

LEA UNIT - ACREAGE CONTRIBUTION



LEA UNIT OWNERSHIP

Legacy/Jupiter JV LLC	- .9131061
Finley Resources	- .05053440
HOG LP	- .01953370
COG	- .01682580

LEA UNIT

STATE ACREAGE	Blue
FEDERAL ACREAGE	Yellow
LEA UNIT	Red dashed line

Date: 3/1/2016

Lea Unit

Acreage Contribution:

Lea Unit Acreage - 2,559.68

Federal Acreage - 2,399.68 Acres - 93.75%

State Acreage - 160 Acres - 6.25%

Royalty Calculation:

1. Current Royalty Payments under 5th Revision of Bone Spring Participation Area

- Federal - .125

- State - 0.00

- The State of New Mexico is entitled to 50% of the Federal royalty less a 2% fee.

There is no Bone Spring production on the state acreage to date and cannot be incorporated in a Bone Spring Participation Area until a well is drilled on the acreage.

2. Once Legacy drills the Lea Unit #59H the unit wide royalty would be paid as follows:

Federal - .125 Royalty X (2,399.68/2,559.68) = .11718652

State - .125 Royalty X (160 State Acres / 2,559.68 Lea Unit Acres) = .00781348

Lea Unit Ownership:

Legacy Reserves Operating LP/Jupiter JV LLC

- .9131061

Finley Resources

- .05053440

HOG Limited Partnership

- .01953370

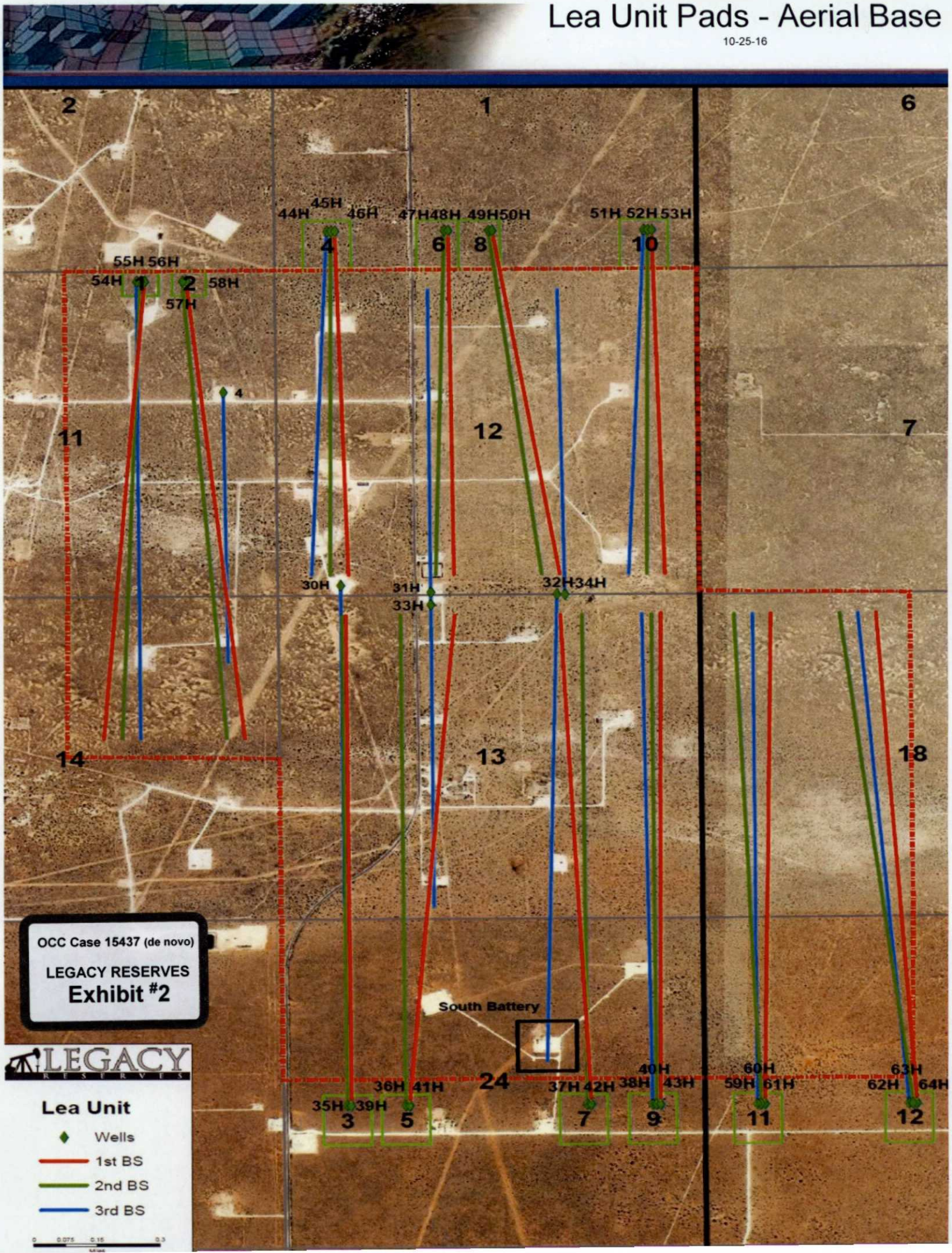
COG

- .01682580

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**LEGACY RESERVES
Exhibit #1**

10-25-16





FedEx Tracking #7969 3262 3985
United States Department of the Interior
Bureau of Land Management
Carlsbad Field Office
620 E. Greene St.
Carlsbad, New Mexico 88220-6292
Attn: Jim Stovall – Carlsbad Field Office Manager

March 30, 2011

SUBJECT: Protest of APD's Submitted by Mewbourne Oil Company
#2H-Marathon Road 14 Fed Com
#3H-Marathon Road 14 Fed Com
E/2 Section 14, T20S, R34E
Lea County, New Mexico

Legacy Reserves Operating, LP, hereby submits its protest of the above mentioned Application and Permits to Drill submitted by Mewbourne Oil Company.

Legacy Reserves Operating, LP as unit operator of the Lea Unit, protest as follows. Mewbourne Oil Company's proposed bottom hole locations (BHL's) and a portion of the proposed laterals on both wells will enter into and land in the NE/4 of Section 14 which is within the Lea Unit (Tract No 11 (NM-053434) and Tract No 12 (NM-080262)) boundaries. Legacy Reserves Operating, LP started a study on the feasibility of drilling a horizontal lateral in the 3rd Bone Spring Sand out of the Lea Unit #4 in late 2010. The APD for this project is in the process of being prepared and will be submitted soon. The proposed BHL for the Lea Unit #4H lands at 1980' FNL and 660' FEL, section 14 with a TVD of 10,926' (+/-7,250' sub surface) and a MD of 16,150'. Legacy Reserves Operating, LP also plans to drill dual laterals out of the Lea Unit #6 well (North and South) of which the South lateral would cover and land in the W/2 of the NE/4 of section 14. Further plans are to drill multiple horizontal laterals within the Lea Unit boundaries in a North-South direction in the coming months and years.

For these reasons, Legacy Reserves Operating, LP protest the drilling of the #2H-Marathon Road 14 Fed Com and #3H Marathon Road Fed Com wells as proposed by Mewbourne Oil Company. Please do not hesitate to contact me if you have any questions or need additional information regarding this protest.

Thank you in advance for your consideration in this matter.

Sincerely,

D. Patrick Darden, P.E.
Senior Engineer
432-689-5237

dpd

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LEGACY RESERVES
Exhibit #3

Lea Unit - BLM Activity

10-25-16



LEA UNIT
LEA COUNTY, NM
BONE SPRING HORIZONTAL
DEVELOPMENT

SEC. 11

SEC. 12

PLANNED
DRILLED
APPROVED APD
FILED APD

SEC. 14		3 rd BSS	#54H
		2 nd BSS	#55H
		1 st BSS	#56H

SEC. 13		3 rd BSS	#4H
		2 nd BSS	#57H
		1 st BSS	#58H

SEC. 18	#35H	3 rd BSS	#44H
	#39H	2 nd BSS	#45H
		1 st BSS	#46H

SEC. 18	#36H	3 rd BSS	#33H
	#41H	2 nd BSS	#47H
		1 st BSS	#48H

SEC. 18	3 rd BSS	#32H	#34H
	#37H	2 nd BSS	2 nd BSS
	#42H	1 st BSS	1 st BSS

SEC. 18	#38H	3 rd BSS	#51H
	#40H	2 nd BSS	#52H
	#43H	1 st BSS	#53H

SEC. 18	#59H	3 rd BSS	
	#60H	2 nd BSS	
	#61H	1 st BSS	

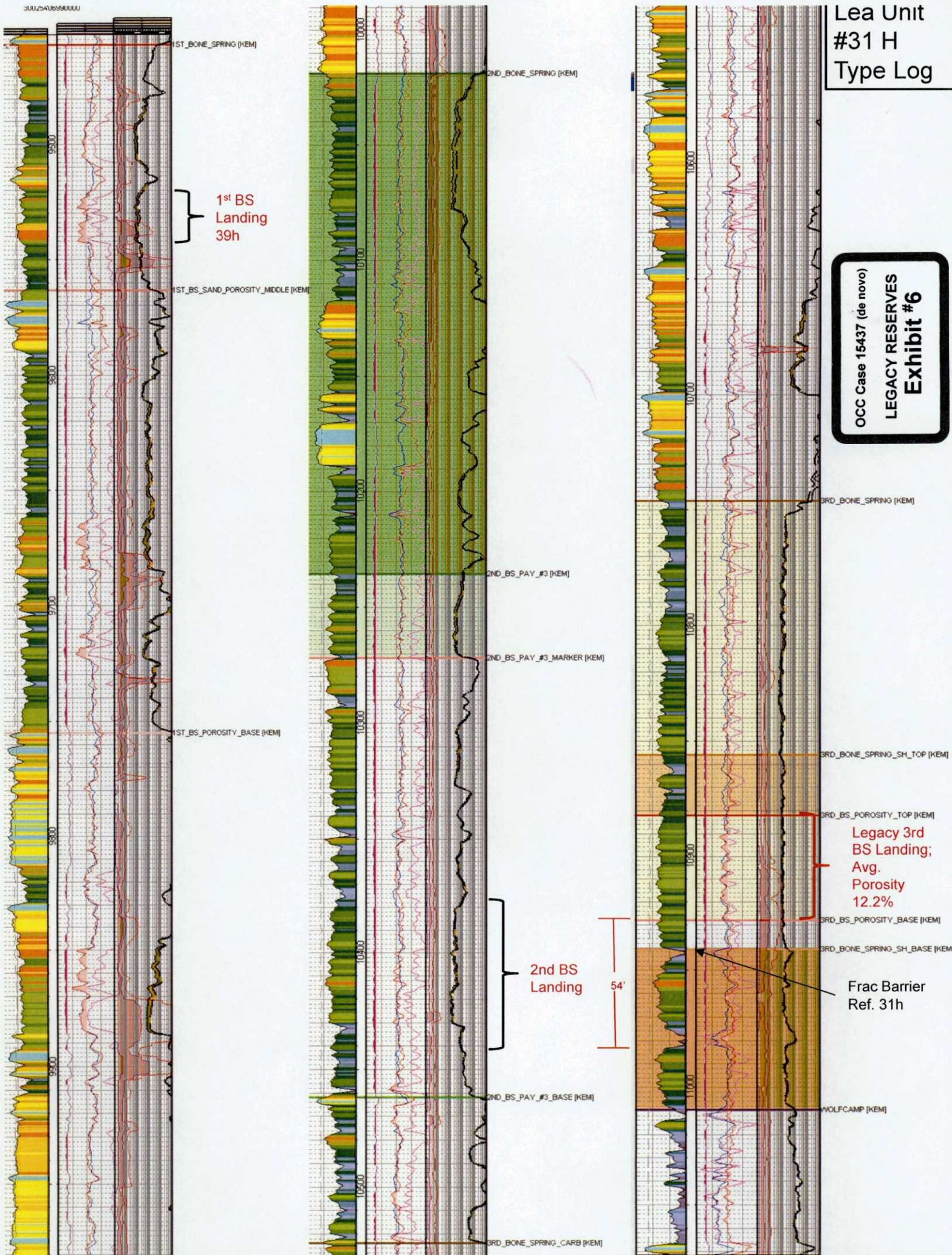
SEC. 18	#62H	3 rd BSS	
	#63H	2 nd BSS	
	#64H	1 st BSS	

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LEGACY RESERVES
Exhibit #4



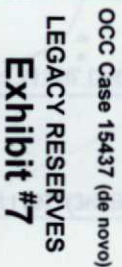
Lea Unit
#31 H
Type Log

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LEGACY RESERVES
Exhibit #6



Lea Unit 3rd BS Shale Structure 10-25-16

Structure



10-25-16

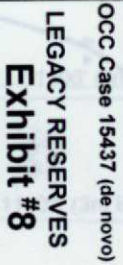
Lea Unit

3rd BS Net Isopach (Pay)

Cutoffs: Pd (Blue) >10%; Dt (Pink) >68.5

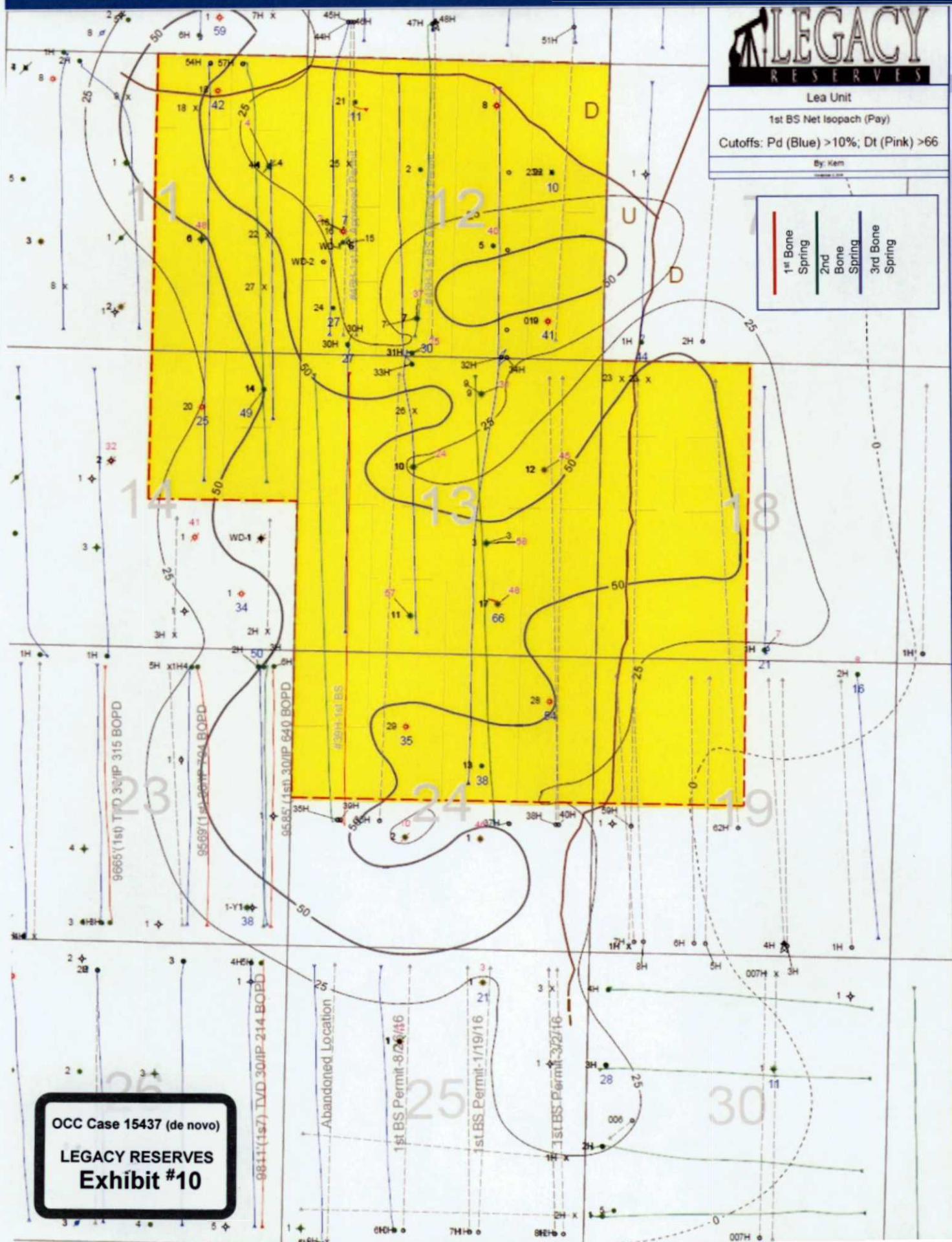
By Kenneth

1st Bone Spring
2nd Bone Spring
3rd Bone Spring



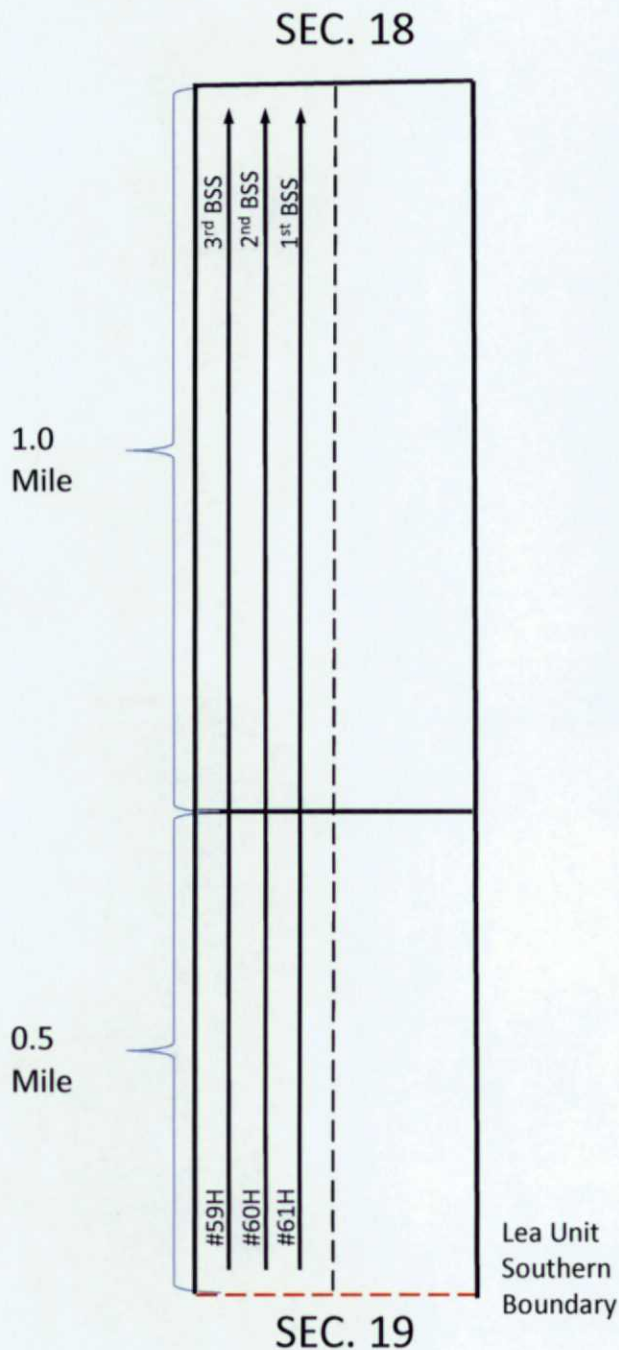


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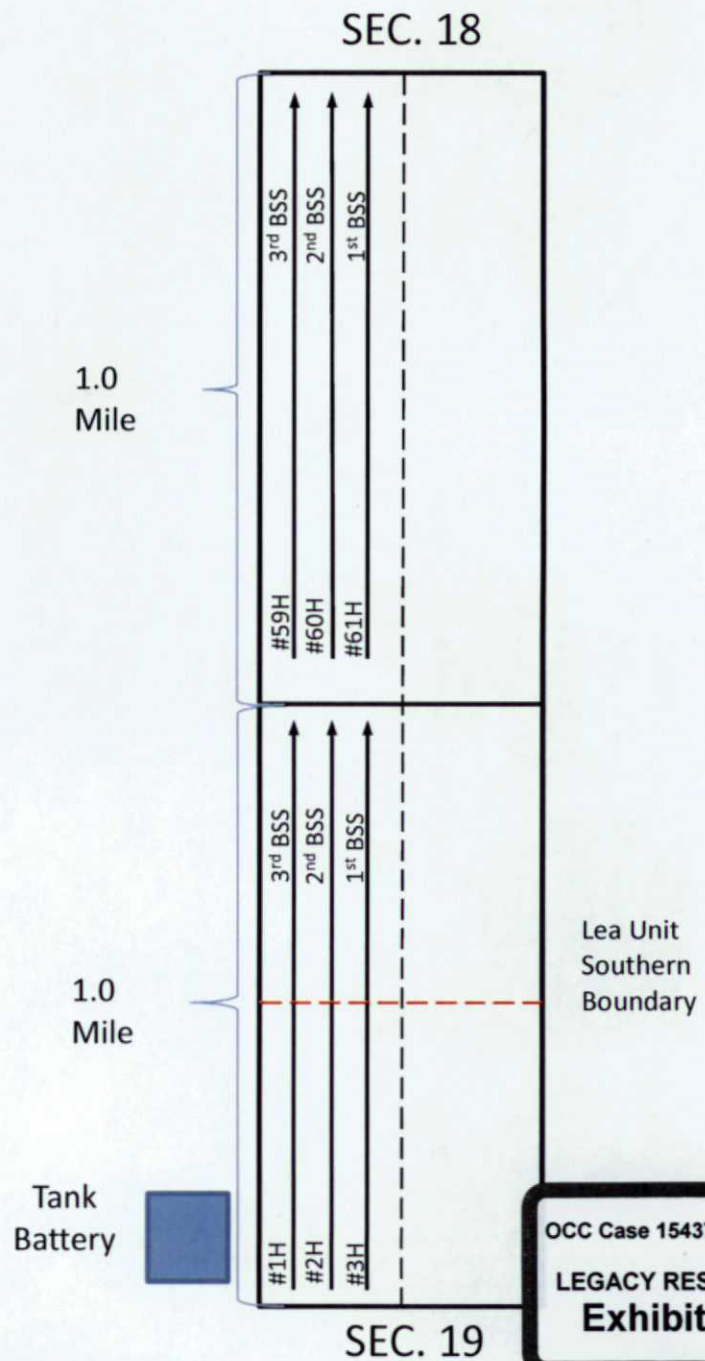


LEGACY CURRENT DEVELOPMENT VS. CAZA PROPOSAL STICK DIAGRAMS

LEGACY'S CURRENT DEVELOPMENT PLAN FOR W/2W/2 SEC. 19 & 18



CAZA'S PROPOSED APPLICATION FOR W/2W/2 SEC. 19 & 18



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LEGACY RESERVES
Exhibit #11

LEGACY CURRENT DEVELOPMENT VS. CAZA PROPOSAL PARAMETERS

LEGACY'S CURRENT DEVELOPMENT PLAN FOR W/2W/2 SEC. 19 & 18

- 3 – 1.5 MILE LATERALS (1ST, 2ND, & 3RD BONE SPRING SAND).
- INITIAL D&C CAPITAL INVESTMENT FOR A 1.5 MILE LATERAL = \$5.5MM
- NO ADDITIONAL FACILITY COST.
- TOTAL INVESTMENT = \$16.5MM

CAZA'S PROPOSED APPLICATION FOR W/2W/2 SEC. 19 & 18

- 1 – 1.0 MILE LATERAL (3RD BONE SPRING SAND).
- AT FULL DEVELOPMENT = 6 – 1.0 MILE LATERALS
- INITIAL D&C CAPITAL INVESTMENT FOR A 1.0 MILE LATERAL = \$5.2MM (CAZA AFE)
- RE-ALLOCATION OF LEGACY TANK BATTERY = \$157k.
- LOCATION ROAD = \$125k
- SUNK LOCATION COST ON #59H = \$200k.
- TOTAL INVESTMENT = \$31.7MM

**INCREASES LEGACY'S (& PARTNER'S) D&C
COST BY \$15.2MM**

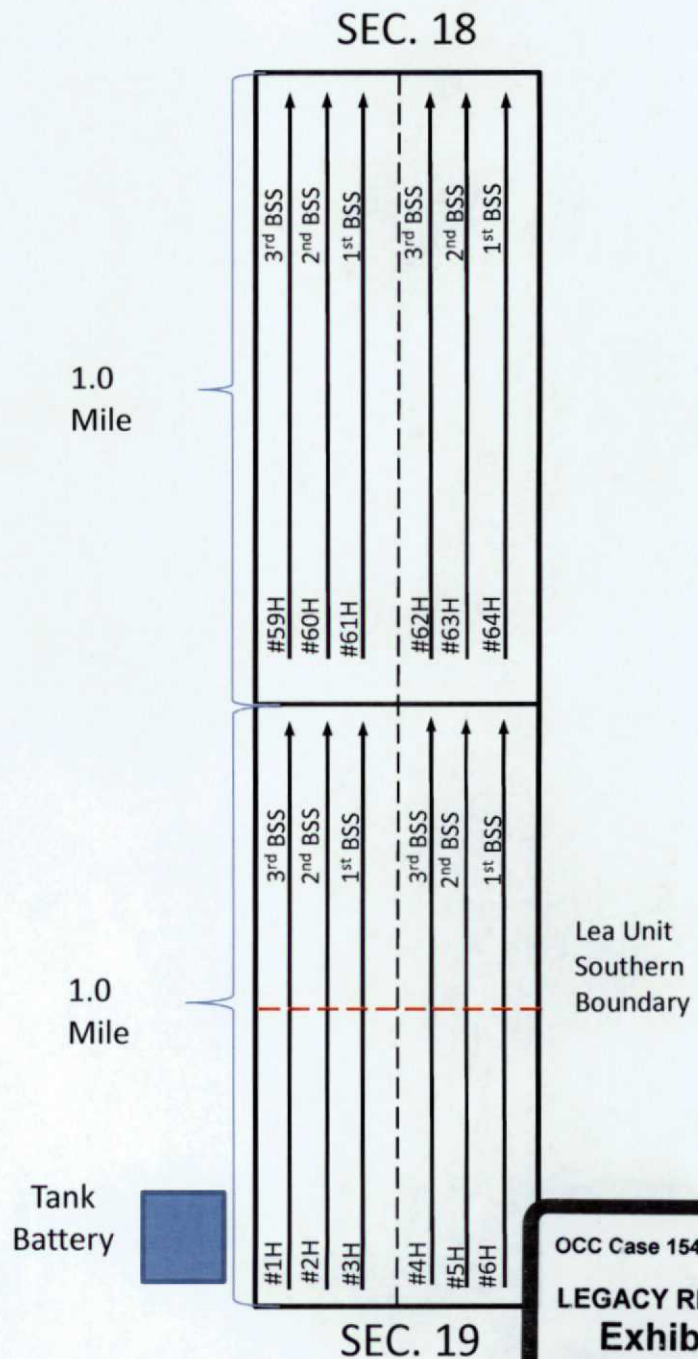
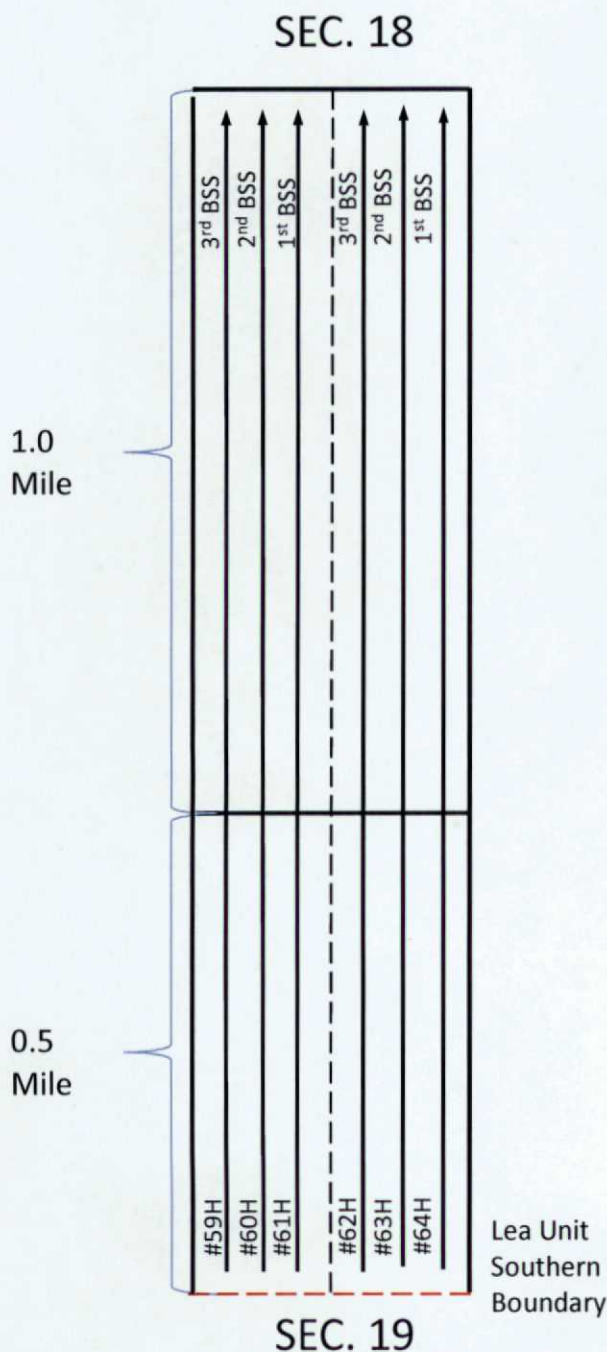
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**LEGACY RESERVES
Exhibit #12**

LEGACY CURRENT DEVELOPMENT VS. CAZA FULL DEVELOPMENT STICK DIAGRAM

LEGACY'S CURRENT
DEVELOPMENT PLAN FOR
W/2 SEC. 19 & 18

CAZA'S PROPOSED
APPLICATION FOR W/2 SEC.
19 & 18



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LEGACY RESERVES
Exhibit #13

LEGACY CURRENT DEVELOPMENT VS. CAZA FULL DEVELOPMENT PARAMETERS

LEGACY'S CURRENT DEVELOPMENT PLAN FOR W/2 SEC. 19 & 18

- 6 – 1.5 MILE LATERALS (1ST, 2ND, & 3RD BONE SPRING SAND).
- INITIAL D&C CAPITAL INVESTMENT FOR A 1.5 MILE LATERAL = \$5.5 MM
- NO ADDITIONAL FACILITY COST.
- TOTAL INVESTMENT = \$33.0MM

CAZA'S PROPOSED APPLICATION FOR W/2 SEC. 19 & 18

- 1 – 1.0 MILE LATERAL (3RD BONE SPRING SAND).
- AT FULL DEVELOPMENT = 12 – 1.0 MILE LATERALS
- INITIAL D&C CAPITAL INVESTMENT FOR 1.0 MILE LATERAL = \$5.2MM (CAZA AFE)
- RE-ALLOCATION OF LEGACY TANK BATTERY = \$314k.
- LOCATION ROAD = \$250k.
- SUNK LOCATION COST ON #59H & #62H = \$400k.
- TOTAL INVESTMENT = \$63.4MM

**INCREASES LEGACY'S (& PARTNER'S) D&C
COST BY \$30.4MM**

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**LEGACY RESERVES
Exhibit #14**

3RD BSS 1.5 MILE PROJECT TYPE CURVE

Rate/Time Graph

Project: H:\Legacy_Lea Unit Area_Lea CO_9.3.mdb

Date: 11/2/2016

Time: 2:58 PM

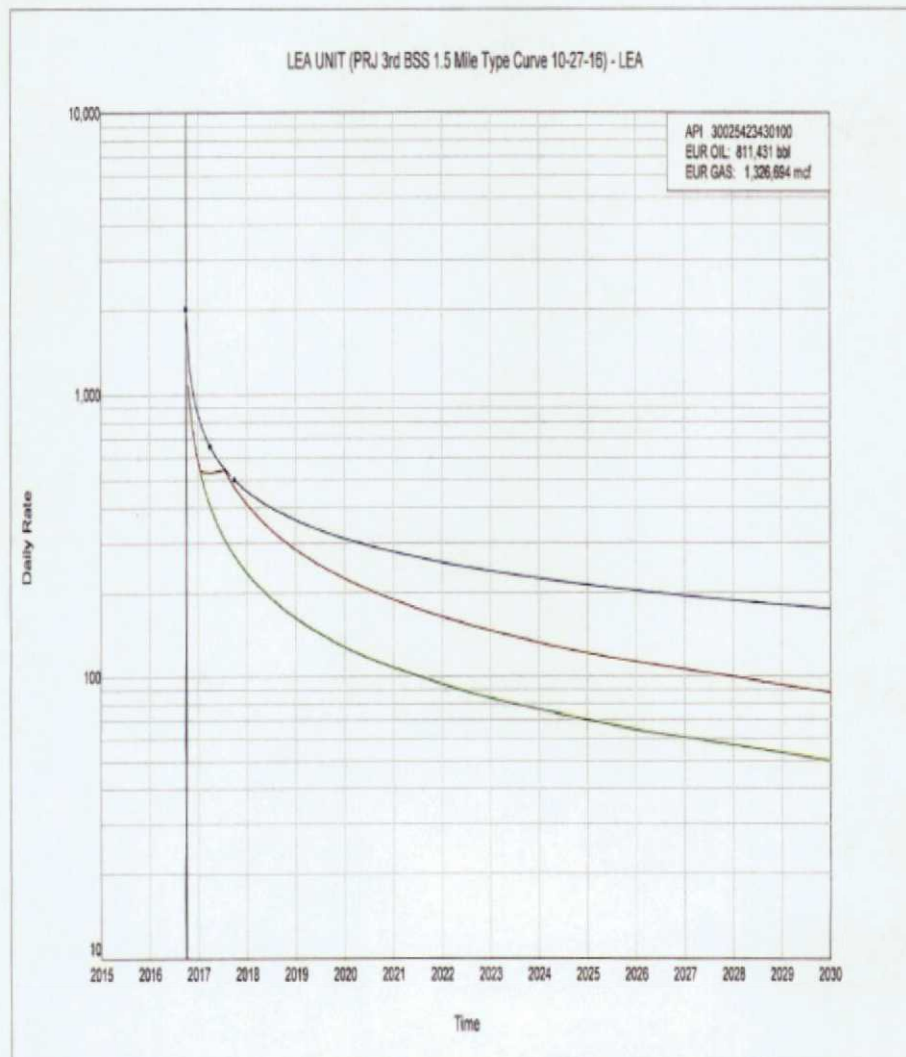
Lease Name: LEA UNIT (PRJ 3rd BSS 1.5 Mile Type Curve 10-27-16) (LEA UNIT)

Operator: LEGACY RESERVES OPERATING LP

County: ST: LEA, NM

Field Name: LEA

Location: S20 E34 12



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LEGACY RESERVES
Exhibit #15

3RD BSS 1.0 MILE PROJECT TYPE CURVE

Rate/Time Graph

Project: H:\Legacy_Lea Unit Area_Lea CO_9.3.mdb

Date: 11/2/2016

Time: 2:54 PM

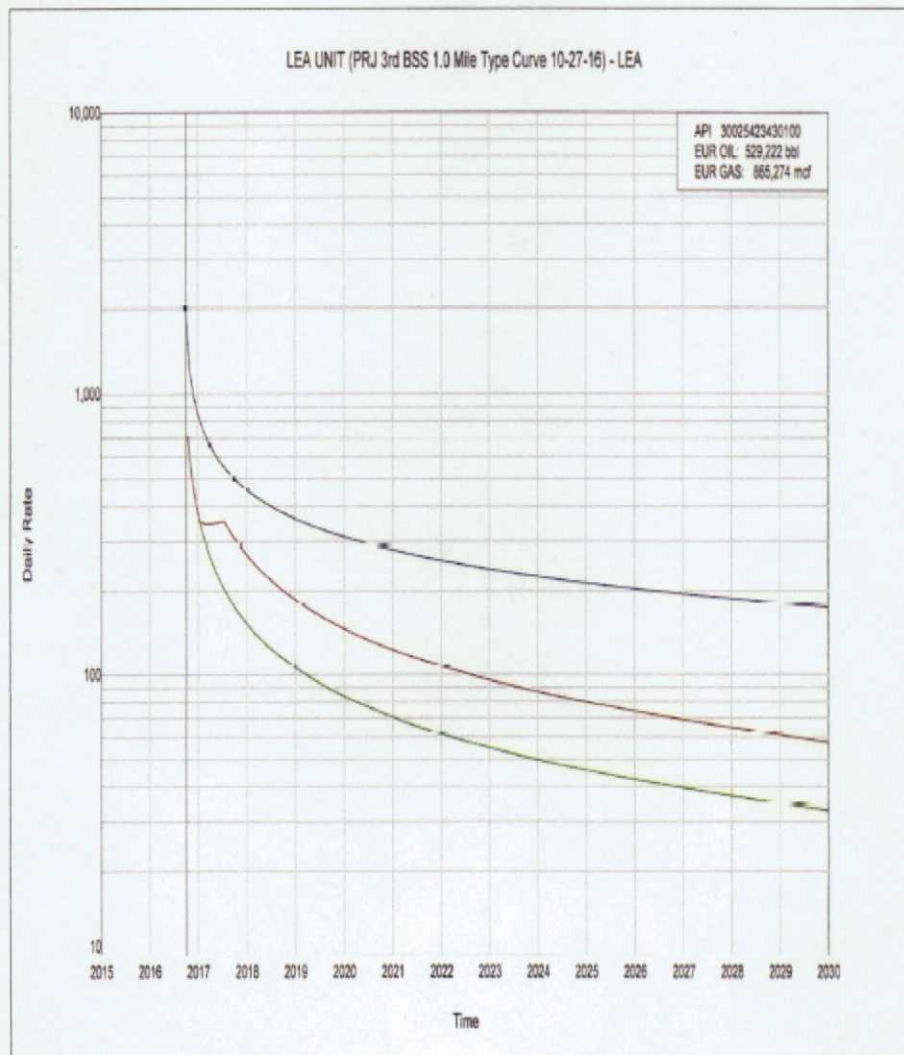
Lease Name: LEA UNIT (PRJ 3rd BSS 1.0 Mile Type Curve 10-27-16) (LEA UNIT)

Operator: LEGACY RESERVES OPERATING LP

County: ST: LEA, NM

Field Name: LEA

Location: S20 E34 12



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LEGACY RESERVES
Exhibit #16

ECONOMIC PARAMETERS

7,500' LATERAL

- PROJECT TYPE CURVE PRODUCTION RATES
- NYMEX STRIP (10-27-16)
- OPERATING EXPENSE OF \$18K FOR THE 1ST 2 YRS, & THEN \$5K FOR REMAINING LIFE OF THE PROJECT
- OIL DIFF = -\$3.84
- SWD = \$0.30 PER BW
- 100% WI VS 75% NRI
- \$5.5 MM INVESTMENT (D&C)

5,000' LATERAL

- PROJECT TYPE CURVE PRODUCTION RATES
- NYMEX STRIP (10-27-16)
- OPERATING EXPENSE OF \$18K FOR THE 1ST 2 YRS, & THEN \$5K FOR REMAINING LIFE OF THE PROJECT
- OIL DIFF = -\$3.84
- SWD = \$0.30 PER BW
- 100% WI VS 75% NRI
- \$5.2 MM INVESTMENT (D&C – CAZA AFE)

ECONOMIC RESULTS

7,500' LATERAL

- OIL EUR = 811 MBO
- GAS EUR = 1.327 MMCF
- EUR = 1.033 MBOE
- BOE/FT = 138
- ROR = >100%

5,000' LATERAL

- OIL EUR = 529 MBO
- GAS EUR = 865 MMCF
- EUR = 673 MBOE
- BOE/FT = 135
- ROR = 52%