



January 28, 2024

Mr. Gerry Razatos, Director (Acting)
Oil Conservation Division
New Mexico Energy, Minerals and Natural Resources Department
1220 S. Saint Francis Drive
Santa Fe, New Mexico 87505

**Re: Stage 2 Abatement Plan (AP) for the Former Reverse Osmosis (RO) Reject Discharge Fields at the HF Sinclair Navajo Refining LLC (HFNSR)
Quarterly Status Report #2 – October to December 2024
Incident #nRM2022559242, GW-028**

Dear Mr. Razatos:

HF Sinclair Navajo Refining LLC (HFSNR) is submitting this second quarterly status report for the Stage 2 Abatement Plan (AP) for the Former Reverse Osmosis (RO) Reject Discharge Fields (RO Fields) at the HF Sinclair Navajo Refining LLC (HFSNR) Refinery (Refinery) located in Artesia, New Mexico (**Figure 1**). The Oil Conservation Division (OCD) approved the Stage 2 AP on July 11, 2024. The former RO Fields are located within the norther portion of the active Refinery (**Figure 2**).

This quarterly status covers the period of October through December 2024.

Work Performed During October to December 2024

October 2024:

- October 1 to 2: Semiannual facility-wide groundwater monitoring was conducted, including collection of samples required by the Stage 2 AP.
- October 28: First quarterly progress report was submitted.

November 2024:

- November 5 to 20: Subsurface utilities within both RO Fields were positively located using hydro-vac procedures to expose each pipeline, confirming the diameter and depth of each pipeline. The locations of the pipelines are shown in **Figure 3** and photographic documentation is provided in **Attachment A**.
- Requirements for “setbacks” or “buffer zones” were identified for each identified pipeline. New Mexico Gas Company (NMGC) requires a minimum buffer of 10 feet (ft) to either side of their pipelines. HF Sinclair Midstream (Midstream) requires a minimum buffer of 25 ft to either side of their pipelines. Plowing will not be allowed within the buffer zones for the NMGC and Midstream pipelines. The City of Artesia sanitary sewer lines in the North RO Field are deep enough that plowing will be allowed over the line; however, a buffer zone of

HF Sinclair Navajo Refining LLC
501 East Main, Artesia, NM 88210
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2 ft will be implemented around the above-ground concrete manholes to prevent damage to the manholes and/or equipment. The identified buffer zones for subsurface utilities are shown in **Figure 3**. Additional buffer zones will be required around above-ground utility poles and associated anchor wiring.

October to November 2024:

- Evaluation of irrigation needs and potential sources of irrigation water continued throughout the quarter. Modifications to existing OSE water rights permits were identified that should allow use of the Mulcock well for irrigation of the two RO Fields.

Work Planned for January through March 2025

- Positive location of a City of Artesia reuse water pipeline will be performed using hydro-vac procedures. The location of the reuse line was previously identified as being located between the south berm of the North RO Field and the bank of Eagle Draw, and thus outside the field; however, subsequent communication with City of Artesia personnel raised concerns about the accuracy of the location of this pipeline. Therefore, positive location of the pipeline will be conducted in late January 2025.
- Irrigation system design and selection will continue between January and March 2025.
- Completion and submittal of modifications to OSE water rights permits.
- Preparation of both RO Fields for planting is scheduled to begin in March, depending on weather conditions. Soil preparation will include "rip and flip" to a depth of 2 ft outside the buffer zones to break up the soil and bury roots of any existing vegetation. Within the buffer zones, existing vegetation will be shredded.

If you have any questions, please feel free to contact Jace Ragland at 775-340-4698 or Mike Holder at 575-308-1115.

Sincerely,

A handwritten signature in blue ink, appearing to read "Case Hinkins".

Case Hinkins
Environmental Manager
HF Sinclair Navajo Refining LLC

c: OCD: M. Buchanan
 HFSNR: M. Holder, J. Ragland



Figures

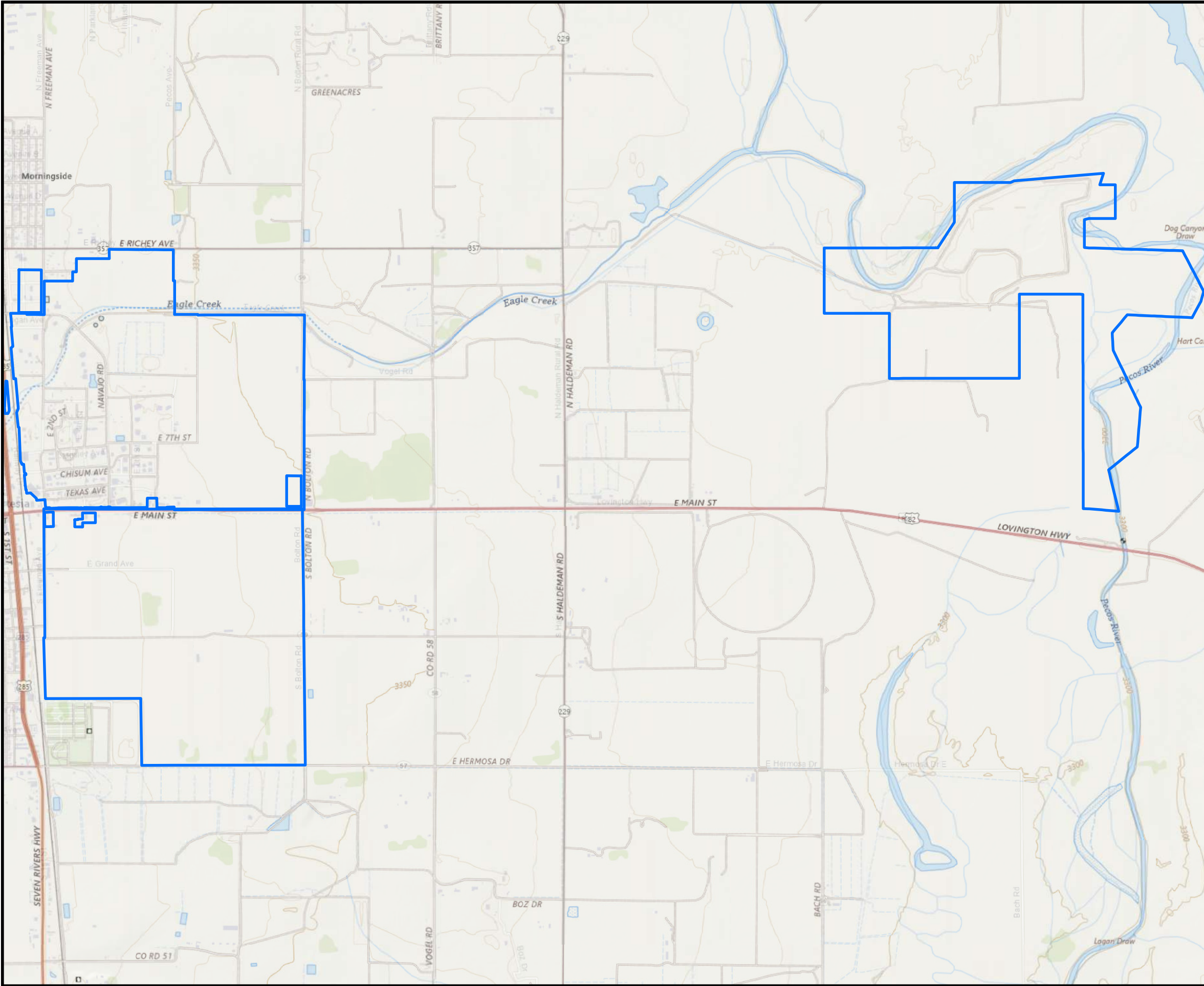
- 1 – Site Location
- 2 – Location of Former RO Reject Discharge Fields
- 3 – Pipeline Buffer Zones

Attachments:

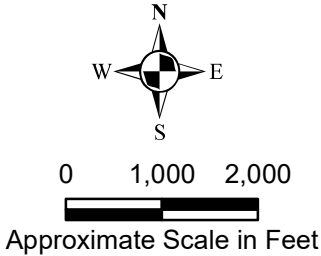
- A – Pipeline Location Photologs



FIGURES



Legend
 Property Boundary

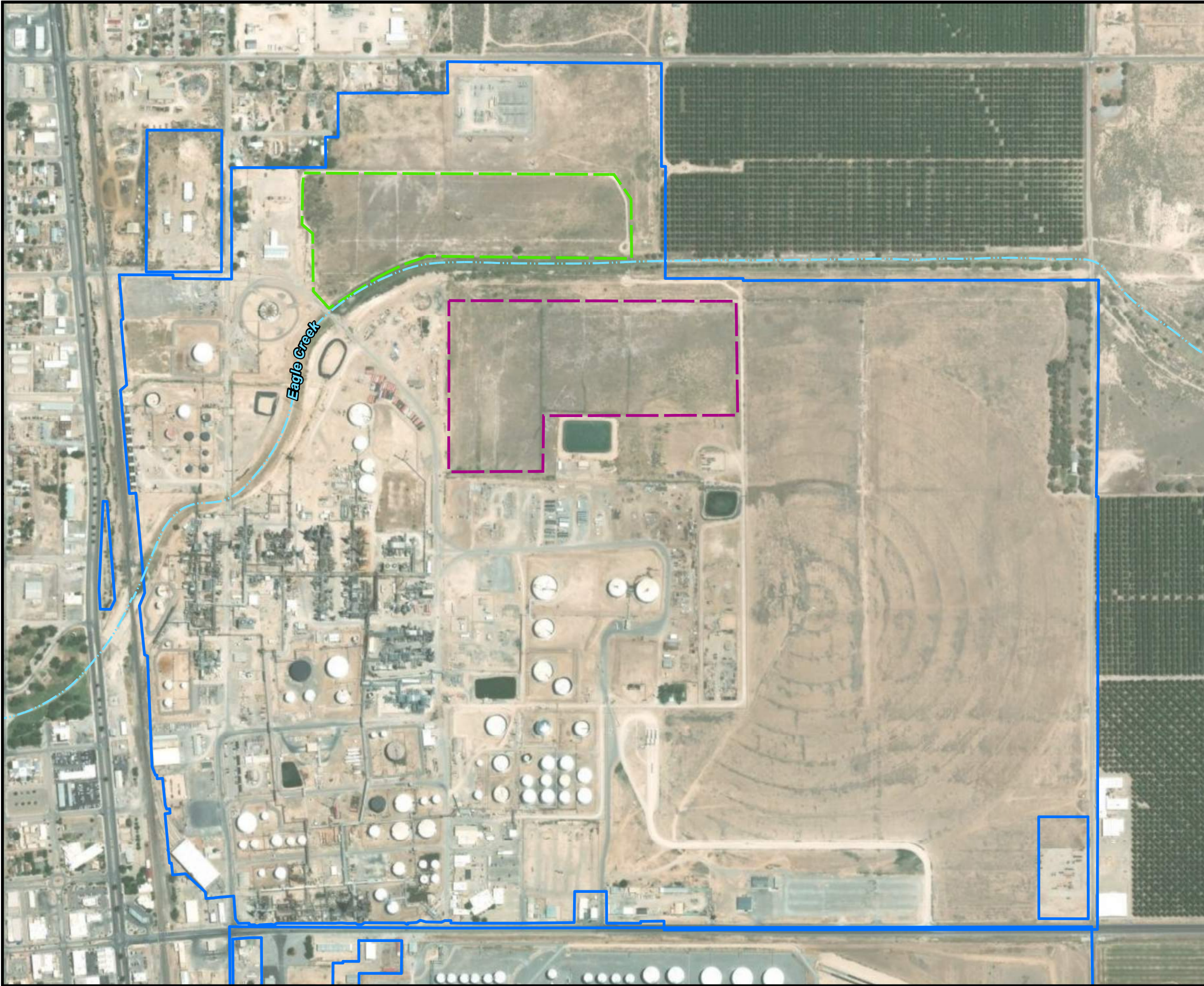


Source: USGS 7.5 Minute Series, Artesia and Spring Lake, New Mexico, 2019.

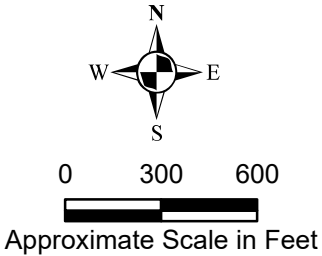
SITE LOCATION
HF SINCLAIR NAVAJO REFINING LLC
ARTESIA REFINERY, EDDY COUNTY, NEW MEXICO



FIGURE
1



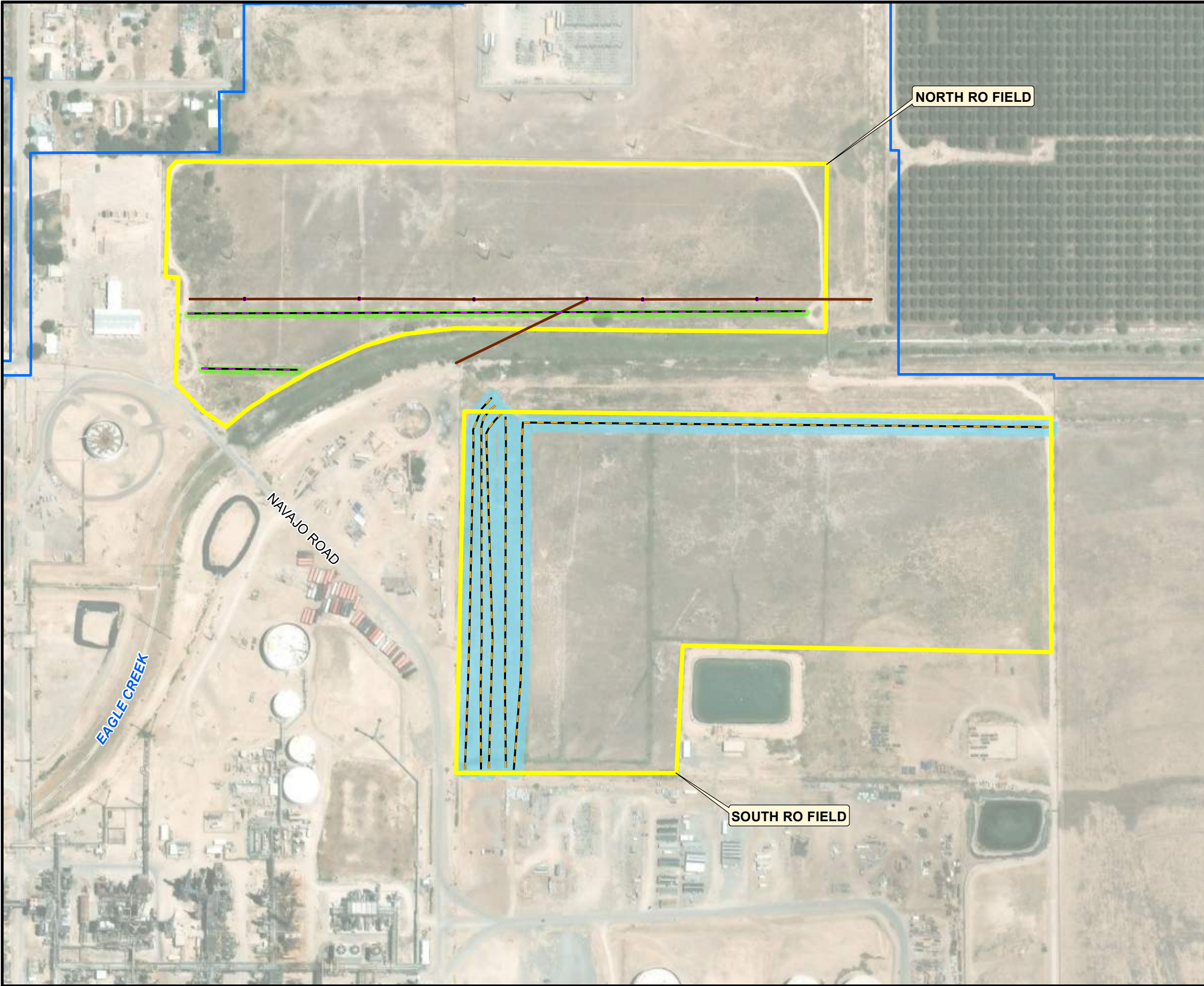
- Legend**
- Property Boundary
 - North RO Reject Field
 - South RO Reject Field
 - Eagle Creek











LOCATION OF FORMER RO REJECT
DISCHARGE FIELDS
HF SINCLAIR NAVAJO REFINING LLC
ARTESIA REFINERY, EDDY COUNTY, NEW MEXICO

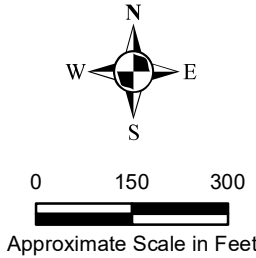


FIGURE
2



Legend

-  Property Boundary
-  City Sanitary Sewer
-  NMGC Pipeline
-  Petroleum Pipeline
-  City Sanitary Sewer Manhole Cover
-  10-Foot Buffer
-  25-Foot Buffer
-  2-Foot Buffer (From Edge of Manhole)



PIPELINE BUFFER ZONES
HF SINCLAIR NAVAJO REFINING LLC
ARTESIA REFINERY, EDDY COUNTY, NEW MEXICO



FIGURE
3



ATTACHMENT A – PIPELINE LOCATION PHOTOLOGS

Photographic Log

HF Sinclair Navajo Refining LLC



Photo 1: North RO Field; location of 12-inch petroleum pipeline shown by red line.



Photo 2: North RO Field, 12-inch petroleum pipeline; location in northern portion of field; 6 feet below ground surface (ft bgs).



Photo 3: North RO Field, 12-inch petroleum pipeline; location in middle portion of field; 6 ft bgs.




Photo 4: North RO Field, 12-inch petroleum pipeline; location in Northern portion of field; 6 ft bgs.



Photo 5: North RO Field; location of 10-inch petroleum pipeline shown by green line.



Photo 6: North RO Field, 10-inch petroleum pipeline; location in northern portion of field; 3.5 ft bgs.

Date Taken	Job No.	Photographs Taken By:	Page No.	Client:	Site Name:	
November 2024	212C-HN-02959	Jorge Fernandez Velo	1 of 4	HFSNR	North RO Field	

Photographic Log

HF Sinclair Navajo Refining LLC



Photo 7: North RO Field, 10-inch petroleum pipeline; location in middle portion of field; 3.5 ft bgs.



Photo 8: North RO Field, 10-inch petroleum pipeline; location in Northern portion of field; 3.5 ft bgs.



Photo 9: North RO Field; location of second 10-inch petroleum pipeline shown by orange line.




Photo 10: North RO Field, second 10-inch petroleum pipeline; location in northern portion of field; 3.5 ft bgs.



Photo 11: North RO Field, second 10-inch petroleum pipeline; location in middle portion of field; 3.5 ft bgs.



Photo 12: North RO Field, second 10-inch petroleum pipeline; location in Northern portion of field; 3.5 ft bgs.

Date Taken	Job No.	Photographs Taken By:	Page No.	Client:	Site Name:	
November 2024	212C-HN-02959	Jorge Fernandez Velo	2 of 4	HFSNR	North RO Field	

Photographic Log

HF Sinclair Navajo Refining LLC



Photo 13: North RO Field; location of 8-inch petroleum pipeline shown by blue line.



Photo 14: North RO Field, 8-inch petroleum pipeline; location in northern portion of field; 3 ft bgs.



Photo 15: North RO Field, 8-inch petroleum pipeline; location in middle portion of field; 3 ft bgs.




Photo 16: North RO Field, 8-inch petroleum pipeline; location in Northern portion of field; 3 ft bgs.



Photo 17: North RO Field; location of 15-inch petroleum pipeline shown by purple line.



Photo 16: North RO Field, 15-inch petroleum pipeline; location in middle portion of north-North section of pipeline; 5 ft bgs.

Date Taken	Job No.	Photographs Taken By:	Page No.	Client:	Site Name:	
November 2024	212C-HN-02959	Jorge Fernandez Velo	3 of 4	HFSNR	North RO Field	

Photographic Log

HF Sinclair Navajo Refining LLC



Photo 17: North RO Field, 15-inch petroleum pipeline; 20 ft long trench east of 90-degree turn inside northwestern corner of North RO field; 5 ft bgs.




Photo 18: North RO Field, 15-inch petroleum pipeline; location on North side of northern berm approximately halfway between 90-degree elbow and eastern berm; 4.5 ft bgs.



Photo 19: North RO Field, 15-inch petroleum pipeline; location near northeastern corner of field; 5 ft bgs.

Photo 20:

Date Taken	Job No.	Photographs Taken By:	Page No.	Client:	Site Name:	
November 2024	212C-HN-02959	Jorge Fernandez Velo	4 of 4	HFSNR	North RO Field	

Photographic Log

HF Sinclair Navajo Refining LLC



Photo 1: South RO Field; location of 12-inch petroleum pipeline shown by red line.



Photo 2: South RO Field, 12-inch petroleum pipeline; location in northern portion of field; 6 feet below ground surface (ft bgs).



Photo 3: South RO Field, 12-inch petroleum pipeline; location in middle portion of field; 6 ft bgs.




Photo 4: South RO Field, 12-inch petroleum pipeline; location in southern portion of field; 6 ft bgs.



Photo 5: South RO Field; location of 10-inch petroleum pipeline shown by green line.



Photo 6: South RO Field, 10-inch petroleum pipeline; location in northern portion of field; 3.5 ft bgs.

Date Taken	Job No.	Photographs Taken By:	Page No.	Client:	Site Name:	
November 2024	212C-HN-02959	Jorge Fernandez Velo	1 of 4	HFSNR	South RO Field	

Photographic Log

HF Sinclair Navajo Refining LLC



Photo 7: South RO Field, 10-inch petroleum pipeline; location in middle portion of field; 3.5 ft bgs.



Photo 8: South RO Field, 10-inch petroleum pipeline; location in southern portion of field; 3.5 ft bgs.



Photo 9: South RO Field; location of second 10-inch petroleum pipeline shown by orange line.




Photo 10: South RO Field, second 10-inch petroleum pipeline; location in northern portion of field; 3.5 ft bgs.



Photo 11: South RO Field, second 10-inch petroleum pipeline; location in middle portion of field; 3.5 ft bgs.



Photo 12: South RO Field, second 10-inch petroleum pipeline; location in southern portion of field; 3.5 ft bgs.

Date Taken	Job No.	Photographs Taken By:	Page No.	Client:	Site Name:	
November 2024	212C-HN-02959	Jorge Fernandez Velo	2 of 4	HFSNR	South RO Field	

Photographic Log

HF Sinclair Navajo Refining LLC



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Photo 14: South RO Field, 8-inch petroleum pipeline; location in northern portion of field; 3 ft bgs.



Photo 15: South RO Field, 8-inch petroleum pipeline; location in middle portion of field; 3 ft bgs.




Photo 16: South RO Field, 8-inch petroleum pipeline; location in southern portion of field; 3 ft bgs.



Photo 17: South RO Field; location of 15-inch petroleum pipeline shown by purple line.



Photo 16: South RO Field, 15-inch petroleum pipeline; location in middle portion of north-south section of pipeline; 5 ft bgs.

Date Taken	Job No.	Photographs Taken By:	Page No.	Client:	Site Name:	 TETRA TECH
November 2024	212C-HN-02959	Jorge Fernandez Velo	3 of 4	HFSNR	South RO Field	

Photographic Log

HF Sinclair Navajo Refining LLC



Photo 17: South RO Field, 15-inch petroleum pipeline; 20 ft long trench east of 90-degree turn inside northwestern corner of South RO field; 5 ft bgs.



Photo 18: South RO Field, 15-inch petroleum pipeline; location on south side of northern berm approximately halfway between 90-degree elbow and eastern berm; 4.5 ft bgs.



Photo 19: South RO Field, 15-inch petroleum pipeline; location near northeastern corner of field; 5 ft bgs.



Photo 20: South RO Field; location 12-inch diesel pipeline shown by pink line.



Photo 21: South RO Field, 12-inch diesel pipeline; location near southern end of field; 3.5 ft bgs.

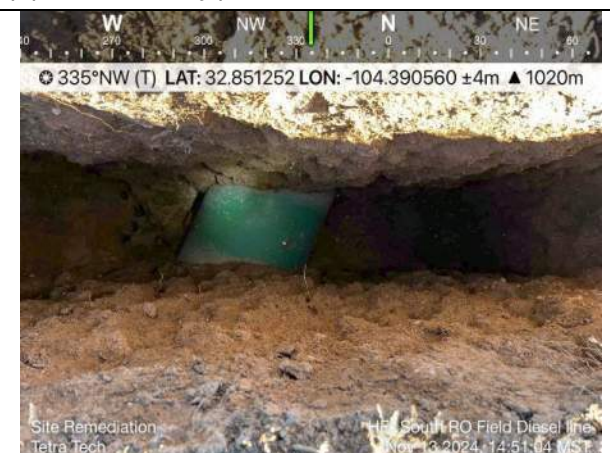



Photo 22: South RO Field, 12-inch diesel pipeline; location near middle of field where pipeline elbows to run to the west; elbow is 4 ft bgs and west leg is 6 ft bgs.

Date Taken	Job No.	Photographs Taken By:	Page No.	Client:	Site Name:	
November 2024	212C-HN-02959	Jorge Fernandez Velo	4 of 4	HFSNR	South RO Field	

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
<https://www.emnrd.nm.gov/ocd/contact-us>

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

CONDITIONS

Action 425883

CONDITIONS

Operator: HF Sinclair Navajo Refining LLC ATTN: GENERAL COUNSEL Dallas, TX 75201	OGRID: 15694
	Action Number: 425883
	Action Type: [UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)

CONDITIONS

Created By	Condition	Condition Date
jburdine	Review of the 2nd Quarterly Status Report for the ST2 AP at the Former RO Discharge Fields at the HF Sinclair Navajo Refining LLC, October to December 2024.: content satisfactory 1. Proceed with plans to conduct semi-annual groundwater monitoring, facility-wide 2. Continue evaluation of irrigation water needs and related update of the OSE water rights permit to allow Mulcock well use. 3. Proceed with preparation of RO fields. 4. Submit the next quarterly update as scheduled in April 2025.	6/11/2025