane	113 %	50-200		10/11/22	10/12/22	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2242031
Chloride	ND	20.0	1	10/11/22	10/13/22	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: Merlyn 27-2H
Project Number: 01058-0007
Project Manager: Tom Bynum

Reported:
10/13/2022 1:12:08PM

BG1

E210039-14

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2242014
Benzene	ND	0.0250	1	10/10/22	10/11/22	
Ethylbenzene	ND	0.0250	1	10/10/22	10/11/22	
Toluene	ND	0.0250	1	10/10/22	10/11/22	
o-Xylene	ND	0.0250	1	10/10/22	10/11/22	
p,m-Xylene	ND	0.0500	1	10/10/22	10/11/22	
Total Xylenes	ND	0.0250	1	10/10/22	10/11/22	
Surrogate: Bromofluorobenzene	94.2 %	70-130		10/10/22	10/11/22	
Surrogate: 1,2-Dichloroethane-d4	98.9 %	70-130		10/10/22	10/11/22	
Surrogate: Toluene-d8	97.2 %	70-130		10/10/22	10/11/22	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2242014
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/10/22	10/11/22	
Surrogate: Bromofluorobenzene	94.2 %	70-130		10/10/22	10/11/22	
Surrogate: 1,2-Dichloroethane-d4	98.9 %	70-130		10/10/22	10/11/22	
Surrogate: Toluene-d8	97.2 %	70-130		10/10/22	10/11/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2242015
Diesel Range Organics (C10-C28)	ND	25.0	1	10/11/22	10/12/22	
Oil Range Organics (C28-C36)	ND	50.0	1	10/11/22	10/12/22	
Surrogate: n-Nonane	114 %	50-200		10/11/22	10/12/22	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2242031
Chloride	ND	20.0	1	10/11/22	10/13/22	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: Merlyn 27-2H
Project Number: 01058-0007
Project Manager: Tom Bynum

Reported:
10/13/2022 1:12:08PM

BG2

E210039-15

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2242014
Benzene	ND	0.0250	1	10/10/22	10/11/22	
Ethylbenzene	ND	0.0250	1	10/10/22	10/11/22	
Toluene	ND	0.0250	1	10/10/22	10/11/22	
o-Xylene	ND	0.0250	1	10/10/22	10/11/22	
p,m-Xylene	ND	0.0500	1	10/10/22	10/11/22	
Total Xylenes	ND	0.0250	1	10/10/22	10/11/22	
Surrogate: Bromofluorobenzene	95.6 %	70-130		10/10/22	10/11/22	
Surrogate: 1,2-Dichloroethane-d4	102 %	70-130		10/10/22	10/11/22	
Surrogate: Toluene-d8	96.8 %	70-130		10/10/22	10/11/22	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2242014
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/10/22	10/11/22	
Surrogate: Bromofluorobenzene	95.6 %	70-130		10/10/22	10/11/22	
Surrogate: 1,2-Dichloroethane-d4	102 %	70-130		10/10/22	10/11/22	
Surrogate: Toluene-d8	96.8 %	70-130		10/10/22	10/11/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2242015
Diesel Range Organics (C10-C28)	ND	25.0	1	10/11/22	10/12/22	
Oil Range Organics (C28-C36)	ND	50.0	1	10/11/22	10/12/22	
Surrogate: n-Nonane	116 %	50-200		10/11/22	10/12/22	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2242031
Chloride	ND	20.0	1	10/11/22	10/13/22	



QC Summary Data

Pima Environmental Services-Carlsbad	Project Name:	Merlyn 27-2H	Reported: 10/13/2022 1:12:08PM
PO Box 247	Project Number:	01058-0007	
Plains TX, 79355-0247	Project Manager:	Tom Bynum	

Volatile Organic Compounds by EPA 8260B

Analyst: IY

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2242014-BLK1)

Prepared: 10/10/22 Analyzed: 10/11/22

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: Bromofluorobenzene	0.474		0.500		94.7	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.506		0.500		101	70-130			
Surrogate: Toluene-d8	0.492		0.500		98.4	70-130			

LCS (2242014-BS1)

Prepared: 10/10/22 Analyzed: 10/11/22

Benzene	2.45	0.0250	2.50		97.9	70-130			
Ethylbenzene	2.36	0.0250	2.50		94.4	70-130			
Toluene	2.35	0.0250	2.50		94.1	70-130			
o-Xylene	2.37	0.0250	2.50		94.9	70-130			
p,m-Xylene	4.68	0.0500	5.00		93.6	70-130			
Total Xylenes	7.05	0.0250	7.50		94.0	70-130			
Surrogate: Bromofluorobenzene	0.502		0.500		100	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.507		0.500		101	70-130			
Surrogate: Toluene-d8	0.476		0.500		95.2	70-130			

LCS Dup (2242014-BSD1)

Prepared: 10/10/22 Analyzed: 10/11/22

Benzene	2.15	0.0250	2.50		85.8	70-130	13.1	23	
Ethylbenzene	2.09	0.0250	2.50		83.6	70-130	12.1	27	
Toluene	2.11	0.0250	2.50		84.3	70-130	10.9	24	
o-Xylene	2.11	0.0250	2.50		84.6	70-130	11.5	27	
p,m-Xylene	4.17	0.0500	5.00		83.4	70-130	11.5	27	
Total Xylenes	6.29	0.0250	7.50		83.8	70-130	11.5	27	
Surrogate: Bromofluorobenzene	0.500		0.500		100	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.509		0.500		102	70-130			
Surrogate: Toluene-d8	0.481		0.500		96.1	70-130			



QC Summary Data

Pima Environmental Services-Carlsbad	Project Name:	Merlyn 27-2H	Reported:
PO Box 247	Project Number:	01058-0007	
Plains TX, 79355-0247	Project Manager:	Tom Bynum	10/13/2022 1:12:08PM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: IY

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2242014-BLK1)

Prepared: 10/10/22 Analyzed: 10/11/22

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	0.474		0.500		94.7	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.506		0.500		101	70-130			
Surrogate: Toluene-d8	0.492		0.500		98.4	70-130			

LCS (2242014-BS2)

Prepared: 10/10/22 Analyzed: 10/11/22

Gasoline Range Organics (C6-C10)	41.7	20.0	50.0		83.4	70-130			
Surrogate: Bromofluorobenzene	0.490		0.500		97.9	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.510		0.500		102	70-130			
Surrogate: Toluene-d8	0.479		0.500		95.8	70-130			

LCS Dup (2242014-BSD2)

Prepared: 10/10/22 Analyzed: 10/11/22

Gasoline Range Organics (C6-C10)	45.0	20.0	50.0		90.1	70-130	7.77	20	
Surrogate: Bromofluorobenzene	0.485		0.500		97.0	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.516		0.500		103	70-130			
Surrogate: Toluene-d8	0.472		0.500		94.3	70-130			



QC Summary Data

Pima Environmental Services-Carlsbad	Project Name:	Merlyn 27-2H	Reported:
PO Box 247	Project Number:	01058-0007	
Plains TX, 79355-0247	Project Manager:	Tom Bynum	10/13/2022 1:12:08PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: JL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2242015-BLK1)

Prepared: 10/11/22 Analyzed: 10/11/22

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: <i>n</i> -Nonane	57.6		50.0		115	50-200			

LCS (2242015-BS1)

Prepared: 10/11/22 Analyzed: 10/11/22

Diesel Range Organics (C10-C28)	236	25.0	250		94.5	38-132			
Surrogate: <i>n</i> -Nonane	54.8		50.0		110	50-200			

Matrix Spike (2242015-MS1)

Source: E210039-04

Prepared: 10/11/22 Analyzed: 10/11/22

Diesel Range Organics (C10-C28)	251	25.0	250	30.3	88.1	38-132			
Surrogate: <i>n</i> -Nonane	49.4		50.0		98.7	50-200			

Matrix Spike Dup (2242015-MSD1)

Source: E210039-04

Prepared: 10/11/22 Analyzed: 10/11/22

Diesel Range Organics (C10-C28)	277	25.0	250	30.3	98.6	38-132	9.92	20	
Surrogate: <i>n</i> -Nonane	51.6		50.0		103	50-200			



QC Summary Data

Pima Environmental Services-Carlsbad	Project Name:	Merlyn 27-2H	Reported:
PO Box 247	Project Number:	01058-0007	
Plains TX, 79355-0247	Project Manager:	Tom Bynum	10/13/2022 1:12:08PM

Anions by EPA 300.0/9056A

Analyst: RAS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	

Blank (2242031-BLK1)					Prepared: 10/11/22 Analyzed: 10/12/22				
Chloride	ND	20.0							
LCS (2242031-BS1)					Prepared: 10/11/22 Analyzed: 10/12/22				
Chloride	247	20.0	250		98.7	90-110			
Matrix Spike (2242031-MS1)					Source: E210039-01		Prepared: 10/11/22 Analyzed: 10/12/22		
Chloride	248	20.0	250	ND	99.1	80-120			
Matrix Spike Dup (2242031-MSD1)					Source: E210039-01		Prepared: 10/11/22 Analyzed: 10/12/22		
Chloride	248	20.0	250	ND	99.1	80-120	0.0145	20	

QC Summary Report Comment:
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures.
Therefore, hand calculated values may differ slightly.



Definitions and Notes

Pima Environmental Services-Carlsbad	Project Name:	Merlyn 27-2H	
PO Box 247	Project Number:	01058-0007	Reported:
Plains TX, 79355-0247	Project Manager:	Tom Bynum	10/13/22 13:12

- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite

Note (1): Methods marked with ** are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



Project Information

Chain of Custody

Page 1 of 2

Client: Pima Environmental Services Project: Merlyn 27.24 Project Manager: Tom Bynum Address: 5614 N. Lovington Hwy. City, State, Zip: Hobbs, NM, 88240 Phone: 580-748-1613 Email: tom@pimaoil.com Report due by:					Bill To Attention: Devon Energy Address: City, State, Zip: Phone: Email: Pima Project # 1-207					Lab Use Only Lab WO# E210039 Job Number 01058-0007					TAT 1D 2D 3D Standard X				EPA Program CWA SDWA RCRA	
					Analysis and Method DRO/DRO by 8015 GRO/DRO by 8015 BTEX by 8021 VOC by 8260 Metals 6010 Chloride 300.0 BGDOC NM BGDOC TX					State NM CO UT AZ TX X				Remarks						
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number															
9:00	10/6/22	S	1	S1-1'	1															
9:05				S1-4'	2															
9:10				S2-1'	3															
9:15				S2-4'	4															
9:20				S3-1'	5															
9:25				S3-4'	6															
9:30				S4-1'	7															
9:35				S4-4'	8															
9:40				SW1	9															
9:45				SW2	10															
Additional Instructions: Billing # 21048000																				
I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action.										Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.										
Relinquished by: (Signature)		Date		Time		Received by: (Signature)		Date		Time		Lab Use Only Received on ice: <u>Y</u> <u>N</u>								
Relinquished by: (Signature)		Date		Time		Received by: (Signature)		Date		Time		T1 T2 T3								
Relinquished by: (Signature)		Date		Time		Received by: (Signature)		Date		Time		AVG Temp °C <u>4</u>								
Sample Matrix <u>S</u> - Soil, <u>Sd</u> - Solid, <u>Sg</u> - Sludge, <u>A</u> - Aqueous, <u>O</u> - Other										Container Type <u>g</u> - glass, <u>p</u> - poly/plastic, <u>ag</u> - amber glass, <u>v</u> - VOA										
Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.																				

Chain of Custody



Envirotech Analytical Laboratory

Printed: 10/10/2022 9:58:27AM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	Pima Environmental Services-Carlsbad	Date Received:	10/10/22 08:25	Work Order ID:	E210039
Phone:	(575) 631-6977	Date Logged In:	10/10/22 09:00	Logged In By:	Caitlin Christian
Email:	tom@pimaoil.com	Due Date:	10/14/22 17:00 (4 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Note: Analysis, such as pH which should be conducted in the field, i.e., 15 minute hold time, are not included in this discussion.

Carrier: UPSComments/ResolutionSample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT? Yes

Sample Cooler

7. Was a sample cooler received? Yes
8. If yes, was cooler received in good condition? Yes
9. Was the sample(s) received intact, i.e., not broken? Yes
10. Were custody/security seals present? No
11. If yes, were custody/security seals intact? NA
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

13. If no visible ice, record the temperature. Actual sample temperature: 4°C

Sample Container

14. Are aqueous VOC samples present? No
15. Are VOC samples collected in VOA Vials? NA
16. Is the head space less than 6-8 mm (pea sized or less)? NA
17. Was a trip blank (TB) included for VOC analyses? NA
18. Are non-VOC samples collected in the correct containers? Yes
19. Is the appropriate volume/weight or number of sample containers collected? Yes

Field Label

20. Were field sample labels filled out with the minimum information:
 - Sample ID? Yes
 - Date/Time Collected? Yes
 - Collectors name? No

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved? No
22. Are sample(s) correctly preserved? NA
24. Is lab filtration required and/or requested for dissolved metals? No

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase? No
27. If yes, does the COC specify which phase(s) is to be analyzed? NA

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory? No
29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: na

Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.

Report to:
Tom Bynum



envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

Pima Environmental Services-Carlsbad

Project Name: Merlyn 27-22 2H

Work Order: E211070

Job Number: 01058-0007

Received: 11/11/2022

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
11/17/22

5796 U.S. Hwy 64
Farmington, NM 87401

Phone: (505) 632-1881
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.
Statement of Data Authenticity: Envirotech Inc. attests the data reported has not been altered in any way.
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.
Envirotech Inc. holds the Utah TNI certification NM00979 for data reported.
Envirotech Inc. holds the Texas TNI certification T104704557 for data reported.
Envirotech Inc. holds the NM SDWA certification for data reported. (Lab #NM00979)

Date Reported: 11/17/22

Tom Bynum
PO Box 247
Plains, TX 79355-0247



Project Name: Merlyn 27-22 2H
Workorder: E211070
Date Received: 11/11/2022 10:45:00AM

Tom Bynum,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 11/11/2022 10:45:00AM, under the Project Name: Merlyn 27-22 2H.

The analytical test results summarized in this report with the Project Name: Merlyn 27-22 2H apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

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

Respectfully,

Walter Hinchman
Laboratory Director
Office: 505-632-1881
Cell: 775-287-1762
whinchman@envirotech-inc.com

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ljjarboe@envirotech-inc.com

West Texas Midland/Odessa Area
Rayny Hagan
Technical Representative
Office: 505-421-LABS(5227)

Envirotech Web Address: www.envirotech-inc.com

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Sample Summary

Pima Environmental Services-Carlsbad	Project Name:	Merlyn 27-22 2H	Reported: 11/17/22 16:03
PO Box 247	Project Number:	01058-0007	
Plains TX, 79355-0247	Project Manager:	Tom Bynum	

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
S1 2'	E211070-01A	Soil	11/09/22	11/11/22	Glass Jar, 2 oz.
S1 3'	E211070-02A	Soil	11/09/22	11/11/22	Glass Jar, 2 oz.
S2 2'	E211070-03A	Soil	11/09/22	11/11/22	Glass Jar, 2 oz.
S2 3'	E211070-04A	Soil	11/09/22	11/11/22	Glass Jar, 2 oz.
S3 2'	E211070-05A	Soil	11/09/22	11/11/22	Glass Jar, 2 oz.
S3 3'	E211070-06A	Soil	11/09/22	11/11/22	Glass Jar, 2 oz.
S4 2'	E211070-07A	Soil	11/09/22	11/11/22	Glass Jar, 2 oz.
S4 3'	E211070-08A	Soil	11/09/22	11/11/22	Glass Jar, 2 oz.



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: Merlyn 27-22 2H
Project Number: 01058-0007
Project Manager: Tom Bynum

Reported:
11/17/2022 4:03:46PM

S1 2'

E211070-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2247002
Benzene	ND	0.0250	1	11/14/22	11/15/22	
Ethylbenzene	ND	0.0250	1	11/14/22	11/15/22	
Toluene	ND	0.0250	1	11/14/22	11/15/22	
o-Xylene	ND	0.0250	1	11/14/22	11/15/22	
p,m-Xylene	ND	0.0500	1	11/14/22	11/15/22	
Total Xylenes	ND	0.0250	1	11/14/22	11/15/22	
Surrogate: Bromofluorobenzene	105 %	70-130		11/14/22	11/15/22	
Surrogate: 1,2-Dichloroethane-d4	98.1 %	70-130		11/14/22	11/15/22	
Surrogate: Toluene-d8	99.9 %	70-130		11/14/22	11/15/22	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2247002
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/14/22	11/15/22	
Surrogate: Bromofluorobenzene	105 %	70-130		11/14/22	11/15/22	
Surrogate: 1,2-Dichloroethane-d4	98.1 %	70-130		11/14/22	11/15/22	
Surrogate: Toluene-d8	99.9 %	70-130		11/14/22	11/15/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2247020
Diesel Range Organics (C10-C28)	ND	25.0	1	11/14/22	11/17/22	
Oil Range Organics (C28-C36)	ND	50.0	1	11/14/22	11/17/22	
Surrogate: n-Nonane	93.2 %	50-200		11/14/22	11/17/22	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2246092
Chloride	ND	20.0	1	11/11/22	11/16/22	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: Merlyn 27-22 2H
Project Number: 01058-0007
Project Manager: Tom Bynum

Reported:
11/17/2022 4:03:46PM

S1 3'

E211070-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2247002
Benzene	ND	0.0250	1	11/14/22	11/16/22	
Ethylbenzene	ND	0.0250	1	11/14/22	11/16/22	
Toluene	ND	0.0250	1	11/14/22	11/16/22	
o-Xylene	ND	0.0250	1	11/14/22	11/16/22	
p,m-Xylene	ND	0.0500	1	11/14/22	11/16/22	
Total Xylenes	ND	0.0250	1	11/14/22	11/16/22	
Surrogate: Bromofluorobenzene		102 %	70-130	11/14/22	11/16/22	
Surrogate: 1,2-Dichloroethane-d4		92.8 %	70-130	11/14/22	11/16/22	
Surrogate: Toluene-d8		101 %	70-130	11/14/22	11/16/22	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2247002
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/14/22	11/16/22	
Surrogate: Bromofluorobenzene		102 %	70-130	11/14/22	11/16/22	
Surrogate: 1,2-Dichloroethane-d4		92.8 %	70-130	11/14/22	11/16/22	
Surrogate: Toluene-d8		101 %	70-130	11/14/22	11/16/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2247020
Diesel Range Organics (C10-C28)	ND	25.0	1	11/14/22	11/17/22	
Oil Range Organics (C28-C36)	ND	50.0	1	11/14/22	11/17/22	
Surrogate: n-Nonane		90.0 %	50-200	11/14/22	11/17/22	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2246092
Chloride	ND	20.0	1	11/11/22	11/16/22	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: Merlyn 27-22 2H
Project Number: 01058-0007
Project Manager: Tom Bynum

Reported:
11/17/2022 4:03:46PM

S2 2'

E211070-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2247002
Benzene	ND	0.0250	1	11/14/22	11/16/22	
Ethylbenzene	ND	0.0250	1	11/14/22	11/16/22	
Toluene	ND	0.0250	1	11/14/22	11/16/22	
o-Xylene	ND	0.0250	1	11/14/22	11/16/22	
p,m-Xylene	ND	0.0500	1	11/14/22	11/16/22	
Total Xylenes	ND	0.0250	1	11/14/22	11/16/22	
Surrogate: Bromofluorobenzene	97.9 %	70-130		11/14/22	11/16/22	
Surrogate: 1,2-Dichloroethane-d4	94.1 %	70-130		11/14/22	11/16/22	
Surrogate: Toluene-d8	101 %	70-130		11/14/22	11/16/22	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2247002
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/14/22	11/16/22	
Surrogate: Bromofluorobenzene	97.9 %	70-130		11/14/22	11/16/22	
Surrogate: 1,2-Dichloroethane-d4	94.1 %	70-130		11/14/22	11/16/22	
Surrogate: Toluene-d8	101 %	70-130		11/14/22	11/16/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2247020
Diesel Range Organics (C10-C28)	34.7	25.0	1	11/14/22	11/17/22	
Oil Range Organics (C28-C36)	ND	50.0	1	11/14/22	11/17/22	
Surrogate: n-Nonane	102 %	50-200		11/14/22	11/17/22	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2246092
Chloride	24.9	20.0	1	11/11/22	11/16/22	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: Merlyn 27-22 2H
Project Number: 01058-0007
Project Manager: Tom Bynum

Reported:
11/17/2022 4:03:46PM

S2 3'

E211070-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2247002
Benzene	ND	0.0250	1	11/14/22	11/16/22	
Ethylbenzene	ND	0.0250	1	11/14/22	11/16/22	
Toluene	ND	0.0250	1	11/14/22	11/16/22	
o-Xylene	ND	0.0250	1	11/14/22	11/16/22	
p,m-Xylene	ND	0.0500	1	11/14/22	11/16/22	
Total Xylenes	ND	0.0250	1	11/14/22	11/16/22	
Surrogate: Bromofluorobenzene	99.2 %	70-130		11/14/22	11/16/22	
Surrogate: 1,2-Dichloroethane-d4	94.5 %	70-130		11/14/22	11/16/22	
Surrogate: Toluene-d8	102 %	70-130		11/14/22	11/16/22	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2247002
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/14/22	11/16/22	
Surrogate: Bromofluorobenzene	99.2 %	70-130		11/14/22	11/16/22	
Surrogate: 1,2-Dichloroethane-d4	94.5 %	70-130		11/14/22	11/16/22	
Surrogate: Toluene-d8	102 %	70-130		11/14/22	11/16/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2247020
Diesel Range Organics (C10-C28)	ND	25.0	1	11/14/22	11/17/22	
Oil Range Organics (C28-C36)	ND	50.0	1	11/14/22	11/17/22	
Surrogate: n-Nonane	103 %	50-200		11/14/22	11/17/22	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2246092
Chloride	24.9	20.0	1	11/11/22	11/16/22	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: Merlyn 27-22 2H
Project Number: 01058-0007
Project Manager: Tom Bynum

Reported:
11/17/2022 4:03:46PM

S3 2'

E211070-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2247002
Benzene	ND	0.0250	1	11/14/22	11/16/22	
Ethylbenzene	ND	0.0250	1	11/14/22	11/16/22	
Toluene	ND	0.0250	1	11/14/22	11/16/22	
o-Xylene	ND	0.0250	1	11/14/22	11/16/22	
p,m-Xylene	ND	0.0500	1	11/14/22	11/16/22	
Total Xylenes	ND	0.0250	1	11/14/22	11/16/22	
Surrogate: Bromofluorobenzene	98.9 %	70-130		11/14/22	11/16/22	
Surrogate: 1,2-Dichloroethane-d4	94.9 %	70-130		11/14/22	11/16/22	
Surrogate: Toluene-d8	101 %	70-130		11/14/22	11/16/22	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2247002
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/14/22	11/16/22	
Surrogate: Bromofluorobenzene	98.9 %	70-130		11/14/22	11/16/22	
Surrogate: 1,2-Dichloroethane-d4	94.9 %	70-130		11/14/22	11/16/22	
Surrogate: Toluene-d8	101 %	70-130		11/14/22	11/16/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2247020
Diesel Range Organics (C10-C28)	ND	25.0	1	11/14/22	11/17/22	
Oil Range Organics (C28-C36)	ND	50.0	1	11/14/22	11/17/22	
Surrogate: n-Nonane	95.1 %	50-200		11/14/22	11/17/22	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2246092
Chloride	26.6	20.0	1	11/11/22	11/17/22	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: Merlyn 27-22 2H
Project Number: 01058-0007
Project Manager: Tom Bynum

Reported:
11/17/2022 4:03:46PM

S3 3'

E211070-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2247002
Benzene	ND	0.0250	1	11/14/22	11/16/22	
Ethylbenzene	ND	0.0250	1	11/14/22	11/16/22	
Toluene	ND	0.0250	1	11/14/22	11/16/22	
o-Xylene	ND	0.0250	1	11/14/22	11/16/22	
p,m-Xylene	ND	0.0500	1	11/14/22	11/16/22	
Total Xylenes	ND	0.0250	1	11/14/22	11/16/22	
Surrogate: Bromofluorobenzene	98.1 %	70-130		11/14/22	11/16/22	
Surrogate: 1,2-Dichloroethane-d4	96.6 %	70-130		11/14/22	11/16/22	
Surrogate: Toluene-d8	102 %	70-130		11/14/22	11/16/22	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2247002
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/14/22	11/16/22	
Surrogate: Bromofluorobenzene	98.1 %	70-130		11/14/22	11/16/22	
Surrogate: 1,2-Dichloroethane-d4	96.6 %	70-130		11/14/22	11/16/22	
Surrogate: Toluene-d8	102 %	70-130		11/14/22	11/16/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2247020
Diesel Range Organics (C10-C28)	ND	25.0	1	11/14/22	11/17/22	
Oil Range Organics (C28-C36)	ND	50.0	1	11/14/22	11/17/22	
Surrogate: n-Nonane	98.8 %	50-200		11/14/22	11/17/22	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2246092
Chloride	ND	20.0	1	11/11/22	11/17/22	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: Merlyn 27-22 2H
Project Number: 01058-0007
Project Manager: Tom Bynum

Reported:
11/17/2022 4:03:46PM

S4 2'

E211070-07

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2247002
Benzene	ND	0.0250	1	11/14/22	11/16/22	
Ethylbenzene	ND	0.0250	1	11/14/22	11/16/22	
Toluene	ND	0.0250	1	11/14/22	11/16/22	
o-Xylene	ND	0.0250	1	11/14/22	11/16/22	
p,m-Xylene	ND	0.0500	1	11/14/22	11/16/22	
Total Xylenes	ND	0.0250	1	11/14/22	11/16/22	
Surrogate: Bromofluorobenzene	95.7 %	70-130		11/14/22	11/16/22	
Surrogate: 1,2-Dichloroethane-d4	95.3 %	70-130		11/14/22	11/16/22	
Surrogate: Toluene-d8	101 %	70-130		11/14/22	11/16/22	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2247002
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/14/22	11/16/22	
Surrogate: Bromofluorobenzene	95.7 %	70-130		11/14/22	11/16/22	
Surrogate: 1,2-Dichloroethane-d4	95.3 %	70-130		11/14/22	11/16/22	
Surrogate: Toluene-d8	101 %	70-130		11/14/22	11/16/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2247020
Diesel Range Organics (C10-C28)	ND	25.0	1	11/14/22	11/17/22	
Oil Range Organics (C28-C36)	ND	50.0	1	11/14/22	11/17/22	
Surrogate: n-Nonane	103 %	50-200		11/14/22	11/17/22	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2246092
Chloride	ND	20.0	1	11/11/22	11/17/22	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: Merlyn 27-22 2H
Project Number: 01058-0007
Project Manager: Tom Bynum

Reported:
11/17/2022 4:03:46PM

S4 3'

E211070-08

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2247002
Benzene	ND	0.0250	1	11/14/22	11/16/22	
Ethylbenzene	ND	0.0250	1	11/14/22	11/16/22	
Toluene	ND	0.0250	1	11/14/22	11/16/22	
o-Xylene	ND	0.0250	1	11/14/22	11/16/22	
p,m-Xylene	ND	0.0500	1	11/14/22	11/16/22	
Total Xylenes	ND	0.0250	1	11/14/22	11/16/22	
Surrogate: Bromofluorobenzene	99.4 %	70-130		11/14/22	11/16/22	
Surrogate: 1,2-Dichloroethane-d4	89.1 %	70-130		11/14/22	11/16/22	
Surrogate: Toluene-d8	102 %	70-130		11/14/22	11/16/22	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2247002
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/14/22	11/16/22	
Surrogate: Bromofluorobenzene	99.4 %	70-130		11/14/22	11/16/22	
Surrogate: 1,2-Dichloroethane-d4	89.1 %	70-130		11/14/22	11/16/22	
Surrogate: Toluene-d8	102 %	70-130		11/14/22	11/16/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2247020
Diesel Range Organics (C10-C28)	ND	25.0	1	11/14/22	11/17/22	
Oil Range Organics (C28-C36)	ND	50.0	1	11/14/22	11/17/22	
Surrogate: n-Nonane	105 %	50-200		11/14/22	11/17/22	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2246092
Chloride	ND	20.0	1	11/11/22	11/17/22	



QC Summary Data

Pima Environmental Services-Carlsbad	Project Name:	Merlyn 27-22 2H	Reported:
PO Box 247	Project Number:	01058-0007	
Plains TX, 79355-0247	Project Manager:	Tom Bynum	11/17/2022 4:03:46PM

Volatile Organic Compounds by EPA 8260B

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	

Blank (2247002-BLK1)

Prepared: 11/14/22 Analyzed: 11/15/22

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: Bromofluorobenzene	0.481		0.500		96.1	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.466		0.500		93.2	70-130			
Surrogate: Toluene-d8	0.509		0.500		102	70-130			

LCS (2247002-BS1)

Prepared: 11/14/22 Analyzed: 11/15/22

Benzene	2.64	0.0250	2.50		106	70-130			
Ethylbenzene	2.51	0.0250	2.50		101	70-130			
Toluene	2.49	0.0250	2.50		99.4	70-130			
o-Xylene	2.38	0.0250	2.50		95.1	70-130			
p,m-Xylene	4.72	0.0500	5.00		94.5	70-130			
Total Xylenes	7.10	0.0250	7.50		94.7	70-130			
Surrogate: Bromofluorobenzene	0.500		0.500		99.9	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.504		0.500		101	70-130			
Surrogate: Toluene-d8	0.508		0.500		102	70-130			

Matrix Spike (2247002-MS1)

Source: E211069-02

Prepared: 11/14/22 Analyzed: 11/15/22

Benzene	2.64	0.0250	2.50	ND	106	48-131			
Ethylbenzene	2.55	0.0250	2.50	0.0775	98.9	45-135			
Toluene	2.47	0.0250	2.50	ND	98.8	48-130			
o-Xylene	2.37	0.0250	2.50	ND	94.9	43-135			
p,m-Xylene	4.75	0.0500	5.00	ND	95.0	43-135			
Total Xylenes	7.12	0.0250	7.50	ND	94.9	43-135			
Surrogate: Bromofluorobenzene	0.516		0.500		103	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.508		0.500		102	70-130			
Surrogate: Toluene-d8	0.504		0.500		101	70-130			

Matrix Spike Dup (2247002-MSD1)

Source: E211069-02

Prepared: 11/14/22 Analyzed: 11/15/22

Benzene	2.16	0.0250	2.50	ND	86.2	48-131	20.2	23	
Ethylbenzene	2.26	0.0250	2.50	0.0775	87.4	45-135	11.9	27	
Toluene	2.18	0.0250	2.50	ND	87.1	48-130	12.6	24	
o-Xylene	2.15	0.0250	2.50	ND	85.8	43-135	10.0	27	
p,m-Xylene	4.18	0.0500	5.00	ND	83.5	43-135	12.8	27	
Total Xylenes	6.32	0.0250	7.50	ND	84.3	43-135	11.9	27	
Surrogate: Bromofluorobenzene	0.499		0.500		99.8	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.475		0.500		95.0	70-130			
Surrogate: Toluene-d8	0.527		0.500		105	70-130			



QC Summary Data

Pima Environmental Services-Carlsbad	Project Name:	Merlyn 27-22 2H	Reported: 11/17/2022 4:03:46PM
PO Box 247	Project Number:	01058-0007	
Plains TX, 79355-0247	Project Manager:	Tom Bynum	

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: RKS

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2247002-BLK1)

Prepared: 11/14/22 Analyzed: 11/15/22

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	0.481		0.500		96.1	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.466		0.500		93.2	70-130			
Surrogate: Toluene-d8	0.509		0.500		102	70-130			

LCS (2247002-BS2)

Prepared: 11/14/22 Analyzed: 11/15/22

Gasoline Range Organics (C6-C10)	57.4	20.0	50.0		115	70-130			
Surrogate: Bromofluorobenzene	0.502		0.500		100	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.485		0.500		97.0	70-130			
Surrogate: Toluene-d8	0.508		0.500		102	70-130			

Matrix Spike (2247002-MS2)

Source: E211069-02

Prepared: 11/14/22 Analyzed: 11/15/22

Gasoline Range Organics (C6-C10)	57.0	20.0	50.0	ND	114	70-130			
Surrogate: Bromofluorobenzene	0.502		0.500		100	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.506		0.500		101	70-130			
Surrogate: Toluene-d8	0.502		0.500		100	70-130			

Matrix Spike Dup (2247002-MSD2)

Source: E211069-02

Prepared: 11/14/22 Analyzed: 11/15/22

Gasoline Range Organics (C6-C10)	56.7	20.0	50.0	ND	113	70-130	0.521	20	
Surrogate: Bromofluorobenzene	0.499		0.500		99.7	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.474		0.500		94.7	70-130			
Surrogate: Toluene-d8	0.510		0.500		102	70-130			



QC Summary Data

Pima Environmental Services-Carlsbad	Project Name:	Merlyn 27-22 2H	Reported: 11/17/2022 4:03:46PM
PO Box 247	Project Number:	01058-0007	
Plains TX, 79355-0247	Project Manager:	Tom Bynum	

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: JL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
---------	-----------------	-----------------------------	-------------------------	---------------------------	----------	--------------------	----------	-------------------	-------

Blank (2247020-BLK1)					Prepared: 11/14/22 Analyzed: 11/16/22				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	48.4		50.0		96.7	50-200			

LCS (2247020-BS1)					Prepared: 11/14/22 Analyzed: 11/16/22				
Diesel Range Organics (C10-C28)	476	25.0	500		95.1	38-132			
Surrogate: n-Nonane	47.5		50.0		95.0	50-200			

Matrix Spike (2247020-MS1)					Source: E211070-02		Prepared: 11/14/22 Analyzed: 11/16/22		
Diesel Range Organics (C10-C28)	420	25.0	500	ND	84.0	38-132			
Surrogate: n-Nonane	37.3		50.0		74.5	50-200			

Matrix Spike Dup (2247020-MSD1)					Source: E211070-02		Prepared: 11/14/22 Analyzed: 11/16/22		
Diesel Range Organics (C10-C28)	360	25.0	500	ND	71.9	38-132	15.6	20	
Surrogate: n-Nonane	32.3		50.0		64.7	50-200			



QC Summary Data

Pima Environmental Services-Carlsbad	Project Name:	Merlyn 27-22 2H	Reported: 11/17/2022 4:03:46PM
PO Box 247	Project Number:	01058-0007	
Plains TX, 79355-0247	Project Manager:	Tom Bynum	

Anions by EPA 300.0/9056A

Analyst: RAS

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2246092-BLK1)					Prepared: 11/11/22 Analyzed: 11/16/22				
Chloride	ND	20.0							
LCS (2246092-BS1)					Prepared: 11/11/22 Analyzed: 11/16/22				
Chloride	245	20.0	250		97.9	90-110			
Matrix Spike (2246092-MS1)					Source: E211069-02		Prepared: 11/11/22 Analyzed: 11/16/22		
Chloride	1060	20.0	250	754	122	80-120			M2
Matrix Spike Dup (2246092-MSD1)					Source: E211069-02		Prepared: 11/11/22 Analyzed: 11/16/22		
Chloride	1090	20.0	250	754	135	80-120	3.00	20	M2

QC Summary Report Comment:
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures.
Therefore, hand calculated values may differ slightly.



Definitions and Notes

Pima Environmental Services-Carlsbad	Project Name:	Merlyn 27-22 2H	
PO Box 247	Project Number:	01058-0007	Reported:
Plains TX, 79355-0247	Project Manager:	Tom Bynum	11/17/22 16:03

- M2 Matrix spike recovery was outside quality control limits. The associated LCS spike recovery was acceptable.
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite

Note (1): Methods marked with ** are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



Client: Pima Environmental Services		Bill To		Lab Use Only				TAT				EPA Program				
Project: Merlyn 27-22 2H		Attention: _____		Lab WO#		Job Number		1D	2D	3D	Standard	CWA	SDWA			
Project Manager: Tom Bynum		Address: _____		E 211070		01058-0007					X					
Address: 5114 N. Iovington Hwy		City, State, Zip		Analysis and Method									RCRA			
City, State, Zip Hobbs, NM, 88240		Phone: _____		TO by 8015 TO by 8015 8021 8260 6010 300.0 - NM 35 TX-TPH												
Phone: 505-748-1613		Email: _____											State			
Email: tom@pimaail.com		Project # 1-207											NM	CO	UT	AZ
Report due by: _____												X				

[illegible]

Additional Instructions:											
<p align="center">Billing # 21048000</p> <p>I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action.</p>											
<p align="center">Sampled by:</p>											
Relinquished by: (Signature)		Date		Time		Received by: (Signature)		Date		Time	
<i>[Signature]</i>		11/10/22				<i>[Signature]</i>		11-10-22		12:00	
Relinquished by: (Signature)		Date		Time		Received by: (Signature)		Date		Time	
<i>[Signature]</i>		11-10-22		2:15		<i>[Signature]</i>		11/11/22		10:45	
Relinquished by: (Signature)		Date		Time		Received by: (Signature)		Date		Time	
<p>Lab Use Only</p> <p>Received on ice: <input checked="" type="checkbox"/> N</p> <p>T1 _____ T2 _____ T3 _____</p> <p>AVG Temp °C <u>4</u></p>											
<p>Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other _____</p>											
<p>Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA</p>											
<p>Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.</p>											

Envirotech Analytical Laboratory

Printed: 11/11/2022 2:48:24PM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	Pima Environmental Services-Carlsbad	Date Received:	11/11/22 10:45	Work Order ID:	E211070
Phone:	(575) 631-6977	Date Logged In:	11/11/22 11:20	Logged In By:	Caitlin Christian
Email:	tom@pimaoil.com	Due Date:	11/17/22 17:00 (4 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Note: Analysis, such as pH which should be conducted in the field, i.e., 15 minute hold time, are not included in this discussion.

Carrier: UPSComments/ResolutionSample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT? Yes

Sample Cooler

7. Was a sample cooler received? Yes
8. If yes, was cooler received in good condition? Yes
9. Was the sample(s) received intact, i.e., not broken? No
10. Were custody/security seals present? No
11. If yes, were custody/security seals intact? NA
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C? Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

13. If no visible ice, record the temperature. Actual sample temperature: 4°C

Sample Container

14. Are aqueous VOC samples present? No
15. Are VOC samples collected in VOA Vials? NA
16. Is the head space less than 6-8 mm (pea sized or less)? NA
17. Was a trip blank (TB) included for VOC analyses? NA
18. Are non-VOC samples collected in the correct containers? Yes
19. Is the appropriate volume/weight or number of sample containers collected? Yes

Field Label

20. Were field sample labels filled out with the minimum information:
 - Sample ID? Yes
 - Date/Time Collected? Yes
 - Collectors name? No

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved? No
22. Are sample(s) correctly preserved? NA
24. Is lab filtration required and/or requested for dissolved metals? No

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase? No
27. If yes, does the COC specify which phase(s) is to be analyzed? NA

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory? No
29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: na

Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.

Report to:
Tom Bynum



5796 U.S. Hwy 64
Farmington, NM 87401

Phone: (505) 632-1881
Envirotech-inc.com



envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

Pima Environmental Services-Carlsbad

Project Name: Merlyn 27-22 Fed 2H

Work Order: E301070

Job Number: 01058-0007

Received: 1/14/2023

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
1/18/23

Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.
Statement of Data Authenticity: Envirotech Inc, attests the data reported has not been altered in any way.
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.
Envirotech Inc, holds the Utah TNI certification NM00979 for data reported.
Envirotech Inc, holds the Texas TNI certification T104704557 for data reported.
Envirotech Inc, holds the NM SDWA certification for data reported. (Lab #NM00979)

Date Reported: 1/18/23

Tom Bynum
PO Box 247
Plains, TX 79355-0247



Project Name: Merlyn 27-22 Fed 2H
Workorder: E301070
Date Received: 1/14/2023 8:00:00AM

Tom Bynum,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 1/14/2023 8:00:00AM, under the Project Name: Merlyn 27-22 Fed 2H.

The analytical test results summarized in this report with the Project Name: Merlyn 27-22 Fed 2H apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

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

Respectfully,

Walter Hinchman
Laboratory Director
Office: 505-632-1881
Cell: 775-287-1762
whinchman@envirotech-inc.com

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Technical Representative
Office: 505-421-LABS(5227)

Envirotech Web Address: www.envirotech-inc.com

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Sample Summary

Pima Environmental Services-Carlsbad	Project Name:	Merlyn 27-22 Fed 2H	Reported:
PO Box 247	Project Number:	01058-0007	
Plains TX, 79355-0247	Project Manager:	Tom Bynum	01/18/23 16:19

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
CS1	E301070-01A	Soil	01/12/23	01/14/23	Glass Jar, 2 oz.
CS2	E301070-02A	Soil	01/12/23	01/14/23	Glass Jar, 2 oz.
CS3	E301070-03A	Soil	01/12/23	01/14/23	Glass Jar, 2 oz.
CS4	E301070-04A	Soil	01/12/23	01/14/23	Glass Jar, 2 oz.
CSW1	E301070-05A	Soil	01/12/23	01/14/23	Glass Jar, 2 oz.
CSW2	E301070-06A	Soil	01/12/23	01/14/23	Glass Jar, 2 oz.
CSW3	E301070-07A	Soil	01/12/23	01/14/23	Glass Jar, 2 oz.
CSW4	E301070-08A	Soil	01/12/23	01/14/23	Glass Jar, 2 oz.
CSW5	E301070-09A	Soil	01/12/23	01/14/23	Glass Jar, 2 oz.
CSW6	E301070-10A	Soil	01/12/23	01/14/23	Glass Jar, 2 oz.
CSW7	E301070-11A	Soil	01/12/23	01/14/23	Glass Jar, 2 oz.
CSW8	E301070-12A	Soil	01/12/23	01/14/23	Glass Jar, 2 oz.



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: Merlyn 27-22 Fed 2H
Project Number: 01058-0007
Project Manager: Tom Bynum

Reported:
1/18/2023 4:19:53PM

CS1

E301070-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: IY		Batch: 2302081	
Benzene	ND	0.0250	1	01/14/23	01/14/23	
Ethylbenzene	ND	0.0250	1	01/14/23	01/14/23	
Toluene	ND	0.0250	1	01/14/23	01/14/23	
o-Xylene	ND	0.0250	1	01/14/23	01/14/23	
p,m-Xylene	ND	0.0500	1	01/14/23	01/14/23	
Total Xylenes	ND	0.0250	1	01/14/23	01/14/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	99.5 %	70-130		01/14/23	01/14/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: IY		Batch: 2302081	
Gasoline Range Organics (C6-C10)	ND	20.0	1	01/14/23	01/14/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	93.2 %	70-130		01/14/23	01/14/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: JL		Batch: 2303013	
Diesel Range Organics (C10-C28)	ND	25.0	1	01/16/23	01/16/23	
Oil Range Organics (C28-C36)	ND	50.0	1	01/16/23	01/16/23	
<i>Surrogate: n-Nonane</i>						
	115 %	50-200		01/16/23	01/16/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: BA		Batch: 2303004	
Chloride	20.0	20.0	1	01/16/23	01/16/23	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: Merlyn 27-22 Fed 2H
Project Number: 01058-0007
Project Manager: Tom Bynum

Reported:
1/18/2023 4:19:53PM

CS2

E301070-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2302081
Benzene	ND	0.0250	1	01/14/23	01/14/23	
Ethylbenzene	ND	0.0250	1	01/14/23	01/14/23	
Toluene	ND	0.0250	1	01/14/23	01/14/23	
o-Xylene	ND	0.0250	1	01/14/23	01/14/23	
p,m-Xylene	ND	0.0500	1	01/14/23	01/14/23	
Total Xylenes	ND	0.0250	1	01/14/23	01/14/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
		100 %	70-130	01/14/23	01/14/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2302081
Gasoline Range Organics (C6-C10)	ND	20.0	1	01/14/23	01/14/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
		87.7 %	70-130	01/14/23	01/14/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2303013
Diesel Range Organics (C10-C28)	ND	25.0	1	01/16/23	01/16/23	
Oil Range Organics (C28-C36)	ND	50.0	1	01/16/23	01/16/23	
<i>Surrogate: n-Nonane</i>						
		114 %	50-200	01/16/23	01/16/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: BA		Batch: 2303004
Chloride	ND	20.0	1	01/16/23	01/16/23	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: Merlyn 27-22 Fed 2H
Project Number: 01058-0007
Project Manager: Tom Bynum

Reported:
1/18/2023 4:19:53PM

CS3

E301070-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2302081
Benzene	ND	0.0250	1	01/14/23	01/14/23	
Ethylbenzene	ND	0.0250	1	01/14/23	01/14/23	
Toluene	ND	0.0250	1	01/14/23	01/14/23	
o-Xylene	ND	0.0250	1	01/14/23	01/14/23	
p,m-Xylene	ND	0.0500	1	01/14/23	01/14/23	
Total Xylenes	ND	0.0250	1	01/14/23	01/14/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	98.7 %	70-130		01/14/23	01/14/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2302081
Gasoline Range Organics (C6-C10)	ND	20.0	1	01/14/23	01/14/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	90.4 %	70-130		01/14/23	01/14/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2303013
Diesel Range Organics (C10-C28)	ND	25.0	1	01/16/23	01/16/23	
Oil Range Organics (C28-C36)	ND	50.0	1	01/16/23	01/16/23	
<i>Surrogate: n-Nonane</i>						
	111 %	50-200		01/16/23	01/16/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: BA		Batch: 2303004
Chloride	ND	20.0	1	01/16/23	01/16/23	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: Merlyn 27-22 Fed 2H
Project Number: 01058-0007
Project Manager: Tom Bynum

Reported:
1/18/2023 4:19:53PM

CS4

E301070-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2302081
Benzene	ND	0.0250	1	01/14/23	01/14/23	
Ethylbenzene	ND	0.0250	1	01/14/23	01/14/23	
Toluene	ND	0.0250	1	01/14/23	01/14/23	
o-Xylene	ND	0.0250	1	01/14/23	01/14/23	
p,m-Xylene	ND	0.0500	1	01/14/23	01/14/23	
Total Xylenes	ND	0.0250	1	01/14/23	01/14/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	98.1 %	70-130		01/14/23	01/14/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2302081
Gasoline Range Organics (C6-C10)	ND	20.0	1	01/14/23	01/14/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	94.1 %	70-130		01/14/23	01/14/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2303013
Diesel Range Organics (C10-C28)	ND	25.0	1	01/16/23	01/16/23	
Oil Range Organics (C28-C36)	ND	50.0	1	01/16/23	01/16/23	
<i>Surrogate: n-Nonane</i>						
	116 %	50-200		01/16/23	01/16/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: BA		Batch: 2303004
Chloride	ND	20.0	1	01/16/23	01/16/23	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: Merlyn 27-22 Fed 2H
Project Number: 01058-0007
Project Manager: Tom Bynum

Reported:
1/18/2023 4:19:53PM

CSW1

E301070-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2302081
Benzene	ND	0.0250	1	01/14/23	01/14/23	
Ethylbenzene	ND	0.0250	1	01/14/23	01/14/23	
Toluene	ND	0.0250	1	01/14/23	01/14/23	
o-Xylene	ND	0.0250	1	01/14/23	01/14/23	
p,m-Xylene	ND	0.0500	1	01/14/23	01/14/23	
Total Xylenes	ND	0.0250	1	01/14/23	01/14/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	99.5 %	70-130		01/14/23	01/14/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2302081
Gasoline Range Organics (C6-C10)	ND	20.0	1	01/14/23	01/14/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	90.3 %	70-130		01/14/23	01/14/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2303013
Diesel Range Organics (C10-C28)	ND	25.0	1	01/16/23	01/16/23	
Oil Range Organics (C28-C36)	ND	50.0	1	01/16/23	01/16/23	
<i>Surrogate: n-Nonane</i>						
	116 %	50-200		01/16/23	01/16/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: BA		Batch: 2303004
Chloride	ND	20.0	1	01/16/23	01/16/23	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: Merlyn 27-22 Fed 2H
Project Number: 01058-0007
Project Manager: Tom Bynum

Reported:
1/18/2023 4:19:53PM

CSW2

E301070-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2302081
Benzene	ND	0.0250	1	01/14/23	01/14/23	
Ethylbenzene	ND	0.0250	1	01/14/23	01/14/23	
Toluene	ND	0.0250	1	01/14/23	01/14/23	
o-Xylene	ND	0.0250	1	01/14/23	01/14/23	
p,m-Xylene	ND	0.0500	1	01/14/23	01/14/23	
Total Xylenes	ND	0.0250	1	01/14/23	01/14/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	99.2 %	70-130		01/14/23	01/14/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2302081
Gasoline Range Organics (C6-C10)	ND	20.0	1	01/14/23	01/14/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	92.2 %	70-130		01/14/23	01/14/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2303013
Diesel Range Organics (C10-C28)	ND	25.0	1	01/16/23	01/17/23	
Oil Range Organics (C28-C36)	ND	50.0	1	01/16/23	01/17/23	
<i>Surrogate: n-Nonane</i>						
	91.6 %	50-200		01/16/23	01/17/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: BA		Batch: 2303004
Chloride	ND	20.0	1	01/16/23	01/16/23	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: Merlyn 27-22 Fed 2H
Project Number: 01058-0007
Project Manager: Tom Bynum

Reported:
1/18/2023 4:19:53PM

CSW3

E301070-07

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2302081
Benzene	ND	0.0250	1	01/14/23	01/14/23	
Ethylbenzene	ND	0.0250	1	01/14/23	01/14/23	
Toluene	ND	0.0250	1	01/14/23	01/14/23	
o-Xylene	ND	0.0250	1	01/14/23	01/14/23	
p,m-Xylene	ND	0.0500	1	01/14/23	01/14/23	
Total Xylenes	ND	0.0250	1	01/14/23	01/14/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	99.2 %	70-130		01/14/23	01/14/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2302081
Gasoline Range Organics (C6-C10)	ND	20.0	1	01/14/23	01/14/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	94.0 %	70-130		01/14/23	01/14/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2303013
Diesel Range Organics (C10-C28)	ND	25.0	1	01/16/23	01/17/23	
Oil Range Organics (C28-C36)	ND	50.0	1	01/16/23	01/17/23	
<i>Surrogate: n-Nonane</i>						
	115 %	50-200		01/16/23	01/17/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: BA		Batch: 2303004
Chloride	ND	20.0	1	01/16/23	01/16/23	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: Merlyn 27-22 Fed 2H
Project Number: 01058-0007
Project Manager: Tom Bynum

Reported:
1/18/2023 4:19:53PM

CSW4

E301070-08

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2302081
Benzene	ND	0.0250	1	01/14/23	01/14/23	
Ethylbenzene	ND	0.0250	1	01/14/23	01/14/23	
Toluene	ND	0.0250	1	01/14/23	01/14/23	
o-Xylene	ND	0.0250	1	01/14/23	01/14/23	
p,m-Xylene	ND	0.0500	1	01/14/23	01/14/23	
Total Xylenes	ND	0.0250	1	01/14/23	01/14/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	98.0 %	70-130		01/14/23	01/14/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2302081
Gasoline Range Organics (C6-C10)	ND	20.0	1	01/14/23	01/14/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	91.9 %	70-130		01/14/23	01/14/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2303013
Diesel Range Organics (C10-C28)	ND	25.0	1	01/16/23	01/17/23	
Oil Range Organics (C28-C36)	ND	50.0	1	01/16/23	01/17/23	
<i>Surrogate: n-Nonane</i>						
	117 %	50-200		01/16/23	01/17/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: BA		Batch: 2303004
Chloride	ND	20.0	1	01/16/23	01/16/23	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: Merlyn 27-22 Fed 2H
Project Number: 01058-0007
Project Manager: Tom Bynum

Reported:
1/18/2023 4:19:53PM

CSW5

E301070-09

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2302081
Benzene	ND	0.0250	1	01/14/23	01/14/23	
Ethylbenzene	ND	0.0250	1	01/14/23	01/14/23	
Toluene	ND	0.0250	1	01/14/23	01/14/23	
o-Xylene	ND	0.0250	1	01/14/23	01/14/23	
p,m-Xylene	ND	0.0500	1	01/14/23	01/14/23	
Total Xylenes	ND	0.0250	1	01/14/23	01/14/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	98.7 %	70-130		01/14/23	01/14/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2302081
Gasoline Range Organics (C6-C10)	ND	20.0	1	01/14/23	01/14/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	91.6 %	70-130		01/14/23	01/14/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2303013
Diesel Range Organics (C10-C28)	ND	25.0	1	01/16/23	01/17/23	
Oil Range Organics (C28-C36)	ND	50.0	1	01/16/23	01/17/23	
<i>Surrogate: n-Nonane</i>						
	116 %	50-200		01/16/23	01/17/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: BA		Batch: 2303004
Chloride	ND	20.0	1	01/16/23	01/16/23	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: Merlyn 27-22 Fed 2H
Project Number: 01058-0007
Project Manager: Tom Bynum

Reported:
1/18/2023 4:19:53PM

CSW6

E301070-10

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2302081
Benzene	ND	0.0250	1	01/14/23	01/14/23	
Ethylbenzene	ND	0.0250	1	01/14/23	01/14/23	
Toluene	ND	0.0250	1	01/14/23	01/14/23	
o-Xylene	ND	0.0250	1	01/14/23	01/14/23	
p,m-Xylene	ND	0.0500	1	01/14/23	01/14/23	
Total Xylenes	ND	0.0250	1	01/14/23	01/14/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	98.4 %	70-130		01/14/23	01/14/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2302081
Gasoline Range Organics (C6-C10)	ND	20.0	1	01/14/23	01/14/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	87.8 %	70-130		01/14/23	01/14/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2303013
Diesel Range Organics (C10-C28)	ND	25.0	1	01/16/23	01/17/23	
Oil Range Organics (C28-C36)	ND	50.0	1	01/16/23	01/17/23	
<i>Surrogate: n-Nonane</i>						
	115 %	50-200		01/16/23	01/17/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: BA		Batch: 2303004
Chloride	ND	20.0	1	01/16/23	01/16/23	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: Merlyn 27-22 Fed 2H
Project Number: 01058-0007
Project Manager: Tom Bynum

Reported:
1/18/2023 4:19:53PM

CSW7

E301070-11

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2302081
Benzene	ND	0.0250	1	01/14/23	01/14/23	
Ethylbenzene	ND	0.0250	1	01/14/23	01/14/23	
Toluene	ND	0.0250	1	01/14/23	01/14/23	
o-Xylene	ND	0.0250	1	01/14/23	01/14/23	
p,m-Xylene	ND	0.0500	1	01/14/23	01/14/23	
Total Xylenes	ND	0.0250	1	01/14/23	01/14/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	99.9 %	70-130		01/14/23	01/14/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2302081
Gasoline Range Organics (C6-C10)	ND	20.0	1	01/14/23	01/14/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	94.7 %	70-130		01/14/23	01/14/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2303013
Diesel Range Organics (C10-C28)	ND	25.0	1	01/16/23	01/17/23	
Oil Range Organics (C28-C36)	ND	50.0	1	01/16/23	01/17/23	
<i>Surrogate: n-Nonane</i>						
	118 %	50-200		01/16/23	01/17/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: BA		Batch: 2303004
Chloride	ND	20.0	1	01/16/23	01/16/23	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: Merlyn 27-22 Fed 2H
Project Number: 01058-0007
Project Manager: Tom Bynum

Reported:
1/18/2023 4:19:53PM

CSW8

E301070-12

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2302081
Benzene	ND	0.0250	1	01/14/23	01/14/23	
Ethylbenzene	ND	0.0250	1	01/14/23	01/14/23	
Toluene	ND	0.0250	1	01/14/23	01/14/23	
o-Xylene	ND	0.0250	1	01/14/23	01/14/23	
p,m-Xylene	ND	0.0500	1	01/14/23	01/14/23	
Total Xylenes	ND	0.0250	1	01/14/23	01/14/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	97.3 %	70-130		01/14/23	01/14/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2302081
Gasoline Range Organics (C6-C10)	ND	20.0	1	01/14/23	01/14/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	91.0 %	70-130		01/14/23	01/14/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2303013
Diesel Range Organics (C10-C28)	ND	25.0	1	01/16/23	01/17/23	
Oil Range Organics (C28-C36)	ND	50.0	1	01/16/23	01/17/23	
<i>Surrogate: n-Nonane</i>						
	123 %	50-200		01/16/23	01/17/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: BA		Batch: 2303004
Chloride	ND	20.0	1	01/16/23	01/16/23	



QC Summary Data

Pima Environmental Services-Carlsbad	Project Name:	Merlyn 27-22 Fed 2H	Reported:
PO Box 247	Project Number:	01058-0007	
Plains TX, 79355-0247	Project Manager:	Tom Bynum	1/18/2023 4:19:53PM

Volatile Organics by EPA 8021B

Analyst: IY

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2302081-BLK1)

Prepared: 01/14/23 Analyzed: 01/14/23

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	7.96		8.00		99.5	70-130			

LCS (2302081-BS1)

Prepared: 01/14/23 Analyzed: 01/14/23

Benzene	4.65	0.0250	5.00		92.9	70-130			
Ethylbenzene	4.99	0.0250	5.00		99.8	70-130			
Toluene	5.04	0.0250	5.00		101	70-130			
o-Xylene	5.13	0.0250	5.00		103	70-130			
p,m-Xylene	10.1	0.0500	10.0		101	70-130			
Total Xylenes	15.3	0.0250	15.0		102	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.90		8.00		98.7	70-130			

Matrix Spike (2302081-MS1)

Source: E301069-02

Prepared: 01/14/23 Analyzed: 01/14/23

Benzene	4.81	0.0250	5.00	ND	96.1	54-133			
Ethylbenzene	5.15	0.0250	5.00	ND	103	61-133			
Toluene	5.20	0.0250	5.00	ND	104	61-130			
o-Xylene	5.30	0.0250	5.00	ND	106	63-131			
p,m-Xylene	10.4	0.0500	10.0	ND	104	63-131			
Total Xylenes	15.7	0.0250	15.0	ND	105	63-131			
Surrogate: 4-Bromochlorobenzene-PID	7.66		8.00		95.7	70-130			

Matrix Spike Dup (2302081-MSD1)

Source: E301069-02

Prepared: 01/14/23 Analyzed: 01/14/23

Benzene	4.57	0.0250	5.00	ND	91.4	54-133	4.96	20	
Ethylbenzene	4.92	0.0250	5.00	ND	98.4	61-133	4.64	20	
Toluene	4.95	0.0250	5.00	ND	99.1	61-130	4.87	20	
o-Xylene	5.07	0.0250	5.00	ND	101	63-131	4.54	20	
p,m-Xylene	9.97	0.0500	10.0	ND	99.7	63-131	4.53	20	
Total Xylenes	15.0	0.0250	15.0	ND	100	63-131	4.53	20	
Surrogate: 4-Bromochlorobenzene-PID	8.04		8.00		100	70-130			



QC Summary Data

Pima Environmental Services-Carlsbad	Project Name:	Merlyn 27-22 Fed 2H	Reported: 1/18/2023 4:19:53PM
PO Box 247	Project Number:	01058-0007	
Plains TX, 79355-0247	Project Manager:	Tom Bynum	

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: IY

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2302081-BLK1)

Prepared: 01/14/23 Analyzed: 01/14/23

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.60		8.00		95.0	70-130			

LCS (2302081-BS2)

Prepared: 01/14/23 Analyzed: 01/14/23

Gasoline Range Organics (C6-C10)	50.5	20.0	50.0		101	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.44		8.00		93.0	70-130			

Matrix Spike (2302081-MS2)

Source: E301069-02

Prepared: 01/14/23 Analyzed: 01/14/23

Gasoline Range Organics (C6-C10)	48.0	20.0	50.0	ND	96.0	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.49		8.00		93.6	70-130			

Matrix Spike Dup (2302081-MSD2)

Source: E301069-02

Prepared: 01/14/23 Analyzed: 01/14/23

Gasoline Range Organics (C6-C10)	48.7	20.0	50.0	ND	97.4	70-130	1.44	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.37		8.00		92.2	70-130			



QC Summary Data

Pima Environmental Services-Carlsbad	Project Name:	Merlyn 27-22 Fed 2H	Reported:
PO Box 247	Project Number:	01058-0007	
Plains TX, 79355-0247	Project Manager:	Tom Bynum	1/18/2023 4:19:53PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: JL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2303013-BLK1)

Prepared: 01/16/23 Analyzed: 01/16/23

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	57.9		50.0		116	50-200			

LCS (2303013-BS1)

Prepared: 01/16/23 Analyzed: 01/16/23

Diesel Range Organics (C10-C28)	252	25.0	250		101	38-132			
Surrogate: n-Nonane	57.0		50.0		114	50-200			

Matrix Spike (2303013-MS1)

Source: E301070-04

Prepared: 01/16/23 Analyzed: 01/16/23

Diesel Range Organics (C10-C28)	249	25.0	250	ND	99.6	38-132			
Surrogate: n-Nonane	57.3		50.0		115	50-200			

Matrix Spike Dup (2303013-MSD1)

Source: E301070-04

Prepared: 01/16/23 Analyzed: 01/16/23

Diesel Range Organics (C10-C28)	261	25.0	250	ND	104	38-132	4.65	20	
Surrogate: n-Nonane	56.8		50.0		114	50-200			



QC Summary Data

Pima Environmental Services-Carlsbad	Project Name:	Merlyn 27-22 Fed 2H	Reported:
PO Box 247	Project Number:	01058-0007	
Plains TX, 79355-0247	Project Manager:	Tom Bynum	1/18/2023 4:19:53PM

Anions by EPA 300.0/9056A

Analyst: BA

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	

Blank (2303004-BLK1)					Prepared: 01/16/23 Analyzed: 01/16/23				
Chloride	ND	20.0							
LCS (2303004-BS1)					Prepared: 01/16/23 Analyzed: 01/16/23				
Chloride	245	20.0	250		97.9	90-110			
Matrix Spike (2303004-MS1)					Source: E301069-01		Prepared: 01/16/23 Analyzed: 01/16/23		
Chloride	251	20.0	250	ND	100	80-120			
Matrix Spike Dup (2303004-MSD1)					Source: E301069-01		Prepared: 01/16/23 Analyzed: 01/16/23		
Chloride	251	20.0	250	ND	100	80-120	0.136	20	

QC Summary Report Comment:
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures.
Therefore, hand calculated values may differ slightly.



Definitions and Notes

Pima Environmental Services-Carlsbad	Project Name:	Merlyn 27-22 Fed 2H	
PO Box 247	Project Number:	01058-0007	Reported:
Plains TX, 79355-0247	Project Manager:	Tom Bynum	01/18/23 16:19

- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite

Note (1): Methods marked with ** are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



Project Information

Chain of Custody

Page 1 of 2

Client: Pima Environmental Services Project: <u>Mervyn 27-22 Fed 2H</u> Project Manager: Tom Bynum Address: 5614 N. Lovington Hwy. City, State, Zip: <u>Hobbs, NM, 88240</u> Phone: 580-748-1613 Email: <u>tom@pimaoil.com</u> Report due by:					Bill To Attention: <u>Devon</u> Address: City, State, Zip: Phone: Email: Pima Project # <u>1-207</u>					Lab Use Only Lab WO# <u>E301070</u> Job Number <u>01058-0007</u> Analysis and Method					TAT 1D 2D 3D Standard <u>X</u>				EPA Program CWA SDWA RCRA	
														State NM CO UT AZ TX						
														Remarks						
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0		BGDOC NM	BGDOC TX						
8:00	1/12/23	S	1	CS1	1								X							
8:05				CS2	2															
8:10				CS3	3															
8:15				CS4	4															
8:20				CSW1	5															
8:25				CSW2	6															
8:30				CSW3	7															
8:35				CSW4	8															
8:40				CSW5	9															
8:45				CSW6	10															
Additional Instructions: <u>Bill to devon: 21048000</u>																				
I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action.												Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.								
Relinquished by: (Signature) <u>AB</u> Date <u>1-13-23</u> Time <u>2:00</u>												Received by: (Signature) <u>Michelle Cuyler</u> Date <u>1-13-23</u> Time <u>1400</u>								
Relinquished by: (Signature) <u>Michelle Cuyler</u> Date <u>1-13-23</u> Time <u>1700</u>												Received by: (Signature) <u>Lorenzo Len</u> Date <u>1-13-23</u> Time <u>1800</u>								
Relinquished by: (Signature) <u>Lorenzo Len</u> Date <u>1-13-23</u> Time <u>2400</u>												Received by: (Signature) <u>Ally</u> Date <u>1-14-23</u> Time <u>8:00</u>								
Sample Matrix: <u>S</u> - Soil, <u>Sd</u> - Solid, <u>Sg</u> - Sludge, <u>A</u> - Aqueous, <u>O</u> - Other												Container Type: <u>g</u> - glass, <u>p</u> - poly/plastic, <u>ag</u> - amber glass, <u>v</u> - VOA								
Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.																				


envirotech

[illegible]

Envirotech Analytical Laboratory

Printed: 1/16/2023 9:36:47AM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	Pima Environmental Services-Carlsbad	Date Received:	01/14/23 08:00	Work Order ID:	E301070
Phone:	(575) 631-6977	Date Logged In:	01/13/23 14:46	Logged In By:	Caitlin Christian
Email:	tom@pimaoil.com	Due Date:	01/20/23 17:00 (4 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Note: Analysis, such as pH which should be conducted in the field, i.e., 15 minute hold time, are not included in this discussion.

Carrier: CourierComments/ResolutionSample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT? Yes

Sample Cooler

7. Was a sample cooler received? Yes
8. If yes, was cooler received in good condition? Yes
9. Was the sample(s) received intact, i.e., not broken? Yes
10. Were custody/security seals present? No
11. If yes, were custody/security seals intact? NA
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

13. If no visible ice, record the temperature. Actual sample temperature: 4°C

Sample Container

14. Are aqueous VOC samples present? No
15. Are VOC samples collected in VOA Vials? NA
16. Is the head space less than 6-8 mm (pea sized or less)? NA
17. Was a trip blank (TB) included for VOC analyses? NA
18. Are non-VOC samples collected in the correct containers? Yes
19. Is the appropriate volume/weight or number of sample containers collected? Yes

Field Label

20. Were field sample labels filled out with the minimum information:
 - Sample ID? Yes
 - Date/Time Collected? Yes
 - Collectors name? No

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved? No
22. Are sample(s) correctly preserved? NA
24. Is lab filtration required and/or requested for dissolved metals? No

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase? No
27. If yes, does the COC specify which phase(s) is to be analyzed? NA

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory? No
29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.

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 198861

CONDITIONS

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 198861
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rhamlet	We have received your closure report and final C-141 for Incident #NAPP2227246284 MERLYN 27-22 FED 2H, thank you. This closure is approved.	8/1/2023