District I 1625 N. French Dr., Hobbs, NM 88240 District II 811 S. First St., Artesia, NM 88210 District III 1000 Rio Brazos Road, Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505

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

*Page 1 of 24* Form C-144 Revised April 3, 2017

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.

<u>Pit, Below-Grade Tank, or</u> Proposed Alternative Method Permit or Closure Plan Application
Type of action:       Below grade tank registration         BGT1       Closure of a pit, below-grade tank, or proposed alternative method         Modification to an existing permit/or registration       Modification to an existing permit/or registration         Image: Closure plan only submitted for an existing permitted or non-permitted pit, below-grade tank, or proposed alternative method         Image: Closure plan only submitted for an existing permitted or non-permitted pit, below-grade tank, or proposed alternative method         Image: Closure plan only submitted for an existing permitted or non-permitted pit, below-grade tank, or proposed alternative method         Image: Closure plan only submitted for an existing permitted or non-permitted pit, below-grade tank, or proposed alternative method         Image: Closure plan only submitted for an existing permitted or non-permitted pit, below-grade tank, or proposed alternative method         Image: Closure plan only submitted for an existing permitted or non-permitted pit, below-grade tank, or proposed alternative method         Image: Closure plan only submitted for an existing permitted 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.
Image: Comparison of the second se
API Number:       30-045-60186       OCD Permit Number:         U/L or Qtr/Qtr       B       Section       04         Township       30N       Range       07W         County:       San Juan County
Center of Proposed Design: Latitude <u>36.847841</u> Longitude <u>-107.575125</u> NAD83
Surface Owner: 🗹 Federal 🗌 State 🗌 Private 🗌 Tribal Trust or Indian Allotment
Pit:       Subsection F, G or J of 19.15.17.11 NMAC         Temporary:       Drilling       Workover         Permanent       Emergency       Cavitation       P&A         Multi-Well Fluid Management       Low Chloride Drilling Fluid       yes       no         Lined       Unlined       Liner type:       Thickness       mil       LLDPE       HDPE       PVC       Other
3.         Ø Below-grade tank:       Subsection I of 19.15.17.11 NMAC         Volume:      bbl Type of fluid:       Produced Water         Tank Construction material:       Steel         Ø Secondary containment with leak detection       Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off         Visible sidewalls and liner       Visible sidewalls only       Other         Liner type:       Thickness      mil       HDPE       PVC       Other
<ul> <li>Alternative Method:</li> <li>Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.</li> </ul>
<ul> <li>5.</li> <li>Fencing: Subsection D of 19.15.17.11 NMAC (Applies to permanent pits, temporary pits, and below-grade tanks) <ul> <li>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)</li> <li>Four foot height, four strands of barbed wire evenly spaced between one and four feet</li> <li>Alternate. Please specify Steel Mesh Fence with single strand barbed wire</li> </ul></li></ul>

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

Screen Netting Other\_

 $\square$  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.

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	□ Yes ☑ No □ NA
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 ☐ No ☐ NA
<ul> <li>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)</li> <li>Written confirmation or verification from the municipality; Written approval obtained from the municipality</li> </ul>	🗌 Yes 🗌 No
<ul> <li>Within the area overlying a subsurface mine. (Does not apply to below grade tanks)</li> <li>Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division</li> </ul>	Yes No
<ul> <li>Within an unstable area. (Does not apply to below grade tanks)</li> <li>Engineering measures incorporated into the design; NM Bureau of Geology &amp; Mineral Resources; USGS; NM Geological Society; Topographic map</li> </ul>	🗌 Yes 🗌 No
<ul> <li>Within a 100-year floodplain. (Does not apply to below grade tanks)</li> <li>FEMA map</li> </ul>	🗌 Yes 🗌 No
Below Grade Tanks	
<ul> <li>Within 100 feet of a continuously flowing watercourse, significant watercourse, lake bed, sinkhole, wetland or playa lake (measured from the ordinary high-water mark).</li> <li>Topographic map; Visual inspection (certification) of the proposed site</li> </ul>	🗌 Yes 🔽 No
<ul> <li>Within 200 horizontal feet of a spring or a fresh water well used for public or livestock consumption;.</li> <li>NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site</li> </ul>	🗌 Yes 🗹 No
Temporary Pit using Low Chloride Drilling Fluid (maximum chloride content 15,000 mg/liter)	
<ul> <li>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.)</li> <li>Topographic map; Visual inspection (certification) of the proposed site</li> </ul>	🗌 Yes 🗌 No
Within 300 feet from a occupied permanent residence, school, hospital, institution, or church in existence at the time of initial application.	🗌 Yes 🗌 No
<ul> <li>Visual inspection (certification) of the proposed site; Aerial photo; Satellite image</li> </ul>	
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

Received by OCD: 3/11/2022 3:32:14 PM	Page 3 of 2
<ul> <li>Within 100 feet of a wetland.</li> <li>US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site</li> </ul>	🗌 Yes 🗌 No
Temporary Pit Non-low chloride drilling fluid	
<ul> <li>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).</li> <li>Topographic map; Visual inspection (certification) of the proposed site</li> </ul>	🗌 Yes 🗌 No
<ul> <li>Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.</li> <li>Visual inspection (certification) of the proposed site; Aerial photo; Satellite image</li> </ul>	🗌 Yes 🗌 No
<ul> <li>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;</li> <li>NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site</li> </ul>	🗌 Yes 🗌 No
<ul> <li>Within 300 feet of a wetland.</li> <li>US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site</li> </ul>	🗌 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).	
<ul> <li>Topographic map; Visual inspection (certification) of the proposed site</li> </ul>	🗌 Yes 🗌 No
<ul> <li>Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.</li> <li>Visual inspection (certification) of the proposed site; Aerial photo; Satellite image</li> </ul>	🗌 Yes 🗌 No
<ul> <li>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.</li> <li>NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site</li> </ul>	🗌 Yes 🗌 No
<ul> <li>Within 500 feet of a wetland.</li> <li>US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site</li> </ul>	🗌 Yes 🗌 No
<ul> <li>10.</li> <li>Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19.15.17.9 N 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.</li> <li></li></ul>	cuments are NMAC 15.17.9 NMAC
11.	
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 doc attached. <ul> <li>Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC</li> <li>Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC</li> <li>A List of wells with approved application for permit to drill associated with the pit.</li> <li>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</li> <li>Hydrogeologic Data - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC</li> <li>Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC</li> </ul>	
Previously Approved Design (attach copy of design) API Number: or Permit Number:	

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<sup>12.</sup> <u>Permanent Pits Permit Application Checklist</u> : Subsection B of 19.15.17.9 NMAC <i>Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the</i>	1
<i>attached.</i> 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	uocumenis are
<ul> <li>Stung Criteria Computative Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC</li> <li>Climatological Factors Assessment</li> <li>Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC</li> <li>Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC</li> <li>Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC</li> <li>Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC</li> <li>Quality Control/Quality Assurance Construction and Installation Plan</li> <li>Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.11 NMAC</li> <li>Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC</li> </ul>	
<ul> <li>Nuisance or Hazardous Odors, including H<sub>2</sub>S, Prevention Plan</li> <li>Emergency Response Plan</li> </ul>	
<ul> <li>Oil Field Waste Stream Characterization</li> <li>Monitoring and Inspection Plan</li> </ul>	
<ul> <li>Erosion Control Plan</li> <li>Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC</li> </ul>	
13.	
<b>Proposed Closure:</b> 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	luid Management Pit
Alternative Proposed Closure Method: Waste Excavation and Removal	
<ul> <li>Waste Removal (Closed-loop systems only)</li> <li>On-site Closure Method (Only for temporary pits and closed-loop systems)</li> </ul>	
In-place Burial On-site Trench Burial Alternative Closure Method	
<ul> <li>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.</li> <li> Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC </li> <li> Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.13 NMAC </li> <li> Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings) </li> <li> Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC </li> <li> Re-vegetation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC </li> <li> Site Reclamation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC </li> </ul>	
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. F 19.15.17.10 NMAC for guidance.	rce material are Please refer to
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
<ul> <li>Ground water is more than 100 feet below the bottom of the buried waste.</li> <li>NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells</li> </ul>	☐ Yes ☐ No ☐ NA
<ul> <li>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).</li> <li>Topographic map; Visual inspection (certification) of the proposed site</li> </ul>	🗌 Yes 🗌 No
<ul> <li>Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.</li> <li>Visual inspection (certification) of the proposed site; Aerial photo; Satellite image</li> </ul>	🗌 Yes 🗌 No
<ul> <li>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.</li> <li>NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of the proposed site</li> </ul>	🗌 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	
Form C-144 Oil Conservation Division Page 4 o	f 6

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Received by OCD: 3/11/2022 3:32:14 PM	Page 5 of 2
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
<ul> <li>Within the area overlying a subsurface mine.</li> <li>Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division</li> </ul>	🗌 Yes 🗌 No
<ul> <li>Within an unstable area.</li> <li>Engineering measures incorporated into the design; NM Bureau of Geology &amp; Mineral Resources; USGS; NM Geological Society; Topographic map</li> </ul>	
Within a 100-year floodplain. - FEMA map	☐ Yes ☐ No ☐ Yes ☐ No
<ul> <li>16.</li> <li>On-Site Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be attached to the closure planet by a check mark in the box, that the documents are attached.</li> <li>Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC</li> <li>Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection E of 19.15.17.13 NMAC</li> <li>Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of Subsection K of 19.15.17.13 NMAC</li> <li>Construction/Design Plan of Temporary Pit (for in-place burial of a drying pad) - based upon the appropriate requirements of 19.1</li> <li>Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC</li> <li>Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of 19.15.17.13 NMAC</li> <li>Waste Material Sampling Plan - based upon the appropriate requirements of 19.15.17.13 NMAC</li> <li>Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings or in case on-site closure standards canned Soil Cover Design - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC</li> <li>Re-vegetation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC</li> <li>Site Reclamation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC</li> </ul>	11 NMAC 15.17.11 NMAC
17. <u>Operator Application Certification</u> : I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and believed to the best of	
Signature: Sabre Beebe Date: 03/10/2022	
e-mail address: sabre.beebe@ikavenergy.com Telephone: (970) 852-5172	
18.       OCD Approval:       Permit Application (including closure plan)       Image: Closure Plan (only)       OCD Conditions (see attachment)	
OCD Representative Signature: Approval Date: 07/08/2	2022
Title:   Environmental Specialist-A     OCD Permit Number:   BGT1	
19. <u>Closure Report (required within 60 days of closure completion)</u> : 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 is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not section of the form until an approved closure plan has been obtained and the closure activities have been completed. Closure Completion Date:	
20.         Closure Method:         Waste Excavation and Removal         On-Site Closure Method         Alternative Closure Method         If different from approved plan, please explain.	oop systems only)
<ul> <li>21.</li> <li><u>Closure Report Attachment Checklist</u>: <i>Instructions: Each of the following items must be attached to the closure report. Please ind mark in the box, that the documents are attached.</i></li> <li>Proof of Closure Notice (surface owner and division)</li> </ul>	dicate, by a check

Site Reclamation	(Photo L	Jocumentati	on)
On-site Closure L	location:	Latitude _	

Longitude

NAD: 1927 1983

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<ul><li>22. Operator Closure Certification:</li><li>I hereby certify that the information and attachments submitted with this closure report belief. I also certify that the closure complies with all applicable closure requirements</li></ul>	
Name (Print):	Title:
Signature:	Date:
e-mail address:	Telephone:

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### Hydrogeological Report for the NEBU 44

#### **Geology:**

The stratigraphic sequence of Paleocene and Eocene rocks in the eastern part of the San Juan basin is the Nacimiento and Animas formation overlain by the San Jose Formation. The San Jose Formation of Eocene age was defined by Simpson (1948a, b). It occurs in New Mexico and Colorado and its outcrop forms the land surface over much of the central basin area. It over lies the Nacimiento Formation in the area generally south of the State line (Fassett, 1974. P229). The Basal contact of the San Jose varies with location in the basin. This contact is a disconformity along the basin margins, and it is an angular unconformity along the Nacimiento uplift; the contact is conformable in the central basin. The Nacimiento is a sequence of varicolored beds of sandstone and mudrock that attains a thickness of as much as 120 m thick (Baltz, 1967).

The Animas Formation occupies a stratigraghic position similar to that of the OJO Alamo and Nacimiento Formations. The Animas strata comprise a general fining upward sequence of volcaniclastic conglomerates and sandstones, with arkosic conglomerates and sandstones near the top. The upper member of the Animas has been shown to interfinger with the Nacimiento in its eastern (Dane, 1946) and western (Barnes et al., 1954) ourcrop belts. Subsurface correlation of these formations has not been carried out in any detail because of the difficulty of recognizing their contact on Electric logs (Fasset and Hinds, 1971:33).

The nature of the contact between the lower Eocene San Jose Formation and the Nacimiento formation north of latitude 36 degrees 45'N has been described as conformable (Barnes et al., 1954, Stone et al., 1983 25-26), Whereas at latitude 36 it has been shown to be unconformable (Baltz, 1967; Lucas et al., 1981) Contact relationships between the San Jose and Animas Formations in the northernmost San Juan Basin have been shown to be intertounguing (Smith, 1988). The San Jose formation was deposited in various fluvial type environments. In general the unit consists of an interbeded sequence of sandstone siltstone and variegated shale, the sandstones are buff to yellow and rusty-colored crossbedded very fine to coarse grained arkose, which are locally conglomeratic and contain abundant silicified wood. The thickness of the San Jose Nacimiento and Animas Formations is ranges from zero to more than 3,500 feet in the east central part of the structural basin. The bottom of the Nacimiento and Animas Formations decreases from a maximum altitude of more than 8 000 feet above sea level along the northeastern basin rim to less than 4,000 feet above sea level in the east central part of the basin.

#### **Hydraulic Properties:**

The San Jose, Nacimienito, and Animas Formations are a source of water for publicsupply, commercial, private-domestic, and livestock use in areas where drilling depths and pumping levels are economically feasible and where water quality is suitable. Water in the San Jose Nacimiento and Animas Formations occurs under both water table and artesian conditions. Recharge to the aquifer is from infiltration of precipitation and stream flow on outcrops and from vertical upward leakage of water from underlying units. Transmissivity data for the San Jose Nacimiento and Animas Formations are minimal-Values of 40 and 120 feet squared per day were determined from two aquifer tests (Stone and others 1983 table 5). The reported or measured discharge from 79 water wells completed in the San Jose, Nacimiento, and Animas Formations ranges from 1 to 61 gallons per minute and the median is 6 gallons per minute. The specific capacity of 12 of these wells ranges from 0.03 to 2.30 gallons per minute per foot of drawdown and the median is 0.23 gallon per minute per foot of drawdown. Water quality data described in this section are from the NWIS data base and were collected during 1938. 84 Well records were checked to assure to the extent possible that a particular sample represents water only from the San Jose Nacimiento and Animas Formations and not a mixture of water from other aquifers. Locally however these formations may have substantial differences in the concentration of some water quality constituents due in part to differences in rock characteristics as described in the Geology section.

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#### **Reference:**

USGS Hydrologic investigations atlas HA-720-A plate 1,2 Lucas, Spencer G and Smith, Larry N. 1991, Stratigraphy, Sedimentology and Paleontology of the Lower Eocene San Jose Formation in the central portion of the San Juan basin, Northwestern New Mexico, New Mexico Bureau of Mines & Mineral Resources Bulletin 126. 6-7p.

### **Sitting Requirements for NEBU 44**

The NEBU 44 is not located in an unstable area per topographic map attached.

There is no continuously flowing watercourse near the proposed location.

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The proposed well location is neither near any private and/or public buildings nor any private and/or public water sources.

The proposed well location is not located within any incorporated municipal boundaries or municipal fresh water well field.

There are no wetlands located near the proposed well location as per the wetlands map attached.

Per the NM Bureau of Geology and Mineral Resources map attached there are no locations of any mines, mills or quarries near the proposed well location.

The FEMA floodplain map attached indicates the proposed well location is defined as outside of the 500 Year Flood Plain.

There will be no excavated material placed within 300 feet of a flowing watercourse or within 200 feet of any other defined water course.

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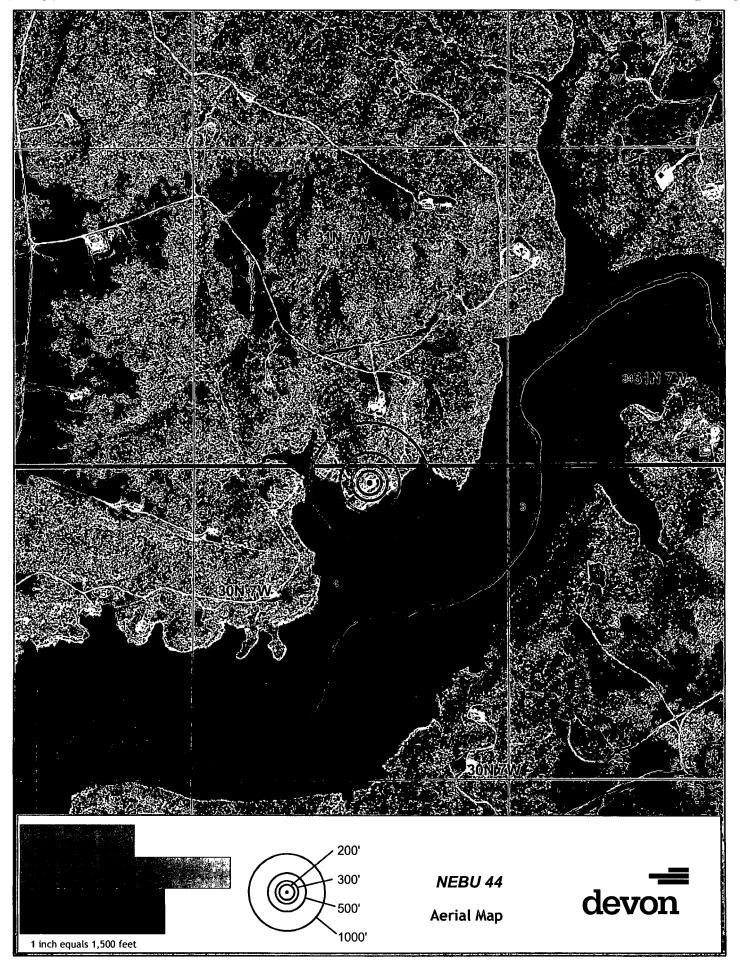
<i>New Mexico Office of the Sta</i> <b>POD Reports and Dow</b>	8
Township: 31N Range: 07W Sections: 4,5	5,3,8,9,10
NAD27 X: Y: Zone:	Search Radius:
County: Basin:	Number: Suffix:
Owner Name: (First) (Last) (Last)	ONon-Domestic ODomestic
POD-/-Surface-Data-Report	
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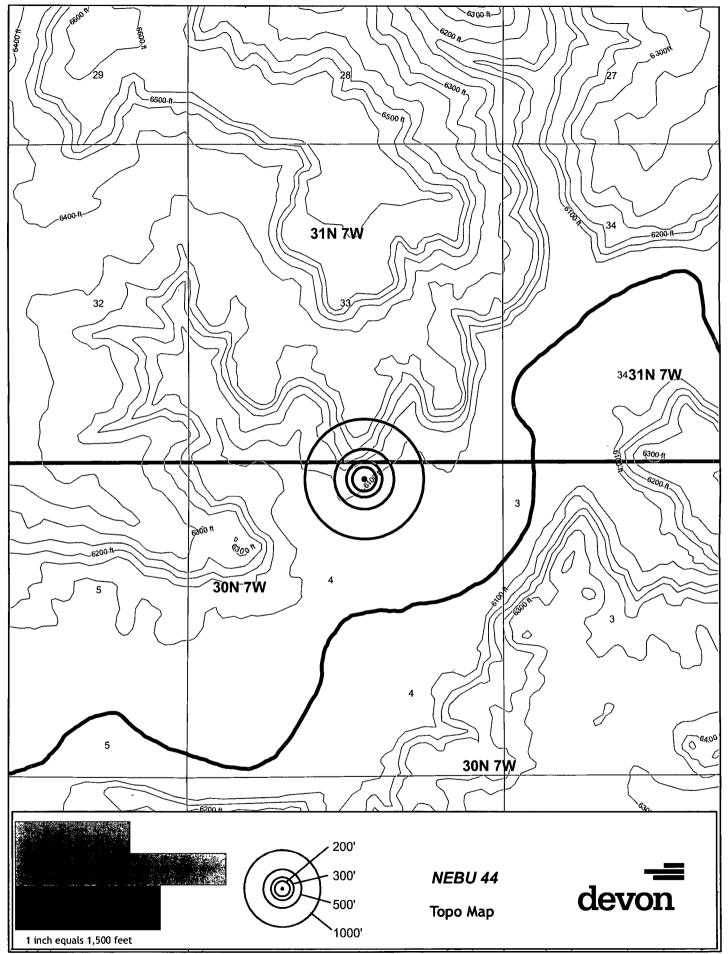
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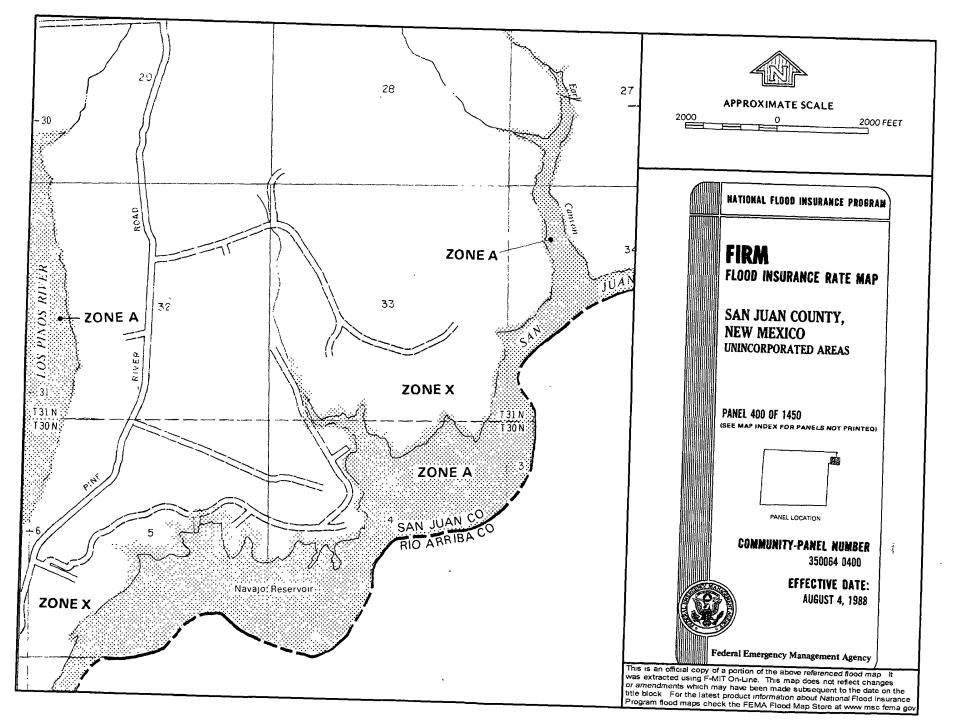
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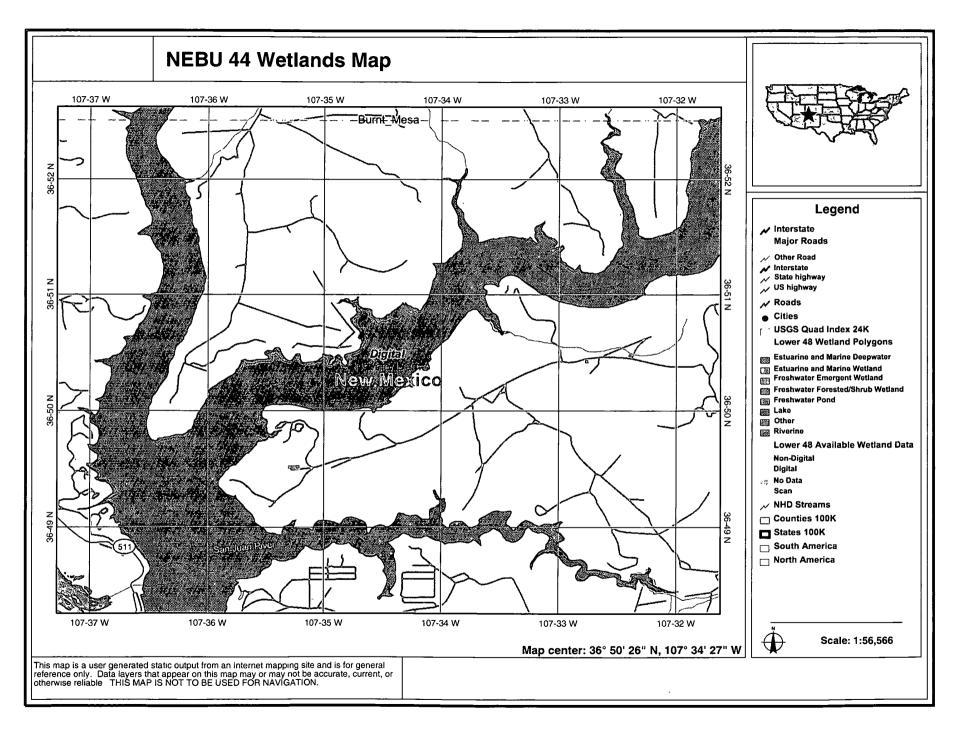
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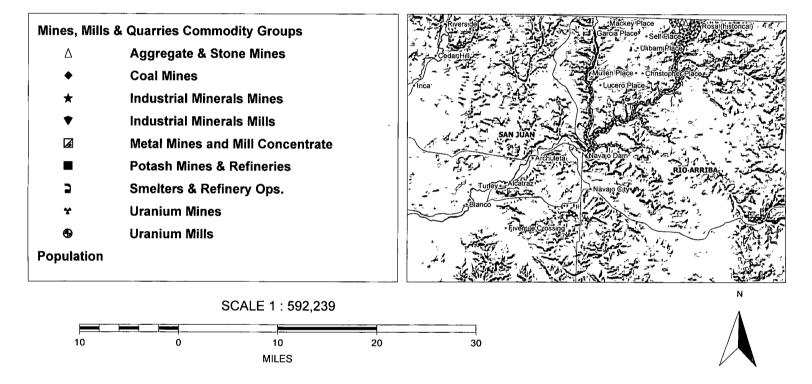
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# Received by OCD: 3/11/2022 3:32:14 PM NEBU 44 Mines, Mills and Quarries Web Map



#### Castro, Melisa

From:	Castro, Melisa
Sent:	Thursday, September 04, 2008 1:21 PM
To:	M Dombrowski - BOR SC
Subject:	NEBU 44 Below-Grade Tank Closure Notification
Attachments	BGT Closure Plan.doc

Devon Energy Corporation 20 North Broadway Oklahoma City, OK 73102-8260

405 552 7917 Phone www.devonenergy.com

September 4, 2008

IN RE: NEBU 44 API # 30-045-60186 NW NE 285' FNL & 2,330' FEL Sec. 4, T30N, R7W San Juan County, New Mexico

VIA EMAIL:

Dear Mr. Dombrowski,

This submittal is pursuant to Rule 19.15.17.13 requiring operators to notify the surface owners of closure pertaining to a below-grade tank. Devon Energy Production Company, L.P. is herby providing written documentation of our future intention to close the below-grade tank associated with the aforementioned location by means of waste excavation and removal.

Please feel free to contact me with any questions or require further information. My contact information is listed below.

Respectfully,

Melisa S. Castro Devon Energy Production Company, L.P. Senior Staff Operations Technician 405-323-3184 - Cell. 405-323-1357 - Fax <u>Melisa.Castro@dvn.com</u>

9/4/2008



### Devon Energy Production Company, L.P. San Juan Basin Below Grade Tank Design and Construction Plan

In accordance with Rule 19.15.17 NMAC the following information describes the design and construction of below grade tanks on Devon Energy Production Company, L.P. locations. This is Devon Energy's standard procedure for all below grade tanks (BGT). A separate plan will be submitted for any BGT which does not conform to this plan.

### **General Plan**

- 1) Devon will design and construct a BGT to contain liquids to prevent contamination of fresh water and protect public health and the environment.
- 2) Devon will use the general location sign posted on location. If no general sign is posted a separate sign at the location of the BGT will be provided.
- 3) Devon shall construct fencing around the BGT using 4 foot hog wire fencing topped with a pipe top rail. A six foot chain link fence topped with three strands of barbed wire will be used if the well location is within 1000 feet of a permanent residence, school, hospital, institution or church.
- 4) Devon will construct an expanded metal covering on the top of the BGT.
- 5) Devon shall ensure that a BGT is constructed of materials resistant to the BGT's particular contents and resistant to damage from sunlight.
- 6) Devon shall have a properly constructed foundation consisting of a level base free of rocks, debris, sharp edges or irregularities to prevent punctures, cracks or indentations of the tank bottom.
- 7) Devon shall construct a BGT to prevent overflow and the collection of surface water runon.
- 8) Devon will construct and use BGT's having double walls. The BGT side walls will be open with a plug for visual inspection for leaks. The bottom shall be elevated with the use of gravel to raise the BGT above the underlying ground surface to prevent damage to the bottom of the BGT.
- 9) The general specification for design and construction are attached in the Devon document.

### Devon Energy Production Company, L.P. San Juan Basin Below Grade Tank Maintenance and Operating Plan

In accordance with Rule 19.15.17 NMAC the following information describes the maintenance and operation of below grade tanks on Devon Energy Production Company, L.P. locations. This is Devon Energy's standard procedure for all below grade tanks. A separate plan will be submitted for any BGT which does not conform to this plan.

### **General Plan**

- 1) Devon will operate and maintain a BGT to contain liquids and solids as well as prevent contamination of fresh water to protect public health and the environment.
- 2) Devon shall not allow a BGT to overflow or allow surface water run-on to enter the BGT.
- 3) Devon shall continuously remove any visible or measurable layer of oil from the fluid surface of a BGT in an effort to prevent significant accumulation of oil overtime.
- 4) Devon shall inspect the BGT at least once a month and maintain a written record of each inspection for five years.
- 5) Devon shall maintain adequate freeboard to prevent overtopping of the BGT.

SIMCOE LLC (Previously BP America) SAN JUAN BASIN, NORTHWEST NEW MEXICO

#### **Below-Grade Tank Closure Plan**

This plan will address the standard protocols and procedures for closure of below-grade tanks (BGTs) on this SIMCOE, LLC well sites. As stipulated in Paragraph A of 19.15.17.13 NMAC, SIMCOE, LLC shall close a BGT within the time periods provided in 19.15.17.13 NMAC, or by an earlier date that the New Mexico Oil Conservation Division (NMOCD) requires because of imminent danger to fresh water, public health, safety, or the environment. If deviations from this plan are necessary, any specific changes will be included on form C-144 and approved by the NMOCD. SIMCOE, LLC shall close an existing BGT that does not meet the requirements of Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC or is not included in Paragraph (5) of Subsection I of 19.15.17.11 NMAC within five years after June 16, 2008, if not retrofit with a BGT that complies with the SIMCOE, LLC NMOCD approved BGT design attached to the SIMCOE, LLC Design and Construction Plan. SIMCOE, LLC shall close an existing BGT that does not meet the requirements of Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC, if not previously retrofitted to comply with the SIMCOE, LLC NMOCD approve BGT Design attached to the SIMCOE, LLC Design and Construction Plan. SIMCOE approve BGT Design attached to the SIMCOE, LLC Design and Construction Plan, prior to any sale or change in operator pursuant to 19.15.9.9 NMAC. SIMCOE, LLC shall close the permitted BGT within 60 days of cessation of the BGTs operation or as required by the transitional provisions of Subsection B, D, or E of 19.15.17.17 NMAC.

#### **General Closure Plan**

- 1. SIMCOE, LLC shall notify the surface owner by certified mail that it plans to close a BGT. Evidence of mailing of the notice to the address of the surface owner shown in the county tax records demonstrates compliance with this requirement.
- 2. SIMCOE, LLC shall notify the division District III office verbally or by other means at least 72 hours, but not more than one (1) 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 BGT closure is associated with a particular well, then the notice shall also include the well's name, number, and API number.
- 3. SIMCOE, LLC shall remove liquids and sludge from the BGT prior to implementing a closure method and dispose of the liquids and sludge in a NMOCD's division-approved facility. The facilities to be utilized are:
  - a. JFJ Land farm, Permit NM-01-010(B) (Solids and Sludge)
  - b. Basin Disposal, Permit NM-01-0005 (Liquids)
  - c. Envirotech Inc Soil Remediation Facility, Permit NM-01-0011 (Solids and Sludge)
  - d. Simcoe, LLC Operated 13 GCU SWD # 1, API 30-045-28601 (Liquids)
  - e. Simcoe, LLC Operated GCU 259 SWD, API 30-045-20006(Liquids)
  - f. Simcoe, LLC Operated GCU 306 SWD, API30-045-24286 (Liquids)
  - g. Simcoe, LLC Operated GCU 307 SWD, API30-045-24248 (Liquids)
  - h. Simcoe, LLC Operated GCU 328 SWD, API 30-045-24735(Liquids)
  - i. Simcoe, LLC Operated Pritchard SWD #1, API 30-045-28351 (Liquids)

- 4. Simcoe, LLC shall remove the BGT and dispose of it in a NMOCD approved facility or recycle, reuse, or reclaim it in a manner that the NMOCD approves. If a liner is present and must be disposed of it will be cleaned by scraping any soils or other attached materials on the liner to a de minimus amount and disposed at a permitted solid waste facility, pursuant to Subparagraph (m) of Paragraph (1) of Subsection C of 19.15.35.8 NMAC. Documentation as to the final disposition of the removed BGT will be provided in the final closure report.
- 5. Simcoe, LLC shall remove any on-site equipment associated with a BGT unless the equipment is required for well production.
- 6. Simcoe, LLC shall sample the soils beneath the BGT to determine whether a release has occurred. Simcoe, LLC shall collect at a minimum: a five (5) point composite sample and individual grab samples from any area that is wet, discolored or showing other evidence of a release and analyze for BTEX, TPH and chlorides. The testing methods for those constituents are as follows.

Cl		ble 1 Beneath Below-Grade Tanks	
Depth below bottom of pit to groundwater less than 10,000 mg/l TDS	Constituent	Method*	Limit**
≤50 feet	Chloride	EPA 300.0	600 mg/kg
	ТРН	EPA SW-846 Method 418.1	100 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8015M	10 mg/kg
51 feet-100 feet	Chloride	EPA 300.0	10,000 mg/kg
	ТРН	EPA SW-846 Method 418.1	2,500 mg/kg
	GRO+DRO	EPA SW-846 Method 8015M	1,000 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8015M	10 mg/kg
<mark>≥ 100 feet</mark>	Chloride	EPA 300.0	20,000 mg/kg
	TPH	EPA SW-846 Method 418.1	2,500 mg/kg
	GRO+DRO	EPA SW-846 Method 8015M	1,000 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8015M	10 mg/kg

Notes: mg/Kg = milligram per kilogram

BTEX = benzene, toluene, ethylbenzene, and total xylenes

**TPH = totalpetroleum hydrocarbons** 

TDS = total dissolved solids.

\* - Or other test methods approved by the division

\*\* - Numerical limits or natural background level, whichever is greater

- 7. Simcoe, LLC shall notify the division District III office of its results on form C-141.
- 8. If it is found that a release has occurred, then Simcoe, LLC will comply with 19.15.30 NMAC and 19.15.29 NMAC, as appropriate.
- 9. If the sampling demonstrates that a release has not occurred or that any release does not exceed the concentrations specified above, then BP shall backfill the excavation, with compacted, non-waste containing, earthen material; construct a division-prescribed soil cover, re-contour and revegetate the location. The location will be reclaimed if it is not with in the active process area.
- 10. Simcoe, LLC shall reclaim the BGT location, and all areas associated with the BGT including associated access roads to a safe and stable condition that blends with the surrounding undisturbed area. Simcoe, LLC 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 Subsection H of 19.15.17.13 NMAC, re-contour the location and associated areas to a contour that approximates the original contour and blends with the surrounding topography and revegetate according to Subsection I of 19.15.17.13 NMAC. 11. The soil cover for closures where the BGT has been removed or remediated to the NMOCD's satisfaction shall consist of the background thickness of topsoil or one foot of suitable material to establish vegetation at the site, whichever is greater.
- 12. Simcoe, LLC shall seed the disturbed area the first growing season after closure of the BGT. Seeding will be conducted by drilling on the contour whenever practical or by other division-approved methods. Vegetative cover will be, at a minimum, 70% of the native perennial vegetative cover (un-affected by overgrazing, fire or other intrusion damaging to native vegetation), consisting of at least three native plant species, including at least one grass, but not including noxious weeds, and maintenance of that cover through two successive growing seasons. During the two growing seasons that prove viability, there shall be no artificial irrigation of the vegetation.
- 13. Simcoe, LLC shall seed, plant and re-seed pursuant to Paragraph (3) of Subsection I of 19.15.17.13 NMAC, until the location successfully achieves the required vegetative cover.
- 14. Pursuant to Paragraph (5) of Subsection I of 19.15.17.13 NMAC, Simcoe, LLC shall notify the NMOCD when it has seeded or planted and when it successfully achieves revegetation.
- 15. Within 60 days of closure completion, Simcoe, LLC shall submit a closure report on NMOCD's form C-144, and will include the following:
  - a. proof of closure notification (surface owner and NMOCD)
  - b. sampling analytical reports: information required by 19.15.17 NMAC.
  - c. disposal facility name and permit number
  - d. details on back-filling, capping, covering, and where applicable re-vegetation application rates and seeding techniques and
  - e. site reclamation, photo documentation. Disposal Facility Name and Permit Number

16. Simcoe, LLC shall certify that all information in the report and attachments is accurate, truthful, and compliant with all applicable closure requirements and conditions specified in the approved closure plan.

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:
SIMCOE LLC	329736
	Action Number:
Durango, CO 81301	89775
	Action Type:
	[C-144] Below Grade Tank Plan (C-144B)
CONDITIONS	

#### CONDITIONS

Created By	Condition	Condition Date
jburdine	None	7/8/2022

CONDITIONS

Page 24 of 24

Action 89775