

Submit 1 Copy To Appropriate District

## Office

District I – (575) 393-6161  
 1625 N. French Dr., Hobbs, NM 88240  
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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

WELL API NO. 30-039-24294
5. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil & Gas Lease No. E-5111-7
7. Lease Name or Unit Agreement Name SAN JUAN 29-7 UNIT NP
8. Well Number 516
9. OGRID Number 372171
10. Pool name or Wildcat Blanco Mesaverde / Basin Dakota

<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.) 1. Type of Well: Oil Well <input type="checkbox"/> Gas Well <input checked="" type="checkbox"/> Other <input type="checkbox"/> 2. Name of Operator Hilcorp Energy Company 3. Address of Operator 382 Road 3100, Aztec, NM 87410 4. Well Location Unit Letter <u>K</u> : <u>1711</u> feet from the <u>South</u> line and <u>1527</u> feet from the <u>West</u> line Section <u>36</u> Township <u>029N</u> Range <u>07W</u> NMPM County <u>RIO ARRIBA</u> 11. Elevation (Show whether DR, RKB, RT, GR, etc.) 6819' GL	
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## 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 type="checkbox"/>	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 requests to change the technical drilling plan for the approved APD. The drilling plans in the approved APD were for a different well. Please replace the drilling plan with the attached plan.

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 8/2/2024

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)



Rio Arriba County, New Mexico

San Juan 29 7 Unit NP 516 ST 1

Hilcorp Energy Company

## Technical Drilling Plan (Rev. 0)

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

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

## 1. Location

Date:	June 26, 2024	Pool:	MVDK
Well Name:	San Juan 29-7 Unit NP #516 ST1	Ground Elevation (ft. MSL):	6833
API			
Surface Hole Location:	36.6797200° N, -107.5254600° W	Total Measured Depth (ft.)	8,501'
Bottom Hole Location:	36.6767300° N, -107.5285000° W	County, State:	Rio Arriba, NM

*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	2,480	Water (fresh/useable)
Kirtland	2,560	None
Fruitland	3,117	Gas, Water
Pictured Cliffs	3,378	Gas
Chacra	4,349	None
Cliff House	5,010	Gas
Menefee	5,156	None
Pt. Lookout	5,556	Gas
El Vado	6,797	Gas
El Vado A	6,856	Gas
El Vado B	6,832	Gas
El Vado C	7,009	Gas
Greenhorn	7,533	Gas
Graneros	7,581	Gas
Two Wells	7,625	Gas
Dakota	7,713	Gas
Paguate	7,724	Gas
Cubero	7,751	Gas
Lower Cubero	7,780	Gas
Encinal	7,834	Water

## 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 2M standards.



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- All equipment will have a minimum of 3M pressure rating and will be rated for 8,000' (TVD).
- A rotating head will be installed on top of the annular as seen in the attached diagram.
- BOP Testing: The BOPE will be tested to 250 psi (Low) for 5 minutes and 3,000 psi (High) for 10 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 New Mexico Oil & Gas Conservation Division 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.

#### 4. Casing & Cement Program

##### 1. Proposed/Current Casing Program:

Proposed Casing Design						
Casing String	Hole Size	Casing Size	Weight/Grade	Top Depth (MD/TVD)	Shoe Depth (MD/TVD)	
Surface (existing)	12-1/4"	9-5/8"	36# K55 STC	0'	522' / 522'	
Intermediate (existing)	8-3/4"	7"	20# K55 LTC	0'	3,415' / 3,415'	
Production Casing	6-1/4"	4-1/2"	11.6# J55 (or equiv.) LTC	0'	8,501' / 8,200'	
Proposed Casing Design Safety Factors						
Casing String	Casing Description		Burst Design SF	Collapse Design SF	Joint Tensile Design SF	Connection Tensile Design SF
Surface (existing)	9-5/8" 36# K55 STC		30.8	22.5	64.2	48.2
Intermediate (existing)	7" 23# J55 LTC		1.9	1.4	4.7	3.5
Production	4-1/2" 11.6# J55 LTC		1.2	1.3	1.9	1.7

#### Notes:

- A whipstock will be set ~2800'. Casing will be exited and a 6-1/4" hole will be drilled to through the Encinal formation and TD will be called onsite by mud loggers.
- 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.
- Production casing will be run from surface to TD.
- 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)



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## 2. Proposed Centralizer Program:

Proposed Centralizer Program	
Interval	Centralizers & Placement
Production	1 centralizer 10' above the shoe with a lock collar. 1 centralizer every other joint on bottom 10 joints. 1 centralizer every 4 joints to inside 7" casing. (~36)

## 3. Proposed Cement Program:

Proposed Cement Design							
Interval	Depth (ft. MD)	Lead/Tail	Volume (ft <sup>3</sup> )	Sacks	Slurry	Density	Planned TOC
Surface	522'				Existing		
Intermediate (perfs)	3432' – 3624'	Tail	138 ft <sup>3</sup>	100	Type III Cement 1% CaCl, 0.50 pps celloflake, 0.2% FL-52 1.38ft <sup>3</sup> /sk – 6.64 gal/sk	14.6 ppg	3,190'
Production	8501,'	Tail	936 ft <sup>3</sup>	641	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	2,700'

Notes:

- A 2-stage cement job may be required depending on losses. Placement will be determined based from well conditions and zones where losses were incurred.



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## 5. Drilling Fluids Program

## 1. Proposed Drilling Fluids Program:

Proposed Drilling Fluids Program					
Interval	Fluid Type	Density	Fluid Loss	Max Chlorides	Depth
		(ppg)	(mL/30 min)	(mg/L)	(ft. MD)
Production	LSND / Gel System	8.4 – 9.2	6-16	1,000	3,416' – 8,501'

## Notes:

- 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: 207 bbls (1166 ft<sup>3</sup>).

## 6. Estimated Pressures &amp; 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 1,253 psi
  - Pictured Cliffs 1,610 psi
  - Mesa Verde 2,371 psi
  - Dakota 1,715 psi

## B. Water Flows

- No water flows are expected.

## C. Lost Circulation

- Lost circulation is possible in the Fruitland Coal & Mesa Verde. Losses will be mitigated by adding LCM to the mud system.

## 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 60' from the intermediate casing shoe to TD of the production hole.



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B. MWD

- Measurement while drilling tools will be utilized from the intermediate casing shoe to TD of the production hole to measure and record inclination.

C. LWD

- There are no planned LWD tools planned.

D. Open Hole Logging

- There are no planned open hole logs post drilling.

E. Coring

- There is no coring or formation testing planned.

8. Directional Drilling Plan

- Directional plans are plans attached.

9. Pre-Drill Preparation Procedure

1. RU slickline, clear tubing to verify that it free of equipment that could become mobile while pulling. Set a 3-slip stop, if necessary
2. MIRU workover rig and associated equipment; NU and test BOP per HEC, State, and Federal guidelines.
3. TOOH with 2-3/8" tubing
4. Set 4-1/2" cement retainer above top perf & pump cmt. Sting out of retainer & spot 50' on top of retainer.
5. WOC. Pressure test csg to 600 psi f/ 30 min.
6. Run cbl& gr/ccl from 3000' – 2600'. If good cement behind pipe, set bridge plug to act as a whipstock base 5' above a collar between 2700-2800'. Test packer w/ 500 psi.
7. POOH Nipple down tubing head, Nipple up night cap, RDMO workover rig.

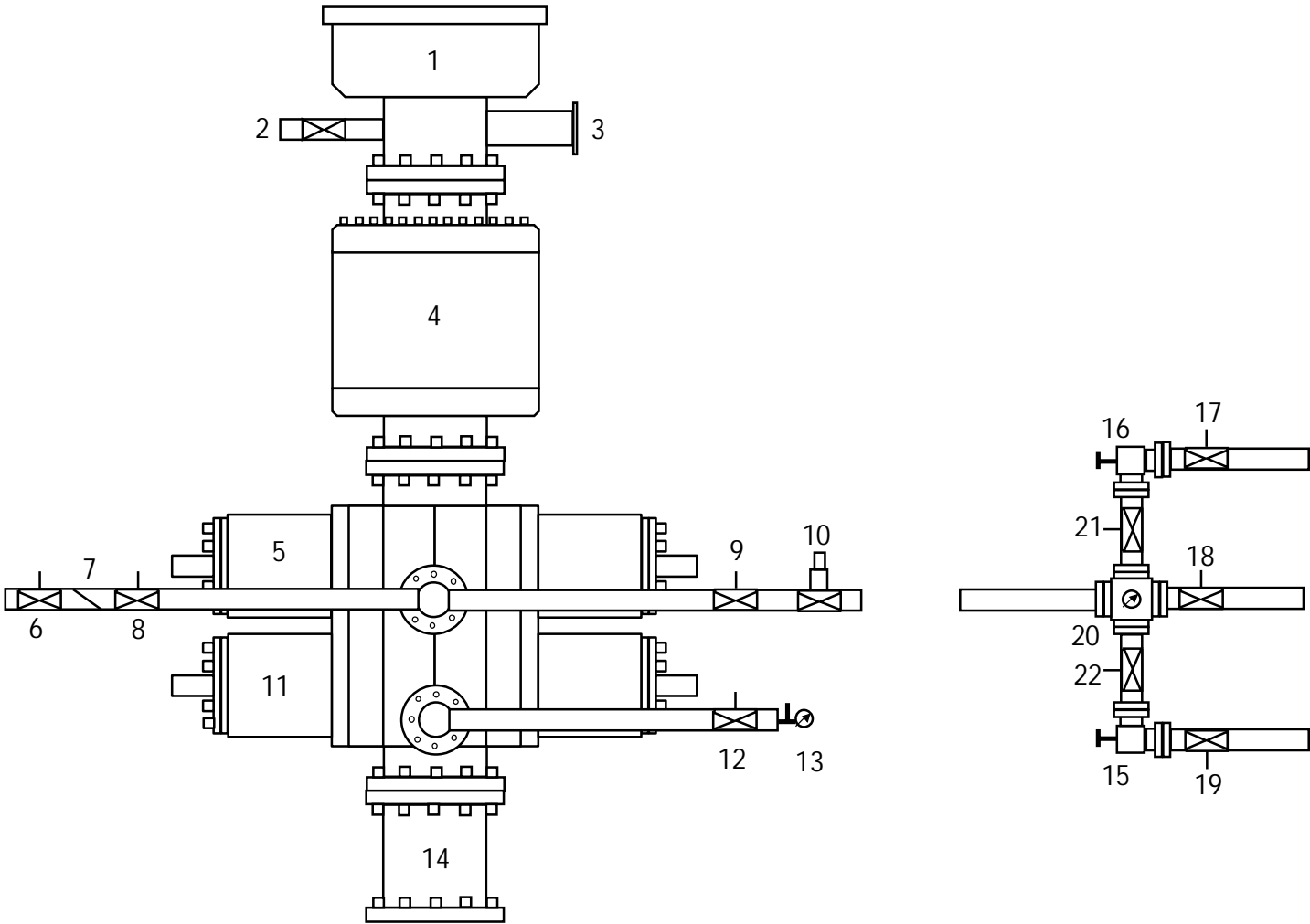
Rio Arriba County, New Mexico

San Juan 29 7 Unit NP 516 ST 1



Appendix A

Pressure Control Equipment Configuration



1	Rotating Head	12	Manual Isolation Valve
2	Flow Line	13	Needle Valve & Pressure Gauge
3	Fill-Up 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**  
**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

CONDITIONS

Action 369794

CONDITIONS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 369794
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
ward.rikala	All COA's still apply. Additionally, if cement is not circulated to surface during cementing operations, then a CBL is required.	8/2/2024