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

State of New Mexico  
 Energy, Minerals and Natural Resources

Form C-103  
 Revised July 18, 2013

OIL CONSERVATION DIVISION  
 1220 South St. Francis Dr.  
 Santa Fe, NM 87505

<b>SUNDRY NOTICES AND REPORTS ON WELLS</b> (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)		WELL API NO. 30-045-35630
1. Type of Well: Oil Well <input type="checkbox"/> Gas Well <input checked="" type="checkbox"/> Other		5. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input checked="" type="checkbox"/>
2. Name of Operator Hilcorp Energy Company		6. State Oil & Gas Lease No. FEE
3. Address of Operator 382 Road 3100, Aztec, NM 87410		7. Lease Name or Unit Agreement Name Calloway
4. Well Location Unit Letter <u>G</u> : <u>1818</u> feet from the <u>North</u> line and <u>1788</u> feet from the <u>East</u> line Section <u>27</u> Township <u>031N</u> Range <u>011W</u> NMPM County <u>SAN JUAN</u>		8. Well Number 1M
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 5732' GL		9. OGRID Number 372171
		10. Pool name or Wildcat Blanco Mesaverde / Basin Dakota

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:	SUBSEQUENT REPORT OF:
PERFORM REMEDIAL WORK <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>
DOWNHOLE COMMINGLE <input type="checkbox"/>	P AND A <input type="checkbox"/>
CLOSED-LOOP SYSTEM <input type="checkbox"/>	CASING/CEMENT JOB <input type="checkbox"/>
OTHER: <input checked="" type="checkbox"/> RECOMPLETE	OTHER: <input type="checkbox"/>

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Hilcorp Energy Company requests to revise the technical plans after it was discovered the Massive Cliffhouse formation in this area is wet and will not allow for air drilling in that section. Thus, the Intermediate casing will be lowered and set 100' into the Menefee formation. Cement will still be brought to surface. Production cement will overlap into intermediate casing by a minimum of 100'. Please see the revised technical plans attached.

Spud Date:

Rig Release Date:

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Cherylene Weston TITLE Operations/Regulatory Tech-Sr. DATE 06/26/2024

Type or print name Cherylene Weston E-mail address: cweston@hilcorp.com PHONE: 713-289-2615

**For State Use Only**

APPROVED BY: \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

Conditions of Approval (if any):



San Juan County, NM

Calloway #1M

Hilcorp Energy Company

## Technical Drilling Plan (Rev. 1)

Hilcorp Energy Company proposes to drill and complete the referenced well targeting Mesa Verde & Dakota formations.

*Note: This technical drilling plan will be adjusted based upon actual conditions.*

## 1. Location

Date:	June 26, 2024	Pool:	MV/DK
Well Name:	Calloway #1M	Ground Elevation	5,732'
Surface Hole Location:	36.8720327° N, -107.9757103° W	County, State:	San Juan County, NM
Production Depth (ft.)	7,155' MD / 7,026' TVD	Production BHL:	36.8695474° N, -107.9750026° W

*Note: All depths in the directional drilling plan are referenced from an estimated RKB datum of 15' above ground level.*

## 2. Geological Markers

Anticipated formation tops with comments of any possible water, gas or oil shows are indicated below:

Formation	Depth (ft. TVD)	Remarks
Ojo Alamo	898'	Water (fresh/useable)
Kirtland	986'	None
Fruitland	1,815'	Gas, Water
Pictured Cliffs	2,340'	Gas
Lewis	2,456'	None
Huerfano Bentonite	3,014'	None
Chacra	3,363'	None
Upper Cliff House	3,891'	Gas
Massive Cliff House	4,046'	Gas, Water
Menefee	4,101'	None
Pt. Lookout	4,532'	Gas
Mancos	5,113'	Gas
Upper Gallup	6,058'	Gas
Greenhorn	6,748'	Gas
Graneros	6,804'	Gas
Two Wells	6,852'	Gas
Paguate	6,881'	Gas
Upper Cubero	6,933'	Gas
Lower Cubero	6,973'	Gas
Encinal	7,026'	None

## 3. Pressure Control Equipment

See attached BOP equipment and choke manifold schematics for a diagram of pressure control equipment.

- BOP equipment will be nipped up on top of the wellhead after surface casing is set and cemented.
- Pressure control configurations will be designed to meet the minimum 3M standards.
- All equipment will have a minimum of 3M pressure rating and will be rated for 7,000' (TVD).
- A rotating head will be installed on top of the annular as seen in the attached diagram.



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- BOP Testing: The BOPE will be tested to 250 psi (Low) for 5 minutes and 3,000 psi (High) for 10 minutes. Pressure test surface casing to 600 psi for 30 minutes and intermediate casing to 1,500 psi for 30 minutes. Utilize a BOPE Testing Unit with a recording chart and appropriate test plug for testing. BOP equipment will be tested upon installation, every 30 days, and after any repairs are made to the BOP equipment. Annular preventors will be functionally tested at least once per week. Pipe and blind rams will be function tested each trip. The NMOC and the BLM will be notified 24 hours in advance of testing BOPE. All tests and inspections will be recorded and logged with time and results. A full BOP test will be conducted if a seal subject to test pressure is broken, following related repairs, and at a minimum of 30-day intervals.

#### 4. Casing & Cement Program

##### A. Proposed Casing Program:

Proposed Casing Design						
Casing String	Hole Size	Casing Size	Weight/Grade	Top Depth (MD/TVD)	Shoe Depth (MD/TVD)	
Surface	12-1/4"	9-5/8"	32.3# H40 (or equiv.) STC	0'	200' / 200'	
Intermediate	8-3/4"	7"	23# J55 (or equiv.) LTC	0'	4,329' / 4,201'	
Production Casing	6-1/4"	4-1/2"	11.6# J55 (or equiv.) LTC	0'	7,155' / 7,026'	
Proposed Casing Design Safety Factors						
Casing String	Casing Description		Burst Design SF	Collapse Design SF	Joint Tensile Design SF	Connection Tensile Design SF
Surface	9-5/8" 32.3# H40 STC		24.3	18.6	56.5	39.3
Intermediate	7" 23# J55 LTC		1.7	1.6	3.7	3.1
Production	4-1/2" 11.6# J55 LTC		1.4	1.5	2.3	2.0

##### Notes:

- The 6-1/4" hole will be drilled to the top of the Encinal formation and TD will be called onsite by mud loggers.
- Production casing will be run from surface to TD.
- If the 6-1/4" hole is not drilled to the total planned measured depth, the production casing setting depth and length will be adjusted accordingly.
- Casing Design Parameters – Designed for full evacuation. Mud Weights used for calculations: Surface = 9.0 ppg, Intermediate = 11.5 ppg, Production = 11.0 ppg. Burst: 1.15; Collapse: 1.125; Tensile: 1.6.
  - Burst: (Casing Burst Rating) / (Maximum Burst Load (Max MW x TVD x .052))
  - Collapse: (Full hydrostatic of MW in annulus) – (Hydrostatic of vacated casing, 0.1 psi/ft)
  - Tensile: (Tensile rating) / (measured depth x casing weight)

##### B. Proposed Centralizer Program:

Proposed Centralizer Program	
Interval	Centralizers & Placement
Surface	1 centralizer per joint on bottom 3 joints.
Intermediate	1 centralizer 10' above the shoe with lock collar. 1 centralizer every other joint on bottom 10 joints. 1 centralizer every 4 <sup>th</sup> joint to Ojo Alamo base.



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	1 Turbolizer at base of Ojo Alamo. 1 centralizer every joint to Ojo Alamo top. 1 Turbolizer placed midway through Ojo Alamo. 1 centralizer every 4 <sup>th</sup> joint from top of Ojo Alamo to surface shoe. 1 centralizer inside the surface casing.
Production (Air Drilled)	1 centralizer 10' above the shoe with a lock collar. 1 centralizer every other joint on bottom 10 joints.

## C. Proposed Cement Program:

Proposed Cement Design							
Interval	Depth (ft. MD)	Lead/Tail	Volume (ft <sup>3</sup> )	Sacks	Slurry	Density	Planned TOC
Surface	200'	Lead	125 ft <sup>3</sup>	90	Type III Cement 0.25% FL-52, 0.25 pps celloflake 1.25 ft <sup>3</sup> /sk – 5.75 gal/sk	15.2 ppg	Surface
Intermediate	4,329'	Lead	908 ft <sup>3</sup>	426	Premium Lite 3% CaCl, 0.25 pps celloflake, 5 ppm LCM-1, 0.4% FL-52, 8% bentonite, 0.4% SMS 2.13 ft <sup>3</sup> /sk – 11.29 gal/sk	12.1 ppg	Surface
		Tail	120 ft <sup>3</sup>	70	Type III Cement 1% CaCl, 0.25 pps celloflake, 0.2% FL-52 1.38ft <sup>3</sup> /sk – 6.64 gal/sk	14.6 ppg	3,829'
Production	7,155'	Lead	546 ft <sup>3</sup>	379	50/50 POZ: Class G cement + 0.25 lb/sx D029 Cellophane Flakes + 3% D020 Bentonite + 1.0 lb/sx D024 Gilsonite Extender + 0.25% D167 Fluid Loss + 0.25% D065 Dispersant + 0.1% D800 Retarder + 0.1% D046 Antifoamer + 3.5 lb/sx Phenoseal 1.44ft <sup>3</sup> /sk – 6.47 gal/sk	13.0 ppg	3,829'

## Notes:

- The cement slurry additives may be adjusted to accommodate required pump and compressive test times.
- For the intermediate hole section, a 2-stage cement job may be performed if hole conditions dictate. If needed, the stage tool will be placed at an approximate depth near the top of the Fruitland Coal.
- Cement will be circulated to surface on surface and intermediate casing sections to protect water bearing zones.
- A minimum of 8 hours of wait on cement time will be observed on each hole section to allow adequate time for cement to achieve a minimum of 500 psi of compressive strength. The BOP will not be nipped down, the



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wellhead will not be installed, the casing will not be tested and the prior casing shoe will not be drilled out until adequate wait on cement time has been observed (8 hours or time to reach 500 psi compressive strength).

## 5. Drilling Fluids Program

### A. Proposed Drilling Fluids Program:

Interval	Fluid Type	Density (ppg)	Fluid Loss (mL/30 min)	Max Chlorides (mg/L)	Depth (ft. MD)
Surface	Water/Gel	8.4 – 9.2	NC	1,000	0' – 200'
Intermediate	LSND / Gel System	8.4 – 9.2	6-16	1,000	200' – 4,329'
Production	Air/mist/N2	1.0	NC	N/A	4,329' – 7,155'

### Notes:

- The following equipment will be operational while gas/mist drilling:
  - An anchored bloop line will be utilized to discharge all cuttings and circulating medium to the blow pit a minimum of 100' from the wellhead.
  - The bloop line will be equipped with an automatic igniter or pilot light.
  - Deduster equipment will be utilized.
  - The rotating head will be properly lubricated and maintained.
  - A float valve will be utilized above the bit.
  - Mud circulating equipment, water, and mud materials will be sufficient to maintain control of the well.
- Lost circulation material may be added to the mud systems to manage fluid losses as hole conditions dictate.
- The well will be drilled utilizing a closed-loop circulating system. Drill cuttings will be transported to an approved disposal site.
- Estimated total volume of drill cuttings for disposal: 443 bbls (2,488 ft<sup>3</sup>).

## 6. Estimated Pressures & Drilling Hazards

### A. Estimated Pressures

- The Mesa Verde and/or Dakota formations will be completed and commingled if both formations are completed.
- No abnormal temperatures or hazards are anticipated.
- Anticipated pore pressures are as follows:
  - Fruitland Coal 400 psi
  - Pictured Cliffs 850 psi
  - Mesa Verde 650 psi
  - Dakota 2200 psi

### B. Water Flows

- Water flows are possible in the intermediate section. Water flows will be mitigated with increased mud weight.

### C. Lost Circulation



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- Lost circulation is possible in the coal section. Losses will be mitigated by adding LCM to the mud system.
- Sufficient LCM will be added to the mud system to maintain well control if lost circulation is encountered.

D. Hydrogen Sulfide

- No hydrogen sulfide is expected to be encountered based on nearby well production.

7. Testing, Logging, Coring

A. Mud Logging

- Mud loggers will collect formation samples every 30' from the Intermediate casing shoe to the TD of production hole section.

B. MWD

- Measurement while drilling tools will be utilized from the surface casing shoe to the TD of the intermediate section to measure and record inclination. A wireline survey will be run after cementing the production casing to verify bottom hole position.

C. LWD

- No logging while drilling tools will be utilized.

D. Open Hole Logging

- There are no planned open hole logs post drilling.

E. Coring

- There is no coring or formation testing planned.

F. Cased Hole Logging

- The 7" intermediate casing will be cemented to surface to protect water bearing zones. If cement is not circulated to surface on the intermediate cement job, a temperature survey or a cement bod log will be run to verify top of cement.

8. Directional Drilling Plan

- The directional drilling plans and plots are attached.
- The directional plan is built from geologic targets from offset wells and lease boundaries. On-site adjustments to the directional plans will be made as formation and wellbore dictate.

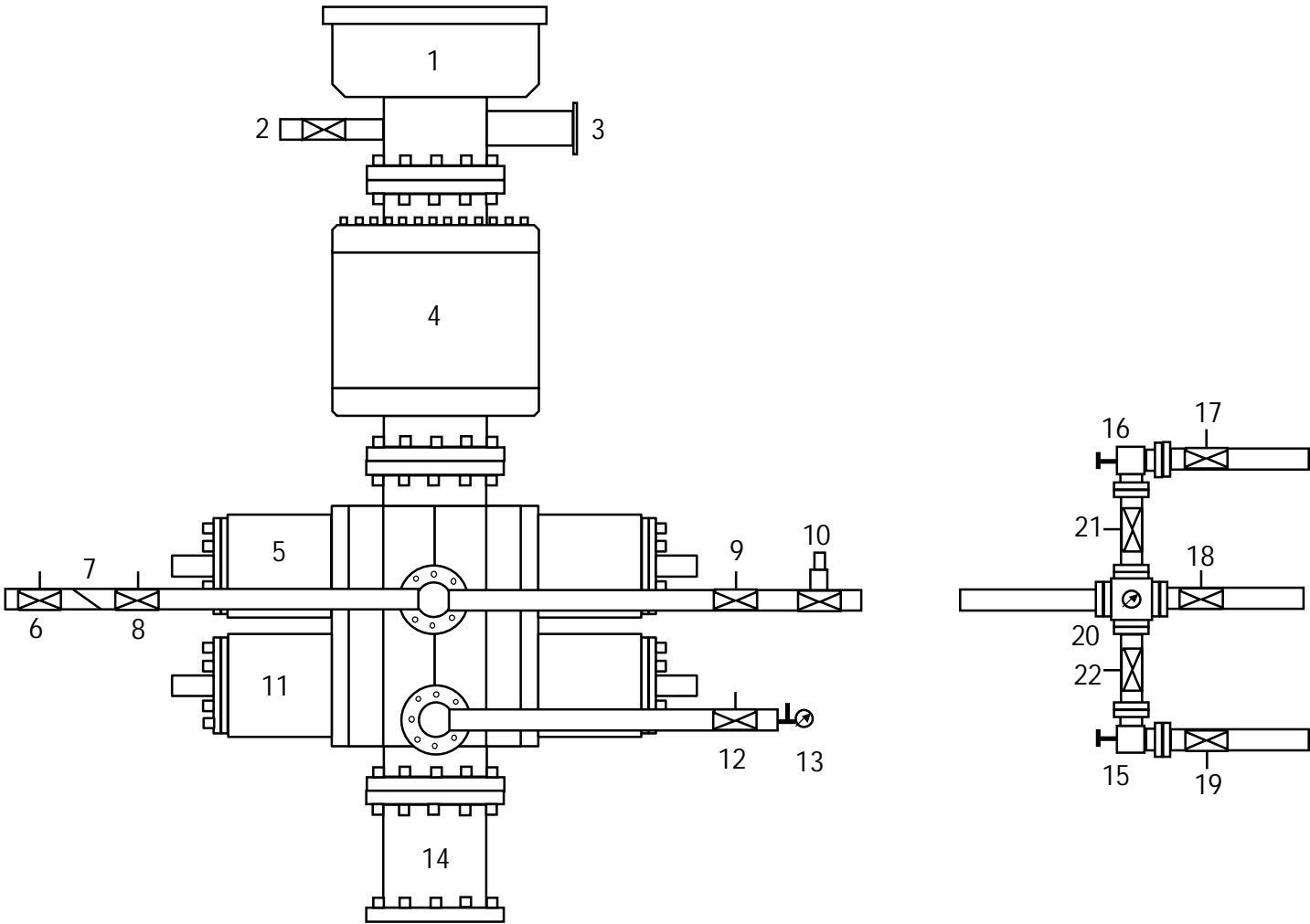
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Appendix A

Pressure Control Equipment Configuration



1	Rotating Head	12	Manual Isolation Valve
2	Fill Up Line	13	Needle Valve & Pressure Gauge
3	Flow Line	14	Spacer Spool (if needed)
4	3M Annular Preventer	15	Manual Choke
5	3M Pipe Rams	16	Manual Choke
6	Manual Isolation Valve	17	Manual Isolation Valve
7	Check Valve	18	Manual Isolation Valve
8	Manual Isolation Valve	19	Manual Isolation Valve
9	Manual Isolation Valve	20	Valve Block & Pressure Gauge
10	High Closing Ratio Valve	21	Manual Isolation Valve
11	3M Blind Rams	22	Manual Isolation Valve

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**State of New Mexico**  
**Energy, Minerals and Natural Resources**  
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**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

CONDITIONS

Action 359037

CONDITIONS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 359037
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
ward.rikala	All original COA's still apply. Additionally, if cement is not circulated to surface during cementing operations, then a CBL is required.	7/16/2024