## **C-147 REGISTRATION PACKAGE**

Nageezi Unit L26 Staging and G-Tank Area Recycling Containment and Recycling Facility

September 2024



**ENDURING RESOURCES IV, LLC** 

DJR Operating, LLC A Subsidiary Company of Enduring Resource, LLC

200 Energy Court Farmington, New Mexico 87401 Phone: (505) 636-9720 **Type of Facility:** 

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-147 Revised April 3, 2017

## Recycling Facility and/or Recycling Containment

☐ Recycling Containment\*

Recycling Facility

Bonding:  Covered under bonding pursuant to 19.15.8 NMAC per 19.15.34.15(A)(2) NMAC (These containments are limited to only the wellst operated by the owners of the containment.)  Bonding in accordance with 19.15.34.15(A)(1). Amount of bond \$	
Fencing:  ☐ Four foot height, four strands of barbed wire evenly spaced between one and four feet  ☐ Alternate. Please specify See variance request in registration package Exhibit H	
6.  Signs:  □ 12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers □ Signed in compliance with 19.15.16.8 NMAC	
Variances:  Justifications and/or demonstrations that the proposed variance will afford reasonable protection against contamination of fresh water, hur environment.  Check the below box only if a variance is requested:  □ Variance(s): Requests must be submitted to the appropriate division district for consideration of approval. If a Variance is requested variance information on a separate page and attach it to the C-147 as part of the application.  If a Variance is requested, it must be approved prior to implementation.	
8.  Siting Criteria for Recycling Containment  Instructions: The applicant must provide attachments that demonstrate compliance for each siting criteria below as part of the applicate examples of the siting attachment source material are provided below under each criteria.	ution. Potential
General siting	
Ground water is less than 50 feet below the bottom of the Recycling Containment.  NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ⊠ No ☐ NA
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended.  - Written confirmation or verification from the municipality; written approval obtained from the municipality	☐ Yes ⊠ No ☐ NA
Within the area overlying a subsurface mine Written confirmation or verification or map from the NM EMNRD-Mining and Minerals Division	☐ Yes ⊠ No
<ul> <li>Within an unstable area.</li> <li>Engineering measures incorporated into the design; NM Bureau of Geology &amp; Mineral Resources; USGS; NM Geological Society; topographic map</li> </ul>	☐ Yes ⊠ No
Within a 100-year floodplain. FEMA map	☐ Yes ⊠ No
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).  - Topographic map; visual inspection (certification) of the proposed site	☐ Yes ⊠ No
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.  - Visual inspection (certification) of the proposed site; aerial photo; satellite image	☐ Yes ⊠ No
Within 500 horizontal feet of a spring or a fresh water well used for domestic or stock watering purposes, in existence at the time of initial application.  - NM Office of the State Engineer - iWATERS database search; visual inspection (certification) of the proposed site	☐ Yes ⊠ No
Within 500 feet of a wetland.  - US Fish and Wildlife Wetland Identification map; topographic map; visual inspection (certification) of the proposed site	☐ Yes ⊠ No

Additional OCD Conditions on Attachment

9. Recycling Facility and/or Containment Checklist:				
Instructions: Each of the following items must be attached to the application.	Indicate,	by a check ma	rk in the box, that the	documents are attached.
<ul> <li>☑ Design Plan - based upon the appropriate requirements Section 3 of the</li> <li>☑ Operating and Maintenance Plan - based upon the appropriate requirement</li> <li>☑ Closure Plan - based upon the appropriate requirements Section 5 of the</li> <li>☑ Site Specific Groundwater Data - Exhibit D of the C-147 Registration P</li> <li>☑ Siting Criteria Compliance Demonstrations - Section 2 of the C-147 Reg</li> <li>☑ Certify that notice of the C-147 (only) has been sent to the surface owner(and BLM FFO. See Exhibit C of the C-147 Registration Package for additional contents of the C-147 Registration Package for ad</li></ul>	ts Section of the C-147 Received Package (sistration 15) - C-14	on 4 of the C-1 degistration Pac Package 7 package is be	47 Registration Packa kage ing submitted concur	
10. Operator Application Certification:				
I hereby certify that the information and attachments submitted with this applica	ation are tr	rue, accurate an	d complete to the best of	of my knowledge and belief.
Name (Print): Heather Huntington	Title: _	Permitting T	Technician_	
Signature: Heather Huntington		Date: <b>09/(</b>	03/24	
e-mail address: hhuntington@enduringresources.com			505-636-9751	
OCD Representative Signature: Victoria Venegas			Approval Date:	09/10/2024
Title: Environmental Specialist	OCD I	Permit Number	:3RF-74	
X OCD Conditions				

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## 1. Introduction

Applicant	DJR Operating, LLC - Enduring Resources, LLC & DJR Operating, LLC are wholly owned subsidiaries of Enduring Resources IV, LLC. Leases, rights of ways, wells, and other property interests will continue to be held in their current entity names.
OGRID	371838
Project Name	Nageezi Unit L26 Staging and G-Tank Area Recycling Containment and Recycling Facility
Project Type	Recycling Facility & Recycling Containment
Legal Location	Northeast ¼ of the Southeast ¼ of Section 27, Township 24N, Range 09W
Surface Owner	Federal surface managed by the Bureau of Land Management Farmington Field Office

In accordance with 19.15.34 NMAC, DJR Operating, LLC (DJR) a subsidiary company of Enduring Resources, LLC requests registration of their Nageezi Unit L26 Staging and G-Tank Area (NU L26 Staging Area) Recycling Containment and Recycling Facility through the approval of this C-147 registration and permit package.

The <u>recycling containment</u> will consist of one 60,000 barrel (bbl) above ground storage tank (AST). Per 19.15.34.7 B. NMAC a "**Recycling containment**" is a storage containment which incorporates a synthetic liner as the primary and secondary containment device and is used solely in conjunction with a recycling facility for the storage, treatment or recycling of produced water only for the purpose of drilling, completion, production or plugging of wells used in connection with the development of oil or gas or both. This AST containment falls within this definition and must meet all applicable requirements of a Recycling Containment in Rule 19.15.34 NMAC.

The <u>recycling facility</u> will consist of up to thirty 400 bbl vertical frac tanks with a consolidated volume of 12,000 bbls to treat (mechanical and chemical reconditioning process) produced water for reuse. <u>DJR will only set as many tanks are anticipated to be needed based on incoming volumes and extent of treatment necessary</u>. As defined in 19.15.34.7 A. NMAC a "*Recycling facility*" is a stationary or portable facility used exclusively for the treatment, re-use or recycling of produced water. A recycling facility does not include oilfield equipment such as separators, heater treaters and scrubbers in which produced water may be used. These tanks will be used as upright gun barrel oil water separators. This oil separation process will prevent having any visible layer of oil on the surface of the recycling containment in accordance with Rule 19.15.34.13 B.(1).

Per 19.15.34.9 A. water (produced water and Entrada water) stored/processed through this temporary recycling facility and containment will be used as part of a permitted operation for drilling, completing, and producing DJR Operating, LLC and Enduring Resources, LLC wells.

See Exhibit A for site survey plat and Exhibit B for a site diagram of the proposed AST and recycling facility layout. This facility will not be used for the disposal of produced water.

The NU L26 Staging Area site is located at 36.281811 ° N, -107.769146 ° W, within Section 27, Township 24N, Range 09W, in San Juan County, New Mexico. The site is located on federal lands managed by the Bureau of Land Management Farmington Field Office (BLM FFO). DJR is the operator of the applicable oil and gas mineral rights at this location.

BLM FFO has been notified and approved of this site for water storage and water recycling. This staging area and G-tank site was planned as associated infrastructure to DJR's Nageezi Unit L26 well pad project and permitted via six approved Applications for Permit to Drill from this location. See Exhibit C, approved Form 3160-3 Application for Permit to Drill or Reenter for the Nageezi Unit 213H (30-0458-38299) one of the six approved APDs detailing use of this staging area and G-tank site. Additionally, per New Mexico Oil Conservation Division (NMOCD) Form C-147, DJR will provide A copy of this registration package to the BLM FFO concurrently with the submittal to the division.

This document provides supplemental information to NMOCD Form C-147 that is required for registration, including siting criteria and demonstrations, design and construction plans, operating and maintenance plans, closure plan, closure and site reclamation requirements, and surface owner notification.

Upon approval of this registration, the recycling containment located at this facility will be operated for up to five years.

If the AST containment is found to be needed beyond five years, DJR will submit annual extensions to NMOCD on Form C-147 at least 30 days prior to expiration. The extension request will include a summary of all monthly inspections of the containment, including monitoring of the leak detection system indicating that the containment's integrity has not been compromised.

## 2. SITING CRITERIA

## 2.1. Depth to Groundwater 19.15.34.11 A.(1)

Per 19.15.34.11 B. NMAC, DJR requests use of POD SJ-01712 in the Northeast ¼ of the Southeast ¼ of Section 27, Township 24N, Range 09W. This water well was drilled to a total depth of 528 feet with depth to ground water measured at 515 feet. This water well is located approximately 970 feet northwest of the NU L26 Staging Area. With the proposed containment being an AST sitting above ground level, the groundwater depth is greater than 50 feet below the bottom of the recycling containment. See Exhibit D for the water well summary. Additional average depth to ground water information can be found below for Township 24 North Range 09 West.

Average, Minimum, and Maximum depth to ground water within T24N R09W = 742', 515', 1073'

## 2.2. Distance to Surface Water 19.15.34.11 A.(2)

There are no continuously flowing watercourses within 300 feet; nor, any lakebeds, sinkholes, or playa lakes within 200 feet of the proposed ASTs as shown in Exhibit E Map 2.

There is one mapped USGS blue line drainage within 200 feet of the staging pad area as seen in Exhibit E Map 2. DJR contracted SWCA Environmental Consultants in August of 2024 to assess all surrounding drainages per 19.15.34.11 A.(2) NMAC. In the report provided to DJR titled, *Aquatic Resources Delineation Technical Memorandum*. SWCA Summarized the following. This report is attached hereto as Exhibit F:

Based on the regulatory considerations provided in Section 2, evaluation of the survey area and observed aquatic resources, and SWCA's understanding of the USACE Albuquerque District's current policies regarding jurisdictional determinations, it is SWCA's professional opinion that per the 2023 Amended Rule, no features present within the survey area would be considered jurisdictional WOTUS by the USACE. Erosional features, as those observed in the survey area, are excluded from WOTUS jurisdiction (40 Code of Federal Regulations 120.2(b)(8)).

Pursuant to 19.15.34 NMAC, no OHWMs were observed within 200 feet of the project area. Therefore, no significant watercourse is likely to occur within 200-feet of the proposed recycling containment. Additionally, neither the project area nor the survey area intersect a FEMA 100-year flood zone.

Thus, this drainage was found to be non-jurisdictional and non-significant during field investigations August 14, 2024 resulting in no significant drainages within 200 feet of the recycling containment.

## 2.3. Distance to Structures 19.15.34.11 A.(3)

The recycling facility/containment is not located within 1,000 feet of a permanent residence, school, hospital, institution, or church in existence at the time of this application. As shown on the aerial map in Exhibit E Map 2, there are no permanent residences, schools, hospitals, institutions, or churches within the 1000-foot buffer ring of the pad. A field visit verified there has been no new structure erected since the aerial imagery was obtained.

## 2.4. Distance to Non-Public Water Supply and Springs 19.15.34.11 A.(4)

The recycling facility/containment is not located within 500 horizontal feet of a spring or freshwater well used for domestic or stock watering purposes in existence at the time of this application. Exhibit E Map 2 shows water well SJ-01712 less than 500 feet from the L26 Staging Area. However, upon field verification, it was found that this well is actually located at 36.28402, -107.77209 which is 970 feet northwest of the L26 Staging Area. Please see map below showing where New Mexico Office of the State Engineers (OSE) mapped this well compared to its actual drilled location. Map 1 shows springs/seeps in the surrounding area and Map 2 shows that no springs or seeps are located within the 500-foot buffer of the pad. Nearest spring/seep according to the National Hydrologic Dataset (NHD) is 4.76 miles North.

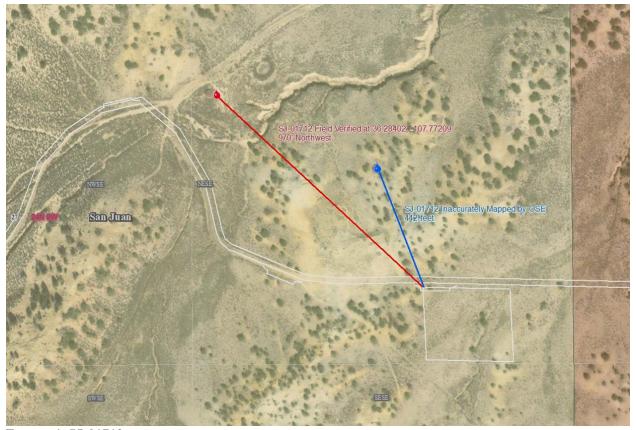


FIGURE 1. SJ-01712 WATER WELL FIELD VERIFIED LOCATION MEETING SITING CRITERIA.

## 2.5. Distance to Municipal Boundaries and Defined Municipal Fresh Water Well Fields 19.15.34.11 A.(5)

The recycling facility is not within any incorporated municipal boundaries nor within a defined municipal fresh water well field covered by a municipal ordinance adopted pursuant to Section 3- 27-3 NMSA 1978, as amended. Please see Exhibit E Map 1 showing the nearest municipal boundary being Bloomfield New Mexico approximately 29 miles North-Northwest.

### 2.6. Distance to Wetland 19.15.34.11 A.(6)

The recycling facility/containment is not located within 500 feet of a wetland per the evidence provided below. According to the US Fish and Wildlife Service National Wetland Inventory (NWI) and Exhibit E, the proposed site is located within 500 feet of an ephemeral wash that has been mapped as "Riverine" with classification code: R4SBJ. Please see decoded description below from US Fish and Wildlife Service.

### R4SBJ:

System **Riverine** (**R**): The Riverine System includes all wetlands and deepwater habitats contained within a channel, with two exceptions: (1) wetlands dominated by trees, shrubs, persistent emergents, emergent mosses, or lichens, and (2) habitats with water containing ocean-derived salts of 0.5 ppt or greater. A channel is an

open conduit either naturally or artificially created which periodically or continuously contains moving water, or which forms a connecting link between two bodies of standing water.

Subsystem Intermittent (4): This Subsystem includes channels that contain flowing water only part of the year. When the water is not flowing, it may remain in isolated pools or surface water may be absent.

Class **Streambed** (**SB**): Includes all wetlands contained within the Intermittent Subsystem of the Riverine System and all channels of the Estuarine System or of the Tidal Subsystem of the Riverine System that are completely dewatered at low tide.

Water Regime Intermittently Flooded (J): The substrate is usually exposed, but surface water is present for variable periods without detectable seasonal periodicity. Weeks, months, or even years may intervene between periods of inundation. The dominant plant communities under this Water Regime may change as soil moisture conditions change. Some areas exhibiting this Water Regime do not fall within our definition of wetland because they do not have hydric soils or support hydrophytes. This Water Regime is generally limited to the arid West.

The data used and displayed near the project area on the US Fish and Wildlife Service Wetland Inventory was mapped as described in the San Juan, Estancia Basin, and Sante Fe County, NM - Supplemental Map Information document as follows:

All feature creation and attribution was completed with on-screen digitization procedures using Esri, ArcGIS Pro 2.7.0, and ArcMap 10.7.1, with advanced editing tools.

The wetland mapping of this project involved an area-wide inventory of wetlands and non-wetland riparian habitats using 2018, year color infrared and true-color aerial imagery. Fieldwork review was conducted for the purpose of verification of wetland features and non-wetland features and a "selective key" of photo-signatures was created. This baseline information served as a guide for identifying and classifying features (as interpreted from the project imagery) within the NWI (version 2.0), and the Landscape Position Landform Water Flow Path and Water Body Type (LLWW, version 2) Classification Systems.

Since the Wetlands Inventory is identified and mapped from a desktop perspective utilizing photo-signatures the resulting data is a desktop approximation of potential wetlands and non-wetland riparian habitat. Thus, field investigation is necessary to confirm or deny wetland status based on the presents of hydric soils or support hydrophytes. Riparian habitat in this region would be indicated by cottonwood, willow, elm, invasive salt cedar and russian olive.

DJR contracted SWCA Environmental Consultants in August of 2024 to assess the drainage for wetland determination per 19.15.34.11 A.(6) NMAC. In the report provided to DJR titled, *Aquatic Resources Delineation Technical Memorandum*. SWCA Summarized the following regarding wetlands. This report is attached hereto as Exhibit F:

SWCA did not observe or delineate any wetland features during the August 2024 field survey due to the lack of three-parameter wetlands within the survey area. NWI-mapped riverine features investigated in the field were lacking an OHWM or three-parameter wetland characteristics and are likely erosional features from stormwater surface flows.

## **2.7. Distance to Subsurface Mines 19.15.34.11 A.(7)**

According to New Mexico Energy, Minerals and Natural Resources Department (EMNRD) Mining and Minerals Divisions database, there are no subsurface mines in Township 24N, Range 09W, San Juan County, New Mexico. See Exhibit E Map 1 showing mines regardless of status near the project area. The nearest EMNRD recorded permit (being a withdrawn permit) is a Humate pit approximately 20 miles south-southeast.

## 2.8. Site Stability 19.15.34.11 A.(8)

The recycling containment is not located in an unstable area. DJR's construction practices will provide adequate compaction of the pad surface for the anticipated load of the recycling facility and AST containment.

The following additional best management practices are implemented during pad construction to prevent equipment settling and ensure site stability.

- Prior to earthwork, all trees (if applicable) and slash/brush, is mulched and incorporated into the topsoil. Tree roots and trucks are removed from the site. The topsoil (vegetative root layer) and mulched organic matter is stripped from location and windrowed along the perimeter of location. Topsoil is not used for pad construction as the organic matter mixed within the soil prevents adequate compaction.
- Subsoil horizons are then utilized to construct a balanced (high areas are cut and used to fill low areas) location. Fill slopes are deposited and compacted in approximate 6-inch lifts with optimal soil moisture content.
- If soil is deemed too wet from inclement weather, it is not utilized as adequate compaction cannot be achieved. Additionally, if construction occurs during winter months, the frost layer if applicable is stripped and sub frost line soil horizons are utilized for construction to achieve adequate compaction that will not settle with warming temperatures.
- Cut and fill slopes around location are 3:1 or better to ensure surface and slope stability.
- The windrowed topsoil and any additional diversions found to be necessary are used to prevent surface sheet flow from entering location.
- Each AST containment will have a properly constructed foundation consisting of a firm, unyielding base, smooth and free of rocks, debris, sharp edges or irregularities to prevent the liner's rupture or tear.

Other factors contributing to site stability include:

- Per 19.15.34.11 A.(7) the location is not in an area overlying a subsurface mine according to the New Mexico EMNRD Mining and Minerals Divisions database.
- This area of New Mexico is not known for underlying caves and karst features.

## 2.9. Distance to 100-Year Floodplain 19.15.34.11 A.(9)

The recycling facility/containment is not located within a 100-year (1% annual) floodplain. As shown in Exhibit E Map 2, the project is in Zone X (area of minimal flood hazard). The nearest 100-year flood hazard area shown in Exhibit E Map 2 is 5,800 feet Northeast.

## 3. Design and Construction Specifications

Pursuant to 19.15.34.12 NMAC, the following Design Plan presents the minimum standards and specifications for the design and construction of the proposed recycling containment at the NU L26 Staging Area. The facility and recycling containment have been designed to prevent releases and potential overtopping due to wave action (by wind) or rainfall. To supplement the information provided below, the manufacturers specifications for the design and construction of the aboveground containment are provided as Exhibit G.

### 3.1. Foundation Construction

The containment AST will be constructed on DJR's existing Nageezi Unit L26 Staging and G-Tank pad. The AST footprint will have a properly constructed foundation consisting of a firm, unyielding base, smooth and free of rocks, debris, sharp edges or irregularities to prevent the liner's rupture or tear. The containment will ensure confinement of produced water, to prevent releases and to prevent overtopping due to wave action or rainfall. Geotextile is used under the liner to reduce localized stress-strain or protuberances that otherwise may compromise the liner's integrity. The containment is above ground and is not subject to water run-on.

## 3.2. Liner and Leak Detection

The containment will be Well Water Solutions and Rentals, Inc. double-lined frac water tank system. These tank systems are designed to incorporate a 40-mil thickness LLDPE primary (upper) string-reinforced liner and a 30-mil LLDPE secondary (lower) string- reinforced liner. The primary liner is designed to be impervious, synthetic material that will resist deterioration by ultraviolet light, petroleum hydrocarbons, salt solutions, and acidic/alkaline solutions. Liners meet or exceed the compatibility requirements of EPA SW-846 Method 9090A. Steel bolts secure

the liners to the top of the AST tank. Specifications provided by Well Water Solutions and Rentals, Inc. are attached as Exhibit G.

Liner seams are minimized and are oriented vertically up and down the containment walls, not horizontally across the containment. Factory welded seams are incorporated, where possible. Field seams, welding, and testing on the geosynthetic liners is performed by a manufacturer qualified person. For any field welded seams, liners will overlap 4 to 6 inches and be thermally sealed. Field seams are avoided or minimized in corners and irregularly shaped areas.

At a points of discharge into, or suction from, the recycling containment, the liner is protected from excessive hydrostatic force or mechanical damage. External discharge or suction lines do not penetrate the liners.

A leak detection system is installed between the upper and lower liners of the containment and consists of a 200-mil geonet drainage layer. The leak detection system covers the bottom and sides of the containment and includes a minimum of 3 feet of freeboard. A 6-inch PVC pipe is inserted in the sump at the bottom of the containment and between the liners. Each containment is slightly sloped, with the sump placed at the location with the lowest elevation to facilitate the earliest possible leak detection. A schematic of the leak detection system is included in Exhibit G.

The sump piping is checked weekly with a water-level meter to determine if leakage is occurring through the primary liner. If water is detected in the leak detection sump, water will be removed to assess if water returns indicating a leak in the primary liner. Controls for surface water run-on is not needed due to the containment being above ground level.

## 3.3. Signage

The facility will have a sign no less than 12" by 24" with lettering not less than 2" in height in a conspicuous place near the facility entrance. The sign will contain the operator's name, location of the facility by quarter-quarter or unit letter, Section, Township, Range, and emergency phone numbers.

## 3.4. Entrance Protection

Please see variance request attached as Exhibit H.

With the recycling containment being an AST with 12-foot wall height, entrance to containment would have to be intentional. There is no risk of accidental entrance into the containment by wildlife or the public. The site will be maintained to prevent harm to wildlife and the public.

### 3.5. Netting

DJR will install bird netting provided by the tank manufacturer over the containment. The netting will be inspected monthly for disrepair. The containment will be inspected weekly for dead migratory birds. DJR will report dead migratory birds and/or other wildlife to the appropriate wildlife agency, surface management agency, and NMOCD.

## 4. MAINTENANCE AND OPERATING PLAN

## 4.1. Inspection Timing and Maintenance

Pursuant to 19.15.34.13 NMAC, DJR will follow the maintenance and operational requirements described below. At a minimum, DJR will perform weekly inspections on the containment and leak detection system while the containment holds fluid. DJR will maintain records and make them available for review by the NMOCD.

- If fluids are found in the sump, the fluids will be sampled and then pumped out.
- DJR will remove any visible oil from the surface of the containment upon discovery.
- DJR will maintain a minimum of three feet of freeboard in the containment at all times.
- The injection and withdrawal of fluids from the containment shall be accomplished through a header, diverter or other hardware that prevents damage to the liner by erosion, fluid jets or impact from installation and removal of hoses or pipes.

- If a leak is discovered in the containments' primary liner above the liquid level in the containment, DJR will repair the primary liner within 48 hours, or request an extension on repair within the 48-hour time limit.
- If a leak is discovered in the containments' primary liner below the liquid level in the containment, DJR will notify the division office of the leak, remove all fluids above the leak level, and repair the primary liner within 48 hours, or request an extension on repair within the 48-hour time limit.
- The facility will be operated in such a way to prevent the collection of surface water.
- An oil absorbent boom or other device will be onsite to contain an unanticipated release.
- The facility will not be used for the storage or discharge of hazardous waste.

## 4.2. Reporting and Record Keeping

During operation of the recycling facility, DJR will keep accurate records and report monthly to the NMOCD the total volume of water received for recycling, with the volume of fresh water received listed separately, and the total volume of water leaving the facility for disposition of use. Water volume totals will be submitted on NMOCD Form C-148. Accurate records identifying the sources and disposition of recycled water will be maintained during the operation of the facility and made available for review to the NMOCD upon request.

## 4.3. Cessation of Operations

DJR will consider the recycling containment to have ceased operations if less than 20% of the total fluid volume is used every six (6) months following the first withdrawal of produced water for use. DJR will report cessation of operations to the appropriate NMOCD district office. If additional time is needed for closure, DJR will request an extension from the appropriate NMOCD district office prior to the expiration of the initial six (6) month time period.

## 5. CLOSURE PLAN

Pursuant to 19.15.34.14 NMAC, the activities summarized below describe the closure and reclamation requirements for the NU L26 Staging Area. Within 60 days of closure completion, DJR will submit a closure report on NMOCD Form C-147 and include required attachments to document all closure activities, sampling results, and details on backfilling, capping, or covering, where applicable.

### 5.1. Containment Closure

DJR will remove all fluids from the facility and containment within 60 days from the date that operations cease and close the containment from use within six months from the date that DJR ceases operations. Alternatively, DJR can request an extension for the removal of fluids from the NMOCD not to exceed an additional two months. DJR can also request an extension for the closure of the containment, not to exceed an additional six months.

DJR will remove all fluids, contents, synthetic liners, and leak detection piping and transfer these materials to an NMOCD-approved facility for disposal. All other equipment associated with the recycling containment and recycling facility will be removed from the site.

## 5.2. Closure Soil Sampling

Once the containment is removed, DJR will test the soils beneath for contamination with a five-point composite sample which includes stained or wet soils, if any, and that sample shall be analyzed for the constituents listed in the following table:

TABLE 1. CONTAMINATED SOIL TEST CONSTITUENTS

Constituents	Hest Method	Groundwater Depth 51 – 100 Feet	Groundwater Depth >100 Feet
Chloride	EPA 300.0	10,000 mg/kg	20,000 mg/kg
TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015M	2,500 mg/kg	2,500 mg/kg
GRO + DRO	EPA SW-846 Method 8015M	1,000 mg/kg	1,000 mg/kg

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	EPA SW-846 Method 8021B or 8260B	50 mg/kg	50 mg/kg
Benzene	EPA SW-846	10 mg/kg	10 mg/kg
	Method 8021B or 8260B		

If any contaminant concentration is higher than the parameter limits listed above, the NMOCD may require additional delineation upon review of the results and DJR must receive approval before proceeding with closure. If all contaminant concentrations are less than or equal to the parameter limits listed above, then DJR can proceed to backfill with non-waste containing, uncontaminated, earthen material.

## 5.3. Reclamation

The location will be reclaimed upon completion of use in accordance with the reclamation plan attached to the Nageezi Unit 213H approved APD. This reclamation plan was developed with, and approved by, the surface managing agency.

## EXHIBIT A. PLAT

### **CENTER OF STAGING AREA**

LATITUDE: 36.281811° N LONGITUDE: 107.769146° W DATUM: NAD83

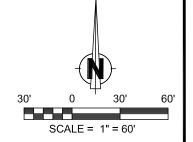
## DJR OPERATING, LLC NAGEEZI UNIT #213H

G-TANK AND STAGING AREA

LOCATED IN THE NE/4 SE/4 OF SECTION 27, T24N, R9W, N.M.P.M.,

SAN JUAN COUNTY. NEW MEXICO FINISHED PAD ELEVATION: 6860.6', NAVD 88

NU L26-2409



1.) BASIS OF BEARING: BETWEEN FOUND MONUMENTS AT THE SOUTHEAST CORNER AND THE EAST QUARTER CORNER OF SECTION 27, TOWNSHIP 24 NORTH, RANGE 9 WEST, N.M.P.M. SAN JUAN COUNTY, NEW

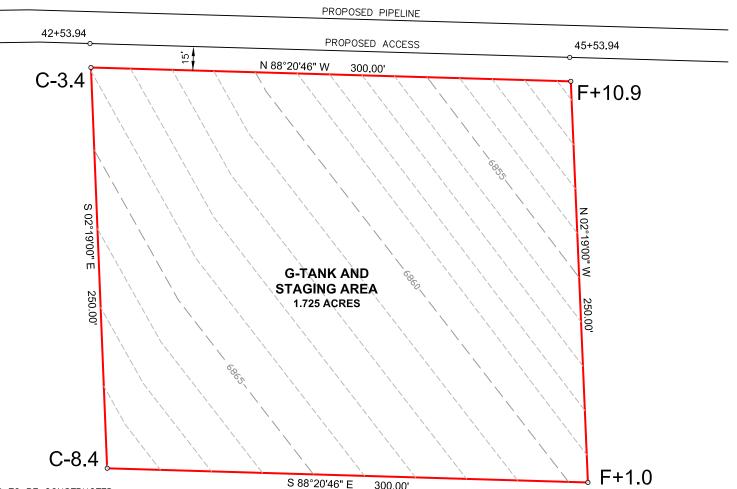
LINE BEARS: N 00'06'11" E A DISTANCE OF 2637.95 FEET AS MEASURED BY G.P.S. AND BASED ON THE N.M.S.P. COORDINATE SYSTEM (WEST ZONE).

2.) LATITUDE, LONGITUDE AND ELLIPSOIDAL HEIGHT BASED ON AZTEC CORS L1 PHASE

CENTER.
DISTANCES SHOWN ARE GROUND
DISTANCES USING A TRAVERSE MERCATOR
PROJECTION FROM A WGS84 ELLIPSOID,
CONVERTED TO NAD83. NAVD88 ELEVATIONS AS PREDICTED BY

3.) LOCATION OF UNDERGROUND UTILITIES DEPICTED ARE APPROXIMATE. PRIOR TO EXCAVATION UNDERGROUND UTILITIES SHOULD BE FIELD VERIFIED. ALL CONSTRUCTION ACTIVITIES SHOULD BE FIELD VERIFIED WITH NEW MEXICO ONE-CALL AUTHORITIES AT LWEST 48 HOURS PRIOR TO CONSTRUCTION.

4.) T-POSTS HAVE BEEN SET TO DEFINE THE EDGE OF DISTURBANCE LIMITS WHICH ARE 50' OFFSETS FROM THE EDGE OF THE STAKED WELL PAD.



~ SURFACE OWNERSHIP ~ BUREAU OF LAND MANAGEMENT

## TOTAL PERMITTED AREA 1.725 ACRES

SCALE: 1" = 100' DATE: 05/11/21 DRAWN BY: GRR

SLOPES TO BE CONSTRUCTED TO MATCH THE ORIGINAL CONTOURS AS CLOSE AS POSSIBLE.

CHENAULT CONSULTING, INC. IS NOT LIABLE FOR UNDERGROUND UTILITIES OR PIPELINES. CONTRACTOR SHOULD CALL ONE-CALL FOR LOCATION OF ANY MARKED OR UNMARKED, BURIED PIPELINES OR CABLES ON WELL PAD, IN CONSTRUCTION ZONE AND/OR ACCESS ROAD AT LEAST TWO (2) WORKING DAYS PRIOR TO CONSTRUCTION.

CCI

## CHENAULT CONSULTING INC.

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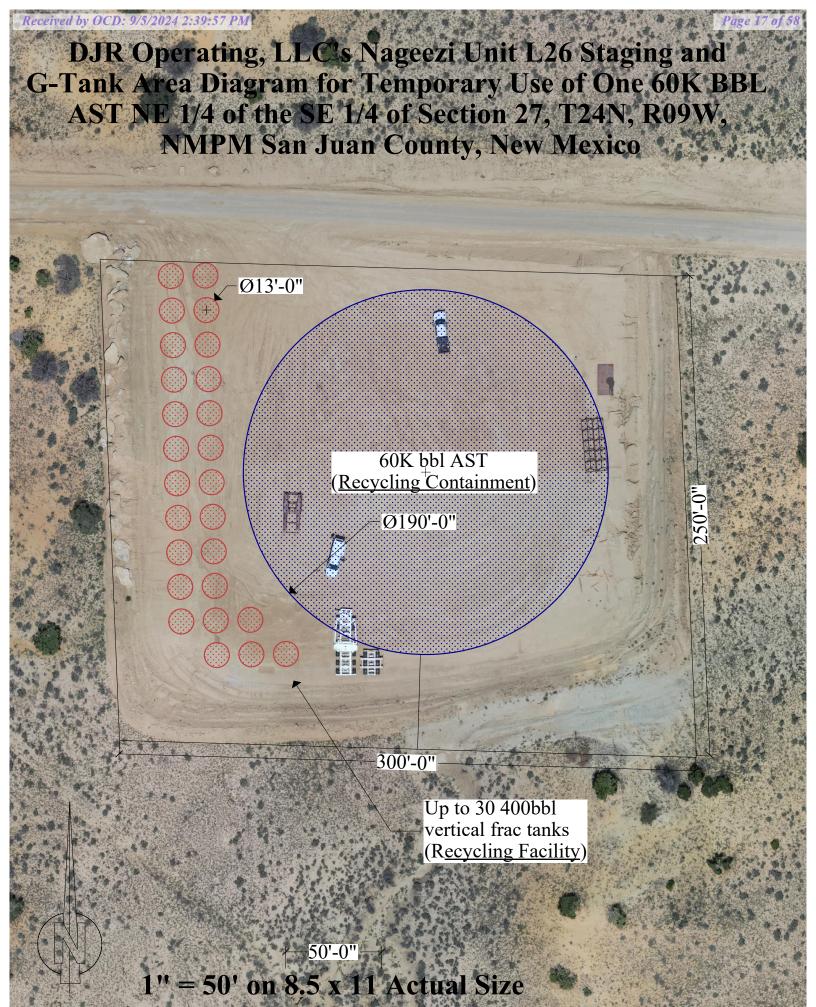
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4800 COLLEGE BLVD. SUITE 201 FARMINGTON, NM 87402 (505)-325-7707



# EXHIBIT B. RECYCLING FACILITY AND RECYCLING CONTAINMENT SITE DIAGRAM



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## **EXHIBIT C. SURFACE OWNER NOTIFICATION**

Form 3160-3 FORM APPROVED OMB No. 1004-0137 (June 2015) Expires: January 31, 2018 **UNITED STATES** DEPARTMENT OF THE INTERIOR 5. Lease Serial No. BUREAU OF LAND MANAGEMENT APPLICATION FOR PERMIT TO DRILL OR REENTER 6. If Indian, Allotee or Tribe Name 7. If Unit or CA Agreement, Name and No. DRILL REENTER 1a. Type of work: 1b. Type of Well: Oil Well Gas Well Other 8. Lease Name and Well No. 1c. Type of Completion: Hydraulic Fracturing Single Zone Multiple Zone 9. API Well No. 30-045-38293 2. Name of Operator 10. Field and Pool, or Exploratory 3a. Address 3b. Phone No. (include area code) 4. Location of Well (Report location clearly and in accordance with any State requirements.\*) 11. Sec., T. R. M. or Blk. and Survey or Area At surface At proposed prod. zone 14. Distance in miles and direction from nearest town or post office\* 12. County or Parish 13. State 15. Distance from proposed\* 16. No of acres in lease 17. Spacing Unit dedicated to this well location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 18. Distance from proposed location\* 19. Proposed Depth 20. BLM/BIA Bond No. in file to nearest well, drilling, completed, applied for, on this lease, ft. 21. Elevations (Show whether DF, KDB, RT, GL, etc.) 22. Approximate date work will start\* 23. Estimated duration 24. Attachments The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable) 1. Well plat certified by a registered surveyor. 4. Bond to cover the operations unless covered by an existing bond on file (see 2. A Drilling Plan. Item 20 above). 3. A Surface Use Plan (if the location is on National Forest System Lands, the 5. Operator certification. SUPO must be filed with the appropriate Forest Service Office). 6. Such other site specific information and/or plans as may be requested by the 25. Signature Name (Printed/Typed) Date Title Approved by (Signature) Name (Printed/Typed) Date Title Office Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon. Conditions of approval, if any, are attached. Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction



## EXHIBIT D. GROUND WATER REPORT

## **Point of Diversion Summary**

quarters are 1=NW 2=NE 3=SW 4=SE quarters are smallest to largest

NAD83 UTM in meters

Well Tag	POD Nbr	Q64	Q16	Q4	Sec	Tws	Rng	X	Υ	Мар
	SJ 01712		NE	SE	27	24N	09W	251195.0	4018933.0 *	

\* UTM location was derived from PLSS - see Help

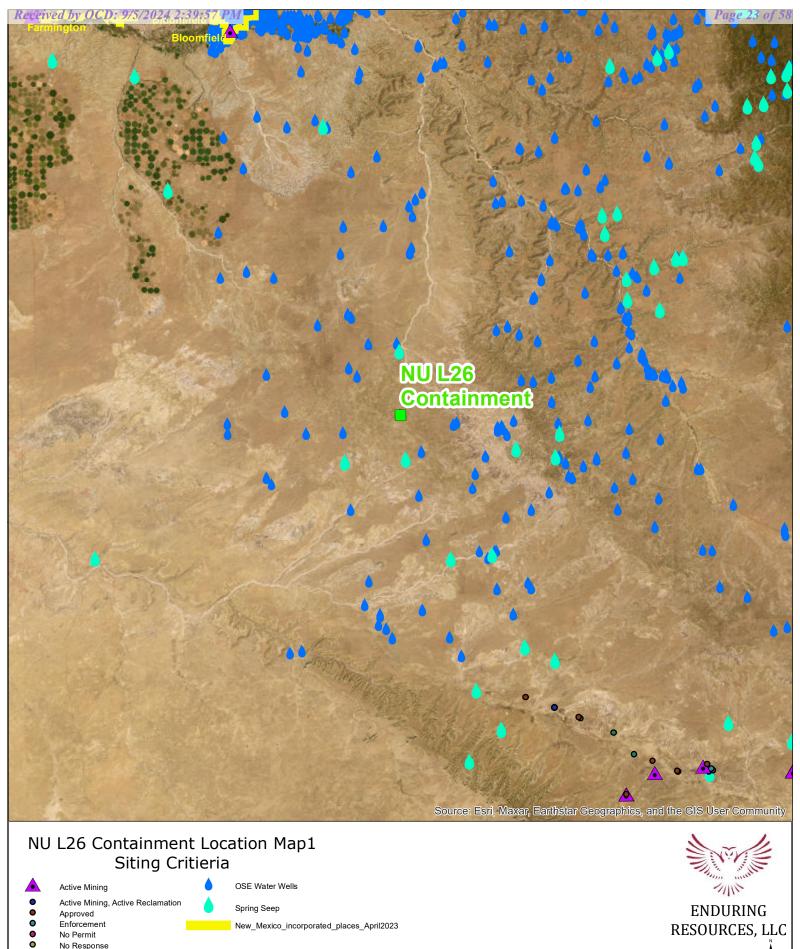
Driller License:		Driller Company:			
Driller Name:	OREN KIRK D	RILLING CO.			
<b>Drill Start Date:</b>	1963-06-10	Drill Finish Date:	1964-02-26	Plug Date:	
Log File Date:		PCW Rcv Date:		Source:	Shallow
Pump Type:		Pipe Discharge Size:		Estimated Yield:	25
Casing Size:	6.63	Depth Well:	528	Depth Water:	515

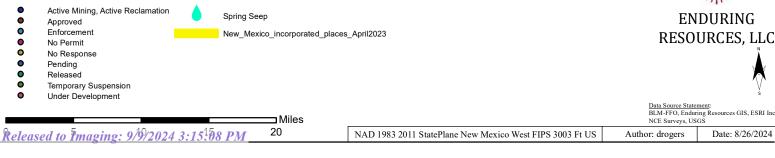
The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, or suitability for any particular purpose of the data.

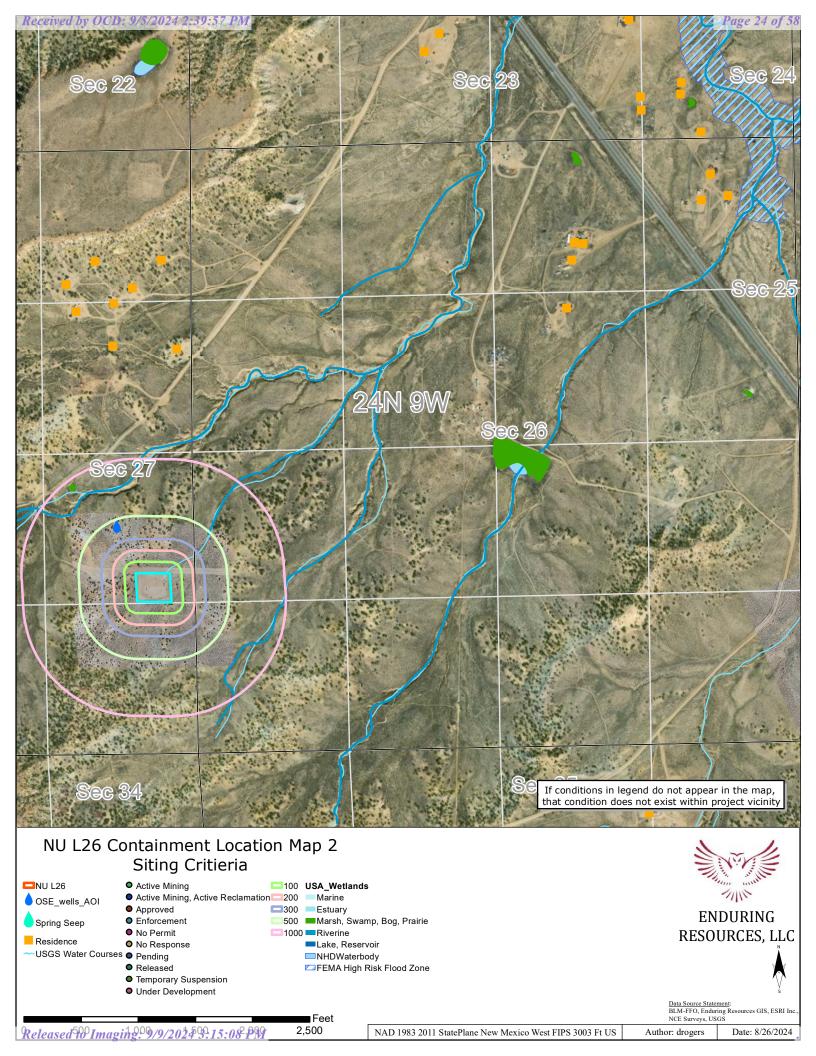
8/26/24 1:10 PM MST Point of Diversion Summary

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## **EXHIBIT E. SITING CRITERIA MAPS**







# EXHIBIT F. AQUATIC RESOURCES DELINEATION TECHNICAL MEMORANDUM



7770 Jefferson Street NE, Suite 410 Albuquerque, New Mexico 87109 Tel 505.254.1115 Fax 505.254.1116

## AQUATIC RESOURCES DELINEATION TECHNICAL MEMORANDUM

To: Casey Haga, Enduring Resources IV, LLC

From: SWCA Environmental Consultants

**Date:** August 30, 2024

Re: Enduring's Nageezi Unit L26 Project in San Juan County, New Mexico, Aquatic

Resource Delineation Technical Memorandum / SWCA Project No. 75253-103

## 1. INTRODUCTION

SWCA Environmental Consultants (SWCA) was retained by Enduring Resources IV, LLC (Enduring), to complete an aquatic resources delineation survey, commonly referred to as a wetland delineation, and associated technical memorandum for a recycling containment facility associated with the Nageezi Unit L26 Project (project) in San Juan County, New Mexico. The project area comprises 12.8 acres with approximately 5 acres on land managed by the Bureau of Land Management Farmington Field Office, and approximately 7.8 acres located on Navajo-allotted land and managed by the Bureau of Indian Affairs Federal Indian Minerals Office. The project components consist of one well pad, one G-tank and staging area, and an access road (project area) (see Figure A-1 in Appendix A). A survey area that consists of the project area plus a 200-foot buffer was evaluated for aquatic resources. The approximate center point of the survey area is at latitude 36.282680°, longitude –107.765376°.

The goal of conducting this aquatic resources delineation survey was to identify the potential presence and extent of features that may be jurisdictional waters of the United States. (WOTUS) under Section 404 of the Clean Water Act (CWA) of 1972, as amended (*Federal Register* 88:61964). A delineation of aquatic resources includes the identification and recording of features if present, that may be determined to be WOTUS by the U.S. Army Corps of Engineers (USACE).

SWCA prepared this aquatic resources delineation technical memorandum, which summarizes aquatic resources desktop and field data, to support Enduring's application for permit or registration specific to 19.15.34 New Mexico Administrative Code (NMAC) via Form C-147. This technical memorandum serves as a record of existing aquatic resources that may be determined to be WOTUS, including wetlands and aquatic resources exhibiting an ordinary high-water mark (OHWM) in accordance with the USACE methods and guidance. The NMAC does not provide methods or guidance on determining watercourses or wetlands.

Regulatory considerations, survey methodology, survey results, and a summary section are presented below.

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## 2. Regulatory Considerations

## Waters of the United States

On September 8, 2023, the "Revised Definition of 'Waters of the United States" rule as amended (2023 Amended Rule) (*Federal Register* 88:61964) went into effect and is currently applicable in the State of New Mexico.

WOTUS regulations, including the current 2023 Amended Rule, do not clearly define the differences between flow duration regimes (ephemeral, intermittent, and perennial). Because the 2023 Amended Rule removes the former significant nexus test, we no longer have a tool to assess connectivity for certain features where continuous connectivity is questionable. Currently, the USACE is developing guidance for how districts will assess non-relatively permanent waters and non-adjacent wetland waters (*Federal Register* 88:61964).

In general, WOTUS include traditional navigable waters, wetlands adjacent to traditional navigable waters, and relatively permanent waters defined as tributaries and wetlands adjacent to navigable waters that have a continuous surface connection and standing or continuously flowing bodies of water (U.S. Environmental Protection Agency 2024).

Wetlands are special aquatic sites defined by the USACE as "areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (USACE 1987). To meet the basic definition of a wetland, an area must contain the following three parameters under normal circumstances: 1) the presence of wetland hydrology indicators showing regular inundation, 2) a dominance of hydrophytic (water-loving) vegetation, and 3) soil characteristics and indicators of frequent saturation (i.e., hydric soils) (USACE 1987).

SWCA evaluated the presence/absence and characteristics of field-delineated surface aquatic resources to develop a professional opinion of potential WOTUS jurisdiction based on the 2023 Amended Rule and current guidance received by the USACE Albuquerque District at the time this document was prepared. The USACE has the regulatory authority and discretion in determining the jurisdictional status of aquatic resources at a given site.

## 19.15.34 New Mexico Administrative Code

19.15.34 NMAC applies to the transportation, disposal, recycling, reuse, or the direct surface or subsurface disposition by use of water produced or used in connection with the development or production of oil or gas or both; in road construction or maintenance, or other construction; and in the generation of electricity or in other industrial processes. 19.15.34 NMAC also applies to the transportation of drilling fluids and liquid oil field waste.

A permit or registration, depending on the proposed activity, for recycling and reuse of produced water, drilling fluids, and liquid oil field waste including recycling containment is required via New Mexico Energy, Minerals and Natural Resources Department Oil Conservation Division's (NMOCD's) Form C-147.

Enduring is proposing recycling containment as part of the project, requiring compliance with 19.15.34.11 NMAC. As defined in 19.15.34.10(B) recycling containments may hold produced water for use in connection with drilling, completion, producing, or processing oil or gas or both. Such fluids may include fresh water, brackish water, recycled and treated water, fluids added to water to facilitate well drilling or completion, water produced with oil and gas, flowback from operations, water generated by

an oil or gas processing facility, or other waters that are gathered for well drilling or completion but may not include any hazardous waste. Form C-147 siting criteria require that a recycling containment not be located

- where groundwater is less than 50 feet below the bottom of the containment;
- within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse or lakebed, sinkhole, or playa lake (measured from the OHWM);
- within 500 feet of a spring or freshwater well used for domestic or stock watering purposes in existence at the time of the initial registration;
- within incorporated municipal boundaries or within a defined municipal freshwater well field covered by a municipal ordinance adopted pursuant to Section 3-27-3 New Mexico Statutes 1978, as amended, unless the municipality specifically approves the recycling containment in writing;
- within 500 feet of a wetland; or
- within a 100-year floodplain.

Watercourse is defined in 19.15.2.7 NMAC as "a river, creek, arroyo, canyon, draw or wash or other channel having definite banks and bed with visible evidence of the occasional flow of water." Wetlands are defined in 19.15.2.7 NMAC as "areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions in New Mexico." The term "significant" is not defined in NMAC.

## 3. METHODOLOGY

The aquatic resources inventory included a desktop review of existing data and a field survey of the project area plus the 200-foot buffer as requested by Enduring (Haga 2024), as described below.

## 3.1 Existing Data Review

A desktop review of existing publicly available data prior to the aquatic resources field survey was completed to evaluate surface aquatic resources within and adjacent to the proposed project area.

Sources reviewed included the U.S. Geological Survey (USGS) National Hydrography Dataset (NHD) (USGS 2016), U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) maps (USFWS 2024), Federal Emergency Management Agency (FEMA) National Flood Hazard Layer (FEMA 2024), Natural Resources Conservation Service (NRCS) Web Soil Survey (NRCS 2024a) and hydrologic soil groups (NRCS 2024b), historic and current aerial imagery of the project area (Google Earth Pro 2024), and the USGS Watershed Boundary Dataset (USGS 2021). SWCA used the USACE's Antecedent Precipitation Tool (Version 2.0.0) (USACE 2023) to evaluate the conditions leading up to, and during, the site visit relative to normal conditions, seasonality, and typical-year considerations.

## 3.2 Field Survey

## 3.2.1 Wetlands

The presence/absence of wetlands is determined in the field using delineation methods described in the Corps of Engineers Wetlands Delineation Manual (USACE 1987) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0) (Regional Supplement) (USACE 2008a). Data at each potential wetland are recorded on Regional Supplement wetland

determination data forms (data sheets). Determination of wetland habitat type is based on the classification system developed by Cowardin et al. (1979). Wetland plant indicator status is based on the 2020 National Wetland Plant List (USACE 2020) for each species and is recorded on data sheets. Soil colors are identified using Munsell Soil Color Charts (Munsell Color 2010). Wetland boundaries are delineated where the three fundamental characteristics of hydrophytic vegetation, hydric soils, and hydrology are present.

## 3.2.2 Non-wetland Waters

The presence and extent of non-wetland water features (e.g., streams, creeks, and ponds) was determined in the field using the guidance and methods provided in the USACE Regulatory Guidance Letter 05-05 (USACE 2005) and the USACE technical guidance, A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States (USACE 2008b). An OHWM is the line on a shore or bank established by fluctuations of water and is typically identified by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas. The spatial extent of non-wetland waters was delineated using the identified OHWM for each feature.

For stream features exhibiting an OHWM, SWCA conducted a streamflow duration assessment in the field using *User Manual for a Beta Streamflow Duration Assessment Method for the Arid West of the United States* (Mazor et al. 2023). The Streamflow Duration Assessment Method (SDAM) is a rapid, field-based method to determine flow duration class at the reach scale in the absence of long-term hydrologic data. Use of the SDAM may inform a range of activities where information on streamflow duration is useful, including certain jurisdictional determinations under the CWA; however, the SDAM is not a jurisdictional determination (Mazor et al. 2023). The method is specific to the Arid West Region and relies on five indicators to determine stream flow classification: perennial, intermittent, ephemeral, at least intermittent, and need more information. The field delineation crews recorded the status of these five indicators on a field form for every surface water feature in the survey area with an OHWM.

## 3.2.3 Mapping

A handheld GPS receiver set to submeter accuracy was used to record the spatial extent of features, geographically reference data points, and demarcate wetland and water body boundaries during the field survey. Geographic information system (GIS) software was used to analyze recorded features, calculate areas, and generate the survey area maps.

## 4. RESULTS

## 4.1 Existing Data Review Results

The project area is entirely within the Blanco Canyon watershed (Hydrologic Unit Code 1408010305) (USGS 2021). The entire survey area is within FEMA Flood Zone X, an area of minimal flood hazard. The survey area did not intersect FEMA-designated 100-year flood zones (area of special flood hazards). According to the existing data review, two NHD-mapped flowlines intersect the project area and one coinciding NWI-mapped riverine wetland overlaps the survey area (USFWS 2024; USGS 2016) (Table; also see Figure A-1 in Appendix A).

Table 1. National Hydrography Dataset and National Wetlands Inventory Features Mapped within the Survey Area

Aquatic Resource (NHD Identifier)	Length (linear feet) in Survey Area	Area (acres) in Survey Area
NHD Flowline		
Intermittent stream/river (14080103003539)	267	-
Intermittent stream/river (14080103003540)	826	-
NWI Wetlands		
Riverine	-	0.4

Sources: USFWS (2024); USGS (2016)

Hydric soils are formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions (NRCS 2024b) and are one of the three fundamental characteristics of wetlands unless problematic conditions exist. There are no mapped soil units in the project area that are considered hydric (Table 2).

Table 2. Mapped Soil Units in the Survey Area

Soil Map Unit Name	Soil Map Unit Number or Symbol	Hydric	Total Acres in Survey Area	Percent of Survey Area
Blancot-Notal association, gently sloping	ВТ	No	7.7	25.2%
Fruitland-Persayo-Sheppard complex, hilly	FX	No	22.7	74.8%
Total	-	-	30.4	100.0

Source: NRCS (2024a, 2024b)

Based on the results of the Antecedent Precipitation ToolAPT (Product of 14), the project area experienced normal wetness conditions (Table 3) (USACE 2023). The survey was conducted during the dry season, and the drought index was rated as "mild drought." Any wetland hydrology indicators observed during SWCA's August 2024 field survey reflect those that would be expected in a typical year for this area.

Table 3. Antecedent Precipitation Tool Results for Survey Area

30 Days Ending	30th Percentile (inches)*	70th Percentile (inches) <sup>†</sup>	Observed (inches) <sup>‡</sup>	Wetness Condition§	Condition Value <sup>¶</sup>	Month Weight*	Product**
August 14, 2024	0.94	2.39	1.20	Normal	2	3	6
July 15, 2024	0.17	0.91	2.35	Wet	3	2	6
June 15, 2024	0.03	0.56	0.27	Normal	2	1	2
Result							14 (Normal)

<sup>\* 30</sup>th percentile represents the lower limit of the 30-year normal range for the month.

<sup>&</sup>lt;sup>†</sup> 70th percentile represents the upper limit of the 30-year normal range for the month.

<sup>&</sup>lt;sup>‡</sup> Observed: Total precipitation recorded during the month.

<sup>§</sup> Wetness Condition: Observed value above 30-year normal range (wet), observed value less than 30-year normal range (dry).

<sup>¶</sup> Condition Value: wet = 3, normal = 2, dry = 1.

<sup>\*</sup> Month Weight: first 30-day period = 3, second 30-day period = 2, third 30-day period = 1.

## 4.2 Field Results

The aquatic resources delineation survey was completed on August 14, 2024. At the time of the survey, the access road was complete and other project components were under construction.

### 4.2.1 Wetlands

SWCA did not observe or delineate any wetland features during the August 2024 field survey due to the lack of three-parameter wetlands within the survey area. NWI-mapped riverine features investigated in the field were lacking an OHWM or three-parameter wetland characteristics and are likely erosional features from stormwater surface flows.

## 4.2.2 Non-wetland Waters

No potentially jurisdictional non-wetland waters containing OHWM were identified within the survey area. The two NHD-mapped flowlines were field-verified as vegetated upland swales or isolated erosional features (e.g., headcuts) without strong, reliable, and consistent OHWM indicators (EF01 and EF04–EF05[same NHD-mapped feature]). Two unmapped erosional features were also observed and documented in the field as vegetated upland swales or isolated erosional features (EF02 and EF03) (Table 3; see also Figure A-1 in Appendix A). Photographs of these features and upland areas are provided in Appendix B.

Table 3. Erosional Features in the Survey Area

Feature ID	Aquatic Resource Type	Coincides with mapped NHD and/or NWI Feature (Yes or No)	Notes
EF01	Erosional feature (headcut)	Yes	Some sediment transport but no reliable, strong, or consistent OHWM indicators
EF02	Erosional feature (swale)	No	No reliable, strong, or consistent OHWM indicators
EF03	Erosional feature (discontinuous channel)	No	Some channelizing but no reliable, strong, or consistent OHWM indicators before feature dissipates to sheet flow
EF04	Erosional feature (headcut and swale)	Yes	Some sediment transport but no reliable, strong, or consistent OHWM indicators
EF05	Erosional feature (headcut and swale)	Yes	Some sediment transport but no reliable, strong, or consistent OHWM indicators

## 5. Summary

Based on the regulatory considerations provided in Section 2, evaluation of the survey area and observed aquatic resources, and SWCA's understanding of the USACE Albuquerque District's current policies regarding jurisdictional determinations, it is SWCA's professional opinion that per the 2023 Amended Rule, no features present within the survey area would be considered jurisdictional WOTUS by the USACE. Erosional features, as those observed in the survey area, are excluded from WOTUS jurisdiction (40 Code of Federal Regulations 120.2(b)(8)).

Pursuant to 19.15.34 NMAC, no OHWMs were observed within 200 feet of the project area. Therefore, no significant watercourse is likely to occur within 200-feet of the proposed recycling containment. Additionally, neither the project area nor the survey area intersect a FEMA 100-year flood zone.

<sup>\*\*</sup> Product: Antecedent Condition Calculation (condition value x month weight).

The results and summary provided are based on SWCA's professional opinion. Only the USACE has final and legal authority for determining the presence of jurisdictional WOTUS and the extent of their boundaries. Only the NMOCD has final and legal authority for determining the presence of continuously flowing watercourses, significant watercourses, or wetlands and the extent of their boundaries for the purposes of permitting and/or registration applicable to 19.15.34 NMAC.

## LITERATURE CITED

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## **APPENDIX A**

**Aquatic Resources Delineation Figures** 

Enduring's Nageezi Unit L26 Project in San Juan County, New Mexico, Aquatic Resource Delineations Technical Memorandum

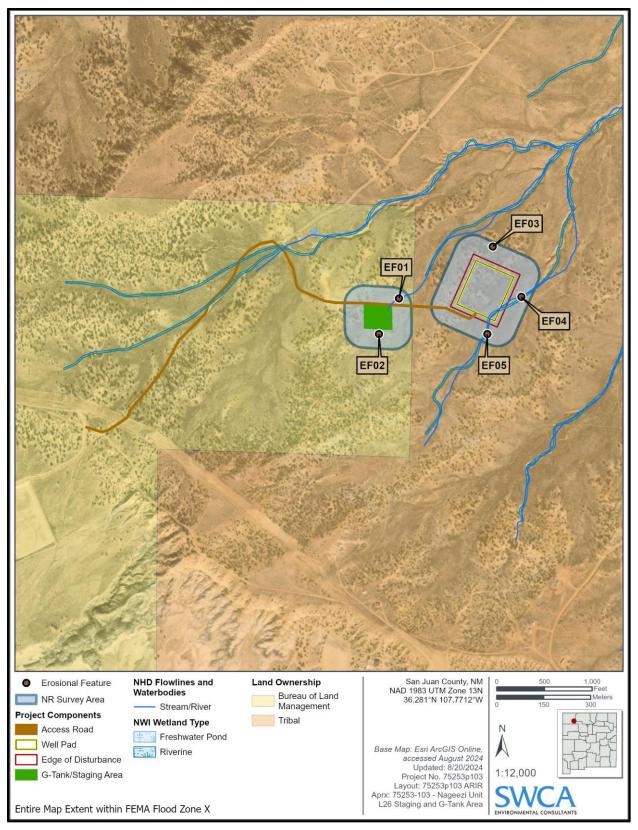


Figure A-1. Overview of desktop aquatic resources data and field-assessed aquatic resources data within the survey area.

## **APPENDIX B**

**Photographs** 



Photograph B-1. Overview of EF01, an erosional feature that does not contain an OHWM, facing upstream (southwest).



Photograph B-2. Overview of EF01, an erosional feature that does not contain an OHWM, facing downstream (northeast).



Photograph B-3. Overview of EF02, an erosional feature that does not contain an OHWM, facing upstream (south).



Photograph B-4. Overview of EF02, an erosional feature that does not contain an OHWM, facing downstream (north).



Photograph B-5. Overview of EF03, an erosional feature that does not contain an OHWM, facing upstream (north).



Photograph B-6. Overview of EF03, an erosional feature that does not contain an OHWM, facing downstream (south).



Photograph B-7. Overview of EF04, an erosional feature that does not contain an OHWM, facing upstream (southwest).



Photograph B-8. Overview of EF04, an erosional feature that does not contain an OHWM, facing downstream (northeast).

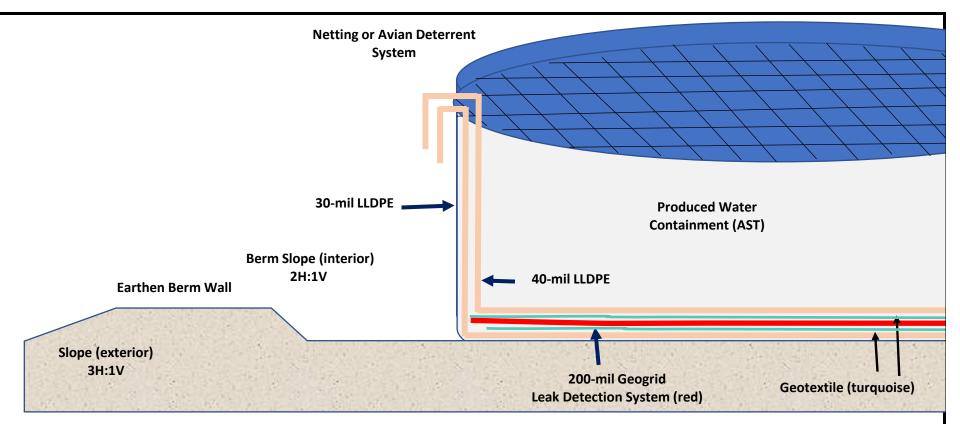


Photograph B-9. Overview of EF05, an erosional feature that does not contain an OHWM, facing upstream (south).



Photograph B-10. Overview of EF05, an erosional feature that does not contain an OHWM, facing downstream (north).

## **EXHIBIT G. MANUFACTURE SPECIFICATION**



## Description of Leak Detection System

- · 40-mil LLDPE comprise primary liner and 30-mil LLDPE comprise the secondary liner
- 200-mil geogrid drainage layer lies between the primary and secondary liner per Plate 2
- · Geotextile between the geogrid and each liner
- > 3-inch deep sump excavated on down slope side of AST per Sump Design Drawing
- A small hose runs from the collection sump to top of AST via tube (see Section D)
- Every week, a portable self-priming peristaltic pump connects to the leak detection system.
- The self-priming pump discharge hose runs back into the AST, on top of the primary liner
- If fluid is detected, it is tested for conductance to determine the origin of the water (i.e. produced water or condensation)

R.T. Hicks Consultants Albuquerque, NM	Design Sketch	Plate 1
	Well Water Solutions	May-21

Use laser level to determine slope of pad and low point of AST

200 mil geogrid placed

above 8-oz geotextile and 30-mil secondary liner inside of AST after set up, before install of primary liner below 40-mil primary liner

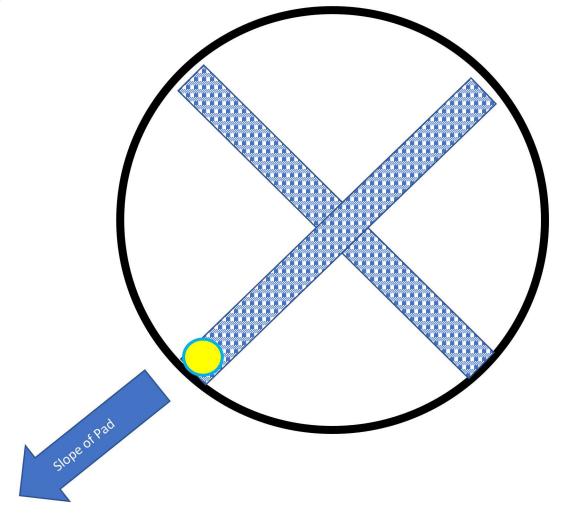
8-oz geotextile is placed

over the 30-mil LLDPE liner inside the steel AST ring under the 40-mil primary liner inside the AST

Sump at lowest point of the AST set up



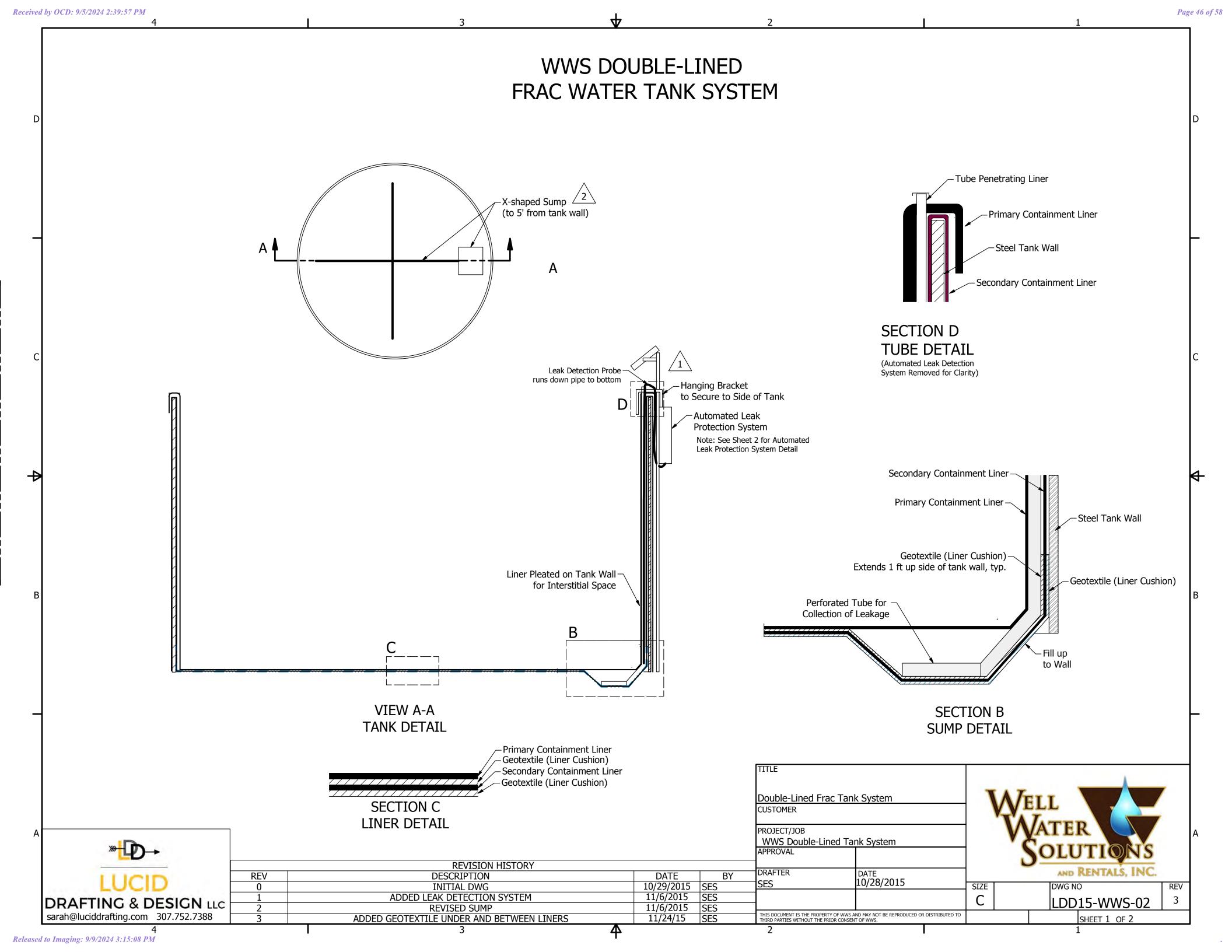
**Sump Location** 

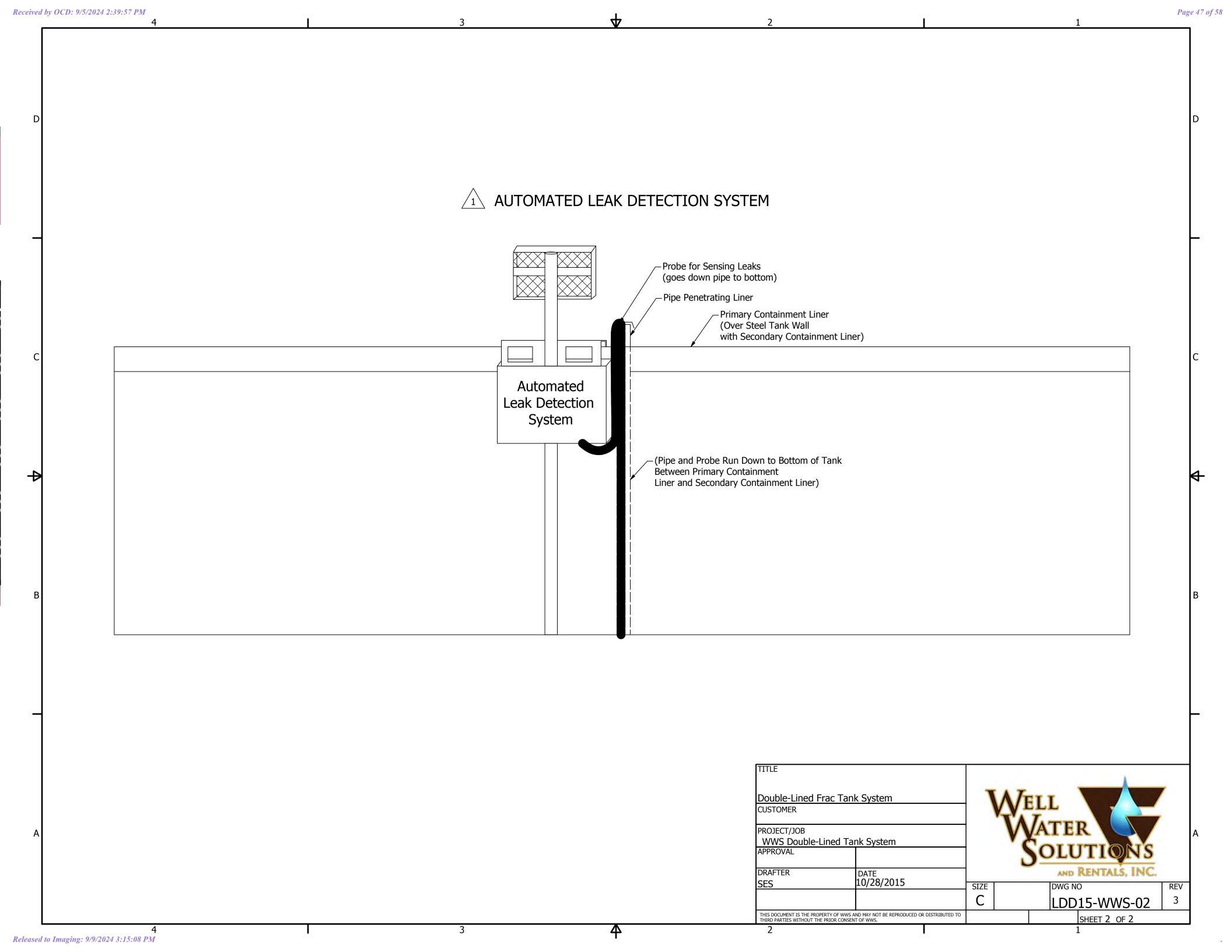


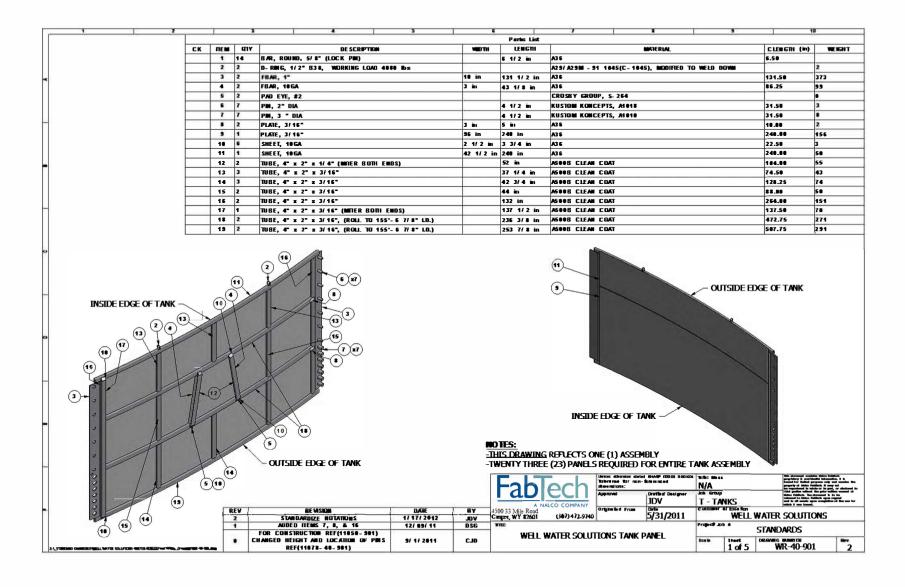
0	50	100

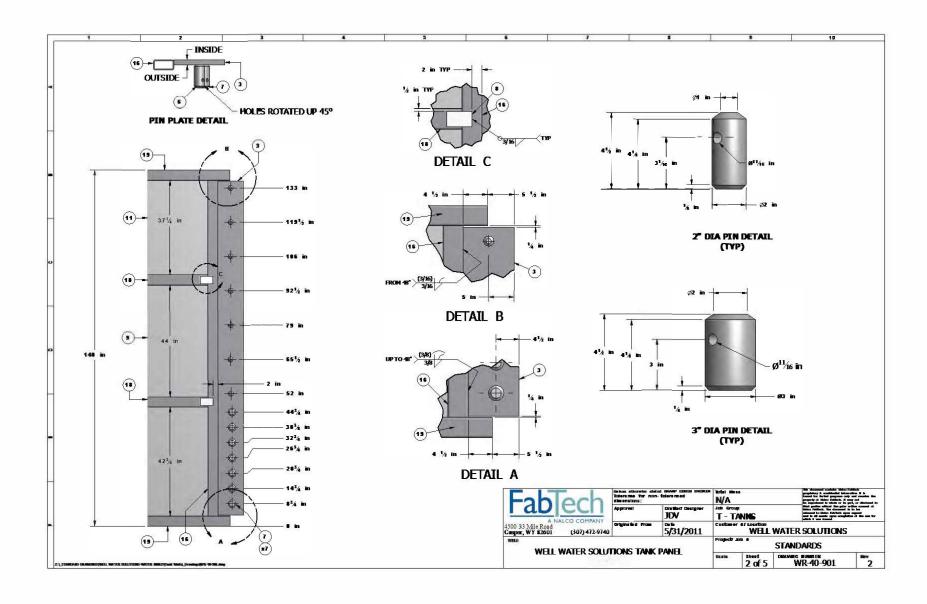
R.T. Hicks Consultants Albuquerque, NM	Layout of Geogrid Drainage Mat	Plate 1
	WWS - New Mexico Produced Water Set Up	June 2021

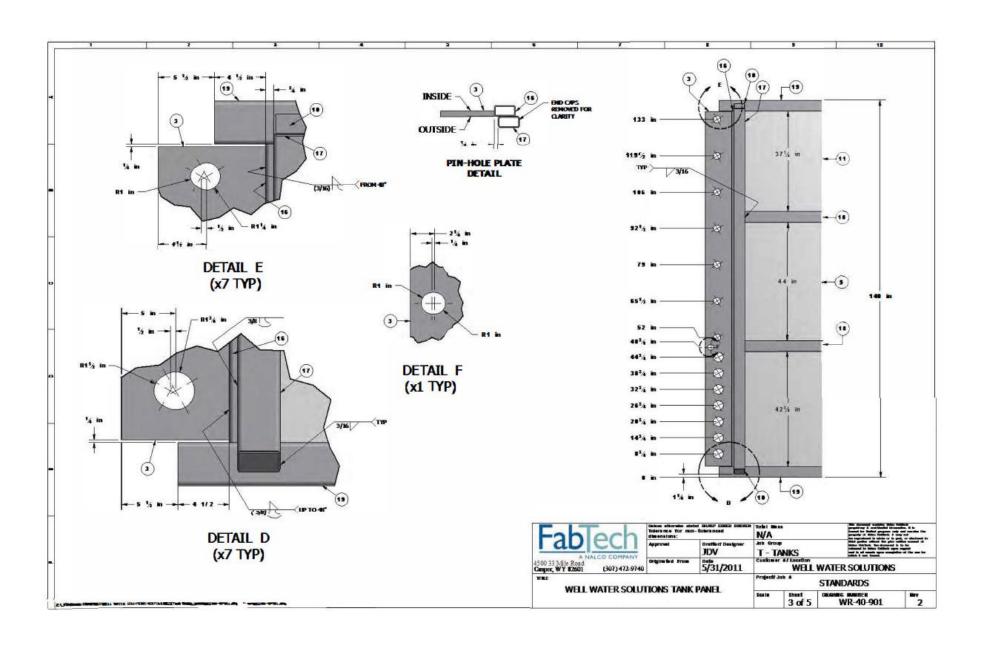
Released to Imaging: 9/9/2024 3:15:08 PM

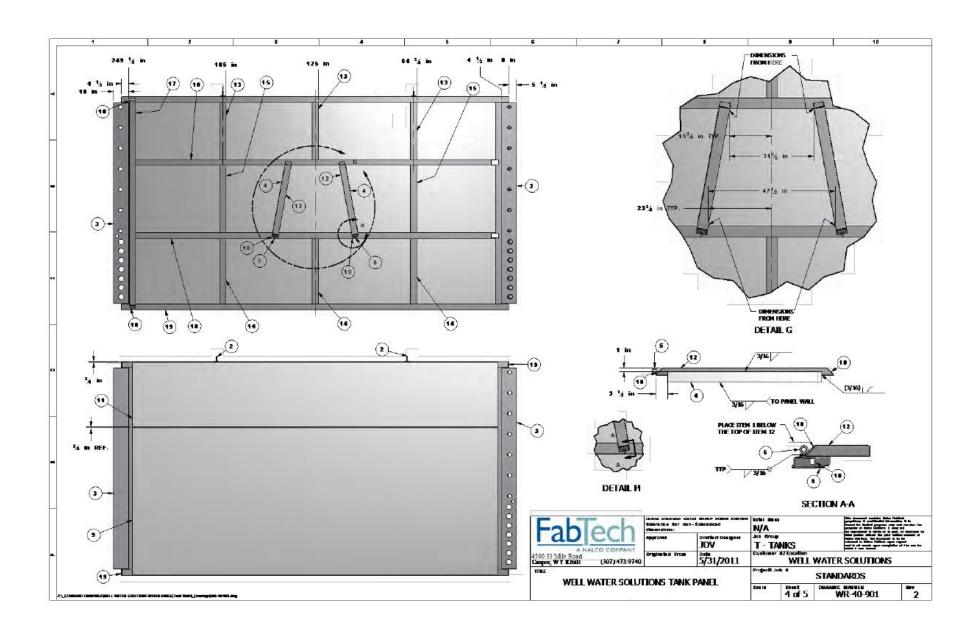


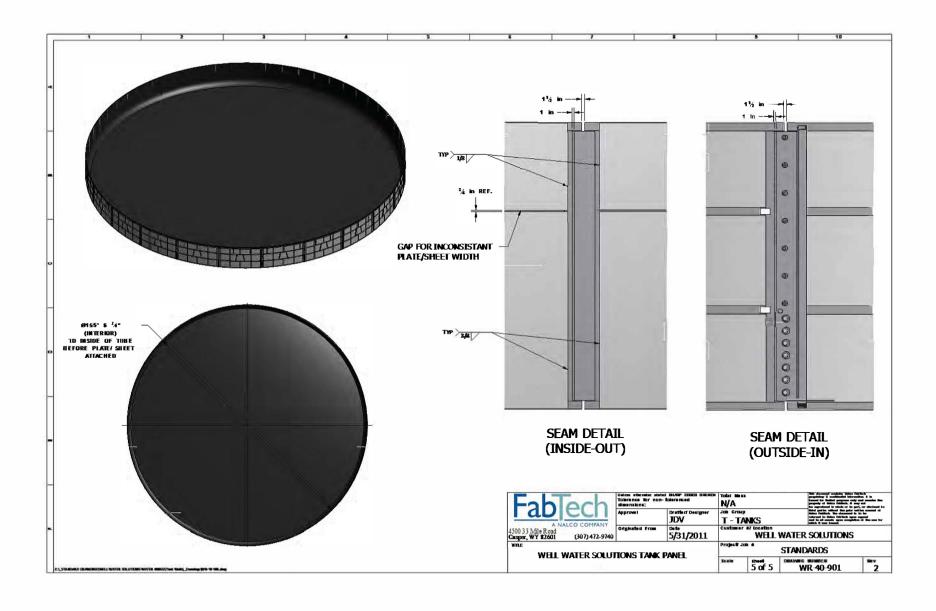














# **TANK SIZE CHART**

TANK SIZE BBLS	PANEL COUNT	INSIDE DIAMETER (FEET)	VOLUME BBLS	BBLS/INCH	SECONDARY CONTAINMENT (ADD 2 PANELS)	SECONDARY CONTAINMENT DIAMETER	TOTAL FEET OF CONTAINMENT
6,000	9	60' 2"	6,090	43.5	11	75'	234'
10,000	12	81' 2"	10,753	76.8	14	95'	298'
13,000	13	87' 10-5/8"	12,609	90.1	15	101'	318'
17,000	15	101.4285	16,800	120	17	115'	361'
20,000	16	108' 2"	19,115	136.53	18	122'	384'
22,000	17	114' 11-7/16"	21,564	154.03	19	135'	426'
27,000	19	128' 6-1/4"	26,954	192.53	21	142'	446"
30,000	20	135' 3-3/8"	29,867	213.35	22	149'	468'
33,000	21	142' 0-9/16"	32,928	235.2	23	156'	489'
36,000	22	148' 9-11/16"	36,139	258.14	24	163'	510'
40,000	23	155' 6-7/8"	39,499	282.14	25	170'	532'
43,000	24	162' 4-1/16"	43,008	307.2	26	176'	553'
47,000	25	169' 1-3/16"	46,667	333.34	27	183'	574'
50,000	26	175' 10-5/16"	50,475	360.54	28	190'	595'
55,000	27	182' 7-9/16"	54,433	388.8	29	196'	617'
60,000	28	189' 4-11/16"	58,539	418.14	30	203'	638'
62,500	29	196' 1/16"	62,500	446.43	31	210'	658'
67,000	30	202' 10 6/16"	66,885	477.75	32	216'	678'
72,000	31	209' 7-7/16"	71,705	512.18	33	223'	701'
77,000	32	216' 4-9/16"	76,405	545.75	34	230'	722'
81,000	33	223' 1-11/16"	81,254	580.39	35	237'	744'

## EXHIBIT H. VARIANCE REQUESTS

6300 S Syracuse Way Centennial, CO 80111 Field Office: 505.636.9720 | Main Office: 303.573.1222

Enduring Resources IV, LLC Nageezi Unit L26 Staging and G-Tank Area Recycling Containment and Recycling Facility Variance Request for 19.15.34 NMAC

New Mexico Oil Conservation Division

Attn: Victoria Venegas

Enduring Resources is requesting variances to the below listed items as outlined in 19.15.34 NMAC. This Recycling Containment/Facility will consist of self-contained free-standing structures instead of a lined earthen pit. The variances requested below will provide equal or better protection of fresh water, public health, and the environment.

### Variance Requests:

Inside/Outside Levee Slopes: Enduring Resources requests a variance to NMAC 19.15.34.12 (A)(2) which applies to a lined earthen pit. The containment is an AST not an in-ground pond; therefore, will not have inside/outside levee slopes. The AST is a self-contained free-standing structure that will provide equal or better protection than the requirements listed in 19.15.34.12 (A)(2) NMAC.

Liner Anchoring: Enduring Resources requests a variance to NMAC 19.15.34.12 (A)(3) which applies to a lined earthen pit. This statute is not applicable to a circular steel AST with liners clamped to the top of the steel containment panels. We believe this will provide equal or better protection than the requirements listed in 19.15.34.12 (A)(3) NMAC.

**Primary Liner:** Enduring Resources requests a variance to NMAC 19.15.34.12 (A)(4) which applies to the thickness of the primary liner. Enduring Resources proposes the use of a 40-mil LLDPE primary liner and 30-mil LLPDE secondary liner provided by Water Well Solutions and Rentals, Inc. The proposed variance will provide equal or better protection of fresh water, public health and the environment, as the proposed liner meets all other the requirements of NMAC 19.15.34.12 (A)(4) and meets or exceeds the EPA SW-846 method 9090A or subsequent relevant publication.

Fencing: Enduring Resources requests a variance to NMAC 19.15.34.12 (D)(1) and (2) which applies to fencing or enclosing the containment. With the recycling containment being an AST with 12-foot wall height, entrance to containment would have to be intentional. There is no risk of accidental entrance into containment by wildlife or the public. The site will be maintained to prevent harm to wildlife and the public. The freestanding above grade AST will provide equal or better protection to public health and the environment, as the fencing requirements of NMAC 19.15.34.12 (D)(1) and (2).

Thank you,

Dave Brown

Regulatory Manager

Enduring Resources, LLC.

303.887.3695 - Office

505.636.9731 - Cell

### Venegas, Victoria, EMNRD

From: Venegas, Victoria, EMNRD

**Sent:** Monday, September 9, 2024 3:11 PM

**To:** Heather Huntington

**Subject:** 3RF-74 - NAGEEZI UNIT L26 STAGING AND G-TANK AREA RECYCLING [fVV2425351283]

Attachments: C-147 3RF-74 - NAGEEZI UNIT L26 STAGING AND G-TANK AREA RECYCLING

[fVV2425351283] 09.09.2024.pdf

#### 3RF-74 - NAGEEZI UNIT L26 STAGING AND G-TANK AREA RECYCLING [fVV2425351283]

Good afternoon Ms. Huntington.

NMOCD has reviewed the recycling containment permit application and related documents, submitted by [371838] DJR OPERATING, LLC on September 05, 2024, Application ID 381020, for 3RF-74 - NAGEEZI UNIT L26 STAGING AND G-TANK AREA RECYCLING [fVV2425351283] in I-27-24N-09W, San Juan County, New Mexico. [371838] DJR OPERATING, LLC requested variances from 19.15.34 NMAC for 3RF-74 - NAGEEZI UNIT L26 STAGING AND G-TANK AREA RECYCLING [fVV2425351283].

The following variances have been approved:

- The variance to 19.15.34.12.A.(2) NMAC for the no side-slope requirement for the AST containment with vertical walls is approved.
- The variance to 19.15.34.12.A.(3) NMAC for the liners to be anchored to the top of the AST steel walls and no anchor trenches is approved.
- The variance to 19.15.34.12.A.(4) NMAC for the installation on the AST containment of a 40-mil non-reinforced LLDPE primary liner is approved. [371838] DJR OPERATING, LLC proposes the use of a 40-mil LLDP E primary liner and 30-mil LLPDE secondary liner.

The form C-147 and related documents for 3RF-74 - NAGEEZI UNIT L26 STAGING AND G-TANK AREA RECYCLING [fVV2425351283] is approved with the following conditions of approval:

- The purpose of this permit is for oil and gas activities regulated under the NMAC 19.15.34.3 STATUTORY AUTHORITY: 19.15.34 NMAC is adopted pursuant to the Oil and Gas Act, Paragraph (15) of Section 70-2-12(B) NMSA 1978, which authorizes the division to regulate the disposition of water produced or used in connection with the drilling for or producing of oil and gas or both and Paragraph (21) of Section 70-2-12(B) NMSA 1978 which authorizes the regulation of the disposition of nondomestic wastes from the exploration, development, production or storage of crude oil or natural gas.
- 3RF-74 NAGEEZI UNIT L26 STAGING AND G-TANK AREA RECYCLING [fVV2425351283] is approved for five years of operation from the date of permit application of September 05, 2024.
- 3RF-74 NAGEEZI UNIT L26 STAGING AND G-TANK AREA RECYCLING [fVV2425351283] permit expires on September 05, 2029. If [371838] DJR OPERATING, LLC wishes to extend operations past five years, an annual permit extension request must be submitted using an OCD form C-147 through OCD Permitting by August 05, 2029.
- 3RF-74 NAGEEZI UNIT L26 STAGING AND G-TANK AREA RECYCLING [fVV2425351283] consists of one (1) above ground tank (AST) containment of 60,000.00 BBL and the recycling facility will consist of up to thirty 400 bbl vertical frac tanks with a consolidated volume of 12,000 bbl. [371838] DJR OPERATING, LLC must submit a "recycling facility" modification in the event the number of frac tanks exceeds the approved number of thirty (30) 400 bbl vertical frac tanks.
- Water reuse and recycling from 3RF-74 NAGEEZI UNIT L26 STAGING AND G-TANK AREA RECYCLING
  [fVV2425351283] is limited to wells owned or operated by [371838] DJR OPERATING, LLC per
  19.15.34.15(A)(2) NMAC.

- [371838] DJR OPERATING, LLC shall construct, operate, maintain, close, and reclaim 3RF-74 NAGEEZI UNIT L26 STAGING AND G-TANK AREA RECYCLING [fVV2425351283] in compliance with NMAC 19.15.34 NMAC.
- [371838] DJR OPERATING, LLC shall notify OCD, through OCD Permitting when construction of 3RF-74 NAGEEZI UNIT L26 STAGING AND G-TANK AREA RECYCLING [fVV2425351283] commences.
- [371838] DJR OPERATING, LLC shall notify NMOCD through OCD Permitting when recycling operations commence and cease at 3RF-74 - NAGEEZI UNIT L26 STAGING AND G-TANK AREA RECYCLING [fVV2425351283].
- A minimum of 3-feet freeboard must be maintained at 3RF-74 NAGEEZI UNIT L26 STAGING AND G-TANK AREA RECYCLING [fVV2425351283] at all times during operations.
- If less than 20% of the total fluid capacity is utilized every six months, beginning from the first withdrawal, operations of the 3RF-74 NAGEEZI UNIT L26 STAGING AND G-TANK AREA RECYCLING [fVV2425351283] is considered ceased and a notification of cessation of operations should be sent electronically to OCD Permitting. A request to extend the cessation of operation, not to exceed six months, may be submitted using a C-147 form through OCD Permitting. If after that 6-month extension period, the 3RF-74 NAGEEZI UNIT L26 STAGING AND G-TANK AREA RECYCLING [fVV2425351283] is not utilized at a minimum of 20% fluid capacity, no additional extensions would be granted, and the operator would be directed to remove all fluids and proceed with the closure requirements.
- [371838] DJR OPERATING, LLC shall submit monthly reports of recycling and reuse of produced water, drilling fluids, and liquid oil field waste on OCD form C-148 via OCD Permitting even if there is zero activity.
- [371838] DJR OPERATING, LLC shall inspect the recycling containment and associated leak detection systems weekly while it contains fluids. The operator shall maintain a current log of such inspections and make the log available for review by the division upon request according to 19.15.34.13.A.
- [371838] DJR OPERATING, LLC shall comply with 19.15.29 NMAC Releases in the event of any release of produced water or other oil field waste at 3RF-74 NAGEEZI UNIT L26 STAGING AND G-TANK AREA RECYCLING [fVV2425351283].
- Per 19.15.34.14.G The re-vegetation and reclamation obligations imposed by federal, state trust land or tribal agencies on lands managed by those agencies shall supersede these provisions and govern the obligations of any operator subject to those provisions, provided that the other requirements provide equal or better protection of fresh water, human health and the environment.

Please reference number 3RF-74 - NAGEEZI UNIT L26 STAGING AND G-TANK AREA RECYCLING [fVV2425351283] in all future communications.

Regards,

Victoria Venegas ● Environmental Specialist Environmental Bureau EMNRD - Oil Conservation Division 506 W. Texas Ave. Artesia, NM 88210 (575) 909-0269 | Victoria.Venegas@emnrd.nm.gov



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

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 381020

#### **CONDITIONS**

Operator:	OGRID:
DJR OPERATING, LLC	371838
200 Energy Court	Action Number:
Farmington, NM 87401	381020
	Action Type:
	[C-147] Water Recycle Long (C-147L)

#### CONDITIONS

Created By	Condition	Condition Date
vvenegas	NMOCD has reviewed and approved the recycling containment permit application and related documents, submitted by [371838] DJR OPERATING, LLC on September 05, 2024, Application ID 381020, for 3RF-74 - NAGEEZI UNIT L26 STAGING AND G-TANK AREA RECYCLING [fVV2425351283] in I-27-24N-09W, San Juan County, New Mexico. • [371838] DJR OPERATING, LLC shall construct, operate, maintain, close, and reclaim 3RF-74 - NAGEEZI UNIT L26 STAGING AND G-TANK AREA RECYCLING [fVV2425351283] in compliance with NMAC 19.15.34 NMAC. • [371838] DJR OPERATING, LLC shall comply with 19.15.29 NMAC Releases in the event of any release of produced water or other oil field waste at 3RF-74 - NAGEEZI UNIT L26 STAGING AND G-TANK AREA RECYCLING [fVV2425351283].	9/9/2024