

NM1 - _____3_____

First Quarter 2019 Progress Report

April 3, 2019



April 3, 2019

Mr. Jim Griswold, Bureau Chief
Environmental Bureau
Oil Conservation Division
New Mexico Department of Energy,
Minerals and Natural Resources Department
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

EMAIL: Jim.Griswold@state.nm.us

**Reference: First Quarter 2019 Progress Report
Sundance Services, Inc. Facility Closure**

Dear Mr. Griswold:

Sundance Services continues their efforts to close the legacy facility represented by Sundance Services, Inc. (SSI). Gordon Environmental/PSC, on behalf of SSI, has compiled the following information related to closure efforts that have been accomplished in the First Quarter of 2019.

The status of the conditions that modified permit NM1-3 and the approved closure plan are as follows:

Condition #1 Begin Closure by 12/31/2017:

- Complete.

Condition #2 Critical Path Schedule:

- Undertaken and updated in this report.
- Sundance has initiated efforts related Milestone #3 (Item 7.c), closure of the two Jet-out Facilities.

Condition #3 Closure Completed by 12/31/2022:

- Underway.

Condition #4 Identify each sump location:

- Completed for Produced Water Tanks.
- Completed for Jet-Out Facilities.

Condition #5 Abandonment of existing wells and the installation of the new vadose zone monitoring (VZM) wells:

- The installation of the new VZM wells was completed in 2017.
- The piezometer abandonment was completed in the 2nd Quarter of 2018.

Condition #6 Quarterly Monitoring events for the vadose zone monitoring wells:

- Based on your direction in our April 2018 meeting, we have discontinued Quarterly sampling.
- Efforts continued to dewater the saturated thickness south of the ponds. Dewatering documentation is provided in Attachment A.
- A "Cut-Off" trench was installed this Quarter as an additional effort to minimize recharge from the ponds to this saturated zone. Liquids entering this trench are pumped back into the ponds to limit additional liquids entering the zone of saturation south of the ponds. This effort has been removing approximately 200 barrels daily since it was installed.

Condition #7 Milestones:

- a) Milestone #1-COMplete.
- b) Milestone #2-COMplete.

Mr. Jim Griswold

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- c) Milestone #3-Removal of all jet-out pits on or before December 31, 2019. In order to accomplish this milestone, a replacement facility must be designed and constructed at Sundance West to replace the jet-out functions currently provided by the SSI facilities. The following schedule has been initiated to accomplish this milestone:
- Design Efforts: Underway
 - Sumps Located: Completed
 - Replacement Commissioned: September 2, 2019
 - Jet-Out decommissioned: September 23, 2019
 - Concrete demolished: October 14, 2019
 - Berms/Sumps excavated: October 31, 2019
 - Confirmation Testing: November 8, 2019
 - Closure Confirmation Report: December 31, 2019
- b) Milestone #4-Draining of all process liquids and decommissioning of facility Ponds 5 and 6 on or before December 31, 2020.
- SSI initiated the transfer of liquids from Pond 5 on 3/8/2018. Liquid levels were reduced.
 - This effort is continuing with the transfer of liquids from Pond 6 to the four new evaporation ponds which were completed during this quarter.
- d) Milestone #5-East Landfill Slopes must be at final grades on or before December 31, 2021.
- SSI has initiated earthmoving efforts moving with over 200,000 cubic yards of material relocated from the east landfill to establish final grades on the east side of the landfill.
 - SSI has developed a revised Final Grading Plan that provides enough capacity to contain the current volume of material present. The original Closure Plan along with this revised Plan is included as Attachment B for OCD review and concurrence.
- e) Milestone #6- Ponds 2, 3, and 9 must be stabilized, all materials removed, the pond area appropriately remediated, and all remaining landfill slopes must be at final grades on or before December 31, 2022.
- SSI continued efforts to stabilize and remove materials from Ponds 2 and 3 for permanent disposal in the closure landfill area.

We appreciate your review of this First Quarter 2019 Progress Report for the Sundance Services, Inc. Facility Closure. Please let us know if you have any questions about this information.

Sincerely,

GORDON ENVIRONMENTAL/PSC



Charles W. Fiedler, P.E., LEED, AP
Senior Associate

cc: Arif Mussani, Sundance Services, Inc.
Hon. Andrew L. Wambsganss, Esq.

Attachments: A-Dewatering Documentation
B-Revised Final Grading Plan

Mr. Jim Griswold

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**First Quarter 2019 Progress Report
Sundance Services, Inc. Facility Closure**

**Attachment A
Dewatering Documentation**



SUNDANCE SERVICES, INC.

Main Office: 575-394-2511

Plant Office: 575-394-3212

Fax: 575-394-2590

1001 6th Street

P.O. Box 1737

Eunice, New Mexico 88231

PARABO DISPOSAL FACILITY

www.sundanceservices.com
www.sundanceservices.net
www.sundanceservices.org

MONITOR WELLS

DATE: OCT - NOV - DEC 2018

WELL #	WELL DIAMETER	Top Gauge	BEFORE PURGING	AFTER PURGING	COMMENTS
MW-7	3.0	49' 8"	29' 6"		
MW-13	3.0				WELL COVER
MW-35	3.0	16' 5"	8"		
MW-36	3.0	42'	23' 3"		
MW-37	3.0	39' 3"	23' 4"		
MW-40	3.0	29' 7"	19'		
MW-41	3.0	77'	56' 8"		
MW-51	3.0	65' 5"	0"		
MW-69	3.0	50' 4"	3"		
MW-71	6.0	61' 9"	41' 9"	28'	Primary Purge Well
MW-73	2.0	32'	20'	10"	Primary Purge Well
MW-74	3.0	28'	22'	2' 1"	
VZ-1	2.0	27' 4"	3"		
VZ-2	2.0	27' 3"	8"		
VZ-3	2.0	28'	5' 1"		
VZ-4	2.0	28'	7' 8"	3' 6"	Primary Purge Well
VZ-5	2.0	32' 6"	31' 1"		
VZ-6	2.0	25' 6"	0"		
VZ-7	2.0	49' 8"	29' 6"		



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MONITOR WELLS

 DATE: AN FEB, MARCH
1 2019

WELL #	WELL DIAMETER	Top Gauge	BEFORE PURGING	AFTER PURGING	COMMENTS
MW-7	3.0	47' 4"	28' 5"		
MW-13	3.0				
MW-35	3.0	18' 6"	5"		
MW-36	3.0	41'	24' 4"		
MW-37	3.0	38' 2"	22' 5"		
MW-40	3.0	29' 6"	20'		
MW-41	3.0	75'	55' 8"		
MW-51	3.0	66' 4"	0"		
MW-69	3.0	51' 5"	4"		
MW-71	6.0	60' 8"	41' 9"		Primary Purge Well
MW-73	2.0	33'	21'		Primary Purge Well
MW-74	3.0	28'	22'		
VZ-1	2.0	26' 5"	4"		
VZ-2	2.0	28' 4"	9"		
VZ-3	2.0	29'	5' 2"		
VZ-4	2.0	29'	8' 9"		Primary Purge Well
VZ-5	2.0	31' 5"	32' 7"		
VZ-6	2.0	25' 7"	0"		
VZ-7	2.0	50' 9"	28' 5"		

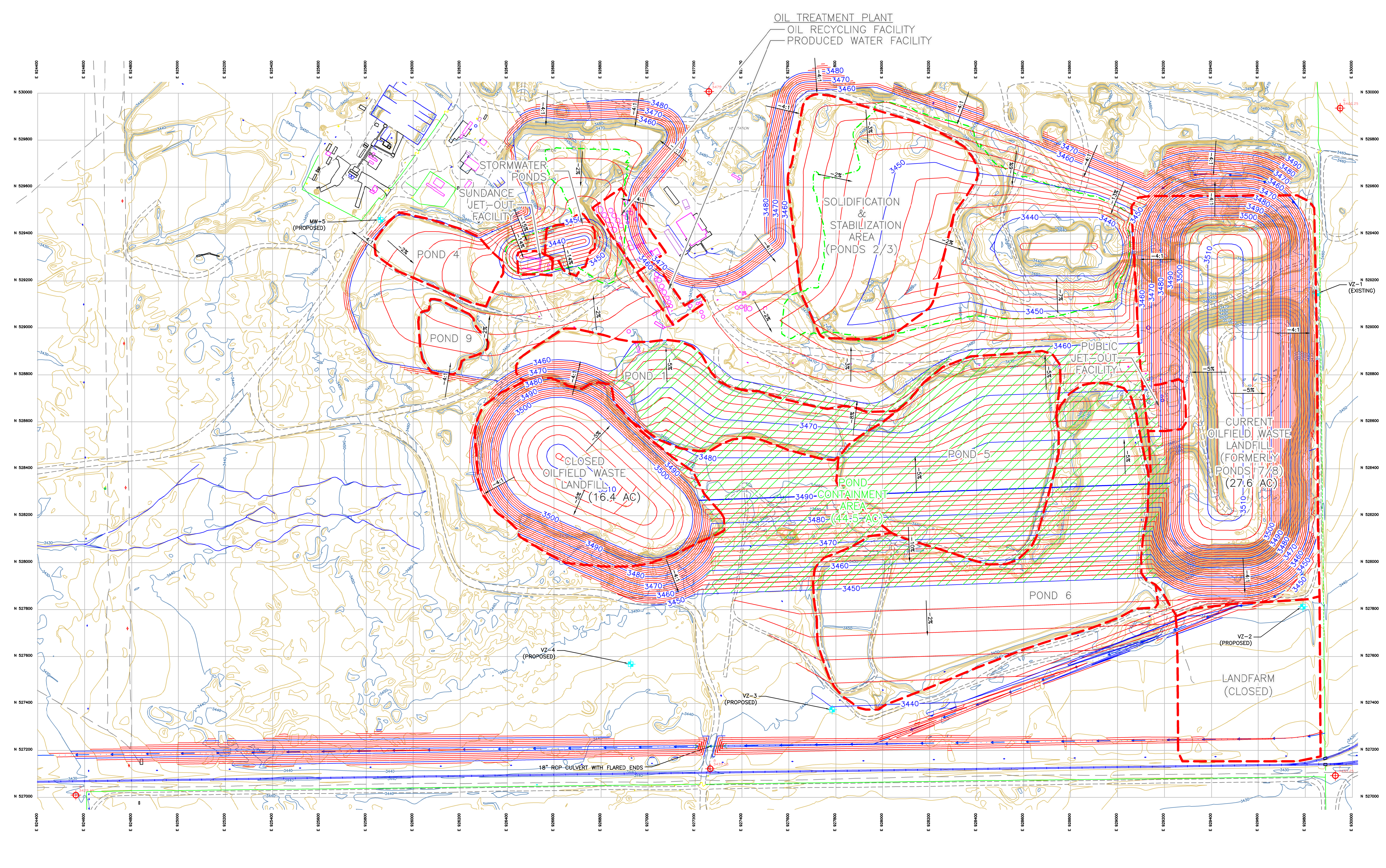
 NEED pond dam IN
 7/1/19

Mr. Jim Griswold

Page 4 of 4

**First Quarter 2019 Progress Report
Sundance Services, Inc. Facility Closure**

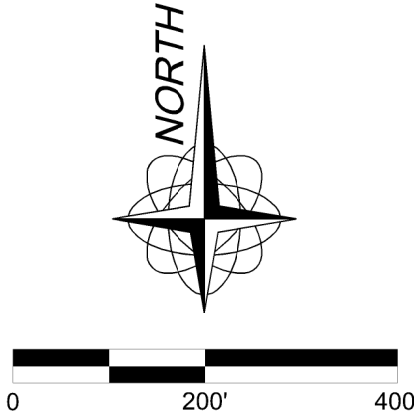
**Attachment B
Revised Final Grading Plan**



Volumetrics Compared to Existing Grade Survey, Sep. 2014			
Area	Cut Vol (Cu. Yards)	Fill Vol (Cu. Yards)	Net Vol (Cu. Yards)
Landfill (old & New, plus 'saddle' between	488,857.29	2,418,376.84	1,929,519.55
Pond Areas	1,852,700.11	44,412.39	(1,808,287.72)
Drainage Channels	85,320.18	1,747.67	(83,572.50)
Total	2,426,877.58	2,464,536.90	37,659.33

LEGEND
APPROXIMATE UNIT BOUNDARIES
CHINLE INTERFACE

NOTE:
SEPTEMBER 9, 2014 AERIAL PHOTOGRAPHY PERFORMED BY BLUE SKIES CONSULTING LLC. MAPPING PERFORMED BY AEROTECH MAPPING INC.



FINAL GRADING PLAN

SUNDANCE SERVICES, INC
SURFACE WASTE MANAGEMENT FACILITY
LEA COUNTY, NEW MEXICO

Gordon Environmental, Inc.

Consulting Engineers

213 S. Camino del Pueblo
Bernalillo, New Mexico, USA
Phone: 505-867-6990
Fax: 505-867-6991

DATE: 09/09/2016
DRAWN BY: ASM
APPROVED BY: IKG

CAD: FINAL GRADING.dwg
REVIEWED BY: CWF
gei@gordonenvironmental.com

PROJECT #: 530.05.01
FIGURE 4

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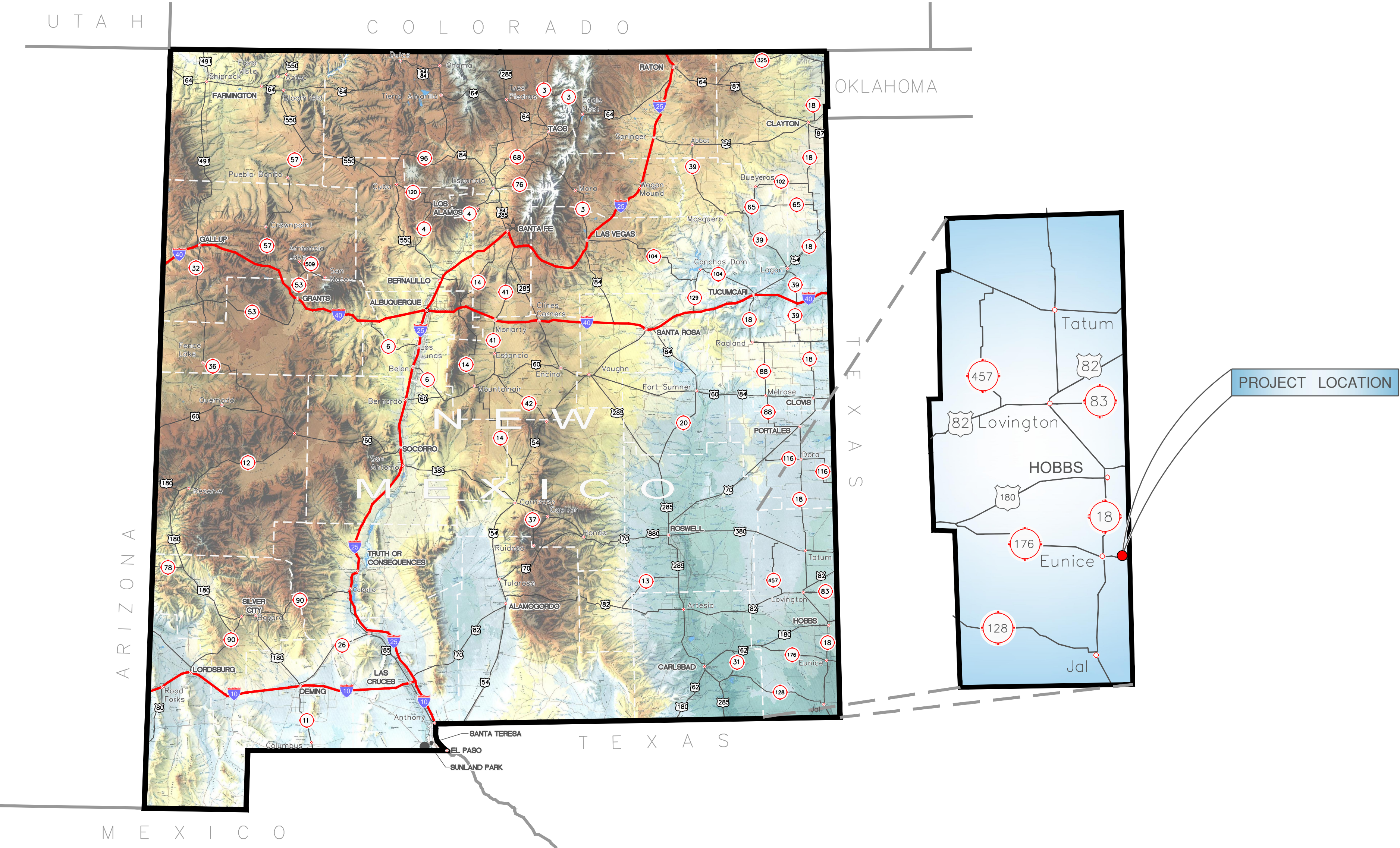
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SUNDANCE SERVICES, INC.

SURFACE WASTE MANAGEMENT FACILITY CLOSURE / POST CLOSURE

LEA COUNTY, NEW MEXICO



GORDON PSC
ENVIRONMENTAL

333 Rio Rancho Blvd. NE
Suite 400
Rio Rancho, NM 87124
505.867.6990

SHEET INDEX

GENERAL

G-001 COVER SHEET AND INDEX

CIVIL

C-101 SITE PLAN EXISTING CONDITIONS
C-102 REVISED FINAL GRADING PLAN
C-103 REVISED FINAL GRADING PLAN & CROSS-SECTIONS
C-104 CUT/FILL VOLUME EXHIBIT



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SUNDANCE SERVICES, INC.

SURFACE WASTE MANAGEMENT FACILITY CLOSURE/ POST CLOSURE PLAN

LEA COUNTY, NEW MEXICO

KEY PLAN

-	04/01/2019	CLIENT REVIEW
NO	DATE	DESCRIPTION
ISSUING OFFICE:		PROJECT NO:

COVER SHEET
AND INDEX

G-001

SET NUMBER



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**SUNDANCE
SERVICES, INC.**

SURFACE WASTE MANAGEMENT FACILITY CLOSURE/ POST CLOSURE PLAN

LEA COUNTY, NEW MEXICO

KEY PLAN

-	04/01/2019	CLIENT REVIEW
NO	DATE	DESCRIPTION
ISSUING OFFICE:		PROJECT NO:

SITE PLAN EXISTING CONDITIONS

C-101



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SURFACE WASTE MANAGEMENT FACILITY CLOSURE/ POST CLOSURE PLAN

LEA COUNTY, NEW MEXICO

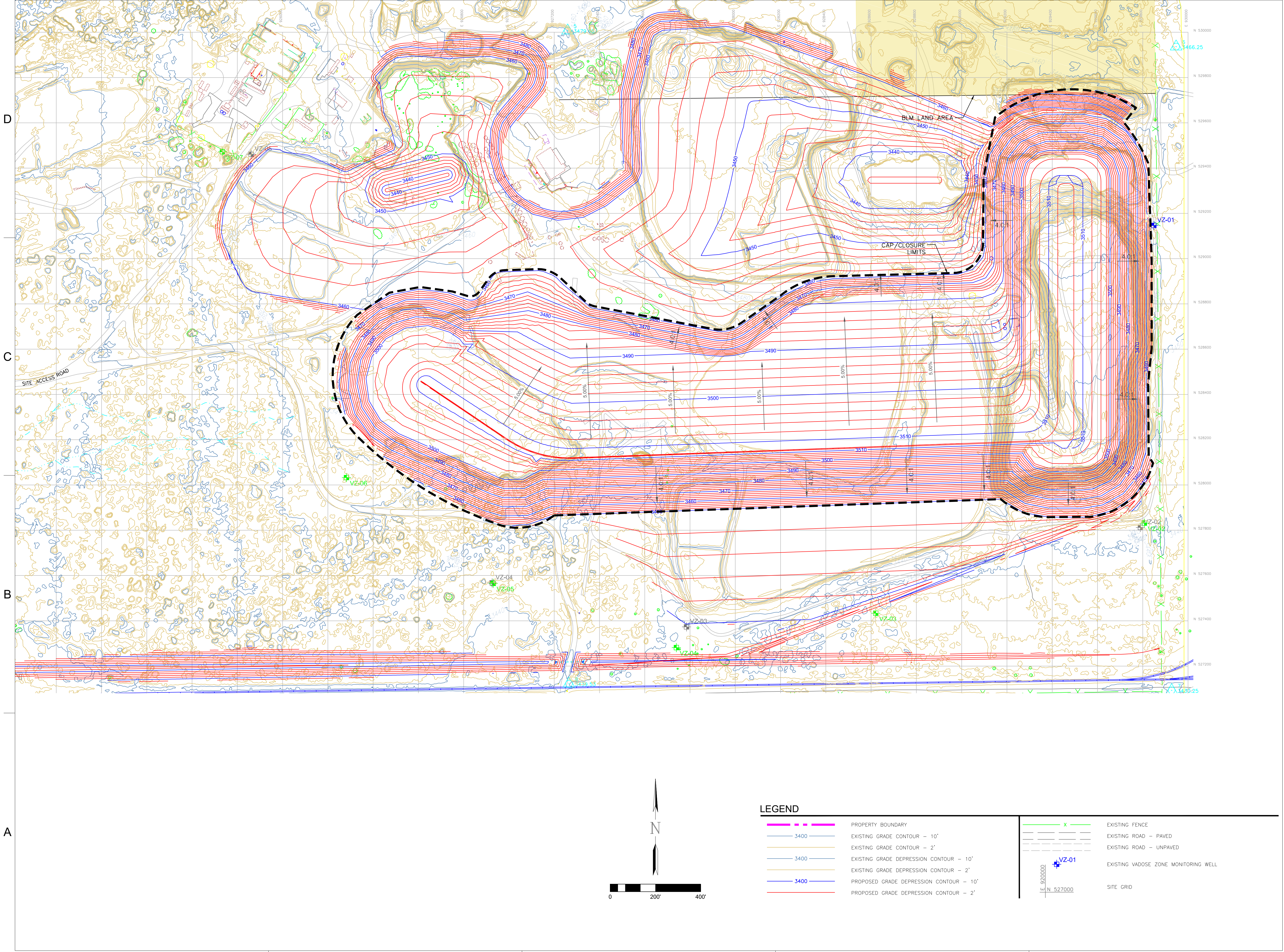
KEY PLAN

04/01/2019	CLIENT REVIEW
NO	DATE
	DESCRIPTION
ISSUING OFFICE:	PROJECT NO:

REVISED
FINAL GRADING
PLAN

C-102

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**SUNDANCE
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SURFACE WASTE MANAGEMENT FACILITY CLOSURE/ POST CLOSURE PLAN

LEA COUNTY, NEW MEXICO

KEY PLAN

-	04/01/2019	CLIENT REVIEW
NO	DATE	DESCRIPTION
ISSUING OFFICE:		PROJECT NO:

REVISED FINAL GRADING PLAN & CROSS-SECTIONS

C-103



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SUNDANCE SERVICES, INC.

SURFACE WASTE MANAGEMENT FACILITY CLOSURE/ POST CLOSURE PLAN

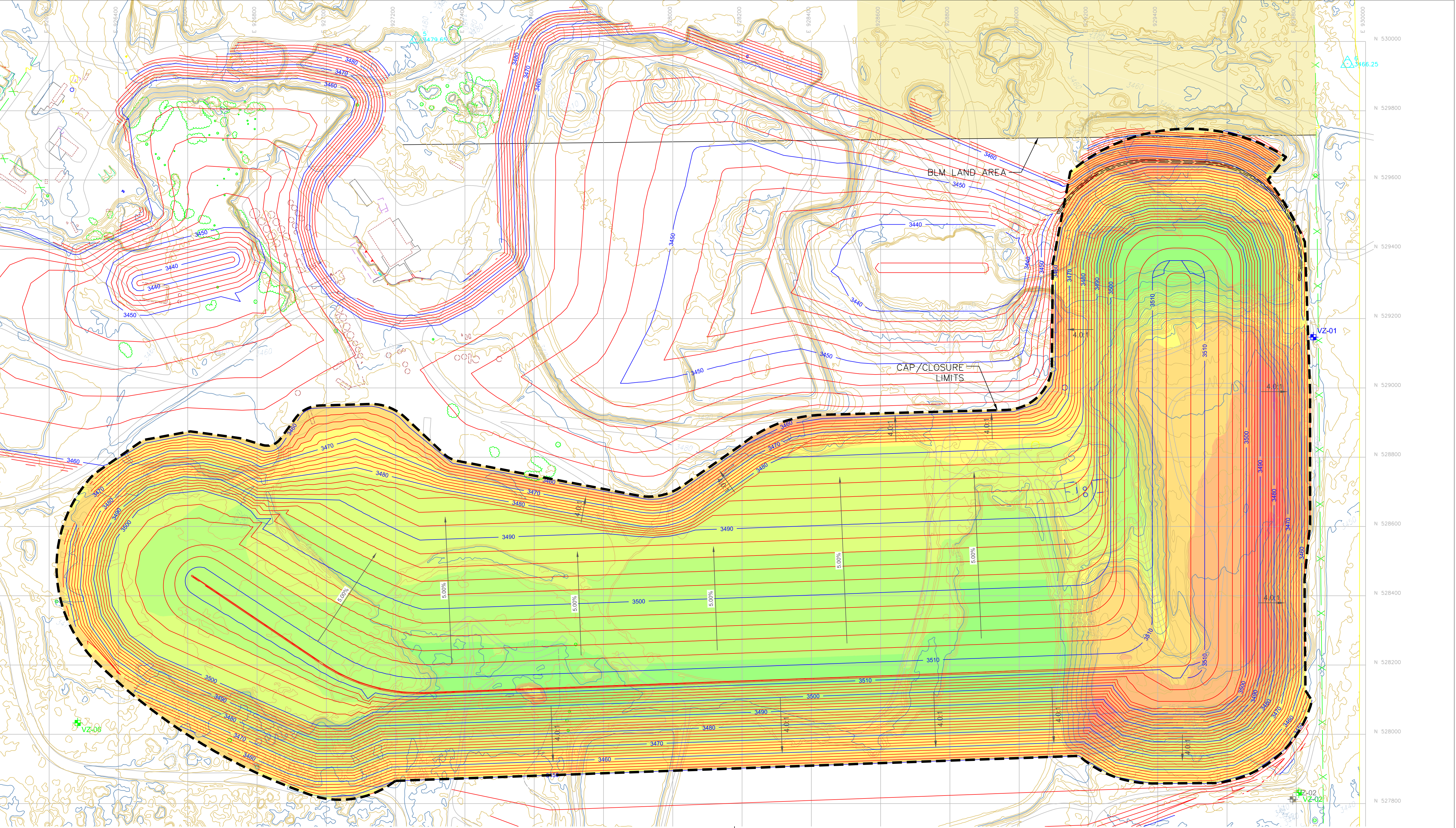
LEA COUNTY, NEW MEXICO

KEY PLAN

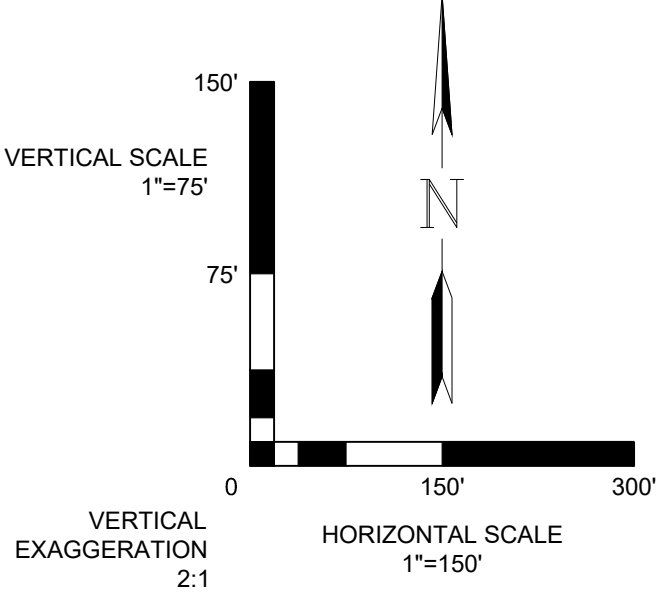
04/01/2019	CLIENT REVIEW
NO DATE	DESCRIPTION
ISSUING OFFICE:	PROJECT NO:

CUT/FILL VOLUME EXHIBIT

C-104



Elevations Table			
Number	Minimum Elevation	Maximum Elevation	Color
1	-52.000	-45.000	
2	-45.000	-30.000	
3	-30.000	-15.000	
4	-15.000	0.000	
5	0.000	15.000	
6	15.000	30.000	
7	30.000	45.000	
8	45.000	67.000	



PLAN VIEW LEGEND

	PROPERTY BOUNDARY		EXISTING FENCE
	EXISTING GRADE CONTOUR - 10'		EXISTING ROAD - PAVED
	EXISTING GRADE CONTOUR - 2'		EXISTING ROAD - UNPAVED
	EXISTING GRADE DEPRESSION CONTOUR - 10'		EXISTING VADOSE ZONE MONITORING WELL
	EXISTING GRADE DEPRESSION CONTOUR - 2'		
	PROPOSED GRADE DEPRESSION CONTOUR - 10'		
	PROPOSED GRADE DEPRESSION CONTOUR - 2'		
			SITE GRID

VOLUME SUMMARY						
Name	Cut Factor	Fill Factor	2D Area (Sq. Ft.)	Cut (Cu. Yd.)	Fill (Cu Yd.)	Net (Cu. Yd)
VOLUME	1.0	1.0	3,942,091	454,020	3,148,739	2,694,719

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

Action 125562

CONDITIONS

Operator: SUNDANCE SERVICES, INC. P.O. Box 1737 Eunice, NM 88231	OGRID: 149972
	Action Number: 125562
	Action Type: [C-137] Non-Fee SWMF Submittal (SWMF NON-FEE SUBMITTAL)

CONDITIONS

Created By	Condition	Condition Date
bjones	None	7/14/2022