Recycling Facility and/or Recycling Containment
Type of Facility: Recycling Facility Recycling Containment* Type of action: Permit Registration Modification Extension Closure Other (explain)
* At the time C-147 is submitted to the division for a Recycling Containment, a copy shall be provided to the surface owner.
Be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances.
1. Operator:
Address: <u>200 Energy Court, Farmington, New Mexico 87401</u>
Facility or well name (include API# if associated with a well): <u>Havnes Canvon Unit 432H</u>
OCD Permit Number: $3RF-71$ (For new facilities the permit number will be assigned by the district office)
U/L or Qtr/Qtr <u>E</u> Section <u>3</u> Township <u>23N</u> Range <u>6W</u> County: <u>Rio Arriba</u> Surface Owner: Federal State Private Tribal Trust or Indian Allotment
2. Recycling Facility:
Location of recycling facility (if applicable): Latitude <u>36.256109</u> Longitude <u>-107.464804</u> NAD83
Proposed Use: Drilling* Completion* Production* Plugging *
*The re-use of produced water may NOT be used until fresh water zones are cased and cemented
Other, requires permit for other uses. Describe use, process, testing, volume of produced water and ensure there will be no adverse impact on
groundwater or surface water.
∑ Fluid Storage
Above ground tanks Recycling containment Activity permitted under 19.15.17 NMAC explain type
Activity permitted under 19.15.36 NMAC explain type: Other explain
For multiple or additional recycling containments, attach design and location information of each containment
Closure Report (required within 60 days of closure completion): Recycling Facility Closure Completion Date:
Cossile Report (required whilm of days of closare compretion).
Recycling Containment:
Annual Extension after initial 5 years (attach summary of monthly leak detection inspections for previous year)
Center of Recycling Containment (if applicable): Latitude <u>36. 256109</u> Longitude <u>-107. 464804</u> NAD83
For multiple or additional recycling containments, attach design and location information of each containment
\Box Lined \Box Liner type: Thickness <u>40</u> mil \Box LLDPE \Box HDPE \Box PVC \Box Other
String-Reinforced
Liner Seams: \square Welded \square Factory \square Other Volume: <u>180,000</u> bbl Dimensions: Radius <u>95'</u> x Height <u>12'</u>
Recycling Containment Closure Completion Date:

.

Bonding:

4.

Covered under bonding pursuant to 19.15.8 NMAC per 19.15.34.15(A)(2) NMAC (These containments are limited to only the wells owned or

operated by the owners of the containment.)

Bonding in accordance with 19.15.34.15(A)(1). Amount of bond \$_____ (work on these facilities cannot commence until bonding

amounts are approved)

Attach closure cost estimate and documentation on how the closure cost was calculated.

Fencing:

5.

Four foot height, four strands of barbed wire evenly spaced between one and four feet

Alternate. Please specify See variance request_____

6. <u>Signs</u>:

7.

🛛 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, human health, and the environment.

Check the below box only if a variance is requested:

 \boxtimes Variance(s): Requests must be submitted to the appropriate division district for consideration of approval. If a Variance is requested, include the 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.

Siting Criteria for Recycling Containment

Instructions: The applicant must provide attachments that demonstrate compliance for each siting criteria below as part of the application. Potential examples of the siting attachment source material are provided below under each criteria.

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
 Within an unstable area. Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; topographic map 	🗌 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

 9. <u>Recycling Facility and/or Containment Checklist</u>: <i>Instructions: Each of the following items must be attached to the application. Indicate, by a check mark in the box, that the documents are attached.</i> Design Plan - based upon the appropriate requirements. Operating and Maintenance Plan - based upon the appropriate requirements. Closure Plan - based upon the appropriate requirements. Site Specific Groundwater Data – Exhibit C Siting Criteria Compliance Demonstrations – Certify that notice of the C-147 (only) has been sent to the surface owner(s) Exhibit F					
10. <u>Operator Application Certification</u> : I hereby certify that the information and attachments submitted with this application Name (Print): <u>Heather Huntington</u> Signature: <u>Heather Huntington</u> e-mail address:hhuntington@enduringresources.com	Title:Permitting Technician				
II. Victoria Venegas OCD Representative Signature: Victoria Venegas Title: Environmental Specialist Image: OCD Conditions Image: OCD Conditions on Attachment	Approval Date: 04/16/2024 OCD Permit Number: 3RF-71				

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C-147 REGISTRATION PACKAGE

Haynes Canyon Unit 432H

March 2024



ENDURING RESOURCES IV, LLC

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

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1. INTRODUCTION

Applicant	Enduring Resources, LLC
OGRID	372286
Project Name	Haynes Canyon Unit 432H
Project Type	Recycling Facility & Recycling Containment
Legal Location	Southwest ¹ / ₄ of the Northwest ¹ / ₄ of Sec. 3, T23N, R6W
Surface Owner	Federal surface managed by the Bureau of Land Management Farmington Field Office

In accordance with 19.15.34 NMAC, Enduring Resources, LLC (Enduring) requests registration of the proposed Haynes Canyon Unit 432H (HCU 432H) Recycling Containment and Recycling Facility through the approval of this C-147 registration and permit package. The facility will consist of three 60,000 barrel (bbl) above ground storage tanks (AST) and twenty to thirty 500 bbl laydown frac tanks to be used to treat and recycle produced water for re-use during Enduring drilling and completion activities. See Exhibit B for a diagram of the proposed ASTs and recycling facility along with the site survey plat. This facility will not be used for the disposal of produced water.

The HCU 432H site is located at 36.256109° N, -107. 464804° W, within Section 3, Township 23N, Range 6W, in Rio Arriba County, New Mexico. The site is located on federal lands managed by the Bureau of Land Management Farmington Field Office (BLM FFO). Enduring is the operator of the applicable oil and gas mineral rights at this location. BLM has been notified via Sundry of Enduring's intent to utilize this existing site for a water recycling facility and associated AST storage. A copy of this C-147 application has been provided to the BLM (See Exhibit G).

This document provides the supplemental information to the New Mexico Oil Conservation Division (NMOCD) Form C-147 that is required for registration, including siting criteria and demonstrations, design and construction plans, operating and maintenance plans, closure plans, closure and site reclamation requirements, and surface owner notification.

Upon approval of this registration, the recycling containments located at this facility will be operated for up to five years. If needed, Enduring will request annual extensions after the five-year registration period to continue operations at the facility, which will require the submission of Form C-147 to the NMOCD at least 30 days prior to the expiration of this registration. The extension request will include a summary of all monthly inspections of the containments, including monitoring of the leak detection systems indicating that the containments integrity has not been compromised.

2. SITING CRITERIA

2.1. Distance to Groundwater

Per 19.15.34.11 B. NMAC, Enduring requests use of POD SJ01156 in the Northeast ¼ of the Northwest ¼ of Section 18, Township 23N, Range 6W. This water well was drilled to a total depth of 1,500 feet with depth to ground water measured at 200 feet. This water well is located 3.02 miles southwest of the HCU 432H site. With the proposed containments being ASTs on ground surface, the groundwater depth is greater than 50 feet below the bottom of the recycling containments. See Exhibit C for water well summary.

2.2. Distance to Surface Water

There are not any continuously flowing watercourses within 300 feet nor any other significant watercourses, lakebeds, sinkholes, or playa lakes within 200 of the proposed ASTs as shown in Exhibit D and E. There is an ephemeral wash directly north of the site that is within 200 feet of the disturbed site; however, the flat pad area and

the site of the proposed ASTs is exterior to the 200-foot buffer measured from top of drainage edge (this allows additional buffer beyond ordinary high-water mark).

2.3. Distance to Structures

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.

2.4. Distance to Non-Public Water Supply and Springs

The recycling facility/containment is not located within 500 horizontal feet of a spring or fresh water well used for domestic or stock watering purposes in existence at the time of this application as shown on the aerial map in Exhibit E.

2.5. Distance to Municipal Boundaries and Defined Municipal Fresh Water Well Fields

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.

2.6. Distance to Wetland

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 and Exhibit E (US Fish and Wildlife Service Data) 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. <u>Some areas exhibiting this Water Regime do not fall within our definition of wetland</u> <u>because they do not have hydric soils or support hydrophytes. This Water Regime is generally limited to the arid West.</u>

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 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 or potential wetland 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.

Upon field investigation it was determined that there were no hydric soils or hydrophytes indicative of wetland habitat. Nor was there cottonwood, willow, elm, invasive salt cedar or russian olive indicative of riparian habitat. The ephemeral drainage was characterized by a dry sandy bottom with no isolated pockets or pools to hold water. Water is present in the drainage only during significant inclement weather events and is void of standing water thereafter. Vegetation in and along the drainage was typical of the surrounding shrubland habitat comprised of sagebrush, rubber rabbitbrush, fourwing saltbush, blue grama grass, and galleta grass being most prominent. There was no vegetative transition to wetland species near or along the drainage. Please see photos of the drainage area and map showing photo points taken near the project area below.



FIGURE 1. PHOTO POINT 1 AT 36.25682, -107.46723 LOOKING EAST DOWN DRAINAGE.



FIGURE 2. PHOTO POINT 2 AT 36.25686, -107.46644 LOOKING EAST DOWN DRAINAGE.



FIGURE 3. PHOTO POINT 3 AT 36.25771, -107.46662 LOOKING EAST DOWN DRAINAGE.



FIGURE 4. PHOTO POINT 4 AT 36.25756, -107.46553 LOOKING EAST DOWN DRAINAGE.

HCU 432H March 2024 - 3 -



FIGURE 5. PHOTO POINT 4 AT 36.25756, -107.46553 looking South toward proposed site.



FIGURE 6. PHOTO POINT 5 AT 36.25718, -107.46474 LOOKING EAST FROM BANK.



FIGURE 7. PHOTO POINT 5 AT 36.25718, -107.46474 LOOKING SOUTH TOWARD PROPOSED SITE.



FIGURE 8. PHOTO POINT 6 AT 36.25784, -107.46423 LOOKING SOUTH ACROSS DRAINAGE TOWARD PROPOSED SITE.

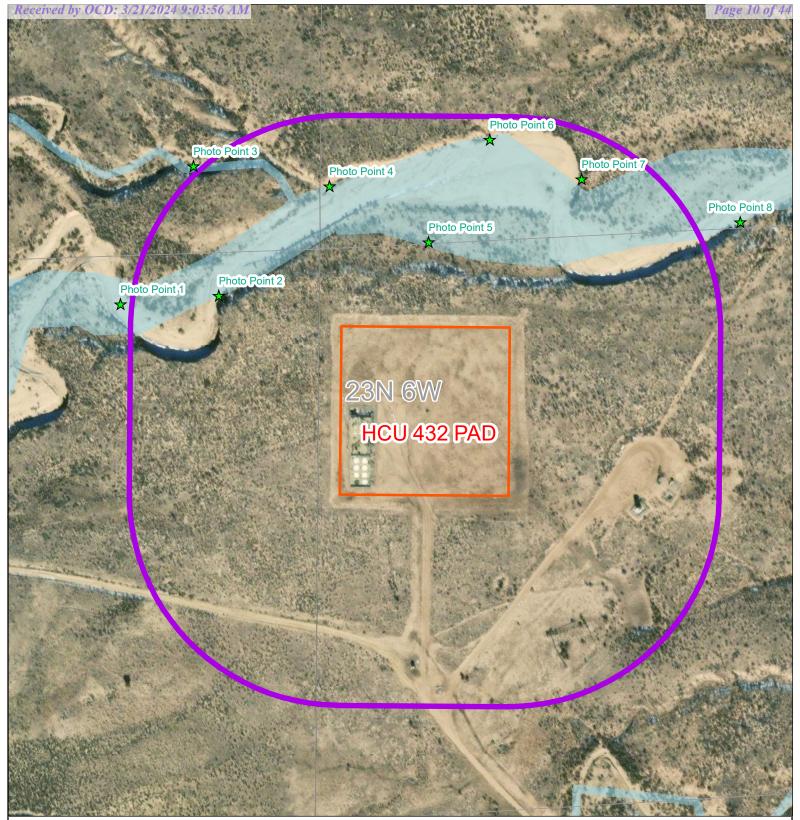


FIGURE 9. PHOTO POINT 7 AT 36.25757, -107.4635 LOOKING WEST FROM BANK.



FIGURE 10. PHOTO POINT 8 AT 36.25727, -107.46223 LOOKING WEST UP DRAINAGE.

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HCU 432 Containment Wetland Variance

Feet

★ Photo Points NM_Wetlands Freshwater Emergent Wetland Freshwater Forested/Shrub Wetland Freshwater Pond Lake Other Riverine 500 ft Buffer Section Township



Data Source Statement: BLM-FFO, Enduring Resources GIS, ESRI Inc NCE Surveys, USGS

Released to Imag2759: 4/16/2024 1:38.93 PM

NAD 1983 2011 StatePlane New Mexico West FIPS 3003 Ft US Author: drogers Date: 3/20/2024

2.7.

According to New Mexico Energy, Minerals and Natural Resources Department (EMNRD) Mining and Minerals Divisions database, there are no subsurface mines in Township 23N, Range 6W, Rio Arriba County, New Mexico. Additionally, See Exhibit E showing no existing mines in the vicinity of the proposed project area.

2.8. Site Stability

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

2.9. Distance to 100-Year Floodplain

The recycling facility/containment is not located within a 100-year (1% annual) floodplain as shown in Exhibit E.

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 containments at the HCU 432H Facility. The facility and recycling containments 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 containments are provided as Exhibit F.

3.1. Foundation Construction

The containment ASTs will be construction on Enduring's Existing HCU 432H well pad. Two surface set wells were plugged and abandoned below grade and the facility has since been removed that can be seen in the aerial imagery in Exhibit D and E. Thus, the existing and vacant well pad provides an adequate level and compacted surface.

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. The containment will ensure confinement of produced water, to prevent releases and to prevent overtopping due to wave action or rainfall. A geotextile under the liner will be used to reduce the localized stress-strain or protuberances that otherwise may compromise the liner's integrity. The containments are above ground and will not be subject to water run-on.

3.2. Liner and Leak Detection

The containments used at the facility will be Well Water Solutions and Rentals, Inc. double-lined frac water tank systems. 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 will meet or exceed the compatibility requirements of EPA SW-846 Method 9090A. Steel bolts will secure the liners to the top of the AST tanks. Specifications provided by Well Water Solutions and Rentals, Inc. are attached as Exhibit F.

Liner seams will be minimized and will be oriented vertically up and down the containment walls, and not horizontally across the containment. Factory welded seams will be incorporated, where possible. Field seams, welding, and testing on the geosynthetic liners will be performed by a manufacturer qualified person. For any field seams, the liners shall overlap 4 to 6 inches and be thermally sealed. Field seams should be avoided or minimized in corners and irregularly shaped areas. At a point of discharge into, or suction from, the recycling containment, the liner will be protected from excessive hydrostatic force or mechanical damage. External discharge or suction lines will not penetrate the liners.

A leak detection system will be installed between the upper and lower liners of each containment and will consist of a 200-mil geonet drainage layer. The leak detection system will cover the bottom and sides of the containments and include a minimum of 3 feet of freeboard. A 6-inch PVC pipe will be inserted in a sump at the bottom of the containment and between the liners. Each containment will be 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 F.

The sump piping will be 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 containments being above ground tanks.

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 A.

3.5. Netting

Enduring will install bird netting provided by the tank manufacturer over each containment. The netting will be inspected monthly for disrepair. The containments will be inspected weekly for dead migratory birds. Enduring 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, Enduring will follow the maintenance and operational requirements described below. At a minimum, Enduring will perform weekly inspections on the containments and leak detection systems while the containments hold fluid. Enduring 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.
- Enduring will remove any visible oil from the surface of the containments upon discovery.
- Enduring will maintain a minimum of three feet of freeboard in the containments at all times.
- The injection and withdrawal of fluids from the containments 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, Enduring 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, Enduring 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 the operation of the recycling facility, Enduring 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

Enduring 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. Enduring will report cessation of operations to the appropriate NMOCD district office. If additional time is needed for closure, Enduring 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 HCU 432H recycling facility. Within 60 days of closure completion, Enduring 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

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

Enduring 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 containments are removed, Enduring will test the soils beneath each containment 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:

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

TABLE 1. CONTAMINATED SOIL TEST CONSTITUENTS

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

5.3. Reclamation

The location will not require reclamation at this time as the pad will be used in the development of four approved applications for permit to drill from this location. All reclamation on the site will be in accordance with the existing and approved reclamation plan on file with the BLM FFO for the aforementioned wells.

EXHIBIT A. VARIANCE REQUESTS

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ENDURING RESOURCES IV LLC

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

Enduring Resources IV, LLC Haynes Canyon Unit 432H Recycling Facility/Containment 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 and not an in-ground pond and 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 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 shell. We believe this will provide equal or better protection than the requirements listed in 19.15.34.12. 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.

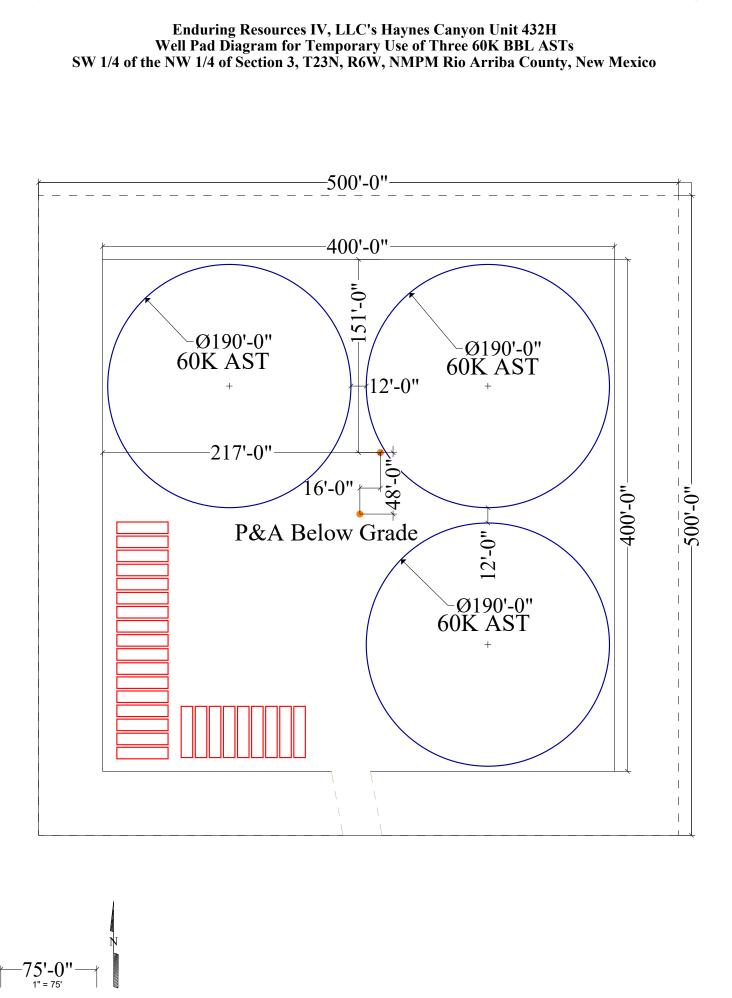
Fencing: Enduring Resources requests a variance to NMAC 19.15.34.12 (D)(1) and (2) which applies to the fencing or enclosing the containment. With the recycling containment being above ground tanks there is no risk to wildlife or the public as there would be for an earthen pit necessitating fencing. The site will be maintained to prevent harm to wildlife and the public. The freestanding AST above grade 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).

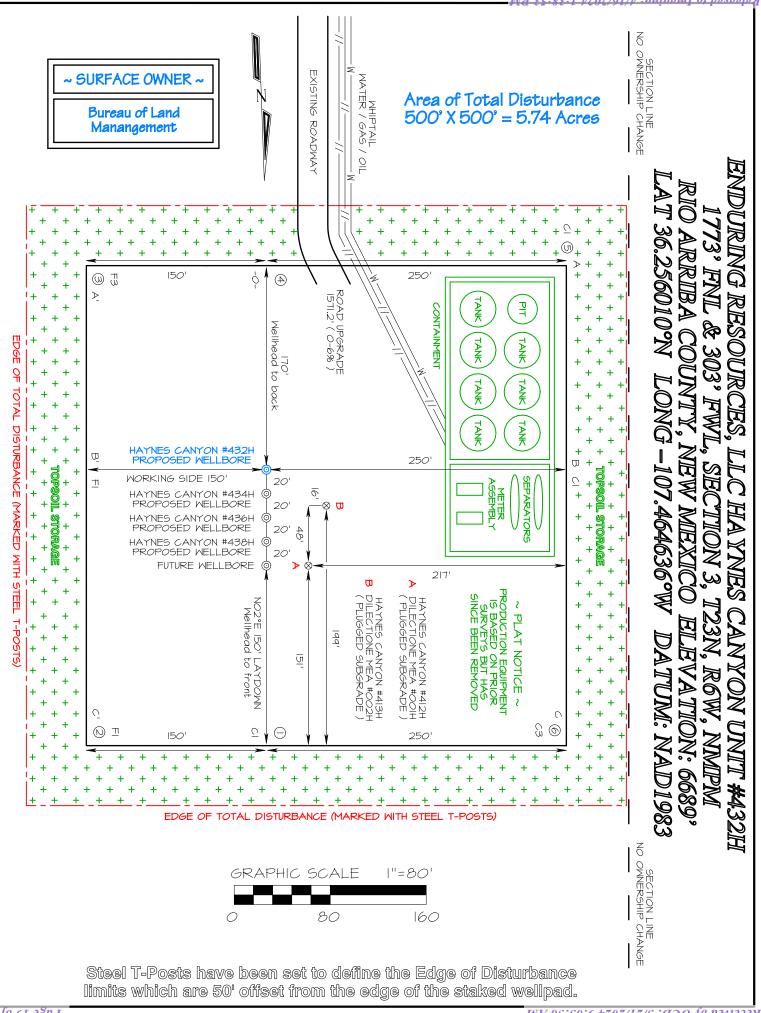
Thank you,

Dave Brown Regulatory Manager Enduring Resources, LLC. 303.887.3695 – Office 505.636.9731 – Cell

EXHIBIT B. PAD DIAGRAM AND PLAT

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Directions from the Intersection of US Hwy 550 & US Hwy 64

in Bloomfield, NM to Enduring Resources, LLC Haynes Canyon Unit #432H

1773' FNL & 303' FWL, Section 3, T23N, R6W, N.M.P.M., Rio Arriba County, NM

Latitude 36.256010°N Longitude -107.464636°W Datum: NAD1983

From the intersection of US Hwy 550 & US Hwy 64 in Bloomfield, NM, travel Southerly on US Hwy 550 for 53.8 miles to Mile Marker 97.6

Go Left (Northerly) on County Road #379 (aka State Highway #403) for 1.5 miles to fork in roadway;

Go Right (Northerly) which is straight remaining on County Road #379 (aka State Highway #403) for 1.7 miles to fork in roadway;

Go Left (North-westerly) exiting County Road #379 (aka State Highway #403) for 0.2 miles to fork in road;

Go Right (Northerly) for 0.1 miles to Enduring Haynes Canyon Unit #432H existing location.

EXHIBIT C. GROUND WATER REPORT

•



New Mexico Office of the State Engineer **Point of Diversion Summary**

				(quar	ters ar	e 1=N	VW 2=	NE 3=5	SW 4=SE)			
				(qua	rters a	re sm	allest 1	to large	st)	(NAD	33 U	TM in meters)	
Well Tag	POD	Number		Q64	Q16	Q4	Sec	Tws	Rng		Х	Y	
	SJ 0	1156		2	2	1	18	23N	06W	2743	30	4012555* 🌍	
Driller Licen	ise:	867	Ι	Orille	r Cor	npai	ny:	HU	TCHES	SON DRI	LLI	NG CO.	
Driller Name	e:	WESTERN DRI	LLING	3									
Drill Start D	ate:	04/10/1980	Ι	Drill F	Finisł	ı Da	te:	0	4/20/19	80	Pl	ug Date:	
Log File Dat	e:	06/16/1980	F	PCW	Rcv]	Date	:				So	urce:	
Pump Type:			F	Pipe D	lisch	arge	Size:				Es	timated Yield:	
Casing Size:		7.00	Γ	Depth	Wel	l:		1	500 feet	t	De	pth Water:	200 feet

*UTM location was derived from PLSS - see Help

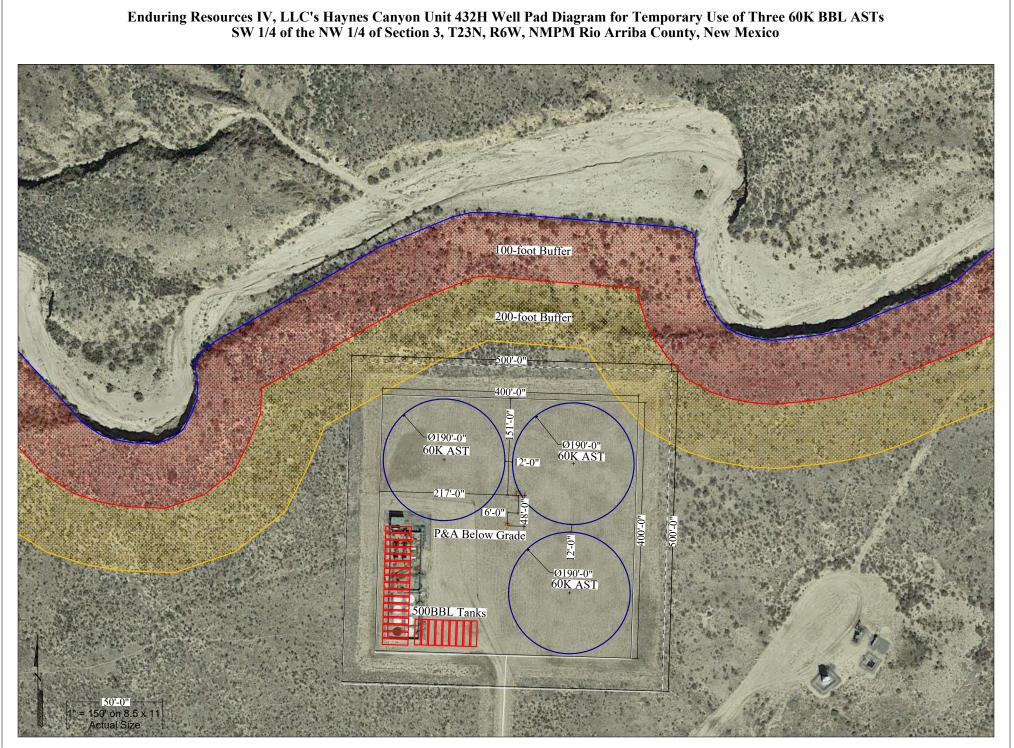
The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

3/19/24 3:04 PM

POINT OF DIVERSION SUMMARY

EXHIBIT D. DISTANCE TO SURFACE WATER DIAGRAM

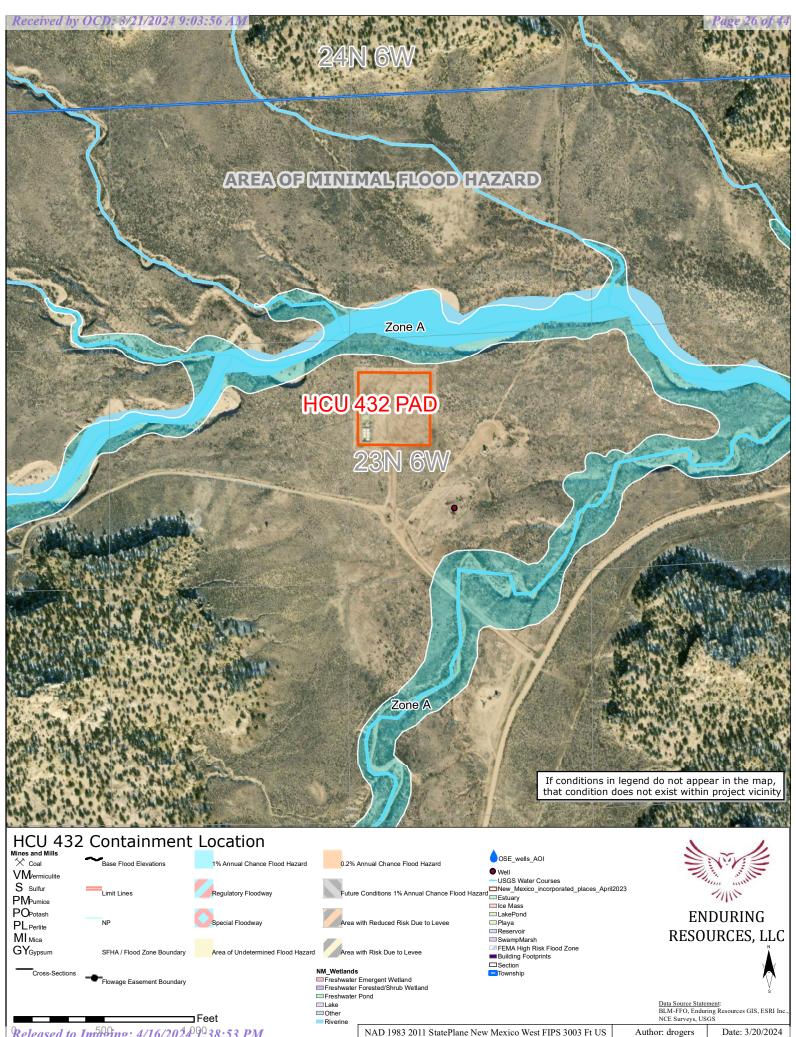
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EXHIBIT E. SITING CRITERIA MAP

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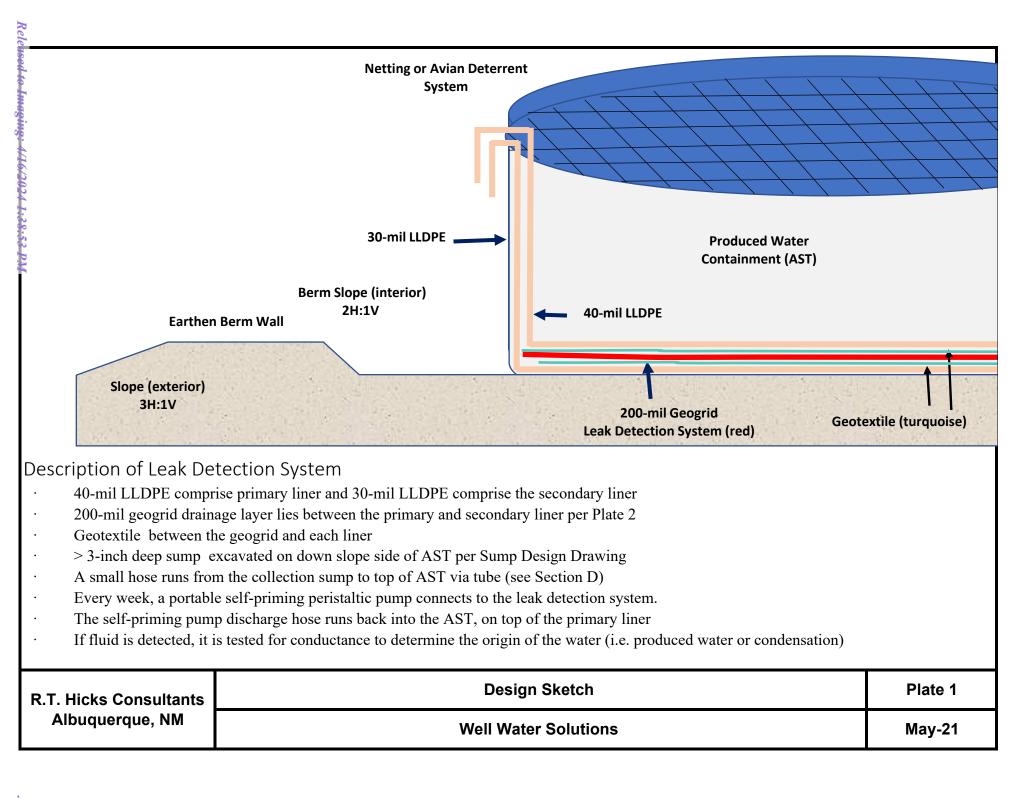


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NAD 1983 2011 StatePlane New Mexico West FIPS 3003 Ft US

EXHIBIT F. MANUFACTURE SPECIFICATIONS

.



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

200 mil geogrid placed

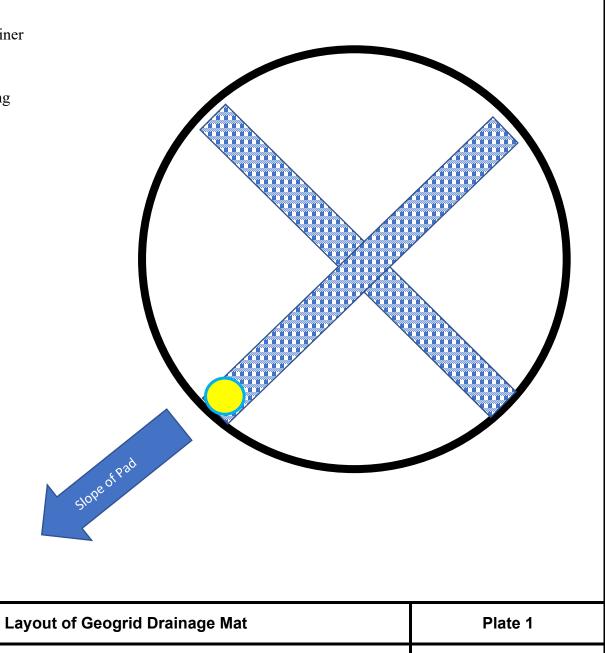
above 8-oz geotextile and 30-mil secondary liner inside of AST after set up, before install of primary liner below 40-mil primary liner

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







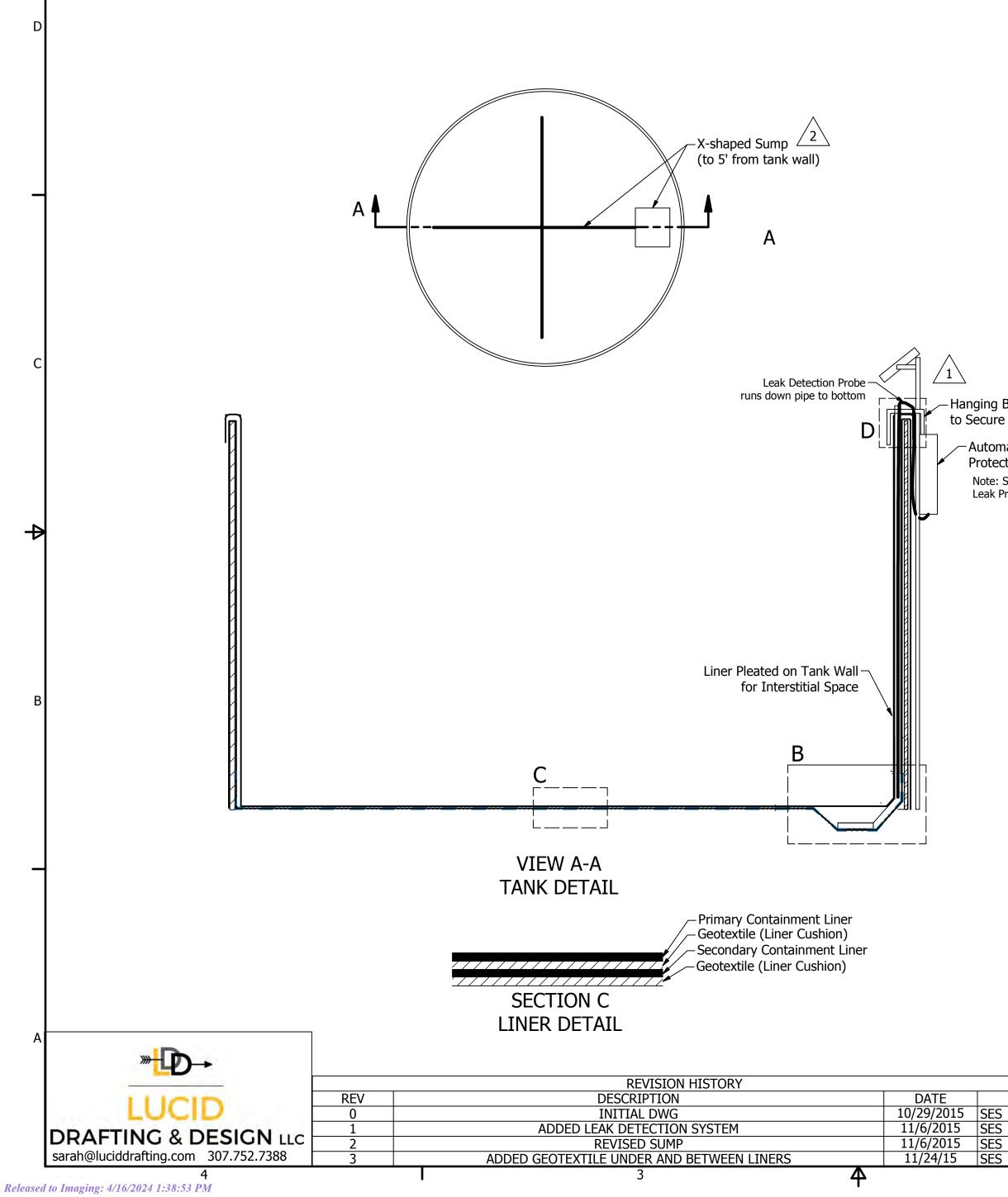
R.T. Hicks Consultants Albuquerque, NM

June 2021



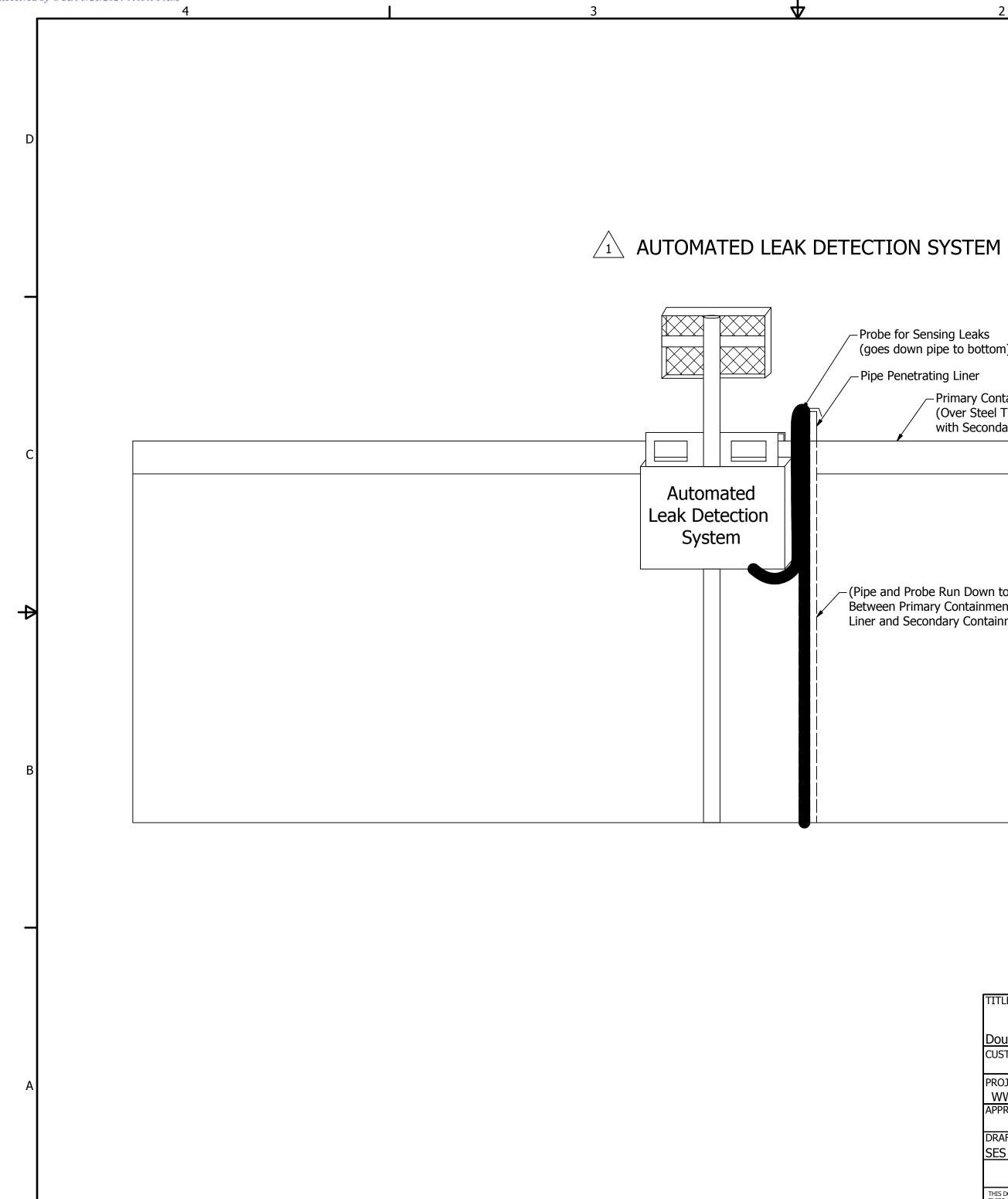
4

WWS DOUBLE-LINED FRAC WATER TANK SYSTEM



-Tube Penetrating Liner -Primary Containment Liner Steel Tank Wall Secondary Containment Liner SECTION D TUBE DETAIL (Automated Leak Detection System Removed for Clarity) Hanging Bracket to Secure to Side of Tank -Automated Leak Protection System Note: See Sheet 2 for Automated Leak Protection System Detail Secondary Containment Liner-Primary Containment Liner -Steel Tank Wall Geotextile (Liner Cushion) Extends 1 ft up side of tank wall, typ. -Geotextile (Liner Cushion) B Perforated Tube for Collection of Leakage Fill up to Wall SECTION B SUMP DETAIL TITLE Double-Lined Frac Tank System CUSTOMER PROJECT/JOB WWS Double-Lined Tank System APPROVAL AND RENTALS, INC. DRAFTER DATE 10/28/2015 BY SES DWG NO REV SIZE С LDD15-WWS-02 3 THIS DOCUMENT IS THE PROPERTY OF WWS AND MAY NOT BE REPRODUCED OR DISTRIBUTED TO THIRD PARTIES WITHOUT THE PRIOR CONSENT OF WWS. SHEET 1 OF 2 1

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Probe for Sensing Leaks (goes down pipe to bottom)

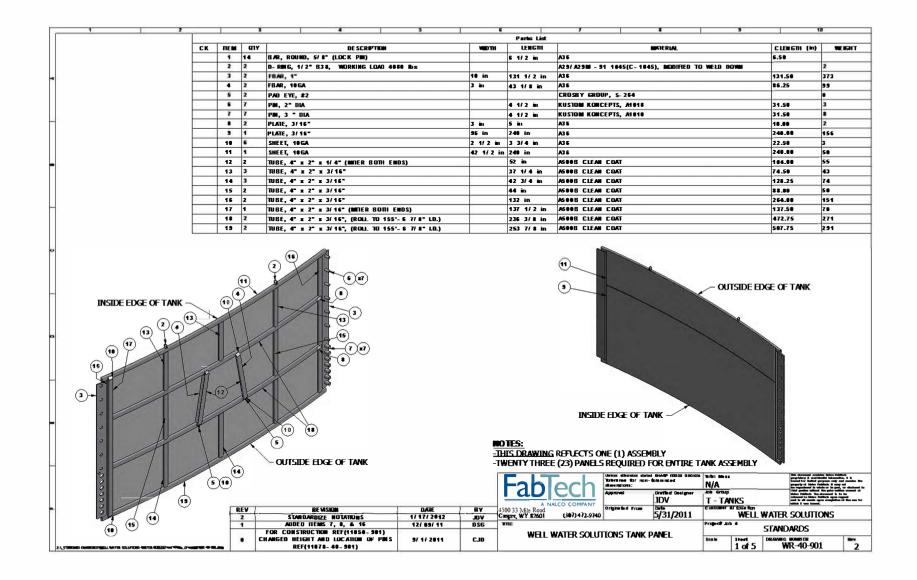
Primary Containment Liner
 (Over Steel Tank Wall
 with Secondary Containment Liner)

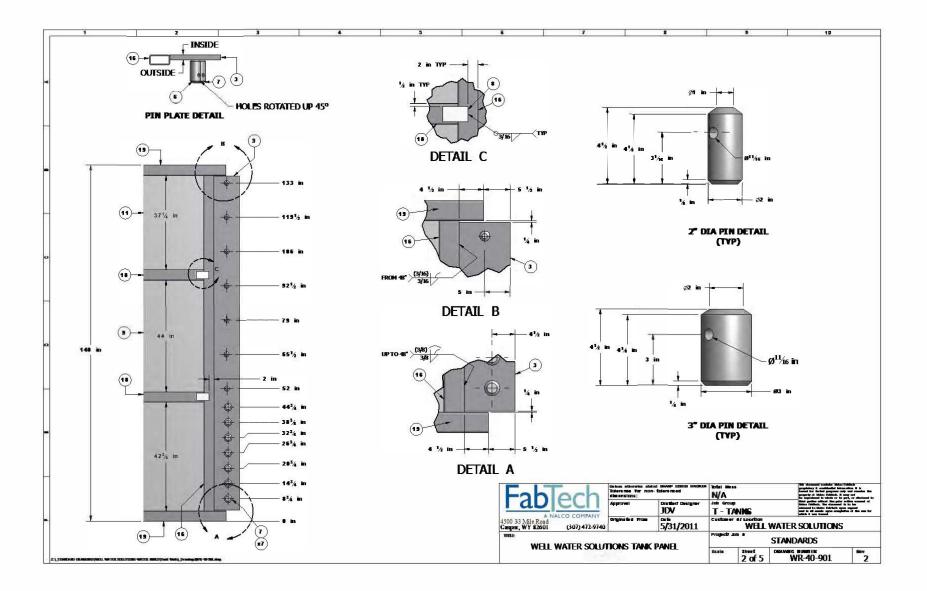
(Pipe and Probe Run Down to Bottom of Tank Between Primary Containment Liner and Secondary Containment Liner)

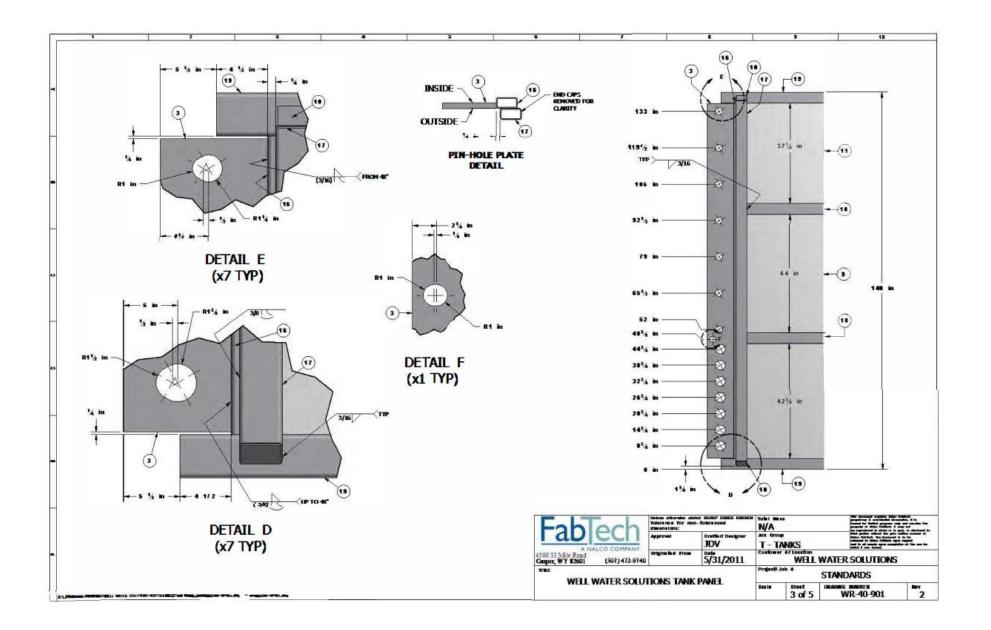
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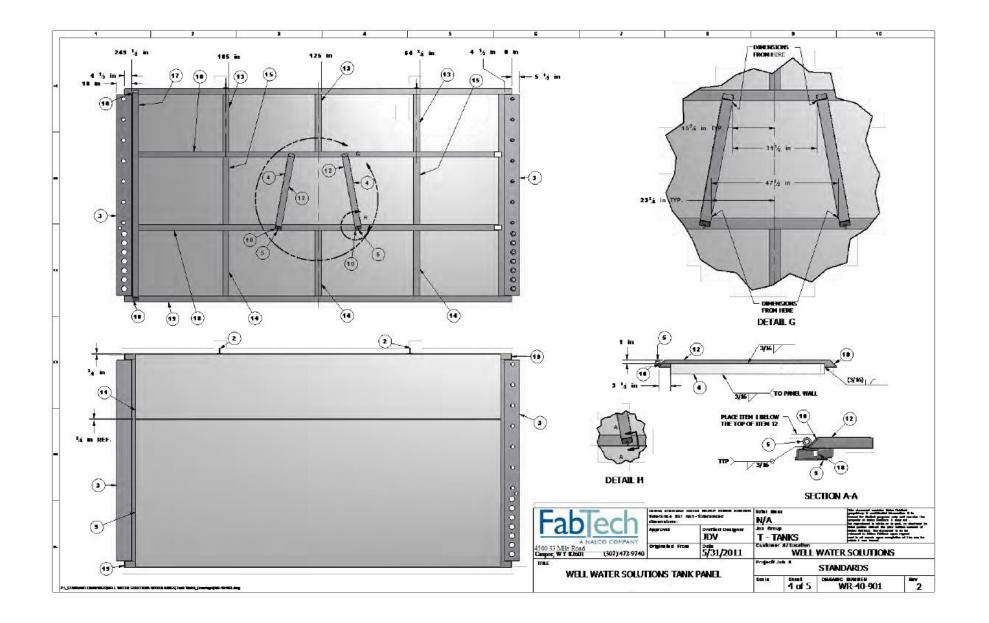
TITLE Double-Lined Frac Ta CUSTOMER PROJECT/JOB WWS Double-Lined T APPROVAL DRAFTER	Tank System		WI		R JTIONS RENTALS, INC.	
SES	10/28/2015	SIZE		DWG N	0	REV
		C		LDD	15-WWS-02	3
THIS DOCUMENT IS THE PROPERTY OF WW THIRD PARTIES WITHOUT THE PRIOR CONS	IS AND MAY NOT BE REPRODUCED OR DISTRIBUTED TO SENT OF WWS.		-		SHEET 2 OF 2	

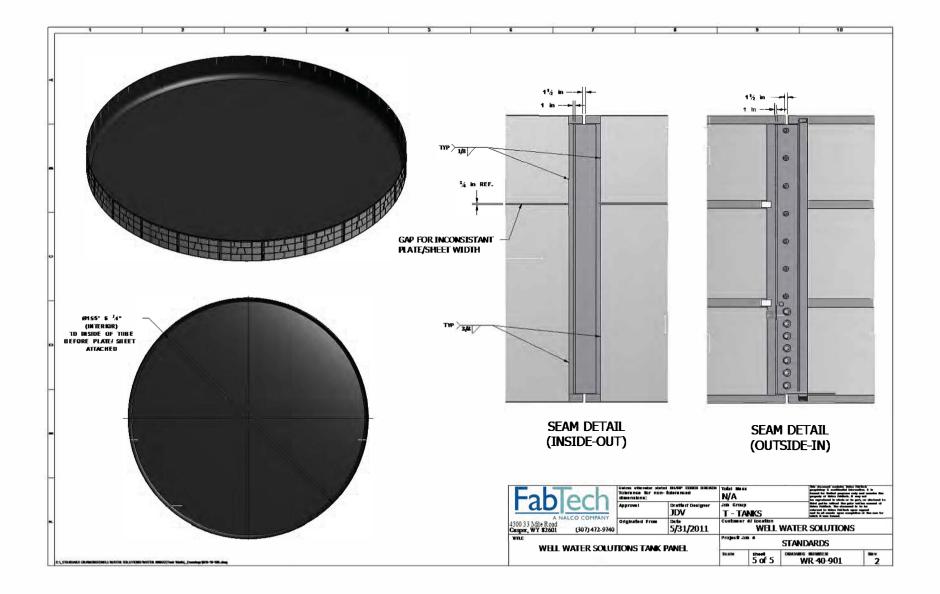
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TANK SIZE CHART

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 F. SURFACE OWNER NOTIFICATION

.

Received by NCD: 3/21/2024 9:03:56 AM U.S. Department of the Interior BUREAU OF LAND MANAGEMENT		Sundry Print Report 03/05/2024
BOREAU OF LAND MANAGEMENT		
Well Name: HAYNES CANYON UNIT	Well Location: T23N / R6W / SEC 3 / SWSW / 36.248667 / -107.464358	County or Parish/State: RIO ARRIBA / NM
Well Number: 428H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM28737	Unit or CA Name: Haynes Canyon Unit	Unit or CA Number: NMNM105770949
US Well Number: 3003931443	Well Status: Drilling Well	Operator: ENDURING RESOURCES LLC

Notice of Intent

Sundry ID: 2777836

Type of Submission: Notice of Intent

Date Sundry Submitted: 03/05/2024

Date proposed operation will begin: 03/05/2024

Type of Action: Other Time Sundry Submitted: 07:45

Procedure Description: Enduring Resources, LLC is seeking approval to install three (3) temporary above ground storage tanks on the Haynes Canyon Unit 432H and two temporary (up to) 12-inch surface lay flat line(s) to transfer non-potable, produced, and recycled water from Enduring's existing Haynes Canyon Unit 432H pad to the Haynes Canyon Unit 428H well for completion operations. The proposed 12-inch surface lay flat line(s) will be installed on lease within an existing permitted 40-ft ROW pipeline corridor and would be removed upon conclusion of completion operations (2-3 weeks). Please see attached above ground storage tank diagram, survey, and map depicting the proposed project area.

Surface Disturbance

Is any additional surface disturbance proposed?: No

NOI Attachments

Procedure Description

HCU_432H_Pipeline_Plats_20240305074510.pdf

Received by OCD: 3/21/2024 9:03:56 AM Well Name: HAYNES CANYON UNIT	Well Location: T23N / R6W / SEC 3 / SWSW / 36.248667 / -107.464358	County or Parish/State: Rice 40 of ARRIBA / NM
Well Number: 428H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM28737	Unit or CA Name: Haynes Canyon Unit	Unit or CA Number: NMNM105770949
US Well Number: 3003931443	Well Status: Drilling Well	Operator: ENDURING RESOURCES LLC

Operator

I certify that the foregoing is true and correct. 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. Electronic submission of Sundry Notices through this system satisfies regulations requiring a

Operator Electronic Signature: SHAW-MARIE FORD

Signed on: MAR 05, 2024 07:45 AM

Name: ENDURING RESOURCES LLC

Title: Regulatory Specialist

Street Address: 1 ROAD 3263

City: AZTEC

State: NM

State:

Phone: (505) 632-3476

Email address: SFORD@DJRLLC.COM

Field

Representative Name: Street Address: City: Phone: Email address:

Zip:

Venegas, Victoria, EMNRD

From:	Venegas, Victoria, EMNRD
Sent:	Tuesday, April 16, 2024 1:34 PM
То:	Heather Huntington
Subject:	3RF-71 - HAYNES CANYON UNIT 432H FACILITY ID [fVV2410736869]
Attachments:	C-147 3RF-71 - HAYNES CANYON UNIT 432H FACILITY ID [fVV2410736869]
	04.16.2024.pdf

3RF-71 - HAYNES CANYON UNIT 432H FACILITY ID [fVV2410736869]

Good afternoon Ms. Huntington.

NMOCD has reviewed the recycling containment permit application and related documents, submitted by [372286] ENDURING RESOURCES, LLC on 03/21/2024 Application ID: 325477, for 3RF-71 - HAYNES CANYON UNIT 432H FACILITY ID [fVV2410736869] in E-03-23N-06W, Rio Arriba County, New Mexico. [372286] ENDURING RESOURCES, LLC requested variances from 19.15.34 NMAC for 3RF-71 - HAYNES CANYON UNIT 432H FACILITY ID [fVV2410736869].

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.
- The proposed liner system cross-section for the AST containments is as follows: 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. A leak detection system will be installed between the upper and lower liners of each containment and will consist of a 200-mil geonet drainage layer. A 6-inch PVC pipe will be inserted in a sump at the bottom of the containment and between the liners. Each containment will be slightly sloped, with the sump placed at the location with the lowest elevation to facilitate the earliest possible leak detection.

The form C-147 and related documents for 3RF-71 - HAYNES CANYON UNIT 432H FACILITY ID [fVV2410736869] 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-71 HAYNES CANYON UNIT 432H FACILITY ID [fVV2410736869] is approved for five years of operation from the date of permit application of 03/21/2024.

- 3RF-71 HAYNES CANYON UNIT 432H FACILITY ID [fVV2410736869] permit expires on 03/21/2029. If [372286] ENDURING RESOURCES, 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 02/21/2029.
- 3RF-71 HAYNES CANYON UNIT 432H FACILITY ID [fVV2410736869] consists of three (3) above ground tanks containment (ASTs) of 60,000.00 BBL each. The total fluid capacity of 3RF-71 - HAYNES CANYON UNIT 432H FACILITY ID [fVV2410736869] is 180,000.00 BBL.
- Water reuse and recycling from 3RF-71 HAYNES CANYON UNIT 432H FACILITY ID [fVV2410736869] is limited to wells owned or operated by [372286] ENDURING RESOURCES, LLC per 19.15.34.15(A)(2) NMAC.
- [372286] ENDURING RESOURCES, LLC shall construct, operate, maintain, close, and reclaim 3RF-71 HAYNES CANYON UNIT 432H FACILITY ID [fVV2410736869] in compliance with NMAC 19.15.34 NMAC.
- [372286] ENDURING RESOURCES, LLC shall notify OCD, through OCD Permitting when construction of 3RF-71 - HAYNES CANYON UNIT 432H FACILITY ID [fVV2410736869] commences.
- [372286] ENDURING RESOURCES, LLC shall notify NMOCD through OCD Permitting when recycling operations commence and cease at 3RF-71 HAYNES CANYON UNIT 432H FACILITY ID [fVV2410736869].
- A minimum of 3-feet freeboard must be maintained at 3RF-71 HAYNES CANYON UNIT 432H FACILITY ID [fVV2410736869] 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-71 HAYNES CANYON UNIT 432H FACILITY ID [fVV2410736869] are 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-71 HAYNES CANYON UNIT 432H FACILITY ID [fVV2410736869] 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.
- [372286] ENDURING RESOURCES, 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 <u>if there is zero</u> activity.
- [372286] ENDURING RESOURCES, 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.
- [372286] ENDURING RESOURCES, 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-71 HAYNES CANYON UNIT 432H FACILITY ID [fVV2410736869].
- 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-71 - HAYNES CANYON UNIT 432H FACILITY ID [fVV2410736869] 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 | <u>Victoria.Venegas@emnrd.nm.gov</u> https://www.emnrd.nm.gov/ocd/ Received by OCD: 3/21/2024 9:03:56 AM



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District I 1625 N. French Dr., Hobbs, NM 88240 Phone:(575) 393-6161 Fax:(575) 393-0720 District II

811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720

District III

1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

District IV

1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Operator:	OGRID:
ENDURING RESOURCES, LLC	372286
6300 S Syracuse Way	Action Number:
Centennial, CO 80111	325477
	Action Type:
	[C-147] Water Recycle Long (C-147L)
CONDITIONS	

Created By	Condition	Condition Date
vvenegas	• 3RF-71 - HAYNES CANYON UNIT 432H FACILITY ID [fVV2410736869] is approved for five years of operation from the date of permit application of 03/21/2024. • [372286] ENDURING RESOURCES, LLC shall construct, operate, maintain, close, and reclaim 3RF-71 - HAYNES CANYON UNIT 432H FACILITY ID [fVV2410736869] in compliance with NMAC 19.15.34 NMAC. • [372286] ENDURING RESOURCES, LLC shall notify NMOCD through OCD Permitting when recycling operations commence and cease at 3RF-71 - HAYNES CANYON UNIT 432H FACILITY ID [fVV2410736869]. • [372286] ENDURING RESOURCES, 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.	4/16/2024

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CONDITIONS

Action 325477