Form 3160-3
(June 2015)

FORM APPROVED
OMB No. 1004-0137
Expires: January 31, 2018

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.: NMNM0441951

6. If Indian, Allotee or Tribe Name:

1a. Type of work: ☑ DRILL ☐ REENTER

1b. Type of Well: ☑ Oil Well ☐ Gas Well ☐ Other

1c. Type of Completion: ☐ Hydraulic Fracturing ☑ Single Zone ☐ Multiple Zone

7. If Unit or CA Agreement, Name and No.:

8. Lease Name and Well No.: JAWBONE FED COM BS 014H

2. Name of Operator: FLAT CREEK RESOURCES LLC

9. API Well No.: 30-015-56208

3a. Address: 777 MAIN STREET, SUITE 3600, FORT WORTH, TX 761

3b. Phone No. *(include area code)*: (817) 310-8570

10. Field and Pool, or Exploratory: COTTONWOOD DRAW/BONE SPRING

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*

At surface: LOT 3 / 275 FNL / 1875 FWL / LAT 32.165686 / LONG -104.266196

At proposed prod. zone: NWNW / 50 FNL / 405 FWL / LAT 32.180948 / LONG -104.270778

11. Sec., T. R. M. or Blk. and Survey or Area: SEC 2/T25S/R26E/NMP

14. Distance in miles and direction from nearest town or post office*: 6 miles

12. County or Parish: EDDY

13. State: NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any): 275 feet

16. No of acres in lease:

17. Spacing Unit dedicated to this well: 160.0

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.: 30 feet

19. Proposed Depth: 6880 feet / 12617 feet

20. BLM/BIA Bond No. in file: FED: NMB001675

21. Elevations (Show whether DF, KDB, RT, GL, etc.): 3331 feet

22. Approximate date work will start*: 07/01/2024

23. Estimated duration: 60 days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable)

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be requested by the BLM.

25. Signature	Name *(Printed/Typed)*	Date
(Electronic Submission)	BRIAN WOOD / Ph: (817) 310-8570	03/05/2024

Title: Permitting Agent

Approved by *(Signature)*	Name *(Printed/Typed)*	Date
(Electronic Submission)	CODY LAYTON / Ph: (575) 234-5959	01/24/2025

Title	Office
Assistant Field Manager Lands & Minerals	Carlsbad Field Office

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

APPROVED WITH CONDITIONS

(Continued on page 2)

*(Instructions on page 2)

Approval Date: 01/24/2025

C-102 Sumbit electronically Via OCD Permitting	State of New Mexico Energy, Minerals & Natural Resources Department OIL CONVERSION DIVISION	Revised July, 09 2024
		Submittal Type: ☒ Initial Submittal ☐ Amended Report ☐ As Drilled

WELL LOCATION INFORMATION

API Number	Pool Code	Pool Name
30-015-56208	97494	Cottonwood Draw; Bone Spring (O)

Property Code	Property Name	Well Number
335927	JAWBONE FED COM BS	14H

OGRID No.	Operator Name	Ground Level Elevation
374034	FLAT CREEK RESOURCES, LLC	3,331'

Surface Owner: ☒ State ☐ Fee ☐ Tribal ☐ Federal

Mineral Owner: ☐ State ☐ Fee ☐ Tribal ☐ Federal

Surface Hole Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
	2	25S	26E	3	275 FNL	1,875 FWL	32.165686	-104.266196	EDDY

Bottom Hole Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
D	35	24S	26E		50 FNL	405 FWL	32.180948	-104.270778	EDDY

Dedicated Acres	Infill or Defining Well	Defining Well API	Overlapping Spacing Unit (Y/N)	Consolidation Code
1,280.32				

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
	2	25S	26E	4	473 FNL	410 FWL	32.165143	-104.270943	EDDY

First Take Point (FTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
M	35	24S	26E		100 FSL	405 FWL	32.166718	-104.270927	EDDY

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
D	35	24S	26E		100 FNL	405 FWL	32.180811	-104.270779	EDDY

Unitized Area of Area of Interest	Spacing Unit Type : ☒ Horizontal ☐ Vertical	Ground Elevation
		3,331'

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 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 at this location pursuant to a contract with an owner of a working interest or unleased mineral interest, or a voluntary pooling agreement or a compulsory pooling order of 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 information) in which any part of the well's completed interval will be located or obtained a compulsory pooling order from the division.

Rodney Littleton 02/03/2025

Signature Date

Rodney Littleton

Printed Name

rlittleton@freedomenergy.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

MARK DILLON HARP NEW MEXICO 23786 PROFESSIONAL SURVEYOR

Signature and Seal of Professional Surveyor

MARK DILLON HARP 23786

Certificate Number

1/31/2025

Date of Survey

JP 618.005002.00-16

Note: No allowable will be assigned to this completion until all interest have been consolidated or a non-standard unit has been approved by the division.

P:\618.005 Flat Creek\002 Jawbone Lease\00 - Jawbone Lease\Wells\-16 - BS 14H\DWG\BS 14H C-102 NEW FORMAT.dwg

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 a 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 then the First Take Point and Last Take Point) that is closest to any outer boundary of the tract.

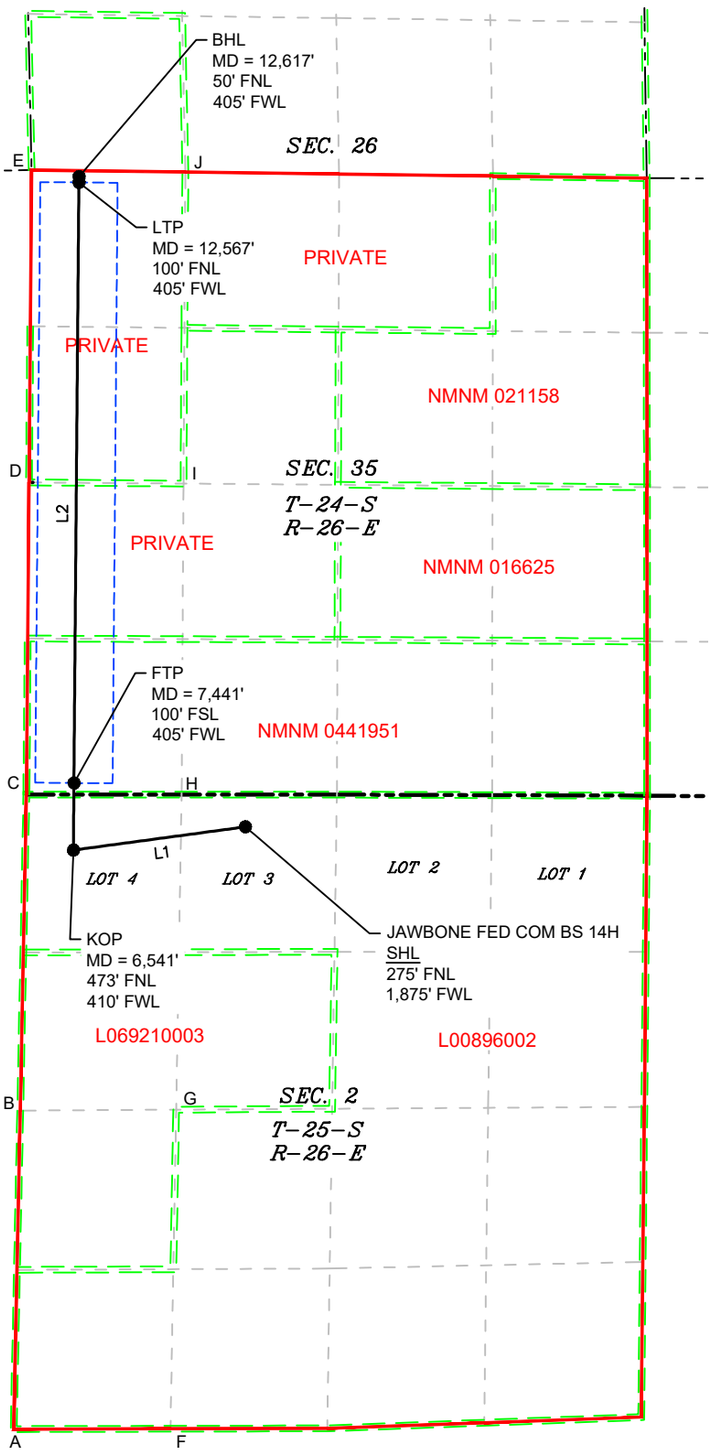
Surveyor shall use the latest United States government survey or dependent resurvey. Well locations will be in reference to the New Mexico Principal Meridian. If the land in not surveyed, contact the OCD Engineering Bureau. Independent subdivision surveys will not be acceptable.

LOT ACREAGE TABLE
SECTION 2
T-25-S, R-26-E
LOT 1 = 40.20 ACRES
LOT 2 = 40.12 ACRES
LOT 3 = 40.04 ACRES
LOT 4 = 39.96 ACRES

LINE TABLE		
LINE	AZIMUTH	LENGTH
L1	262°18'24"	1,482.26'
L2	000°28'37"	5,749.66'

LEGEND

- SECTION LINE
- PROPOSED WELL BORE
- NEW MEXICO MINERAL LEASE
- 330' BUFFER
- ALLOCATION AREA



COORDINATE TABLE					
SHL (NAD 83 NME)			SHL (NAD 27 NME)		
Y =	424,018.2	N	Y =	423,960.7	N
X =	562,111.8	E	X =	520,929.7	E
LAT. =	32.165686	°N	LAT. =	32.165567	°N
LONG. =	104.266196	°W	LONG. =	104.265695	°W
KOP (NAD 83 NME)			KOP (NAD 27 NME)		
Y =	423,819.8	N	Y =	423,762.3	N
X =	560,642.9	E	X =	519,460.8	E
LAT. =	32.165143	°N	LAT. =	32.165024	°N
LONG. =	104.270943	°W	LONG. =	104.270443	°W
FTP (NAD 83 NME)			FTP (NAD 27 NME)		
Y =	424,392.7	N	Y =	424,335.2	N
X =	560,647.6	E	X =	519,465.6	E
LAT. =	32.166718	°N	LAT. =	32.166599	°N
LONG. =	104.270927	°W	LONG. =	104.270426	°W
LTP (NAD 83 NME)			LTP (NAD 27 NME)		
Y =	429,519.2	N	Y =	429,461.6	N
X =	560,690.3	E	X =	519,508.4	E
LAT. =	32.180811	°N	LAT. =	32.180691	°N
LONG. =	104.270779	°W	LONG. =	104.270278	°W
BHL (NAD 83 NME)			BHL (NAD 27 NME)		
Y =	429,569.2	N	Y =	429,511.6	N
X =	560,690.7	E	X =	519,508.8	E
LAT. =	32.180948	°N	LAT. =	32.180829	°N
LONG. =	104.270778	°W	LONG. =	104.270277	°W
CORNER COORDINATES (NAD 83 NME)					
A - Y =	418,877.2	N	A - X =	560,133.5	E
B - Y =	421,595.9	N	B - X =	560,189.3	E
C - Y =	424,292.6	N	C - X =	560,241.8	E
D - Y =	426,958.6	N	D - X =	560,264.0	E
E - Y =	429,624.7	N	E - X =	560,286.1	E
F - Y =	418,880.5	N	F - X =	561,471.8	E
G - Y =	421,603.9	N	G - X =	561,520.5	E
H - Y =	424,293.0	N	H - X =	561,567.2	E
I - Y =	426,948.3	N	I - X =	561,583.0	E
J - Y =	429,607.3	N	J - X =	561,598.9	E
CORNER COORDINATES (NAD 27 NME)					
A - Y =	418,819.8	N	A - X =	518,951.4	E
B - Y =	421,538.5	N	B - X =	519,007.2	E
C - Y =	424,235.1	N	C - X =	519,059.8	E
D - Y =	426,901.1	N	D - X =	519,082.0	E
E - Y =	429,567.1	N	E - X =	519,104.2	E
F - Y =	418,823.1	N	F - X =	520,289.7	E
G - Y =	421,546.5	N	G - X =	520,338.4	E
H - Y =	424,235.5	N	H - X =	520,385.1	E
I - Y =	426,890.7	N	I - X =	520,401.0	E
J - Y =	429,549.7	N	J - X =	520,416.9	E

JP 618.005002.00-16

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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: Flat Creek Resources, LLC **OGRID:** 374034 **Date:** 01 / 29 / 2025

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
Jawbone BS Fed Com 11H	30-015	2-2-25S-26E	275' FNL 1665' FEL	500	750	1000
Jawbone BS Fed Com 12H	30-015	2-2-25S-26E	275' FNL 1695' FEL	500	750	1000
Jawbone BS Fed Com 13H	30-015	3-2-25S-26E	275' FNL 1905FWL	500	750	1000
Jawbone BS Fed Com 14H	30-015	3-2-25S-26E	275' FNL 1875' FWL	500	750	1000

IV. Central Delivery Point Name: Jawbone Central Tank Battery [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
Jawbone BS Fed Com 11H	30-015	09/01/2025	09/15/2025	11/01/2025	01/01/2026	02/01/2026
Jawbone BS Fed Com 12H	30-015	09/02/2025	09/25/2025	11/01/2025	01/01/2026	02/01/2026
Jawbone BS Fed Com 13H	30-015	09/03/2025	10/05/2025	11/01/202511	01/01/2026	02/01/2026
Jawbone BS Fed Com 14H	30-015	09/04/2025	10/15/2025	11/01/2025	01/01/2026	02/01/2026

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:	Rodney Littleton
Printed Name:	Rodney Littleton
Title:	VP of Drilling
E-mail Address:	rlittleton@freedomenergy.com
Date:	01/29/2025
Phone:	817-310-8578

OIL CONSERVATION DIVISION
(Only applicable when submitted as a standalone form)

Approved By:	
Title:	
Approval Date:	
Conditions of Approval:	

VI. SEPARATION EQUIPMENT

Flat Creek Resources, LLC, will install:

- four 48” OD x 15’, 500#, 3 phase separators
- one 96” OD x 20’, 250# heater treater
- four 750 BBL water tanks
- three 750 BBL oil tanks
- one 15’6” x 30’, 1000 BBL gun barrel
- one 72” OD x 15’ gas scrubber
- one vapor recovery tower
- one vapor recovery unit
- vapor recovery piping for oil and water tanks

System is designed to capture 120% of the expected gas volume from separation all the way through the vapor recovery equipment.

VII. OPERATIONAL PRACTICES

NMAC 19.15.27.8 (A) Venting & Flaring of Natural Gas

1. Flat Creek Resources will comply with NMAC 19.15.27.8 – venting and flaring of gas during drilling, completion, or production that constitutes waste as defined in 19.15.2 is banned.

NMAC 19.15.27.8 (B) Venting & Flaring During Drilling

1. Flat Creek will combust gas if technically feasible during drilling operations using best industry practices.
2. A flare stack with a 100% capacity for expected volume will be set on the pad greater than 100 feet from the nearest well head and storage tank.
3. In an emergency, Flat Creek will vent the gas in order to avoid substantial impact. Flat Creek will report vented or flared gas to the NMOCD.

NMAC 19.15.27.8 (C) Venting & Flaring During Completion or Recompletion

1. Facilities will be built and ready from the first day of flowback.
2. Test separator will properly separate gas and liquids. Temporary test separator will be used initially to process volumes. In addition, separator will be tied into flowback tanks which will be tied into the gas processing equipment for sale down a pipeline.
3. Should the facility not be ready to process gas or the gas does not meet quality standards then the flowback will be delayed until the facility and pipeline are ready.

NMAC 19.15.27.8 (D) Venting & Flaring During Production

Flat Creek will not vent or flare natural gas except:

1. During and emergency or malfunction.
2. To unload or clean-up liquid holdup in a well to atmospheric pressure, provided
    a. Flat Creek does not vent after the well achieves a stabilized rate and pressure
    b. Flat Creek will be on-site while unloading liquids by manual purging and take all reasonable actions to achieve a stabilized rate and pressure as soon as possible
    c. Flat Creek will optimize the system to minimize gas venting if the well is equipped with a plunger lift or auto control system
    d. Best management practices will be used during downhole well maintenance
3. During the following activities unless prohibited
    a. Gauging or sampling a storage tank or low-pressure production vessel
    b. Loading out liquids from a storage tank
    c. Repair and maintenance
    d. Normal operations of a gas-activated pneumatic controller or pump
    e. Normal operation of a storage tank but not including venting from a thief hatch
    f. Normal operation of a dehydration units
    g. Normal operations of compressors, engines, turbines, valves, flanges, & connectors
    h. During bradenhead, packer leakage test, or production test lasting less than 24 hours
    i. When natural gas does not meet the gathering line specifications

j. Commissioning of pipelines, equipment, or facilities only for as long as necessary to purge introduced impurities

NMAC 19.15.27.8 (E) Performance Standards

1. Flat Creek used a safety factor to design the separation and storage equipment. The equipment will be routed toa vapor recovery system and uses a flare as back up to startup, shutdown, maintenance, or malfunction of the VRU system.
2. Flat Creek will install a flare that will handle the full volume of vapors from the facility in case of VRU failure. It will have an auto-ignition system.
3. Flare stacks will be appropriately sized and designed to ensure proper combustion efficiency
    a. Flare stacks installed or replaced will be equipped with an automatic ignitor or continuous pilot.
    b. Flare stacks will be located greater than 100 feet from well head and storage tanks and securely anchored
4. Flat Creek will conduct an AVO inspection on all components for leaks and defects every week.
5. Flat Creek will make and keep records of AVO inspection available to the NMOCD for at least 5 years.
6. Flat Creek may use a remote or automated monitoring technology to detect leaks and releases in lieu of AVO inspections with prior NMOCD approval.
7. Facilities will be designed to minimize waste.
8. Flat Creek will resolve emergencies as promptly as possible.

NMAC 19.15.27.8 (F) Measuring or Estimating Vented and Flared Natural Gas

1. Flat Creek will have meters on both the low pressure and high-pressure sides of the flares. Volumes will be recorded in the SCADA system.
2. Flat Creek will install equipment to measure the volume of flared natural gas that has an average production of greater than 60 MCFD.
3. Flat Creek's measuring equipment will conform to industry standards.
4. Measurement system will be designed such that it cannot be bypassed except for inspections and servicing the meters.
5. Flat Creek will estimate the volume of vented or flared gas using a methodology that can be independently verified if metering is not practicable due to low flow rate or pressure.
6. Flat Creek will estimate the volume of vented and/or flared gas based on the results of an annual GOR test for wells that do not require measuring equipment reported on form C-116.
7. Flat Creek will install measuring equipment whenever the NMOCD determines that metering is necessary.

VIII. BEST MANAGEMENT PRACTICES

Flat Creek Resources, LLC, will minimize venting during maintenance by:

1. System will be designed and operated to route storage tank and process equipment emissions to the VRU. If the VRU is not operable, then the vapors will be routed to the flare.
2. Scheduling maintenance for multiple tasks to minimize the need for blowdowns.
3. After completion of maintenance, gas will be flared until it meets pipeline specifications.

AFMSS
U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

Drilling Plan Data Report
01/25/2025

APD ID: 10400097202
Submission Date: 03/05/2024

Operator Name: FLAT CREEK RESOURCES LLC

Well Name: JAWBONE FED COM BS
Well Number: 014H

Well Type: OIL WELL
Well Work Type: Drill

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical	Measured Depth	Lithologies	Mineral Resources	Producing Formatio
14909612	SALADO	3331	0	0	ANHYDRITE	USEABLE WATER	N
14909613	TOP SALT	2253	1078	1078	SALT	NONE	N
14909614	BASE OF SALT	1613	1718	1726	SALT	NONE	N
14909615	LAMAR	1396	1935	1952	LIMESTONE	NONE	N
14909616	BELL CANYON	1329	2002	2034	SANDSTONE	NATURAL GAS, OIL	N
14909617	CHERRY CANYON	547	2784	2852	SANDSTONE	NATURAL GAS, OIL	N
14909618	BRUSHY CANYON	-459	3790	3918	SANDSTONE	NATURAL GAS, OIL	N
14909619	BONE SPRING LIME	-2014	5345	5565	LIMESTONE	NATURAL GAS, OIL	N
14909620	BONE SPRING 1ST	-2936	6267	6300	SANDSTONE	NATURAL GAS, OIL	N
14909621	BONE SPRING 2ND	-3101	6432	6667	SHALE	NATURAL GAS, OIL	N
14909622	BONE SPRING 2ND	-3407	6738	7029	SANDSTONE	NATURAL GAS, OIL	Y

Section 2 - Blowout Prevention

Pressure Rating (PSI): 10M
Rating Depth: 20000

Equipment: A 20,000, 10,000 psi BOP stack will consist of a single ram, mud cross and double ram-type (10,000 psi WP) preventer, and an annular preventer (5000-psi WP). Both units will be hydraulically operated. The ram-type will be equipped with blind rams on bottom and drill pipe rams on top. All BOPE will be tested in accordance with 43 CFR 3160 Onshore Oil & Gas Order 2. Speed head will be installed by a third-party welder under the supervision of the vendors representative.

Requesting Variance? YES

Variance request: A variance is requested to use a co-flex line between the BOP and choke manifold (instead of using a 4” OD steel line).

Operator Name: FLAT CREEK RESOURCES LLC

Well Name: JAWBONE FED COM BS **Well Number:** 014H

Testing Procedure: BOP Testing Procedures: 1. Use water to test BOPE. 2. Make up test assembly (test plug) and set in the wellhead profile. Ensure the casing valve is left open. Monitor the casing valve outlet while testing for potential leak past the test plug. 3. Circulate through the choke/kill lines, choke manifold, standpipe manifold, and valves to ensure that all lines are full of water. This will prevent pressure drop (compression) while testing. 4. Line up test unit, test rams, valves, and lines as per the following chart. 5. Pressure tests must be low and high, respectively, and the pressure should stabilize with minimum bleed off within 10 minutes. If a test plug is used, no bleed-off of pressure is acceptable. For a test not using a test plug, if a decline in pressure of more than 10% in 30 minutes occurs, then the test will be considered to have failed. Pressure should be recorded on a chart recorder (add scale to be use). 6. Any equipment that does not pass the pressure test must be reported to the drilling supervisor. Equipment must be repaired and retested. 7. Continue with pressure testing until all equipment has been tested as per the specific rig requirements. 8. Rig down test assembly. 9. All tests and drills will be recorded in the drilling log.

Choke Diagram Attachment:

Jawbone_BS_Choke_20240220081931.pdf

BOP Diagram Attachment:

Jawbone_BS_BOP_20240220081958.pdf

Section 3 - Casing

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	14.75	10.75	NEW	API	N	0	300	0	300	0	-300	300	J-55	40.5	ST&C	14.9	25.5	DRY	58.8	DRY	58.8
2	INTERMEDIATE	9.875	7.625	NEW	API	N	0	1900	0	1885	0	-1885	1900	OTHER	29.7	BUTT	7.2	7	DRY	12.1	DRY	12.1
3	PRODUCTION	6.75	5.5	NEW	NON API	N	0	12617	0	6880	0	-6880	12617	OTHER	20	OTHER - TCBC-HT	3.4	3.6	DRY	4.3	DRY	4.3

Casing Attachments

Operator Name: FLAT CREEK RESOURCES LLC

Well Name: JAWBONE FED COM BS **Well Number:** 014H

Casing Attachments

Casing ID: 1 **String** SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Jawbone_BS_14H_Casing_Design_Assumptions_20240220082032.pdf

Casing ID: 2 **String** INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Jawbone_BS_14H_Casing_Design_Assumptions_20240220082105.pdf

Casing ID: 3 **String** PRODUCTION

Inspection Document:

Spec Document:

5.5in_Casing_Spec_20240220082137.pdf

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Jawbone_BS_14H_Casing_Design_Assumptions_20240220082204.pdf

Section 4 - Cement

Operator Name: FLAT CREEK RESOURCES LLC

Well Name: JAWBONE FED COM BS **Well Number:** 014H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	300	135	1.68	12.8	226	100	35/65 Poz Premium C	5% salt + 6% bentonite gel + 0.4% CPT-503P + 1/8 #/sk Dura-fiber
SURFACE	Tail		0	300	85	1.34	14.8	113	100	Class C	1% CaCl2 + ¼ #/sk cellophane flakes
INTERMEDIATE	Lead		0	1900	270	1.68	12.8	453	50	35/65 Poz Premium C	5% salt + 6% bentonite gel + 0.4% CPT-503P + 1/8 #/sk Dura-fiber
INTERMEDIATE	Tail		0	1900	85	1.74	13.5	147	50	Class C	1% CaCl2 + 4% bentonite gel + 0.4% CPT-503P + 1/8 #/sk Dura-fiber
PRODUCTION	Lead		0	12617	205	2.82	10.4	578	15	Class C	1% CaCl2 + 4% bentonite gel + 0.4% CPT-503P + 1/8 #/sk Dura-fiber
PRODUCTION	Tail		0	12617	450	1.42	13.2	639	15	35/65 Poz Premium H	0.2% CPT-23

Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

Description of the equipment for the circulating system in accordance with Onshore Order #2:

Diagram of the equipment for the circulating system in accordance with Onshore Order #2:

Describe what will be on location to control well or mitigate other conditions: Sufficient mud materials (e. g., barite, bentonite, LCM) to maintain mud properties and meet minimum lost circulation and weight increase requirements will always be on site.
Describe the mud monitoring system utilized: An electronic pit volume totalizer (PVT) mud system complying with 43 CFR 3172 will monitor pit volumes for gains or losses, flow rate, pump pressures, and stroke rate.

Circulating Medium Table

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics

Operator Name: FLAT CREEK RESOURCES LLC

Well Name: JAWBONE FED COM BS **Well Number:** 014H

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	300	OTHER : Fresh Water	8.8	8.8							
300	1900	OTHER : Cut Brine	10	10							
1900	12617	OTHER : High Performance Water Base	9.4	9.4							

Section 6 - Test, Logging, Coring

List of production tests including testing procedures, equipment and safety measures:

GR, MWD, and mud logs will be run.

List of open and cased hole logs run in the well:

GAMMA RAY LOG,MUD LOG/GEOLOGICAL LITHOLOGY LOG,

Coring operation description for the well:

No core is planned

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 3201 **Anticipated Surface Pressure:** 1687

Anticipated Bottom Hole Temperature(F): 154

Anticipated abnormal pressures, temperatures, or potential geologic hazards? NO

Describe:

Contingency Plans geoharzards description:

Contingency Plans geohazards

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations

Jawbone_BS_PadF_H2S_Plan_20240220082525.pdf

Operator Name: FLAT CREEK RESOURCES LLC

Well Name: JAWBONE FED COM BS **Well Number:** 014H

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

Jawbone_BS_14H_Horizontal_Plan_20240220082539.pdf

Other proposed operations facets description:

Other proposed operations facets attachment:

Jawbone_BS_14H_Drill_Plan_20240220082559.pdf
Jawbone_BS_14H_Anticollision_Report_20240220082616.pdf
Jawbone_BS_14H_Speedhead_Specs_20240220082729.pdf
CoFlex_Certs_Rev_20240612145226.pdf

Other Variance attachment:

Freedom Energy

Well: Jawbone Fed Com BS 14H
Site: Jawbone
Project: Eddy County, New Mexico NAD27 NME
Design: rev0

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	VSect	Annotation
1	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	
2	1000.00	0.00	0.000	1000.00	0.00	0.00	0.00	0.00	KOP Begin 2°/100' build
3	1964.96	19.30	262.307	1946.82	-21.55	-159.54	2.00	-22.88	Begin 19.30° tangent
4	5475.65	19.30	262.307	5260.22	-176.88	-1309.38	0.00	-187.77	Begin 2°/100' drop
5	6440.61	0.00	0.000	6207.04	-198.43	-1468.92	2.00	-210.65	Begin vertical hold
6	6540.61	0.00	0.000	6307.04	-198.43	-1468.92	0.00	-210.65	Begin 10°/100' build
7	7440.61	90.00	0.477	6880.00	374.51	-1464.15	10.00	362.31	Begin 90.00° lateral
8	12567.31	90.00	0.477	6880.00	5501.03	-1421.46	0.00	5489.01	LTP @ 12567.31 MD 6880.00 TVD
9	12617.31	90.00	0.477	6880.00	5551.03	-1421.05	0.00	5539.01	PBHL @ 12617.31 MD 6880.00 TVD

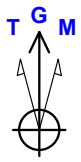
DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting
Jawbone 14H BHL 50 FNL 405 FWL	6880.00	5551.03	-1421.05	429511.730	519508.750
- plan misses target center by 0.01ft at 12617.31ft MD (6880.00 TVD, 5551.03 N, -1421.05 E)					
Jawbone 14H FTP 100 FSL 405 FWL	6880.00	374.51	-1464.15	424335.220	519465.650
- plan hits target center					
Jawbone 14H LTP 100 FNL 405 FWL	6880.00	5501.03	-1421.46	429461.730	519508.340
- plan hits target center					
Jawbone 14H vert	6307.04	-198.43	-1468.92	423762.280	519460.883
- plan hits target center					

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico East 3001
System Datum: Mean Sea Level
Depth Reference: RKB=3311+26.5 @ 3337.50ft

Northing	Easting	Latitude	Longitude
423960.710	520929.800	32.165566825	-104.265694877

Total Corr (M->G): To convert a Magnetic Direction to a Grid Direction, Add 6.53°



Azimuths to Grid North
True North: -0.04°
Magnetic North: 6.53°

Magnetic Field
Strength: 47132.6nT
Dip Angle: 59.66°
Date: 12/1/2023
Model: IGRF2020

TRUE Directional Services, LLC

9:50, December 01 2023

Planning Report

TRUE Directional Services, LLC

Database:	DT_Aug2923v16	**Local Co-ordinate Reference:**	Well Jawbone Fed Com BS 14H
Company:	Freedom Energy	**TVD Reference:**	RKB=3311+26.5 @ 3337.50ft
Project:	Eddy County, New Mexico NAD27 NME	**MD Reference:**	RKB=3311+26.5 @ 3337.50ft
Site:	Jawbone	**North Reference:**	Grid
Well:	Jawbone Fed Com BS 14H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Project Eddy County, New Mexico NAD27 NME

Map System:	US State Plane 1927 (Exact solution)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site Jawbone

Site Position:		**Northing:**	419,218.600 usft	**Latitude:**	32.152532039
From:	Map	**Easting:**	520,115.600 usft	**Longitude:**	-104.268335365
Position Uncertainty:	0.00 ft	**Slot Radius:**	13-3/16 "		

Well Jawbone Fed Com BS 14H, Surf loc: 275 FNL 1875 FWL Section 02-T25S-R26E

Well Position	**+N/-S**	0.00 ft	**Northing:**	423,960.710 usft	**Latitude:**	32.165566825
	+E/-W	0.00 ft	**Easting:**	520,929.800 usft	**Longitude:**	-104.265694877
Position Uncertainty		0.00 ft	**Wellhead Elevation:**	ft	**Ground Level:**	3,311.00 ft
Grid Convergence:		0.04 °				

Wellbore Original Hole

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	12/1/2023	6.57	59.66	47,132.58248169

Design rev0

Audit Notes:

Version:		**Phase:**	PLAN	**Tie On Depth:**	0.00

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	0.477

Plan Survey Tool Program **Date** 12/1/2023

	Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	12,617.31	rev0 (Original Hole)	MWD	
				OWSG MWD - Standard	

Planning Report

TRUE Directional Services, LLC

Database:	DT_Aug2923v16	**Local Co-ordinate Reference:**	Well Jawbone Fed Com BS 14H
Company:	Freedom Energy	**TVD Reference:**	RKB=3311+26.5 @ 3337.50ft
Project:	Eddy County, New Mexico NAD27 NME	**MD Reference:**	RKB=3311+26.5 @ 3337.50ft
Site:	Jawbone	**North Reference:**	Grid
Well:	Jawbone Fed Com BS 14H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Plan Sections

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,000.00	0.00	0.000	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,964.96	19.30	262.307	1,946.82	-21.55	-159.54	2.00	2.00	0.00	262.31	
5,475.65	19.30	262.307	5,260.22	-176.88	-1,309.38	0.00	0.00	0.00	0.00	
6,440.61	0.00	0.000	6,207.04	-198.43	-1,468.92	2.00	-2.00	0.00	180.00	
6,540.61	0.00	0.000	6,307.04	-198.43	-1,468.92	0.00	0.00	0.00	0.00	Jawbone 14H vert
7,440.61	90.00	0.477	6,880.00	374.51	-1,464.15	10.00	10.00	0.05	0.48	
12,567.31	90.00	0.477	6,880.00	5,501.03	-1,421.46	0.00	0.00	0.00	0.00	Jawbone 14H LTP 10
12,617.31	90.00	0.477	6,880.00	5,551.03	-1,421.05	0.00	0.00	0.00	0.00	Jawbone 14H BHL 50

Planning Report

TRUE Directional Services, LLC

Database:	DT_Aug2923v16	**Local Co-ordinate Reference:**	Well Jawbone Fed Com BS 14H
Company:	Freedom Energy	**TVD Reference:**	RKB=3311+26.5 @ 3337.50ft
Project:	Eddy County, New Mexico NAD27 NME	**MD Reference:**	RKB=3311+26.5 @ 3337.50ft
Site:	Jawbone	**North Reference:**	Grid
Well:	Jawbone Fed Com BS 14H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.000	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.000	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.000	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.000	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.000	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.000	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.000	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.000	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.000	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.000	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	2.00	262.307	1,099.98	-0.23	-1.73	-0.25	2.00	2.00	0.00
1,200.00	4.00	262.307	1,199.84	-0.93	-6.92	-0.99	2.00	2.00	0.00
1,300.00	6.00	262.307	1,299.45	-2.10	-15.55	-2.23	2.00	2.00	0.00
1,400.00	8.00	262.307	1,398.70	-3.73	-27.63	-3.96	2.00	2.00	0.00
1,500.00	10.00	262.307	1,497.47	-5.83	-43.13	-6.19	2.00	2.00	0.00
1,600.00	12.00	262.307	1,595.62	-8.38	-62.04	-8.90	2.00	2.00	0.00
1,700.00	14.00	262.307	1,693.06	-11.39	-84.33	-12.09	2.00	2.00	0.00
1,800.00	16.00	262.307	1,789.64	-14.86	-109.98	-15.77	2.00	2.00	0.00
1,900.00	18.00	262.307	1,885.27	-18.77	-138.95	-19.93	2.00	2.00	0.00
1,964.96	19.30	262.307	1,946.82	-21.55	-159.54	-22.88	2.00	2.00	0.00
2,000.00	19.30	262.307	1,979.89	-23.10	-171.01	-24.52	0.00	0.00	0.00
2,100.00	19.30	262.307	2,074.27	-27.53	-203.77	-29.22	0.00	0.00	0.00
2,200.00	19.30	262.307	2,168.65	-31.95	-236.52	-33.92	0.00	0.00	0.00
2,300.00	19.30	262.307	2,263.03	-36.37	-269.27	-38.62	0.00	0.00	0.00
2,400.00	19.30	262.307	2,357.41	-40.80	-302.02	-43.31	0.00	0.00	0.00
2,500.00	19.30	262.307	2,451.79	-45.22	-334.78	-48.01	0.00	0.00	0.00
2,600.00	19.30	262.307	2,546.17	-49.65	-367.53	-52.71	0.00	0.00	0.00
2,700.00	19.30	262.307	2,640.55	-54.07	-400.28	-57.40	0.00	0.00	0.00
2,800.00	19.30	262.307	2,734.93	-58.50	-433.03	-62.10	0.00	0.00	0.00
2,900.00	19.30	262.307	2,829.31	-62.92	-465.79	-66.80	0.00	0.00	0.00
3,000.00	19.30	262.307	2,923.69	-67.35	-498.54	-71.49	0.00	0.00	0.00
3,100.00	19.30	262.307	3,018.07	-71.77	-531.29	-76.19	0.00	0.00	0.00
3,200.00	19.30	262.307	3,112.45	-76.19	-564.05	-80.89	0.00	0.00	0.00
3,300.00	19.30	262.307	3,206.83	-80.62	-596.80	-85.58	0.00	0.00	0.00
3,400.00	19.30	262.307	3,301.21	-85.04	-629.55	-90.28	0.00	0.00	0.00
3,500.00	19.30	262.307	3,395.59	-89.47	-662.30	-94.98	0.00	0.00	0.00
3,600.00	19.30	262.307	3,489.98	-93.89	-695.06	-99.68	0.00	0.00	0.00
3,700.00	19.30	262.307	3,584.36	-98.32	-727.81	-104.37	0.00	0.00	0.00
3,800.00	19.30	262.307	3,678.74	-102.74	-760.56	-109.07	0.00	0.00	0.00
3,900.00	19.30	262.307	3,773.12	-107.17	-793.32	-113.77	0.00	0.00	0.00
4,000.00	19.30	262.307	3,867.50	-111.59	-826.07	-118.46	0.00	0.00	0.00
4,100.00	19.30	262.307	3,961.88	-116.01	-858.82	-123.16	0.00	0.00	0.00
4,200.00	19.30	262.307	4,056.26	-120.44	-891.57	-127.86	0.00	0.00	0.00
4,300.00	19.30	262.307	4,150.64	-124.86	-924.33	-132.55	0.00	0.00	0.00
4,400.00	19.30	262.307	4,245.02	-129.29	-957.08	-137.25	0.00	0.00	0.00
4,500.00	19.30	262.307	4,339.40	-133.71	-989.83	-141.95	0.00	0.00	0.00
4,600.00	19.30	262.307	4,433.78	-138.14	-1,022.58	-146.64	0.00	0.00	0.00
4,700.00	19.30	262.307	4,528.16	-142.56	-1,055.34	-151.34	0.00	0.00	0.00
4,800.00	19.30	262.307	4,622.54	-146.99	-1,088.09	-156.04	0.00	0.00	0.00
4,900.00	19.30	262.307	4,716.92	-151.41	-1,120.84	-160.74	0.00	0.00	0.00
5,000.00	19.30	262.307	4,811.30	-155.83	-1,153.60	-165.43	0.00	0.00	0.00
5,100.00	19.30	262.307	4,905.68	-160.26	-1,186.35	-170.13	0.00	0.00	0.00
5,200.00	19.30	262.307	5,000.06	-164.68	-1,219.10	-174.83	0.00	0.00	0.00

Planning Report

TRUE Directional Services, LLC

Database:	DT_Aug2923v16	**Local Co-ordinate Reference:**	Well Jawbone Fed Com BS 14H
Company:	Freedom Energy	**TVD Reference:**	RKB=3311+26.5 @ 3337.50ft
Project:	Eddy County, New Mexico NAD27 NME	**MD Reference:**	RKB=3311+26.5 @ 3337.50ft
Site:	Jawbone	**North Reference:**	Grid
Well:	Jawbone Fed Com BS 14H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,300.00	19.30	262.307	5,094.44	-169.11	-1,251.85	-179.52	0.00	0.00	0.00
5,400.00	19.30	262.307	5,188.82	-173.53	-1,284.61	-184.22	0.00	0.00	0.00
5,475.65	19.30	262.307	5,260.22	-176.88	-1,309.38	-187.77	0.00	0.00	0.00
5,500.00	18.81	262.307	5,283.24	-177.94	-1,317.26	-188.90	2.00	-2.00	0.00
5,600.00	16.81	262.307	5,378.44	-182.04	-1,347.58	-193.25	2.00	-2.00	0.00
5,700.00	14.81	262.307	5,474.65	-185.69	-1,374.58	-197.12	2.00	-2.00	0.00
5,800.00	12.81	262.307	5,571.76	-188.88	-1,398.23	-200.52	2.00	-2.00	0.00
5,900.00	10.81	262.307	5,669.63	-191.62	-1,418.52	-203.42	2.00	-2.00	0.00
6,000.00	8.81	262.307	5,768.16	-193.90	-1,435.41	-205.85	2.00	-2.00	0.00
6,100.00	6.81	262.307	5,867.23	-195.72	-1,448.88	-207.78	2.00	-2.00	0.00
6,200.00	4.81	262.307	5,966.71	-197.08	-1,458.91	-209.22	2.00	-2.00	0.00
6,300.00	2.81	262.307	6,066.49	-197.97	-1,465.50	-210.16	2.00	-2.00	0.00
6,400.00	0.81	262.307	6,166.43	-198.39	-1,468.63	-210.61	2.00	-2.00	0.00
6,440.61	0.00	0.000	6,207.04	-198.43	-1,468.92	-210.65	2.00	-2.00	0.00
6,500.00	0.00	0.000	6,266.43	-198.43	-1,468.92	-210.65	0.00	0.00	0.00
6,540.61	0.00	0.000	6,307.04	-198.43	-1,468.92	-210.65	0.00	0.00	0.00
6,550.00	0.94	0.477	6,316.43	-198.35	-1,468.92	-210.58	10.00	10.00	0.00
6,600.00	5.94	0.477	6,366.32	-195.35	-1,468.89	-207.58	10.00	10.00	0.00
6,650.00	10.94	0.477	6,415.77	-188.02	-1,468.83	-200.24	10.00	10.00	0.00
6,700.00	15.94	0.477	6,464.38	-176.40	-1,468.74	-188.62	10.00	10.00	0.00
6,750.00	20.94	0.477	6,511.80	-160.59	-1,468.60	-172.81	10.00	10.00	0.00
6,800.00	25.94	0.477	6,557.66	-140.71	-1,468.44	-152.93	10.00	10.00	0.00
6,850.00	30.94	0.477	6,601.61	-116.91	-1,468.24	-129.13	10.00	10.00	0.00
6,900.00	35.94	0.477	6,643.32	-89.37	-1,468.01	-101.59	10.00	10.00	0.00
6,950.00	40.94	0.477	6,682.47	-58.29	-1,467.75	-70.51	10.00	10.00	0.00
7,000.00	45.94	0.477	6,718.77	-23.93	-1,467.47	-36.14	10.00	10.00	0.00
7,050.00	50.94	0.477	6,751.93	13.47	-1,467.16	1.26	10.00	10.00	0.00
7,100.00	55.94	0.477	6,781.70	53.62	-1,466.82	41.41	10.00	10.00	0.00
7,150.00	60.94	0.477	6,807.86	96.21	-1,466.47	84.00	10.00	10.00	0.00
7,200.00	65.94	0.477	6,830.21	140.92	-1,466.09	128.71	10.00	10.00	0.00
7,250.00	70.94	0.477	6,848.58	187.40	-1,465.71	175.19	10.00	10.00	0.00
7,300.00	75.94	0.477	6,862.83	235.31	-1,465.31	223.10	10.00	10.00	0.00
7,350.00	80.94	0.477	6,872.85	284.28	-1,464.90	272.07	10.00	10.00	0.00
7,400.00	85.94	0.477	6,878.56	333.93	-1,464.49	321.73	10.00	10.00	0.00
7,440.61	90.00	0.477	6,880.00	374.51	-1,464.15	362.31	10.00	10.00	0.00
7,500.00	90.00	0.477	6,880.00	433.90	-1,463.65	421.70	0.00	0.00	0.00
7,600.00	90.00	0.477	6,880.00	533.89	-1,462.82	521.70	0.00	0.00	0.00
7,700.00	90.00	0.477	6,880.00	633.89	-1,461.99	621.70	0.00	0.00	0.00
7,800.00	90.00	0.477	6,880.00	733.89	-1,461.16	721.70	0.00	0.00	0.00
7,900.00	90.00	0.477	6,880.00	833.88	-1,460.32	821.70	0.00	0.00	0.00
8,000.00	90.00	0.477	6,880.00	933.88	-1,459.49	921.70	0.00	0.00	0.00
8,100.00	90.00	0.477	6,880.00	1,033.87	-1,458.66	1,021.70	0.00	0.00	0.00
8,200.00	90.00	0.477	6,880.00	1,133.87	-1,457.83	1,121.70	0.00	0.00	0.00
8,300.00	90.00	0.477	6,880.00	1,233.87	-1,456.99	1,221.70	0.00	0.00	0.00
8,400.00	90.00	0.477	6,880.00	1,333.86	-1,456.16	1,321.70	0.00	0.00	0.00
8,500.00	90.00	0.477	6,880.00	1,433.86	-1,455.33	1,421.70	0.00	0.00	0.00
8,600.00	90.00	0.477	6,880.00	1,533.86	-1,454.50	1,521.70	0.00	0.00	0.00
8,700.00	90.00	0.477	6,880.00	1,633.85	-1,453.66	1,621.70	0.00	0.00	0.00
8,800.00	90.00	0.477	6,880.00	1,733.85	-1,452.83	1,721.70	0.00	0.00	0.00
8,900.00	90.00	0.477	6,880.00	1,833.85	-1,452.00	1,821.70	0.00	0.00	0.00
9,000.00	90.00	0.477	6,880.00	1,933.84	-1,451.17	1,921.70	0.00	0.00	0.00
9,100.00	90.00	0.477	6,880.00	2,033.84	-1,450.33	2,021.70	0.00	0.00	0.00
9,200.00	90.00	0.477	6,880.00	2,133.84	-1,449.50	2,121.70	0.00	0.00	0.00
9,300.00	90.00	0.477	6,880.00	2,233.83	-1,448.67	2,221.70	0.00	0.00	0.00

Planning Report

TRUE Directional Services, LLC

Database:	DT_Aug2923v16	**Local Co-ordinate Reference:**	Well Jawbone Fed Com BS 14H
Company:	Freedom Energy	**TVD Reference:**	RKB=3311+26.5 @ 3337.50ft
Project:	Eddy County, New Mexico NAD27 NME	**MD Reference:**	RKB=3311+26.5 @ 3337.50ft
Site:	Jawbone	**North Reference:**	Grid
Well:	Jawbone Fed Com BS 14H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
9,400.00	90.00	0.477	6,880.00	2,333.83	-1,447.83	2,321.70	0.00	0.00	0.00
9,500.00	90.00	0.477	6,880.00	2,433.83	-1,447.00	2,421.70	0.00	0.00	0.00
9,600.00	90.00	0.477	6,880.00	2,533.82	-1,446.17	2,521.70	0.00	0.00	0.00
9,700.00	90.00	0.477	6,880.00	2,633.82	-1,445.34	2,621.70	0.00	0.00	0.00
9,800.00	90.00	0.477	6,880.00	2,733.82	-1,444.50	2,721.70	0.00	0.00	0.00
9,900.00	90.00	0.477	6,880.00	2,833.81	-1,443.67	2,821.70	0.00	0.00	0.00
10,000.00	90.00	0.477	6,880.00	2,933.81	-1,442.84	2,921.70	0.00	0.00	0.00
10,100.00	90.00	0.477	6,880.00	3,033.81	-1,442.01	3,021.70	0.00	0.00	0.00
10,200.00	90.00	0.477	6,880.00	3,133.80	-1,441.17	3,121.70	0.00	0.00	0.00
10,300.00	90.00	0.477	6,880.00	3,233.80	-1,440.34	3,221.70	0.00	0.00	0.00
10,400.00	90.00	0.477	6,880.00	3,333.80	-1,439.51	3,321.70	0.00	0.00	0.00
10,500.00	90.00	0.477	6,880.00	3,433.79	-1,438.68	3,421.70	0.00	0.00	0.00
10,600.00	90.00	0.477	6,880.00	3,533.79	-1,437.84	3,521.70	0.00	0.00	0.00
10,700.00	90.00	0.477	6,880.00	3,633.78	-1,437.01	3,621.70	0.00	0.00	0.00
10,800.00	90.00	0.477	6,880.00	3,733.78	-1,436.18	3,721.70	0.00	0.00	0.00
10,900.00	90.00	0.477	6,880.00	3,833.78	-1,435.35	3,821.70	0.00	0.00	0.00
11,000.00	90.00	0.477	6,880.00	3,933.77	-1,434.51	3,921.70	0.00	0.00	0.00
11,100.00	90.00	0.477	6,880.00	4,033.77	-1,433.68	4,021.70	0.00	0.00	0.00
11,200.00	90.00	0.477	6,880.00	4,133.77	-1,432.85	4,121.70	0.00	0.00	0.00
11,300.00	90.00	0.477	6,880.00	4,233.76	-1,432.01	4,221.70	0.00	0.00	0.00
11,400.00	90.00	0.477	6,880.00	4,333.76	-1,431.18	4,321.70	0.00	0.00	0.00
11,500.00	90.00	0.477	6,880.00	4,433.76	-1,430.35	4,421.70	0.00	0.00	0.00
11,600.00	90.00	0.477	6,880.00	4,533.75	-1,429.52	4,521.70	0.00	0.00	0.00
11,700.00	90.00	0.477	6,880.00	4,633.75	-1,428.68	4,621.70	0.00	0.00	0.00
11,800.00	90.00	0.477	6,880.00	4,733.75	-1,427.85	4,721.70	0.00	0.00	0.00
11,900.00	90.00	0.477	6,880.00	4,833.74	-1,427.02	4,821.70	0.00	0.00	0.00
12,000.00	90.00	0.477	6,880.00	4,933.74	-1,426.19	4,921.70	0.00	0.00	0.00
12,100.00	90.00	0.477	6,880.00	5,033.74	-1,425.35	5,021.70	0.00	0.00	0.00
12,200.00	90.00	0.477	6,880.00	5,133.73	-1,424.52	5,121.70	0.00	0.00	0.00
12,300.00	90.00	0.477	6,880.00	5,233.73	-1,423.69	5,221.70	0.00	0.00	0.00
12,400.00	90.00	0.477	6,880.00	5,333.73	-1,422.86	5,321.70	0.00	0.00	0.00
12,500.00	90.00	0.477	6,880.00	5,433.72	-1,422.02	5,421.70	0.00	0.00	0.00
12,567.31	90.00	0.477	6,880.00	5,501.03	-1,421.46	5,489.01	0.00	0.00	0.00
12,600.00	90.00	0.477	6,880.00	5,533.72	-1,421.19	5,521.70	0.00	0.00	0.00
12,617.31	90.00	0.477	6,880.00	5,551.03	-1,421.05	5,539.01	0.00	0.00	0.00

Planning Report

TRUE Directional Services, LLC

Database:	DT_Aug2923v16	**Local Co-ordinate Reference:**	Well Jawbone Fed Com BS 14H
Company:	Freedom Energy	**TVD Reference:**	RKB=3311+26.5 @ 3337.50ft
Project:	Eddy County, New Mexico NAD27 NME	**MD Reference:**	RKB=3311+26.5 @ 3337.50ft
Site:	Jawbone	**North Reference:**	Grid
Well:	Jawbone Fed Com BS 14H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Jawbone 14H vert - plan hits target center - Point	0.00	0.000	6,307.04	-198.43	-1,468.92	423,762.280	519,460.883	32.165023787	-104.270442322
Jawbone 14H LTP 100 F - plan hits target center - Point	0.00	0.000	6,880.00	5,501.03	-1,421.46	429,461.730	519,508.340	32.180691590	-104.270278164
Jawbone 14H FTP 100 F - plan hits target center - Point	0.00	0.000	6,880.00	374.51	-1,464.15	424,335.220	519,465.650	32.166598801	-104.270425834
Jawbone 14H BHL 50 FI - plan misses target center by 0.01ft at 12617.31ft MD (6880.00 TVD, 5551.03 N, -1421.05 E) - Point	0.00	0.000	6,880.00	5,551.03	-1,421.05	429,511.730	519,508.750	32.180829040	-104.270276744

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
1,000.00	1,000.00	0.00	0.00	KOP Begin 2°/100' build
1,964.96	1,946.82	-21.55	-159.54	Begin 19.30° tangent
5,475.65	5,260.22	-176.88	-1,309.38	Begin 2°/100' drop
6,440.61	6,207.04	-198.43	-1,468.92	Begin vertical hold
6,540.61	6,307.04	-198.43	-1,468.92	Begin 10°/100' build
7,440.61	6,880.00	374.51	-1,464.15	Begin 90.00° lateral
12,567.31	6,880.00	5,501.03	-1,421.46	LTP @ 12567.31 MD 6880.00 TVD
12,617.31	6,880.00	5,551.03	-1,421.05	PBHL @ 12617.31 MD 6880.00 TVD

Planning Report - Geographic

TRUE Directional Services, LLC

Database:	DT_Aug2923v16	**Local Co-ordinate Reference:**	Well Jawbone Fed Com BS 14H
Company:	Freedom Energy	**TVD Reference:**	RKB=3311+26.5 @ 3337.50ft
Project:	Eddy County, New Mexico NAD27 NME	**MD Reference:**	RKB=3311+26.5 @ 3337.50ft
Site:	Jawbone	**North Reference:**	Grid
Well:	Jawbone Fed Com BS 14H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Project Eddy County, New Mexico NAD27 NME

Map System:	US State Plane 1927 (Exact solution)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site Jawbone

Site Position:		**Northing:**	419,218.600 usft	**Latitude:**	32.152532039
From:	Map	**Easting:**	520,115.600 usft	**Longitude:**	-104.268335365
Position Uncertainty:	0.00 ft	**Slot Radius:**	13-3/16 "		

Well Jawbone Fed Com BS 14H, Surf loc: 275 FNL 1875 FWL Section 02-T25S-R26E

Well Position	**+N/-S**	0.00 ft	**Northing:**	423,960.710 usft	**Latitude:**	32.165566825
	+E/-W	0.00 ft	**Easting:**	520,929.800 usft	**Longitude:**	-104.265694877
Position Uncertainty		0.00 ft	**Wellhead Elevation:**	ft	**Ground Level:**	3,311.00 ft
Grid Convergence:		0.04 °				

Wellbore Original Hole

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	12/1/2023	6.57	59.66	47,132.58248169

Design rev0

Audit Notes:

Version:		**Phase:**	PLAN	**Tie On Depth:**	0.00

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	0.477

Plan Survey Tool Program **Date** 12/1/2023

	Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	12,617.31	rev0 (Original Hole)	MWD OWSG MWD - Standard	

Planning Report - Geographic

TRUE Directional Services, LLC

Database:	DT_Aug2923v16	**Local Co-ordinate Reference:**	Well Jawbone Fed Com BS 14H
Company:	Freedom Energy	**TVD Reference:**	RKB=3311+26.5 @ 3337.50ft
Project:	Eddy County, New Mexico NAD27 NME	**MD Reference:**	RKB=3311+26.5 @ 3337.50ft
Site:	Jawbone	**North Reference:**	Grid
Well:	Jawbone Fed Com BS 14H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Plan Sections

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,000.00	0.00	0.000	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,964.96	19.30	262.307	1,946.82	-21.55	-159.54	2.00	2.00	0.00	262.31	
5,475.65	19.30	262.307	5,260.22	-176.88	-1,309.38	0.00	0.00	0.00	0.00	
6,440.61	0.00	0.000	6,207.04	-198.43	-1,468.92	2.00	-2.00	0.00	180.00	
6,540.61	0.00	0.000	6,307.04	-198.43	-1,468.92	0.00	0.00	0.00	0.00	Jawbone 14H vert
7,440.61	90.00	0.477	6,880.00	374.51	-1,464.15	10.00	10.00	0.05	0.48	
12,567.31	90.00	0.477	6,880.00	5,501.03	-1,421.46	0.00	0.00	0.00	0.00	Jawbone 14H LTP 10
12,617.31	90.00	0.477	6,880.00	5,551.03	-1,421.05	0.00	0.00	0.00	0.00	Jawbone 14H BHL 50

Planning Report - Geographic

TRUE Directional Services, LLC

Database:	DT_Aug2923v16	**Local Co-ordinate Reference:**	Well Jawbone Fed Com BS 14H
Company:	Freedom Energy	**TVD Reference:**	RKB=3311+26.5 @ 3337.50ft
Project:	Eddy County, New Mexico NAD27 NME	**MD Reference:**	RKB=3311+26.5 @ 3337.50ft
Site:	Jawbone	**North Reference:**	Grid
Well:	Jawbone Fed Com BS 14H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.00	0.00	0.000	0.00	0.00	0.00	423,960.710	520,929.800	32.165566825	-104.265694877
100.00	0.00	0.000	100.00	0.00	0.00	423,960.710	520,929.800	32.165566825	-104.265694877
200.00	0.00	0.000	200.00	0.00	0.00	423,960.710	520,929.800	32.165566825	-104.265694877
300.00	0.00	0.000	300.00	0.00	0.00	423,960.710	520,929.800	32.165566825	-104.265694877
400.00	0.00	0.000	400.00	0.00	0.00	423,960.710	520,929.800	32.165566825	-104.265694877
500.00	0.00	0.000	500.00	0.00	0.00	423,960.710	520,929.800	32.165566825	-104.265694877
600.00	0.00	0.000	600.00	0.00	0.00	423,960.710	520,929.800	32.165566825	-104.265694877
700.00	0.00	0.000	700.00	0.00	0.00	423,960.710	520,929.800	32.165566825	-104.265694877
800.00	0.00	0.000	800.00	0.00	0.00	423,960.710	520,929.800	32.165566825	-104.265694877
900.00	0.00	0.000	900.00	0.00	0.00	423,960.710	520,929.800	32.165566825	-104.265694877
1,000.00	0.00	0.000	1,000.00	0.00	0.00	423,960.710	520,929.800	32.165566825	-104.265694877
1,100.00	2.00	262.307	1,099.98	-0.23	-1.73	423,960.476	520,928.071	32.165566186	-104.265700467
1,200.00	4.00	262.307	1,199.84	-0.93	-6.92	423,959.776	520,922.885	32.165564269	-104.265717228
1,300.00	6.00	262.307	1,299.45	-2.10	-15.55	423,958.609	520,914.248	32.165561076	-104.265745141
1,400.00	8.00	262.307	1,398.70	-3.73	-27.63	423,956.978	520,902.171	32.165556613	-104.265784173
1,500.00	10.00	262.307	1,497.47	-5.83	-43.13	423,954.884	520,886.670	32.165550883	-104.265834274
1,600.00	12.00	262.307	1,595.62	-8.38	-62.04	423,952.329	520,867.761	32.165543894	-104.265895384
1,700.00	14.00	262.307	1,693.06	-11.39	-84.33	423,949.318	520,845.470	32.165535654	-104.265967429
1,800.00	16.00	262.307	1,789.64	-14.86	-109.98	423,945.853	520,819.822	32.165526174	-104.266050321
1,900.00	18.00	262.307	1,885.27	-18.77	-138.95	423,941.940	520,790.850	32.165515464	-104.266143958
1,964.96	19.30	262.307	1,946.82	-21.55	-159.54	423,939.159	520,770.263	32.165507855	-104.266210493
2,000.00	19.30	262.307	1,979.89	-23.10	-171.01	423,937.609	520,758.788	32.165503613	-104.266247581
2,100.00	19.30	262.307	2,074.27	-27.53	-203.77	423,933.184	520,726.035	32.165491506	-104.266353436
2,200.00	19.30	262.307	2,168.65	-31.95	-236.52	423,928.760	520,693.283	32.165479400	-104.266459291
2,300.00	19.30	262.307	2,263.03	-36.37	-269.27	423,924.335	520,660.530	32.165467293	-104.266565146
2,400.00	19.30	262.307	2,357.41	-40.80	-302.02	423,919.911	520,627.777	32.165455186	-104.266671001
2,500.00	19.30	262.307	2,451.79	-45.22	-334.78	423,915.486	520,595.024	32.165443079	-104.266776856
2,600.00	19.30	262.307	2,546.17	-49.65	-367.53	423,911.062	520,562.272	32.165430971	-104.266882711
2,700.00	19.30	262.307	2,640.55	-54.07	-400.28	423,906.638	520,529.519	32.165418864	-104.266988566
2,800.00	19.30	262.307	2,734.93	-58.50	-433.03	423,902.213	520,496.766	32.165406757	-104.267094420
2,900.00	19.30	262.307	2,829.31	-62.92	-465.79	423,897.789	520,464.014	32.165394649	-104.267200275
3,000.00	19.30	262.307	2,923.69	-67.35	-498.54	423,893.364	520,431.261	32.165382542	-104.267306130
3,100.00	19.30	262.307	3,018.07	-71.77	-531.29	423,888.940	520,398.508	32.165370434	-104.267411985
3,200.00	19.30	262.307	3,112.45	-76.19	-564.05	423,884.516	520,365.756	32.165358327	-104.267517839
3,300.00	19.30	262.307	3,206.83	-80.62	-596.80	423,880.091	520,333.003	32.165346219	-104.267623694
3,400.00	19.30	262.307	3,301.21	-85.04	-629.55	423,875.667	520,300.250	32.165334111	-104.267729549
3,500.00	19.30	262.307	3,395.59	-89.47	-662.30	423,871.242	520,267.498	32.165322003	-104.267835403
3,600.00	19.30	262.307	3,489.98	-93.89	-695.06	423,866.818	520,234.745	32.165309895	-104.267941258
3,700.00	19.30	262.307	3,584.36	-98.32	-727.81	423,862.393	520,201.992	32.165297787	-104.268047113
3,800.00	19.30	262.307	3,678.74	-102.74	-760.56	423,857.969	520,169.240	32.165285678	-104.268152967
3,900.00	19.30	262.307	3,773.12	-107.17	-793.32	423,853.545	520,136.487	32.165273570	-104.268258822
4,000.00	19.30	262.307	3,867.50	-111.59	-826.07	423,849.120	520,103.734	32.165261462	-104.268364676
4,100.00	19.30	262.307	3,961.88	-116.01	-858.82	423,844.696	520,070.981	32.165249353	-104.268470531
4,200.00	19.30	262.307	4,056.26	-120.44	-891.57	423,840.271	520,038.229	32.165237245	-104.268576385
4,300.00	19.30	262.307	4,150.64	-124.86	-924.33	423,835.847	520,005.476	32.165225136	-104.268682240
4,400.00	19.30	262.307	4,245.02	-129.29	-957.08	423,831.423	519,972.723	32.165213027	-104.268788094
4,500.00	19.30	262.307	4,339.40	-133.71	-989.83	423,826.998	519,939.971	32.165200918	-104.268893948
4,600.00	19.30	262.307	4,433.78	-138.14	-1,022.58	423,822.574	519,907.218	32.165188809	-104.268999803
4,700.00	19.30	262.307	4,528.16	-142.56	-1,055.34	423,818.149	519,874.465	32.165176700	-104.269105657
4,800.00	19.30	262.307	4,622.54	-146.99	-1,088.09	423,813.725	519,841.713	32.165164591	-104.269211511
4,900.00	19.30	262.307	4,716.92	-151.41	-1,120.84	423,809.300	519,808.960	32.165152482	-104.269317366
5,000.00	19.30	262.307	4,811.30	-155.83	-1,153.60	423,804.876	519,776.207	32.165140373	-104.269423220
5,100.00	19.30	262.307	4,905.68	-160.26	-1,186.35	423,800.452	519,743.455	32.165128263	-104.269529074
5,200.00	19.30	262.307	5,000.06	-164.68	-1,219.10	423,796.027	519,710.702	32.165116154	-104.269634928
5,300.00	19.30	262.307	5,094.44	-169.11	-1,251.85	423,791.603	519,677.949	32.165104044	-104.269740782

Planning Report - Geographic

TRUE Directional Services, LLC

Database:	DT_Aug2923v16	**Local Co-ordinate Reference:**	Well Jawbone Fed Com BS 14H
Company:	Freedom Energy	**TVD Reference:**	RKB=3311+26.5 @ 3337.50ft
Project:	Eddy County, New Mexico NAD27 NME	**MD Reference:**	RKB=3311+26.5 @ 3337.50ft
Site:	Jawbone	**North Reference:**	Grid
Well:	Jawbone Fed Com BS 14H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
5,400.00	19.30	262.307	5,188.82	-173.53	-1,284.61	423,787.178	519,645.197	32.165091935	-104.269846636
5,475.65	19.30	262.307	5,260.22	-176.88	-1,309.38	423,783.831	519,620.420	32.165082774	-104.269926711
5,500.00	18.81	262.307	5,283.24	-177.94	-1,317.26	423,782.767	519,612.541	32.165079861	-104.269952177
5,600.00	16.81	262.307	5,378.44	-182.04	-1,347.58	423,778.672	519,582.228	32.165068653	-104.270050146
5,700.00	14.81	262.307	5,474.65	-185.69	-1,374.58	423,775.025	519,555.226	32.165058669	-104.270137414
5,800.00	12.81	262.307	5,571.76	-188.88	-1,398.23	423,771.829	519,531.568	32.165049922	-104.270213874
5,900.00	10.81	262.307	5,669.63	-191.62	-1,418.52	423,769.089	519,511.283	32.165042422	-104.270279434
6,000.00	8.81	262.307	5,768.16	-193.90	-1,435.41	423,766.807	519,494.395	32.165036178	-104.270334014
6,100.00	6.81	262.307	5,867.23	-195.72	-1,448.88	423,764.988	519,480.926	32.165031197	-104.270377546
6,200.00	4.81	262.307	5,966.71	-197.08	-1,458.91	423,763.632	519,470.891	32.165027487	-104.270409979
6,300.00	2.81	262.307	6,066.49	-197.97	-1,465.50	423,762.742	519,464.302	32.165025051	-104.270431272
6,400.00	0.81	262.307	6,166.43	-198.39	-1,468.63	423,762.319	519,461.169	32.165023892	-104.270441400
6,440.61	0.00	0.000	6,207.04	-198.43	-1,468.92	423,762.280	519,460.883	32.165023787	-104.270442322
6,500.00	0.00	0.000	6,266.43	-198.43	-1,468.92	423,762.280	519,460.883	32.165023787	-104.270442322
6,540.61	0.00	0.000	6,307.04	-198.43	-1,468.92	423,762.280	519,460.883	32.165023787	-104.270442322
6,550.00	0.94	0.477	6,316.43	-198.35	-1,468.92	423,762.357	519,460.884	32.165023998	-104.270442320
6,600.00	5.94	0.477	6,366.32	-195.35	-1,468.89	423,765.355	519,460.909	32.165032240	-104.270442234
6,650.00	10.94	0.477	6,415.77	-188.02	-1,468.83	423,772.691	519,460.970	32.165052405	-104.270442022
6,700.00	15.94	0.477	6,464.38	-176.40	-1,468.74	423,784.307	519,461.067	32.165084338	-104.270441688
6,750.00	20.94	0.477	6,511.80	-160.59	-1,468.60	423,800.116	519,461.198	32.165127798	-104.270441233
6,800.00	25.94	0.477	6,557.66	-140.71	-1,468.44	423,819.998	519,461.364	32.165182452	-104.270440660
6,850.00	30.94	0.477	6,601.61	-116.91	-1,468.24	423,843.800	519,461.562	32.165247886	-104.270439975
6,900.00	35.94	0.477	6,643.32	-89.37	-1,468.01	423,871.343	519,461.791	32.165323601	-104.270439181
6,950.00	40.94	0.477	6,682.47	-58.29	-1,467.75	423,902.416	519,462.050	32.165409021	-104.270438287
7,000.00	45.94	0.477	6,718.77	-23.93	-1,467.47	423,936.783	519,462.336	32.165503496	-104.270437297
7,050.00	50.94	0.477	6,751.93	13.47	-1,467.16	423,974.182	519,462.648	32.165606307	-104.270436220
7,100.00	55.94	0.477	6,781.70	53.62	-1,466.82	424,014.329	519,462.982	32.165716671	-104.270435064
7,150.00	60.94	0.477	6,807.86	96.21	-1,466.47	424,056.918	519,463.337	32.165833748	-104.270433837
7,200.00	65.94	0.477	6,830.21	140.92	-1,466.09	424,101.625	519,463.709	32.165956648	-104.270432550
7,250.00	70.94	0.477	6,848.58	187.40	-1,465.71	424,148.110	519,464.096	32.166084436	-104.270431211
7,300.00	75.94	0.477	6,862.83	235.31	-1,465.31	424,196.019	519,464.495	32.166216137	-104.270429831
7,350.00	80.94	0.477	6,872.85	284.28	-1,464.90	424,244.987	519,464.903	32.166350751	-104.270428421
7,400.00	85.94	0.477	6,878.56	333.93	-1,464.49	424,294.642	519,465.316	32.166487253	-104.270426991
7,440.61	90.00	0.477	6,880.00	374.51	-1,464.15	424,335.217	519,465.654	32.166598793	-104.270425823
7,500.00	90.00	0.477	6,880.00	433.90	-1,463.65	424,394.605	519,466.148	32.166762050	-104.270424113
7,600.00	90.00	0.477	6,880.00	533.89	-1,462.82	424,494.601	519,466.981	32.167036941	-104.270421233
7,700.00	90.00	0.477	6,880.00	633.89	-1,461.99	424,594.597	519,467.814	32.167311831	-104.270418353
7,800.00	90.00	0.477	6,880.00	733.89	-1,461.16	424,694.594	519,468.646	32.167586722	-104.270415473
7,900.00	90.00	0.477	6,880.00	833.88	-1,460.32	424,794.590	519,469.479	32.167861612	-104.270412593
8,000.00	90.00	0.477	6,880.00	933.88	-1,459.49	424,894.586	519,470.312	32.168136502	-104.270409714
8,100.00	90.00	0.477	6,880.00	1,033.87	-1,458.66	424,994.583	519,471.144	32.168411393	-104.270406834
8,200.00	90.00	0.477	6,880.00	1,133.87	-1,457.83	425,094.579	519,471.977	32.168686283	-104.270403954
8,300.00	90.00	0.477	6,880.00	1,233.87	-1,456.99	425,194.575	519,472.809	32.168961174	-104.270401074
8,400.00	90.00	0.477	6,880.00	1,333.86	-1,456.16	425,294.572	519,473.642	32.169236064	-104.270398194
8,500.00	90.00	0.477	6,880.00	1,433.86	-1,455.33	425,394.568	519,474.475	32.169510954	-104.270395314
8,600.00	90.00	0.477	6,880.00	1,533.86	-1,454.50	425,494.564	519,475.307	32.169785845	-104.270392434
8,700.00	90.00	0.477	6,880.00	1,633.85	-1,453.66	425,594.561	519,476.140	32.170060735	-104.270389554
8,800.00	90.00	0.477	6,880.00	1,733.85	-1,452.83	425,694.557	519,476.973	32.170335625	-104.270386674
8,900.00	90.00	0.477	6,880.00	1,833.85	-1,452.00	425,794.553	519,477.805	32.170610516	-104.270383795
9,000.00	90.00	0.477	6,880.00	1,933.84	-1,451.17	425,894.550	519,478.638	32.170885406	-104.270380915
9,100.00	90.00	0.477	6,880.00	2,033.84	-1,450.33	425,994.546	519,479.470	32.171160296	-104.270378034
9,200.00	90.00	0.477	6,880.00	2,133.84	-1,449.50	426,094.542	519,480.303	32.171435187	-104.270375154
9,300.00	90.00	0.477	6,880.00	2,233.83	-1,448.67	426,194.539	519,481.136	32.171710077	-104.270372274
9,400.00	90.00	0.477	6,880.00	2,333.83	-1,447.83	426,294.535	519,481.968	32.171984967	-104.270369394
9,500.00	90.00	0.477	6,880.00	2,433.83	-1,447.00	426,394.531	519,482.801	32.172259857	-104.270366514

Planning Report - Geographic

TRUE Directional Services, LLC

Database:	DT_Aug2923v16	**Local Co-ordinate Reference:**	Well Jawbone Fed Com BS 14H
Company:	Freedom Energy	**TVD Reference:**	RKB=3311+26.5 @ 3337.50ft
Project:	Eddy County, New Mexico NAD27 NME	**MD Reference:**	RKB=3311+26.5 @ 3337.50ft
Site:	Jawbone	**North Reference:**	Grid
Well:	Jawbone Fed Com BS 14H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
9,600.00	90.00	0.477	6,880.00	2,533.82	-1,446.17	426,494.527	519,483.634	32.172534748	-104.270363634
9,700.00	90.00	0.477	6,880.00	2,633.82	-1,445.34	426,594.524	519,484.466	32.172809638	-104.270360754
9,800.00	90.00	0.477	6,880.00	2,733.82	-1,444.50	426,694.520	519,485.299	32.173084528	-104.270357874
9,900.00	90.00	0.477	6,880.00	2,833.81	-1,443.67	426,794.516	519,486.131	32.173359418	-104.270354994
10,000.00	90.00	0.477	6,880.00	2,933.81	-1,442.84	426,894.513	519,486.964	32.173634308	-104.270352113
10,100.00	90.00	0.477	6,880.00	3,033.81	-1,442.01	426,994.509	519,487.797	32.173909199	-104.270349233
10,200.00	90.00	0.477	6,880.00	3,133.80	-1,441.17	427,094.505	519,488.629	32.174184089	-104.270346353
10,300.00	90.00	0.477	6,880.00	3,233.80	-1,440.34	427,194.502	519,489.462	32.174458979	-104.270343473
10,400.00	90.00	0.477	6,880.00	3,333.80	-1,439.51	427,294.498	519,490.295	32.174733869	-104.270340592
10,500.00	90.00	0.477	6,880.00	3,433.79	-1,438.68	427,394.494	519,491.127	32.175008759	-104.270337712
10,600.00	90.00	0.477	6,880.00	3,533.79	-1,437.84	427,494.491	519,491.960	32.175283649	-104.270334832
10,700.00	90.00	0.477	6,880.00	3,633.78	-1,437.01	427,594.487	519,492.793	32.175558539	-104.270331952
10,800.00	90.00	0.477	6,880.00	3,733.78	-1,436.18	427,694.483	519,493.625	32.175833429	-104.270329071
10,900.00	90.00	0.477	6,880.00	3,833.78	-1,435.35	427,794.480	519,494.458	32.176108320	-104.270326191
11,000.00	90.00	0.477	6,880.00	3,933.77	-1,434.51	427,894.476	519,495.290	32.176383210	-104.270323311
11,100.00	90.00	0.477	6,880.00	4,033.77	-1,433.68	427,994.472	519,496.123	32.176658100	-104.270320430
11,200.00	90.00	0.477	6,880.00	4,133.77	-1,432.85	428,094.469	519,496.956	32.176932990	-104.270317550
11,300.00	90.00	0.477	6,880.00	4,233.76	-1,432.01	428,194.465	519,497.788	32.177207880	-104.270314669
11,400.00	90.00	0.477	6,880.00	4,333.76	-1,431.18	428,294.461	519,498.621	32.177482770	-104.270311789
11,500.00	90.00	0.477	6,880.00	4,433.76	-1,430.35	428,394.458	519,499.454	32.177757660	-104.270308908
11,600.00	90.00	0.477	6,880.00	4,533.75	-1,429.52	428,494.454	519,500.286	32.178032550	-104.270306028
11,700.00	90.00	0.477	6,880.00	4,633.75	-1,428.68	428,594.450	519,501.119	32.178307440	-104.270303147
11,800.00	90.00	0.477	6,880.00	4,733.75	-1,427.85	428,694.447	519,501.951	32.178582330	-104.270300267
11,900.00	90.00	0.477	6,880.00	4,833.74	-1,427.02	428,794.443	519,502.784	32.178857220	-104.270297386
12,000.00	90.00	0.477	6,880.00	4,933.74	-1,426.19	428,894.439	519,503.617	32.179132110	-104.270294506
12,100.00	90.00	0.477	6,880.00	5,033.74	-1,425.35	428,994.436	519,504.449	32.179407000	-104.270291625
12,200.00	90.00	0.477	6,880.00	5,133.73	-1,424.52	429,094.432	519,505.282	32.179681889	-104.270288745
12,300.00	90.00	0.477	6,880.00	5,233.73	-1,423.69	429,194.428	519,506.115	32.179956779	-104.270285864
12,400.00	90.00	0.477	6,880.00	5,333.73	-1,422.86	429,294.425	519,506.947	32.180231669	-104.270282983
12,500.00	90.00	0.477	6,880.00	5,433.72	-1,422.02	429,394.421	519,507.780	32.180506559	-104.270280103
12,567.31	90.00	0.477	6,880.00	5,501.03	-1,421.46	429,461.730	519,508.340	32.180691590	-104.270278164
12,600.00	90.00	0.477	6,880.00	5,533.72	-1,421.19	429,494.417	519,508.613	32.180781449	-104.270277222
12,617.31	90.00	0.477	6,880.00	5,551.03	-1,421.05	429,511.730	519,508.757	32.180829040	-104.270276723

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Jawbone 14H vert - plan hits target center - Point	0.00	0.000	6,307.04	-198.43	-1,468.92	423,762.280	519,460.883	32.165023787	-104.270442322
Jawbone 14H LTP 100 F - plan hits target center - Point	0.00	0.000	6,880.00	5,501.03	-1,421.46	429,461.730	519,508.340	32.180691590	-104.270278164
Jawbone 14H FTP 100 F - plan hits target center - Point	0.00	0.000	6,880.00	374.51	-1,464.15	424,335.220	519,465.650	32.166598801	-104.270425834
Jawbone 14H BHL 50 FI - plan misses target center by 0.01ft at 12617.31ft MD (6880.00 TVD, 5551.03 N, -1421.05 E) - Point	0.00	0.000	6,880.00	5,551.03	-1,421.05	429,511.730	519,508.750	32.180829040	-104.270276744

Planning Report - Geographic

TRUE Directional Services, LLC

Database:	DT_Aug2923v16	**Local Co-ordinate Reference:**	Well Jawbone Fed Com BS 14H
Company:	Freedom Energy	**TVD Reference:**	RKB=3311+26.5 @ 3337.50ft
Project:	Eddy County, New Mexico NAD27 NME	**MD Reference:**	RKB=3311+26.5 @ 3337.50ft
Site:	Jawbone	**North Reference:**	Grid
Well:	Jawbone Fed Com BS 14H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
1,000.00	1,000.00	0.00	0.00	KOP Begin 2°/100' build
1,964.96	1,946.82	-21.55	-159.54	Begin 19.30° tangent
5,475.65	5,260.22	-176.88	-1,309.38	Begin 2°/100' drop
6,440.61	6,207.04	-198.43	-1,468.92	Begin vertical hold
6,540.61	6,307.04	-198.43	-1,468.92	Begin 10°/100' build
7,440.61	6,880.00	374.51	-1,464.15	Begin 90.00° lateral
12,567.31	6,880.00	5,501.03	-1,421.46	LTP @ 12567.31 MD 6880.00 TVD
12,617.31	6,880.00	5,551.03	-1,421.05	PBHL @ 12617.31 MD 6880.00 TVD

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	**Flat Creek Resources LLC**
LEASE NO.:	**NMNM0441951**
LOCATION:	Section 2, T.25 S., R.26 E., NMPM
COUNTY:	Eddy County, New Mexico

WELL NAME & NO.:	**Jawbone Fed Com BS 12H**
BOTTOM HOLE FOOTAGE	50'/N & 1935'/E
ATS/API ID:	**ATS-24-1124**
APD ID:	**10400096919**
Sundry ID:	**N/a**
Date APD Submitted:	**N/a**

WELL NAME & NO.:	**Jawbone Fed Com BS 13H**
BOTTOM HOLE FOOTAGE	50'/N & 1851'/W
ATS/API ID:	**ATS-24-1125**
APD ID:	**10400097188**
Sundry ID:	**N/a**
Date APD Submitted:	**N/a**

WELL NAME & NO.:	**Jawbone Fed Com BS 14H**
BOTTOM HOLE FOOTAGE	50'/N & 405'/W
ATS/API ID:	**ATS-24-1126**
APD ID:	**10400097202**
Sundry ID:	**N/a**
Date APD Submitted:	**N/a**

 Approval Date: 01/24/2025

COA

H2S	Yes		
Potash	None	None	
Cave/Karst Potential	High		
Cave/Karst Potential	☐ Critical		
Variance	☐ None	☒ Flex Hose	☐ Other
Wellhead	Conventional and Multibowl		
Other	☐ 4 String	Capitan Reef None	☐ WIPP
Other	Pilot Hole None	☐ Open Annulus	
Cementing	Contingency Squeeze None	Echo-Meter None	Primary Cement Squeeze None
Special Requirements	☐ Water Disposal/Injection	☑ COM	☐ Unit
Special Requirements	☐ Batch Sundry	Waste Prevention None	
Special Requirements Variance	☐ Break Testing	☐ Offline Cementing	☐ Casing Clearance

Approval Date: 01/24/2025

A. HYDROGEN SULFIDE

A Hydrogen Sulfide (H2S) Drilling Plan shall be activated 500 feet prior to drilling into the **Delaware** formation. As a result, the Hydrogen Sulfide area must meet **43 CFR part 3170 Subpart 3176** requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.

B. CASING

1. The **10-3/4** inch surface casing shall be set at approximately **500 feet** (a minimum of **70 feet (Eddy County)** into the Rustler Anhydrite and above the salt when present, and below usable fresh water) and cemented to the surface. The surface hole shall be **14 3/4** inch in diameter.

    a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
    b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8 hours** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
    c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
    d. If cement falls back, remedial cementing will be done prior to drilling out that string.

Cement excess is less than 25%, more cement is required if washout occurs. Adjust cement volume and excess based on a fluid caliper or similar method that reflects the as-drilled size of the wellbore.

2. The minimum required fill of cement behind the **7-5/8** inch intermediate casing shall be set at approximately **1899 feet** is:

    - Cement to surface. If cement does not circulate see B.1.a, c-d above. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.**

    ❖ In High Cave/Karst Areas if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.

3. The minimum required fill of cement behind the **5-1/2** inch production casing is:

    - Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.
      Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.

C. PRESSURE CONTROL

1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).'

2.

Option 1:

a. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **3000 (3M)** psi.

b. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **7-5/8** inch intermediate casing shoe shall be **5000 (5M)** psi.

Option 2:

Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the **10-3/4** inch surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M)** psi.

a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
c. Manufacturer representative shall install the test plug for the initial BOP test.
d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
e. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR 3172.6(b)(9) must be followed.

D. SPECIAL REQUIREMENT (S)

Communitization Agreement

- The operator will submit a Communitization Agreement to the Santa Fe Office, 301 Dinosaur Trail Santa Fe, New Mexico 87508, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- The operator will submit an as-drilled survey well plat of the well completion, but are not limited to, those specified in **43 CFR part 3170 Subpart 3171**
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

GENERAL REQUIREMENTS

The BLM is to be notified in advance for a representative to witness:

a. Spudding well (minimum of 24 hours)
b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
c. BOPE tests (minimum of 4 hours)

☑ Eddy County
EMAIL or call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220,
BLM_NM_CFO_DrillingNotifications@BLM.GOV
(575) 361-2822

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

   a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
   b. When the operator proposes to set surface casing with Spudder Rig
      - Notify the BLM when moving in and removing the Spudder Rig.
      - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
      - BOP/BOPE test to be conducted per **43 CFR part 3170 Subpart 3172** as soon as 2nd Rig is rigged up on well.

2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or

if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.

2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends of both lead and tail cement, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.

3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.

4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.

5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.

7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in **43 CFR part 3170 Subpart 3172** and **API STD 53 Sec. 5.3**.

2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.

3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.

4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:

    a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
    b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
    c. Manufacturer representative shall install the test plug for the initial BOP test.
    d. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR 3172.6(b)(9) must be followed.
    e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.

5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.

    a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead cement), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).

    b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been

done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the cement plug. The BOPE test can be initiated after bumping the cement plug with the casing valve open. (only applies to single stage cement jobs, prior to the cement setting up.)

c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer and can be initiated immediately with the casing valve open. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to **43 CFR part 3170 Subpart 3172** with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for 8 hours or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).

d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.

e. The results of the test shall be reported to the appropriate BLM office.

f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.

g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.

h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per **43 CFR part 3170 Subpart 3172**.

C. DRILLING MUD

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp formation, and shall be used until production casing is run and cemented.

D. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

Long Vo (LVO) 7/19/2024

 Approval Date: 01/24/2025

Hydrogen Sulfide Plan Summary

A. All personnel shall receive proper H2S training in accordance with Onshore Order III.C.3.a.

B. Briefing Area: two perpendicular areas will be designated by signs and readily accessible.

C. Required Emergency Equipment:

- Well control equipment
  a. Flare line 150' from wellhead to be ignited by flare gun.
  b. Choke manifold with a remotely operated choke.
  c. Mud/gas separator

- Protective equipment for essential personnel.

  Breathing apparatus:
  a. Rescue Packs (SCBA) — 1 unit shall be placed at each breathing area, 2 shall be stored in the safety trailer.
  b. Work/Escape packs —4 packs shall be stored on the rig floor th sufficient air hose not to restrict work activity.
  c. Emergency Escape Packs —4 packs shall be stored in the doghouse for emergency evacuation.

  Auxiliary Rescue Equipment:
  a. Stretcher
  b. Two OSHA full body harness
  c. 100 ft 5/8 inch OSHA approved rope
  d. 1-20# class ABC fire extinguisher

- H2S detection and monitoring equipment:
  The stationary detector with three sensors will be placed in the upper dog house if equipped, set to visually alarm @ 10 ppm and audible @ 14 ppm. Calibrate a minimum of every 30 days or as needed. The sensors will be placed in the following places: Rig floor / Bell nipple / End of flow line or where well bore fluid is being discharged.
  (Gas sample tubes will be stored in the safety trailer)

- Visual warning systems.
  a. One color code condition sign will be placed at the entrance to the site reflecting the possible conditions at the site.
  b. A colored condition flag will be on display, reflecting the current condition at the site at the time.
  c. Two wind socks will be placed in strategic locations, visible from all angles.

FLAT CREEK RESOURCES

- Mud program:
  The mud program has been designed to minimize the volume of H2S circulated to surface. The operator will have the necessary mud products to minimize hazards while drilling in H2S bearing zones.

- Metallurgy:
  All drill strings, casings, tubing, wellhead, blowout preventer, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H2S service.

- Communication:
  Communication will be via cell phones and land lines where available.

Company Personnel to be Notified

Rodney Littleton, Vice President of Operations	Office: (817) 310-8578 Mobile: (972) 672-4461

Local & County Agencies

Whites City Fire Department	911 or (575) 746-5000
Malaga Fire Department	911 or (575) 745-2311
Carlsbad Fire Department	911 or (575) 885-3125
Eddy County Sheriff (Carlsbad)	911 (575) 887-7551
Eddy County Emergency Management (Carlsbad)	(575) 887-9511
Carlsbad Medical Center Hospital	(575) 887-4100
Eddy County South Road Department (Carlsbad)	(575) 885-4835

State Agencies

NM State Police (Carlsbad)	(575) 885-3138
NM Oil Conservation (Artesia)	(575) 748-1283
NM Oil Conservation (Santa Fe)	(505) 476-3440
NM Dept. of Transportation (Roswell)	(575) 637-7201

FLAT CREEK RESOURCES

Federal Agencies

BLM Carlsbad Field Office	(575) 234-5972
National Response Center	(800) 424-8802
US EPA Region 6 (Dallas)	(800) 887-6063
(214) 665-6444	

Residents within 2 miles

No

Air Evacuation

Med Flight Air Ambulance (Albuquerque)	(800) 842-4431
Lifeguard (Albuquerque)	(888) 866-7256

Veterinarians

Desert Willow Veterinary Services (Carlsbad)	(575) 885-3399
Animal Care Center (Carlsbad)	(575) 885-5352

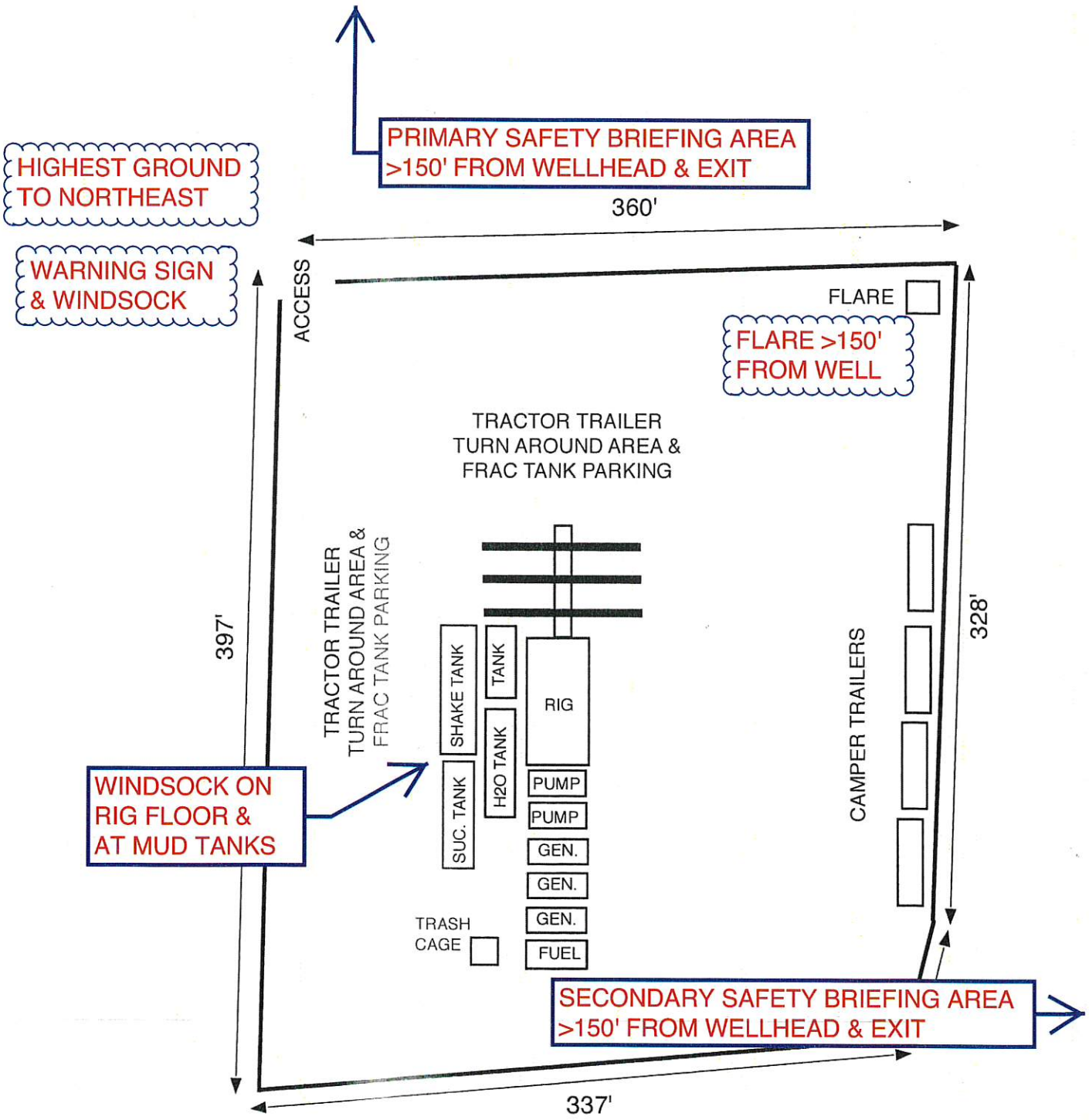
FLAT CREEK RESOURCES

Flat Creek's
Jawbone Fed Com BS 13H & 14H
rig diagram

PREVAILING WINDS
BLOW FROM SOUTH

NORTH

1" = 75'



PERMITS WEST, INC.
PROVIDING PERMITS for LAND USERS

Flat Creek Resources

Jawbone 13H/14H Pad
H2S Contingency Plan:
2 Mile Radius Map

Sec. 2, Township 25S, Range 26E
Eddy County, New Mexico

Well Pad Location

1:27,000

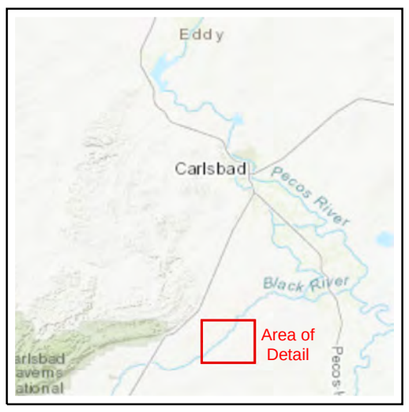
0 0.25 0.5 1
Miles

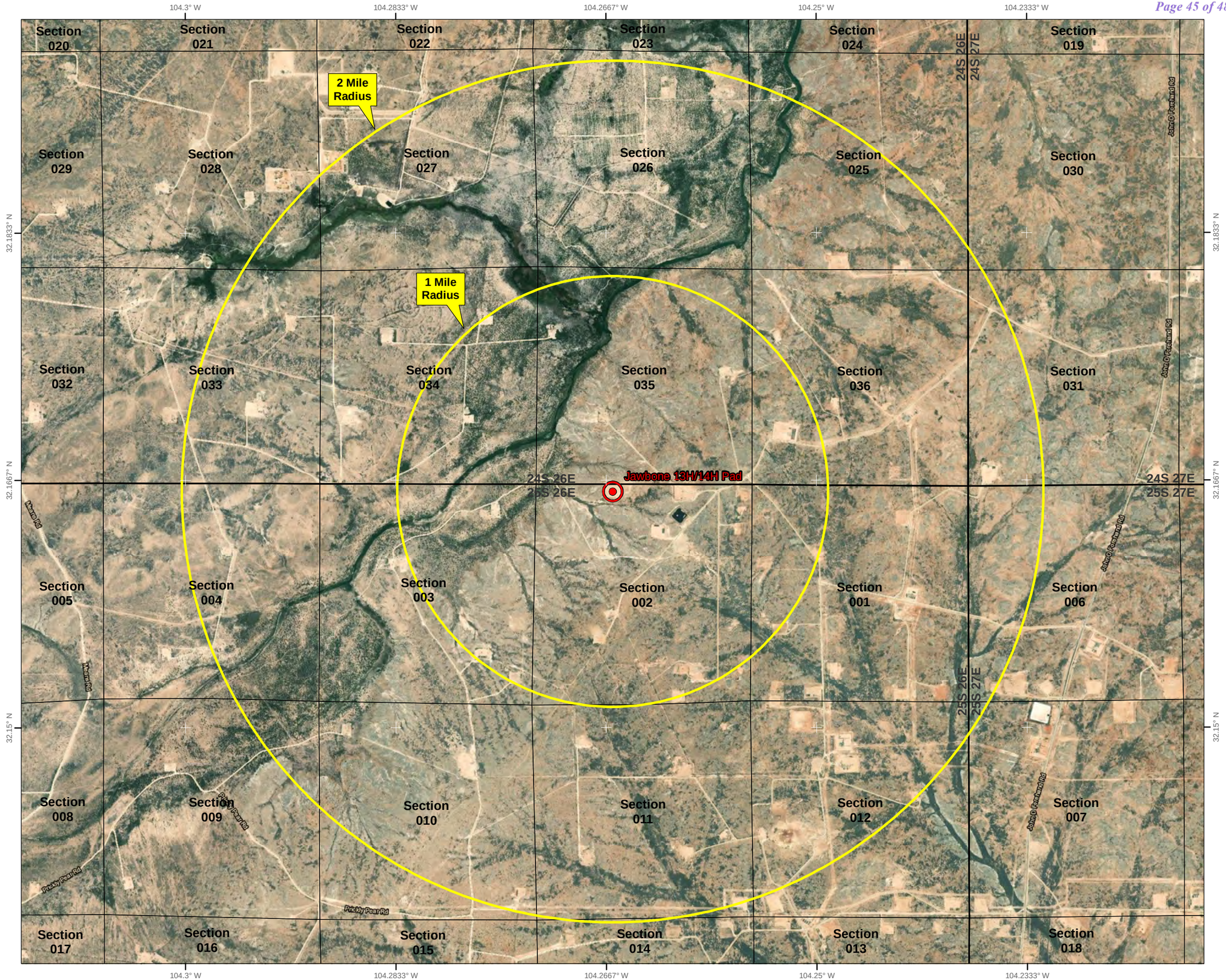
N

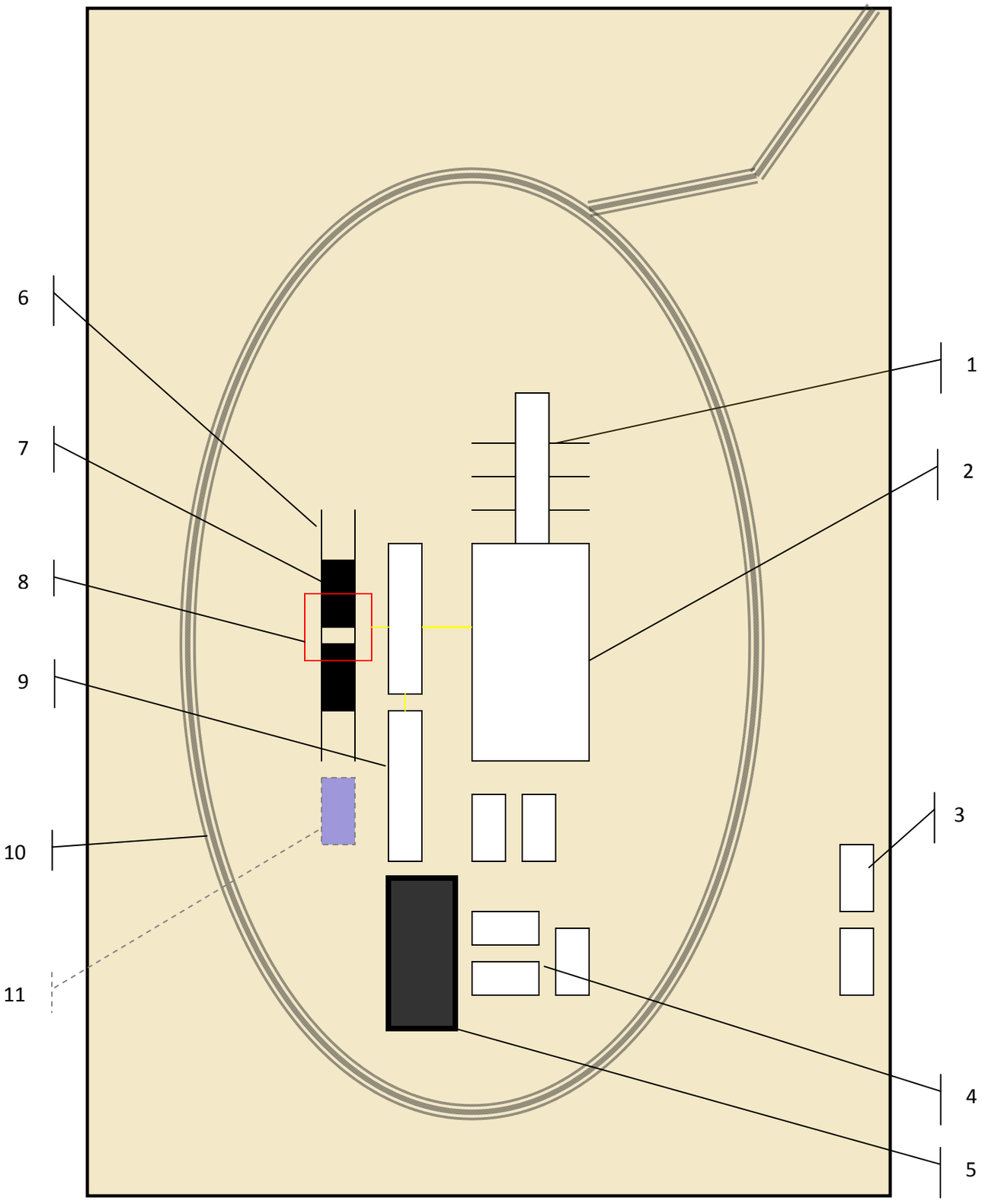
NAD 1983 New Mexico State Plane East
FIPS 3001 Feet

PERMITS WEST

Prepared by Permits West, Inc., January 29, 2024
for Flat Creek Resources, LLC







Schematic Closed Loop Drilling Rig*

1. **Pipe Rack**
2. **Drill Rig**
3. **House Trailers/ Offices**
4. **Generator/Fuel/Storage**
5. **Overflow-Frac Tank**
6. **Skids**
7. **Roll Offs**
8. **Hopper or Centrifuge**
9. **Mud Tanks**
10. **Loop Drive**
11. **Generator (only for use with centrifuge)**

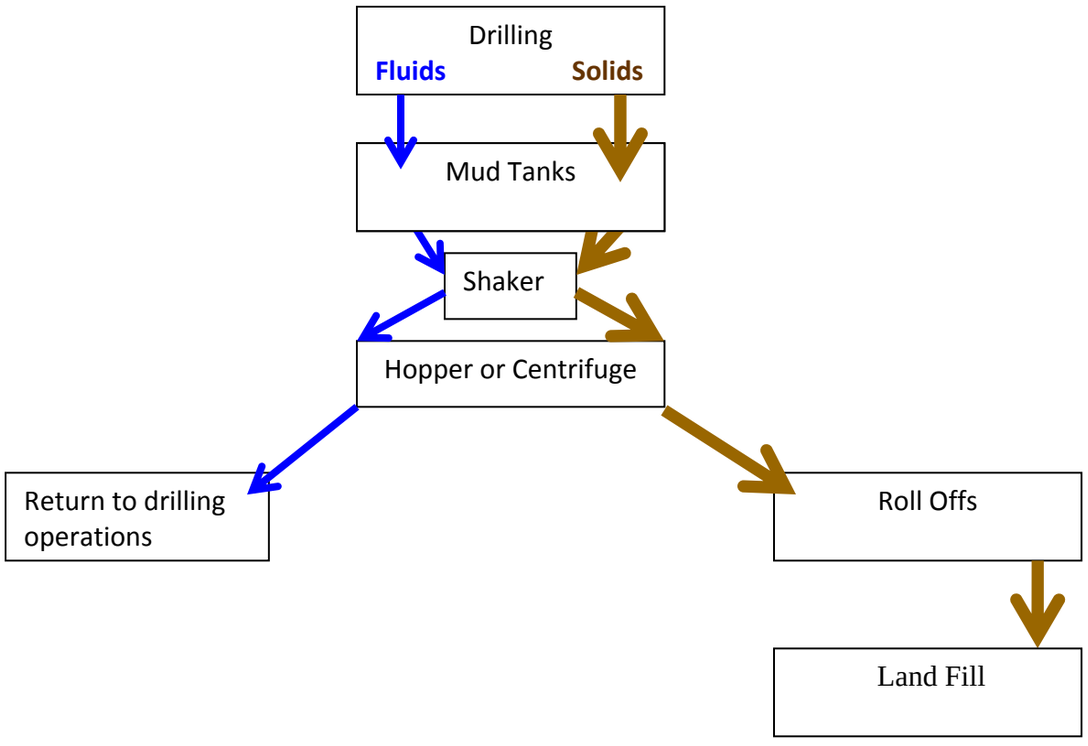
***Not drawn to scale: Closed loop system requires at least 30 feet beyond mud tanks. Ideally 60 feet would be available**

Above: Centrifugal Closed Loop System

PERMITS WEST, INC.
PROVIDING PERMITS for LAND USERS
37Verano Loop, Santa Fe, New Mexico 87508 (505) 466-8120

Closed Loop Drilling System: Mud tanks to right (1)
Hopper in air to settle out solids (2)
Water return pipe (3)
Shaker between hopper and mud tanks (4)
Roll offs on skids (5)

Flow Chart for Drilling Fluids and Solids



Photos Courtesy of Gandy Corporation Oil Field Service

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

Operator: Flat Creek Resources, LLC 777 Main St. Fort Worth, TX 76102	OGRID: 374034
	Action Number: 427521
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
bwood	Cement is required to circulate on both surface and intermediate1 strings of casing.	2/3/2025
bwood	If cement does not circulate on any string, a Cement Bond Log (CBL) is required for that string of casing.	2/3/2025
ward.rikala	Notify the OCD 24 hours prior to casing & cement.	2/15/2025
ward.rikala	File As Drilled C-102 and a directional Survey with C-104 completion packet.	2/15/2025
ward.rikala	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string.	2/15/2025
ward.rikala	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system.	2/15/2025