District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-101
Revised July 18, 2013

☐AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

1. Operator Name and Address	2. OGRID Number
Hilcorp Energy Company 382 Road 3100 Aztec, NM 87410	372171
	3. API Number 30-045-27494

4. Property Code	5. Property Name	6. Well No.
318748	Sunray G	1R

7. Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
L	21	31N	09W		1455’	S	990’	W	San Juan

8. Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
L	21	31N	09W		1455’	S	990’	W	San Juan

9. Pool Information

Pool Name	Pool Code
Basin Fruitland Coal	71629

Additional Well Information

11. Work Type	12. Well Type	13. Cable/Rotary	14. Lease Type	15. Ground Level Elevation
A	G		P	6208’
16. Multiple	**17. Proposed Depth**	**18. Formation**	**19. Contractor**	**20. Spud Date**
	~2658’ – 3043’	Basin Fruitland Coal		

Depth to Ground water	Distance from nearest fresh water well	Distance to nearest surface water

☒**We will be using a closed-loop system in lieu of lined pits**

21. Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC

Casing/Cement Program: Additional Comments

22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief. **I further certify that I have complied with 19.15.14.9 (A) NMAC ☒ and/or 19.15.14.9 (B) NMAC ☒, if applicable.** Signature:		OIL CONSERVATION DIVISION Approved By:	
Printed name: Amanda Walker		Title:	
Title: Operations Regulatory Tech Sr.		Approved Date:	Expiration Date:
E-mail Address: mwalker@hilcorp.com			
Date: 11/12/2024	Phone: 346.237.2177	Conditions of Approval Attached	

HILCORP ENERGY COMPANY
SUNRAY G 1R
FRUITLAND COAL RECOMPLETION SUNDRY

Prepared by:	Scott Anderson
Preparation Date:	November 4, 2024

WELL INFORMATION			
Well Name:	SUNRAY G 1R	**State:**	NM
API #:	3004527494	**County:**	SAN JUAN
Area:	04	**Location:**	1455' FSL & 990' FWL - Unit L - Section 21 - T 031N - R 009W
Route:	0408	**Latitude:**	36.88018 N
Spud Date:	11/1/1989	**Longitude:**	-107.79031 W

PROJECT DESCRIPTION

Isolate the Mesaverde, perforate and stimulate the UPE Fruitland Coal in 1-2 stages. Commingle the Fruitland Coal production with the existing Mesa Verde production. Strip facilities if necessary; repair production eqmt as needed, upgrade automation

CONTACTS

Title	Name	Office Phone #	Cell Phone #
Engineer	Scott Anderson		248-761-3965
Area Foreman	Colter Faverino		326-9758
Lead	Calen Wilkins		947-4844
Artificial Lift Tech	Rivver Higgins		419-6075
Rover	Dustin Titus		860-5059
Compression Lead	Jon Sandoval		787-7688
Operator	JJ Griego		330-9038

HILCORP ENERGY COMPANY
SUNRAY G 1R
FRUITLAND COAL RECOMPLETION SUNDRY

JOB PROCEDURES		
☑	NMOCD	**Contact OCD 24 hrs prior to MIRU. Record and document all casing pressures daily, including BH, IC (if present) and**
☐	BLM	**PC. Comply with all NMOCD, BLM, and HEC safety and environmental regulations.**

1. MIRU service rig and associated equipment. Pull insert pump and rods
2. Nipple down wellhead, nipple up and test BOPs per HEC, State, and Federal guidelines.
3. TOOH with 2-3/8" tubing
4. **Set a 4-1/2" bridge plug at 4,507' to isolate the Mesaverde formation.**
5. RU pressure test truck. Perform a Mechanical Integrity Test on the wellbore above the plug at 4,507'. Chart record the MIT test (notify BLM and NMOCD +24hr before actual test).
6. **RU wireline. Run a CBL f/ 4,507' to surface.** Remediate with cement, if necessary, to achieve 150' of cement coverage above the top proposed FRC perforation.
7. **RU E-line crew. Perforate the Fruitland Coal. (Top perforation @ 2,658', Bottom perforation @ 3,043').**
   NOTE: perforation interval subject to change. All changes will be communicated to the Regulatory Agencies prior to perforating.
8. Run frac string and packer, hydrotest the frac string to 8,000 psi and set the packer 50' above the proposed top perf
9. ND wellhead, NU frac stack. PT frac stack to 8,000 psi
10. RU stimulation crew. **Frac the Fruitland Coal in one or more stages via a frac string.**
11. MIRU service rig. Nipple down frac stack, nipple up BOP and test. Kill well with fluid, if necessary
12. POOH w/ frac string and packer.
13. **Pending C107A approval,** drill out the stage, Mesaverde, and Dakota isolation plugs. Clean out to PBTD at **5,571'**
14. TIH and land 2-3/8" production tubing. Run pump and rods, install pumping unit.
15. **Flowback well thru flowback separator and sand trap. Get a commingled Fruitland Coal / Mesa Verde flow rate.**

HILCORP ENERGY COMPANY
SUNRAY G 1R
FRUITLAND COAL RECOMPLETION SUNDRY

SUNRAY G 1R - CURRENT WELLBORE SCHEMATIC

Hilcorp Energy Company

Current Schematic - Version 3

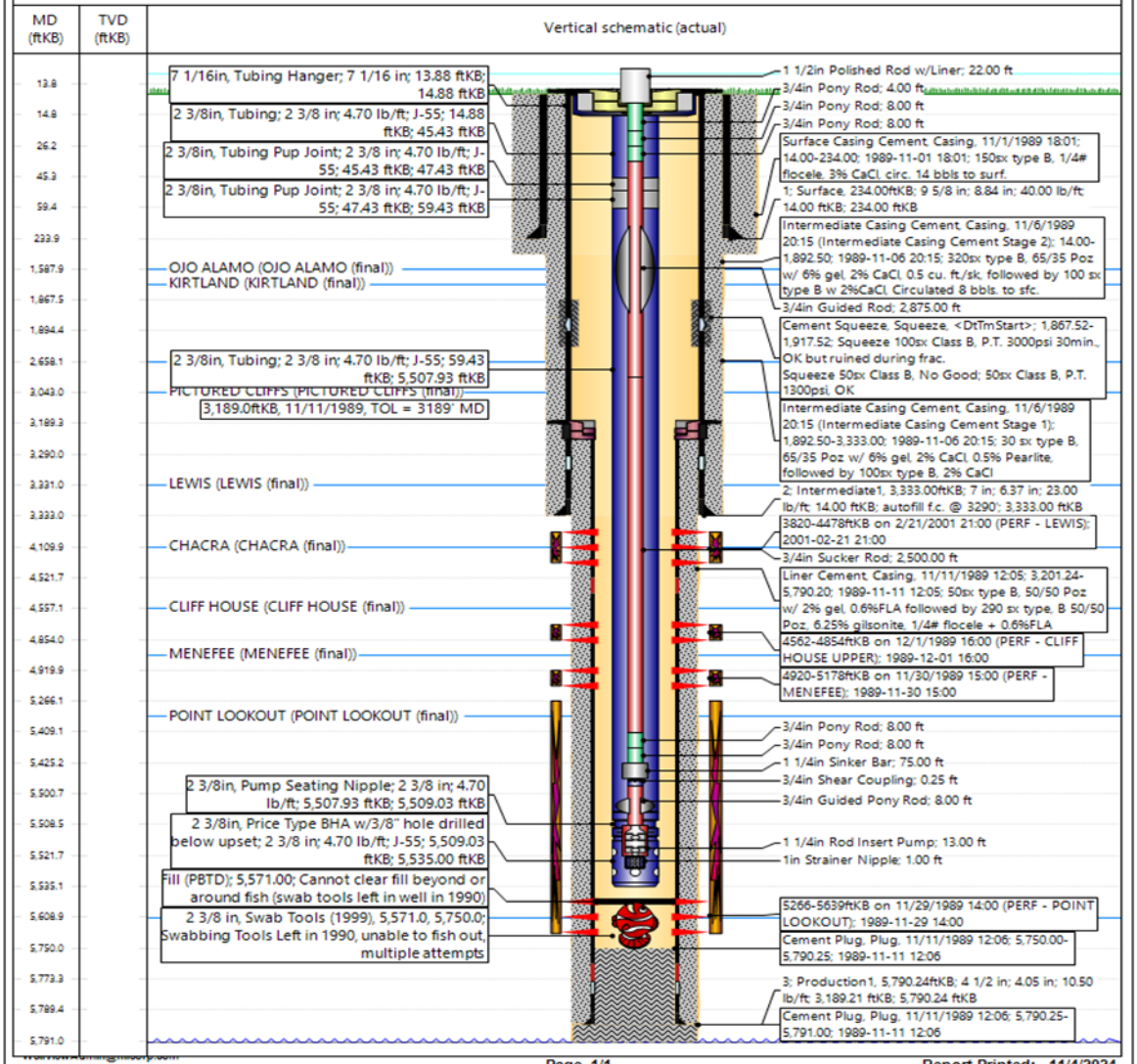
Well Name: SUNRAY G #1R

API / UWI	Surface Legal Location	Field Name	Route	State/Province	Well Configuration Type
3004527494	021-031N-009W-L	BLANCO MESAVERDE (PRORATED GAS	0408	NEW MEXICO	VERTICAL
Ground Elevation (ft)	**Original KB/RT Elevation (ft)**	**Tubing Hanger Elevation (ft)**	**RKB to GL (ft)**	**KB-Casing Flange Distance (ft)**	**KB-Tubing Hanger Distance (ft)**
6,208.00	6,222.00	6,208.00	14.00	14.00	14.00

Tubing Strings

Run Date	Set Depth (ftKB)	String Max Nominal OD (in)	String Min Nominal ID (in)	Weight/Length (lb/ft)	Original Spud Date
2/21/2023 08:45	5,535.00	2 3/8	2.00	4.70	11/1/1989 00:00

Original Hole [VERTICAL]



Page 1/1 Report Printed: 11/4/2024

HILCORP ENERGY COMPANY
SUNRAY G 1R
FRUITLAND COAL RECOMPLETION SUNDRY

SUNRAY G 1R - PROPOSED WELLBORE SCHEMATIC

Hilcorp Energy Company

WBD Proposed Formations 1

Well Name: SUNRAY G #1R

API / UWI	Surface Legal Location	Field Name	License No.	State/Province	Well Configuration Type
3004527494	021-031N-009W-L	BLANCO MESAVERDE (PRORATED GAS		NEW MEXICO	VERTICAL
Ground Elevation (ft)	**Casing Flange Elevation (ft)**	**RKB to GL (ft)**	**KB-Casing Flange Distance (ft)**	**Original Spud Date**	**Rig Release Date**
6,208.00	6,208.00	14.00	14.00	11/1/1989 00:00	6/7/2000 00:00

Most Recent Job

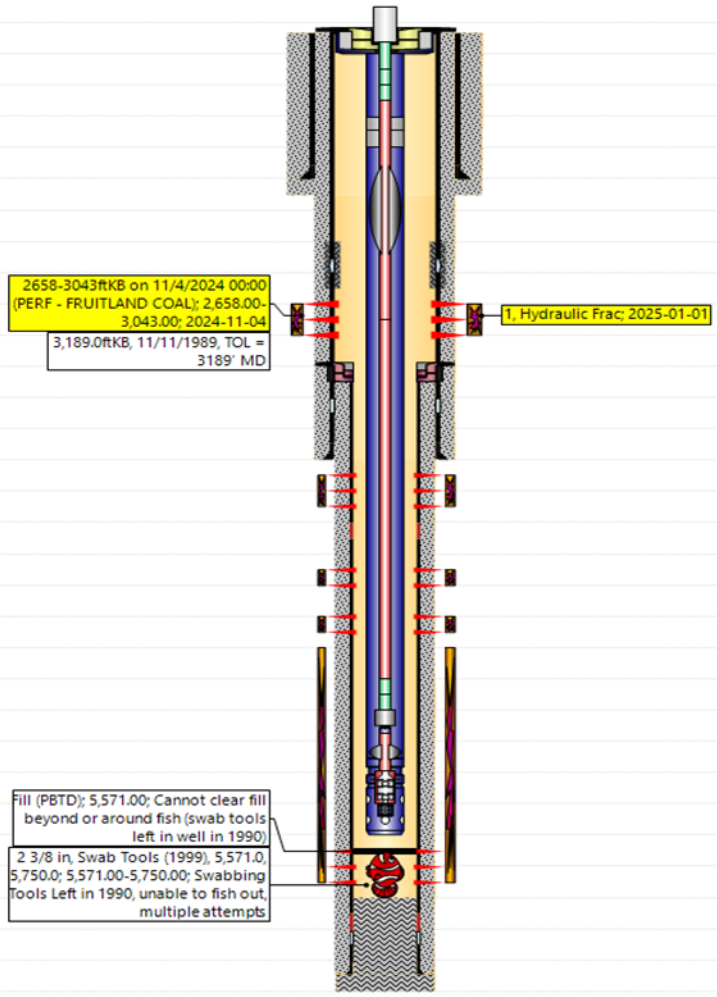
Job Category	Primary Job Type	Secondary Job Type	Actual Start Date	End Date
Expense Workover	ROD & PUMP REPAIR		2/16/2023	2/21/2023

TD: 5,791.0

Original Hole [VERTICAL]

MD (ftKB)	TVD (ftKB)	Formation Tops	MD
13.8			
14.8			
26.2			
45.3			
59.4			
233.9			
1,587.9		OJO ALAMO	1,588.0
1,867.5		KIRTLAND	1,778.0
1,894.4			
2,658.1		FRUITLAND	2,658.0
3,043.0		PICTURED CLIFFS	3,043.0
3,189.3			
3,290.0			
3,331.0		LEWIS	3,331.0
3,333.0			
4,109.9		CHACRA	4,110.0
4,521.7			
4,557.1		CLIFF HOUSE	4,557.0
4,854.0		MENEFEE	4,902.0
4,919.9			
5,266.1		POINT LOOKOUT	5,290.0
5,409.1			
5,425.2			
5,500.7			
5,508.5			
5,521.7			
5,535.1			
5,608.9		MANCOS	5,609.0
5,750.0			
5,773.3			
5,789.4			
5,791.0			

Vertical schematic (proposed)



Santa Fe Main Office
Phone: (505) 476-3441 Fax: (55) 476-3462
General Information
Phone: (505) 629-6116

Online Phone Directory Visit:
https://www.emnrd.nm.gov/ocd/contact-us/

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION

C-102
Revised July 9, 2024
Submit Electronically via OCD Permitting

Submittal Type:	☐ Initial Submittal
	☐ Amended Report
	☐ As Drilled

WELL LOCATION INFORMATION

API Number	Pool Code	Pool Name	
30-045-27494	71629	Basin Fruitland Coal	
Property Code	Property Name		Well Number
318748	Sunray G		1R
OGRID No.	Operator Name		Ground Level Elevation
372171	Hilcorp Energy Company		6208’
Surface Owner: ☐ State ☒ Fee ☐ Tribal ☐ Federal		Mineral Owner: ☐ State ☒ Fee ☐ Tribal ☐ Federal	

Surface Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
L	21	31N	09W		1455’ S	990’ W	36.880249	-107.7909775	San Juan

Bottom Hole Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County

Dedicated Acres	Infill or Defining Well	Defining Well API	Overlapping Spacing Unit (Y/N)	Consolidation Code
317.01	Infill	3004526954	No	C
Order Numbers.			Well setbacks are under Common Ownership: ☒Yes ☐No	

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County

First Take Point (FTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County

Unitized Area or Area of Uniform Interest	Spacing Unit Type ☐ Horizontal ☒ Vertical	Ground Floor Elevation:

OPERATOR CERTIFICATIONS

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

If this well is a horizontal well, I further certify that this organization has received the consent of at least one lessee or owner of a working interest or unleased mineral interest in each tract (in the target pool or formation) in which any part of the well’s completed interval will be located or obtained a compulsory pooling order from the division.

AWalker — 11/11/2024
Signature — Date

Amanda Walker
Printed Name

mwalker@hilcorp.com
Email Address

SURVEYOR CERTIFICATIONS

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

Neale Edwards
Signature and Seal of Professional Surveyor

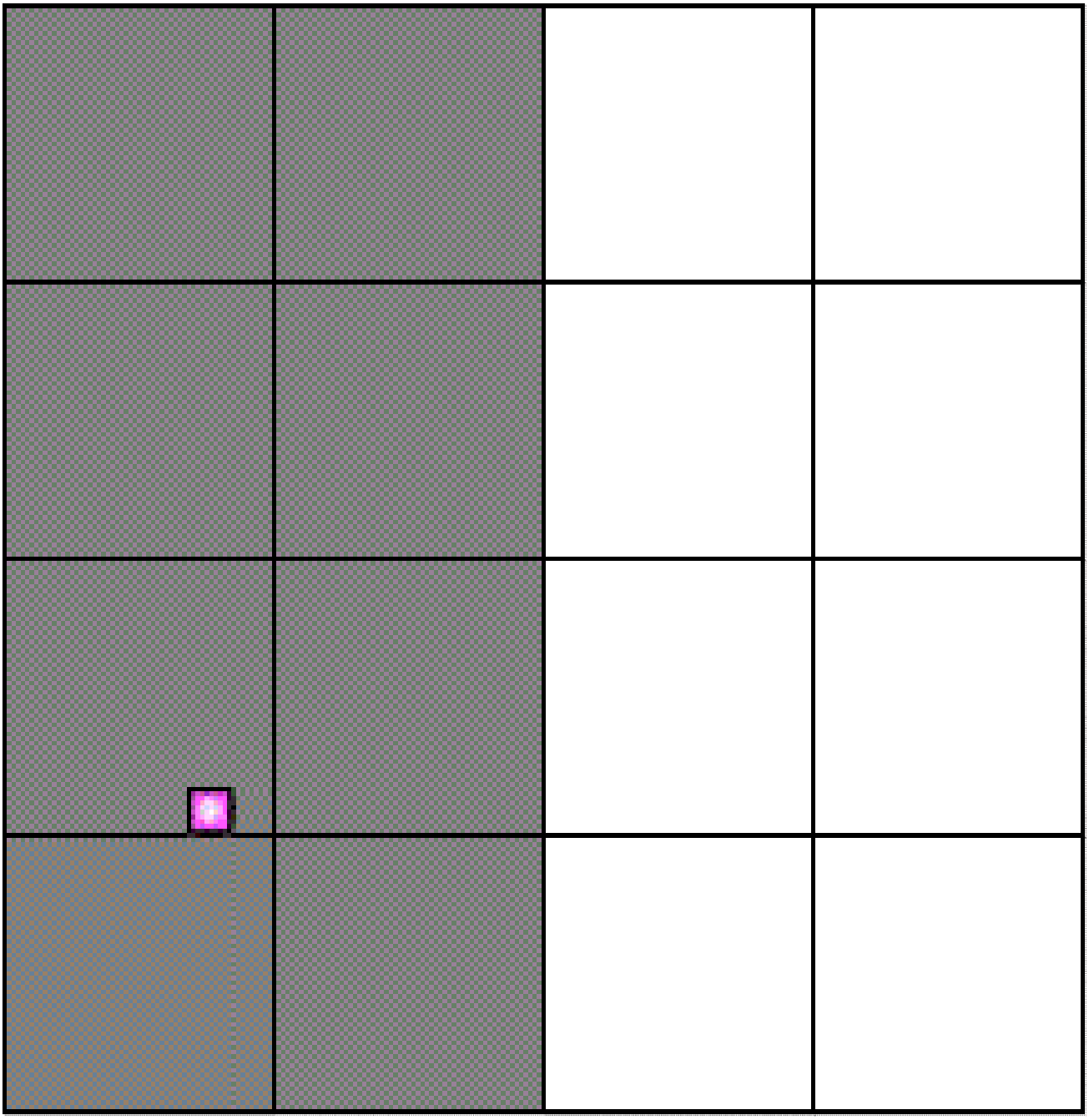
6857 — Certificate Number
9/9/1989 — Date of Survey

Note: 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.

ACREAGE DEDICATION PLATS

This grid represents a standard section. You may superimpose a non-standard section, or larger area, over this grid. Operators must outline the dedicated acreage in a red box, clearly show the well surface location and bottom hole location, if it is directionally drilled, with the dimensions from the section lines in the cardinal directions. If this is a horizontal wellbore show on this plat the location of the First Take Point and Last Take Point, and the point within the Completed interval (other than the First Take Point or Last Take Point) that is closest to any outer boundary of the tract.

Surveyors shall use the latest United States government survey or dependent resurvey. Well locations will be in reference to the New Mexico Principal Meridian. If the land is not surveyed, contact the OCD Engineering Bureau. Independent subdivision surveys will not be acceptable.



State of New Mexico
Energy, Minerals and Natural Resources Department

Submit Electronically
Via E-permitting

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

NATURAL GAS MANAGEMENT PLAN

This Natural Gas Management Plan must be submitted with each Application for Permit to Drill (APD) for a new or recompleted well.

Section 1 – Plan Description
Effective May 25, 2021

I. Operator: Hilcorp Energy Company **OGRID:** 372171 **Date:** 11/11/2024

II. Type: ☒ Original ☐ Amendment due to ☐ 19.15.27.9.D(6)(a) NMAC ☐ 19.15.27.9.D(6)(b) NMAC ☐ Other.

If Other, please describe: _____

III. Well(s): Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
Sunray G 1R	30-045-27494	L-21-31N-09W	1455’ FSL 990’ FWL	0	200	1

IV. Central Delivery Point Name: Chaco Blanco Processing Plant [See 19.15.27.9(D)(1) NMAC]

V. Anticipated Schedule: Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
Sunray G 1R	**30-045-27494**					

VI. Separation Equipment: ☒ Attach a complete description of how Operator will size separation equipment to optimize gas capture.

VII. Operational Practices: ☒ Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC.

VIII. Best Management Practices: ☒ Attach a complete description of Operator’s best management practices to minimize venting during active and planned maintenance.

Section 2 – Enhanced Plan

EFFECTIVE APRIL 1, 2022

Beginning April 1, 2022, an operator that is not in compliance with its statewide natural gas capture requirement for the applicable reporting area must complete this section.

☒ Operator certifies that it is not required to complete this section because Operator is in compliance with its statewide natural gas capture requirement for the applicable reporting area.

IX. Anticipated Natural Gas Production:

Well	API	Anticipated Average Natural Gas Rate MCF/D	Anticipated Volume of Natural Gas for the First Year MCF

X. Natural Gas Gathering System (NGGS):

Operator	System	ULSTR of Tie-in	Anticipated Gathering Start Date	Available Maximum Daily Capacity of System Segment Tie-in

XI. Map. ☐ Attach an accurate and legible map depicting the location of the well(s), the anticipated pipeline route(s) connecting the production operations to the existing or planned interconnect of the natural gas gathering system(s), and the maximum daily capacity of the segment or portion of the natural gas gathering system(s) to which the well(s) will be connected.

XII. Line Capacity. The natural gas gathering system ☐ will ☐ will not have capacity to gather 100% of the anticipated natural gas production volume from the well prior to the date of first production.

XIII. Line Pressure. Operator ☐ does ☐ does not anticipate that its existing well(s) connected to the same segment, or portion, of the natural gas gathering system(s) described above will continue to meet anticipated increases in line pressure caused by the new well(s).

☐ Attach Operator's plan to manage production in response to the increased line pressure.

XIV. Confidentiality: ☐ Operator asserts confidentiality pursuant to Section 71-2-8 NMSA 1978 for the information provided in Section 2 as provided in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and attaches a full description of the specific information for which confidentiality is asserted and the basis for such assertion.

Section 3 - Certifications

Effective May 25, 2021

Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal:

☒ Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or

☐ Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system. ***If Operator checks this box, Operator will select one of the following:***

Well Shut-In. ☐ Operator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection D of 19.15.27.9 NMAC; or

Venting and Flaring Plan. ☐ Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including:

- **(a)** power generation on lease;
- **(b)** power generation for grid;
- **(c)** compression on lease;
- **(d)** liquids removal on lease;
- **(e)** reinjection for underground storage;
- **(f)** reinjection for temporary storage;
- **(g)** reinjection for enhanced oil recovery;
- **(h)** fuel cell production; and
- **(i)** other alternative beneficial uses approved by the division.

Section 4 - Notices

1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

(a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or

(b) Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.

2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.

I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Management Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.

Signature: 
Printed Name: Amanda Walker
Title: Operations Regulatory Tech Sr.
E-mail Address: mwalker@hilcorp.com
Date: 11/11/2024
Phone: 346.237.2177

OIL CONSERVATION DIVISION **(Only applicable when submitted as a standalone form)**
Approved By:
Title:
Approval Date:
Conditions of Approval:

VI. Separation Equipment:

Hilcorp Energy Company (HEC or Operator) production facilities include separation equipment designed to efficiently separate gas from liquid phases to optimize gas capture based on projected and estimated volumes from the targeted pool of our recomplete project. HEC will utilize flowback separation equipment and production separation equipment designed and built to industry specifications after the recomplete to optimize gas capture and send gas to sales or flare based on analytical composition. HEC operates facilities that are typically one-well facilities. Production separation equipment is upgraded prior to well being completed, if determined to be undersized or inadequate. This equipment is already on-site and tied into our sales gas lines prior to the recomplete operations.

VII. Operational Practices:

1. Subsection (A) Venting and Flaring of Natural Gas
   - HEC understands the requirements of NMAC 19.15.27.8 which outlines that the venting and flaring of natural gas during drilling, completion or production operations that constitutes waste as defined in 19.15.2 are prohibited.
2. Subsection (B) Venting and Flaring during drilling operations
   - This gas capture plan isn't for a well being drilled.
3. Subsection (C) Venting and flaring during completion or recompletion
   - Flowlines will be routed for flowback fluids into a completion or storage tank and if feasible under well conditions, flare rather than vent and commence operation of a separator as soon as it is technically feasible for a separator to function.
   - At any point in the well life (completion, production, inactive) an audio, visual and olfactory inspection be performed at prescribed intervals (weekly or monthly) pursuant to Subsection D of 19.15.27.8 NMAC, to confirm that all production equipment is operating properly and there are no leaks or releases.
4. Subsection (D) Venting and flaring during production operations
   - At any point in the well life (completion, production, inactive) an audio, visual and olfactory inspection be performed at prescribed intervals (weekly or monthly) pursuant to Subsection D of 19.15.27.8 NMAC, to confirm that all production equipment is operating properly and there are no leaks or releases.
   - Monitor manual liquid unloading for wells on-site or in close proximity (<30 minutes' drive time), take reasonable actions to achieve a stabilized rate and pressure at the earliest practical time, and take reasonable actions to minimize venting to the maximum extent practicable.
   - HEC will not vent or flare except during the approved activities listed in NMAC 19.15.27.8 (D) 1-4.
5. Subsection (E) Performance standards
   - All tanks and separation equipment are designed for maximum throughput and pressure to minimize waste.
   - If a flare is utilized during production operations it will have a continuous pilot and is located more than 100 feet from any known well or storage tanks.
   - At any point in the well life (completion, production, inactive) an audio, visual and olfactory inspection be performed at prescribed intervals (weekly or monthly) pursuant to Subsection D of 19.15.27.8 NMAC, to confirm that all production equipment is operating properly and there are no leaks or releases.

6. Subsection (F) Measurement or estimation of vented and flared natural gas
   - Measurement equipment is installed to measure the volume of natural gas flared from process piping.
   - When measurement isn't practicable, estimation of vented and flared natural gas will be completed as noted in 19.15.27.8 (F) 5-6.

VIII. Best Management Practices:

1. Operator has adequate storage and takeaway capacity for wells it chooses to recomplete as the flowlines at the sites are already in place and tied into a gathering system.
2. Operator will flare rather than vent vessel blowdown gas when technically feasible during active and/or planned maintenance to equipment on-site.
3. Operator combusts natural gas that would otherwise be vented or flared, when technically feasible.
4. Operator will shut in wells in the event of a takeaway disruption, emergency situation, or other operations where venting or flaring may occur due to equipment failures.

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
https://www.emnrd.nm.gov/ocd/contact-us

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

CONDITIONS

Action 401454

CONDITIONS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 401454
	Action Type: [C-101] Drilling Non-Federal/Indian (APD)

CONDITIONS

Created By	Condition	Condition Date
ward.rikala	DHC must be approved prior to commingling production from this well.	12/9/2024