District
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

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

For temporary pits, below-grade tanks, and multi-well fluid management pits, submit to the appropriate NMOCD District Office. For permanent pits submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office.

Pit, Below-Grade Tank, or Proposed Alternative Method Permit or Closure Plan Application
Type of action: Below grade tank registration Permit of a pit or proposed alternative method Closure of a pit, below-grade tank, or proposed alternative method Modification to an existing permit/or registration Closure plan only submitted for an existing permitted or non-permitted pit, below-grade tank, or proposed alternative method
Instructions: Please submit one application (Form C-144) per individual pit, below-grade tank or alternative request Please 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: ENERVEST OPERATING, L.L.C. OGRID #: 143199 Address: 1001 FANNIN ST., SUITE 800 0 Facility or well name: JICANILLA A#7F API Number: 3D-D39-31171 OCD Permit Number:
U/L or Qtr/Qtr C Section I Township Z6.0 Range O S w County: Pli Arril BA Center of Proposed Design: Latitude 36.49295N ³⁴ 4/rd/20/4 Longitude 107.384/94W WK 4/rd/20/4 NAD: 1927 1983 Surface Owner: Federal State Private X Tribal Trust or Indian Allotment
 2. X Pit: Subsection F, G or J of 19.15.17.11 NMAC Temporary: X Drilling □ Workover □ Permanent □ Emergency □ Cavitation □ P&A □ Multi-Well Fluid Management Low Chloride Drilling Fluid □ yes X no X Lined □ Unlined Liner type: Thickness 2. mil X LLDPE □ PVC □ Other
Image: Second Contract Second Contrect Second Contract Second Contract Second C
3. Below-grade tank: Subsection 1 of 19.15.17.11 N. Note: Subsection 1 of 19.15.17.11 N.
Alternative Method: Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.
 5. Fencing: Subsection D of 19.15.17.11 NMAC (Applies to permanent pits, temporary pits, and below-grade tanks) □ Chain link, six feet in height, two strands of barbed wire at top (Required if located within 1000 feet of a permanent residence, school, hospital, institution or church) □ Four foot height, four strands of barbed wire evenly spaced between one and four feet X Alternate. Please specify 4' HOG WIRE FERLE \$\$\$ 1 \$\$\$ 180,0 \$\$ Apple\$. WIRE \$\$\$ 50 Top.

Netting: Subsection E of 19.15.17.11 NMAC (Applies to permanent pits and permanent open top tanks)

Screen Netting Other

6.

7.

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Monthly inspections (If netting or screening is not physically feasible)

Signs: Subsection C of 19.15.17.11 NMAC

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 and Exceptions:

Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance.

Please check a box if one or more of the following is requested, if not leave blank:

- Variance(s): Requests must be submitted to the appropriate division district for consideration of approval.
 Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

9. Siting Criteria (regarding permitting): 19.15.17.10 NMAC Instructions: The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of acceptable source material are provided below. Siting criteria does not apply to drying pads or above-grade tanks.							
General siting							
Ground water is less than 25 feet below the bottom of a low chloride temporary pit or below-grade tank. - ☑ NM Office of the State Engineer - iWATERS database search; □ USGS; □ Data obtained from nearby wells							
Ground water is less than 50 feet below the bottom of a Temporary pit, permanent pit, or Multi-Well Fluid Management pit. NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	□ Yes INO □ 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. (Does not apply to below grade tanks) Written confirmation or verification from the municipality; Written approval obtained from the municipality 							
Within the area overlying a subsurface mine. (Does not apply to below grade tanks) - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	🗋 Yes 🗹 No						
 Within an unstable area. (Does not apply to below grade tanks) 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. (Does not apply to below grade tanks) - FEMA map	🗌 Yes 🖉 No						
Below Grade Tanks							
 Within 100 feet of a continuously flowing watercourse, significant watercourse, lake bed, sinkhole, wetland or playa lake (measured from the ordinary high-water mark). Topographic map; Visual inspection (certification) of the proposed site 	🗌 Yes 🗌 No						
 Within 200 horizontal feet of a spring or a fresh water well used for public or livestock consumption;. NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site 	🗌 Yes 🗌 No						
Temporary Pit using Low Chloride Drilling Fluid (maximum chloride content 15,000 mg/liter)							
 Within 100 feet of a continuously flowing watercourse, or any other significant watercourse or within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). (Applies to low chloride temporary pits.) Topographic map; Visual inspection (certification) of the proposed site 	Yes 🗌 No						
 Within 300 feet from a occupied 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 200 horizontal feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or 300feet of any other fresh water well or spring, in existence at the time of the initial application. NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	🗋 Yes 🗌 No						

 Within 100 feet of a wetland. US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site 	🗌 Yes 🗌 No					
Temporary Pit Non-low chloride drilling fluid						
 Within 300 feet of a continuously flowing watercourse, or any other significant watercourse, or within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). Topographic map; Visual inspection (certification) of the proposed site 	🗌 Yes 💋 No					
 Within 300 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 						
 Within 500 horizontal feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or 1000 feet of any other fresh water well or spring, in the existence at the time of the initial application; NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site 	🗌 Yes 💋 No					
 Within 300 feet of a wetland. US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site 	🗌 Yes 🗹 No					
Permanent Pit or Multi-Well Fluid Management Pit						
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 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					
 Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NI Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the doc attached. Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 NMAC Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC Design Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.13.17.13 NMAC Previously Approved Design (attach copy of design) API Number: or Permit Number:	uments are NMAC 5.17.9 NMAC					
Previously Approved Design (attach copy of design) Art Number: or Permit Number:						
II. Multi-Well Fluid Management Pit Checklist: Subsection B of 19.15.17.9 NMAC Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the doct attached. Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC A List of wells with approved application for permit to drill associated with the pit. Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.						

and 19.15.17.13 NMAC

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Hydrogeologic Data - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC
 Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC

Previously Approved Design (attach copy of design) API Number: ______ or Permit Number: ______

^{12.} <u>Permanent Pits Permit Application Checklist</u> : Subsection B of 19.15.17.9 NMAC Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the application of the following items must be attached to the application.	documents are
attached. Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.9 NMAC Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC Climatological Factors Assessment	
 Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC Quality Control/Quality Assurance Construction and Installation Plan Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.11 NMAC Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC 	
 Nuisance or Hazardous Odors, including H₂S, Prevention Plan Emergency Response Plan Oil Field Waste Stream Characterization Monitoring and Inspection Plan 	
 Information in a inspection real Erosion Control Plan Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC 	
13. <u>Proposed Closure</u> : 19.15.17.13 NMAC Instructions: Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan.	
Type: Drilling Workover Emergency Cavitation P&A Permanent Pit Below-grade Tank Multi-well F	uid Management Pit
Proposed Closure Method: Waste Excavation and Removal Waste Removal (Closed-loop systems only) On-site Closure Method (Only for temporary pits and closed-loop systems) In-place Burial On-site Trench Burial	
14.	
Waste Excavation and Removal Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be a closure plan. Please indicate, by a check mark in the box, that the documents are attached. Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.13 NMAC Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings) Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC Re-vegetation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC Site Reclamation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC	ntlached to the
15. <u>Siting Criteria (regarding on-site closure methods only)</u> : 19.15.17.10 NMAC Instructions: Each siting criteria requires a demonstration of compliance in the closure plan. Recommendations of acceptable sour provided below. Requests regarding changes to certain siting criteria require justifications and/or demonstrations of equivalency. P 19.15.17.10 NMAC for guidance.	
Ground water is less than 25 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	□ Yes □ No □ NA
 Ground water is between 25-50 feet below the bottom of the buried waste NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells 	□ Yes □ No □ NA
 Ground water is more than 100 feet below the bottom of the buried waste. NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells 	□ Yes □ No □ NA
 Within 100 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). Topographic map; Visual inspection (certification) of the proposed site 	🗌 Yes 🗌 No
 Within 300 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 300 horizontal feet of a private, domestic fresh water well or spring used for domestic or stock watering purposes, in existence at the time of initial application. NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of the proposed site 	🗌 Yes 🗌 No
Written confirmation or verification from the municipality; Written approval obtained from the municipality	🗌 Yes 🗌 No
Within 300 feet of a wetland. US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	🗌 Yes 🗌 No
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance	

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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						
 Within the area overlying a subsurface mine. Written confirmation or verification or map from the NM EMNRD-Mining and Mineral 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						
16. On-Site Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be attached to the closure plane by a check mark in the box, that the documents are attached.	11 NMAC 15.17.11 NMAC						
17. Operator Application Certification:							
I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief							
Name (Print): BART INEVINO Title: ASSOC. PRODUCTION 7	TELH						
Signature: Date: Date: 3/3//14/							
e-mail address: BTREVIND & ENERVEST. NET Telephone: 713-495-5355							
18. OCD Approval: Permit Application (inc							
OCD Representative Signature: DENIED Approval Date:							
Title: mber:							
19.							
Closure Report (required within 60 days of closure completion): 19.15.17.13 NMAC Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting the closure report. The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities have been completed.							
Closure Completion Date:							
 20. <u>Closure Method:</u> Waste Excavation and Removal On-Site Closure Method Alternative Closure Method Waste Removal (Closed-loop systems only) If different from approved plan, please explain. 							
^{21.} Closure Report Attachment Checklist: Instructions: Each of the following items must be attached to the closure report. Please ind mark in the box, that the documents are attached.							

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Operator Closure Certification:

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22.

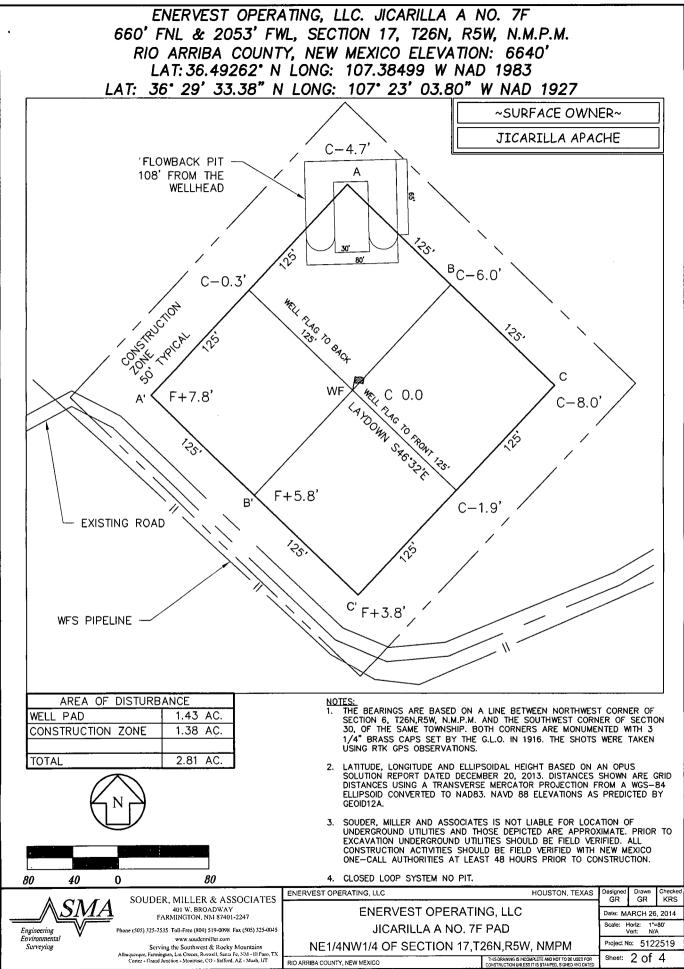
I hereby certify that the information and attachments submitted with this closure report is true, accurate and complete to the best of my knowledge and belief. I also certify that the closure complies with all applicable closure requirements and conditions specified in the approved closure plan.					
Name (Print):	Title:				
Signature:	Date:				
e-mail address:	Telephone:				

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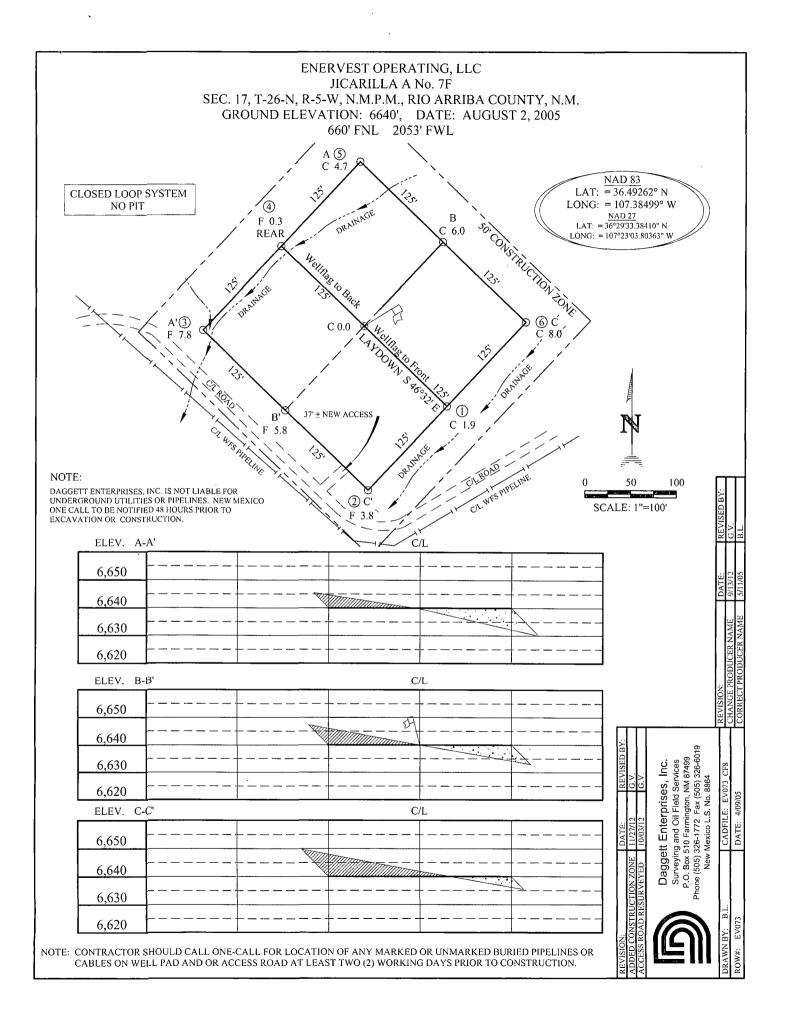
District II 811 S. First St., Arte Phone: (575) 748-1: District III 1000 Rio Brazos Ro Phone: (505) 334-6 District IV 1220 S. St. Francis I Phone: (505) 476-3-	283 Fax: (57 ad, Aztec, NM 178 Fax: (50 Dr., Santa Fe, 1	0 5) 748-9720 1 87410 5) 334-61 70 NM 87505 5) 476-3462		OIL C	Minerals & N CONSERV 220 South Santa Fo	latural VATI h St. 1 e, NN	Resources Departme ION DIVISION Francis Dr. M 87505 Eu	nt I Farm reau	JAN 02 Ington Fid of Land N	2013 eld Omcം Aanagerല്ലെ	Revi	Form C-10 ised August 1, 201 Submit one copy to appropriate District Office IENDED REPORT
i,	API Number	WE.	<u>LL LOC</u>	² Pool Code	I AND A	ACRE	EAGE DEDIC		ON PLA ³ Pool Name			
30-0	<u>39- Z</u>	51171	72	2319/73			Blanco Mesaverde/Basin Dakota					
⁴ Property Co						RILL					•	Weil Number 7F
30675						erator Nau						9 Elevation
143199	9			ENE	RVEST	OPER	ATING, LLC.					6640'
	<u> </u>				" Surfac	ce Lo	ocation					
UL or lot no. C	Section 17	Township 26-N	Range 5-W	Lot Idn	Feet from (North/South line NORTH	Fe	et from the 2053	East/West liz WEST		County RIO ARRIBA
			" Bot				Different From	n Su	rface			<u></u>
UL or lot no.	Section	Township	Range	Lot îda	Feet from (the	North/South line	Fa	et from the	East/West lin	×	County
² Dedicated Acres 1V - W/320 0K - W/320		L	¹³ Joint or Infil	1	¹⁴ Consolidatio	on Code		15Onde	r No.	<u></u>		.
BY DBL, PROP.		74 <u>2</u>	660'	S 89°59'35	5"E 5331.9	95' (C)	CALCD. COR BY DBL. P		I bereby certif	ATOR CER by that the information replete to the best of 1	a conta	ined herein
3Y DBL, PROP.	2053'	9 9 82.	660'	S 89°59'3:	5" E 5331.9	95' (C)			OPERA I bereby certifies is true and com- belief, and the interest or unli- including the right to drall de contract with a contract with a	ly that the informatio	a conta my loso ther ow at in the c location on pursu mineral o agreeme	ined herrin wiedge and us a working tand us or has a pant to a working nt or a
	- 		660	N SU LA	RFACE: T: 36.49262' NG: 107.384 T: 36°29'33.38	° N. (N 410° N.	BY DBL. P 		OPERA I berety certifi is true and con belief, and the interest or and including the j right to drill di contract with of interest, or to compulsory pe division. Signature <u>Bart</u> Printed Na	y that the information mplete to the best of) at this organization ei- creard mineral interest proposed bottom hoh his well at this location an owner of such a m a voluntary pooling of cooling order benetofo more the such as m Trevin unce	a conta my loca ther ow the own to the therefore pinsue aimenal c agreement re enter	ined herrin wiedge and us a working tand us or has a uant to a sy working ant or a
	- 		660 ⁰	N SU LA	RFACE: T: 36.49262' NG: 107.384 T: 36°29'33.38	° N. (N 410° N.	BY DBL. P 		OPERA I berety certifi is true and our belief, and the interest or and including the 1 right to drill di contract with 1 interest, or to 1 compulsory po division. Signature <u>Bart</u> Printed Na <u>bt ree</u> E-mail Ad 18 SUI 1 hereby certifi was plotted fit was plotted fit was plotted fit	y that the information mplete to the best of 1 at this organization ei- essed mineral interes proposed bettom hoft his well at this location an owner of such a m a voluntary pooling of booling order beretoff mono- <u>Vino@en</u> taress	a contra my know ther ow a in the to contra internal of agreement of agreement of contra con	ined herein wiedge and us a working tend so or has a more that a so working ant or a of by the <u>12/27/12</u> Date <u>12/27/12</u> Date <u>12/27/12</u> Date

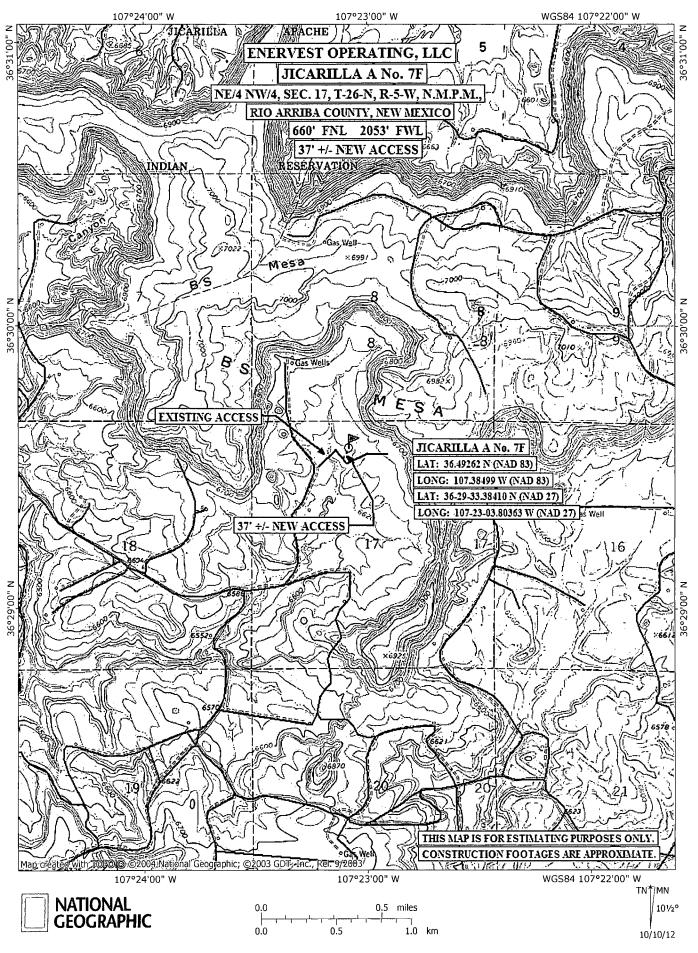
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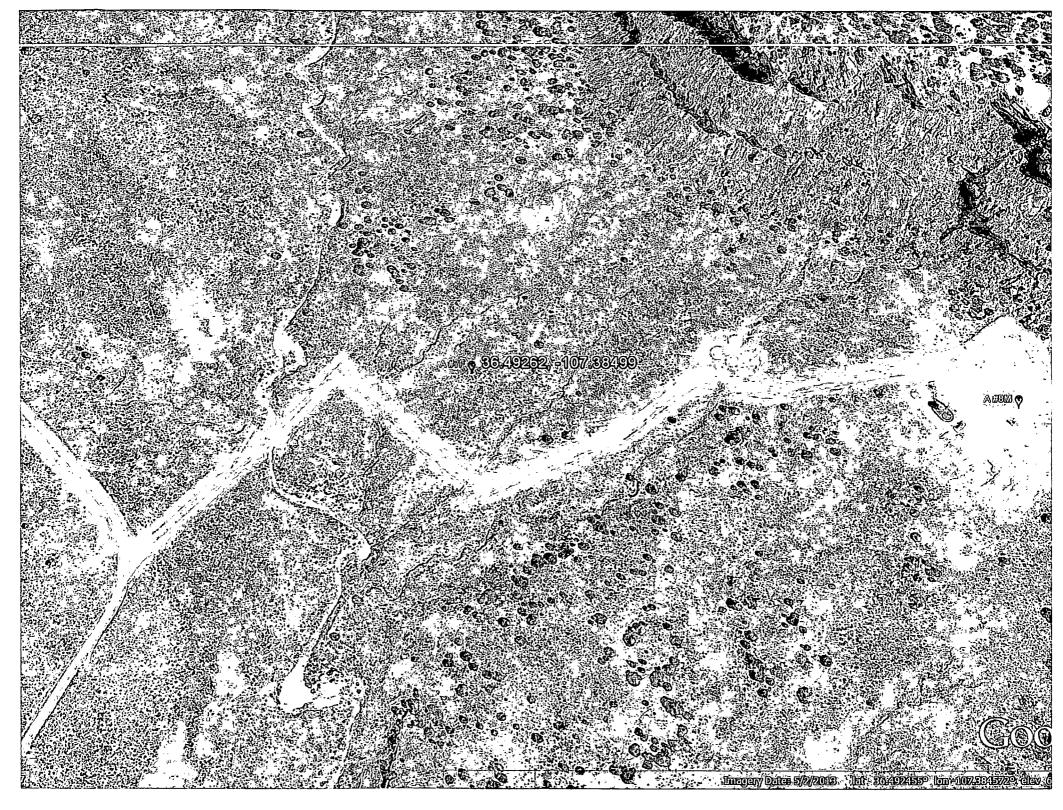
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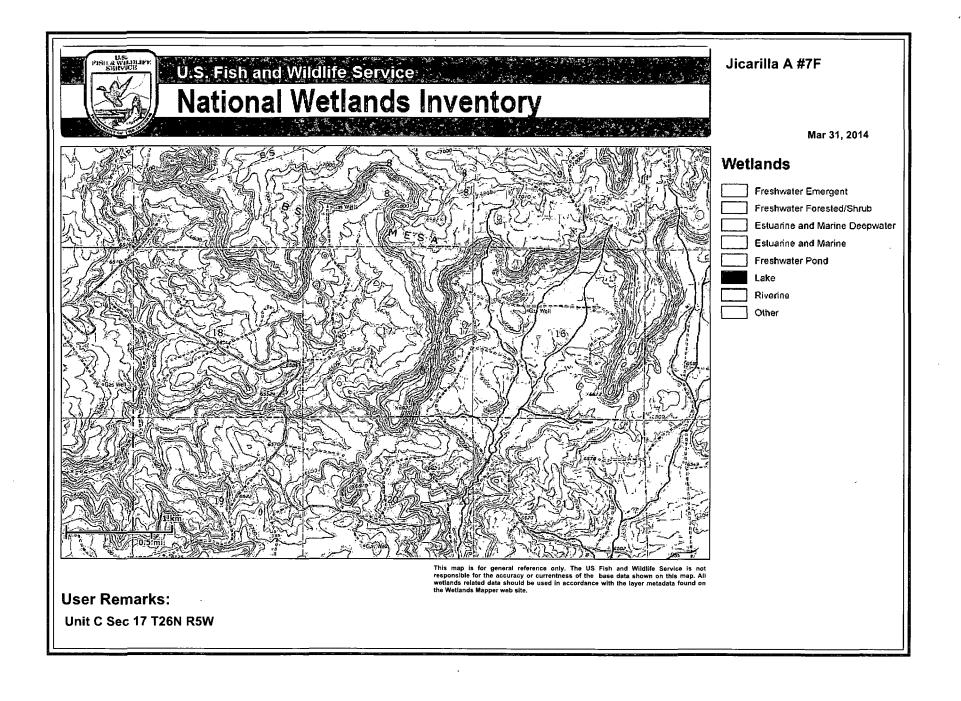


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Site Specific Hydro Geologic Analysis

Jicarilla A #7F API 30-039-31171

The above referenced well is located at UL C, Sec 17, 26N, 05W at an elevation of 6,640'. Surface casing was set to a depth of 505'.

According to the Office of State Engineer, the closest water well drilled was RG 81026 about 4 miles NE of our location. Drilled to 460 feet at an unknown elevation, it shows water encountered at 186 feet.

In 1958, the Jicarilla #16J (30-039-06528) was drilled about 1500 feet East of our location. It was at an elevation of 6,624' with no indication of water being encountered. Surface casing was set at 86 feet which would be at 6,538. This would be 403' shallower than our well. We believe that the sand and limestone will prevent any migration of fluids.

The groundwater at our well site would be greater than 100 feet at a minimum. This should allow ample protection for any groundwater in the area.

Regional Hydrogeology Report

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The San Jose Formation of Eocene age occurs in New Mexico and Colorado, and its outcrop forms the land surface over much of the eastern half of the central San Juan Basin. It overlies the Nacimiento Formation in the area generally sourth of the Colorado-New Mexico state line and overlies the Animas Formation in the area generally north of the State line.

The San Jose Formation was deposited in various fluvial-type environments. In general, the unit consists of an interbedded sequence of sandstone, siltstone, and variegated shale. Thickness of the San Jose Formation generally increases from west to east, ranging from 200 feet in the west and south to almost 2,700 feet in the center of the structural basin.

Ground water is associated with alluvial and fluvial sandstone aquifers. Therefore the occurrence of ground water is mainly controlled by the distribution of sandstone in the formation. The distribution of such sandstone is the results of original depositional extend plus any post-depositional modifications, namely erosion and structural deformation.

Transmissivity data for the San Jose Formation are minimal. Values of 40 and 120 feet squared per day were determined from two aquifer tests (Stone et al, 1983. table 5). The reported or measured discharge from 46 water wells completed in San Jose Formation ranges from 0.15 to 61 gallons per minute and the median is 5 gallons per minute. Most of the wells provide water for livestock and domestic use.

The San Jose Formation is a very suitable unit for recharge from precipitation because soils that form on the unit are sandy and highly permeable and therefore readily absorb precipitation. However, low annual precipitation, relatively high transpiration and evaporation rates, and deep dissection of the San Jose Formation by the San Juan River and its tributaries all tend to reduce the effective recharge to the unit.

Stone et al., 1983, Hydrogeology and Water Resources of the San Juan Basin, New Mexico; Socorro, New Mexico Bureau of Mines and Mineral Resources Hydrologic Report 6, 70 p.



New Mexico Office of the State Engineer Water Column/Average Depth to Water

No records found.

Basin/County Search:

Basin: San Juan

County: Rio Arriba

PLSS Search:

Section(s): 7-9

Township: 26N

Range: 05W

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.



New Mexico Office of the State Engineer Water Column/Average Depth to Water

No records found.

Basin/County Search:

Basin: San Juan

County: Rio Arriba

PLSS Search:

Section(s): 16-18

Township: 26N Range: 05W

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.

EnerVest Operating, LLC (EV) Temporary Pit Design and Construction Plan (Groundwater > 100' below bottom of pit liner)

In accordance with Rule 19.15.17 NMAC, the following plan describes the general design and construction of temporary pits EV will use on locations in the San Juan Basin. This will be EV's standard procedure for all temporary pits. Should any pit vary from this plan, a well specific plan will be submitted for that location.

General Plan Requirements:

- 1. EV will design and construct a temporary pit to contain fluids and solids associated with drilling, completion, and workover of oil and gas wells which will prevent contamination of fresh water resources and protect public health and the environment.
- 2. Prior to excavation of the pit, topsoil will be stripped and stockpiled within the construction zone for later use during restoration.
- 3. EV will post well signs in compliance with Subsection C or 19.15.17.11 NMAC.
- 4. EV shall construct fences utilizing 48" hogwire fence with 1 strand of barbed-wire on top. This will be supported by iron posting at the corners and 10-12 feet apart. It is our belief this will offer better protection for wildlife around these pits. Pits will be fenced at all times excluding during drilling and completions operations when the front side will be temporarily removed for operational purposes.
- 5. EV shall construct the temporary pit so that the foundation and interior slopes are firm and free of rocks, debris, sharp edges or irregularities to meet manufacturers' specifications and potential liner failure.
- 6. EV shall construct the temporary pit so that the slopes are no steeper than two horizontal feet to one vertical foot. Where steeper slopes are required due to surface owner and right-a-way restriction, an engineer's certification of stability will be provided with the pit permit application.
- 7. Pit walls will be walked down by a crawler type tractor following construction and prior to liner installation.
- 8. All temporary pits will be lined with a 20-mil, string reinforced, LLDPE liner, complying with EPA SW-846 method 9090A requirements.
- 9. Geotextile will be installed beneath the liner when rocks, debris, sharp objects or irregularities cannot be avoided.
- 10. All liners will be anchored in the bottom of a compacted earth-filled trench consistent with manufacturer's specifications and at least 18 inches deep.
- 11. EV will minimize liner seams and orient them up and down, not across slope faces. Factory seams will be used whenever possible. Field seams will be overlapped per manufacturer's specifications. EV will minimize the number of field seams in corners and irregularly shaped areas.
- 12. The liner shall be protected from any fluid force or mechanical damage through the use of mud pit slides (secondary liner placed over the primary liner), and/or a manifold system.
- 13. The pit shall be protected from run-on by construction of diversion ditches around the location or around the perimeter of the pit in as necessary.
- 14. The volume of the pit shall not exceed 10 acre-feet, including freeboard.
- 15. Temporary blow pits will be constructed to allow gravity flow to discharge into the lined reserve pit.

16. Only the upper portion of the blow pit will be unlined as allowed in Rule 19.15.17.11.F(11) NMAC.

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17. EV will modify this design if the field and/or operating conditions do not effectively allow drainage of the blow pit and freestanding liquids pose a potential concern.

EnerVest Operating, LLC (EV) Temporary Pit Maintenance and Operating Plan (Groundwater > 100' below bottom of pit liner)

In accordance with Rule 19.15.17 NMAC, the following plan describes the general operations and maintenance of the temporary pits EV will use on locations in the San Juan Basin. This will be EV's standard procedure for all temporary pits. Should any pit vary from this plan, a well specific plan will be submitted for that location.

General Plan Requirements:

- 1. EV will operate and maintain a temporary pit to contain fluids and solids associated with drilling, completion, and workover of oil and gas wells which will prevent contamination of fresh water resources and protect public health and the environment.
- 2. EV will conserve drilling fluids by transferring liquids to pits ahead of the rigs whenever possible. All other fluids will be disposed by evaporation or transported to either TNT Land Farm (Permit # NM-01-008) or Envirotech Land Farm (Permit # NM-01-0011).
- 3. EV shall maintain at least two feet of vertical freeboard for a temporary pit.
- 4. EV shall remove all free liquids from a temporary pit within 30 days from the date the drilling, completions, or workover rig is released
- 5. Only liquids and solids generated during the drilling/completion/workover process may be discharged into a temporary pit. Other miscellaneous solid waste or debris will not be allowed.
- 6. EV will not discharge or store any hazardous waste in any temporary pit.
- 7. If any pit liner's integrity is compromised, or if any penetration of the liner occurs above the liquid's surface, EV shall repair the damage or replace the liner as necessary. Should the leak occur below the liquid's surface, EV shall suspend operations, remove all liquids above the damaged liner within 48 hours, and repair the damage or replace the liner. If the spill is less than 25 bbls, EV will notify the NMOCD Aztec District Office by phone and email within 48 hours of discovery and repair. If the release is suspected to be greater than 25 bbls, the NMOCD Aztec District Office and Environmental Bureau Chief will be notified immediately by phone pursuant to 19.15.3.116B(1)(d). All releases will be reported on Form C-141 per 19.15.3.116.C NMAC within 15 days to the NMOCD Aztec District Office.
- 8. The liner shall be protected from any fluid force or mechanical damage through the use of mud pit slides (secondary liner placed over the primary liner), and/or a manifold system.
- 9. Diversion ditches, around the location or around the perimeter of the pit, shall be maintained as protection from run-on.
- 10. EV shall immediately remove any visible layer of oil from the surface of a temporary pit following cessation of drilling/completion/workover operations. Oil absorbent booms will be utilized to contain and remove oil. An oil absorbent boom will be stored on location until the pit is covered.
- 11. EV shall inspect the temporary pit at least daily while the drilling/completions/workover rig is on location. Thereafter, EV shall inspect the temporary pit weekly, so long as liquids remain in the pit. EV shall maintain a log of all inspections and file a copy of the log with the appropriate division district office when the pit is closed.
- 12. EV shall remove all free liquids from a cavitation pit within 48 hours after completing operations. EV may request additional time to remove liquids from the Aztec District Office if it is not feasible to meet the 48 hour requirement.

EnerVest Operating, LLC (EV) Temporary Pit Closure Plan (Groundwater > 100' below bottom of pit liner)

In accordance with Rule 19.15.17.13 NMAC, the following plan describes the standard closure plan of the temporary pits EV will use on locations in the San Juan Basin. This will be EV's standard procedure for all temporary pits. Should any pit vary from this plan, a well specific plan will be submitted for that location.

Closure and Site Reclamation Requirements:

- A. Closure plans shall describe the proposed closure method and the proposed procedures and protocols to implement and complete the closure.
- C. EV closures where wastes are destined for disposal at division approved off-site facilities. This subsection applies to temporary pits, the operator of any temporary pit will not commence closure without first obtaining approval of the closure plan submitted with the permit application or registration pursuant to 19.15.17.9 NMAC.

2. EV will close the temporary pit by first removing all contents and if applicable, synthetic liners and transferring those materials to a division approved facility.

- 3. EV will test the soils beneath the temporary pit as follows.
 - a. At a minimum, a five point composite sample to include any obvious stained or wet soils, or other evidence of contamination shall be taken under the liner and that sample shall be analyzed for the constituents listed in Table I of 19.15.17.13 NMAC.

b. If any contaminant concentrations are less than or equal to the parameters listed in Table I of 19.15.17.13 NMAC, the division may require additional delineation upon review of the results and the operator must receive approval before proceeding with the closure.

c. If all contaminant concentrations are less than or equal to the parameters listed in Table I of 19.15.17.13 NMAC, then EV can proceed to backfill the pit or excavation with non-waste containing, uncontaminated earthen material.

D. EV closures where wastes are destined for burial in place or into nearby division approved pits or trenches. This subsection applies to waste from temporary pits, when such waste may be disposed of in place in the existing temporary pit or disposed of at a nearby temporary pit or burial trench that is not a permitted commercial facility regulated under 19.15.36 NMAC. A nearby temporary pit or burial trench that receives waste from another temporary pit must be onsite within the same lease.

1. EV will not commence closure without first obtaining approval of the closure plan submitted with the permit application.

2. EV will demonstrate and comply with the siting criteria set forth in subsection C of 19.15.17.10 NMAC.

3. EV will remove all free standing liquids reasonably achievable from the pit and dispose of such liquids at a division approved facility.

4. When closing a temporary pit, EV will stabilize or solidify the remaining temporary pit contents to a capacity sufficient to support the final cover of the temporary pit. EV will not mix the contents with soil or other material at a mixing ratio of greater than 3:1, soil or other material to contents. The waste mixture must pass the paint filter liquids test (EPA SW-846, Method 9095 or other test methods approved by the division).

5. EV will collect, at a minimum, a five point composite of the contents of the temporary pit to demonstrate that, after the waste is solidified of stabilized with soil or other non-waste, the concentration of any contaminant in the stabilized waste is not higher than the parameters listed in Table II of 19.15.17.13 NMAC.

6. If, after appropriate stabilization, the concentration of all contaminants in the contents from a temporary pit is less than or equal to the parameters listed in Table II of 19.15.17.13 NMAC, EV may either proceed to dispose of wastes in an existing temporary pit or construct a burial trench for disposal of these wastes.

7. If the concentration of any contaminant in the contents, after mixing with soil or non-waste material to a maximum ratio of 3:1, from a temporary pit or drying pad/tank associated with a closed-loop system is higher than constituent concentrations shown in Table II of 19.15.17.13 NMAC, then closure must proceed in accordance with subsection C of 19.15.17.13 NMAC.

8. Upon achieving all applicable waste stabilization in the temporary pit or transfer of stabilized wastes to the temporary pit or burial trench, EV will:

a. fold the outer edges of the trench liner to overlap the waste material in the trench prior to the installation of the geomembrane cover;

b. install a geomembrane cover over the waste material in the lined trench or temporary pit; the operator shall install the geomembrane cover in manner that prevents the collection of infiltration water in the lined trench or temporary pit and on the geomembrane cover after the soil cover is in place; the geomembrane cover shall consist of a 20-mil string reinforced LLDPE liner or equivalent cover that the appropriate division district office approves; the geomembrane cover shall be composed of an impervious, synthetic material that is resistant to petroleum hydrocarbons, salts and acidic and alkaline solutions; cover compatibility shall comply with EPA SW-846 Method 9090A;

c. cover the pit/trench with non-wastes containing, uncontaminated, earthen materials and construct a soil cover prescribed by the division in paragraph 3 of subsection H of 19.15.17.13 NMAC.

9. If EV has removed the wastes and the liner to a burial trench pursuant to this subsection, the operator shall test the soils beneath the temporary pit as follows.

a. At a minimum, a five point composite sample to include any obvious stained or wet soils, or other evidence of contamination shall be taken under the liner and that sample shall be analyzed for the constituents listed in Table I of 19.15.17.13 NMAC.

b. If any contaminant concentration is higher than the parameters listed in Table I of 19.15.17.13 NMAC, the division may require additional delineation upon review of the results and the operator must receive approval before proceeding with closure.

c. If all contaminant concentrations are less than or equal to the parameters listed in Table I of 19.15.17.13 NMAC, then WPX can proceed to backfill the pit, pad, or excavation with non-waste containing, uncontaminated, earthen material.

E. Closure notice.

1. EV will notify the surface owner by certified mail, return receipt requested, that the operator plans closure operations at least 72 hours, but not more than one week, prior to any closure operation. Notice shall include well name, API number and location. Evidence of mailing of the notice to the address of the surface owner shown in the county tax records is sufficient to demonstrate compliance with this requirement.

2. EV will notify the appropriate division district office verbally and in writing at least 72 hours, but not more than one week, prior to any closure operation. The notice shall include the operator's name and the location to be closed by unit letter, section,

township, and range. If the closure is associated with a particular well, then the notice shall also include the well's name, number and API number.

4. When onsite burial occurs on private land, EV will file a deed notice identifying the exact location of the onsite burial with the county clerk in the county where the onsite burial occurs.

F. Closure report and burial identification.

1. Within 60 days of closure completion, EV will submit a closure report on form C-144, with necessary attachments to document all closure activities including sampling results; information required by 19.15.17 NMAC; and details on back-filling, capping and covering, where applicable. In the closure report, the operator shall certify that all information in the report and attachments is correct and that the operator has complied with all applicable closure requirements and conditions specified in the approved closure plan. If the operator used a temporary pit, the operator shall provide a plat of the pit location on form C-105 within 60 days of closing the temporary pit.

2. If EV elects to conduct onsite burial under subsection D of 19.15.17.13 NMAC, we will report the exact location of the onsite burial on form C-105 filed with the division.

3. EV will place a flush to grade steel marker at the center of an onsite burial. The steel marker shall be cemented in a three-foot deep hole at a minimum. The operator name, lease name and well number and location, including unit letter, section, township and range, and that the marker designates an onsite burial location shall be welded, stamped, or otherwise permanently engraved into the metal of the steel marker. A person shall not build permanent structures over an onsite burial without the appropriate division district office's written approval.

G. Timing Requirements for closure.

1. EV will close a permitted temporary pit within 60 days of cessation of operation of the pit in accordance with a closure plan approved by the appropriate office.

2. EV will close a permitted temporary pit within six months from the date that the operator releases the drilling/completion/workover rig. The operator shall note the date of the rig release on form C-105 or C-103, filed with the division, upon completion of operations. The appropriate division district office may grant an extension not to exceed three months.

H. Reclamation of pit locations, onsite burial locations, and drying pad locations.

1. Site contouring.

a. Once the operator has closed a pit or trench, the operator shall reclaim the pit location including associated access roads to a safe and stable condition that blends with the surrounding undisturbed area. The operator shall substantially restore the impacted surface area to the condition that existed prior to oil and gas operations by placement of the soil cover as provided in paragraph 2 of subsection H in 19.15.17.13 NMAC, recontour the location and associated areas to a contour that approximates the original contour and blends with the surrounding topography and re-vegetate according to paragraph 5 in subsection H of 19.15.17.13 NMAC.

b. EV may propose an alternative to the re-vegetation or recontouring requirement if the operator demonstrates to the appropriate district office that the proposed alternative provides equal or better prevention of erosion, and protection of fresh water, public health and the environment. The proposed alternative shall be agreed upon by the surface owner. The operator shall submit the proposed alternative, with written documentation that the surface owner agrees to the alternative, to the division for approval.

c. Areas reasonably needed for production operations or for subsequent drilling operations shall be compacted, covered, paved, or otherwise stabilized and

maintained in such a way as to minimize dust and erosion to the extent practicable.

3. Soil cover designs for reclamation of pit locations and onsite burial locations. The soil cover for burial in-place or trench burial shall consist of a minimum of four feet of non-waste containing, uncontaminated, earthen material with chloride concentrations less than 600 mg/kg as analyzed by EPA Method 300.0. The soil cover shall include either the background thickness of topsoil or one foot of suitable material to establish vegetation at the site, whichever is greater.

4. The operator shall construct the soil cover to the site's existing grade and prevent ponding of water and erosion of the cover material.

5. Reclamation and vegetation.

a. Reclamation of areas no longer in use. All areas disturbed by the closure of pits, except areas reasonably needed for production operations or for subsequent drilling operations, shall be reclaimed as early and as nearly practicable to their original condition or their final land use and shall be maintained to control dust and minimize erosion to the extent practicable.

b. Topsoils and subsoils shall be replaced to their original relative positions and contoured so as to achieve erosion control, long-term stability and preservation of surface water flow patterns. The disturbed area then shall be reseeded in the first favorable growing season following closure of a pit.

c. Reclamation of all disturbed areas no longer in use shall be considered complete when all ground surface disturbing activities at the site have been completed, and a uniform vegetative cover has been established that reflects a life-form ration of plus or minus fifty percent (50%) of pre-disturbance levels and a total percent plant cover of at least seventy percent (70%) of pre-disturbance levels, excluding noxious weeds.

d. Other regulatory requirements. The re-vegetation and reclamation obligations imposed by other applicable federal or tribal agencies on lands managed by those agencies shall supersede these revisions 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.

e. The operator shall notify the division when reclamation and re-vegetation are complete.

Table I Closure criteria for soils beneath Below-Grade Tanks, Drying Pads associated							
with Closed-Loop Systems, and Pits where contents are removed Groundwater Groundwater							
Consituent	Method*	>100 FT** 20,000	Old Standard				
Chloride	EPA 300.0	20,000 mg/kg	250 Mg/kg				
	EPA SW-846						
ТРН	Method 418.1	2,500 mg/kg	100 mg/kg				
	EPA SW-846						
	Method 8021B						
BTEX	or8260B	50 mg/kg	50 mg/kg				
	EPA -SW-846						
	Method 8021B or						
Benzene	8015M	10 mg/kg	0.2 mg/kg				
	EPA SW-846						
GRO/DRO	Method 8015B	1,000 mg/kg	500 mg/kg				

Table II Closure criteria for Burial Trenches and waste left in place in Temporary Pits						
Consituent	Method*	Groundwater >100 FT**	Old Standard			
' Chloride	EPA 300.0	80,000 mg/kg	250 Mg/kg			
	EPA SW-846	2.500	100			
ТРН	Method 418.1 EPA SW-846	2,500 mg/kg	100 mg/kg			
BTEX	Method 8021B or8260B	50 mg/kg	50 mg/kg			
	EPA -SW-846 Method 8021B or					
Benzene	8015M	10 mg/kg	0.2 mg/kg			
GRO/DRO	EPA SW-846 Method 8015B	1,000 mg/kg	500 mg/kg			

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* or other test methods approved by the division ** numerical limits or natural background level, whichever is greater [19.15.17.13 NMAC – Rp, 19.15.17.13 NMAC 6/28/13]