

**BEFORE THE OIL CONSERVATION DIVISION
EXAMINER HEARING AUGUST 06, 2020**

CASE No. 21357

LADDER 183527 1H WELL

LEA COUNTY, NEW MEXICO



**STATE OF NEW MEXICO
DEPARTMENT OF ENERGY, MINERALS AND NATURAL RESOURCES
OIL CONSERVATION DIVISION**

**APPLICATIONS OF CATENA RESOURCES
OPERATING, LLC FOR COMPULSORY POOLING,
LEA COUNTY, NEW MEXICO.**

CASE NO. 21357


TABLE OF CONTENTS

- Compulsory Pooling Application Checklist and Filed Application
- **CATENA Exhibit A:** Affidavit of Robert Swann, Land Manager
 - CATENA Exhibit A-1: Draft C-102
 - CATENA Exhibit A-2: General Location Map
 - CATENA Exhibit A-3: Spacing Unit Plat/Ownership Breakdown
 - CATENA Exhibit A-4: Sample Well Proposal Letter /AFEs
 - CATENA Exhibit A-5: Chronology of Contact
- **CATENA Exhibit B:** Affidavit of Vince Smith, Geologist
 - CATENA Exhibit B-1: Subsea Structure Map
 - CATENA Exhibit B-2: Stratigraphic Cross Section
 - CATENA Exhibit B-3 Well orientation Map
- **CATENA Exhibit C:** Notice Affidavit

COMPULSORY POOLING APPLICATION CHECKLIST

ALL INFORMATION IN THE APPLICATION MUST BE SUPPORTED BY SIGNED AFFIDAVITS

Case: 21357	APPLICANT'S RESPONSE
Date: August 4, 2020	
Applicant	Catena Resources Operating, LLC
Designated Operator & OGRID (affiliation if applicable)	Catena Resources Operating, LLC (OGRID No. 328449)
Applicant's Counsel:	Holland & Hart LLP
Case Title:	APPLICATION OF CATENA RESOURCES OPERATING, LLC FOR COMPULSORY POOLING, LEA COUNTY, NEW MEXICO.
Entries of Appearance/Intervenors:	
Well Family	Ladder 183527 1H
Formation/Pool	
Formation Name(s) or Vertical Extent:	Bone Spring Formation
Primary Product (Oil or Gas):	Oil
Pooling this vertical extent:	Bone Spring Formation
Pool Name and Pool Code:	Scharb; Bone Spring (Bone Spring 55610)
Well Location Setback Rules:	Statewide horizontal oil well rules
Spacing Unit Size:	640-acres, more or less
Spacing Unit	
Type (Horizontal/Vertical)	Horizontal well spacing unit
Size (Acres)	640 acres, more or less
Building Blocks:	quarter-quarter sections
Orientation:	South to North
Description: TRS/County	W/2 of Sections 22 and 27, Township 18 South, Range 35 East, NMPM, Lea County, New Mexico.
Standard Horizontal Well Spacing Unit (Y/N), If No, describe	Yes
Other Situations	
Depth Severance: Y/N. If yes, description	None
Proximity Tracts: If yes, description	E/2 W/2 of Sections 22 and 27
Proximity Defining Well: if yes, description	Ladder 183527 1H
Applicant's Ownership in Each Tract	Exhibit A-3
Well(s)	
Name & API (if assigned), surface and bottom hole location, footages, completion target, orientation, completion status (standard or non-standard)	Add wells as needed
Well #1	<u>Ladder 183527 1H</u> (API # Pending) SHL: 190' FSL & 1290' FWL (Unit M), Sec. 27, T18S, R35E BHL: 100' FNL & 1290' FWL (Unit D), Sec. 22, T18S, R35E Completion target: Bone Spring Well orientation: South to North Completion location: expected to be standard
Horizontal Well First and Last Take Points	See Exhibit A-1
Completion Target (Formation, TVD and MD)	See Exhibit B
AFE Capex and Operating Costs	
Drilling Supervision/Month \$	\$8,000
Production Supervision/Month \$	\$800
Justification for Supervision Costs	See Exhibit A
Requested Risk Charge	200%

Notice of Hearing	
Proposed Notice of Hearing	Exhibit C
Proof of Mailed Notice of Hearing (20 days before hearing)	Exhibit C
Proof of Published Notice of Hearing (10 days before hearing)	N/A
Ownership Determination	
Land Ownership Schematic of the Spacing Unit	Exhibit A-3
Tract List (including lease numbers and owners)	Exhibit A-3
Pooled Parties (including ownership type)	Exhibit A-3
Unlocatable Parties to be Pooled	None
Ownership Depth Severance (including percentage above & below)	N/A
Joinder	
Sample Copy of Proposal Letter	Exhibit A-4
List of Interest Owners (ie Exhibit A of JOA)	Exhibit A-3
Chronology of Contact with Non-Joined Working Interests	Exhibit A-5
Overhead Rates In Proposal Letter	Exhibit A-4
Cost Estimate to Drill and Complete	Exhibit A-4
Cost Estimate to Equip Well	Exhibit A-4
Cost Estimate for Production Facilities	Exhibit A-4
Geology	
Summary (including special considerations)	Exhibit B
Spacing Unit Schematic	Exhibit A-2
Gunbarrel/Lateral Trajectory Schematic	Exhibit A-2
Well Orientation (with rationale)	Exhibit B-3
Target Formation	Exhibit B
HSU Cross Section	Exhibit B-2
Depth Severance Discussion	N/A
Forms, Figures and Tables	
C-102	Exhibit A-1
Tracts	Exhibit A-3
Summary of Interests, Unit Recapitulation (Tracts)	Exhibit A-3
General Location Map (including basin)	Exhibit A-2
Well Bore Location Map	Exhibit A-2
Structure Contour Map - Subsea Depth	Exhibit B-1
Cross Section Location Map (including wells)	Exhibit B-1
Cross Section (including Landing Zone)	Exhibit B-2
Additional Information	
Special Provisions/Stipulations	None
CERTIFICATION: I hereby certify that the information provided in this checklist is complete and accurate.	
Printed Name (Attorney or Party Representative):	Michael H. Feldewert
Signed Name (Attorney or Party Representative):	
Date:	4-Aug-20

**STATE OF NEW MEXICO
DEPARTMENT OF ENERGY, MINERALS AND NATURAL RESOURCES
OIL CONSERVATION DIVISION**

**APPLICATION OF CATENA RESOURCES
OPERATING, LLC FOR COMPULSORY
POOLING, LEA COUNTY, NEW MEXICO.**

CASE NO. 21357

APPLICATION

Catena Resources Operating, LLC ("Applicant") (OGRID No. 328449), through its undersigned attorneys, hereby files this application with the Oil Conservation Division pursuant to the provisions of NMSA 1978, § 70-2-17, for an order pooling all uncommitted interests in the Bone Spring formation underlying a standard 640-acre, more or less, horizontal spacing unit comprised of the W/2 of Sections 22 and 27, Township 18 South, Range 35 East, Lea County, New Mexico. In support Applicant states:

1. Applicant is a working interest owner in the proposed horizontal spacing unit and has the right to drill thereon.
2. Applicant seeks to initially dedicate the above-referenced spacing unit to the proposed **Ladder 183527 1H Well** to be horizontally drilled from a surface location in the SW/4 SW/4 (Unit M) of Section 27 to a bottom hole location in the NW/4 NW/4 (Unit D) of Section 22.
3. The completed interval for the proposed well will remain within 330 feet of the E/2 W/2 of Sections 22 and 27 to allow inclusion of this offsetting acreage in a standard horizontal well spacing unit.
4. Applicant has sought and been unable to obtain voluntary agreement for the development of these lands from all interest owners in the subject spacing unit.

5. The pooling of interests will avoid the drilling of unnecessary wells, will prevent waste, and will protect correlative rights.

6. In order to permit Applicant to obtain its just and fair share of the oil and gas underlying the subject lands, all uncommitted interests in this horizontal spacing unit should be pooled, and Applicant should be designated the operator of the proposed well and horizontal spacing unit.

WHEREFORE, Applicant requests that this application be set for hearing before an Examiner of the Oil Conservation Division on July 23, 2020, and, after notice and hearing as required by law, the Division enter an order:

- A. Pooling all uncommitted interests in the horizontal spacing unit and approving the initial well thereon;
- B. Designating Applicant as operator of the horizontal spacing unit and the horizontal wells to be drilled thereon;
- C. Authorizing Applicant to recover its costs of drilling, equipping, and completing the well;
- D. Approving the actual operating charges and costs of supervision while drilling and after completion, together with a provision adjusting the rates pursuant to the COPAS accounting procedures; and
- E. Imposing a 200% charge for the risk assumed by Applicant in drilling and completing the well against any working interest owner who does not voluntarily participate in the drilling of the well.

Respectfully submitted,

HOLLAND & HART LLP

By: 

Michael H. Feldewert

Adam G. Rankin

Julia Broggi

Kaitlyn A. Luck

Post Office Box 2208

Santa Fe, New Mexico 87504-2208

(505) 988-4421

(505) 983-6043 Facsimile

mhfrldewert@hollandhart.com

agrarkin@hollandhart.com

jbroggi@hollandhart.com

kaluck@hollandhart.com

**ATTORNEYS FOR
CATENA RESOURCES OPERATING, LLC**

STATE OF NEW MEXICO
DEPARTMENT OF ENERGY, MINERALS AND NATURAL RESOURCES
OIL CONSERVATION DIVISION

APPLICATION OF CATENA RESOURCES
OPERATING, LLC FOR COMPULSORY
POOLING, LEA COUNTY, NEW MEXICO

CASE NO. 21357

AFFIDAVIT OF ROBERT SWANN

Robert Swann, of lawful age and being first duly sworn, declares as follows:

1. My name is Robert Swann. I am a Land Manager with Catena Resources Operating, LLC ("Catena").
2. I have previously testified before the New Mexico Oil Conservation Division as an expert witness in petroleum land matters. My credentials as a petroleum land manager have been accepted by the Division and made a matter of record.
3. I am familiar with the application filed by Catena in this case, and I am familiar with the status of the lands in the subject area.
4. The uncommitted parties have not indicated any opposition to this pooling application, and therefore I do not expect any opposition at the hearing
5. Catena seeks an order pooling all uncommitted interests in the Bone Spring formation [Scharb; Bone Spring Pool (55610)] underlying a standard 640-acre horizontal spacing unit comprised of the W/2 of Sections 22 and 27, Township 18 South, Range 35 East, Lea County, New Mexico.
6. Catena seeks to initially dedicate the above horizontal spacing unit to the **Ladder 183527 1H** well to be horizontally drilled from a surface location in the SW/4 SW/4 (Unit M) of Section 27 to a bottom hole location in the NW/4 NW/4 (Unit D) of Section 22. The completed

interval for the proposed well will remain within 330 feet of the E/2 W/2 of Sections 22 and 27 to allow inclusion of this offsetting acreage in a standard horizontal well spacing unit.

7. **Exhibit A-1** contains the Form C-102 for the proposed well.

8. **Exhibit A-2** is a general location map outlining the acreage being pooled and the lateral trajectory of the proposed well. The acreage is comprised of state and fee lands.

9. **Exhibit A-3** identifies the tracts of land comprising the proposed spacing unit, the working interest ownership in each tract and their respective interest in the horizontal spacing unit. The mineral owners that remain to be pooled are highlighted on Exhibit A-3.

10. No ownership depth severances exist within in the Bone Spring formation underlying the subject acreage.

11. Catena has conducted a diligent search of company records, county records, telephone directories and conducted computer searches to locate contact information for each of the mineral owners that it seeks to pool.

12. **Exhibit A-4** contains a sample of the letters and AFE's for the proposed well sent to the working interest owners that Catena has been able to locate. The costs reflected on these AFE's are consistent with what Catena and other operators have incurred for drilling similar horizontal wells in the area in these formations.

13. **Exhibit A-5** contains a chronology of the contacts with the uncommitted mineral owners Catena was able to locate. Catena has made a good faith effort to obtain voluntary joinder of these owners in the proposed wells.

14. Catena requests overhead and administrative rates of \$8,000 per month for drilling and \$800 per month for a producing well. These rates are consistent with the rates charged by Catena and other operators for similar wells in this area.

15. I have provided the law firm of Holland and Hart, LLP, with the names and addresses (where available) of the mineral owners that Catena seeks to pool and instructed that they be notified of this hearing.

16. Exhibits A-1 through A-5 were prepared by me or compiled under my direction from company business records.

FURTHER AFFIANT SAYETH NAUGHT



ROBERT SWANN

STATE OF TEXAS)
)
COUNTY OF BEXAR)

SUBSCRIBED and SWORN to before me this 4th day of AUGUST 2020 by Robert Swann.




NOTARY PUBLIC

My Commission Expires:

12/05/2023

15143226_v1

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 Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number		² Pool Code 55610		³ Pool Name Scharb; Bone Spring	
⁴ Property Code		⁵ Property Name Ladder 183527			⁶ Well Number 111
⁷ OGRID No. 328449		⁸ Operator Name Catena Resources Operating, L.L.C.			⁹ Elevation

¹⁰ Surface Location

U.L. or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	27	18 S	35 E		190'	South	1290'	West	Lea

¹¹ Bottom Hole Location If Different From Surface

U.L. or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	22	18 S	35 E		100'	North	1290'	West	Lea

¹² Dedicated Acres 640.00	¹³ Joint or Infill	¹⁴ Consolidation Code COM	¹⁵ Order No.
---	-------------------------------	---	-------------------------

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

NWNE	NENE	NWNW	N	NENE	NWNW	NENW
SWNE	SENE	SWNW	SENW	SWNE	SENE	SWNW
NWSE	NESE	NWSW	NESW	NWSE	NESE	NWSW
SWSE	SESE	SWSW	SESW	SWSE	SESE	SWSW
NWNE	NENE	NWNW	NENW	NWNE	NENE	NWNW
SWNE	SENE	SWNW	SENW	SWNE	SENE	SWNW
NWSE	NESE	NWSW	NESW	NWSE	NESE	NWSW
SWSE	SESE	SWSW	SESW	SWSE	SESE	SWSW

BHL & LTP
100' FNL
1290' FWL
S-22, 18S,35E

22

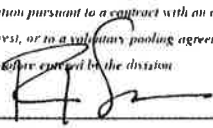
27

SHL
190' FSL
1290' FWL
S-27, 18S,35E

FTP
100' FSL
1290' FWL
S-27, 18S,35E

¹⁷ OPERATOR CERTIFICATION

I hereby certify that the information submitted hereto is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or leased mineral interest in the land including the proposed bottom hole location has a right to drill this well this location pursuant to a contract with an owner of such a mineral or work interest, or to a voluntary pooling agreement or compulsory pooling order heretofore entered by the division.

Signature:  Date: 8/4/2020

Printed Name: ROBERT SWANN

E-mail Address: rswann@catenares.com

¹⁸ SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

Date of Survey: _____

Signature and Seal of Professional Surveyor: _____

Certificate Number: _____

BEFORE THE OIL CONSERVATION DIVISION

Santa Fe, New Mexico

Exhibit No. A1

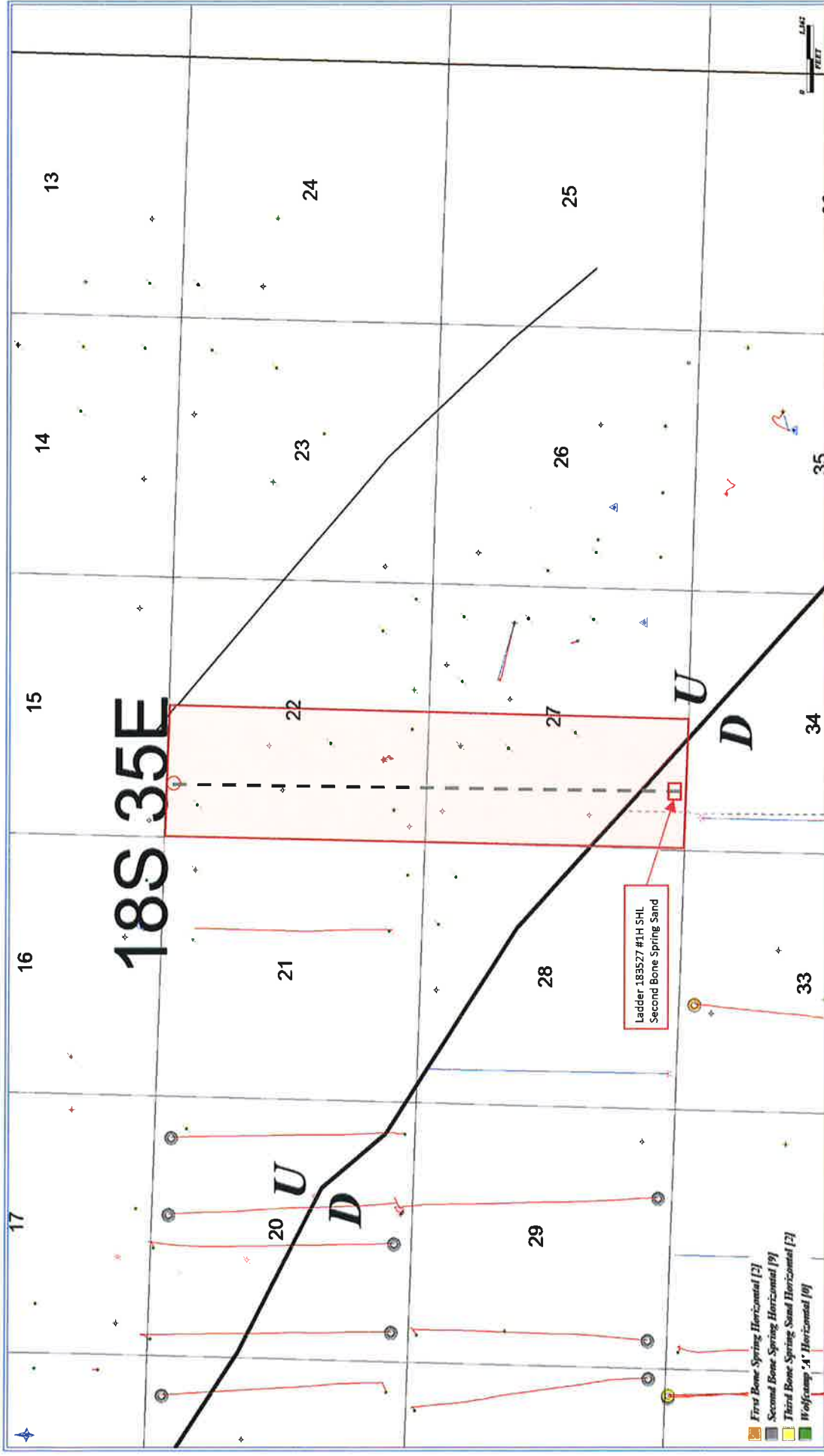
Submitted by: Catena Resources Operating, LLC

Hearing Date: August 06, 2020

Case No. 21357

Ladder 183527 #1H

Locator Map



BEFORE THE OIL CONSERVATION DIVISION
Santa Fe, New Mexico
Exhibit No. A2

Submitted by: Catena Resources Operating, LLC
Hearing Date: August 06, 2020
Case No. 21357

Catena Resources Operating, LLC
Ladder 183527 1H - Bone Spring
Case No. 21357

The figure is a 10x10 grid map. The grid is divided into four 5x5 quadrants by a horizontal line and a vertical line. The quadrants are labeled with numbers 1, 2, 3, and 4 in the center. The grid is also divided into four 2.5x2.5 sub-quadrants by a horizontal line and a vertical line. The sub-quadrants are labeled with numbers 21, 22, 27, and 28 in the center. The grid is also divided into four 2.5x2.5 sub-quadrants by a horizontal line and a vertical line. The sub-quadrants are labeled with numbers 21, 22, 27, and 28 in the center. The grid is also divided into four 2.5x2.5 sub-quadrants by a horizontal line and a vertical line. The sub-quadrants are labeled with numbers 21, 22, 27, and 28 in the center.

Wind Rose	Wind Direction	Frequency (%)
1	N	21
2	N	22
3	N	27
4	N	28

Unit Size	Ladder 183527 1H - Bone Springs - Case No. 21357			
640				
WI Owner	Tract No	Tract Gross	Tract WI	Tract NMA
Catena Resources Operating	1	80	100.00%	80.000
Catena Resources Operating	2	160	100.00%	160.000
Catena Resources Operating	4	80	100.00%	80.000
Marathon Oil Permian LLC	1	320	100.00%	320.000
Tract Totals				640.000

WI Owner	Unit WI	Unit NMA
Catena Resources Operating	50.00%	320.000
Marathon Oil Permian LLC	50.00%	320.000
Unit Totals	100.00%	640.000



June 10, 2020

Via Certified Mail

Honeysuckle Exploration

Re: **Ladder 183527 1H Well Proposal**
Bone Spring Formation
W/2 of Section 22 T18S, 35E, and Section 27, T18S, R35E
Lea County, New Mexico

Ladies and Gentlemen,

Catena Resources Operating, LLC ("Catena") as Operator hereby proposes to drill the following wells to a depth sufficient to test the Bone Spring formation:

Well Name	SHL Sec. 27	BHL Sec. 22	Spacing Unit 640 Acres	Target TVD	Estimated TMD
Ladder 183527 1H Bone Spring Formation	FSL: 190' FWL: 1290'	FNL: 100' FWL: 1290'	W/2 of Section 22, T18S, 35E and Section 27, T18S, R35E	9,465'	20,202'

These proposed locations and target depths are subject to change depending on any surface or subsurface concerns encountered.

Regarding the above, enclosed for your further handling are our AFE's dated April 16, 2020 for the proposed wells. The AFE's represent an estimate of the costs that will be incurred to drill and complete the wells, but those electing to participate in the wells are responsible for their proportionate share of the actual costs incurred. In the event you elect to participate in the proposed wells, please execute the enclosed AFE's and return to me. We are happy to furnish you with a proposed Joint Operating Agreement upon request. Please respond within 30 days of receiving this notice. If you do not wish to participate, Catena proposes to acquire your interest via term assignment subject to due diligence and title verification satisfactory to Catena.

Should you have any questions regarding the above, please email me at rswann@catenares.com or call me at (210) 775-6993.

Sincerely,

18402 US Hwy 281 N
Suite 258
San Antonio, TX 78259



BEFORE THE OIL CONSERVATION DIVISION

Santa Fe, New Mexico

Exhibit No. A4

Submitted by: **Catena Resources Operating, LLC**

Hearing Date: August 06, 2020

Case No. 21357

Catena Resources Operating, LLC

Robert Swann

Land Manager

	WELL COST ESTIMATE				AFE NO.	
	WELL NAME: Ladder 183527 1H LOCATION: 2 sec. lateral, Lea County, NM OBJECTIVE: Bone Spring	DATE: 16-Apr-20 START DATE: COMPLETE DATE: ORIGINAL: X SUPPLEMENT:				

INTANGIBLE COSTS	ACCT CODE	DRILLING - 310XX	ACCT CODE	COMPLETION - 320XX	ACCT CODE	FACILITIES - 330XX	TOTAL
Legal Fees / Title Opinion	31001	\$50,000	32001	\$0	33001	\$0	\$50,000
Surveys / Staking / Permits / Bonds / Regulatory	31002	\$25,700	32002	\$0	33002	\$0	\$25,700
ROW / Surface Damages	31003	\$60,000	32003	\$0		\$0	\$60,000
Roads & Location / Reserve Pit - Construction	31004	\$90,000	32004	\$0		\$0	\$90,000
Roads & Location / Reserve Pit - Reclamation	31005		32005	\$0		\$0	\$0
Frac Pond	31006		32006	\$0		\$0	\$0
Gate Guard	31007		32007	\$0		\$0	\$0
Mouse / Rathole / Conductor	31008	\$19,000		\$0		\$0	\$19,000
Mobilization / Demobilization	31009	\$230,675	32008	\$0		\$0	\$230,675
Drilling - Daywork	31010	\$475,000		\$0		\$0	\$475,000
Drilling - Footage	31011			\$0		\$0	\$0
Drilling - Turnkey	31012			\$0		\$0	\$0
Completion / Snubbing / Workover Unit	31013		32009	\$40,000		\$0	\$40,000
Trailer House / Communications	31014	\$43,572	32010	\$24,200		\$0	\$67,772
Drill Bits	31015	\$85,000	32011	\$0		\$0	\$85,000
Directional Equipment / Gyro Surveys	31016	\$225,000	32012	\$0		\$0	\$225,000
Downhole Tool / Stabilization Rental	31017	\$57,075	32013	\$34,000		\$0	\$91,075
Mud / Chemicals	31018	\$200,000	32014	\$601,500		\$0	\$801,500
Fuel / Power	31019	\$104,600	32015	\$471,800		\$0	\$576,300
Water Supply Well, equipment	31020	\$3,603	32016	\$0		\$0	\$0
Water / Water Hauling	31021		32017	\$816,550		\$0	\$816,550
Offsite Water & Cuttings Disposal	31022	\$243,056	32018	\$30,500		\$0	\$273,556
Transportation / Hauling	31023	\$31,000	32019	\$0	33009	\$15,000	\$46,000
Inspection / Tubular Testing	31024	\$95,654	32020	\$0		\$0	\$95,654
Laydown Machine / Casing Crew / Tongue	31025	\$59,245	32021	\$0		\$0	\$59,245
Cementing, Float Equipment & Services	31026	\$62,458	32022	\$0		\$0	\$62,458
Mud Logging	31027	\$35,343		\$0		\$0	\$35,343
Logging - Open Hole	31028		32023	\$0		\$0	\$0
Logging - Cased Hole	31029		32024	\$13,000		\$0	\$13,000
Coring & Analysis, Drill Stem Test	31030			\$0		\$0	\$0
Perforating	31031		32025	\$421,200		\$0	\$421,200
Wireline / Slickline Services	31032		32026	\$15,000		\$0	\$15,000
Equipment Rental	31033	\$149,580	32027	\$236,000		\$0	\$385,580
Pumping Services/Rental	31034		32028	\$21,000		\$0	\$21,000
Acidizing & Fracturing	31035		32029	\$2,175,000		\$0	\$2,175,000
Coil Tubing Unit	31036		32030	\$120,000		\$0	\$120,000
Flow Testing, Swabbing	31037		32031	\$95,875		\$0	\$95,875
Fishing / Sidetrack Services	31038		32032	\$0		\$0	\$0
Nipple Up / BOPE Testing	31039	\$6,400	32033	\$23,000		\$0	\$29,400
Overhead	31040	\$6,000	32034	\$19,500		\$0	\$25,500
Wellsite Consulting Services/Supervision	31041	\$159,861	32035	\$153,950	33003	\$20,000	\$333,811
Engineering / Geological / Lab Serv Tracers and diagnostics	31042	\$25,000	32036	\$35,500		\$15,000	\$75,500
Roustabout / Contract Labor	31043	\$6,480	32037	\$0	33004	\$160,000	\$166,480
Welding Services	31044	\$5,120	32038	\$0		\$0	\$5,120
Insurance	31045	\$10,000	32039	\$0	33005	\$0	\$10,000
Miscellaneous	31046		32040	\$0	33006	\$0	\$0
P&A Costs	31047		32041	\$0		\$0	\$0
Safety / EH&S	31048		32042	\$6,610	33007	\$0	\$6,610
5.5% Contingency (8% Taxes on Casing included in casing cost)	31049	\$141,202	32043	\$311,200		\$10,500	\$462,902
NON-Op Drilling Intangible	31050		32044	\$0		\$0	\$0
Pipeline Installation / Interconnect	31051		32045	\$0	33008	\$0	\$0
TOTAL INTANGIBLE COSTS		\$2,708,524		\$5,665,385		\$220,500	\$8,594,409

TANGIBLE COSTS	ACCT CODE	DRILLING - 311XX	ACCT CODE	COMPLETION - 321XX	ACCT CODE	FACILITIES - 331XX	TOTAL
Conductor	31101						
Surface Casing	31102	\$68,600					\$68,600
1st Intermediate Casing / Liner	31103	\$113,200					\$113,200
2nd Intermediate Casing / Liner	31104						\$0
Production Casing / Liner			32101	\$373,500			\$373,500
Casing Tie Back			32102				
Liner Hanger Assembly			32103				
Tubing			32104	\$58,500			\$58,500
Casing Equipment - OHMS / Etc.			32105	\$31,200			\$31,200
Wellhead Equipment	31105	\$26,750	32106	\$27,000			\$53,750
Pumpjack Unit / Prime Mover / Base			32107	\$0	33101	\$0	\$0
Rods / Pony Rods / Sinker Bars			32108	\$0	33102	\$0	\$0
Artificial Lift Other - Gas Lift			32109	\$14,000	33103	\$0	\$14,000
Wellhead Equipment Completions - Production Tree			32110	\$42,000	33104	\$0	\$42,000
Tanks / Tank Steps / Stairs			32111	\$0	33105	\$66,000	\$66,000
Gas Treatment / Dehydration Equipment			32112	\$0	33106	\$0	\$0
Separation Equipment, Heater Treater			32113	\$0	33107	\$68,200	\$68,200
Surface Pumps			32114	\$0	33108	\$3,000	\$3,000
Filters			32115	\$0	33109	\$0	\$0
Buildings			32116	\$0	33110	\$0	\$0
Interconnect Piping / Manifolds / Headers			32117	\$0	33111	\$60,000	\$60,000
Flowlines / Connections / Valves			32118	\$0	33112	\$46,960	\$46,960
Automation / Instruments / Controls / Analyzers			32119	\$0	33113	\$16,000	\$16,000
Electrical Equipment / Generators			32120	\$0	33114	\$52,000	\$52,000
Compressor & Related Equipment			32121	\$0	33115	\$0	\$0
Metering Equipment, LACT Unit			32122	\$0	33116	\$104,000	\$104,000
Chemical Equipment / Cathodic Protection			32123	\$0	33117	\$0	\$0
Subsurface Equipment - Packer, Plug, TAC			32124	\$11,000	33118	\$0	\$11,000
Safety / EH&S Equipment			32125	\$4,000	33119	\$18,000	\$22,000
NON-OP Drilling Intangible			32126	\$0	33120	\$0	\$0
Transfer/SWD Pumps & Equipment			32127	\$0	33121	\$19,060	\$19,060
Flare / Combustor			32128	\$0	33122	\$16,000	\$16,000
Miscellaneous	31108		32129	\$24,410	33123	\$0	\$24,410
Contingency Costs	31107	\$11,090	32130	\$28,060	33124	\$0	\$39,150
TOTAL TANGIBLE COSTS		\$220,240		\$613,670		\$469,220	\$1,303,130
TOTAL WELL COSTS		\$2,928,764		\$6,279,055		\$689,720	\$9,897,539

Prepared by: Travis Salinas Title: Engineer

This AFE is only an estimate. By returning one signed copy, you agree to pay your share of the actual costs incurred.

Extra Expense Insurance
☐ I elect to be covered by Operator's Extra Expense insurance and pay my proportionate share of the premium.
☐ I elect to purchase my own well control insurance policy.

If neither box is checked above, non-operating working interest owner elects to be covered by Operator's well control insurance.

Joint Owner Interest: _____ Amount: _____

 Joint Owner Name: _____ Signature: _____

Suspended Drilling	\$3,384,874	
Suspended Comp	\$5,822,945	
D&C Total	\$9,207,819	

Catena Resources Operating, LLC – Discussion Timeline

Wells

Ladder 183527 1H

Catena's conversations with Marathon began on December 6, 2019. From that time on, multiple emails, phone calls, proposals and letters were exchanged. The main contact at Marathon is Jeff Broussard and as of August 3, 2020, dealings with Marathon are ongoing.

BEFORE THE OIL CONSERVATION DIVISION

Santa Fe, New Mexico

Exhibit No. A5

Submitted by: **Catena Resources Operating, LLC**

Hearing Date: August 06, 2020

Case No. 21357

**STATE OF NEW MEXICO
DEPARTMENT OF ENERGY, MINERALS AND NATURAL RESOURCES
OIL CONSERVATION DIVISION**

**APPLICATION OF CATENA RESOURCES
OPERATING, LLC FOR COMPULSORY
POOLING, LEA COUNTY, NEW MEXICO**

CASE NO. 21357

AFFIDAVIT OF VINCE SMITH

Vince Smith, of lawful age and being first duly sworn, declares as follows:

1. My name is Vince Smith. I work for Catena Resources Operating, LLC ("Catena") as a Geologist.
2. I have previously testified before the New Mexico Oil Conservation Division as an expert witness in petroleum geology. My credentials as a petroleum geologist have been accepted by the Division and made a matter of record.
3. I am familiar with the application filed by Catena in this case, and I have conducted a geologic study of the lands in the subject area.
4. Catena is initially targeting the Second Bone Spring Sand interval of the Bone Spring formation. **Exhibit B-1** is a subsea structure map that I prepared for this interval with 25-foot contours. The proposed horizontal well spacing unit is highlighted in red and the initial well is depicted with a dashed line. The structure map shows the Bone Spring dipping gently to the southwest. The parallel dark lines on this structure map represent a deeper structure that caused these shallower formations to sit high. The notations "D" and "U" refer to "downthrown" and "upthrown" side of the deep structure faulting. The structure appears consistent across the proposed spacing unit and I do not observe any faulting, pinch outs, or other geologic impediments to drilling horizontal wells in this area.

**BEFORE THE OIL CONSERVATION DIVISION
Santa Fe, New Mexico**

Exhibit No. B

Submitted by: **Catena Resources Operating, LLC**
Hearing Date: August 06, 2020
Case No. 21357

5. **Exhibit B-1** also shows a cross-section line in red running north to south reflecting seven wells penetrating the Bone Spring formation that I used to construct a stratigraphic cross-section from A to A'. These wells contain good logs and I consider them representative of the geology in the subject area.

6. **Exhibit B-2** is a stratigraphic cross-section that I prepared using the logs from the seven wells noted on Exhibit B-1. Each well in the cross-section contains the gamma ray in the first track, resistivity in the second track, and porosity curves in the third track. The initial target interval is labeled and marked. The cross-section demonstrates that the targeted interval is continuous across the proposed spacing unit.

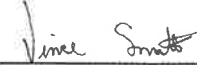
7. Based on my geologic study, the Bone Spring formation underlying the subject area is suitable for development by horizontal wells and the acreage comprising the proposed spacing unit will be productive and contribute proportionately to the production from the well.

8. **Exhibit B-3** shows the orientation of the wells drilling in the Bone Spring formation in the surrounding area. The stand-up orientation of the proposed well is the preferred orientation for horizontal well development in this area and is appropriate to efficiently and effectively develop the subject acreage.

9. In my opinion, the granting of Catena's application is in the best interest of conservation, the prevention of waste, and protection of correlative rights.

10. **Exhibits B-1** through **B-3** were either prepared by me or compiled under my direction and supervision.

FURTHER AFFIANT SAYETH NOT



VINCE SMITH

)

)

)

4



Comm. Expires 12-05-2023

Notary ID 132274609

cattle

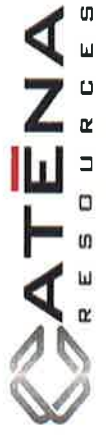
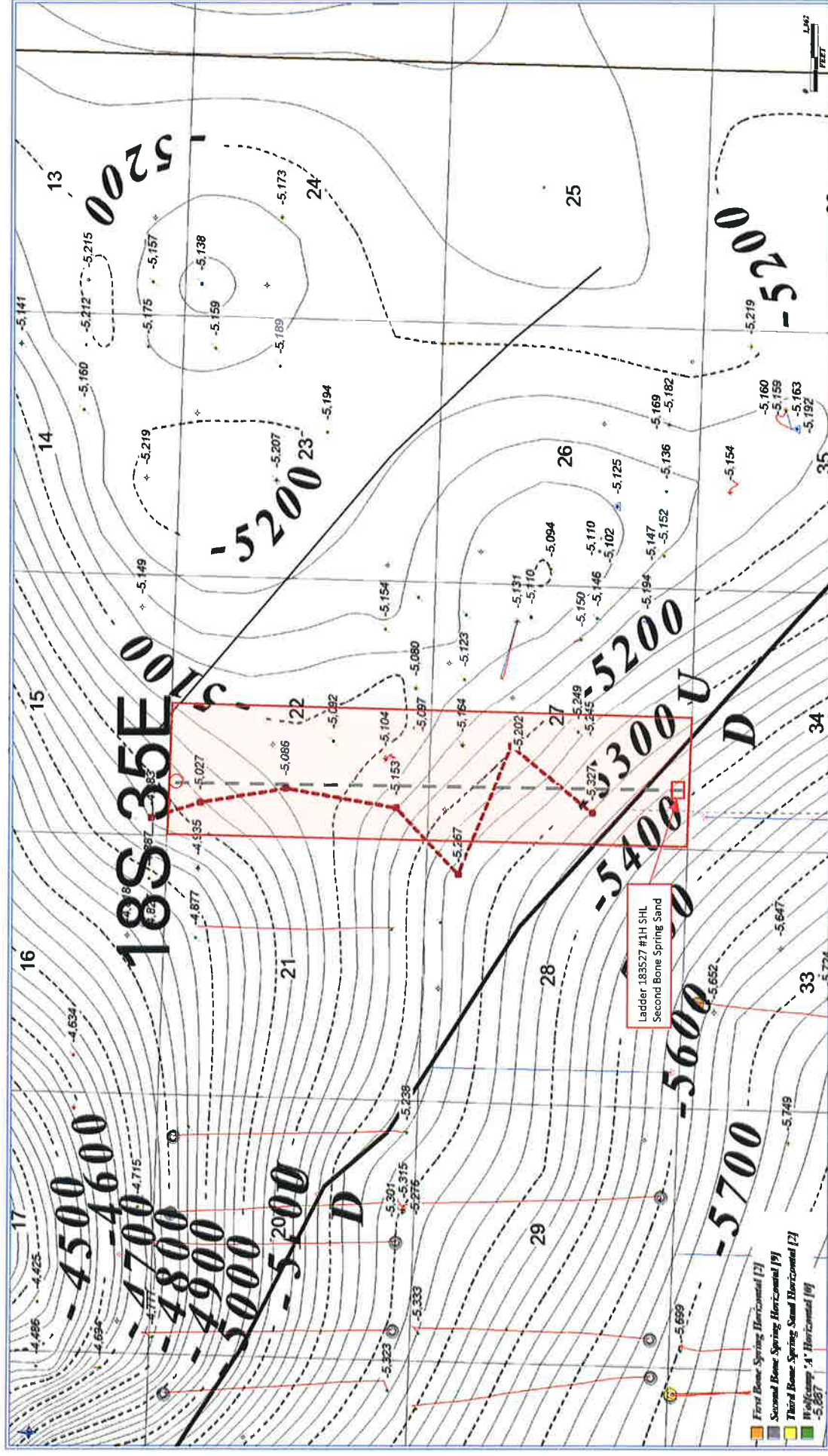
NOTARY PUBLIC

My Commission Expires:

12/5/2023

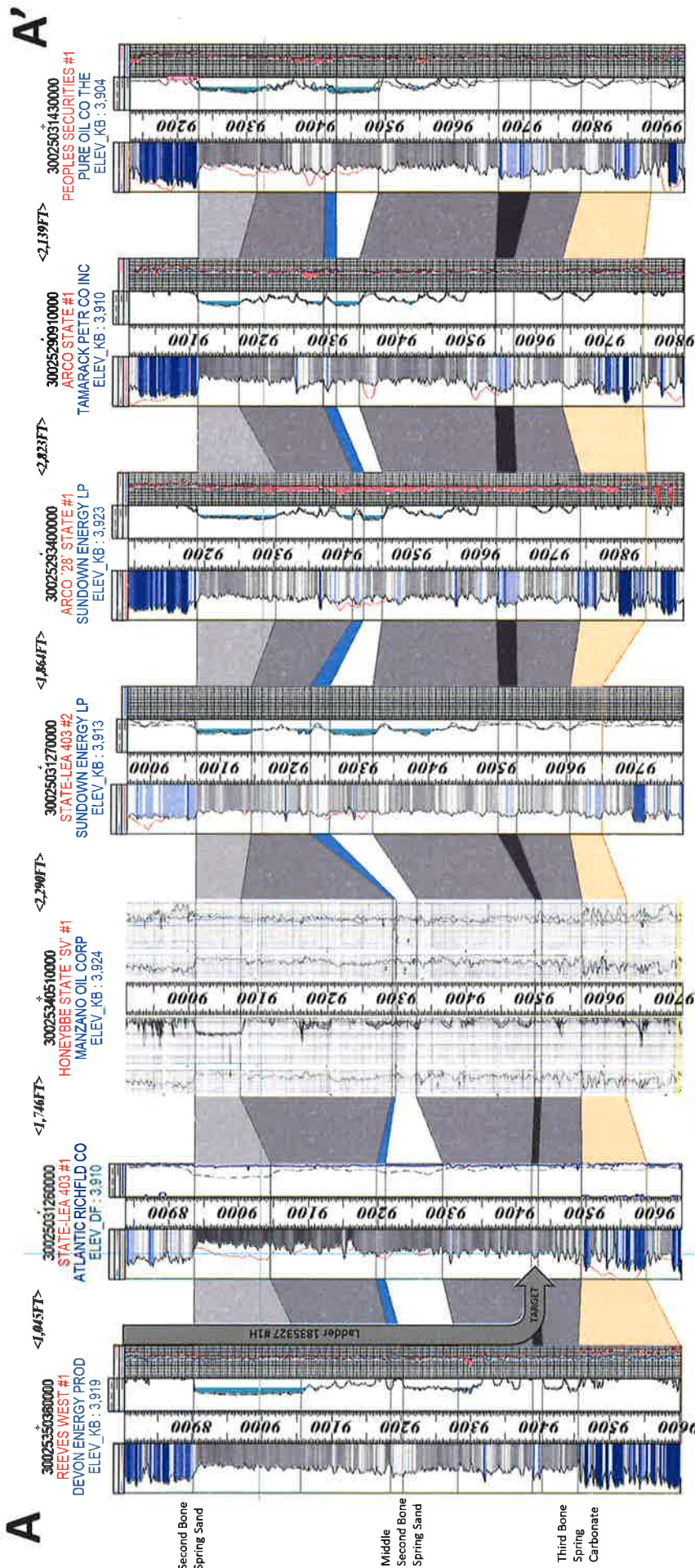
Second Bone Spring Sand

Subsea Structure



Contour Interval = 25'

Second Bone Spring Sand Datum Cross Section



BEFORE THE OIL CONSERVATION DIVISION

Santa Fe, New Mexico

Exhibit No. B2

Submitted by: Catena Resources Operating, LLC

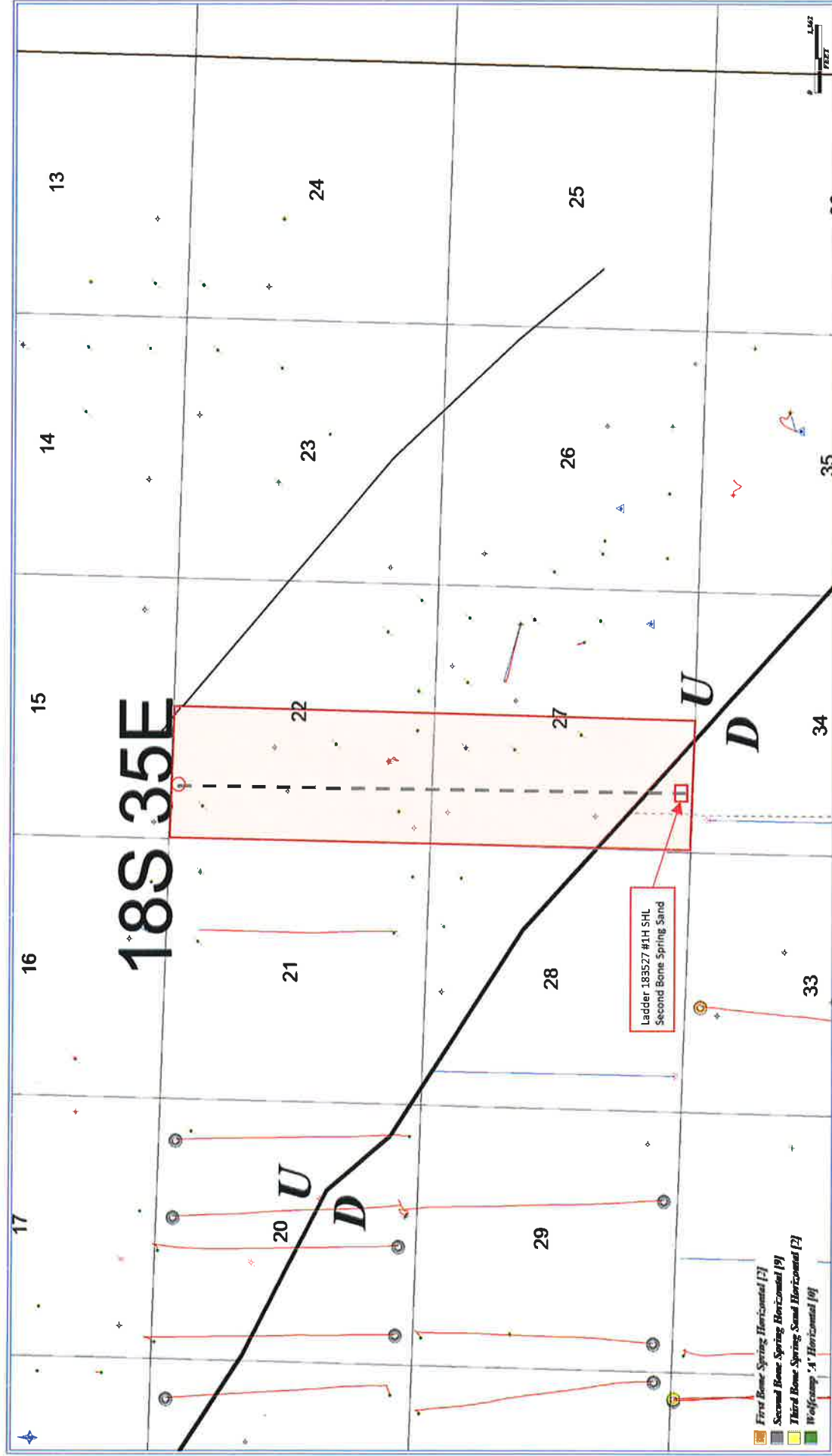
Hearing Date: August 06, 2020

Case No. 21357

CATENA
RESOURCES

Ladder 183527 #1H

Locator Map



BEFORE THE OIL CONSERVATION DIVISION
Santa Fe, New Mexico
Exhibit No. B3
Submitted by: Catena Resources Operating, LLC
Hearing Date: August 06, 2020
Case No. 21357



Michael H. Feldewert
Phone (505) 988-4421
Fax (505) 983-6043
mfeldewert@hollanhart.com

July 17, 2020

VIA CERTIFIED MAIL
CERTIFIED RECEIPT REQUESTED

TO: ALL INTEREST OWNERS SUBJECT TO POOLING PROCEEDINGS

**Re: Application of Catena Resources Operating, LLC for Compulsory Pooling, Lea County, New Mexico.
Ladder 183527 1H Well**

Ladies & Gentlemen:

This letter is to advise you that COG Operating Inc. has filed the enclosed application with the New Mexico Oil Conservation Division. A hearing has been requested before a Division Examiner on August 6, 2020, and the status of the hearing can be monitored through the Division's website at <http://www.emnrd.state.nm.us/ocd/>. You are not required to attend this hearing, but as an owner of an interest that may be affected by this application, you may appear and present testimony. Failure to appear at that time and become a party of record will preclude you from subsequently challenging this matter.

During the COVID-19 Public Health Emergency, state buildings are closed to the public and hearings will be conducted remotely. To participate in the electronic hearing, see the instructions posted on the Oil Conservation Division "OCD Hearings" website at <http://www.emnrd.state.nm.us/OCD/announcements.html>.

Parties appearing in cases are required by Division Rule 19.15.4.13.B to file a Pre-hearing Statement four business days in advance of a scheduled hearing. This statement must be filed at the Division's Santa Fe office at the above specified address and should include: the names of the parties and their attorneys; a concise statement of the case; the names of all witnesses the party will call to testify at the hearing; the approximate time the party will need to present its case; and identification of any procedural matters that are to be resolved prior to the hearing.

If you have any questions about this matter, please contact Robert Swann at (210) 775-6993 or at rswann@catenares.com.

Sincerely,

A handwritten signature in blue ink, appearing to read "Michael H. Feldewert".

Michael H. Feldewert
ATTORNEY FOR CATENA RESOURCES OPERATING, LLC

Catena - Ladder 1H
Case No. 21357 Postal Delivery Report

9414811898765825959964	Marathon Oil Permian LLC	P.O. Box 2069	Houston TX	77252	Your item was delivered at Jul 22 in HOUSTON, TX 77210.
9414811898765825959926	Honeysuckle Exploration	405 Petroleum Club Bldg	Denver CO	80202	Returned.