CASE NO. 21062

APPLICATION OF TAP ROCK RESOURCES, LLC FOR COMPULSORY POOLING, <u>LEA COUNTY, NEW MEXICO</u>

EXHIBITS

- A. Landman's Affidavit
- B. Geologist's Affidavit
- C. Affidavit of Notice
- D Affidavit of Publication
- E. Application and Proposed Ad
- F. Pooling Checklist

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

APPLICATION OF TAP ROCK OPERATING, LLC FOR A STANDARD HORIZONTAL SPACING AND PRORATION UNIT AND COMPULSORY POOLING, LEA COUNTY, NEW MEXICO

Case Nos. 21062

AFFIDAVIT OF ERICA HIXSON

I, being duly sworn on oath, state the following:

- I am over the age of eighteen years and have the capacity to execute this Affidavit, which is based on my personal knowledge.
- 2. I am employed as a Landman with Tap Rock Operating, LLC ("Tap Rock"), and I am familiar with the subject application and the lands involved.
- 3. This affidavit is submitted in connection with the filing by Tap Rock of the above-referenced compulsory pooling applications pursuant to 19.15.4.12.A(1) NMAC.
- 4. I have previously testified before the New Mexico Oil Conservation Division as an expert witness in petroleum land matters. My credentials as a petroleum landman have been accepted by the Division and made a matter of record.
- 5. The purpose of this application is to force pool working interest owners into the horizontal spacing unit ("HSU") described below, and in the wells to be drilled in the units.
- 6. No opposition is expected. EOG Resources, Inc. ("EOG") was contacted regarding the proposed well. Tap Rock continues to work toward a voluntary agreement with EOG.
- 7. Tap Rock seeks an order pooling all mineral interests in the [96674] Triple X; Bone Spring, West pool underlying the W/2 of Section 4 and W/2 of Section 9, Township 24 South, Range 33 East, NMPM, Lea County, New Mexico. The proposed 640-acre spacing unit will be

EXHIBIT

dedicated to the **Poseidon State Com #101H**, **#102H**, **#105H**, **#107H**, **#171H**, **#172H**, **#175H**, **#181H**, **#182H**, **#185H**, **#187H**, as the defining wells for the units.

- 8. A proposed C-102 for each well is attached as **Exhibit 1.** The wells will develop the [96674] Triple X; Bone Spring, West pool, which is an oil pool.
- 9. The proposed surface hole, bottom hole, and first take point for each well can be found in the attached **Exhibit 1**. The proposed total vertical depth for each well can be found in the attached **Exhibit 5**.
- 10. A tract map containing the composition of the HSU is attached hereto as **Exhibit 2** and shows that the HSU is comprised of three State leases.
- 11. The parties being pooled and the nature of their interest are found in **Exhibit 4** attached hereto. **Exhibit 4** also includes information regarding working interest owners and overriding royalty interest owners.
 - 12. There are no depth severances in the Bone Spring formation in the proposed HSU.
- 13. I have conducted a diligent search of the public records in Lea County, New Mexico, where the wells will be located, and conducted phone directory and computer searches to obtain contact information for parties entitled to notification. I mailed all parties well proposals, including an Authorization for Expenditure ("AFE").
- 14. Tap Rock has made a good faith effort to obtain voluntary joinder of the working interest owners in the proposed wells.
- 15. **Exhibit 5** is a sample proposal letter and an AFE for each of the proposed wells. The estimated cost of each of the wells set forth in the AFE is fair, reasonable, and comparable to the costs of other wells of similar depths and lengths drilled in this area of New Mexico.

- 16. Tap Rock requests overhead and administrative rates of \$7000/month for drilling a well and \$700/month for a producing well. These rates are fair and comparable to the rates charged by other operators for wells of this type in this area of southeastern New Mexico. Tap Rock requests that these rates be adjusted periodically as provided in the COPAS Accounting Procedure.
- 17. Tap Rock requests the maximum cost, plus 200% risk charge be assessed against non-consenting working interest owners.
 - 18. Tap Rock requests that it be designated operator of the wells.
- 19. The Exhibits to this Affidavit were prepared by me, or compiled from Tap Rock's company business records.
- 20. The granting of this Application is in the interests of conservation, the prevention of waste, and the protection of correlative rights.
 - 21. The foregoing is correct and complete to the best of my knowledge and belief.

FURTHER AFFIANT SAYETH NAUGHT

| | Maca H |
|--|-------------------|
| | Erica Hixson |
| | |
| STATE OF COLORADO) | |
|)ss | |
| COUNTY OF JEFFERSON) | |
| Subscribed to and sworn before me this graduated day of | of January, 2020. |
| EMILY KASA | Ω |
| Notary Public State of Colorado | you |
| Notary ID # 20184039277 My Commission Expires 10-04-2022 | Notary Public |
| My Commission expires 10. U 2022 | |
| 9 200 | |

Phone: (505) 476-3460 Fax: (505) 476-3462

Property Code

OGRID No.

¹API Number

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
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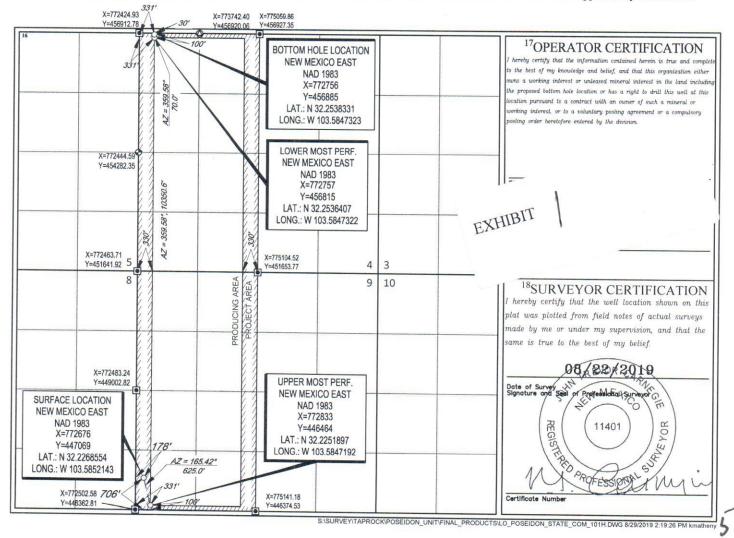
AMENDED REPORT

⁹Elevation

| ** | Pool Code | ND ACREAGE DEDICATION PLAT 3Pool Name | |
|----|-----------|---|-----------------------------------|
| | 96674 | Triple X; Bone Spring, West | |
| | POSE | ⁵ Property Name IDON STATE COM | ⁶ Well Number #101H |

372043 TAP ROCK OPERATING, LLC. 3608 ¹⁰Surface Location UL or lot no. Section Township Feet from the Range Lot Idn North/South line Feet from the East/West line County M 9 24-S 33-E 706 SOUTH 178 WEST LEA ¹¹Bottom Hole Location If Different From Surface UL or lot no. Section Township Range Feet from the North/South line Feet from the East/West lin County 24 - S33-E 30' NORTH 331' WEST LEA ³Joint or Infill ²Dedicated Acres Consolidation Code Order No.

Operator Name

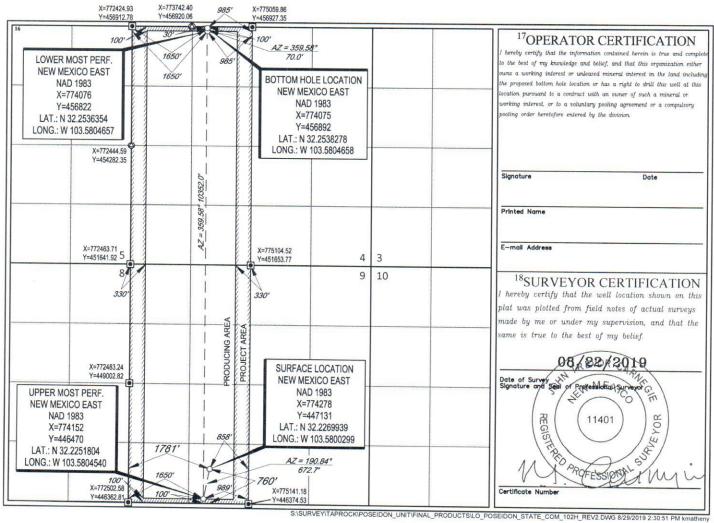


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|---------|--------|

WELL LOCATION AND ACREAGE DEDICATION PLAT API Number Triple X; Bone Spring, West 96674 Property Code Property Name Well Number POSEIDON STATE COM 102H OGRID No. Operator Name ⁹Elevation 372043 TAP ROCK OPERATING, LLC. 3601 ¹⁰Surface Location UL or lot no. Section Township Feet from the Range Lot Idn Feet from the East/West line County N 9 24-S 33-E 760 SOUTH 1781 WEST LEA ¹¹Bottom Hole Location If Different From Surface UL or lot no. Township Range Feet from the North/South line Feet from the East/West line County 24-S 33-E 30' NORTH 1650' WEST LEA ¹²Dedicated Acres ³Joint or Infill Consolidation Code Order No.



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

API Number

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

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WELL LOCATION AND ACREAGE DEDICATION PLAT

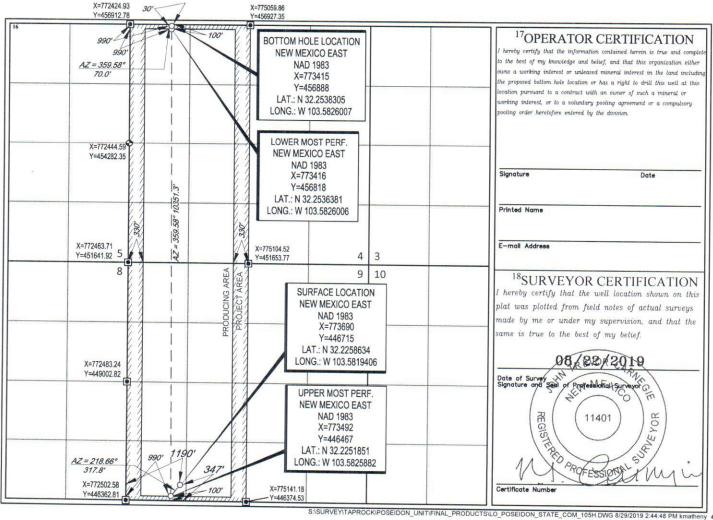
| | 96674 | Triple X; Bone Spring, West | |
|----------------------------------|--------|---------------------------------------|---------------------------------|
| ⁴ Property Code | POS | ⁶ Well Number 105H | |
| ⁷ OGRID No. 372043 | TAP RO | *Operator Name OCK OPERATING, LLC. | ⁹ Elevation 3609' |

¹⁰Surface Location

| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
| M | 9 | 24-S | 33-E | - | 347' | SOUTH | 1190' | WEST | LEA |

¹¹Bottom Hole Location If Different From Surface

| UL or lot no. | Section 4 | Township 24-S | 33-E | Lot Idn | Feet from the 30' | North/South line NORTH | Feet from the 990' | East/West line WEST | LEA |
|-------------------------------|--------------------------|---------------|------------------|------------|-------------------|------------------------|--------------------|---------------------|-----|
| ¹² Dedicated Acres | ¹³ Joint or I | nfill 14Co | nsolidation Code | 15 Order 1 | No. | | | | |



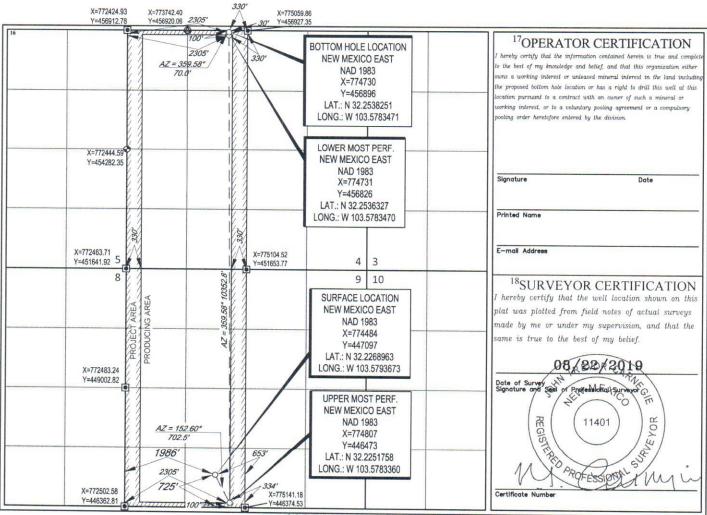
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WELL LOCATION AND ACREAGE DEDICATION PLAT

| | ¹ API Number ² Pool Code 96674 Triple X; Bone Spring, West | | | | | | | e | |
|------------------------------|--|------------|------------------|------------|--|---|---------------|--------------------------------|--------|
| ⁴ Property (| Code | | | POS | The second secon | SProperty Name STATE COM STATE COM 107H | | | |
| TAP ROCK OPERATING, LLC. | | | | | | | | ⁹ Elevation 3599 | |
| | | | | | 10 Surface Lo | cation | | | |
| UL or lot no. | _ | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
| N | 9 | 24-S | 33-E | - | 725' | SOUTH | 1986' | WEST | LEA |
| | | | ¹¹ B | ottom Hole | Location If Di | ifferent From Sur | face | | |
| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
| С | 4 | 24-S | 33-E | - | 30' | NORTH | 2305' | WEST | LEA |
| ² Dedicated Acres | ¹³ Joint or I | nfill 14Co | nsolidation Code | 15Order | No. | | | | |



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Phone: (575) 748-1283 Fax: (575) 748-9720

District III

12Dedicated Acres

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

24-S

33-E

Consolidation Code

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LEA

| | ¹ API Number | | TELL LO | ² Pool Code | ANDACK | EAGE DEDICA | ³ Pool Nam | | | |
|-----------------------|-------------------------|---------------|-----------------|------------------------|--------------------|---|-----------------------|---------------------|------------------|--|
| | | | 96 | 674 | Triple | e X; Bone Spring, V | Vest | | | |
| ⁴ Property | Code | | | PO | | ⁵ Property Name IDON STATE COM 171 | | | | |
| OGRID No. | | | | | | Operator Name OPERATING, LLC. | | | Selevation 3609' | |
| | | | | | 10 Surface Lo | ocation | | | | |
| UL or lot no. | Section 9 | Township 24-S | Range 33-E | Lot Idn | Feet from the 322' | North/South line SOUTH | Feet from the 1165' | East/West line WEST | County LEA | |
| | | | ¹¹ B | ottom Hole | Location If D | ifferent From Sur | face | | | |
| UL or lot no. | Section 4 | Township 24-S | Range 33-E | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County | |

NORTH

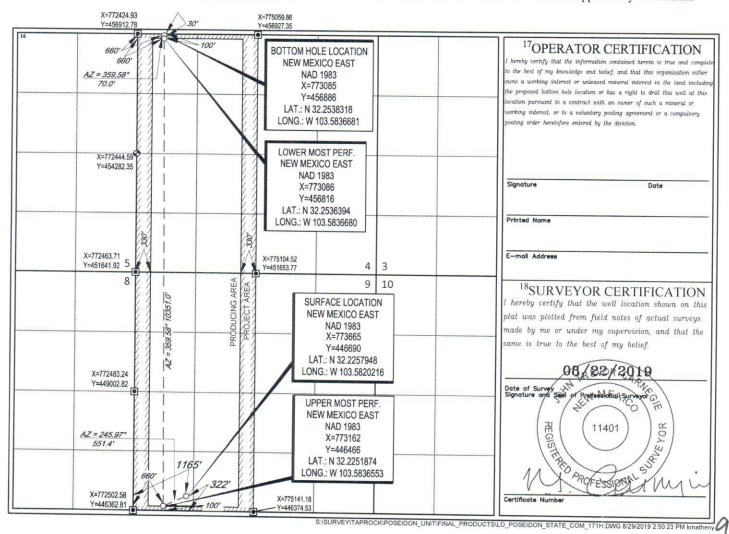
660

WEST

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.

30'

Order No



Phone: (505) 476-3460 Fax: (505) 476-3462

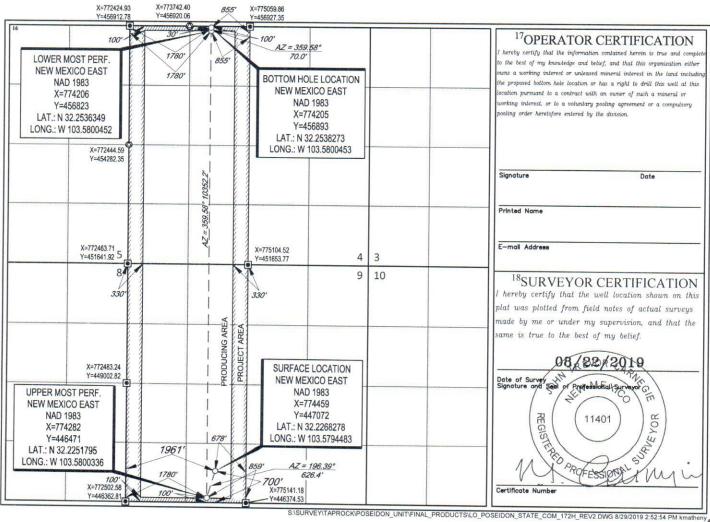
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|--|---------|--------|
|--|---------|--------|

WELL LOCATION AND ACREAGE DEDICATION PLAT

| | API Number | r | 9 | Pool Code | Trip | le X; Bone Spring, V | Pool Nan West | ie | |
|-------------------------------|--------------------------|--------------------------|------------------|-----------|-------------------------|-----------------------------|------------------|----------------|-----------|
| ⁴ Property (| Code | | | D/ | | rroperty Name 6Well Number | | | |
| | | | | P | DSEIDON S' | TATE COM | | | 172H |
| OGRID N | No. | | | | ⁸ Operator ! | Name | | , | Elevation |
| 372043 | | TAP ROCK OPERATING, LLC. | | | | | | | 3600' |
| | | | • | | ¹⁰ Surface L | ocation | | | |
| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
| N | 9 | 24-S | 33-E | - | 700' | SOUTH | 1961' | WEST | LEA |
| | | | ¹¹ I | Bottom Ho | le Location If I | Different From Sur | face | | |
| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
| C | 4 | 24-S | 33-E | _ | 30' | NORTH | 1780' | WEST | LEA |
| ¹² Dedicated Acres | ¹³ Joint or l | Infill 14Co | onsolidation Cod | le 15Ord | er No. | | | | |



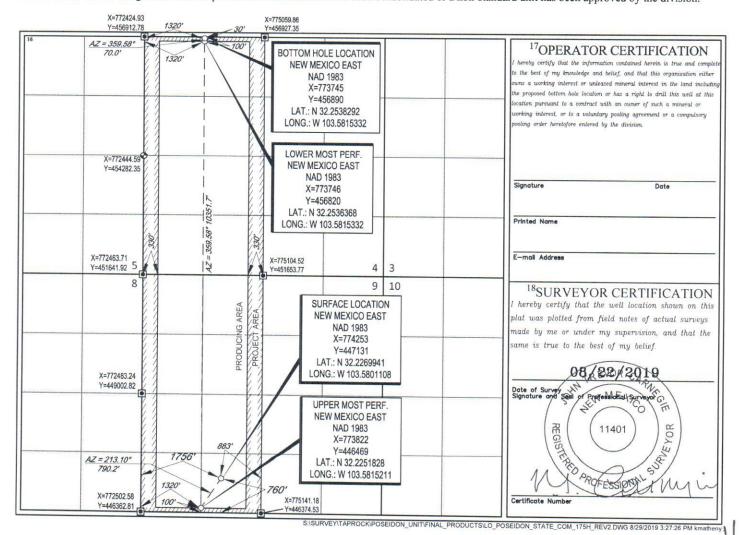
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WELL LOCATION AND ACREAGE DEDICATION PLAT

| | ¹ API Number ² Pool Code 96674 Triple X; Bone Spring, West | | | | ne | | | | | |
|--------------------------------|--|---|-----------------|-----------|--------------------------|-------------------|---------------|----------------|----------------------------------|--|
| ⁴ Property (| ⁴ Property Code Suppose Property Name POSEIDON STATE COM | | | | | | | | ⁶ Well Number 175H | |
| ⁷ OGRID N 372043 | No. | *Operator Name TAP ROCK OPERATING, LLC. | | | | | | | ⁹ Elevation 3601' | |
| | | | | | ¹⁰ Surface Lo | cation | | ' | | |
| UL or lot no. | Section | | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County | |
| N | 9 | 24-S | 33-E | - | 760' | SOUTH | 1756' | WEST | LEA | |
| | | | ¹¹ F | Bottom Ho | le Location If D | ifferent From Sur | face | | | |
| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County | |
| C | 4 | 24-S | 33-E | - | 30' | NORTH | 1320' | WEST | LEA | |
| ¹² Dedicated Acres | ¹³ Joint or I | nfill 14Co | nsolidation Cod | le 15Orde | er No. | | | | 49.00 | |



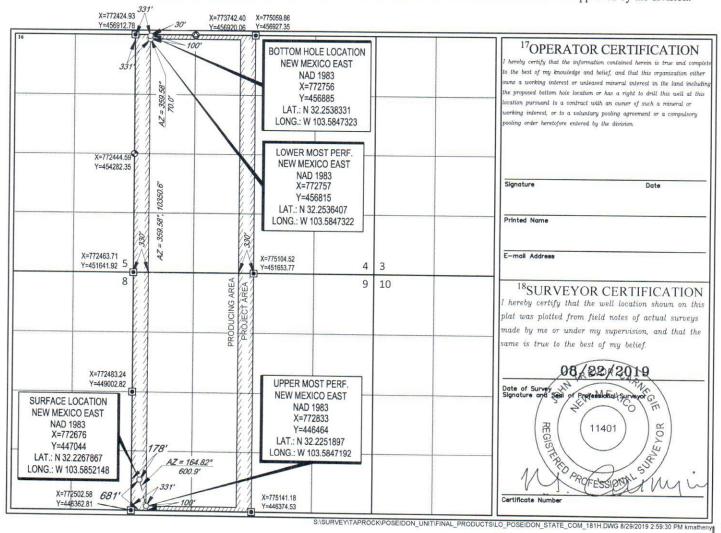
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| | WELL LOCATION | AND ACREAGE DEDICATION PLAT | | | |
|----------------------------------|------------------------|------------------------------------|--------------------------|--|--|
| ¹ API Number | ² Pool Code | ³ Pool Nam | e | | |
| | 96674 | Triple X; Bone Spring, West | | | |
| ⁴ Property Code | POS | Property Name POSEIDON STATE COM | | | |
| ⁷ OGRID No. 372043 | | *Operator Name OCK OPERATING, LLC. | #181H **Elevation 3608' | | |
| | | ¹⁰ Surface Location | | | |

UL or lot no. Section Township Range Lot Idn Feet from the North/South line Feet from the East/West line County M 9 24-S 33-E 681 SOUTH 178 WEST LEA ¹¹Bottom Hole Location If Different From Surface UL or lot no. Section Township Range Feet from the Feet from the East/West line County D 24-S 4 33-E 30' NORTH 331 WEST LEA ¹²Dedicated Acres 3Joint or Infill Consolidation Code Order No.



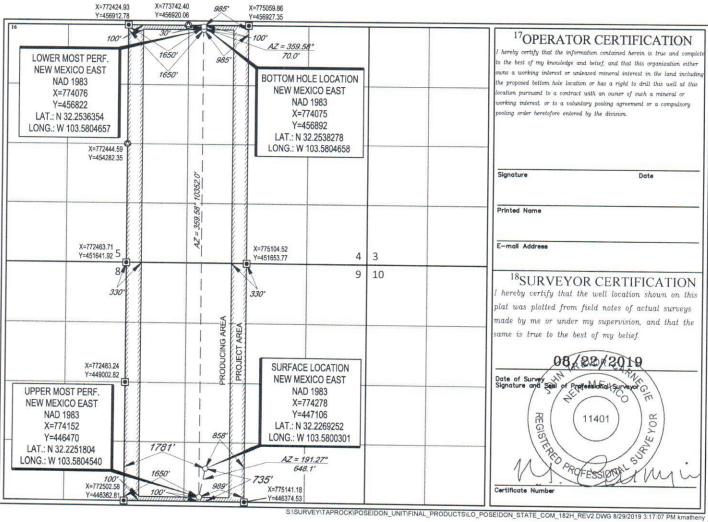
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| | | V | ELL LO | CATION | N AND AC | CREAGE DEDIC | ATION PLA | T | |
|-------------------------------|------------------------|-------------|-----------------|------------------------|--------------|------------------------|--------------------------|----------------|------------|
| | API Numbe | | | ² Pool Code | | | ³ Pool Na | | |
| | | | 9 | 6674 | Tr | iple X; Bone Spring, V | Vest | | |
| ⁴ Property | roperty Code 5Pro | | 5Proper | ty Name | | 6 _V | ⁶ Well Number | | |
| | | | | PO | SEIDON | STATE COM | | | 182H |
| ⁷ OGRID | No. | | | | 8Operat | or Name | | | 9Elevation |
| 372043 | | | | TAP F | ROCK OP | ERATING, LLC. | | 1 | 3601' |
| | | | | | 10 Surface | Location | | | |
| UL or lot no. | Section | Township | Range | Lot Idn | Feet from | the North/South line | Feet from the | East/West line | County |
| N | 9 | 24-S | 33-E | - | 735' | SOUTH | 1781' | WEST | LEA |
| | | | 11] | Bottom Hol | e Location I | f Different From Sur | face | | |
| UL or lot no. | Section | Township | Range | Lot Idn | Feet from | the North/South line | Feet from the | East/West line | County |
| С | 4 | 24-S | 33-E | - | 30' | NORTH | 1650' | WEST | LEA |
| ¹² Dedicated Acres | ¹³ Joint or | Infill 14Co | nsolidation Cod | de 15Order | r No. | | | | |
| | 1 | - 1 | | - 1 | | | | | |

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.



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1220 S. St. Francis Dr., Santa Fe, NM 87505

Phone: (505) 476-3460 Fax: (505) 476-3462

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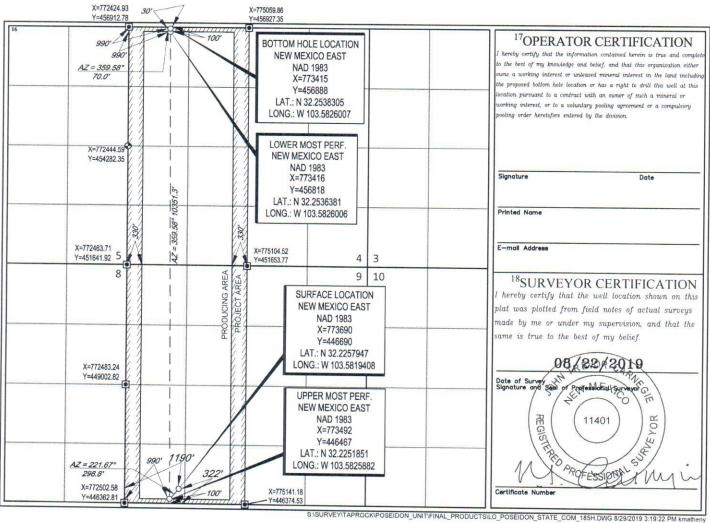
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WELL LOCATION AND ACREAGE DEDICATION PLAT

| | ¹ API Number | | | ² Pool Code | | ³ Pool Name | | | | | | | |
|-------------------------------|--------------------------|-------------|-----------------|------------------------|--------------------------|------------------------|---------------|--------------------------|--------|--|--|--|--|
| | | 96674 | | Triple | e X; Bone Spring, V | | | | | | | | |
| ⁴ Property C | Code | 5Pr | | | ⁵ Property N | ame | 6W | ⁶ Well Number | | | | | |
| | | | | P | OSEIDON ST | CATE COM | | 185H | | | | | |
| OGRID N | No. | | | | ⁸ Operator N | ame | | ⁹ Elevation | | | | | |
| 372043 | TAP ROCK OPERATING, LLC. | | | | 3609' | | | | | | | | |
| | | | | | ¹⁰ Surface Lo | cation | | • | | | | | |
| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County | | | | |
| M | 9 | | | 322' | SOUTH | WEST | LEA | | | | | | |
| | | | 11 | Bottom Ho | le Location If D | ifferent From Surf | face | | | | | | |
| UL or lot no. | Section | Township | Range | Lot Idn | | North/South line | Feet from the | East/West line | County | | | | |
| D | 4 | 24-S | 33-E | - | 30' | NORTH | 990' | WEST | LEA | | | | |
| ¹² Dedicated Acres | ¹³ Joint or l | Infill 14Co | nsolidation Cod | le 15Orde | er No. | | | | | | | | |
| | | | | | | | | | | | | | |

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District 11 811 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

³Joint or Infill

14Consolidation Code

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

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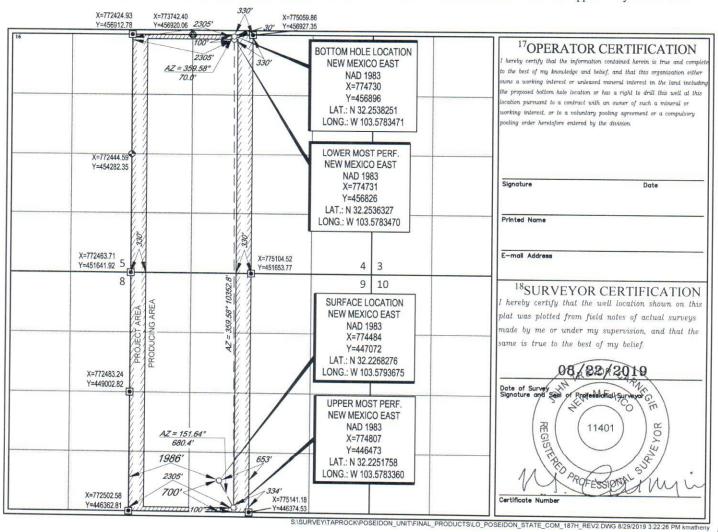
AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

| | AFTNumber | | 966 | 674 | Triple | e X; Bone Spring, \ | West Pool Na | me | |
|--------------------------------|-----------|----------|-----------------|------------|--------------------------|---------------------|---------------|----------------|---------------------------------|
| ⁴ Property (| Code | | | PO | SEIDON ST | | | 6 | Vell Number 187H |
| ⁷ OGRID N 372043 | No. | | | TAP R | 8Operator N | RATING, LLC. | | | ⁹ Elevation 3600' |
| | | | | | ¹⁰ Surface Lo | ocation | | | |
| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
| N | 9 | 24-S | 33-E | - | 700' | SOUTH | 1986' | WEST | LEA |
| | | | ¹¹ B | ottom Hole | e Location If D | ifferent From Sur | face | | |
| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
| C | 4 | 24-S | 33-E | - | 30' | NORTH | 2305' | WEST | LEA |

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.

Order No.





| Township 24 South, Range 33 East, Lea County New Mexico | Section 4 | | Section 9 | |
|--|---|--|-----------------------------------|---|
| Township 24 South County No | Tract One Sect State Lease LG3175 | | Tract Two State Lease V04396 Sect | Tract Three State Lease V04096 |

Horizontal Spacing Unit

Poseidon

State Lease

EXHIBIT 2



| Tract# Legal | | Mineral Ownership Type | Lease Number | Owner |
|--------------|---|------------------------------|-----------------|--|
| 1 | W/2 of Section 4, T24S R33E | State | LG3175 | Murchison Oil and Gas, Inc. Committed Working Interest |
| 7 | NW/4 & N/2SW/4 of Section 9, T24S R33E | State | V04396 | EOG Resources, Inc. Murchison Oil and Gas, Inc. Committed Working Interest |
| 8 | S/2SW/4 of Section 9, T24S R33E | State | V04096 | Murchison Oil and Gas, Inc. Committed Working Interest |

EXHIBIT 3

final interest subject to division order title verification

oseidon State Com #101H, #102H, #105H, #107H,



| Entity | Interest Type | Approximate Percentage |
|-----------------------------|------------------------------|------------------------|
| Tap Rock Resources, LLC | Working Interest | 74.873533% |
| Voluntary Joinder | Working Interest | 2.849976% |
| Murchison Oil and Gas, Inc. | Uncommitted Working Interest | 5.599924% |
| EOG Resources, Inc. | Uncommitted Working Interest | 16.676567% |

Overriding Royalty Interest

EOG Resources Assets, LLC

Devon Energy Production Company LP

Murchison Oil and Gas, Inc.

JD Murchison Interests, Inc.

EXHIBIT

inal interest subject to division order title verification

Poseidon State Com #10111, #102H, #105H, #107H, #171H, #172H, #175H, #181H, #182H, #185H, #187F

Summary of Communication

| Murchison Oil and Gas, Inc. | 10/25/19 - Sent well proposals. |
|-----------------------------|---|
| | 11/4/19 – Murchison acknowledges receipt of proposals, asks general questions. Tap Rock provides answers. |
| EOG Resources, Inc. | 5/8/19 to Present, parties agree to work together on trade deal. |
| | 10/25/19 - Sent well proposals. |
| E | 1/31/20 – Parties agree to trade, working towards executing a Letter Agreement. |

EXHIBIT 5A



October 24, 2019

Via Certified Mail

Murchison Oil & Gas, Inc. Attn: Land Department 7250 Dallas Parkway, Suite 1400 Plano, TX 75024

Re: Poseidon State Com #101H, #102H, #105H, #107H, #171H, #172H, #175H, #181H, #182H, #185H, #187H Well Proposals
Township 24 South, Range 33 East, W/2 of Sections 4 & 9
Lea County, New Mexico (the "Wells")

Tap Rock Operating, LLC (TRO), as successor Operator, hereby proposes to drill the following Wells under that certain Operating Agreement dated April 1, 1979 by and between Getty Oil Company, as Operator and Gulf Oil Corporation et. al. as Non-Operators (the "1979 OA") and that certain Operating Agreement dated December 1, 1992 (the "1992 OA") by and between Enron Oil and Gas Company, as Operator, and Santa Fe Energy Resources, Inc., as Non-Operator. Accordingly, enclosed are AFEs dated August 29, 2019 for the following Wells:

| Well Name | Surface Hole Location (SHL) | Bottom Hole Location (BHL) | Formation | True Vertical Depth | Measured Depth |
|--|-------------------------------------|-----------------------------------|-----------|---------------------------|-------------------|
| Poseidon State Com #101H | 706' FSL & 178' FWL of Section 9 | 30' FNL & 331' FWL of Section 4 | Avalon | 9,522' | 20,182' |
| Poseidon State Com #102H | 760' FSL & 1,781' FWL of Section 9 | 30' FNL & 1,650' FWL of Section 4 | Avalon | 9,499' | 20,159' |
| Poseidon State Com #105H | 347' FSL & 1,190' FWL of Section 9 | 30' FNL & 990' FWL of Section 4 | Avalon | 9,522' | 20,182' |
| Poseidon State Com #107H | 725' FSL & 1,986' FWL of Section 9 | 30' FNL & 2,305' FWL of Section 4 | Avalon | 9,475 | 20,135 |
| Poseidon State Com #171H | 322' FSL & 1,165' FWL of Section 9 | 30' FNL & 660' FWL of Section 4 | Avalon | 9,802' | 20,462' |
| Poseidon State Com #172H | 700' FSL & 1,961' FWL of Section 9 | 30' FNL & 1,780' FWL of Section 4 | Avalon | 9,785' | 20,445 |
| Poseidon State Com #175H | 760' FSL & 1,756' FWL of Section 9 | 30' FNL & 1,320' FWL of Section 4 | Avalon | 9,794' | 20,454 |
| Poseidon State Com #181H | 681' FSL & 178' FWL of Section 9 | 30' FNL & 331' FWL of Section 4 | Avalon | 10,104' | 20,764 |
| Poseidon State Com #182H | 735' FSL & 1,781' FWL of Section 9 | 30' FNL & 1,650' FWL of Section 4 | Avalon | 10,073 | 20,733 |
| Poseidon <mark>Sta</mark> te Com #185H | 322' FSL & 1,190' FWL of Section 9 | 30' FNL & 990' FWL of Section 4 | Avalon | 10,104 | 20,764' |
| Poseidon State Com # <mark>187</mark> H | 700' FSL & 1,986' FWL of Section 9 | 30' FNL & 2,305' FWL of Section 4 | Avalon | 10,041' | 20,701 |



The proposed locations and drilling plans described above are subject to change depending on surface or subsurface issues that may be encountered. TRO will advise you of any such modifications. A separate AFE for facility costs is forthcoming. Your election to participate in the drilling and completion of the proposed wells will also be considered an election to participate in the construction of the production facility.

In the event you elect to participate in the proposed Wells, please execute the enclosed AFEs and return to me within 30 days.

TRO is proposing to drill these wells under the terms of the 1979 OA and the 1992 OA. However, to simplify the records pertaining to the Wells, TRO submits the enclosed superseding AAPL Form 610-1989 Operating Agreement to cover all future development related to the W/2 of Sections 4 & 9, Township 24 South, Range 33 East, Lea County, New Mexico.

Should you have any questions regarding the above, please contact the undersigned.

Sincerely,

TAP ROCK OPERATING, LLC

Erica Hixson

Erica Hixson

Landman

Office: 720-460-3316 ehixson@taprk.com



| Murchison Oil & Gas, Inc. hereby elects to: | |
|--|--|
| participate in the Poseidon State Com #101H non-consent the Poseidon State Com #101H | participate in the Poseidon State Com #175H non-consent the Poseidon State Com #175H |
| participate in the Poseidon State Com #102H non-consent the Poseidon State Com #102H | participate in the Poseidon State Com #181H non-consent the Poseidon State Com #181H |
| participate in the Poseidon State Com #105H non-consent the Poseidon State Com #105H | participate in the Poseidon State Com #182H non-consent the Poseidon State Com #182H |
| participate in the Poseidon State Com #107H non-consent the Poseidon State Com #107H | participate in the Poseidon State Com #185H non-consent the Poseidon State Com #185H |
| participate in the Poseidon State Com #171H non-consent the Poseidon State Com #171H | participate in the Poseidon State Com #187H non-consent the Poseidon State Com #187H |
| participate in the Poseidon State Com #172H non-consent the Poseidon State Com #172H | |
| By: | |
| Title: | |

Date: _____

602 Park Point Dr, Golden, Colorado 80401 Authorization For Expenditure

INTANGIBLE COMPLETION COSTS

| Name: | Poseidon 101H |
|---------|---------------|
| AFE #: | 0 |
| County: | Lea |
| State: | NM |

INTANGIBLE DRILLING COSTS

Date: August 29, 2019 MD/TVD: 20182 / 9522 Lateral Length: 10210 Geologic Target: Avalon

INTANGIBLE PRODUCTION COSTS

Well Description: Drill, complete, and equip a horizontal Avalon well with a 10210 foot lateral.

| OST CODES | DESCRIPTION | AMOUNT | 0 | OST CO | DES | DESCRIPTION | AMOUNT | co | ST COD | ES DESCRIPTION | AMOUNT |
|---|--|--------------------------|-----|----------------|----------------------------|--|-----------|-----|----------|---|-----------|
| 1 1 Land- | 2.000000 | 10,000 | 2 | - | 1 Land | - Legal | | 3 | 1 | Land - Legal | |
| | - Regulatory | 5,000 | 3 | | Land | - Regulatory | | 3 | 2 | Land - Regulatory | |
| | - Surface Damages | 20,000 | 2 | | | - Surface Damages | | 3 | 3 | | |
| | - Survey | 10,000 | 2 | | 1 Land | - Survey | | 3 | 4 | Land - Survey | |
| | ion/Pit Construction | 140,000 | 2 | 2 5 | Local | tion/Pit Construction | | 3 | 5 | | |
| 6 Remed | dial Dirtwork | 0 | 2 | 2 6 | Rem | edial Dirtwork | | 3 | 6 | | |
| | ve/Frac Pit Closing | 0 | 2 | 2 7 | 7 Rese | rve/Frac Pit Closing | | 3 | 7 | Reserve/Frac Pit Closing | |
| | g - Contractor | 470,775 | 2 | 8 | B Drillin | ng - Contractor | | 3 | 8 | Drilling - Contractor | |
| 9 Mob/F | Rig Up - Contractor/Trucking | 123,250 | 2 | 2 9 | | /Rig Up - Contractor/Trucking | | 3 | 9 | | |
| | nting Services | 0 | | | | enting Services | | . 3 | 10 | | |
| 11 Cemer | nting Equipment | 0 | 2 | | | enting Equipment | | 3 | | Cementing Equipment | |
| | orill Out Assemblies | 0 | 2 | | | Drill Out Assemblies | 140,586 | 3 | | | |
| | Circulation Equipment/Services | 82,123 | 2 | | | Circulation Equipment/Services | 140,300 | 3 | 13 | | |
| 14 Fluids/ | /Chemicals | 50,000 | 2 | | | s/Chemicals | 114,278 | 3 | 14 | | |
| | Cuttings/Wastewater Disposal | 275,670 | 2 | | 7777 | 1 Cuttings/Wastewater Disposal | 114,276 | 3 | 15 | | |
| | Cuttings/Chemical Disposal | 0 | 2 | | | Cuttings/Chemical Disposal | | - | | | |
| 17 Fuel/P | | 120,492 | 2 | | 7 Fuel/ | Power | 562.500 | 3 | 16 | | |
| 18 Water | | 0 | 2 | | | | 662,500 | 3 | 17 | | |
| 19 Directi | tional Drilling | 200,533 | 2 | | | | 1,058,090 | 3 | 18 | | |
| | ogging | 18,328 | 2 | | - | tional Drilling | | 3 | 19 | | |
| | /Cased/Production Hole Logs | 10,320 | | | | Logging | | 3 | 20 | | |
| 22 Coring | a second respective re | 0 | 2 | | | /Cased/Production Hole Logs | 10,550 | 3 | 21 | | |
| | | 0 | 2 | | | | | 3 | 22 | Paragonal Augusta employees and the control of the | |
| | gic Supervision | 0 | 2 | | | ogic Supervision | | 3 | 23 | 0 , | |
| | eering Supervision | 0 | 2 | | - | neering Supervision | | 3 | 24 | Engineering Supervision | |
| 25 Consul | Itant Supervision | 108,443 | 2 | | | ultant Supervision | 156,000 | 3 | 25 | Consultant Supervision | 7 |
| | t/Transportation | 20,000 | 2 | | 5 Freig | ht/Transportation | 4,110 | 3 | 26 | Freight/Transportation | 1 |
| 27 Labor | | 0 | 2 | | 7 Labor | 1 | 22,190 | 3 | 27 | | 8 |
| | es - Surface | 2,500 | 2 | _ | | lies - Surface | 4,110 | 3 | 28 | Supplies - Surface | |
| 29 Supplie | es - Living Quarters | 1,000 | 2 | | Supp | lies - Living Quarters | 4,110 | 3 | 29 | | |
| 30 Rentals | | 51,566 | 2 | 30 | Renta | als - Surface | 50,030 | 3 | 30 | | |
| | ls - Living Quarters | 27,713 | 2 | 31 | Renta | als - Living Quarters | 42,490 | 3 | 31 | | |
| | ls - Downhole | 0 | 2 | 32 | Renta | als - Downhole | 0 | 3 | 32 | Rentals - Downhole | |
| | ls - Pipe & Handling Tools | 0 | 2 | 33 | Renta | als - Pipe & Handling Tools | 0 | 3 | 33 | Rentals - Pipe & Handling Tools | |
| 34 Rentals | ls - Frac Stack | | 2 | 34 | Renta | als - Frac Stack | 150,095 | 3 | 34 | Rentals - Frac Stack | |
| 35 Rentals | ls - Frac Tanks | | 2 | 35 | | als - Frac Tanks | 95,800 | 3 | 35 | | |
| 36 Coil Tu | ubing Unit/Workover Rig | | 2 | | | ubing Unit/Workover Rig | 309,444 | 3 | 36 | | |
| 37 Wirelin | ne/Slickline/Perforating | | 2 | | | ine/Slickline/Perforating | 501,550 | 3 | 37 | Coil Tubing Unit/Workover Rig | _ |
| 38 Tempo | orary Packers/Plugs | | 2 | | | orary Packers/Plugs | | | - | | - |
| | ressure Pump Truck | | 2 | | | | 78,000 | 3 | 38 | | |
| 40 Stimula | | | 2 | | | Pressure Pump Truck | 152,200 | 3 | 39 | | |
| | s - Pressure Control | | | | | | 3,155,274 | 3 | 40 | | |
| - | ack Services | | 2 | | | ls - Pressure Control | | 3 | 41 | Rentals - Pressure Control | |
| | Transfer Services | | 2 | | _ | pack Services | 130,225 | 3 | 42 | | |
| | | | 2 | | - | r Transfer Services | 172,125 | 3 | 43 | Water Transfer Services | |
| 45 Derman | ack Water Trucking & Disposal | | 2 | | | pack Water Trucking & Disposal | 141,788 | 3 | 44 | Flowback Water Trucking & Disposal | |
| 45 Pinelin | nent Equipment Installation | | 2 | | | anent Equipment Installation | | 3 | | Permanent Equipment Installation | |
| 46 Pipeline | e Tapping Services | | 2 | - | The Personal Property lies | ne Tapping Services | | 3 | 46 | Pipeline Tapping Services | |
| | ng & Abandonment | 0 | 2 | | Plugg | ing & Abandonment | | 3 | 47 | Plugging & Abandonment | |
| 53 Overhe | | 9,549 | 2 | 53 | Overh | nead | 31,650 | 3 | 53 | | |
| 54 Insuran | | 36,328 | 2 | 54 | Insura | ance | | 3 | 54 | Insurance | |
| 55 Conting | | 89,163 | 2 | 55 | Contin | ngency | 560,956 | 3 | 55 | Contingency | 1 |
| To | OTAL INTANGIBLE DRILLING COSTS: | \$1,872,432 | | | тот | AL INTANGIBLE COMPLETION COSTS: | | | | TOTAL INTANGIBLE PRODUCTION COSTS: | \$214,50 |
| | TANGIBLE DRILLING COSTS | | | | | TANGET COLOR | | | | | |
| CODES | DESCRIPTION | AMOUNT | co | ST CODE | F 5 | TANGIBLE COMPLETION COSTS DESCRIPTION | AMOUNT | | | TANGIBLE PRODUCTION COSTS | |
| 60 Conduc | ctor Casing | 0 | 5 | | | uctor Casing | AMOUNT | | CODE | | AMOUNT |
| 61 Surface | e Casing | 56,106 | 5 | 61 | | ce Casing | | 6 | 61 | Conductor Casing | |
| | ermediate Casing | 155,550 | 5 | | - | termediate Casing | | | | | |
| | termediate Casing | 0 | 5 | | | termediate Casing | | 6 | | 1st Intermediate Casing | |
| 64 Product | tion Casing | 378,413 | 5 | - | Produ | ction Casing | 22.500 | 6 | 63 | 2nd Intermediate Casing | |
| 65 Tubing | | 575,415 | 5 | _ | Tubing | e control casing | 22,500 | 6 | 64 | Production Casing | |
| 66 Wellhea | ad | 0 | 5 | 66 | | | 5387444 | 6 | 65 | Tubing | |
| | nent Packers/Hangers/Plugs | U | 5 | | | | 40,000 | 6 | 66 | Wellhead | |
| 68 Tanks | - Servings | | 5 | - | THE RESERVE | nent Packers/Hangers/Plugs | | 6 | 67 | Permanent Packers/Hangers/Plugs | |
| | tion Vessels | | | 68 | | | | 6 | 68 | Tanks | |
| 70 Compre | | | 5 | | | ction Vessels | | 6 | 69 | Production Vessels | 8 |
| - | essors Flowlines | | 5 | 70 | | ressors | | 6 | 70 | Compressors | |
| | | | 5 | | | e Flowlines | | 6 | 71 | Surface Flowlines | 5 |
| | | | 5 | 72 | Gathe | ring Lines | | 6 | 72 | Gathering Lines | 1 |
| | & Controllers | | 5 | | Valves | & Controllers | | 6 | 73 | Valves & Controllers | |
| 73 Valves 8 | I Life Faurings and | | 5 | 74 | Artifici | ial Lift Equipment | | 6 | 74 | Artificial Lift Equipment | 3 |
| 73 Valves 8 74 Artificia | al Lift Equipment | | | | | mentation & Measurement | | 6 | 75 | Instrumentation & Measurement | - |
| 73 Valves 8 74 Artificia 75 Instrum | nentation & Measurement | | 5 | 13 | | | | 6 | | | |
| 73 Valves 8 74 Artificia 75 Instrum 76 Electrica | nentation & Measurement al Grounding/Safety Equipment | | 5 | 76 | | | | | | | |
| 73 Valves 8 74 Artificia 75 Instrum 76 Electrica 77 Perman | nentation & Measurement al Grounding/Safety Equipment ment Equipment Installation | | | 76 | Electri | cal Grounding/Safety Equipment | | | 76 | Electrical Grounding/Safety Equipment | |
| 73 Valves 8 74 Artificia 75 Instrum 76 Electrica 77 Perman 80 Other 1 | nentation & Measurement al Grounding/Safety Equipment nent Equipment Installation Surface | | 5 | 76 | Perma | cal Grounding/Safety Equipment nent Equipment Installation | | 6 | 77 | Permanent Equipment Installation | |
| 73 Valves 8 74 Artificia 75 Instrum 76 Electrica 77 Perman 80 Other 1 | nentation & Measurement al Grounding/Safety Equipment ment Equipment Installation | | 5 | 76 77 | Perma Other | cal Grounding/Safety Equipment nent Equipment Installation - Surface | | 6 | 77 80 | Other - Surface | |
| 73 Valves 8 74 Artificial 75 Instrum 76 Electrica 77 Perman 80 Other 1 81 Other - 1 | nentation & Measurement al Grounding/Safety Equipment nent Equipment Installation Surface Downhole | \$500.060 | 5 5 | 76 77 80 | Perma Other | cal Grounding/Safety Equipment nent Equipment Installation - Surface - Downhole | | 6 | 77 | Permanent Equipment Installation | |
| 73 Valves 8 74 Artificial 75 Instrum 76 Electrica 77 Perman 80 Other - 1 81 Other - 1 | nentation & Measurement al Grounding/Safety Equipment nent Equipment Installation Surface | \$590,069 \$2,462,500 | 5 5 | 76 77 80 | Perma Other | cal Grounding/Safety Equipment nent Equipment Installation - Surface | \$62,500 | 6 | 77 80 | Other - Surface | \$285,500 |

| CEO | VP - EXPLORATION | |
|----------------|------------------|--|
| CFO | VP - OPERATIONS | |
| | | |
| - LAND & LEGAL | SENIOR GEOLOGIST | |

N 'FRATI' ARTNER APPROVAL:

TOTAL WELL COST: \$10,773,151



602 Park Point Dr, Golden, Colorado 80401 Authorization For Expenditure

| me: | Poseidon 102H | |
|------|---------------|--|
| E #: | 0 | |
| untv | Lea | |

Date: August 29, 2019 MD/TVD: 20159 / 9499 Lateral Length: 10210 Geologic Target: Avalon

| | | cription: | | | uip a i | norizontal Avalon well with a 10210 foot la | | | | | |
|----------------------------|--|---|----------------|--------------------------------------|--|--|---|---------------------------------|--|--|-------------------------|
| co | ST CODE: | INTANGIBLE DRILLING COSTS DESCRIPTION | AMOUNT | cc | ST CODE | INTANGIBLE COMPLETION COSTS DESCRIPTION | AMOUNT | co | ST COD | INTANGIBLE PRODUCTION COSTS DESCRIPTION | AMOUNT |
| 1 | 1 | Land - Legal | 10,000 | 2 | | Land - Legal | I I | 3 | 1 | Land - Legal | AMOUNT |
| 1 | | Land - Regulatory | 5,000 | 2 | | Land - Regulatory | | 3 | 2 | Land - Regulatory | |
| 1 | 3 | Land - Surface Damages | 20,000 | 2 | | Land - Surface Damages | | 3 | 3 | Land - Surface Damages | |
| 1 | 5 | Land - Survey Location/Pit Construction | 10,000 | 2 | | Land - Survey | | 3 | 4 | Land - Survey | |
| 1 | 6 | Remedial Dirtwork | 140,000 | 2 | 6 | Location/Pit Construction Remedial Dirtwork | | 3 | 5 | Location/Pit Construction | 5,0 |
| 1 | 7 | Reserve/Frac Pit Closing | 0 | 2 | | Reserve/Frac Pit Closing | | 3 | 7 | Remedial Dirtwork Reserve/Frac Pit Closing | |
| 1 | 8 | Drilling - Contractor | 470,979 | 2 | | Drilling - Contractor | | 3 | 8 | Drilling - Contractor | |
| 1 | 9 | Mob/Rig Up - Contractor/Trucking | 123,250 | 2 | 9 | Mob/Rig Up - Contractor/Trucking | | 3 | 9 | Mob/Rig Up - Contractor/Trucking | |
| 1 | 10 | Cementing Services | 0 | 2 | 10 | | | 3 | 10 | | |
| 1 | 11 | Cementing Equipment Bits/Drill Out Assemblies | 0 | 2 | | Cementing Equipment | | 3 | 11 | | |
| 1 | 13 | Fluid Circulation Equipment/Services | 82,159 | 2 | | Bits/Drill Out Assemblies Fluid Circulation Equipment/Services | 140,586 | 3 | 12 | | |
| 1 | 14 | Fluids/Chemicals | 50,000 | 2 | | Fluids/Chemicals | 114,278 | 3 | 13 | | |
| 1 | 15 | WBM Cuttings/Wastewater Disposal | 275,670 | 2 | | WBM Cuttings/Wastewater Disposal | 114,276 | 3 | 15 | WBM Cuttings/Wastewater Disposal | |
| 1 | 16 | OBM Cuttings/Chemical Disposal | 0 | 2 | | OBM Cuttings/Chemical Disposal | | 3 | 16 | OBM Cuttings/Chemical Disposal | |
| 1 | 17 | Fuel/Power | 120,533 | 2 | 17 | Fuel/Power | 662,500 | 3 | 17 | Fuel/Power | |
| 1 | 18 | Water | 0 | 2 | | Water | 1,058,090 | 3 | 18 | Water | |
| 1 | 19 | Directional Drilling Mud Logging | 200,620 | 2 | | Directional Drilling | | 3 | 19 | Directional Drilling | |
| 1 | 21 | Open/Cased/Production Hole Logs | 18,339 | 2 | | Mud Logging Open/Cased/Production Hole Logs | 10.550 | 3 | 20 | Mud Logging | |
| 1 | 22 | Coring | 0 | 2 | 22 | Coring | 10,550 | 3 | 21 | Open/Cased/Production Hole Logs Coring | |
| 1 | 23 | Geologic Supervision | 0 | 2 | 23 | Geologic Supervision | | 3 | 23 | Geologic Supervision | |
| 1 | 24 | Engineering Supervision | 0 | 2 | 24 | Engineering Supervision | | 3 | 24 | Engineering Supervision | |
| 1 | 25 | Consultant Supervision | 108,480 | 2 | 25 | Consultant Supervision | 156,000 | 3 | 25 | Consultant Supervision | 20,0 |
| 1 | 26 | Freight/Transportation | 20,000 | 2 | | Freight/Transportation | 4,110 | 3 | 26 | Freight/Transportation | 10,0 |
| 1 | 27 | Labor | 0 | 2 | | Labor | 22,190 | 3 | 27 | Labor | 85,0 |
| 1 | 29 | Supplies - Surface Supplies - Living Quarters | 2,500 1,000 | 2 | 28 | Supplies - Surface Supplies - Living Quarters | 4,110 | 3 | 28 | Supplies - Surface | |
| 1 | 30 | Rentals - Surface | 51,588 | 2 | | Rentals - Surface | 4,110 50,030 | 3 | 30 | Supplies - Living Quarters | |
| 1 | 31 | Rentals - Living Quarters | 27,723 | 2 | 31 | Rentals - Living Quarters | 42,490 | 3 | 31 | Rentals - Surface Rentals - Living Quarters | |
| 1 | 32 | Rentals - Downhole | 0 | 2 | 32 | Rentals - Downhole | 0 | 3 | 32 | Rentals - Downhole | |
| 1 | 33 | Rentals - Pipe & Handling Tools | 0 | 2 | 33 | Rentals - Pipe & Handling Tools | 0 | 3 | 33 | Rentals - Pipe & Handling Tools | |
| 1 | 34 | Rentals - Frac Stack | | 2 | 34 | Rentals - Frac Stack | 150,095 | 3 | 34 | Rentals - Frac Stack | |
| 1 | 35 | Rentals - Frac Tanks | | 2 | 35 | Rentals - Frac Tanks | 95,800 | 3 | 35 | | |
| 1 | 37 | Coil Tubing Unit/Workover Rig Wireline/Slickline/Perforating | | 2 | 36 37 | Coll Tubing Unit/Workover Rig Wireline/Slickline/Perforating | 309,444 | 3 | 36 | Coil Tubing Unit/Workover Rig | 70,0 |
| 1 | 38 | Temporary Packers/Plugs | | 2 | 38 | Temporary Packers/Plugs | 501,550 78,000 | 3 | 37 | Wireline/Slickline/Perforating | |
| 1 | 39 | High Pressure Pump Truck | | 2 | 39 | High Pressure Pump Truck | 152,200 | 3 | 39 | Temporary Packers/Plugs High Pressure Pump Truck | |
| 1 | 40 | Stimulation | | 2 | - | Stimulation | 3,155,274 | 3 | 40 | Stimulation | |
| 1 | 41 | Rentals - Pressure Control | | 2 | | Rentals - Pressure Control | .,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | 3 | 41 | Rentals - Pressure Control | |
| 1 | 42 | Flowback Services | | 2 | | Flowback Services | 130,225 | 3 | 42 | Flowback Services | |
| 1 | 43 | Water Transfer Services | | 2 | | Water Transfer Services | 172,125 | 3 | 43 | Water Transfer Services | |
| 1 | 45 | Flowback Water Trucking & Disposal Permanent Equipment Installation | | 2 | | Flowback Water Trucking & Disposal | 141,788 | 3 | 44 | Flowback Water Trucking & Disposal | |
| 1 | 46 | Pipeline Tapping Services | | 2 | 45 | Permanent Equipment Installation | | 3 | 45 | Permanent Equipment Installation | |
| 1 | 47 | Plugging & Abandonment | 0 | 2 | 47 | Pipeline Tapping Services Plugging & Abandonment | | 3 | 46 | Pipeline Tapping Services | |
| 1 | 53 | Overhead | 9,553 | 2 | 53 | Overhead | 31,650 | 3 | 53 | Plugging & Abandonment Overhead | 5,00 |
| 1 | | Insurance | 36,286 | 2 | 54 | Insurance | 34,050 | 3 | 54 | Insurance | 5,00 |
| 1 | 55 | Contingency | 89,184 | 2 | 55 | Contingency | 560,956 | 3 | 55 | Contingency | 19,50 |
| _ | | TOTAL INTANGIBLE DRILLING COSTS: | \$1,872,863 | | | TOTAL INTANGIBLE COMPLETION COSTS: | \$7,748,151 | | | TOTAL INTANGIBLE PRODUCTION COSTS: | \$214,500 |
| | | | | | | | | | | | |
| cos | TCODES | TANGIBLE DRILLING COSTS DESCRIPTION | AMOUNT | | | TANGIBLE COMPLETION COSTS | | | | TANGIBLE PRODUCTION COSTS | |
| 4 | 60 | Conductor Casing | AMOUNT | 5 | F CODES | | AMOUNT | | CODE | | AMOUNT |
| 4 | 61 | Surface Casing | 56,106 | 5 | 61 | Conductor Casing Surface Casing | | 6 | 60 | Conductor Casing | |
| 4 | 62 | 1st Intermediate Casing | 155,550 | 5 | 62 | 1st Intermediate Casing | | 6 | 62 | Surface Casing 1st Intermediate Casing | |
| 4 | 63 | 2nd Intermediate Casing | 0 | 5 | 63 | 2nd Intermediate Casing | | 6 | 63 | 2nd Intermediate Casing | |
| 4 | 64 | Production Casing | 377,981 | 5 | 64 | Production Casing | 22,500 | 6 | 64 | Production Casing | |
| 4 | 65 | Tubing Wellhead | | 5 | 65 | Tubing | | 6 | 65 | Tubing | 60.00 |
| | 67 | Permanent Packers/Hangers/Plugs | 0 | 5 | 66 | Wellhead | 40,000 | 6 | 66 | Wellhead | 43,50 |
| | | r crimane ne r dekersy ridingers/ Flugs | | 5 | 67 | Permanent Packers/Hangers/Plugs | | 6 | 67 | Permanent Packers/Hangers/Plugs | 5,00 |
| 4 | 68 | Tanks | | | 68 | Tanks | | 6 | 68 | Tanks | |
| 4 4 | | | | | | Production Vaccale | | | | | |
| 4 4 4 | 68 | Tanks | | 5 | 69 70 | Production Vessels Compressors | | 6 | 69 | Production Vessels | 82,00 |
| 4 4 4 4 | 68 69 70 71 | Tanks Production Vessels Compressors Surface Flowlines | | | | Compressors | | 6 | 70 | Compressors | |
| 4 4 4 4 | 68 69 70 71 72 | Tanks Production Vessels Compressors Surface Flowlines Gathering Lines | | 5 5 5 | 70 71 72 | Compressors Surface Flowlines Gathering Lines | | | | | 50,00 |
| 4 4 4 4 4 | 68 69 70 71 72 73 | Tanks Production Vessels Compressors Surface Flowlines Gathering Lines Valves & Controllers | | 5 5 5 5 | 70 71 72 73 | Compressors Surface Flowlines Gathering Lines Valves & Controllers | | 6 | 70 71 72 | Compressors Surface Flowlines | |
| 4 4 4 4 4 4 | 68 69 70 71 72 73 74 | Tanks Production Vessels Compressors Surface Flowlines Gathering Lines Valves & Controllers Artificial Lift Equipment | | 5 5 5 5 5 | 70 71 72 73 74 | Compressors Surface Flowlines Gathering Lines Valves & Controllers Artificial Lift Equipment | | 6 6 | 70 71 72 73 | Compressors Surface Flowlines Gathering Lines | 50,00 |
| 4 4 4 4 4 4 4 | 68 69 70 71 72 73 74 75 | Tanks Production Vessels Compressors Surface Flowlines Gathering Lines Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement | | 5 5 5 5 5 5 | 70 71 72 73 74 75 | Compressors Surface Flowlines Gathering Lines Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement | | 6 6 6 6 | 70 71 72 73 74 75 | Compressors Surface Flowlines Gathering Lines Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement | 50,00 10,00 |
| 4 4 4 4 4 4 4 4 4 | 68 69 70 71 72 73 74 75 76 | Tanks Compressors Surface Flowlines Gathering Lines Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement Electrical Grounding/Safety Equipment | | 5 5 5 5 5 5 5 | 70 71 72 73 74 75 76 | Compressors Surface Flowlines Gathering Lines Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement Electrical Grounding/Safety Equipment | | 6 6 6 6 6 | 70 71 72 73 74 75 76 | Compressors Surface Flowlines Gathering Lines Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement Electrical Grounding/Safety Equipment | 50,00 10,00 |
| 4 4 4 4 4 4 4 | 68 69 70 71 72 73 74 75 76 77 | Tanks Production Vessels Compressors Surface Flowlines Gathering Lines Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement | | 5 5 5 5 5 5 5 | 70 71 72 73 74 75 76 | Compressors Surface Flowlines Gathering Lines Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement Electrical Grounding/Safety Equipment Permanent Equipment Installation | | 6 6 6 6 6 6 | 70 71 72 73 74 75 76 77 | Compressors Surface Flowlines Gathering Lines Valves & Controllers Artificial Life Equipment Instrumentation & Measurement Electrical Grounding/Safety Equipment Permanent Equipment Installation | 50,00 10,00 |
| 4 4 4 4 4 4 4 4 | 68 69 70 71 72 73 74 75 76 77 | Tanks Production Vessels Compressors Surface Flowlines Gathering Lines Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement Electrical Grounding/Safety Equipment Permanent Equipment Installation | | 5 5 5 5 5 5 5 | 70 71 72 73 74 75 76 | Compressors Surface Flowlines Gathering Lines Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement Electrical Grounding/Safety Equipment | | 6 6 6 6 6 6 6 | 70 71 72 73 74 75 76 77 80 | Compressors Surface Flowlines Gathering Lines Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement Electrical Grounding/Safety Equipment Permanent Equipment Installation Other - Surface | 50,00 10,00 |
| 4 4 4 4 4 4 4 4 | 68 69 70 71 72 73 74 75 76 77 | Tanks Compressors Surface Flowlines Gathering Lines Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement Electrical Grounding/Safety Equipment Permanent Equipment Installation Other - Surface | \$589,637 | 5 5 5 5 5 5 5 5 | 70 71 72 73 74 75 76 77 | Compressors Surface Flowlines Gathering Lines Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement Electrical Grounding/Safety Equipment Permanent Equipment Installation Other - Surface Other - Downhole | \$62.500 | 6 6 6 6 6 6 | 70 71 72 73 74 75 76 77 | Compressors Surface Flowlines Gathering Lines Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement Electrical Grounding/Safety Equipment Permanent Equipment Installation Other - Surface Other - Downhole | 50,00 10,00 35,00 |
| 4 4 4 4 4 4 4 4 | 68 69 70 71 72 73 74 75 76 77 | Tanks Compressors Surface Flowlines Gathering Line Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement Electrical Grounding/Safety Equipment Permanent Equipment Installation Other - Surface Other - Downhole | | 5 5 5 5 5 5 5 5 | 70 71 72 73 74 75 76 77 | Compressors Surface Flowlines Gathering Lines Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement Electrical Grounding/Safety Equipment Permanent Equipment installation Other - Surface | \$62,500 | 6 6 6 6 6 6 6 | 70 71 72 73 74 75 76 77 80 | Compressors Surface Flowlines Gathering Lines Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement Electrical Grounding/Safety Equipment Permanent Equipment Installation Other - Surface | 50,00 10,00 |

| CEO | VP - EXPLORATION | |
|------------------|------------------|--|
| CFO | VP - OPERATIONS | |
| P - LAND & LEGAL | SENIOR GEOLOGIST | |

| NON O | PERATING PARTNER APPROVAL: | |
|-----------------------|----------------------------|---|
| COMPA | NY NAME: | |
| SIGNED BY: | TITLE: | _ |
| WORKING INTEREST (%): | DATE: | |
| TAX ID: | APPROVAL: | |

602 Park Point Dr, Golden, Colorado 80401 Authorization For Expenditure

Name: Poseidon 105H AFE #: 0 County: Lea State: NM

Date: August 29, 2019 MD/TVD: 20182 / 9522 Lateral Length: 10210 Geologic Target: Avalon

| | | INTANGIBLE DRILLING COSTS | | | | | | | | | 3.40000 |
|--------------------------|------|---|--------------------------|---|----------|--|--------------------|---|----------|---|------------------------|
| COST | DDFS | INTANGIBLE DRILLING COSTS | AMOUNT | | ST CODE | INTANGIBLE COMPLETION COSTS DESCRIPTION | AMOUNT | | ST CODE | INTANGIBLE PRODUCTION COST | THE PARTY NAMED IN |
| 1 | | Land - Legal | 10,000 | 2 | | | AMOUNT | 3 | ST CODE | | AMOUNT |
| 1 | 2 | Land - Regulatory | 5,000 | 2 | 2 | Land - Regulatory | | 3 | 2 | | |
| 1 | | Land - Surface Damages | 20,000 | 2 | 3 | Land - Surface Damages | | 3 | 3 | Land - Surface Damages | |
| 1 | 5 | Land - Survey Location/Pit Construction | 10,000 | 2 | 4 | Land - Survey | | 3 | 4 | | |
| 1 | 6 | Remedial Dirtwork | 140,000 | 2 | 5 | Location/Pit Construction | | 3 | | | 5,0 |
| 1 | 7 | Reserve/Frac Pit Closing | 0 | 2 | 7 | Remedial Dirtwork Reserve/Frac Pit Closing | | 3 | | Remedial Dirtwork | |
| 1 | 8 | Drilling - Contractor | 470,775 | 2 | 8 | Drilling - Contractor | | 3 | | Reserve/Frac Pit Closing Drilling - Contractor | |
| 1 | 9 | Mob/Rig Up - Contractor/Trucking | 123,250 | 2 | 9 | Mob/Rig Up - Contractor/Trucking | | 3 | | Mob/Rig Up - Contractor/Trucking | |
| | 10 | Cementing Services | 0 | 2 | 10 | | | 3 | | | |
| | 11 | Cementing Equipment | 0 | 2 | | | | 3 | | Cementing Equipment | |
| | 12 | Bits/Drill Out Assemblies | 0 | 2 | | | 140,586 | 3 | | | |
| | 14 | Fluid Circulation Equipment/Services Fluids/Chemicals | 82,123 50,000 | 2 | 13 | | | 3 | | | |
| | 15 | WBM Cuttings/Wastewater Disposal | 275,670 | 2 | 15 | | 114,278 | 3 | | | |
| | 16 | OBM Cuttings/Chemical Disposal | 0 | 2 | 16 | | | 3 | | | |
| 1 | 17 | Fuel/Power | 120,492 | 2 | 17 | | 662,500 | 3 | | | |
| | 18 | Water | 0 | 2 | 18 | | 1,058,090 | 3 | | | |
| | 19 | Directional Drilling | 200,533 | 2 | 19 | | | 3 | 19 | Directional Drilling | |
| | 20 | Mud Logging Open/Cased/Production Hole Logs | 18,328 | 2 | 20 | | | 3 | | 00 0 | |
| | | Coring Coring | 0 | 2 | 21 | | 10,550 | 3 | | | |
| | | Geologic Supervision | 0 | 2 | 23 | | | 3 | 22 | | |
| 1 | | Engineering Supervision | 0 | 2 | 24 | | | 3 | 23 | Geologic Supervision Engineering Supervision | |
| | | Consultant Supervision | 108,443 | 2 | 25 | | 156,000 | 3 | 25 | | 20,0 |
| | | Freight/Transportation | 20,000 | 2 | 26 | Freight/Transportation | 4,110 | 3 | 26 | | 10,0 |
| | | Labor Supplies - Surface | 2,500 | 2 | 27 | Labor | 22,190 | 3 | 27 | | 85,0 |
| | | Supplies - Living Quarters | 1,000 | 2 | 28 | Supplies - Surface Supplies - Living Quarters | 4,110 | 3 | 28 | Supplies - Surface | |
| | | Rentals - Surface | 51,566 | 2 | 30 | Rentals - Surface | 4,110 50,030 | 3 | 30 | Supplies - Living Quarters Rentals - Surface | |
| 1 | 31 | Rentals - Living Quarters | 27,713 | 2 | 31 | Rentals - Living Quarters | 42,490 | 3 | 31 | Rentals - Living Quarters | |
| | | Rentals - Downhole | 0 | 2 | 32 | Rentals - Downhole | 0 | 3 | 32 | Rentals - Downhole | |
| | | Rentals - Pipe & Handling Tools | 0 | 2 | 33 | Rentals - Pipe & Handling Tools | 0 | 3 | 33 | Rentals - Pipe & Handling Tools | |
| 100 | | Rentals - Frac Stack Rentals - Frac Tanks | | 2 | 34 | | 150,095 | 3 | 34 | | |
| | | Coil Tubing Unit/Workover Rig | | 2 | 35 | Rentals - Frac Tanks | 95,800 | 3 | 35 | Rentals - Frac Tanks | |
| | | Wireline/Slickline/Perforating | | 2 | 37 | Coil Tubing Unit/Workover Rig Wireline/Slickline/Perforating | 309,444 501,550 | 3 | 36 37 | Coil Tubing Unit/Workover Rig Wireline/Slickline/Perforating | 70,0 |
| | | Temporary Packers/Plugs | | 2 | 38 | Temporary Packers/Plugs | 78,000 | 3 | 38 | Temporary Packers/Plugs | |
| _ | | High Pressure Pump Truck | | 2 | 39 | High Pressure Pump Truck | 152,200 | 3 | 39 | High Pressure Pump Truck | |
| | | Stimulation | | 2 | 40 | Stimulation | 3,155,274 | 3 | 40 | Stimulation | |
| | | Rentals - Pressure Control Flowback Services | | 2 | 41 | Rentals - Pressure Control | | 3 | 41 | Rentals - Pressure Control | |
| | | Water Transfer Services | | 2 | 42 | Flowback Services | 130,225 | 3 | 42 | Flowback Services | |
| | | Flowback Water Trucking & Disposal | | 2 | 43 | Water Transfer Services Flowback Water Trucking & Disposal | 172,125 | 3 | 43 | Water Transfer Services | |
| | | Permanent Equipment Installation | | 2 | 45 | Permanent Equipment Installation | 141,788 | 3 | 44 | Flowback Water Trucking & Disposal Permanent Equipment Installation | |
| _ | | Pipeline Tapping Services | | 2 | 46 | Pipeline Tapping Services | | 3 | 46 | Pipeline Tapping Services | |
| | | Plugging & Abandonment | 0 | 2 | 47 | Plugging & Abandonment | | 3 | 47 | Plugging & Abandonment | |
| | | Overhead Insurance | 9,549 | 2 | 53 | Overhead | 31,650 | 3 | 53 | Overhead | 5,00 |
| | | Contingency | 36,328 89,163 | 2 | 54 55 | Insurance | | 3 | 54 | Insurance | |
| | | TOTAL INTANGIBLE DRILLING COSTS: | | | 22 | | 560,956 | 3 | 55 | Contingency | 19,50 |
| | | TOTAL INTANGIBLE DRILLING COSTS: | \$1,872,432 | | _ | TOTAL INTANGIBLE COMPLETION COSTS: | \$7,748,151 | | | TOTAL INTANGIBLE PRODUCTION COSTS | \$214,500 |
| | | | | | | | | | | | |
| COST CO | nee | TANGIBLE DRILLING COSTS DESCRIPTION | | | | TANGIBLE COMPLETION COSTS | | | | TANGIBLE PRODUCTION COSTS | |
| | | Conductor Casing | AMOUNT | 5 | 60 | | AMOUNT | | T CODE: | Total III | AMOUNT |
| _ | | Surface Casing | 56,106 | 5 | 61 | Conductor Casing Surface Casing | | 6 | 60 | Conductor Casing | |
| | | 1st Intermediate Casing | 155,550 | 5 | 62 | 1st Intermediate Casing | | 6 | 62 | Surface Casing 1st Intermediate Casing | |
| | | 2nd Intermediate Casing | 0 | 5 | 63 | 2nd Intermediate Casing | | 6 | 63 | 2nd Intermediate Casing | |
| | | Production Casing | 378,413 | 5 | 64 | Production Casing | 22,500 | 6 | 64 | Production Casing | |
| - | - | Tubing Wellhead | | 5 | 65 | Tubing | | 6 | 65 | Tubing | 60,00 |
| | | Permanent Packers/Hangers/Plugs | 0 | 5 | 66 | Wellhead | 40,000 | 6 | 66 | Wellhead | 43,50 |
| | | Tanks | | 5 | 68 | Permanent Packers/Hangers/Plugs Tanks | | 6 | 67 | Permanent Packers/Hangers/Plugs | 5,00 |
| 4 6 | 9 1 | Production Vessels | | 5 | 69 | Production Vessels | | 6 | 68 | Tanks | |
| 4 7 | 0 0 | Compressors | | 5 | 70 | Compressors | | 6 | 69 70 | Production Vessels | 82,00 |
| 4 7 | 1 5 | Surface Flowlines | | 5 | 71 | Surface Flowlines | | 6 | - | Compressors Surface Flourings | |
| | | Gathering Lines | | 5 | | Gathering Lines | | 6 | 71 | Surface Flowlines Gathering Lines | 50,00 |
| 4 7 | 3 1 | Valves & Controllers | | 5 | 73 | Valves & Controllers | | 6 | 73 | Valves & Controllers | 10,00 |
| * 7 | | Artificial Lift Equipment Instrumentation & Measurement | | 5 | | Artificial Lift Equipment | | 6 | 74 | Artificial Lift Equipment | 35,00 |
| | | Electrical Grounding/Safety Equipment | | 5 | 75 | Instrumentation & Measurement | | 6 | 75 | Instrumentation & Measurement | -5,00 |
| 4 7 | | Permanent Equipment Installation | | 5 | 76 | Electrical Grounding/Safety Equipment Permanent Equipment Installation | | 6 | 76 | Electrical Grounding/Safety Equipment | |
| 4 7 | 7 5 | | | 3 | 11 | reminent Equipment Installation | | 6 | 77 | Permanent Equipment Installation | |
| 4 7 4 7 4 7 | | Other - Surface | | 5 | 80 | Other - Surface | | - | | | |
| 4 7 4 7 4 7 4 8 | 0 (| | | 5 | | Other - Surface | | 6 | 80 | Other - Surface | |
| 4 7 4 7 4 7 4 8 | 0 (| Other - Surface | \$590,069 | | | Other - Surface Other - Downhole | \$62 500 | 6 | | Other - Surface Other - Downhole | |
| 4 7 4 7 4 7 4 8 | 0 (| Other - Surface Other - Downhole | \$590,069 \$2,462,500 | | | Other - Surface | \$62,500 | | 80 | Other - Surface | \$285,500 \$500,000 |

602 Park Point Dr, Golden, Colorado 80401 Authorization For Expenditure

Name: Poseidon 107H AFE #: 0 County: Lea State: NM

Date: August 29, 2019 MD/TVD: 20135 / 9475 Lateral Length: 10210 Geologic Target: Avalon

| | INTANGIBLE DRILLING COSTS | | | | INTANGIBLE COMPLETION COST | rs | | | INTANGIBLE PRODUCTION COST | c |
|--|--|--------------------------|---|--|--|--------------------|--|--|--|------------------------|
| ST CODE | | AMOUNT | CC | ST COD | | AMOUNT | cc | ST COL | | AMOUNT |
| 1 | Land - Legal | 10,000 | 2 | | Land - Legal | | 3 | 1 | | |
| 3 | Land - Regulatory Land - Surface Damages | 5,000 | 2 | 3 | | | 3 | 2 | - | |
| 4 | Land - Survey | 10,000 | 2 | | | | 3 | 3 | | |
| 5 | Location/Pit Construction | 140,000 | 2 | | Location/Pit Construction | | 3 | 5 | | 5 |
| 6 | Remedial Dirtwork | 0 | 2 | | Remedial Dirtwork | | 3 | 6 | Remedial Dirtwork | |
| 7 8 | Reserve/Frac Pit Closing Drilling - Contractor | 0 | 2 | | Reserve/Frac Pit Closing | | 3 | 7 | | |
| 9 | Mob/Rig Up - Contractor/Trucking | 471,192 123,250 | 2 | | Drilling - Contractor | | 3 | | | |
| 10 | | 0 | 2 | 10 | Mob/Rig Up - Contractor/Trucking Cementing Services | | 3 | 10 | | |
| 11 | Cementing Equipment | 0 | 2 | _ | The state of the s | | 3 | | | |
| 12 | Bits/Drill Out Assemblies | 0 | 2 | | | 140,586 | 3 | | | |
| 13 | Fluid Circulation Equipment/Services Fluids/Chemicals | 82,196 | 2 | - | | | 3 | | | |
| 15 | WBM Cuttings/Wastewater Disposal | 50,000 275,670 | 2 | | | 114,278 | 3 | | | |
| 16 | | 0 | 2 | | | | 3 | 15 | | |
| 17 | | 120,576 | 2 | | | 662,500 | 3 | 1 | | |
| 18 | | 0 | 2 | | | 1,058,090 | 3 | - 18 | | |
| 19 | Directional Drilling | 200,710 | 2 | | Directional Drilling | | 3 | 19 | | |
| 21 | Mud Logging Open/Cased/Production Hole Logs | 18,350 | 2 | | 00 0 | | 3 | 20 | | |
| | Coring | 0 | 2 | | Open/Cased/Production Hole Logs Coring | 10,550 | 3 | 21 | | |
| | Geologic Supervision | 0 | 2 | | | | 3 | 23 | | |
| | Engineering Supervision | 0 | 2 | 24 | | | 3 | 24 | | |
| 25 | | 108,519 | 2 | - | Consultant Supervision | 156,000 | 3 | 25 | | 20 |
| 26 | Freight/Transportation Labor | 20,000 | 2 | | | 4,110 | 3 | 26 | Freight/Transportation | 10 |
| 27 | Supplies - Surface | 2,500 | 2 | | | 22,190 | 3 | 27 | 1000 | 85 |
| 29 | Supplies - Living Quarters | 1,000 | 2 | 28 | | 4,110 | 3 | 28 | | |
| 30 | Rentals - Surface | 51,611 | 2 | | Rentals - Surface | 4,110 50,030 | 3 | 30 | | |
| 31 | Rentals - Living Quarters | 27,733 | 2 | 31 | | 42,490 | 3 | 31 | | |
| 32 | Rentals - Downhole | 0 | 2 | 32 | Rentals - Downhole | 0 | 3 | 32 | | |
| 33 | Rentals - Pipe & Handling Tools Rentals - Frac Stack | 0 | 2 | 33 | Rentals - Pipe & Handling Tools | 0 | 3 | 33 | Rentals - Pipe & Handling Tools | |
| 35 | Rentals - Frac Stack Rentals - Frac Tanks | | 2 | 34 | Rentals - Frac Stack | 150,095 | 3 | 34 | | |
| 36 | Coil Tubing Unit/Workover Rig | | 2 | 35 | Rentals - Frac Tanks Coil Tubing Unit/Workover Rig | 95,800 | 3 | 35 | | |
| 37 | Wireline/Slickline/Perforating | | 2 | 37 | Wireline/Slickline/Perforating | 309,444 501,550 | 3 | 36 | 9 | 70 |
| 38 | Temporary Packers/Plugs | | 2 | 38 | Temporary Packers/Plugs | 78,000 | 3 | 38 | | |
| 39 | High Pressure Pump Truck | | 2 | 39 | High Pressure Pump Truck | 152,200 | 3 | 39 | | |
| 40 | Stimulation Rentals - Pressure Control | | 2 | 40 | Stimulation | 3,155,274 | 3 | 40 | | |
| 42 | Flowback Services | | 2 | 41 | Rentals - Pressure Control Flowback Services | 120,000 | 3 | 41 | | |
| 43 | Water Transfer Services | | 2 | _ | Water Transfer Services | 130,225 172,125 | 3 | 42 | | |
| 44 | Flowback Water Trucking & Disposal | | 2 | 44 | Flowback Water Trucking & Disposal | 141,788 | 3 | 44 | | |
| 45 | Permanent Equipment Installation | | 2 | 45 | Permanent Equipment Installation | | 3 | 45 | | |
| 46 | Pipeline Tapping Services Plugging & Abandonment | | 2 | | Pipeline Tapping Services | | 3 | 46 | | |
| 53 | Overhead | 9,558 | 2 | 47 53 | Plugging & Abandonment Overhead | | 3 | 47 | | |
| 54 | Insurance | 36,243 | 2 | 54 | Insurance | 31,650 | 3 | 53 | Overhead | 5, |
| 55 | Contingency | 89,205 | 2 | 55 | Contingency | 560,956 | 3 | 55 | Contingency | 19. |
| | TOTAL INTANGIBLE DRILLING COSTS: | \$1,873,313 | | | TOTAL INTANGIBLE COMPLETION COST | 5: \$7,748,151 | - | | TOTAL INTANGIBLE PRODUCTION COSTS: | |
| | TANGIBLE DRILLING COSTS | | | | | | | | | |
| CODES | DESCRIPTION | AMOUNT | cos | T CODE | TANGIBLE COMPLETION COSTS DESCRIPTION | AMOUNT | cos | T CODE | TANGIBLE PRODUCTION COSTS DESCRIPTION | AMOUNT |
| 60 | Conductor Casing | 0 | 5 | 60 | Conductor Casing | | 6 | 60 | | AMOUNT |
| 62 | Surface Casing 1st Intermediate Casing | 56,106 | 5 | 61 | Surface Casing | | 6 | 61 | Surface Casing | |
| 63 | 2nd Intermediate Casing | 155,550 | 5 | 62 | 1st Intermediate Casing 2nd Intermediate Casing | | 6 | 62 | 1st Intermediate Casing | |
| | Production Casing | 377,531 | 5 | 64 | Production Casing | 22.500 | 6 | 63 | 2nd Intermediate Casing | |
| 64 | Tubing | | 5 | 65 | Tubing | 22,500 | 6 | 65 | Production Casing Tubing | |
| 64 65 | Wellhead | 0 | 5 | 66 | Wellhead | 40,000 | 6 | 66 | Wellhead | 60, |
| 64 65 66 | | | | 67 | Permanent Packers/Hangers/Plugs | | 6 | 67 | Permanent Packers/Hangers/Plugs | 5,1 |
| 64 65 66 67 | Permanent Packers/Hangers/Plugs | | 5 | | | | | 68 | Tanks | |
| 64 65 66 67 68 | Permanent Packers/Hangers/Plugs Tanks | | 5 | 68 | Tanks | | 6 | 00 | Production Vessels | 82,1 |
| 64 65 66 67 68 69 | Permanent Packers/Hangers/Plugs | | 5 | 68 69 | Production Vessels | | 6 | 69 | | |
| 64 65 66 67 68 69 70 71 | Permanent Packers/Hangers/Plugs Tanks Production Vessels Compressors Surface Flowlines | | 5 | 68 69 70 | Production Vessels Compressors | | 6 | 69 70 | Compressors | |
| 64 65 66 67 68 69 70 71 | Permanent Packers/Hangers/Plugs Tanks Production Vessels Compressors Surface Flowlines Gathering Lines | | 5 5 | 68 69 70 71 | Production Vessels Compressors Surface Flowlines | | 6 | 69 70 71 | Surface Flowlines | |
| 64 65 66 67 68 69 70 71 72 | Permanent Packers/Hangers/Plugs Tanks Production Vessels Compressors Surface Flowlines Gathering Lines Valves & Controllers | | 5 5 5 | 68 69 70 71 | Production Vessels Compressors Surface Flowlines Gathering Lines Valves & Controllers | | 6 | 69 70 71 72 | Surface Flowlines Gathering Lines | |
| 64 65 66 67 68 69 70 71 72 73 | Permanent Packers/Hangers/Plugs Tanks Tanks Production Vessels Compressors Surface Flowlines Gathering Lines Valves & Controllers Artificial Lift Equipment | | 5 5 5 5 5 5 | 68 69 70 71 72 73 74 | Production Vessels Compressors Surface Flowlines Gathering Lines Valves & Controllers Artificial Lift Equipment | | 6 6 6 | 69 70 71 72 73 | Surface Flowlines Gathering Lines | 10, |
| 64 65 66 67 68 69 70 71 72 73 74 75 | Permanent Packers/Hangers/Plugs Tanks Tanks Production Vessels Compressors Surface Flowlines Gathering Lines Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement | | 5 5 5 5 5 5 5 | 68 69 70 71 72 73 74 75 | Production Vessels Compressors Surface Flowlines Gathering Lines Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement | | 6 6 6 6 6 | 69 70 71 72 73 74 75 | Surface Flowlines Gathering Lines Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement | 10, |
| 64 65 66 67 68 69 70 71 72 73 74 75 | Permanent Packers/Hangers/Plugs Tanks Tanks Production Vessels Compressors Surface Flowlines Gathering Lines Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement Electrical Grounding/Safety Equipment | | 5 5 5 5 5 5 5 5 | 68 69 70 71 72 73 74 75 76 | Production Vessels Compressors Surface Flowlines Gathering Lines Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement Electrical Grounding/Safety Equipment | | 6 6 6 6 6 6 | 69 70 71 72 73 74 75 76 | Surface Flowlines Gathering Lines Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement Electrical Grounding/Safety Equipment | 10, |
| 64 65 66 67 68 69 70 71 72 73 74 75 76 77 | Permanent Packers/Hangers/Plugs Tanks Tanks Production Vessels Compressors Surface Flowlines Gathering Lines Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement Electrical Grounding/Safety Equipment Permanent Equipment Installation Other - Surface | | 5 5 5 5 5 5 5 | 68 69 70 71 72 73 74 75 76 | Production Vessels Compressors Surface Flowlines Gathering Lines Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement Electrical Grounding/Safety Equipment Permanent Equipment Installation | | 6 6 6 6 6 6 6 | 69 70 71 72 73 74 75 76 | Surface Flowlines Gathering Lines Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement Electrical Grounding/Safety Equipment Permanent Equipment Installation | 10, |
| 64 65 66 67 68 69 70 71 72 73 74 75 76 77 | Permanent Packers/Hangers/Plugs Tanks Tanks Production Vessels Compressors Surface Flowlines Gathering Lines Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement Electrical Grounding/Safety Equipment Permanent Equipment Installation Other - Surface Other - Output | | 5 5 5 5 5 5 5 5 5 | 68 69 70 71 72 73 74 75 76 | Production Vessels Compressors Surface Flowlines Gathering Lines Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement Electrical Grounding/Safety Equipment | | 6 6 6 6 6 6 6 6 | 69 70 71 72 73 74 75 76 77 80 | Surface Flowlines Gathering Lines Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement Electrical Grounding/Safety Equipment Permanent Equipment Installation Other - Surface | 50,4 10,6 35,6 |
| 64 65 66 67 68 69 70 71 72 73 74 75 76 77 | Permanent Packers/Hangers/Plugs Tanks Tanks Production Vessels Compressors Surface Flowlines Gathering Lines Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement Electrical Grounding/Safety Equipment Permanent Equipment Installation Other - Surface Other - Downhole TOTAL TANGIBLE DRILLING COSTS: | \$589,187 | 5 5 5 5 5 5 5 5 5 5 | 68 69 70 71 72 73 74 75 76 77 | Production Vessels Compressors Surface Flowlines Gathering Lines Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement Electrical Grounding/Safety Equipment Permanent Equipment Installation Other - Surface | : \$62,500 | 6 6 6 6 6 6 6 | 69 70 71 72 73 74 75 76 | Surface Flowlines Gathering Lines Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement Electrical Grounding/Safety Equipment Permanent Equipment Installation Other - Surface Other - Ownhole | 10,i |
| 64 65 66 67 68 69 70 71 72 73 74 75 76 77 | Permanent Packers/Hangers/Plugs Tanks Tanks Production Vessels Compressors Surface Flowlines Gathering Lines Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement Electrical Grounding/Safety Equipment Permanent Equipment Installation Other - Surface Other - Output | \$589,187 | 5 5 5 5 5 5 5 5 5 5 | 68 69 70 71 72 73 74 75 76 77 | Production Vessels Compressors Surface Flowlines Gathering Lines Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement Electrical Grounding/Safety Equipment Permanent Equipment Installation Other - Surface Other - Downhole | | 6 6 6 6 6 6 6 6 | 69 70 71 72 73 74 75 76 77 80 | Surface Flowlines Gathering Lines Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement Electrical Grounding/Safety Equipment Permanent Equipment Installation Other - Surface | 10 |
| 64 65 66 67 68 69 70 71 72 73 74 75 76 77 | Permanent Packers/Hangers/Plugs Tanks Tanks Production Vessels Compressors Surface Flowlines Gathering Lines Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement Electrical Grounding/Safety Equipment Permanent Equipment Installation Other - Surface Other - Downhole TOTAL TANGIBLE DRILLING COSTS: | \$589,187 \$2,462,500 | 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 | 68 69 70 71 72 73 74 75 76 77 | Production Vessels Compressors Surface Flowlines Gathering Lines Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement Electrical Grounding/Safety Equipment Permanent Equipment Installation Other - Surface Other - Downhole TOTAL TANGIBLE COMPLETION COSTS | | 6 6 6 6 6 6 6 6 | 69 70 71 72 73 74 75 76 77 80 | Surface Flowlines Gathering Lines Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement Electrical Grounding/Safety Equipment Permanent Equipment Installation Other - Surface Other - Ownhole TOTAL TANGIBLE PRODUCTION COSTS: | \$285,500 \$500,000 |
| 64 65 66 67 68 69 70 71 72 73 74 75 76 77 | Permanent Packers/Hangers/Plugs Tanks Tanks Production Vessels Compressors Surface Flowlines Gathering Lines Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement Electrical Grounding/Safety Equipment Permanent Equipment Installation Other - Surface Other - Downhole TOTAL TANGIBLE DRILLING COSTS: | \$589,187 \$2,462,500 | 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 | 68 69 70 71 72 73 74 75 76 77 | Production Vessels Compressors Surface Flowlines Gathering Lines Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement Electrical Grounding/Safety Equipment Permanent Equipment Installation Other - Surface Other - Downhole TOTAL TANGIBLE COMPLETION COSTS | | 6 6 6 6 6 6 6 6 6 6 | 69 70 71 72 73 74 75 76 77 80 81 | Surface Flowlines Gathering Lines Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement Electrical Grounding/Safety Equipment Permanent Equipment Installation Other - Surface Other - Oownhole TOTAL TANGIBLE PRODUCTION COSTS: TOTAL PRODUCTION COSTS: | \$285,500 \$500,000 |
| 64 65 66 67 68 69 70 71 72 73 74 75 76 77 | Permanent Packers/Hangers/Plugs Tanks Tanks Production Vessels Compressors Surface Flowlines Gathering Lines Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement Electrical Grounding/Safety Equipment Permanent Equipment Installation Other - Surface Other - Downhole TOTAL TANGIBLE DRILLING COSTS: | \$589,187 \$2,462,500 | 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 | 68 69 70 71 72 73 74 75 76 77 | Production Vessels Compressors Surface Flowlines Gathering Lines Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement Electrical Grounding/Safety Equipment Permanent Equipment Installation Other - Surface Other - Downhole TOTAL TANGIBLE COMPLETION COSTS | | 6 6 6 6 6 6 6 6 6 6 6 6 | 69 70 71 72 73 74 75 76 77 80 81 | Surface Flowlines Gathering Lines Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement Electrical Grounding/Safety Equipment Permanent Equipment Installation Other - Surface Other - Oswinole TOTAL TANGIBLE PRODUCTION COSTS: TOTAL PRODUCTION COSTS: TOTAL WELL COST: | \$285,500 \$500,000 |

602 Park Point Dr, Golden, Colorado 80401 Authorization For Expenditure

Name: Poseidon 171H AFE #: 0 County: Lea State: NM Date: August 29, 2019 MD/TVD: 20462 / 9802 Lateral Length: 10210 Geologic Target: Avalon

| 4 71 Sur 4 72 Ga 4 73 Val 4 74 Art 4 75 Ins 4 76 Ele 4 77 Per 4 80 Oth | rface Flowlines thering Lines lyes & Controllers lificial Lift Equipment trumentation & Measurement ctrical Grounding/Safety Equipment rmanent Equipment installation ner - Surface TOTAL DRIBLING COSTS: TOTAL DRIBLING COSTS: | \$595,319 | 5 5 5 5 5 5 5 5 | 72 73 74 75 | Gathering Lines Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement Electrical Grounding/Safety Equipment Permanent Equipment Installation Other- Surface Other- Downhole TOTAL TANGIBLE COMPLETION COST | 5: \$62,500 | 6 6 6 6 6 6 6 | 71 72 73 74 75 76 77 80 81 | Gathering Lines Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement | 10,00 |
|--|---|-------------|--------------------------------------|--|---|--------------------|---------------------------------|--|--|----------------------------|
| 4 71 Sur 4 72 Gar 4 73 Val 4 74 Art 4 75 Ins 4 76 Ele 4 77 Per 4 80 Oth | thering Lines Ives & Controllers Stricial Lift Equipment trumentation & Measurement ctrical Grounding/Safety Equipment rmanent Equipment Installation her - Surface her - Downhole | | 5 5 5 5 5 | 72 73 74 75 76 77 80 | Gathering Lines Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement Electrical Grounding/Safety Equipment Permanent Equipment Installation Other - Surface | | 6 6 6 6 6 | 72 73 74 75 76 77 80 | Gathering Lines Valves & Controllers Artificial Life Equipment Instrumentation & Measurement Electrical Grounding/Safety Equipment Permanent Equipment Installation Other - Surface | 50,000 10,000 35,000 |
| 4 71 Sur 4 72 Gar 4 73 Val 4 74 Art 4 75 Ins 4 76 Ele 4 77 Per 4 80 Oth | thering Lines ives & Controllers ifficial Lift Equipment trumentation & Measurement ctrical Grounding/Safety Equipment rmanent Equipment Installation ner - Surface | | 5 5 5 5 | 72 73 74 75 76 77 | Gathering Lines Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement Electrical Grounding/Safety Equipment Permanent Equipment Installation | | 6 6 6 6 | 72 73 74 75 76 77 | Gathering Lines Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement Electrical Grounding/Safety Equipment Permanent Equipment Installation | 10,000 |
| 4 71 Sur 4 72 Ga 4 73 Val 4 74 Art 4 75 Ins 4 76 Ele | thering Lines lives & Controllers ifficial Lift Equipment trumentation & Measurement ctrical Grounding/Safety Equipment | | 5 5 5 | 72 73 74 75 76 | Gathering Lines Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement Electrical Grounding/Safety Equipment | | 6 6 6 6 | 72 73 74 75 76 | Gathering Lines Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement Electrical Grounding/Safety Equipment | 10,000 |
| 4 71 Sur 4 72 Ga 4 73 Val 4 74 Art 4 75 Ins | thering Lines Ives & Controllers cificial Lift Equipment ctrumentation & Measurement | | 5 5 | 72 73 74 75 | Gathering Lines Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement | | 6 6 6 | 72 73 74 75 | Gathering Lines Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement | 10,000 |
| 4 71 Sur 4 72 Ga 4 73 Val 4 74 Art | thering Lines lves & Controllers tificial Lift Equipment | | 5 | 72 73 74 | Gathering Lines Valves & Controllers Artificial Lift Equipment | | 6 | 72 73 | Gathering Lines Valves & Controllers Artificial Lift Equipment | 10,000 |
| 4 71 Sur 4 72 Ga 4 73 Val | thering Lines ives & Controllers | | 5 | 72 73 | Gathering Lines Valves & Controllers | | 6 | 72 | Gathering Lines | |
| 4 71 Sur 4 72 Ga | thering Lines | | | 72 | Gathering Lines | | 100 | | | |
| 4 71 Sur | | | | 1.2 | | | | | | Pa |
| 4 70 Co | | | 5 | 71 | Surface Flowlines | | 6 | 70 | Compressors Surface Flowlines | |
| | mpressors | | 5 | 69 70 | Production Vessels Compressors | | 6 | 69 | Production Vessels | 82,00 |
| | oduction Vessels | | 5 | 68 | Tanks | | 6 | 68 | Tanks | |
| 4 68 Tar | rmanent Packers/Hangers/Plugs | | 5 | 67 | Permanent Packers/Hangers/Plugs | | 6 | 67 | Permanent Packers/Hangers/Plugs | 5,00 |
| | ellhead | 0 | 5 | 66 | Wellhead | 40,000 | 6 | 66 | | 43,50 |
| TO STATE OF THE PARTY OF THE PA | bing | | 5 | 65 | Tubing | 22,500 | 6 | 65 | | 60.00 |
| 4 64 Pro | oduction Casing | 383,663 | 5 | 64 | Production Casing | 22,500 | 6 | 63 | | |
| 4 63 2n | d Intermediate Casing | 0 | 5 | 63 | 2nd Intermediate Casing | | 6 | 62 | | |
| | t Intermediate Casing | 155,550 | 5 | 62 | 1st Intermediate Casing | | 6 | 61 | | |
| | rface Casing | 56,106 | 5 | 60 | Conductor Casing Surface Casing | | 6 | 60 | | |
| 4 60 Co | DESCRIPTION ON CONTROL OF CASING | AMOUNT | | T CODE | DESCRIPTION | AMOUNT | | T COD | ES DESCRIPTION | AMOUNT |
| COST CORE | TANGIBLE DRILLING COSTS | | | | TANGIBLE COMPLETION COST | S | | | TANGIBLE PRODUCTION COSTS | |
| | | | | | | | | | | |
| | TOTAL INTANGIBLE DRILLING COSTS: | \$1,867,182 | | | TOTAL INTANGIBLE COMPLETION COS | TS: \$7,748,151 | | | TOTAL INTANGIBLE PRODUCTION COSTS: | \$214,500 |
| 23 (00 | | 88,913 | 2 | 55 | Contingency | 560,956 | 3 | 55 | Contingency | 19,50 |
| | surance ontingency | 36,832 | 2 | | Insurance | | 3 | 54 | | 3,00 |
| | verhead | 9,499 | 2 | | Overhead | 31,650 | 3 | 53 | | 5,00 |
| | ugging & Abandonment | 0 | 2 | 47 | Plugging & Abandonment | | 3 | 47 | | |
| | peline Tapping Services | | 2 | 46 | Pipeline Tapping Services | | 3 | 46 | | |
| 1 45 Pe | ermanent Equipment Installation | | 2 | 45 | Permanent Equipment Installation | 191,788 | 3 | 44 | The state of the s | |
| | owback Water Trucking & Disposal | | 2 | 44 | Flowback Water Trucking & Disposal | 172,125 141,788 | 3 | 43 | | |
| | ater Transfer Services | | 2 | 42 | Flowback Services Water Transfer Services | 130,225 | 3 | 42 | | |
| | owback Services | | 2 | 41 | Rentals - Pressure Control | ***** | 3 | 41 | | |
| | entals - Pressure Control | | 2 | 40 | Stimulation Section | 3,155,274 | 3 | 40 | | |
| | igh Pressure Pump Truck imulation | | 2 | 39 | High Pressure Pump Truck | 152,200 | 3 | 35 | High Pressure Pump Truck | |
| | emporary Packers/Plugs | | 2 | 38 | Temporary Packers/Plugs | 78,000 | 3 | 38 | Temporary Packers/Plugs | |
| | /ireline/Slickline/Perforating | | 2 | 37 | Wireline/Slickline/Perforating | 501,550 | 3 | 37 | | 70,00 |
| 1 36 Co | oil Tubing Unit/Workover Rig | | 2 | 36 | Coil Tubing Unit/Workover Rig | 309,444 | 3 | 36 | | 70,00 |
| | entals - Frac Tanks | | 2 | 35 | Rentals - Frac Stack | 150,095 95,800 | 3 | 34 | | |
| | entals - Frac Stack | 0 | 2 | - | Rentals - Frac Stack | 150.005 | 3 | 33 | | |
| | entals - Pipe & Handling Tools | 0 | 2 | | Rentals - Downhole Rentals - Pipe & Handling Tools | 0 | 3 | 37 | | |
| | entals - Downhole | 27,597 | 2 | | Rentals - Living Quarters | 42,490 | 3 | 31 | | |
| | entals - Surrace entals - Living Quarters | 51,293 | 2 | 30 | Rentals - Surface | 50,030 | 3 | 30 | Rentals - Surface | |
| | upplies - Living Quarters entals - Surface | 1,000 | 2 | 29 | Supplies - Living Quarters | 4,110 | 3 | 25 | | |
| | upplies - Surface | 2,500 | 2 | 28 | Supplies - Surface | 4,110 | 3 | 28 | | |
| | abor | 0 | 2 | 27 | Labor | 22,190 | 3 | 2 | Labor | 85,0 |
| | reight/Transportation | 20,000 | 2 | 26 | Freight/Transportation | 4,110 | 3 | 26 | | 10,0 |
| | onsultant Supervision | 107,989 | 2 | 25 | Consultant Supervision | 156,000 | 3 | 2 | | 20,0 |
| | ngineering Supervision | 0 | 2 | 24 | Engineering Supervision | | 3 | 2 | | |
| | eologic Supervision | 0 | 2 | | Geologic Supervision | | 3 | 2 | | |
| 1 22 C | oring | 0 | 2 | | Coring | 20,000 | 3 | 2 | | |
| 1 21 0 | pen/Cased/Production Hole Logs | 0 | 2 | | | 10,550 | 3 | 2 | 00 0 | |
| | 1ud Logging | 18,197 | 2 | _ | Mud Logging | | 3 | 21 | | |
| | irectional Drilling | 199,474 | 2 | | Directional Drilling | 1,058,090 | 3 | 11 | AND CONTRACTOR OF CONTRACTOR O | |
| | Vater | 119,988 | 2 | | | 662,500 | 3 | | | |
| | uel/Power | 110.000 | 2 | | OBM Cuttings/Chemical Disposal | | 3 | | | |
| | VBM Cuttings/Wastewater Disposal | 275,670 | 2 | 15 | WBM Cuttings/Wastewater Disposal | | 3 | 1 | | |
| | luids/Chemicals | 50,000 | 2 | | Fluids/Chemicals | 114,278 | 3 | 1 | Fluids/Chemicals | |
| | luid Circulation Equipment/Services | 81,689 | 2 | 13 | Fluid Circulation Equipment/Services | | 3 | | | |
| | its/Drill Out Assemblies | 0 | 2 | | Bits/Drill Out Assemblies | 140,586 | 3 | | | |
| 1 11 C | ementing Equipment | 0 | 2 | | Cementing Equipment | | 3 | 1 | | |
| | ementing Services | 0 | 2 | | Cementing Services | | 3 | 1 | | - |
| | Mob/Rig Up - Contractor/Trucking | 123,250 | 2 | | Drilling - Contractor Mob/Rig Up - Contractor/Trucking | | 3 | 8 | | |
| | rilling - Contractor | 468,290 | 2 | _ | Reserve/Frac Pit Closing | | 3 | | | |
| | emedial Dirtwork eserve/Frac Pit Closing | 0 | 2 | | Remedial Dirtwork | | 3 | 6 | | |
| | ocation/Pit Construction | 140,000 | 2 | | Location/Pit Construction | | 3 | | Location/Pit Construction | 5,0 |
| | and - Survey | 10,000 | 2 | 4 | Land - Survey | | 3 | | Land - Survey | |
| | and - Surface Damages | 20,000 | 2 | - | Land - Surface Damages | | 3 | | | |
| | and - Regulatory | 5,000 | 2 | 1 | Land - Regulatory | - | 3 | 1 | | |
| | DESCRIPTION and - Legal | 10,000 | 2 | ST COD | S DESCRIPTION Land - Legal | AMOUNT | 100 | ST CO | The state of the s | AMOUNT |
| COST CODES | INTANGIBLE DRILLING COSTS | | | | INTANGIBLE COMPLETION COS | | | | INTANGIBLE PRODUCTION COST | |
| | | | | | | | | | | |

| CEO | VP - EXPLORATION |
|----------------|------------------|
| СРО | VP - OPERATIONS |
| - LAND & LEGAL | SENIOR GEOLOGIST |

| | OPERATING PARTNER APPROVAL: | |
|-----------------------|-----------------------------|---|
| СОМРА | NY NAME: | |
| SIGNED BY: | TITLE: | _ |
| WORKING INTEREST (%): | DATE: | _ |
| TAX ID: | APPROVAL: | _ |

602 Park Point Dr, Golden, Colorado 80401 Authorization For Expenditure

Name: Poseidon 172H AFE #: 0 County: Lea State: NM

Date: August 29, 2019 MD/TVD: 20445 / 9785 Lateral Length: 10210 Geologic Target: Avalon

| | escri | iption: | Drill, complete, a | and ed | uip a | horizontal Avalon well with a 10210 | foot lateral. | | | | |
|---|--|--|--------------------|--------------------------------------|--|--|--------------------|----------------------------|--|---|----------------|
| | | INTANGIBLE DRILLING COSTS | | | | INTANGIBLE COMPLETION | COSTS | | | INTANGIBLE PRODUCTION COST | rs |
| COST CO | | DESCRIPTION | AMOUNT | | ST COD | | AMOUNT | 1 | ST COD | | AMOUNT |
| | | Land - Legal Land - Regulatory | 10,000 5,000 | 2 | 2 | | | 3 | 1 | | |
| _ | | Land - Surface Damages | 20,000 | 2 | | | | 3 | 2 | Land - Regulatory Land - Surface Damages | - |
| | | Land - Survey | 10,000 | 2 | | | | 3 | 4 | | |
| | | Location/Pit Construction | 140,000 | 2 | 5 | Location/Pit Construction | | 3 | 5 | Location/Pit Construction | 5,0 |
| | | Remedial Dirtwork | 0 | 2 | | The same of the sa | | 3 | 6 | Remedial Dirtwork | |
| | | Reserve/Frac Pit Closing Drilling - Contractor | 468,441 | 2 | | | | 3 | 7 | Reserve/Frac Pit Closing | |
| | | Mob/Rig Up - Contractor/Trucking | 123,250 | 2 | | | | 3 | 8 | Drilling - Contractor | 1 |
| | | Cementing Services | 0 | 2 | | | | 3 | 9 | Mob/Rig Up - Contractor/Trucking Cementing Services | |
| 1 | 11 | Cementing Equipment | 0 | 2 | | | | 3 | 11 | Cementing Services Cementing Equipment | |
| _ | | Bits/Drill Out Assemblies | 0 | 2 | 12 | | 140,586 | 3 | 12 | Bits/Drill Out Assemblies | |
| | | Fluid Circulation Equipment/Services | 81,716 | 2 | | | 5 | 3 | 13 | Fluid Circulation Equipment/Services | |
| | | Fluids/Chemicals WBM Cuttings/Wastewater Disposal | 50,000 | 2 | | | 114,278 | 3 | 14 | Fluids/Chemicals | |
| | | OBM Cuttings/Wastewater Disposal | 275,670 | 2 | | | | 3 | 15 | WBM Cuttings/Wastewater Disposal | |
| | | Fuel/Power | 120,018 | 2 | | | 662.500 | 3 | 16 | OBM Cuttings/Chemical Disposal Fuel/Power | |
| | | Water | 0 | 2 | | | 1,058,090 | 3 | 18 | Water | |
| 1 | 19 | Directional Drilling | 199,539 | 2 | | Directional Drilling | 1,030,030 | 3 | 19 | Directional Drilling | |
| | | Mud Logging | 18,205 | 2 | 20 | | | 3 | 20 | Mud Logging | |
| | | Open/Cased/Production Hole Logs | 0 | 2 | - | Open/Cased/Production Hole Logs | 10,550 | 3 | 21 | | |
| | _ | Coring | 0 | 2 | | | | 3 | 22 | | |
| | | Geologic Supervision Engineering Supervision | 0 | 2 | | | | 3 | 23 | Geologic Supervision | |
| | | Consultant Supervision | 108,017 | 2 | | | | 3 | 24 | | |
| | _ | Freight/Transportation | 20,000 | 2 | | | 156,000 4,110 | 3 | 25 26 | | 20,00 |
| | | Labor | 0 | 2 | | | 22,190 | 3 | 27 | | 10,00 85,00 |
| 1 7 | 28 5 | Supplies - Surface | 2,500 | 2 | | | 4,110 | 3 | 28 | | 85,08 |
| | | Supplies - Living Quarters | 1,000 | 2 | 29 | | 4,110 | 3 | 29 | Supplies - Living Quarters | |
| | | Rentals - Surface | 51,310 | 2 | | | 50,030 | 3 | 30 | Rentals - Surface | |
| | | Rentals - Living Quarters Rentals - Downhole | 27,604 | 2 | | The state of the s | 42,490 | 3 | 31 | Rentals - Living Quarters | |
| | | Rentals - Pipe & Handling Tools | 0 | 2 | | The state of the s | 0 | 3 | 32 | Rentals - Downhole | |
| | | Rentals - Frac Stack | 0 | 2 | | | 0 | 3 | 33 | Rentals - Pipe & Handling Tools | |
| | | Rentals - Frac Tanks | | 2 | | | 150,095 95,800 | 3 | 34 35 | Rentals - Frac Stack Rentals - Frac Tanks | |
| | | Coil Tubing Unit/Workover Rig | | 2 | | | 309,444 | 3 | 36 | Coil Tubing Unit/Workover Rig | 70,00 |
| 1 3 | 37 V | Wireline/Slickline/Perforating | | 2 | 37 | | 501,550 | 3 | 37 | Wireline/Slickline/Perforating | 70,00 |
| | | Temporary Packers/Plugs | | 2 | 38 | | 78,000 | 3 | 38 | Temporary Packers/Plugs | |
| | | High Pressure Pump Truck | | 2 | | | 152,200 | 3 | 39 | High Pressure Pump Truck | |
| | | Stimulation | | 2 | | | 3,155,274 | 3 | 40 | Stimulation | |
| | | Rentals - Pressure Control Flowback Services | | 2 | 41 | | | 3 | 41 | Rentals - Pressure Control | |
| | | Water Transfer Services | | 2 | 42 | | 130,225 | 3 | 42 | Flowback Services | |
| | | Flowback Water Trucking & Disposal | | 2 | _ | | 172,125 141,788 | 3 | 43 | Water Transfer Services | |
| | | Permanent Equipment Installation | | 2 | 45 | The state of the s | 141,788 | 3 | 44 | Flowback Water Trucking & Disposal Permanent Equipment Installation | |
| _ | 16 P | Pipeline Tapping Services | | 2 | 46 | Pipeline Tapping Services | | 3 | 46 | Pipeline Tapping Services | |
| | | Plugging & Abandonment | 0 | 2 | | | | 3 | 47 | Plugging & Abandonment | |
| - | | Overhead nsurance | 9,502 | 2 | | | 31,650 | 3 | 53 | Overhead | 5,00 |
| - | | Contingency | 36,801 88,929 | 2 | | | | 3 | 54 | Insurance | |
| | | | | 2 | 55 | | 560,956 | 3 | 55 | Contingency | 19,50 |
| | | TOTAL INTANGIBLE DRILLING COSTS: | \$1,867,500 | | | TOTAL INTANGIBLE COMPLETION C | OSTS: \$7,748,151 | | | TOTAL INTANGIBLE PRODUCTION COSTS: | \$214,500 |
| | | | | | | | | | | | |
| cost co | DEE | TANGIBLE DRILLING COSTS DESCRIPTION | | | | TANGIBLE COMPLETION CO | OSTS | | | TANGIBLE PRODUCTION COSTS | |
| | | Conductor Casing | AMOUNT | 5 | FT CODE | | AMOUNT | | CODE | | AMOUNT |
| - | | urface Casing | 56,106 | 5 | 61 | | | 6 | | Conductor Casing | |
| 4 6 | | st Intermediate Casing | 155,550 | 5 | - | 1st Intermediate Casing | | 6 | 61 | Surface Casing 1st Intermediate Casing | |
| _ | | nd Intermediate Casing | 0 | 5 | | 2nd Intermediate Casing | | 6 | 63 | | |
| | | roduction Casing | 383,344 | 5 | 64 | Production Casing | 22,500 | 6 | 64 | | |
| 4 6 | | ubing Vellhead | | 5 | 65 | Tubing | | 6 | 65 | Tubing | 60.00 |
| | | ermanent Packers/Hangers/Plugs | 0 | 5 | 66 | Wellhead | 40,000 | 6 | 66 | Wellhead | 43,50 |
| 4 6 | | | | 5 | 68 | Permanent Packers/Hangers/Plugs Tanks | | 6 | 67 | Permanent Packers/Hangers/Plugs | 5,00 |
| 4 6 4 6 | | anks | | | - | Production Vessels | | 6 | 68 | Tanks | |
| 4 6 | 8 T | anks roduction Vessels | | | | | | 6 | 69 | Production Vessels | |
| 4 6 | 8 T | anks roduction Vessels compressors | | 5 | 69 70 | | | | 70 | | 82,00 |
| 4 6 4 6 4 6 4 7 4 7 | 8 T 9 P 0 C | roduction Vessels compressors urface Flowlines | | | 70 71 | Compressors Surface Flowlines | | 6 | 70 | Compressors | |
| 4 6 4 6 4 6 4 7 4 7 4 7 | 8 T 9 P 0 C 1 S | roduction Vessels Compressors urface Flowlines Lathering Lines | | 5 5 5 | 70 71 72 | Compressors Surface Flowlines Gathering Lines | | 6 | 70 71 72 | Compressors Surface Flowlines | 50,00 |
| 4 6 4 6 4 6 4 7 4 7 4 7 4 7 | 8 T 9 P 0 C 1 S 2 G | roduction Vessels compressors urface Flowlines atthering Lines alves & Controllers | | 5 5 5 5 | 70 71 72 | Compressors Surface Flowlines | | 6 | 71 | Compressors Surface Flowlines Gathering Lines | |
| 4 6 4 6 4 6 4 7 4 7 4 7 4 7 4 7 | 8 T. 9 P. 0 C. 1 Si 2 G. 3 V. 4 A. | roduction Vessels compressors urface Flowlines lathering Lines alves & Controllers rtificial Lift Equipment | | 5 5 5 5 5 | 70 71 72 73 74 | Compressors Surface Flowlines Gathering Lines Valves & Controllers Artificial Lift Equipment | | 6 | 71 72 | Compressors Surface Flowlines | 50,00 10,00 |
| 4 6 4 6 4 6 4 7 4 7 4 7 4 7 4 7 4 7 4 7 | 8 T. 9 P 0 C 1 Si 2 G 3 V 4 A 5 In | roduction Vessels ompressors urface Flowlines iathering Lines alves & Controllers striffical Lift Equipment istrumentation & Measurement | | 5 5 5 5 5 5 | 70 71 72 73 74 75 | Compressors Surface Flowlines Gathering Lines Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement | | 6 6 6 6 | 71 72 73 | Compressors Surface Flowlines Gathering Lines Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement | 50,00 |
| 4 6 4 6 4 6 4 7 4 7 4 7 4 7 4 7 4 7 4 7 4 7 4 7 4 7 | 8 T. 9 P 0 C 1 Si 2 G 3 V 4 A 5 In 6 Ei | roduction Vessels ompressors urface Flowlines sathering Lines althering Lines sidves & Controllers rtificial Lift Equipment strumentation & Measurement lectrical Grounding/Safety Equipment | | 5 5 5 5 5 5 5 | 70 71 72 73 74 75 76 | Compressors Surface Flowlines Gathering Lines Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement Electrical Grounding/Safety Equipmen | nt | 6 6 6 6 6 | 71 72 73 74 75 76 | Compressors Surface Flowlines Gathering Lines Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement Electrical Grounding/Safety Equipment | 50,00 10,00 |
| 4 6 4 6 4 6 4 7 4 7 4 7 4 7 4 7 4 7 4 7 | 8 T. 9 P 0 C 1 Si 2 G 3 V 4 A 5 In 6 Ei 7 P | roduction Vessels ompressors urface Flowlines iathering Lines alves & Controllers striffical Lift Equipment istrumentation & Measurement | | 5 5 5 5 5 5 5 5 | 70 71 72 73 74 75 76 77 | Compressors Surface Flowlines Gathering Lines Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement Electrical Grounding/Safety Equipment Permanent Equipment Installation | nt | 6 6 6 6 6 | 71 72 73 74 75 76 77 | Compressors Surface Flowlines Gathering Lines Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement Electrical Grounding/Safety Equipment Permanent Equipment Installation | 50,00 10,00 |
| 4 6 4 6 4 6 4 7 4 7 4 7 4 7 4 7 4 7 4 7 4 7 4 7 4 7 | 8 T. 9 P. 0 C. 1 Si. 2 G. 3 V. 4 A. 5 In 6 El 7 P. 0 O | roduction Vessels ompressors urface Flowlines stathering Lines alves & Controllers strifficial Lift Equipment strumentation & Measurement lectrical Grounding/Safety Equipment ermanent Equipment Installation | | 5 5 5 5 5 5 5 | 70 71 72 73 74 75 76 77 80 | Compressors Surface Flowlines Gathering Lines Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement Electrical Grounding/Safety Equipment Permanent Equipment Installation Other - Surface | nt | 6 6 6 6 6 6 | 71 72 73 74 75 76 77 80 | Compressors Surface Flowlines Gathering Lines Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement Electrical Grounding/Safety Equipment Permanent Equipment Installation Other - Surface | 50,00 10,00 |
| 4 6 6 4 6 6 4 6 6 4 7 6 4 7 6 4 7 6 6 7 6 4 7 6 6 7 6 6 7 6 6 7 6 6 7 6 6 7 6 6 7 6 6 7 6 6 7 6 6 7 6 6 7 6 6 7 6 6 7 6 6 7 6 7 6 6 7 6 6 7 6 6 7 6 6 7 6 | 8 T. 9 P. 0 C. 1 Si. 2 G. 3 V. 4 A. 5 In 6 El 7 P. 0 O | roduction Vessels compressors urface Flowlines iathering Lines alves & Controllers trificial Lift Equipment strumentation & Measurement lectrical Grounding/Safety Equipment ermanent Equipment Installation ther: Surface | \$595,000 | 5 5 5 5 5 5 5 5 | 70 71 72 73 74 75 76 77 | Compressors Surface Flowlines Gathering Lines Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement Electrical Grounding/Safety Equipment Permanent Equipment Installation | | 6 6 6 6 6 | 71 72 73 74 75 76 77 | Compressors Surface Flowlines Gathering Lines Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement Electrical Grounding/Safety Equipment Permanent Equipment Installation | 50,00 10,00 |

| CEO | VP - EXPLORATION | |
|----------------|------------------|--|
| CFO | VP - OPERATIONS | |
| - LAND & LEGAL | SENIOR GEOLOGIST | |

| NON OP | ERATING PARTNER APPROVAL: | |
|-----------------------|---------------------------|--|
| COMPAN | NAME: | |
| SIGNED BY: | TITLE: | |
| WORKING INTEREST (%): | DATE: | |
| TAX ID: | APPROVAL: | |

602 Park Point Dr, Golden, Colorado 80401 Authorization For Expenditure

| Name: | Poseidon | 175H |
|---------|----------|------|
| AFE #: | 0 | |
| County: | Lea | |

Date: August 29, 2019 MD/TVD: 20454 / 9794 Lateral Length: 10210 Geologic Target: Avalon

| | ate: | NM | | | | | Lateral Leng Geologic Targ | th: 10 et: A | 210 valo | on . | | | | |
|------|------------|---|------------------|---|----------|--|-------------------------------|-----------------|-------------|--|---|---------------------|--|--|
| W | ell Des | cription: | Drill, complete, | and eq | uip a | horizontal Avalon well with a 10210 foot | lateral. | | | | | | | |
| cc | ST CODES | INTANGIBLE DRILLING COSTS DESCRIPTION | AMOUNT | INTANGIBLE COMPLETION COSTS NT COST CODES DESCRIPTION AMOUNT | | | | | | INTANGIBLE PRODUCTION COSTS COST CODES DESCRIPTION | | | | |
| 1 | | Land - Legal | 10,000 | 2 | | | AMOUNT | 3 | | 1 | DESCRIPTION Land - Legal | AMOUNT | | |
| 1 | | Land - Regulatory | 5,000 | 2 | | | | 3 | | 2 | Land - Regulatory | | | |
| 1 | | Land - Surface Damages Land - Survey | 20,000 | 2 | | | | 3 | _ | 3 | Land - Surface Damages | | | |
| 1 | | Location/Pit Construction | 10,000 | 2 | | | | 3 | | 4 | Land - Survey | | | |
| 1 | 6 | Remedial Dirtwork | 140,000 | 2 | | | | 3 | | 5 | Location/Pit Construction | 5, | | |
| 1 | 7 | Reserve/Frac Pit Closing | 0 | 2 | | | | 3 | | 7 | Remedial Dirtwork Reserve/Frac Pit Closing | | | |
| 1 | 8 | Drilling - Contractor | 468,361 | 2 | | | | 3 | | | Drilling - Contractor | | | |
| 1 | | Mob/Rig Up - Contractor/Trucking | 123,250 | 2 | | | | 3 | | | Mob/Rig Up - Contractor/Trucking | | | |
| 1 | | Cementing Services | 0 | 2 | 10 | | | 3 | | 10 | Cementing Services | | | |
| 1 | | Cementing Equipment | 0 | 2 | | | | 3 | | 11 | Cementing Equipment | | | |
| 1 | 12 | Bits/Drill Out Assemblies | 0 | 2 | | | 140,586 | 3 | | | Bits/Drill Out Assemblies | | | |
| 1 | | Fluid Circulation Equipment/Services Fluids/Chemicals | 81,702 50,000 | 2 | | | | 3 | | | Fluid Circulation Equipment/Services | | | |
| 1 | 15 | WBM Cuttings/Wastewater Disposal | 275,670 | 2 | | | 114,278 | 3 | | | Fluids/Chemicals | | | |
| 1 | 16 | OBM Cuttings/Chemical Disposal | 0 | 2 | | and the second s | | 3 | | | WBM Cuttings/Wastewater Disposal | | | |
| 1 | 17 | Fuel/Power | 120,002 | 2 | | | 662,500 | 3 | | _ | OBM Cuttings/Chemical Disposal Fuel/Power | | | |
| 1 | 18 | Water | 0 | 2 | | | 1,058,090 | 3 | | | Water | | | |
| 1 | | Directional Drilling | 199,505 | 2 | 19 | | 1,000,000 | 3 | | | Directional Drilling | | | |
| 1 | | Mud Logging | 18,201 | 2 | | | | 3 | | | Mud Logging | | | |
| 1 | | Open/Cased/Production Hole Logs Coring | 0 | 2 | | | 10,550 | 3 | | | Open/Cased/Production Hole Logs | | | |
| 1 | | Geologic Supervision | 0 | 2 | | | | 3 | | 22 | Coring | | | |
| 1 | 24 | Engineering Supervision | 0 | 2 | | | | 3 | | | Geologic Supervision | | | |
| 1 | 25 | Consultant Supervision | 108,002 | 2 | 24 | 9 | - | 3 | | | Engineering Supervision | | | |
| 1 | 26 | Freight/Transportation | 20,000 | 2 | | | 156,000 | 3 | | | Consultant Supervision | 20,0 | | |
| 1 | 27 | Labor | 0 | 2 | | | 4,110 22,190 | 3 | | | Freight/Transportation Labor | 10,0 | | |
| 1 | 28 | Supplies - Surface | 2,500 | 2 | | | 4,110 | 3 | | | Supplies - Surface | 85,0 | | |
| 1 | 29 | Supplies - Living Quarters | 1,000 | 2 | 29 | Supplies - Living Quarters | 4,110 | 3 | | | Supplies - Living Quarters | | | |
| 1 | 30 | Rentals - Surface | 51,301 | 2 | 30 | Rentals - Surface | 50,030 | 3 | | 700 | Rentals - Surface | | | |
| 1 | 31 | Rentals - Living Quarters | 27,601 | 2 | | Rentals - Living Quarters | 42,490 | 3 | - 0 | | Rentals - Living Quarters | | | |
| 1 | 33 | Rentals - Downhole Rentals - Pipe & Handling Tools | 0 | 2 | 32 | Rentals - Downhole | 0 | 3 | 13 | 32 | Rentals - Downhole | | | |
| 1 | 34 | Rentals - Frac Stack | 0 | 2 | 33 | Rentals - Pipe & Handling Tools | 0 | 3 | _ | | Rentals - Pipe & Handling Tools | | | |
| 1 | 35 | Rentals - Frac Tanks | | 2 | 34 | | 150,095 | 3 | | | Rentals - Frac Stack | | | |
| 1 | 36 | Coil Tubing Unit/Workover Rig | | 2 | 36 | Rentals - Frac Tanks Coil Tubing Unit/Workover Rig | 95,800 | 3 | | | Rentals - Frac Tanks | | | |
| 1 | 37 | Wireline/Slickline/Perforating | | 2 | 37 | | 501,550 | 3 | | | Coil Tubing Unit/Workover Rig | 70,0 | | |
| 1 | 38 | Temporary Packers/Plugs | | 2 | | Temporary Packers/Plugs | 78,000 | 3 | _ | | Wireline/Slickline/Perforating Temporary Packers/Plugs | | | |
| 1 | 39 | High Pressure Pump Truck | | 2 | 39 | | 152,200 | 3 | | | High Pressure Pump Truck | | | |
| 1 | | Stimulation | | 2 | 40 | Stimulation | 3,155,274 | 3 | _ | _ | Stimulation | | | |
| 1 | 41 | Rentals - Pressure Control | | 2 | 41 | Rentals - Pressure Control | | 3 | 4 | | Rentals - Pressure Control | | | |
| 1 | 42 | Flowback Services Water Transfer Services | | 2 | 42 | | 130,225 | 3 | 4 | | Flowback Services | | | |
| 1 | | Flowback Water Trucking & Disposal | | 2 | 43 | Water Transfer Services | 172,125 | 3 | 4 | | Water Transfer Services | | | |
| 1 | | Permanent Equipment Installation | | 2 | 45 | Flowback Water Trucking & Disposal | 141,788 | 3 | | | Flowback Water Trucking & Disposal | | | |
| 1 | | Pipeline Tapping Services | | 2 | 46 | Permanent Equipment Installation Pipeline Tapping Services | | 3 | | | Permanent Equipment Installation | | | |
| 1 | | Plugging & Abandonment | 0 | 2 | 47 | Plugging & Abandonment | | 3 | _ | | Pipeline Tapping Services | | | |
| 1 | 53 | Overhead | 9,500 | 2 | 53 | Overhead | 31,650 | 3 | _ | | Plugging & Abandonment Overhead | | | |
| 1 | | Insurance | 36,817 | 2 | 54 | Insurance | 31,030 | 3 | | 100 | nsurance | 5,0 | | |
| 1 | 55 | Contingency | 88,921 | 2 | 55 | Contingency | 560,956 | 3 | | | Contingency | 19,5 | | |
| _ | | TOTAL INTANGIBLE DRILLING COSTS: | \$1,867,332 | | | TOTAL INTANGIBLE COMPLETION COSTS: | | | | | TOTAL INTANGIBLE PRODUCTION COSTS: | A | | |
| cos: | CODES 60 | TANGIBLE DRILLING COSTS DESCRIPTION Conductor Casing | AMOUNT | cos | CODES | TANGIBLE COMPLETION COSTS | AMOUNT | | T COI | DES | TANGIBLE PRODUCTION COSTS DESCRIPTION | \$214,500 AMOUNT | | |
| 4 | 61 | Surface Casing | 56,106 | 5 | 61 | Surface Casing | | 6 | 6 | | Conductor Casing | | | |
| 4 | | 1st Intermediate Casing | 155,550 | 5 | 62 | 1st Intermediate Casing | | 6 | 6 | | st Intermediate Casing | | | |
| 4 | | 2nd Intermediate Casing | 0 | 5 | 63 | 2nd Intermediate Casing | | 6 | 6 | | Ind Intermediate Casing | | | |
| 4 | | Production Casing | 383,513 | 5 | 64 | Production Casing | 22,500 | 6 | 6 | 4 0 | roduction Casing | | | |
| 4 | | Tubing Wellhead | | 5 | 65 | Tubing | | 6 | 6 | | ubing | 60.00 | | |
| 4 | | Permanent Packers/Hangers/Plugs | 0 | 5 | 66 | Wellhead | 40,000 | 6 | 6 | | Vellhead | 43,50 | | |
| 4 | | Tanks | | 5 | 67 | Permanent Packers/Hangers/Plugs | | 6 | 6 | 7 P | ermanent Packers/Hangers/Plugs | 5,00 | | |
| 4 | | Production Vessels | | 5 | 58 | Tanks Production Management | | 6 | 68 | | anks | 2700 | | |
| 4 | and a firm | Compressors | | 5 | 69 70 | Production Vessels Compressors | | 6 | 69 | | roduction Vessels | 82,00 | | |
| 4 | 71 | Surface Flowlines | | 5 | | Surface Flowlines | | 6 | | | ompressors | | | |
| 4 | 72 | Gathering Lines | | 5 | | Gathering Lines | | 6 | 71 | | urface Flowlines | 50,00 | | |
| 4 | 73 | Valves & Controllers | | 5 | | Valves & Controllers | | 6 | | | athering Lines | 10,00 | | |
| 4 | | Artificial Lift Equipment | | 5 | | Artificial Lift Equipment | | 6 | | | alves & Controllers | | | |
| 4 | | nstrumentation & Measurement | | 5 | 75 | Instrumentation & Measurement | | 6 | 74 | | rtificial Lift Equipment | 35,00 | | |
| 4 | 76 | Electrical Grounding/Safety Equipment | | 5 | 76 | Electrical Grounding/Safety Equipment | | 6 | 76 | | strumentation & Measurement lectrical Grounding/Safety Equipment | | | |
| 4 | 77 1 | Permanent Equipment Installation | | 5 | 77 | Permanent Equipment Installation | | 6 | 77 | | ermanent Equipment Installation | | | |
| 4 | | Other - Surface | | 5 | 80 | Other - Surface | | 6 | 80 | | ther - Surface | | | |
| 4 | 81 (| Other - Downhole | | 5 | 81 | Other - Downhole | | 6 | 81 | | ther - Downhole | | | |
| _ | | TOTAL TANGIBLE DRILLING COSTS: | \$595,169 | | | TOTAL TANGIBLE COMPLETION COSTS: | \$62,500 | 125 | | 9 | TOTAL TANGIBLE PRODUCTION COSTS: | \$28E E00 | | |
| _ | | TOTAL DRILLING COSTS: | \$2,462,500 | | | TOTAL COMPLETION COSTS: | \$7,810,651 | | | | TOTAL PRODUCTION COSTS: | \$285,500 | | |
| | | | | | | | | | | | TOTAL WELL COST: | \$500,000 | | |

| CEO | VP - EXPLORATION | |
|----------------|------------------|--|
| сғо | VP - OPERATIONS | |
| - LAND & LEGAL | SENIOR GEOLOGIST | |

| NON OPE | RATING PARTNER APPROVAL: |
|-----------------------|--------------------------|
| COMPANY | NAME: |
| SIGNED BY: | TITLE: |
| WORKING INTEREST (%): | DATE: |
| TAX ID: | APPROVAL: |



602 Park Point Dr, Golden, Colorado 80401 Authorization For Expenditure

| Name: | Poseidon 181H |
|---------|---------------|
| AFE #: | 0 |
| County: | Lea |
| State: | NM |

Date: August 29, 2019 MD/TVD: 20764 / 10104 Lateral Length: 10210 Geologic Target: Avalon

| | INTANGIBLE DRILLING COSTS | | | | INTANGIBLE COMPLETION COSTS | | | | INTANGIBLE PRODUCTION COST | 5 |
|--|---|-------------------|--------------------------------------|----------------------------------|---|-------------------------|------------------|----------------------------|--|------------------------|
| COST CODE | 700000000 | AMOUNT | | ST CODE | S DESCRIPTION | AMOUNT | CO | ST COD | | AMOUNT |
| 1 1 | Land - Legal Land - Regulatory | 10,000 | 2 | | Land - Legal | | 3 | 1 | | |
| 1 3 | | 5,000 | 2 | | Land - Regulatory Land - Surface Damages | | 3 | 3 | Land - Regulatory Land - Surface Damages | |
| 1 4 | Land - Survey | 10,000 | 2 | | Land - Survey | | 3 | | | |
| 1 5 | | 140,000 | 2 | | Location/Pit Construction | | 3 | 5 | | 5, |
| 1 6 | | 0 | 2 | | | | 3 | 6 | | |
| 1 8 | | 465,610 | 2 | | Reserve/Frac Pit Closing Drilling - Contractor | | 3 | 8 | Reserve/Frac Pit Closing Drilling - Contractor | |
| 1 9 | Mob/Rig Up - Contractor/Trucking | 123,250 | 2 | | Mob/Rig Up - Contractor/Trucking | | 3 | 9 | | |
| 1 10 | | 0 | 2 | | | | 3 | 10 | | |
| 1 11 | | 0 | 2 | | | | 3 | 11 | | |
| 1 13 | | 81,222 | 2 | | | 140,586 | 3 | 12 | | |
| 1 14 | Fluids/Chemicals | 50,000 | 2 | | Fluids/Chemicals | 114,278 | 3 | 14 | | |
| 1 15 | | 275,670 | 2 | | WBM Cuttings/Wastewater Disposal | | 3 | 15 | | |
| 1 16 1 17 | | 0 | 2 | | OBM Cuttings/Chemical Disposal | | 3 | 16 | | |
| 1 18 | | 119,444 | 2 | | Fuel/Power Water | 662,500 1,058,090 | 3 | 17 | | |
| 1 19 | | 198,333 | 2 | 19 | Directional Drilling | 1,058,090 | 3 | 19 | | |
| 1 20 | | 18,055 | 2 | | Mud Logging | | 3 | | | |
| 1 21 | Open/Cased/Production Hole Logs Coring | 0 | 2 | | Open/Cased/Production Hole Logs | 10,550 | 3 | 21 | | |
| 1 23 | Geologic Supervision | 0 | 2 | | Geologic Supervision | | 3 | 22 | | |
| 1 24 | Engineering Supervision | 0 | 2 | 24 | Engineering Supervision | | 3 | 23 | | |
| 1 25 | Consultant Supervision | 107,500 | 2 | 25 | Consultant Supervision | 156,000 | 3 | 25 | | 20, |
| 1 26 | | 20,000 | 2 | | | 4,110 | 3 | 26 | Freight/Transportation | 10, |
| 1 28 | | 2,500 | 2 | 27 | Labor Supplies - Surface | 22,190 | 3 | 27 | | 85, |
| 1 29 | | 1,000 | 2 | | Supplies - Living Quarters | 4,110 4,110 | 3 | 28 | Supplies - Surface Supplies - Living Quarters | |
| 1 30 | | 51,000 | 2 | 30 | Rentals - Surface | 50,030 | 3 | 30 | | |
| 1 31 | Rentals - Living Quarters Rentals - Downhole | 27,472 | 2 | 31 | Rentals - Living Quarters | 42,490 | 3 | 31 | - Control of the cont | |
| 1 33 | Rentals - Pipe & Handling Tools | 0 | 2 | 32 | Rentals - Downhole Rentals - Pipe & Handling Tools | 0 | 3 | 32 | Rentals - Downhole | |
| 1 34 | Rentals - Frac Stack | | 2 | 34 | Rentals - Frac Stack | 150,095 | 3 | 33 | | |
| 1 35 | Rentals - Frac Tanks | | 2 | 35 | Rentals - Frac Tanks | 95,800 | 3 | 35 | | |
| 1 36 1 37 | Coil Tubing Unit/Workover Rig Wireline/Slickline/Perforating | | 2 | 36 | Coll Tubing Unit/Workover Rig | 309,444 | 3 | 36 | | 70,0 |
| 1 38 | Temporary Packers/Plugs | | 2 | 37 | Wireline/Slickline/Perforating Temporary Packers/Plugs | 501,550 | 3 | .37 | | |
| 1 39 | High Pressure Pump Truck | | 2 | 39 | High Pressure Pump Truck | 78,000 152,200 | 3 | 38 | Temporary Packers/Plugs High Pressure Pump Truck | |
| 1 40 | Stimulation | | 2 | 40 | Stimulation | 3,155,274 | 3 | 40 | Stimulation | |
| 1 41 | Rentals - Pressure Control Flowback Services | | 2 | 41 | Rentals - Pressure Control | | 3 | 41 | Rentals - Pressure Control | |
| 1 43 | Water Transfer Services | | 2 | 42 | Flowback Services | 130,225 | 3 | 42 | Flowback Services | |
| 1 44 | Flowback Water Trucking & Disposal | | 2 | 44 | Water Transfer Services Flowback Water Trucking & Disposal | 172,125 141,788 | 3 | 43 | | |
| 1 45 | Permanent Equipment Installation | | 2 | 45 | Permanent Equipment Installation | 141,700 | 3 | 45 | Flowback Water Trucking & Disposal Permanent Equipment Installation | |
| 1 46 1 47 | Pipeline Tapping Services | | 2 | 46 | Pipeline Tapping Services | | 3 | 46 | Pipeline Tapping Services | |
| 1 53 | Plugging & Abandonment Overhead | 9,444 | 2 | 53 | Plugging & Abandonment Overhead | | 3 | 47 | Plugging & Abandonment | |
| 1 54 | Insurance | 37,375 | 2 | 54 | Insurance | 31,650 | 3 | 53 54 | Overhead Insurance | 5,0 |
| 1 55 | | 88,644 | 2 | 55 | Contingency | 560,956 | 3 | 55 | Contingency | 19,5 |
| | TOTAL INTANGIBLE DRILLING COSTS: | \$1,861,519 | | | TOTAL INTANGIBLE COMPLETION COSTS: | \$7,748,151 | | | TOTAL INTANGIBLE PRODUCTION COSTS: | \$214,500 |
| | TANGIBLE DRILLING COSTS | | | | TANGET | | | | | 9224,500 |
| OST CODES | DESCRIPTION | AMOUNT | cos | CODES | TANGIBLE COMPLETION COSTS DESCRIPTION | AMOUNT | cos | T CODE | TANGIBLE PRODUCTION COSTS DESCRIPTION | |
| 60 | Conductor Casing | 0 | 5 | 60 | Conductor Casing | | 6 | 60 | | AMOUNT |
| 61 | Surface Casing 1st Intermediate Casing | 56,106 155,550 | 5 | 61 | Surface Casing 1st Intermediate Casing | | 6 | 61 | Surface Casing | |
| 63 | 2nd Intermediate Casing | 133,330 | 5 | 62 | 2nd Intermediate Casing | | 6 | 62 | 1st Intermediate Casing | |
| 64 | Production Casing | 389,325 | 5 | 64 | Production Casing | 22,500 | 6 | 63 | 2nd Intermediate Casing Production Casing | |
| 65 | Tubing Wellhead | | 5 | 65 | Tubing | ** | 6 | 65 | Tubing | 60.0 |
| 66 | Permanent Packers/Hangers/Plugs | 0 | 5 | 66 | Wellhead | 40,000 | 6 | 66 | Wellhead | 43,5 |
| 67 | Tanks | | 5 | 68 | Permanent Packers/Hangers/Plugs Tanks | | 6 | 67 | Permanent Packers/Hangers/Plugs | 5,0 |
| 67 | Production Vessels | | 5 | 69 | Production Vessels | | 6 | 68 | Tanks Production Vessels | |
| 68 | | | 5 | 70 | Compressors | | 6 | 70 | Compressors | 82,0 |
| 68 69 70 | Compressors | | 5 | 71 | | | 6 | 71 | Surface Flowlines | 50,0 |
| 68 | Surface Flowlines | | 3 | | | | 6 | | Gathering Lines | 10,0 |
| 68 69 70 71 72 73 | Surface Flowlines Gathering Lines Valves & Controllers | | 5 | | Gathering Lines Valves & Controllers | | | | Valves & Controllers | #121270 |
| 68 69 70 71 71 72 73 74 | Surface Flowlines Gathering Lines Valves & Controllers Artificial Lift Equipment | | 5 | 73 74 | Valves & Controllers Artificial Lift Equipment | | 6 | | | |
| 68 69 70 71 72 73 74 75 | Surface Flowlines Gathering Lines Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement | | 5 5 5 | 73 74 75 | Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement | | 6 | 74 | Artificial Lift Equipment | 35,0 |
| 68 69 70 71 72 73 74 75 76 | Surface Flowlines Gathering Lines Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement Electrical Grounding/Safety Equipment | | 5 5 5 5 | 73 74 75 76 | Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement Electrical Grounding/Safety Equipment | | 6 | 74 75 | Artificial Lift Equipment Instrumentation & Measurement | 35,0 |
| 8 68 1 69 1 70 1 71 1 72 1 73 1 74 1 75 76 | Surface Flowlines Gathering Lines Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement | | 5 5 5 5 5 | 73 74 75 76 77 | Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement Electrical Grounding/Safety Equipment Permanent Equipment Installation | | 6 6 6 | 74 75 76 77 | Artificial Lift Equipment Instrumentation & Measurement Electrical Grounding/Safety Equipment Permanent Equipment Installation | 35,0 |
| 68 69 70 71 72 73 74 75 76 77 80 | Surface Flowlines Gathering Lines Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement Electrical Grounding/Safety Equipment Permanent Equipment Installation | | 5 5 5 5 5 5 | 73 74 75 76 77 80 | Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement Electrical Grounding/Safety Equipment Permanent Equipment Installation Other - Surface | | 6 6 6 6 | 74 75 76 77 80 | Artificial Lift Equipment Instrumentation & Measurement Electrical Grounding/Safety Equipment Permanent Equipment Installation Other - Surface | 35,0 |
| 68 69 70 71 72 73 74 75 76 77 80 | Surface Flowlines Gathering Lines Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement Electrical Grounding/Safety Equipment Permanent Equipment Installation Other - Surface Other - Downhole TOTAL TANGIBLE DRILLING COSTS: | \$600,981 | 5 5 5 5 5 | 73 74 75 76 77 80 | Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement Electrical Grounding/Safety Equipment Permanent Equipment Installation Other - Surface Other - Downhole | \$62,500 | 6 6 6 | 74 75 76 77 | Artificial Lift Equipment Instrumentation & Measurement Electrical Grounding/Safety Equipment Permanent Equipment Installation Other - Surface Other - Downhole | 35,0 |
| 68 69 70 71 72 73 74 75 76 77 80 | Surface Flowlines Gathering Lines Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement Electrical Grounding/Safety Equipment Permanent Equipment Installation Other - Surface Other - Downhole | | 5 5 5 5 5 5 | 73 74 75 76 77 80 | Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement Electrical Grounding/Safety Equipment Permanent Equipment Installation Other - Surface Other - Oswinole TOTAL TANGIBLE COMPLETION COSTS: | \$62,500 \$7,810,651 | 6 6 6 6 | 74 75 76 77 80 | Artificial Lift Equipment Instrumentation & Measurement Electrical Grounding/Safety Equipment Permanent Equipment Installation Other - Surface Other - Downhole TOTAL TANGIBLE PRODUCTION COSTS: | \$285,500 |
| 68 69 70 71 72 73 74 75 76 77 80 | Surface Flowlines Gathering Lines Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement Electrical Grounding/Safety Equipment Permanent Equipment Installation Other - Surface Other - Downhole TOTAL TANGIBLE DRILLING COSTS: | | 5 5 5 5 5 5 | 73 74 75 76 77 80 | Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement Electrical Grounding/Safety Equipment Permanent Equipment Installation Other - Surface Other - Downhole | | 6 6 6 6 | 74 75 76 77 80 | Artificial Lift Equipment Instrumentation & Measurement Electrical Grounding/Safety Equipment Permanent Equipment Installation Other - Surface Other - Downhole TOTAL TANGIBLE PRODUCTION COSTS: TOTAL PRODUCTION COSTS: | \$285,500 \$500,000 |
| 68 69 70 71 72 73 74 75 76 77 80 | Surface Flowlines Gathering Lines Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement Electrical Grounding/Safety Equipment Permanent Equipment Installation Other - Surface Other - Downhole TOTAL TANGIBLE DRILLING COSTS: | | 5 5 5 5 5 5 | 73 74 75 76 77 80 | Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement Electrical Grounding/Safety Equipment Permanent Equipment Installation Other - Surface Other - Oswinole TOTAL TANGIBLE COMPLETION COSTS: | | 6 6 6 6 | 74 75 76 77 80 | Artificial Lift Equipment Instrumentation & Measurement Electrical Grounding/Safety Equipment Permanent Equipment Installation Other - Surface Other - Downhole TOTAL TANGIBLE PRODUCTION COSTS: | \$285,500 \$500,000 |
| 68 69 70 71 72 73 74 75 76 77 | Surface Flowlines Gathering Lines Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement Electrical Grounding/Safety Equipment Permanent Equipment Installation Other - Surface Other - Downhole TOTAL TANGIBLE DRILLING COSTS: | \$2,462,500 | 5 5 5 5 5 5 5 5 | 73 74 75 76 77 80 | Valves & Controllers Artificial Lift Equipment Instrumentation & Measurement Electrical Grounding/Safety Equipment Permanent Equipment Installation Other - Surface Other - Oswinole TOTAL TANGIBLE COMPLETION COSTS: | | 6 6 6 6 | 74 75 76 77 80 | Artificial Lift Equipment Instrumentation & Measurement Electrical Grounding/Safety Equipment Permanent Equipment Installation Other - Surface Other - Downhole TOTAL TANGIBLE PRODUCTION COSTS: TOTAL PRODUCTION COSTS: | \$285,500 \$500,000 |

602 Park Point Dr, Golden, Colorado 80401 Authorization For Expenditure

| Name: | Poseidon 182H |
|---------|---------------|
| AFE #: | 0 |
| County: | Lea |
| State: | NM |

Date: August 29, 2019 MD/TVD: 20733 / 10073 Lateral Length: 10210 Geologic Target: Avalon

| | INTANGIBLE DRILLING COSTS | | | | INTANGIBLE COMPLETION COSTS | | | | INTANGIBLE PRODUCTION COST | |
|---------------------|--|--------------------|----|---------|---|--------------------|----|--------|--|--------------|
| ost cor | | AMOUNT | co | ST CODE | | AMOUNT | co | ST COL | | AMOUNT |
| 1 1 | Land - Legal | 10,000 | 2 | 1 | Land - Legal | | 3 | 1 | Land - Legal | AMOUNT |
| 1 2 | Land - Regulatory Land - Surface Damages | 5,000 | 2 | 2 | Land - Regulatory | | 3 | 2 | | |
| 1 4 | | 20,000 | 2 | 3 | Land - Surface Damages Land - Survey | | 3 | 3 | | |
| 1 5 | | 140,000 | 2 | 5 | Location/Pit Construction | | 3 | 5 | | 5, |
| 1 6 | Remedial Dirtwork | 0 | 2 | 6 | Remedial Dirtwork | | 3 | 6 | | |
| 1 7 | Reserve/Frac Pit Closing | 0 | 2 | 7 | Reserve/Frac Pit Closing | | 3 | 7 | | |
| 1 8 | Drilling - Contractor Mob/Rig Up - Contractor/Trucking | 465,885 123,250 | 2 | 8 | Drilling - Contractor | | 3 | 8 | | |
| 1 10 | | 123,250 | 2 | 9 | Mob/Rig Up - Contractor/Trucking Cementing Services | | 3 | 10 | | |
| 1 1 | Cementing Equipment | 0 | 2 | | | | 3 | 1 | | |
| 1 | | 0 | 2 | | | 140,586 | 3 | 1 | 2 Bits/Drill Out Assemblies | |
| 1 1 | | 81,270 50,000 | 2 | | Fluid Circulation Equipment/Services | | 3 | 1 | | |
| 1 15 | | 275,670 | 2 | 15 | Fluids/Chemicals WBM Cuttings/Wastewater Disposal | 114,278 | 3 | 1 | Fluids/Chemicals WBM Cuttings/Wastewater Disposal | |
| 16 | OBM Cuttings/Chemical Disposal | 0 | 2 | | OBM Cuttings/Chemical Disposal | | 3 | 16 | - Control of the cont | |
| 17 | | 119,500 | 2 | | Fuel/Power | 662,500 | 3 | 1 | | |
| 18 | | 0 | 2 | | Water | 1,058,090 | 3 | 18 | | |
| 20 | | 198,450 18,070 | 2 | | Directional Drilling Mud Logging | | 3 | 19 | | |
| 21 | | 0 | 2 | | Open/Cased/Production Hole Logs | 10,550 | 3 | 20 | 00.0 | |
| | Coring | 0 | 2 | 22 | Coring | | 3 | 2 | | |
| | Geologic Supervision | 0 | 2 | 23 | Geologic Supervision | | 3 | 2 | | |
| | Engineering Supervision Consultant Supervision | 107,550 | 2 | 24 | Engineering Supervision | , | 3 | 24 | 9 | |
| | Freight/Transportation | 20,000 | 2 | 25 | Consultant Supervision Freight/Transportation | 156,000 4,110 | 3 | 25 | | 20,0 |
| 27 | Labor | 0 | 2 | 27 | Labor | 22,190 | 3 | 27 | | 10,0 |
| 28 | | 2,500 | 2 | 28 | Supplies - Surface | 4,110 | 3 | 28 | | 0.5,0 |
| 30 | | 1,000 51,030 | 2 | 29 | Supplies - Living Quarters | 4,110 | 3 | 25 | | |
| 31 | | 27,485 | 2 | 31 | Rentals - Surface Rentals - Living Quarters | 50,030 42,490 | 3 | 30 | | |
| 32 | | 0 | 2 | 32 | Rentals - Downhole | 42,490 | 3 | 37 | | |
| 33 | Rentals - Pipe & Handling Tools | 0 | 2 | 33 | Rentals - Pipe & Handling Tools | 0 | 3 | 33 | | |
| 34 | Rentals - Frac Stack Rentals - Frac Tanks | | 2 | 34 | Rentals - Frac Stack | 150,095 | 3 | 34 | Rentals - Frac Stack | |
| 36 | | | 2 | 35 | Rentals - Frac Tanks Coil Tubing Unit/Workover Rig | 95,800 | 3 | 35 | | - |
| 37 | Wireline/Slickline/Perforating | | 2 | 37 | Wireline/Slickline/Perforating | 309,444 501,550 | 3 | 36 | | 70,0 |
| 38 | Temporary Packers/Plugs | | 2 | 38 | Temporary Packers/Plugs | 78,000 | 3 | 38 | | |
| 39 | High Pressure Pump Truck | | 2 | 39 | High Pressure Pump Truck | 152,200 | 3 | 39 | | |
| 41 | Stimulation Rentals - Pressure Control | | 2 | 40 | Stimulation | 3,155,274 | 3 | 40 | | |
| 42 | Flowback Services | | 2 | 41 | Rentals - Pressure Control Flowback Services | | 3 | 41 | | |
| 43 | Water Transfer Services | | 2 | 43 | Water Transfer Services | 130,225 172,125 | 3 | 42 | The state of the s | |
| 44 | Flowback Water Trucking & Disposal | | 2 | 44 | Flowback Water Trucking & Disposal | 141,788 | 3 | 44 | | |
| 45 | Permanent Equipment Installation Pipeline Tapping Services | | 2 | 45 | Permanent Equipment Installation | | 3 | 45 | Permanent Equipment Installation | |
| 46 | Plugging & Abandonment | 0 | 2 | 46 | Pipeline Tapping Services Plugging & Abandonment | | 3 | 46 | | |
| 53 | Overhead | 9,450 | 2 | 53 | Overhead | 31,650 | 3 | 53 | | - |
| 54 | Insurance | 37,319 | 2 | 54 | Insurance | 31,030 | 3 | 54 | | 5,0 |
| 55 | Contingency | 88,671 | 2 | 55 | Contingency | 560,956 | 3 | 55 | | 19,5 |
| | TOTAL INTANGIBLE DRILLING COSTS: | \$1,862,100 | | | TOTAL INTANGIBLE COMPLETION COSTS: | \$7,748,151 | | | TOTAL INTANGIBLE PRODUCTION COSTS: | |
| 5T CODE 60 61 | TANGIBLE DRILLING COSTS DESCRIPTION Conductor Casing Surface Casing | AMOUNT 0 56,106 | 5 | 60 | Conductor Casing | AMOUNT | 6 | T CODI | Conductor Casing | AMOUNT |
| 62 | 1st Intermediate Casing | 155,550 | 5 | 62 | Surface Casing 1st Intermediate Casing | | 6 | 61 | | |
| 63 | 2nd Intermediate Casing | 0 | 5 | 63 | 2nd Intermediate Casing | | 6 | 63 | | |
| 64 | Production Casing Tubing | 388,744 | 5 | 64 | Production Casing | 22,500 | 6 | 64 | | |
| 66 | Wellhead | 0 | 5 | 65 | Tubing | | 6 | 65 | Tubing | 60,00 |
| 67 | | 0 | 5 | 66 | Wellhead Permanent Packers/Hangers/Plugs | 40,000 | 6 | 66 | | 43,50 |
| 68 | Tanks | | 5 | 58 | Tanks | | 6 | 68 | Permanent Packers/Hangers/Plugs Tanks | 5,00 |
| 69 | Production Vessels | | 5 | 69 | Production Vessels | | 6 | 69 | Production Vessels | 82.00 |
| 70 | Compressors Surface Flowlines | | 5 | 70 | Compressors | | 6 | 70 | | .02,00 |
| | Gathering Lines | | 5 | 71 | Surface Flowlines | | 6 | 71 | Surface Flowlines | 50,00 |
| | Valves & Controllers | | 5 | | Gathering Lines Valves & Controllers | | 6 | 72 | | 10,00 |
| | Artificial Lift Equipment | | 5 | | Artificial Lift Equipment | | 6 | 73 | | Number 1 |
| | Instrumentation & Measurement | | 5 | 75 | Instrumentation & Measurement | | 6 | 75 | Artificial Lift Equipment Instrumentation & Measurement | 35,00 |
| | Electrical Grounding/Safety Equipment | | 5 | | Electrical Grounding/Safety Equipment | | 6 | 76 | | |
| | Permanent Equipment Installation Other - Surface | | 5 | | Permanent Equipment Installation | | 6 | 77 | Permanent Equipment Installation | |
| 81 | Other - Downhole | | 5 | | Other - Surface Other - Downhole | | 6 | 80 | Other - Surface | |
| | TOTAL TANGIBLE DRILLING COSTS: | \$600,400 | | 01 | TOTAL TANGIBLE COMPLETION COSTS: | 400 000 | 6 | 81 | Other - Downhole | - |
| | TOTAL DRILLING COSTS: | | | | TOTAL COMPLETION COSTS: | \$62,500 | | | TOTAL TANGIBLE PRODUCTION COSTS: | \$285,500 |
| | | | | | TOTAL COMPLETION COSTS: | \$7,810,651 | | | TOTAL PRODUCTION COSTS: | \$500,000 |
| | | | | | | | | | TOTAL WELL COST: | \$10 772 151 |

TAP ROCK RESOURCES COMPANY APPROVAL:

CEO VP - EXPLORATION COMPANY NAME:

CFO VP - OPERATIONS SENIOR GEOLOGIST WORKING INTEREST (%): DATE:

TAX ID: APPROVAL:

602 Park Point Dr, Golden, Colorado 80401 Authorization For Expenditure

Name: Poseidon 185H AFE #: 0 County: Lea

Date: August 29, 2019 MD/TVD: 20764 / 10104 Lateral Length: 10210

| Stat | e: | NM | | | | | Geologic Targe | et: Ava | lon | | |
|------|------|--------------------------------------|--------------------|--------|---------|--|---|---------|---------|--------------------------------------|--------|
| Wel | Des | ription: | Drill, complete, a | nd equ | ip a h | orizontal Avalon well with a 10210 foot la | teral. | | | | |
| 2000 | | INTANGIBLE DRILLING COSTS | | | | INTANGIBLE COMPLETION COSTS | | | | INTANGIBLE PRODUCTION COSTS | |
| _ | CODE | | AMOUNT | | T CODES | | AMOUNT | - | T CODES | | AMOUNT |
| 1 | - | Land - Legal | 10,000 | 2 | 1 | Land - Legal | | 3 | 1 | Land - Legal | |
| 1 | 2 | Land - Regulatory | 5,000 | 2 | 2 | Land - Regulatory | | 3 | 2 | Land - Regulatory | |
| 1 | 3 | Land - Surface Damages | 20,000 | 2 | 3 | Land - Surface Damages | | 3 | 3 | Land - Surface Damages | |
| 1 | 4 | Land - Survey | 10,000 | 2 | 4 | Land - Survey | | 3 | 4 | Land - Survey | |
| 1 | 5 | Location/Pit Construction | 140,000 | 2 | 5 | Location/Pit Construction | | 3 | 5 | Location/Pit Construction | 5,00 |
| 1 | 6 | Remedial Dirtwork | 0 | 2 | 6 | Remedial Dirtwork | | 3 | 6 | Remedial Dirtwork | |
| 1 | 7 | Reserve/Frac Pit Closing | 0 | 2 | 7 | Reserve/Frac Pit Closing | | 3 | 7 | Reserve/Frac Pit Closing | |
| 1 | 8 | Drilling - Contractor | 465,610 | 2 | 8 | Drilling - Contractor | | 3 | 8 | Drilling - Contractor | |
| 1 | 9 | Mob/Rig Up - Contractor/Trucking | 123,250 | 2 | 9 | Mob/Rig Up - Contractor/Trucking | | 3 | 9 | Mob/Rig Up - Contractor/Trucking | |
| 1 | 10 | Cementing Services | 0 | 2 | 10 | Cementing Services | | 3 | 10 | Cementing Services | |
| 1 | 11 | Cementing Equipment | 0 | 2 | 11 | Cementing Equipment | | 3 | 11 | Cementing Equipment | |
| 1 | 12 | Bits/Drill Out Assemblies | 0 | 2 | 12 | Bits/Drill Out Assemblies | 140,586 | 3 | 12 | Bits/Drill Out Assemblies | |
| 1 | 13 | Fluid Circulation Equipment/Services | 81,222 | 2 | 13 | Fluid Circulation Equipment/Services | | 3 | 13 | Fluid Circulation Equipment/Services | |
| 1 | 14 | Fluids/Chemicals | 50,000 | 2 | 14 | Fluids/Chemicals | 114,278 | 3 | 14 | Fluids/Chemicals | 100 |
| 1 | 15 | WBM Cuttings/Wastewater Disposal | 275,670 | 2 | 15 | WBM Cuttings/Wastewater Disposal | | 3 | 15 | WBM Cuttings/Wastewater Disposal | |
| 1 | 16 | OBM Cuttings/Chemical Disposal | 0 | 2 | 16 | OBM Cuttings/Chemical Disposal | | 3 | 16 | OBM Cuttings/Chemical Disposal | 100 |
| 1 | 17 | Fuel/Power | 119,444 | 2 | 17 | Fuel/Power | 662,500 | 3 | 17 | Fuel/Power | |
| 1 | 18 | Water | 0 | 2 | 18 | Water | 1,058,090 | 3 | 18 | Water | |
| 1 | 19 | Directional Drilling | 198,333 | 2 | 19 | Directional Drilling | .,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | 3 | 19 | Directional Drilling | |
| 1 | 20 | Mud Logging | 18,055 | 2 | 20 | Mud Logging | | 3 | 20 | Mud Logging | |
| 1 | 21 | Open/Cased/Production Hole Logs | 0 | 2 | 21 | Open/Cased/Production Hole Logs | 10,550 | 3 | 21 | Open/Cased/Production Hole Logs | |
| 1 | 22 | Coring | 0 | 2 | 22 | Coring | 20,550 | 3 | 22 | Coring | |
| 1 | 23 | Geologic Supervision | 0 | 2 | 23 | Geologic Supervision | | 3 | 23 | Geologic Supervision | |
| 1 | 24 | Engineering Supervision | 0 | 2 | 24 | Engineering Supervision | | 3 | 24 | Engineering Supervision | |
| 1 | 25 | Consultant Supervision | 107,500 | 2 | 25 | Consultant Supervision | 156,000 | 3 | 25 | | |
| 1 | 26 | Freight/Transportation | 20,000 | 2 | 26 | Freight/Transportation | 4,110 | - | 26 | Consultant Supervision | 20,00 |
| 1 | 27 | Labor | 0 | 2 | 27 | Labor | 22,190 | 3 | 27 | Freight/Transportation Labor | 10,00 |
| 1 | 28 | Supplies - Surface | 2,500 | 2 | 28 | Supplies - Surface | 4.110 | 3 | 28 | | 85,00 |
| 1 | 29 | Supplies - Living Quarters | 1,000 | 2 | 29 | Supplies - Living Quarters | 4,110 | 3 | 28 | Supplies - Surface | |
| 1 | 30 | Rentals - Surface | 51,000 | 2 | 30 | Rentals - Surface | 50,030 | 3 | 30 | Supplies - Living Quarters | |
| 1 | 31 | Rentals - Living Quarters | 27,472 | 2 | 31 | Rentals - Living Quarters | 42,490 | | 31 | Rentals - Surface | |
| 1 | 32 | Rentals - Downhole | 0 | 2 | 32 | Rentals - Downhole | 100000000000000000000000000000000000000 | 3 | | Rentals - Living Quarters | |
| 1 | 33 | Rentals - Pipe & Handling Tools | 0 | 2 | 33 | Rentals - Pipe & Handling Tools | 0 | 3 | 32 | Rentals - Downhole | |
| 1 | 34 | Rentals - Frac Stack | Ů | 2 | 34 | Rentals - Frac Stack | 150.095 | 3 | 33 | Rentals - Pipe & Handling Tools | |
| 1 | 35 | Rentals - Frac Tanks | | 2 | 35 | Rentals - Frac Tanks | | 3 | 34 | Rentals - Frac Stack | |
| 1 | 36 | Coil Tubing Unit/Workover Rig | | 2 | 36 | | 95,800 | 3 | 35 | Rentals - Frac Tanks | |
| 1 | 37 | Wireline/Slickline/Perforating | | 2 | 35 | Coil Tubing Unit/Workover Rig | 309,444 | 3 | 36 | Coil Tubing Unit/Workover Rig | 70,00 |
| 1 | 38 | Temporary Packers/Plugs | | 2 | 38 | Wireline/Slickline/Perforating | 501,550 | 3 | 37 | Wireline/Slickline/Perforating | |
| 1 | 39 | High Pressure Pump Truck | | 2 | | Temporary Packers/Plugs | 78,000 | 3 | 38 | Temporary Packers/Plugs | |
| 1 | 40 | Stimulation | | | 39 | High Pressure Pump Truck | 152,200 | 3 | 39 | High Pressure Pump Truck | |
| 1 | 41 | Rentals - Pressure Control | | 2 | 40 | Stimulation | 3,155,274 | 3 | 40 | Stimulation | |
| 1 | 42 | Flowback Services | | 2 | 41 | Rentals - Pressure Control | | 3 | 41 | Rentals - Pressure Control | |
| 1 | 43 | Water Transfer Services | | 2 | 42 | Flowback Services | 130,225 | 3 | 42 | Flowback Services | |
| 1 | 45 | | | 2 | 43 | Water Transfer Services | 172,125 | 3 | 43 | Water Transfer Services | |
| 1 | 45 | Flowback Water Trucking & Disposal | | 2 | 44 | Flowback Water Trucking & Disposal | 141,788 | 3 | 44 | Flowback Water Trucking & Disposal | |
| 1 | 46 | Permanent Equipment Installation | | 2 | 45 | Permanent Equipment Installation | | 3 | 45 | Permanent Equipment Installation | |
| 1 | | Pipeline Tapping Services | | 2 | 46 | Pipeline Tapping Services | | 3 | 46 | Pipeline Tapping Services | |
| _ | 47 | Plugging & Abandonment | 0 | 2 | 47 | Plugging & Abandonment | | 3 | 47 | Plugging & Abandonment | |
| 1 | 53 | Overhead | 9,444 | 2 | 53 | Overhead | 31,650 | 3 | 53 | Overhead | 5,000 |
| 1 | 54 | Insurance | 37,375 | 2 | 54 | Insurance | | 3 | 54 | Insurance | 3,00 |
| 1 | 55 | Contingency | 88,644 | 2 | 55 | Contingency | 560,956 | 3 | 55 | Contingency | 19,500 |

TANGIBLE DRILLING COSTS 56,106 155,550 389,325

TOTAL TANGIBLE DRILLING COSTS: \$600,981

TOTAL DRILLING COSTS: \$2,462,500

TOTAL INTANGIBLE DRILLING COSTS: \$1,861,519

| COST C | ODES | DESCRIPTION | AMOUNT |
|--------|------|---------------------------------------|--------|
| 5 | 60 | Conductor Casing | |
| 5 | 61 | Surface Casing | |
| 5 | 62 | 1st Intermediate Casing | |
| 5 | 63 | 2nd Intermediate Casing | |
| 5 | 64 | Production Casing | 22,50 |
| 5 | 65 | Tubing | |
| 5 | 66 | Wellhead | 40.00 |
| 5 | 67 | Permanent Packers/Hangers/Plugs | |
| 5 | 68 | Tanks | |
| 5 | 69 | Production Vessels | |
| 5 | 70 | Compressors | |
| 5 | 71 | Surface Flowlines | |
| 5 | 72 | Gathering Lines | |
| 5 | 73 | Valves & Controllers | |
| 5 | 74 | Artificial Lift Equipment | |
| 5 | 75 | Instrumentation & Measurement | |
| 5 | 76 | Electrical Grounding/Safety Equipment | |
| 5 | 77 | Permanent Equipment Installation | |
| 5 | 80 | Other - Surface | |
| 5 1 | 81 | Other - Downhole | |

TOTAL COMPLETION COSTS: \$7,810,651

TOTAL INTANGIBLE COMPLETION COSTS: \$7,748,151

TANGIBLE COMPLETION COSTS

| COS | CODES | DESCRIPTION | AMOUNT |
|-----|-------|---------------------------------------|--------|
| 6 | 60 | Conductor Casing | |
| 6 | 61 | Surface Casing | |
| 6 | 62 | 1st Intermediate Casing | |
| 6 | 63 | 2nd Intermediate Casing | |
| 6 | 64 | Production Casing | |
| 6 | 65 | Tubing | 60,000 |
| 6 | 66 | Wellhead | 43,500 |
| 6 | 67 | Permanent Packers/Hangers/Plugs | 5,000 |
| 6 | 68 | Tanks | |
| 6 | 69 | Production Vessels | 82,000 |
| 6 | 70 | Compressors | |
| 6 | 71 | Surface Flowlines | 50,000 |
| 6 | 72 | Gathering Lines | 10,000 |
| 6 | 73 | Valves & Controllers | |
| 6 | 74 | Artificial Lift Equipment | 35,000 |
| 6 | 75 | Instrumentation & Measurement | |
| 6 | 76 | Electrical Grounding/Safety Equipment | |
| 6 | 77 | Permanent Equipment Installation | |
| 6 | 80 | Other - Surface | |
| 6 | 81 | Other - Downhole | |

TOTAL PRODUCTION COSTS: \$500,000

TOTAL INTANGIBLE PRODUCTION COSTS: \$214,500

TOTAL WELL COST: \$10,773,151

| CEO | VP - EXPLORATION | |
|----------------|------------------|--|
| CFO | VP - OPERATIONS | |
| - LAND & LEGAL | SENIOR GEOLOGIST | |

| NON OPE | ERATING PARTNER APPROVAL: | |
|-----------------------|---------------------------|---|
| COMPANY | NAME: | |
| SIGNED BY: | TITLE: | _ |
| WORKING INTEREST (%): | DATE: | _ |
| TAX ID: | APPROVAL: | _ |

602 Park Point Dr, Golden, Colorado 80401 Authorization For Expenditure

Name: Poseidon 187H AFE #: 0 County: Lea State: NM

Date: August 29, 2019 MD/TVD: 20701 / 10041 Lateral Length: 10210 Geologic Target: Avalon

| | | | | | | lateral. | | | | |
|----------------------|--|-------------------|-----|----------|---|--------------------|-----|----------|--|-----------|
| COST COD | INTANGIBLE DRILLING COSTS DESCRIPTION | AMOUNT | | ST CODE | INTANGIBLE COMPLETION COSTS | | 100 | | INTANGIBLE PRODUCTION COSTS | |
| | Land - Legal | 10,000 | 2 | | | AMOUNT | 3 | ST CODE | | AMOUNT |
| 1 2 | Land - Regulatory | 5,000 | 2 | | Land - Regulatory | | 3 | 2 | Land - Regulatory | |
| 1 3 | Land - Surface Damages | 20,000 | 2 | 3 | Land - Surface Damages | | 3 | 3 | | |
| 1 4 | Land - Survey | 10,000 | 2 | | | | 3 | 4 | Land - Survey | |
| 1 5 | | 140,000 | 2 | | Location/Pit Construction | | 3 | 5 | | 5,0 |
| 1 6 | Remedial Dirtwork Reserve/Frac Pit Closing | 0 | 2 | | Remedial Dirtwork | | 3 | 6 | | |
| 1 8 | Drilling - Contractor | 466,169 | 2 | _ | Reserve/Frac Pit Closing Drilling - Contractor | | 3 | 7 8 | | |
| 1 9 | Mob/Rig Up - Contractor/Trucking | 123,250 | 2 | 200 | Mob/Rig Up - Contractor/Trucking | | 3 | | | |
| 1 10 | Cementing Services | 0 | 2 | 10 | | | 3 | 10 | | |
| 1 11 | Cementing Equipment | 0 | 2 | 11 | Cementing Equipment | | 3 | 11 | | |
| | Bits/Drill Out Assemblies | 0 | 2 | | Bits/Drill Out Assemblies | 140,586 | 3 | 12 | | |
| 1 13 | | 81,319 | 2 | | | | 3 | _ | | |
| | Fluids/Chemicals WBM Cuttings/Wastewater Disposal | 50,000 275,670 | 2 | - | Fluids/Chemicals | 114,278 | 3 | | Fluids/Chemicals | |
| | OBM Cuttings/Chemical Disposal | 2/5,6/0 | 2 | | WBM Cuttings/Wastewater Disposal OBM Cuttings/Chemical Disposal | | 3 | 15 | | |
| | Fuel/Power | 119,558 | 2 | | Fuel/Power | 662,500 | 3 | 16 | | |
| 1 18 | Water | 0 | 2 | | Water | 1,058,090 | 3 | 18 | | |
| 1 19 | Directional Drilling | 198,571 | 2 | 19 | Directional Drilling | 2,000,000 | 3 | 19 | | |
| | Mud Logging | 18,085 | 2 | 20 | Mud Logging | | 3 | 20 | | 100 |
| | Open/Cased/Production Hole Logs | 0 | 2 | - | Open/Cased/Production Hole Logs | 10,550 | 3 | 21 | | |
| 1 22 | Coring | 0 | 2 | | Coring | | 3 | 22 | | |
| 1 24 | Geologic Supervision Engineering Supervision | 0 | 2 | | Geologic Supervision | | 3 | 23 | | |
| 111 | Consultant Supervision | 107,602 | 2 | 24 | Engineering Supervision | 284.444 | 3 | 24 | PARTICIPATE THE PROPERTY OF THE PARTICIPATE TH | |
| | Freight/Transportation | 20,000 | 2 | | Consultant Supervision | 156,000 | 3 | 25 | | 20,00 |
| 1 27 | Labor | 0 | 2 | | Freight/Transportation Labor | 4,110 22,190 | 3 | 26 | | 10,00 |
| 1 28 | Supplies - Surface | 2,500 | 2 | 28 | Supplies - Surface | 4,110 | 3 | 27 | | 85,00 |
| 1 29 | Supplies - Living Quarters | 1,000 | 2 | 29 | Supplies - Living Quarters | 4,110 | 3 | | | |
| | Rentals - Surface | 51,061 | 2 | 30 | Rentals - Surface | 50,030 | 3 | 30 | The state of the s | |
| 1 31 | Rentals - Living Quarters | 27,498 | 2 | | Rentals - Living Quarters | 42,490 | 3 | 31 | Rentals - Living Quarters | |
| 1 32 | Rentals - Downhole | 0 | 2 | | Rentals - Downhole | 0 | 3 | 32 | Rentals - Downhole | |
| | Rentals - Pipe & Handling Tools Rentals - Frac Stack | 0 | 2 | 33 | Rentals - Pipe & Handling Tools | 0 | 3 | 33 | Rentals - Pipe & Handling Tools | |
| | Rentals - Frac Tanks | | 2 | | Rentals - Frac Stack | 150,095 | 3 | 34 | | |
| | Coll Tubing Unit/Workover Rig | | 2 | 35 36 | Rentals - Frac Tanks | 95,800 | 3 | 35 | Rentals - Frac Tanks | - |
| 1 37 | Wireline/Slickline/Perforating | | 2 | | Coll Tubing Unit/Workover Rig Wireline/Slickline/Perforating | 309,444 501,550 | 3 | 36 37 | Coil Tubing Unit/Workover Rig | 70,00 |
| 1 38 | Temporary Packers/Plugs | | 2 | 38 | Temporary Packers/Plugs | 78,000 | 3 | 38 | Wireline/Slickline/Perforating Temporary Packers/Plugs | |
| | High Pressure Pump Truck | | 2 | 39 | High Pressure Pump Truck | 152,200 | 3 | 39 | | |
| | Stimulation | | 2 | 40 | Stimulation | 3,155,274 | 3 | 40 | | |
| 1 41 | Rentals - Pressure Control | | 2 | 41 | Rentals - Pressure Control | | 3 | 41 | Rentals - Pressure Control | |
| 1 42 | Flowback Services | _ | 2 | 42 | | 130,225 | 3 | 42 | Flowback Services | |
| | Water Transfer Services Flowback Water Trucking & Disposal | | 2 | 43 | Water Transfer Services | 172,125 | 3 | 43 | Water Transfer Services | |
| 1 45 | Permanent Equipment Installation | | 2 | 44 | Flowback Water Trucking & Disposal | 141,788 | 3 | 44 | Flowback Water Trucking & Disposal | |
| 1 46 | Pipeline Tapping Services | | 2 | 45 | Permanent Equipment Installation Pipeline Tapping Services | | 3 | 45 | Permanent Equipment Installation | |
| 1 47 | Plugging & Abandonment | 0 | 2 | 47 | Plugging & Abandonment | | 3 | 46 | Pipeline Tapping Services | |
| | Overhead | 9,456 | 2 | 53 | Overhead | 31,650 | 3 | 53 | | 5,00 |
| | Insurance | 37,262 | 2 | 54 | Insurance | | 3 | 54 | Insurance | 5,00 |
| 1 55 | Contingency | 88,700 | 2 | 55 | Contingency | 560,956 | 3 | 55 | Contingency | 19,50 |
| | TOTAL INTANGIBLE DRILLING COSTS | \$1,862,700 | | | TOTAL INTANGIBLE COMPLETION COSTS: | \$7,748,151 | | | TOTAL INTANGIBLE PRODUCTION COSTS: | \$214,500 |
| | TANGIBLE DRILLING COSTS | | | | | | | | | |
| COST CODE | DESCRIPTION | AMOUNT | cos | T CODES | TANGIBLE COMPLETION COSTS DESCRIPTION | AMOUNT | cos | T CODES | TANGIBLE PRODUCTION COSTS DESCRIPTION | AMOUNT |
| 4 60 4 61 | Conductor Casing | 0 | 5 | 60 | Conductor Casing | | 6 | 60 | Conductor Casing | AMOUNT . |
| 4 62 | Surface Casing 1st Intermediate Casing | 56,106 | 5 | 61 | Surface Casing | | 6 | 61 | Surface Casing | |
| | 2nd Intermediate Casing | 155,550 | 5 | 62 | 1st Intermediate Casing | | 6 | 62 | 1st Intermediate Casing | |
| | Production Casing | 388,144 | 5 | 63 | 2nd Intermediate Casing | | 6 | 63 | 2nd Intermediate Casing | |
| 4 65 | Tubing | 300,144 | 5 | 65 | Production Casing Tubing | 22,500 | 6 | 64 | Production Casing | |
| 4 66 | Wellhead | 0 | 5 | 66 | Wellhead | 40,000 | 6 | 65 66 | Tubing | 60,00 |
| 4 67 | Permanent Packers/Hangers/Plugs | | 5 | 67 | Permanent Packers/Hangers/Plugs | 40,000 | 6 | 67 | Wellhead | 43,50 |
| - | Tanks | | 5 | 68 | Tanks | | 6 | 68 | Permanent Packers/Hangers/Plugs Tanks | 5,00 |
| 4 69 | Production Vessels | | 5 | 69 | Production Vessels | | 6 | 69 | Production Vessels | 02.00 |
| 4 70 | Compressors | | 5 | 70 | Compressors | | 6 | 70 | Compressors | 82,000 |
| 4 71 | Surface Flowlines | | 5 | 71 | Surface Flowlines | | 6 | 71 | Surface Flowlines | 50.000 |
| 200 | Gathering Lines | | 5 | | Gathering Lines | | 6 | 72 | Gathering Lines | 10,000 |
| | Valves & Controllers Artificial Lift Equipment | | 5 | 73 | Valves & Controllers | | 6 | 73 | Valves & Controllers | 20,000 |
| 4 75 | Instrumentation & Measurement | | 5 | 74 | Artificial Lift Equipment | | 6 | 74 | Artificial Lift Equipment | 35,000 |
| | Electrical Grounding/Safety Equipment | | 5 | 75 | Instrumentation & Measurement | | 6 | 75 | Instrumentation & Measurement | |
| | Permanent Equipment Installation | | 5 | 77 | Electrical Grounding/Safety Equipment | | 6 | 76 | Electrical Grounding/Safety Equipment | |
| 4 77 | | | | 11 | Permanent Equipment Installation | | 6 | 77 | Permanent Equipment Installation | |
| 4 77 4 80 | Other - Surface | | 5 | 80 | Other - Surface | | 02 | - | aut a r | |
| 4 77 4 80 4 81 | Other - Surface Other - Downhole | | 5 | 80 | Other - Surface Other - Downhole | | 6 | | Other - Surface | |
| 4 80 | Other - Surface | \$599,800 | | | Other - Surface Other - Downhole TOTAL TANGIBLE COMPLETION COSTS: | ¢62 F00 | 6 | | Other - Surface Other - Downhole TOTAL TANGIBLE PRODUCTION COSTS: | \$285,500 |

| TAP ROCK RESOR | URCES COMPANY APPROVAL: | | NON OPERATING PARTNER APPROVAL | | | | |
|-------------------|-------------------------|-----------------------|--------------------------------|--|--|--|--|
| CEO | VP - EXPLORATION | co | DMPANY NAME: | | | | |
| CFO | VP - OPERATIONS | SIGNED BY: | TITLÉ: | | | | |
| VP - LAND & LEGAL | SENIOR GEOLOGIST | WORKING INTEREST (%): | DATE: | | | | |
| | | TAX ID: | APPROVAL: | | | | |

TOTAL WELL COST: \$10,773,151

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

APPLICATION OF TAP ROCK OPERATING, LLC
FOR A STANDARD HORIZONTAL SPACING
AND PRORATION UNIT AND COMPULSORY POOLING,
LEA COUNTY, NEW MEXICO

Case No. 21062

AFFIDAVIT OF EMILY LANGE

I, being duly sworn on oath, state the following:

- 1. I am over the age of 18, and I have personal knowledge of the matters stated herein.
- 2. I am employed as a petroleum geologist for Tap Rock Operating, LLC ("Tap Rock"), and I am familiar with the subject applications and the geology involved.
- 3. This affidavit is submitted in connection with the filing by Tap Rock of the above-referenced compulsory pooling applications pursuant to 19.15.4.12.A(1) NMAC.
- 4. I have previously testified before the New Mexico Oil Conservation Division as an expert witness in petroleum geology matters. My credentials as a petroleum geologist have been accepted by the Division and made a matter of record.
 - a. I hold a Bachelor's degree in Geology from the University of Southern California, which I completed in 2012. I am currently working towards a Master's degree in Geology at Southern Methodist University.
 - b. I have been employed as a petroleum geologist since 2013. I have worked in New Mexico since 2015.
- 5. **Exhibit** is a Project Locator Map depicting the location of the Horizontal Spacing Unit ("HSU") within the Delaware Basin. Within Sections 4 & 9 of 24S 33E, are the Poseidon



State Com 101H, 102H, 105H, 107H, 171H, 172H, 175H, 181H, 182H, 185H, 187H Wells (the "Wells").

- 6. **Exhibit** is a Gun Barrel Diagram showing the planned Avalon horizontal spacing for the Wells. This diagram shows the projected development of the 11 Avalon Wells, spaced 660' away from the nearest well in the same zone, represented by beige circles. A nearby type log has been included (for log descriptions, see exhibit 11 below) to show approximate depths and reservoir quality of the selected landing zones. Also displayed are the nearby previously drilled wells, represented by green circles.
- Poseidon HSU outlined by the red box. The surface/bottom hole location of the Wells are shown, zoomed in, to the right. The map is the top of the Bone Spring formation in sub-sea vertical depth. The contour intervals are 25 ft each. There is a monoclinal dip down to the south. The orientation of the Poseidon Wells will each be approximately along dip. There are 3 horizontal wells to the east that have targeted similar intervals. All the horizontal wells marked with green circles are Avalon producers. The vertical & horizontal wells controlling the structure map have the sub-sea vertical depth posted in pink. The subsequent cross-section from A-A' is also identified to locate our closest control on the reservoir properties for the Poseidon Wells. I do not observe any faulting, pinch-outs, or other geologic impediments or hazards to developing this targeted interval with a horizontal well.
- 8. **Exhibit** is an Avalon Stratigraphic Cross-Section (flattened on the Bone Spring surface). All displayed type logs have a triple combo log (except for the 4th well on the far right, which doesn't have resistivity coverage across this interval). Track 1 has a gamma ray log with interpreted color fill for lithology and scaled from 0 to 200 api units and a caliper log scaled from

0 to 16. For gamma ray, the blue colors indicate carbonate, yellow to orange are sandstone/siltstones, and the darker browns are shale facies. For caliper, higher values indicate irregularities in hole diameter. Track 2 has the deep resistivity log, scaled from 0.2 ohmm to 2000 ohmm. The blue shading cutoff is at 50 ohmm or less to help identify the more siliciclastic rocks. Track 3 is the porosity track and contains the red neutron porosity curve and the blue density porosity curve, both scaled from 30% to -10%. The pink shading on the neutron porosity curve highlights anything greater than 15% to identify zones with increased clay content. The green shading on the density porosity curve highlights anything greater than 10% porosity. This cutoff indicates the best rock properties for reservoir evaluation. The cross-section identifies the key tops used to evaluate reservoirs and landing targets for the Poseidon Wells. Simplified wellbores for the Poseidon Wells are on the cross-section showing the landing target intervals in the green shaded box. The targeted reservoir has a constant thickness of approximately 1000' and exhibits constant reservoir facies throughout the HSU.

- 9. **Exhibit** 2 is an Isopach map of the Gross Avalon interval. This map shows the location of the Poseidon HSU outlined by the red box. The surface/bottom hole location of the Poseidon Wells are shown, zoomed in, to the right. The anticipated gross thickness of the interval is 1000 ft throughout the HSU. The contour intervals are 25°. There are 3 horizontal wells to the east that have targeted similar intervals. All the horizontal wells marked with green circles are Avalon producers. The location of the previous cross-section from A-A' is also shown on this map.
 - 10. Based on my geologic study of the area, I conclude the following:
 - The horizontal spacing and proration unit is justified from a geologic standpoint.
 - There are no structural impediments or faulting that will interfere with horizontal development.

- Each quarter-quarter section in the unit will contribute more or less equally to production.
- d. The preferred well orientation in this area is south-north. This is because the inferred orientation of the maximum horizontal stress is roughly northwestsoutheast.
- 11. **Exhibit 13** shows a Simplified Wellbore Diagram for each of the Wells in the HSU and demonstrate that the first and last take points for each well will be standard.
- 12. The Exhibits to this Affidavit were prepared by me, or compiled from Tap Rock's company business records.
- 13. The granting of this Application is in the interests of conservation and the prevention of waste.
 - 14. The foregoing is correct and complete to the best of my knowledge and belief.

FURTHER AFFIANT SAYETH NAUGHT

Emily Lange EMILYLANGE

STATE OF COLORADO))ss COUNTY OF JEFFERSON)

Subscribed to and sworn before me this 315 day of January, 2020.

ERICA ROCHELLE HIXSON Notary Public State of Colorado Notary ID # 20174044145 My Commission Expires 10-24-2021

Notary Public

My Commission expires 10-24-2021

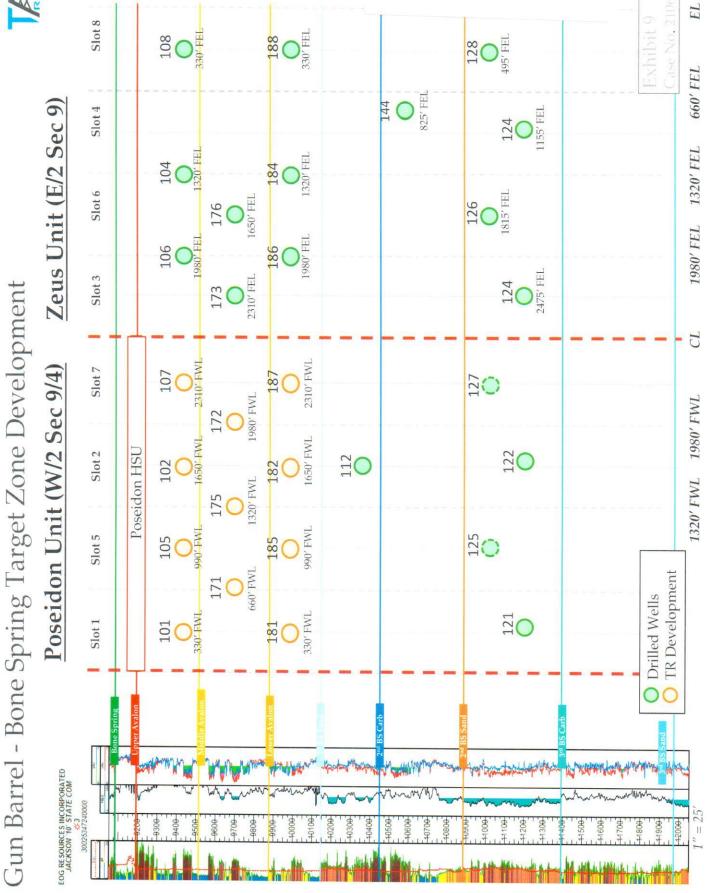
Project Locator Map



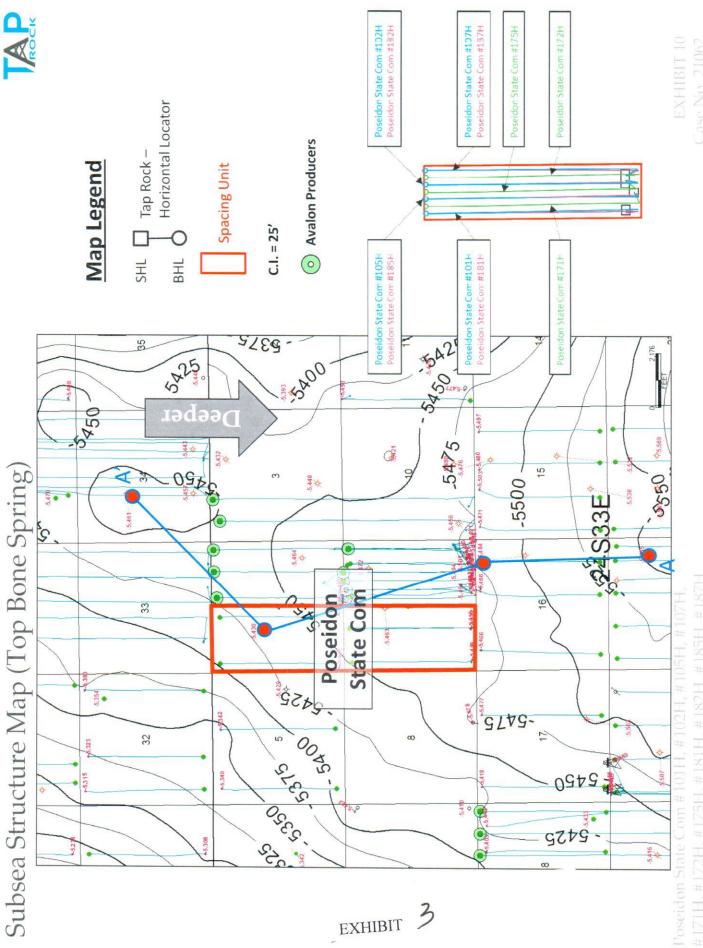
Oseidon State Com #101H, #102H, #105H, #107H, 171H, #172H, #175H, #181H, #182H, #185H, #187H

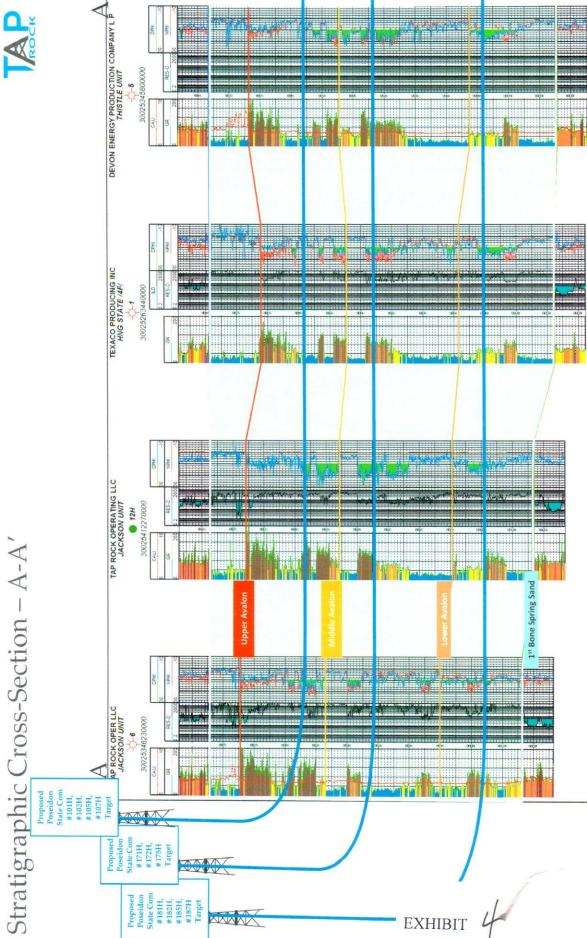
EXHIBIT 2







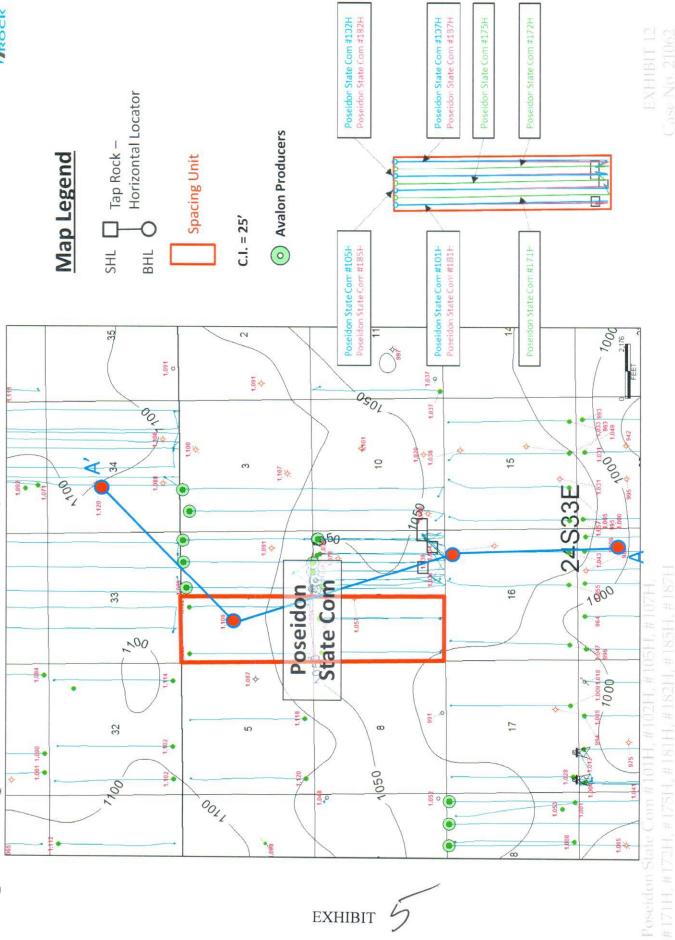




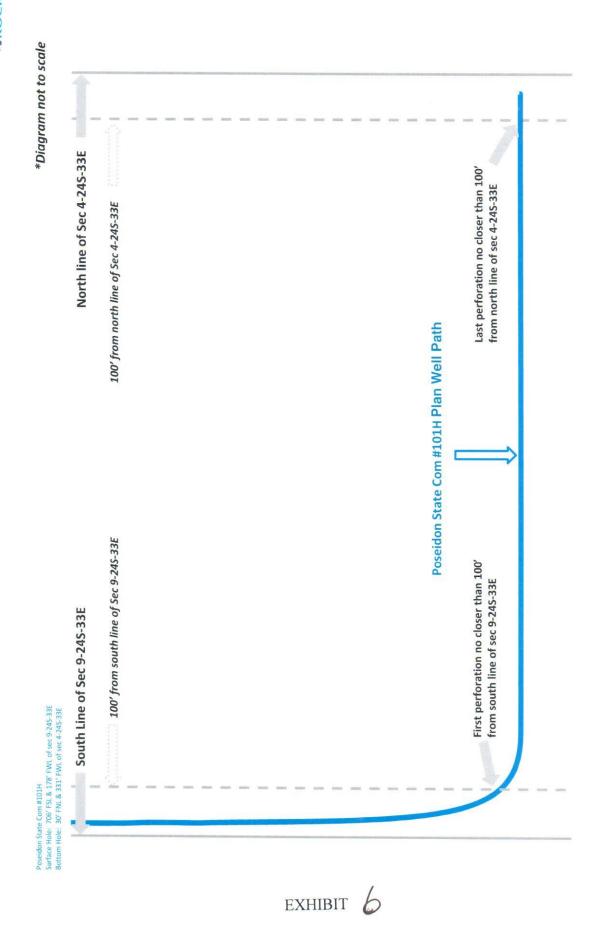
1'' = 15'



Isopach map (Gross Avalon Interval)

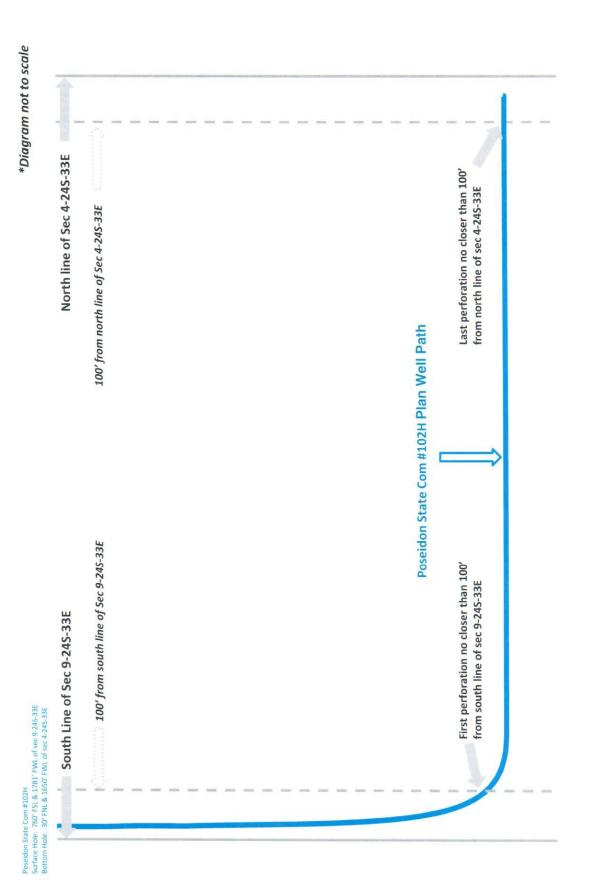


Poseidon State Com #101H (2 mile S-N Lateral)



Poseidon State Com #102H (2 mile S-N Lateral)



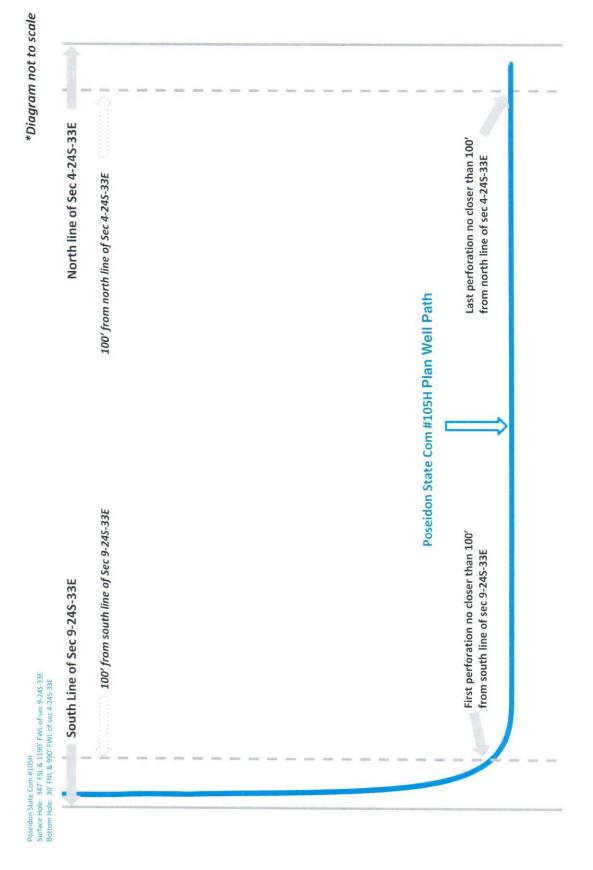


eidon State Com #101H, #102H, #105H, #107H, 1H, #172H, #175H, #181H, #182H, #185H, #187F

N

Poseidon State Com #105H (2 mile S-N Lateral)

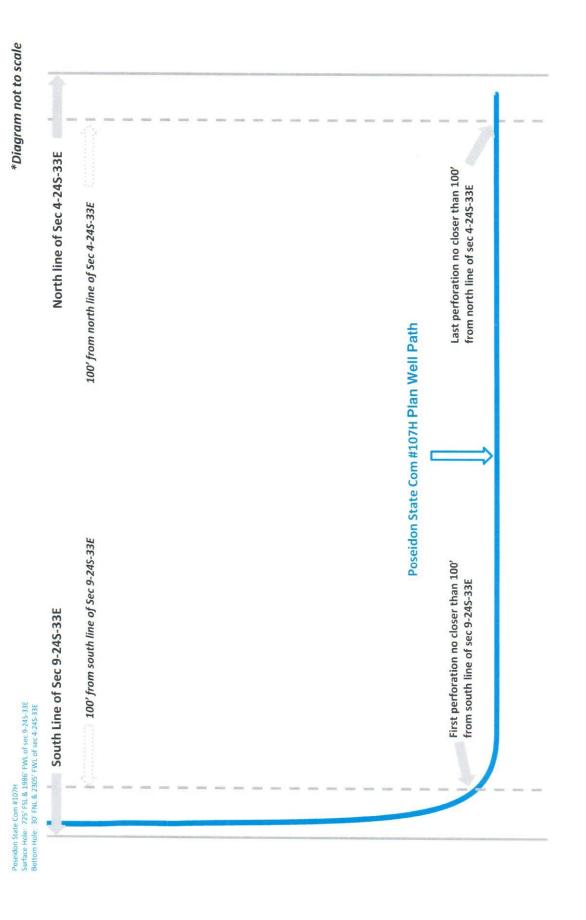




Poseidon State Com #101H, #102H, #105H, #107H, #171H, #172H, #175H, #181H, #182H, #185H, #187H

Poseidon State Com #107H (2 mile S-N Lateral)



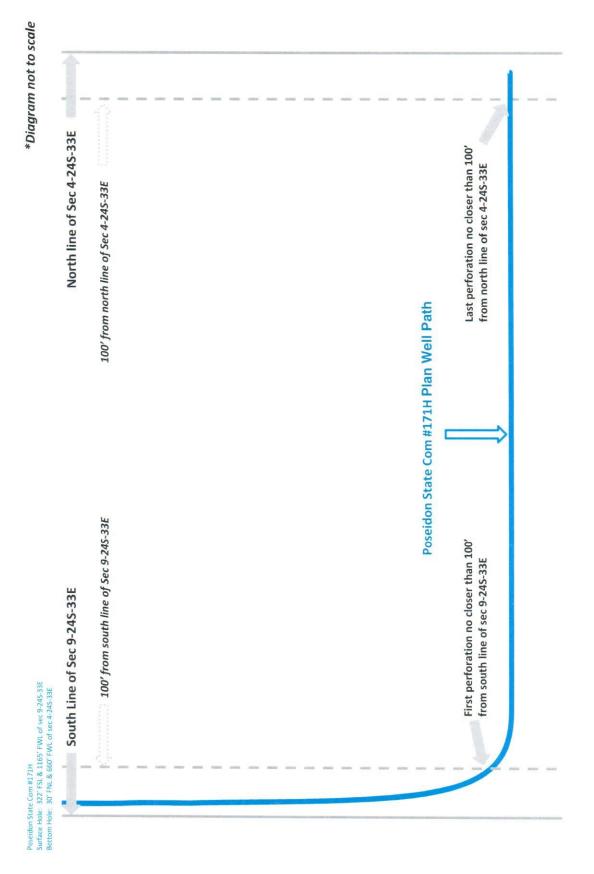


Poseidon State Com #101H, #102H, #105H, #107H, #171H, #172H, #175H, #181H, #182H, #185H, #187

14

Poseidon State Com #171H (2 mile S-N Lateral)





Poseidon State Com #101H, #102H, #105H, #107H, #171H, #172H, #175H, #181H, #182H, #185H, #187H

Case No. 21062

JAMES BRUCE ATTORNEY AT LAW

POST OFFICE BOX 1056 SANTA FE, NEW MEXICO 87504

369 MONTEZUMA, NO. 213 SANTA FE, NEW MEXICO 87501

(505) 982-2043 (Phone) (505) 660-6612 (Cell) (505) 982-2151 (Fax)

jamesbruc@aol.com

January 16, 2020

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

To: Persons on Exhibit A

Ladies and gentlemen:

Enclosed is an application for compulsory pooling, filed with the New Mexico Oil Conservation Division by Tap Rock Resources, LLC, regarding Bone Spring wells in the W/2 of Section 4 and the W/2 of Section 9, Township 24 South, Range 33 East, NMPM, Lea County, New Mexico.

This case is scheduled for hearing at 8:15 a.m. on Thursday, February 6, 2020, in Porter Hall at the Division's offices at 1220 South St. Francis Drive, Santa Fe, New Mexico 87505. You are not required to attend this hearing, but as an interest owner 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 contesting this matter at a later date.

A party appearing in a Division case is required by Division Rules to file a Pre-Hearing Statement no later than Wednesday, January 30, 2020. This statement must be filed with the Division's Santa Fe office at the above address, and should include: The names of the party and its attorney; a concise statement of the case; the names of the 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 need to be resolved prior to the hearing. The Pre-Hearing Statement must also be provided to the undersigned.

Very truly yours,

James Bruce

Attorney for Tap Rock Resources, LLC

ATTACHMENT

EXHIBIT A

Murchison Oil & Gas, Inc. JD Murchison Interests, Inc. Legacy Tower One Suite 1400 7250 Dallas Parkway Plano, Texas 75024

MEC Petroleum Corp. P.O. Box 11265 Midland, Texas 79702

EOG Resources, Inc. 5509 Champions Drive Midland, Texas 79706

Fulfer Oil & Cattle Company, LLC P.O. Box 1224 Jal, New Mexico 88252

Mesa Southwest Energy, LLC Suite 260W 8117 Preston Road Dallas, Texas 75225

Devon Energy Production Company, L.P. 333 West Sheridan Oklahoma City, Oklahoma 73102

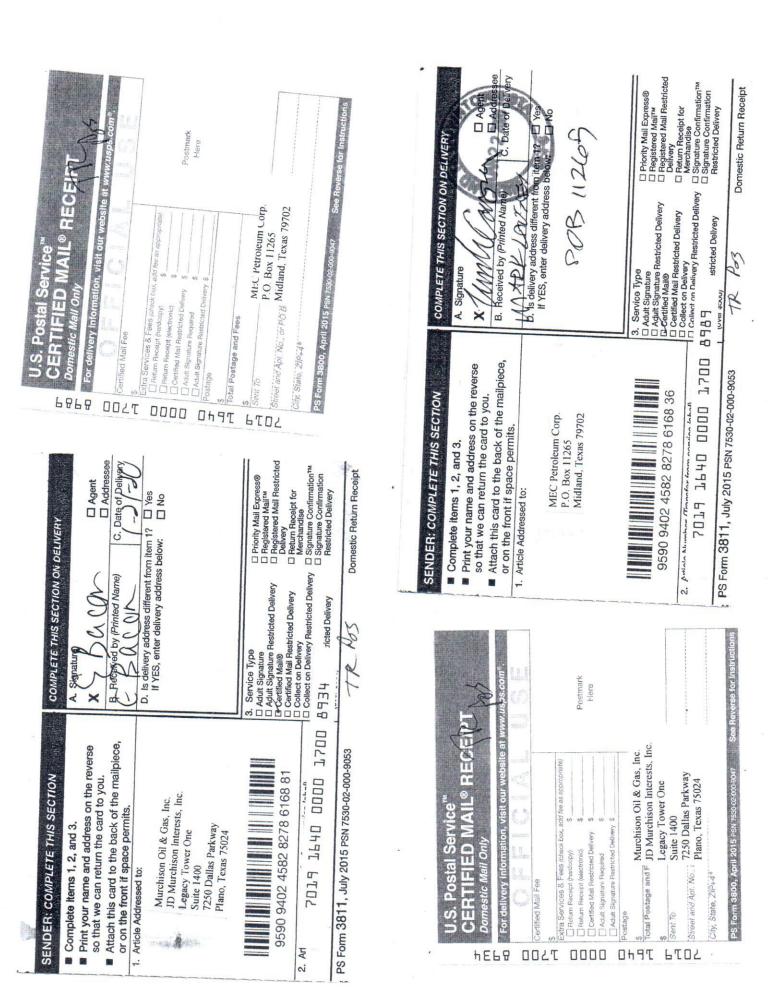
| For delivery information, visit our website at www.usps.com*. | Postma | Street and Apt. A. Fulfer Oil & Cattle Company, LLC P.O. Box 1224 City, State, ZiP++, Jal, New Mexico 88252 PS Form 3800, April 2015 PSN 7580-02-000-8047 See Reverse for Instructions | piece, | 3 Service Type Adult Signature Adult Signatur |
|---|---|--|--|--|
| COMPLETE THIS SECTION ON DELIVERY | A. Signature X. Cit. Addressee B. Received by (Printed Name) (1) Copie of Delivery B. Received by (Printed Name) (1) Copie of Delivery D. Is delivery address different from item 1? Tops If YES, enter delivery address below: \(\text{In No.} \) | 3. Service Type Adult Signature Adult Signature Adult Signature Restricted Delivery Certified Mail® B H J y Restricted Delivery Signature Confirmation Signature Confirmation Signature Confirmation Insured Mail Restricted Delivery Signature Confirmation Insured Mail Restricted Delivery Over \$500 Domestic Return Receipt | SENDER: COMPLETE THIS SECTION Complete items 1, 2, and 3. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. Article Addressed to: Fulfer Oil & Cattle Company, LLC P.O. Box 1224 Postmark Here | 2. 7019 1640 0000 1 |
| SENDER: COMPLETE THIS SECTION | overse ilpiece, | 2. Article Number (Transfer) | U.S. Postal Service" CERTIFIED MAIL® RECEIVET Domestic Mail only For delivery information, visit our website at www.us. Certified Mail Fee Lextra Services & Fees (check tox, add fee as appropriate) Lextra Services & Fees (check tox, add fee as appropriate) Certified Mail Fee Lextra Services & Fees (check tox, add fee as appropriate) Lextra Services & Fees (check tox, add fee as appropriate) Lextra Services & Fees (check tox, add fee as appropriate) Lextra Services & Fees (check tox, add fee as appropriate) Lextra Services & Fees (check tox, add fee as appropriate) Lextra Services & Fees (check tox, add fee as appropriate) Lextra Services & Fees (check tox, add fee as appropriate) Lextra Services & Fees (check tox, add fee as appropriate) Lextra Services & Fees (check tox, add fee as appropriate) Lextra Services & Fees (check tox, add fee as appropriate) Lextra Services & Fees (check tox, add fee as appropriate) Lextra Services & Fees (check tox, add fee as appropriate) Lextra Services & Fees (check tox, add fee as appropriate) Lextra Services & Fees (check tox, add fee as appropriate) Lextra Services & Fees (check tox, add fee as appropriate) | Total Postage and Fees Sent To Devon Energy Production Company, L.P. Street and A 333 West Sheridan City, State, 2/P+4* |

sstricted Delivery

PS Form 3811, July 2015 PSN 7530-02-000-9053

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

Domestic Return Receipt



| U.S. Postal Service [™] CERTIFIED MAIL® RECEIPT - Domestic Mail Only For delivery information, visit our website at www.usps.com [®] . Certified Mail Fee Stata Services & Fees (check tox, outs ee appropriate) - Takeun Respired (electronic) - Return Respired (electronic) - Adult Signature Respired Delivery \$ - Adult Signature Respired Delivery \$ - Adult Signature Respired Delivery \$ - Outlined Mail Respired Delivery \$ - Outlined Deliver | Street and Fees Street To Suite 260W Street and A 8117 Preston Road Dallas, Texas 75225 Prestorm 3800, April 2016 PSN 783002-000-0047 See Reverse for instructions | A. Signature A. Signature X. M. M. M. M. M. M. M. Addressee B. Received by (Printed Name) C. Date of Delivery C. Date of Delivery J. 4-3030 D. Is delivery address different from item 1? If YES, enter delivery address below: If YES, enter delivery address below: D. No | 3. Service Type Adult Signature Restricted Delivery Registered Mail Restricted Delivery Registered Mail Restricted Delivery Registered Mail Restricted Delivery Return Receipt for Merchandise Collect on Delivery Signature Confirmation B S B S B S B S B S B S B S B S B S B S B S B B S B S B B B B |
|---|---|---|--|
| Addressee Addressee Bear Add | D Priority Mail Express® | Complete items 1, 2, and 3. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. Article Addressed to: Mesa Southwest Energy, LLC Suite 260W 8117 Preston Road Dallas, Texas 75225 | 2. Article Number (Transfer formand) 2. Article Number (Transfer formand) 7019 1640 0000 1700 |
| SENDER: COMPLETE THIS SECTION Complete items 1, 2, and 3. Print your name and address on the reverse so that we can refurn the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. Article Addressed to: EOG Resources, Inc. S509 Champions Drive Midland, Texas 79706 | 3. Service Type Adult Signature 1998 | U.S. Postal Service" CERTIFIED MAIL® RECERT Domestic Mail Only For delivery Information, visit our website at www.usps.com*. Certified Mail Fee Kira Services & Fees (alectronic) Ratun Receipt (alectronic) Certified Mail Restricted Delivery s Adult Sgrature Required Adult Sgrature Required Certified Delivery s Adult Sgrature Required Postage Postage | Constitution of the Consti |

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

APPLICATIONS OF TAP ROCK RESOURCES, LLC FOR COMPULSORY POOLING, LEA COUNTY, NEW MEXICO.

| Case No. | 21062 | |
|----------|-------|--|
| C | | |

SELF-AFFIRMED STATEMENT OF NOTICE

| | SELF-AFFIRMED STATEMENT OF NOTICE |
|---------------------------------|---|
| COUNTY OF | |
| STATE OF N |) ss. EW MEXICO) |
| James | Bruce deposes and states: |
| 1. | I am over the age of 18, and have personal knowledge of the matters stated herein. |
| 2. | I am an attorney for Tap Rock Resources, LLC. |
| 3. names and co filed herein. | Tap Rock Resources, LLC has conducted a good faith, diligent effort to find the rrect addresses of the interest owners entitled to receive notice of the applications |
| 4. addresses, by hereto as Atta | Notice of the applications was provided to the interest owners, at their last known certified mail. Copies of the notice letter and certified return receipts are attached chment A. |
| 5. | Applicant has complied with the notice provisions of Division Rules. |
| made under pe | I understand that this Self-Affirmed Statement will be used as written testimony affirm that my testimony in paragraphs 1 through 5 above is true and correct and is enalty of perjury under the laws of the State of New Mexico. My testimony is made handwritten next to my signature below. James Bruce |
| | |

EXHIBIT (

Affidavit of Publication

STATE OF NEW MEXICO COUNTY OF LEA

I, Todd Bailey, Editor of the Hobbs News-Sun, a newspaper published at Hobbs, New Mexico, solemnly swear that the clipping attached hereto was published in the regular and entire issue of said newspaper, and not a supplement thereof for a period of 1 issue(s).

> Beginning with the issue dated January 26, 2020 and ending with the issue dated January 26, 2020.

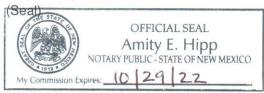
Editor

Sworn and subscribed to before me this 26th day of January 2020.

Circulation Clark

Ollocatation Olonk

My commission expires October 29, 2022



This newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Laws of 1937 and payment of fees for said

LEGAL

LEGAL

LEGAL NOTICE JANUARY 26, 2020

To: Murchison Oil & Gas, Inc., JD Murchison Interests, Inc., MEC Petroleum Corp., EOG Resources, Inc., Fulfer Oil & Cattle Company, LLC, Mesa Southwest Energy, LLC, and Devon Energy Production Company, L.P., or your successors or assigns: Tap Rock Resources, LLC seeks an order problem. assigns: Tap Rock Resources, LLC seeks an order pooling all mineral interests in the Wolfcamp formation underlying a (proximity tract) horizontal spacing unit comprised of the W/2 of Section 4 and the W/2 of Section 9, Township 24 South, Range 33 East, NMPM, Lea County, New Mexico. The unit will be dedicated to (a) the Poseidon State Com. Well Nos. 101H, 105H, 171H, 181H, and 185H, with first take points in the SW/4SW/4 of Section 9 and last take points in the NW/4NW/4 of Section 4; and (b) the Poseidon State Com. Well Nos. 102H, 107H, 172H, 175H, 182H, and 187H, with first take points 172H, 175H, 182H, and 187H, with first take points in the SE/4SW/4 of Section 9 and last take points in the NE/4NW/4 of Section 4. Also to be considered will be the cost of drilling and completing the wells and the allocation of the cost thereof, as well as actual operating costs and charges for supervision, designation of Tap Rock Operating, LLC as operator of the wells, and a 200% charge for the risk involved in drilling and completing the wells. The application is scheduled to be heard at 8:15 a.m. on Thursday, February 6, 2020 at the Division's offices at 1220 South St. Francis Drive, Santa Fe, New Mexico 87505. As an interest owner to the well unit you have the right to enter an appearance and participate in the case. Failure to appear will preclude you from contesting this matter at a later date. The attorney for applicant is James Bruce, P.O. Box 1056, Santa Fe, New Mexico 87504. The unit is located approximately 24 miles west-northwest of Jal, New Mexico. #35110

EXHIBIT

D

01101711

00238691

JAMES BRUCE JAMES BRUCE, ATTORNEY AT LAW P.O. BOX 1056 SANTA FE, NM 87504

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

APPLICATION OF TAP ROCK RESOURCES, LLC FOR COMPULSORY POOLING, LEA COUNTY, NEW MEXICO.

| Case | No. | |
|------|-----|--|
| | | |

APPLICATION

Tap Rock Resources, LLC applies for an order pooling all uncommitted mineral interests in the Bone Spring formation underlying a (proximity tract) horizontal spacing unit comprised of the W/2 of Section 4 and the W/2 of Section 9, Township 24 South, Range 33 East, NMPM, Lea County, New Mexico, and in support thereof, states:

- 1. Applicant is a working interest owner in the W/2 of Section 4 and the W/2 of Section 9, and has the right to drill a well thereon.
- 2. Applicant proposes to drill the following wells to a depth sufficient to test the Bone Spring formation:
- (a) the Poseidon State Com. Well Nos. 101H, 105H, 171H, 181H, and 185H, with first take points in the SW/4SW/4 of Section 9 and last take points in the NW/4NW/4 of Section 4; and
- (b) the Poseidon State Com. Well Nos. 102H, 107H, 172H, 175H, 182H, and 187H, with first take points in the SE/4SW/4 of Section 9 and last take points in the NE/4NW/4 of Section 4.

 The W/2 of Section 4 and the W/2 of Section 9 will be dedicated to the wells.
- 3. Applicant has in good faith sought to obtain voluntary joinder of all other mineral interest owners in the W/2 of Section 4 and the W/2 of Section 9.

EXHIBIT E

- 4. Although applicant attempted to obtain to obtain voluntary agreements from all mineral interest owners to participate in the drilling of the wells or to otherwise commit their interests to the wells., certain interest owners have failed or refused to join in dedicating their interests. Therefore, applicant seeks an order pooling all mineral interest owners in the Bone Spring formation underlying the W/2 of Section 4 and the W/2 of Section 9, pursuant to NMSA 1978 §70-2-17.
- 5. The pooling of mineral interests in the Bone Spring formation underlying the W/2 of Section 4 and the W/2 of Section 9 will avoid the drilling of unnecessary wells, prevent waste, and protect correlative rights.

WHEREFORE, applicant requests that, after notice and hearing, the Division enter its order:

- A. Pooling all uncommitted mineral interests in Bone Spring formation underlying the W/2 of Section 4 and the W/2 of Section 9;
- B. Designating Tap Rock Operating, LLC as operator of the well;
- Considering the cost of drilling and completing the wells, and allocating the costs thereof among the wells' working interest owners;
- Approving actual operating charges and costs charged for supervision, together
 with a provision adjusting the rates pursuant to the COPAS accounting procedure;
 and
- E. Setting a 200% charge for the risk assumed by applicant in drilling and completing the wells in the event a working interest owner elects not to participate in the wells.

Respectfully submitted,

James Bruce

Post Office Box 1056

Santa Fe, New Mexico 87504

(505) 982-2043

jamesbruc@aol.com

Attorney for Tap Rock Resources, LLC

PROPOSED ADVERTISEMENT

| ~ | | |
|------|------|--|
| Case | Ma | |
| Cuse | IVU. | |

Application of Tap Rock Resources, LLC for a compulsory pooling, Lea County, New Mexico. Tap Rock Resources, LLC seeks an order pooling all mineral interests in the Bone Spring formation underlying a (proximity tract) horizontal spacing unit comprised of the W/2 of Section 4 and the W/2 of Section 9, Township 24 South, Range 33 East, NMPM, Lea County, New Mexico. The unit will be dedicated to (a) the Poseidon State Com. Well Nos. 101H, 105H, 171H, 181H, and 185H, with first take points in the SW/4SW/4 of Section 9 and last take points in the NW/4NW/4 of Section 4; and (b) the Poseidon State Com. Well Nos. 102H, 107H, 172H, 175H, 182H, and 187H, with first take points in the SE/4SW/4 of Section 9 and last take points in the NE/4NW/4 of Section 4. Also to be considered will be the cost of drilling and completing the wells and the allocation of the cost thereof, as well as actual operating costs and charges for supervision, designation of Tap Rock Operating, LLC as operator of the wells, and a 200% charge for the risk involved in drilling and completing the wells. The unit is located approximately 24 miles west-northwest of Jal, New Mexico.

COMPULSORY POOLING APPLICATION CHECKLIST

| Case: | 21062 | |
|--|--|--|
| Date | February 20, 2020 | |
| Applicant | Tap Rock Resources, LLC | |
| Designated Operator & OGRID | Tap Rock Operating, LLC/OGRID No. 372043 | |
| (affiliation if applicable) | The operator is the operating entity for applicant | |
| Applicant's Counsel: | James Bruce | |
| Case Title: | | |
| case ritie. | Application of Tap Rock Resources, LLC for Compulsory Pooling, Lea County, New Mexico | |
| Entries of Appearance/Intervenors: | EOG Resources, Inc./Holland & Hart, LP | |
| Well Family | Poseidon State Com. Well Nos. 101H, 102H, 105H, 107H, 171H, 172H 175H, 181H, 182H, 185H, and 187H | |
| Formation/Pool | | |
| Formation Name(s) or Vertical Extent: | Bone Spring formation | |
| Primary Product (Oil or Gas): | Oil | |
| Pooling this vertical extent: | Entire Bone Spring formation | |
| Pool Name and Pool Code: | Triple X; Bone Spring, West/96674 | |
| Well Location Setback Rules: | Statewide rules and current horizontal well rules | |
| Spacing Unit Size: | Quarter-quarter Sections/40 acres | |
| Spacing Unit | Market State of the State of the Control of the Con | |
| Type (Horizontal/Vertical) | Vertical | |
| Size (Acres) | 640 acres | |
| Building Blocks: | 40 acres | |
| Orientation: | South-North | |
| Description: TRS/County | W/2 §4 and W/2 §9-24S-33E, NMPM, Lea County | |
| Standard Horizontal Well Spacing Unit (Y/N), If No, describe | Yes | |
| Other Situations | | |
| Depth Severance: Y/N. If yes, description | No | |
| Proximity Tracts: If yes, description | Yes. See above | |
| Proximity Defining Well: if yes, description | Poseidon State Com. Well Nos. 175H | |
| Applicant's Ownership in Each Tract | Exhibits A-3 and A-4 | |
| Well(s) | | |
| Name & API (if assigned), surface and | Poseidon State Com. Well Nos. 101H/API No. 30-025-PENDING | |
| bottom hole location, footages, | SHL: 706 FSL & 178 FWL §9 | |
| completion target, orientation, | BHL: 30 FNL & 331 FWL §4 | |
| completion status (standard or non- | FTP: 100 FSL & 331 FWL §9 | |
| standard) | LTP: 100 FNL & 331 FWL §4 | |
| | Avalon Bone Spring/TVD 9522 feet/MD 20182 feet | |
| | EXHIBIT | |

Poseidon State Com. Well Nos. 102H/API No. 30-025-PENDING

SHL: 760 FSL & 1781 FWL §9 BHL: 30 FNL & 1650 FWL §4 FTP: 100 FSL & 1650 FWL §9 LTP: 100 FNL & 1650 FWL §4

Avalon Bone Spring/TVD 9499 feet/MD 20159 feet

Poseidon State Com. Well Nos. 105H/API No. 30-025-PENDING

SHL: 347 FSL & 1190 FWL §9 BHL: 30 FNL & 990 FWL §4 FTP: 100 FSL & 990 FWL §9 LTP: 100 FNL & 990 FWL §4

Avalon Bone Spring/TVD 9522 feet/MD 20182 feet

Poseidon State Com. Well Nos. 107H/API No. 30-025-PENDING

SHL: 725 FSL & 1986 FWL §9 BHL: 30 FNL & 2305 FWL §4 FTP: 100 FSL & 2305 FWL §9 LTP: 100 FNL & 2305 FWL §4

Avalon Bone Spring/TVD 9475 feet/MD 20135 feet

Poseidon State Com. Well Nos. 171H/API No. 30-025-PENDING

SHL: 322 FSL & 1165 FWL §9 BHL: 30 FNL & 660 FWL §4 FTP: 100 FSL & 660 FWL §9 LTP: 100 FNL & 660 FWL §4

Avalon Bone Spring/TVD 9802 feet/MD 20462 feet

Poseidon State Com. Well Nos. 172H/API No. 30-025-PENDING

SHL: 700 FSL & 1961 FWL §9 BHL: 30 FNL & 1780 FWL §4 FTP: 100 FSL & 1780 FWL §9 LTP: 100 FNL & 1780 FWL §4

Avalon Bone Spring/TVD 9785 feet/MD 20445 feet

Poseidon State Com. Well Nos. 175H/API No. 30-025-PENDING

SHL: 760 FSL & 1756 FWL §9 BHL: 30 FNL & 1320 FWL §4 FTP: 100 FSL & 1320 FWL §9 LTP: 100 FNL & 1320 FWL §4

Avalon Bone Spring/TVD 9755 feet/MD 20454 feet

Poseidon State Com. Well Nos. 181H/API No. 30-025-PENDING

SHL: 681 FSL & 178 FWL §9 BHL: 30 FNL & 331 FWL §4 FTP: 100 FSL & 331 FWL §9 LTP: 100 FNL & 331 FWL §4

Avalon Bone Spring/TVD 10104 feet/MD 20764 feet

| | Poseidon State Com. Well Nos. 182H/API No. 30-025-PENDING |
|---|---|
| | SHL: 735 FSL & 1781 FWL §9 |
| | BHL: 30 FNL & 1650 FWL §4 |
| | FTP: 100 FSL & 1650 FWL §9 |
| | LTP: 100 FNL & 1650 FWL §4 |
| | Avalon Bone Spring/TVD 10073 feet/MD 20733 feet |
| | Poseidon State Com. Well Nos. 185H/API No. 30-025-PENDING |
| | SHL: 322 FSL & 1190 FWL §9 |
| | BHL: 30 FNL & 990 FWL §4 |
| | FTP: 100 FSL & 990 FWL §9 |
| | LTP: 100 FNL & 990 FWL §4 |
| | Avalon Bone Spring/TVD 10104 feet/MD 20764 feet |
| | Poseidon State Com. Well Nos. 187H/API No. 30-025-PENDING |
| | SHL: 700 FSL & 1986 FWL §9 |
| | BHL: 30 FNL & 2305 FWL §4 |
| | FTP: 100 FSL & 2305 FWL §9 |
| | LTP: 100 FNL & 2305 FWL §4 |
| | Avalon Bone Spring/TVD 10041 feet/MD 20701 feet |
| | All completion locations expected to be standard |
| Horizontal Well First and Last Take Points | See above |
| Completion Target (Formation, TVD and MD) | See above |
| AFE Capex and Operating Costs | |
| Drilling Supervision/Month \$ | \$7000 |
| Production Supervision/Month \$ | \$700 |
| Justification for Supervision Costs | Exhibit A, page 3 |
| Requested Risk Charge | Cost + 200%/Exhibit A, page 3 |
| Notice of Hearing | |
| Proposed Notice of Hearing | Exhibit E |
| Proof of Mailed Notice of Hearing (20 | |
| days before hearing) | Exhibit C |
| Proof of Published Notice of Hearing (10 | |
| days before hearing) | Exhibit D |
| Ownership Determination | · 大學學學學學學學學學學學學學學學學學學學學學學學學學學學學學學學學學學學學 |
| Land Ownership Schematic of the | |
| Spacing Unit | Exhibits A-2 and A-3 |
| Tract List (including lease numbers and | |
| owners) | Exhibits A-2 and A-3 |
| Pooled Parties (including ownership | |
| type) | Exhibit A-4 |
| Unlocatable Parties to be Pooled | Not applicable |
| Ownership Depth Severance (including | |
| percentage above & below) | None |
| Joinder Sample Convert Property Law | |
| Sample Copy of Proposal Letter | Exhibit A-5A |
| List of Interest Owners (i.e. Exhibit A of | Exhibits A-2, A-3, and A-4 |

| JOA) | |
|---|---|
| Chronology of Contact with Non-Joined Working Interests | Exhibit A-5A |
| Overhead Rates In Proposal Letter | Exhibit A, page 3 |
| Cost Estimate to Drill and Complete | Exhibit A-5B |
| Cost Estimate to Equip Well | Exhibit A-5B |
| Cost Estimate for Production Facilities | Exhibit A-5B |
| Geology | 是一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个 |
| Summary (including special considerations) | Exhibit B pages 2-4 |
| Spacing Unit Schematic | Exhibit B-1 |
| Gunbarrel/Lateral Trajectory Schematic | Exhibit B-2 |
| Well Orientation (with rationale) | Standup/Exhibit B-1 |
| Target Formation | Avalon Bone Spring |
| HSU Cross Section | Exhibit B-4 |
| Depth Severance Discussion | Not Applicable |
| Forms, Figures and Tables | |
| C-102 | Exhibit A-1 |
| Tracts | Exhibit A-2 |
| Summary of Interests, Unit | |
| Recapitulation (Tracts) | Exhibit A-4 |
| General Location Map (including basin) | Exhibit B-1 |
| Well Bore Location Map | Exhibits B-1, B-2, and B-4 |
| Structure Contour Map - Subsea Depth | Exhibit B-3 |
| Cross Section Location Map (including wells) | Exhibit B-4 |
| Cross Section (including Landing Zone) | Exhibit B-4 |
| Additional Information | |
| CERTIFICATION: I hereby certify that the information provided in this checklist is complete and accurate. | |
| Printed Name (Attorney or Party Representative): | James Bruce |
| Signed Name (Attorney or Party Representative): | Carnes Pauce |
| Date: | February 19, 2020 |