Form C-141	State of New Mexico	Incident ID	NRM2006956155
Page 6	Oil Conservation Division	District RP	
		Facility ID	API 30-025-36891

Application ID

Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

Closure Report Attachment Checklist: Each of the following items must be included in the closure report.

A scaled site and sampling diagram as described in 19.15.29.11 NMAC

Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Mr. Ralph Butler	Title: Area Operations ManagerDate: July 16, 2021	
email: rbutler@elandenergy.com	Telephone: (214) 368.6100 ext. 2102	
OCD Only		
Received by: Chad Hensley	Date:08/30/2021	
Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.		
Closure Approved by:	Date: 08/30/2021	
Printed Name: Chad Hensley	Title:Environmental Specialist Advanced	



Remediation and Closure Report

Catena Lease – South Vacuum Unit 27-3 Lea County, New Mexico Incident # NRM2006956155

Prepared For:

Sundown Energy, L.P. 16400 Dallas Pkwy, Suite 100 Dallas, TX 75248

Prepared By:

TALON/LPE 408 West Texas Avenue Artesia, New Mexico 88210

July 16, 2021

Page | 1

NMOCD District 1
1625 N. French Dr.
Hobbs, NM 88240

Ms. Christina Eads **EMNRD-Oil Conservation Division** 5200 Oakland Ave, Suite 100 Albuquerque, New Mexico 87113

Subject: Closure Report Catena Lease – South Vacuum Unit 27-3 Lea County, New Mexico Incident # NRM2006956155

Dear Ms. Eads,

Sundown Energy, L.P., has contracted Talon/LPE (Talon) to complete remediation services at the above-referenced location. The results of our remediation activities and closure request are contained herein.

Site Information

The Catena Lease-South Vacuum Unit 27-3 is located approximately 19 miles west of Hobbs, New Mexico. The legal location for this release is Unit Letter I, Section 26, Township 18 South and Range 35 East in Lea County, New Mexico. More specifically, the latitude and longitude for the release are 32.712946 North and -103.434588 West. Site plans are presented in Appendix I.

According to the soil survey provided by the United States Department of Agriculture Natural Resources Conservation Service, the soil in this area is comprised of the Kimbrough-Lea complex, 0 to 3 percent slopes, and is made up of gravelly loam underlain by cemented material. The referenced soil data is attached in Appendix II. Per the New Mexico Bureau of Geology and Mineral Resources, the local surface and shallow geology is comprised of the Ogallala Formation, lower Pleistocene to middle Miocene in age, consisting of alluvial and eolian deposits. Drainage courses in this area are typically dry. The project site is located in a low Karst potential area.

Groundwater and Site Characterization

The United States Geological Survey (USGS) web site indicates that the nearest reported well site is within a 0.5-mile radius of the release site and depth to groundwater is 57-60 feet below ground surface (BGS).

If a release occurs within the following areas, the responsible party must treat the release as if it occurred less than 50 feet to the groundwater in Table I, New Mexico Oil Conservation Division (NMOCD) Rule 19.15.29, NMAC.

Page | 2

Approximate Depth to	o Groundwater	57-60 Feet/BGS
∐Yes ⊠No	Within 300 feet of any continuously flowing wa any other significant watercourse	atercourse or
□Yes ⊠No	Within 200 feet of any lakebed, sinkhole or a	playa lake
□Yes ⊠No	Within 300 feet from an occupied permanent school, hospital, institution or church	residence,
□Yes ⊠No	Within 500 feet of a spring or a private, dome well used by less than five households for do watering purposes	
□Yes ⊠No	Within 1000 feet of any freshwater well or spr	ing
∐Yes ⊠No	Within incorporated municipal boundaries or we municipal freshwater well field covered under ordinance adopted pursuant to Section 3-270	a municipal
□Yes ⊠No	Within 300 feet of a wetland	
□Yes ⊠No	Within the area overlying a subsurface mine	
□Yes ⊠No	Within an unstable area	
□Yes ⊠No	Within a 100-year floodplain	

As this incident occurred in an area with a depth to groundwater of greater than 50-100 feet BGS., the closure criteria for this site is as follows:

Table I Closure Criteria for Soils Impacted by a Release			
Minimum depth below the release to ground water less than 10,000 mg/l TDS	Constituent	Method*	Limit**
51 -100 feet	Chloride***	EPA 300.0 or SM4500 CI B	10,000 mg/kg
	TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015M	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 8260B	10 mg/kg

Incident Description

On February 27, 2020, approximately 20 barrels (bbls) of produced water was released a fused joint on a 3- inch poly line that ruptured due to freezing temperatures. An initial C-141 was submitted on March 9, 2020 and is provided for reference in Appendix III.

Site Assessment

The site assessment and initial remedial activities were completed by Sport Environmental Services. On July 1, 2020, a Site Characterization Report and Proposed Work Plan was submitted to the NMOCD. The work plan was approved by NMOCD.

Talon/LPE was subsequently retained by Sundown Energy to complete the backfilling of the excavation areas and complete a formal closure report.

Remedial Actions

- The entire impacted area was excavated to a depth of 9-12 inches BGS.
- All the excavated material was disposed of at a NMOCD approved solid waste disposal facility.
- The excavated area was backfilled with locally-obtained like material, brought to grade, ripped and contoured to match the surrounding terrain. Photographic documentation is presented in Appendix IV.
- The backfilled area was seeded with BLM LPC seed mixture utilizing a Culti-Pack seed drill. Seeding labels are attached in Appendix V.
- The Final C-141 formally documenting the remedial actions is attached in Appendix III.

Released to Imaging: 8/30/2021 10:41:30 AM

Closure

Based on the site assessment and remedial actions completed for this project, on behalf of Sundown Energy, L.P., we respectfully request that no further actions be required, and that closure of this incident be granted.

Should you have any questions or if further information is required, please do not hesitate to contact our office at 575-746-8768.

Respectfully submitted,

TALON/LPE

Millette

Michael Collier Environmental Tech II

David J. Adkins Regional Manager

Attachments:

Appendix ISite MapsAppendix IISoil SurveyAppendix IIIC-141 Forms, NMOCD CorrespondenceAppendix IVPhotographic DocumentationAppendix VSeed Labels

Page 6 of 23



<u>APPENDIX I</u>

SITE MAPS

Received by OCD: 7/26/2021 1:48:17.PM South Vacuum Unit 27 #003

Sundown Energy L.P. Lea County, NM Location Map

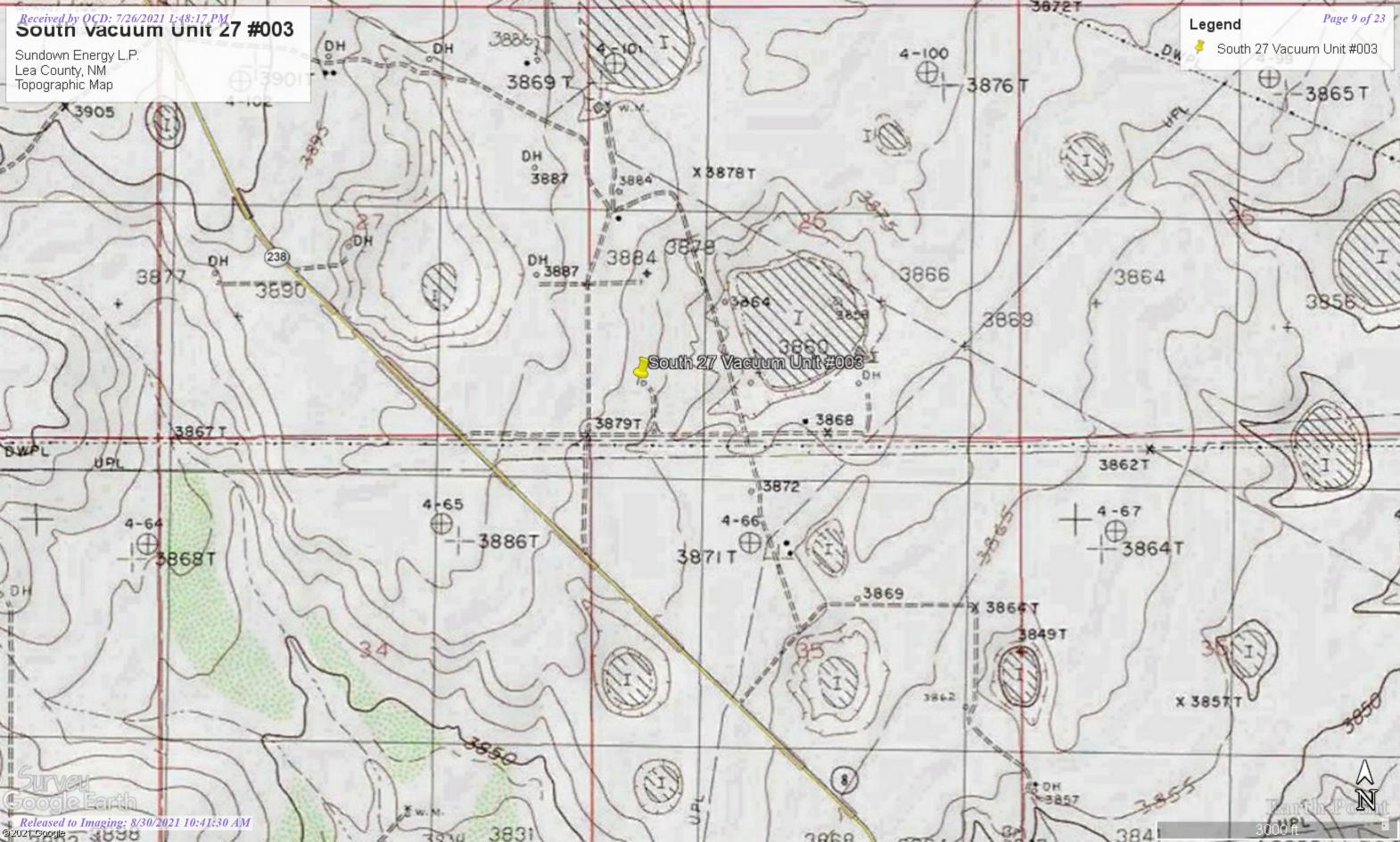
South 27 Vacuum Unit #003

238

529

Survey Google Earth Released to Imaging: 8/30/2021 10:41:30 AM 

Micalisbad





<u>APPENDIX II</u>

SOIL SURVEY

Lea County, New Mexico

KU—Kimbrough-Lea complex, dry, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 2tw46 Elevation: 2,500 to 4,800 feet Mean annual precipitation: 14 to 16 inches Mean annual air temperature: 57 to 63 degrees F Frost-free period: 180 to 220 days Farmland classification: Not prime farmland

Map Unit Composition

Kimbrough and similar soils: 45 percent *Lea and similar soils:* 25 percent *Minor components:* 30 percent *Estimates are based on observations, descriptions, and transects of the mapunit.*

Description of Kimbrough

Setting

Landform: Plains, playa rims Down-slope shape: Linear, convex Across-slope shape: Linear, concave Parent material: Loamy eolian deposits derived from sedimentary rock

Typical profile

A - 0 to 3 inches: gravelly loam Bw - 3 to 10 inches: loam Bkkm1 - 10 to 16 inches: cemented material Bkkm2 - 16 to 80 inches: cemented material

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: 4 to 18 inches to petrocalcic
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.01 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 95 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 1.0
Available water capacity: Very low (about 1.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Map Unit Description: Kimbrough-Lea complex, dry, 0 to 3 percent slopes---Lea County, New Mexico

Land capability classification (nonirrigated): 7s Hydrologic Soil Group: D Ecological site: R077DY049TX - Very Shallow 12-17" PZ Hydric soil rating: No

Description of Lea

Setting

Landform: Plains Down-slope shape: Convex Across-slope shape: Linear Parent material: Calcareous, loamy eolian deposits from the blackwater draw formation of pleistocene age over indurated caliche of pliocene age

Typical profile

A - 0 to 10 inches: loam Bk - 10 to 18 inches: loam Bkk - 18 to 26 inches: gravelly fine sandy loam Bkkm - 26 to 80 inches: cemented material

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: 22 to 30 inches to petrocalcic
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 90 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 3.0
Available water capacity: Very low (about 2.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified Land capability classification (nonirrigated): 7s Hydrologic Soil Group: D Ecological site: R077DY047TX - Sandy Loam 12-17" PZ Hydric soil rating: No

Minor Components

Douro

Percent of map unit: 12 percent Landform: Plains Down-slope shape: Linear Across-slope shape: Linear Ecological site: R077DY047TX - Sandy Loam 12-17" PZ Other vegetative classification: Unnamed (G077DH000TX) Hydric soil rating: No Map Unit Description: Kimbrough-Lea complex, dry, 0 to 3 percent slopes---Lea County, New Mexico

Kenhill

Percent of map unit: 12 percent Landform: Plains Down-slope shape: Linear Across-slope shape: Linear Ecological site: R077DY038TX - Clay Loam 12-17" PZ Hydric soil rating: No

Spraberry

Percent of map unit: 6 percent Landform: Plains, playa rims Down-slope shape: Linear, convex Across-slope shape: Linear Ecological site: R077DY049TX - Very Shallow 12-17" PZ Other vegetative classification: Unnamed (G077DH000TX) Hydric soil rating: No

Data Source Information

Soil Survey Area: Lea County, New Mexico Survey Area Data: Version 17, Jun 8, 2020





<u>APPENDIX III</u>

INITIAL C-141

FINAL C-141

NMOCD Correspondence

Released to Imaging: 8/30/2021 10:41:30 AM

Received by OCD: 7/26/2021 1:48:17 PM

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

505-476-3200

State of New Mexico Energy Minerals and Natural Resources Department

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Form C-141 Revised August 24, 2018 Submit to appropriate OCD District office

)

Page 15 of 23

Incident ID	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party Sundown Energy, LP	OGRID 232611
Contact Name Mr. Ralph Butler	Contact Telephone (214) 368-6100 x2102
Contact email rbutler@elandenergy.com Incident # (assigned by OCD)	
Contact mailing address 16400 Dallas Parkway, Suite 100, Dallas, TX 75248	

Location of Release Source

Latitude 32.7176536_

Longitude -103.4402466

(NAD 83 in decimal degrees to 5 decimal places)

Site Name Catena Lease, South Vacuum Unit 27 #003	Site Type Well Pad
Date Release Discovered 2/27/2020	API# (if applicable)

Unit Letter	Section	Township	Range	County
	27	18S	35E	Lea

Surface Owner: State Federal Tribal Private (Name:

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
Produced Water	Volume Released (bbls) 20	Volume Recovered (bbls) 0
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	Yes No The water's estimated chloride concentration is $\approx 14,000-16,000 \text{ mg/L}$
Condensate	Volume Released (bbls)	Volume Recovered (bbls)
Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)
Cause of Release		

Due to low temperatures, a 3-inch poly-line used to transfer water froze. The line burst at fused joint when it froze.

•

Was this a major release as defined by 19.15.29.7(A) NMAC?	If YES, for what reason(s) does the responsible party consider this a major release?	
🗌 Yes 🖾 No		
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?		

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

 \square The source of the release has been stopped.

The impacted area has been secured to protect human health and the environment.

Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices,

All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

The ground surface at the subject site is flat and the produced water that was release soaked into the ground too quickly to be recovered. No crude oil was present in the released fluids. No free liquids were present once the release had been stopped. No impact to human health or the environment is anticipated based on the volume and characteristics of this release.

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Prover Borresp Signature:	Title:Area Operations Manager Date: 3/9/22200
email:rbutler@elandenergy.com Tele	ephone:(214) 3680-6100 x 2102
OCD Only	
Received by:	Date:

Michael Collier

From:	Eads, Cristina, EMNRD <cristina.eads@state.nm.us></cristina.eads@state.nm.us>	
Sent:	Wednesday, March 31, 2021 11:32 AM	
То:	David J. Adkins	
Cc:	Butler, Ralph	
Subject:	RE: NRM2006956155, Catena Lease, South Vacuum Unit 27-3	

This message originated from an **External Source**. Please use proper judgment and caution when opening attachments, clicking links, or responding to this email.

Hi David,

Yes, I approved the backfill of the excavation, so no additional sampling is required.

Please let me know if you have any additional questions.

Thanks,

Cristina Eads • Environmental Specialist - A Environmental Bureau EMNRD - Oil Conservation Division 5200 Oakland Ave, Suite100 | Albuquerque, NM 87113 505.670.5601 | Cristina.Eads@state.nm.us http://www.emnrd.state.nm.us/OCD/

From: David J. Adkins <dadkins@talonlpe.com>
Sent: Wednesday, March 31, 2021 9:35 AM
To: Eads, Cristina, EMNRD <Cristina.Eads@state.nm.us>
Cc: Butler, Ralph <RButler@elandenergy.com>
Subject: [EXT] NRM2006956155, Catena Lease, South Vacuum Unit 27-3

Hello Cristina,

We have been retained by Sundown Energy to backfill this project and provide the NMOCD with a closure report for the above referenced project. We are currently in a local material pit pushing up backfill. It would appear that you gave permission to backfill and seed this excavation.

I just wanted to verify with you that it's ok to backfill this open excavation as is, and that further sampling/confirmation samples are not required. Thank you.

Respectfully,

Received by OCD: 7/26/2021 1:48:17 PM

David J. Adkins Regional Manager Office: 575.746.8768 x702 Direct: 575.616.4022 Cell: 575.441.4835 Fax: 575.746.8905 Emergency: 866.742.0742 Web: www.talonlpe.com

Form C-141	State of New Mexico	Incident ID	NRM2006956155
Page 6	Oil Conservation Division	District RP	
		Facility ID	API 30-025-36891
		Application ID	

Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

Closure Report Attachment Checklist: Each of the following items must be included in the closure report.

A scaled site and sampling diagram as described in 19.15.29.11 NMAC

Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Title: Area Operations Manager Printed Name: Mr. Ralph Butler Date: July 16, 2021 Signature:

email: rbutler@elandenergy.com

Telephone: (214) 368.6100 ext. 2102

OCD Only

Received by:

Date:				
	_	_	 	 _

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by:	Date:
Printed Name:	Title:



<u>APPENDIX IV</u>

PHOTOGRAPHIC DOCUMENTATION

Sundown Energy, Catena Lease South Vacuum Unit 27-3

PHOTO DOCUMENTATION

Backfilled 1



Backfilled 2





<u>APPENDIX V</u>

SEEDING LABELS

Released to Imaging: 8/30/2021 10:41:30 AM

Curtis and Curtis Seed 4500 Nurth Prince Clavis, NM 88101 Phone: (575) 762-4759 www.curtisseed.com

Lat#: 1909

BLM LPC Mix

Other Crop: 0.11% Weed Seed: 0.10% Inert Matter: 19.53% Noxious: None	This Bag	Dag For 1 A	2 Bulk Pound		Bulk Pounds:	28.02
Variety Not Stated		3.30%	98.00%	0%	65.24%	10/20
Sand Dropscod	Kansas	73.30%		0%	74.26%	08/20
Coreopsis Plains	Kansas	88.40%	84.00%		62.91%	08/20
Big Bluestem Kaw	Texas	67.64%	93.00%	0%	61 010	04/20
Aldous	Missouri	82.45%	97.00%	0%	79.98%	04/20
 Chet Little Bhestem	Kausas	90.16%	99.09%	4%	90.61%	08/20
<u>Item</u> Plaius Bristlegrass Variety Not Stated Sand Bluestem	<u>Origin</u> Oklaboma	<u>Purity</u> 97.43%	<u>Germ</u> 93.00%	Dormant 0%	Total Viable 62.78%	Test Date 97/20

Curtis and Curtis Seed

4500 North Prince Clovis, NM 88101 Phane: (575) 762-4759 www.curtisseed.com

1.01#: 1989

BLM LPC Mix

<u>Item</u> Plaios Bristlegrass Variety Not State	<u>Origin</u> Oklaboma	<u>Purity</u> 97.43%	<u>Germ</u> 93.00%	<u>Dormant</u> 0%	Total Viable 62.78%	<u>Test</u> Date 07/20
Sand Bluestem Chet	Kansas	90.16%	99.00%	04%	90.61%	08/20
Little Bluestem	Missouri	82.45%	97.00%	0%	79.98%	04/20
Big Bluestem Kaw	Texas	67.64%	93.00%	0%	62.91%	08/20
Coreopsis Plains	Kansas	88.40%	84.00%	0 ª/a	74.26%	08/20
Sand Dropseed Variety Not State	Kansas I	73.30%	98.00%	0%	65.24%	10/20
	0% This Bag 3% Use This	re Bags Fo g Weighs 28.0 Bag For 1 A Cuergy Caten	12 Buik Pour cres Driller	nds	Bulk Pounds:	28.02

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	
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Operator:	OGRID:
Talon LPE	329944
408 W Texas	Action Number:
Artesia, NM 88210	38103
	Action Type:
	[C-141] Release Corrective Action (C-141)
	· · · · · · · · · · · · · · · · · · ·

CONDITIONS

Created By	Condition	Condition Date
chensley	None	8/30/2021

Page 23 of 23

Action 38103

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