Form 3160-3 FORM APPROVED OMB No. 1004-0137 (June 2015) Expires: January 31, 2018 **UNITED STATES** DEPARTMENT OF THE INTERIOR 5. Lease Serial No. NMNM0441951 BUREAU OF LAND MANAGEMENT APPLICATION FOR PERMIT TO DRILL OR REENTER 6. If Indian, Allotee or Tribe Name 7. If Unit or CA Agreement, Name and No. ✓ DRILL REENTER 1a. Type of work: 1b. Type of Well: ✓ Oil Well Gas Well Other 8. Lease Name and Well No. 1c. Type of Completion: Hydraulic Fracturing ✓ Single Zone Multiple Zone JAWBONE BS FED COM 005H 2. Name of Operator 9. API Well No. FLAT CREEK RESOURCES LLC 30-015-55085 3a. Address 3b. Phone No. (include area code) 10. Field and Pool, or Exploratory 777 MAIN STREET, SUITE 3600, FORT WORTH, TX 761 (817) 310-8570 COTTONWOOD DRAW/BONE SPRING 4. Location of Well (Report location clearly and in accordance with any State requirements.*) 11. Sec., T. R. M. or Blk. and Survey or Area SEC 2/T25S/R26E/NMP At surface SESW / 272 FSL / 1946 FWL / LAT 32.152315 / LONG -104.266291 At proposed prod. zone NENE / 100 FNL / 550 FEL / LAT 32.180647 / LONG -104.25689 14. Distance in miles and direction from nearest town or post office* 12. County or Parish 13 State **EDDY** NM 7 miles 15. Distance from proposed* 16. No of acres in lease 17. Spacing Unit dedicated to this well 272 feet location to nearest property or lease line, ft. 320.2 (Also to nearest drig. unit line, if any) 18. Distance from proposed location* 19. Proposed Depth 20. BLM/BIA Bond No. in file to nearest well, drilling, completed, 30 feet 6600 feet / 17640 feet FED: NMB001675 applied for, on this lease, ft. 21. Elevations (Show whether DF, KDB, RT, GL, etc.) 22. Approximate date work will start* 23. Estimated duration 3369 feet 06/01/2024 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. 4. Bond to cover the operations unless covered by an existing bond on file (see 2. A Drilling Plan. Item 20 above) 3. A Surface Use Plan (if the location is on National Forest System Lands, the 5. Operator certification. 6. Such other site specific information and/or plans as may be requested by the SUPO must be filed with the appropriate Forest Service Office). 25. Signature Name (Printed/Typed) Date BRIAN WOOD / Ph: (817) 310-8570 (Electronic Submission) 12/01/2023 Title Permitting Agent Approved by (Signature) Name (Printed/Typed) Date (Electronic Submission) 05/10/2024 CODY LAYTON / Ph: (575) 234-5959 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



(Continued on page 2)

*(Instructions on page 2)

<u>District I</u> 1625 N. French Dr., Hobbs, NM 88240 Phone: (575) 393-6161 Fax: (575) 393-0720 <u>District II</u> 811 S. First St., Artesia, NM 88210 Phone: (575) 748-1283 Fax: (575) 748-9720

<u>District III</u> 1000 Rio Brazos Road, Aztec, NM 87410 Phone: (505) 334-6178 Fax: (505) 334-6170 District IV

District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505 Phone: (505) 476-3460 Fax: (505) 476-3462

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

Form C-102 Revised August 1, 2011 Submit one copy to appropriate District Office

☐ AMENDED REPORT

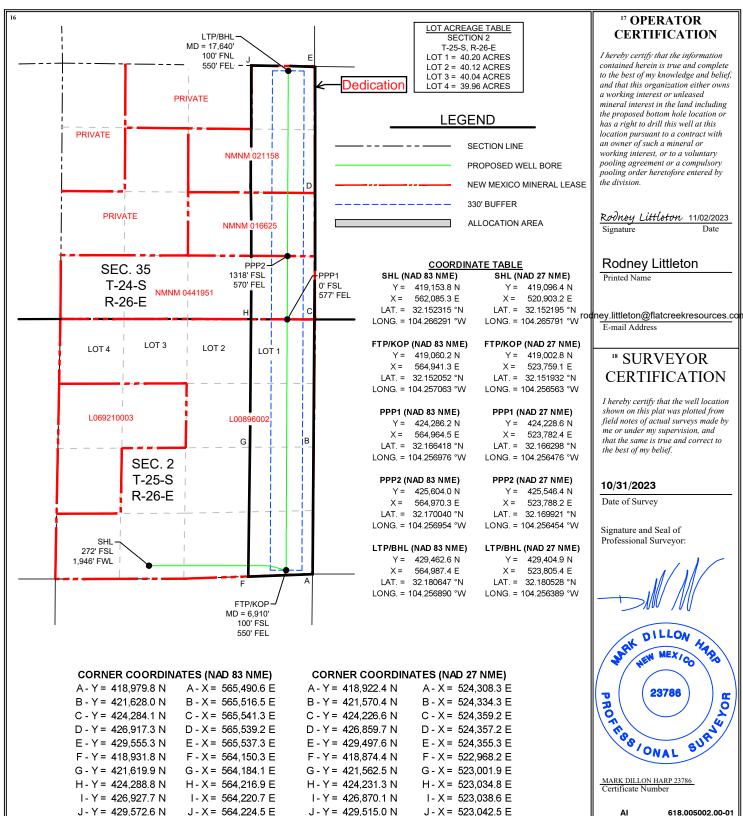
WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-015- 55085		² Pool Code 97494	³ Pool Name COTTONWOOD DRAW; BONE S	SPRING (O)	
⁴ Property Code 335927		⁵ Property Name JAWBONE BS FED COM			
⁷ OGRID No. 374034		*Operator Name FLAT CREEK RESOURCES, LLC			

¹⁰ Surface Location Township North/South lin Feet from the East/West lin UL or lot no. Rang 2 25 S 26 E **SOUTH WEST EDDY** Ν 1.946 "Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Α	35	24 S	26 E		100	NORTH	550	EAST	EDDY
12 Dedicated Acres	² Dedicated Acres ¹³ Joint or Infill ¹⁴ Consolidation Code		Code 15 Ore	ler No.		•			
320.20			С						

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



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: 05 / 07 / 2024
II. Type:	☑ Original ☐ Amendment due to ☐ 19.15.27.9	D.D(6)(a) NMAC □ 19.15.27.9.D(6)(b) N	MAC □ Other.
If Other, plea	se describe:		
` '	: Provide the following information for each neeted from a single well pad or connected to a co	• •	oposed to be drilled or proposed

Well Name	API	ULSTR	Footages	Anticipated	Anticipated	Anticipated
				Oil BBL/D	Gas MCF/D	Produced Water BBL/D
lautana DO Fad Cara FIL		N-2-T25S-R26E	272' FSL 1946'	000	1000	
Jawbone BS Fed Com 5H			FWL	800	1000	1500
Jawbone BS Fed Com 6H		N-2-T25S-R26E	272' FSL 1916'	800	1000	1500
Jawbone BS Fed Com 7H		N-2-T25S-R26E	EWI	800	1000	1500
Jawbone BS Fed Com 8H		N-2-T25S-R26E	7272' FSL 1856' FWI	800	1000	1500

IV. Central Delivery Point Name: Jawbone BS Central Tank Battery	See 19.15.27.9(D)(1) NMAC]
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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	Completion	Initial Flow	First Production
			Date	Commencement Date	Back Date	Date
Jawbone BS Fed Com 5H		November 1, 2024	November 16, 2024	February 1, 2025	March 1, 2025	March 15, 2025
Jawbone BS Fed Com 6H		November 2, 2024	November 30, 2024	February 1, 2025	March 1, 2025	March 15, 2025
Jawbone BS Fed Com 7H		November 3, 2024	December 14, 2024	February 1, 2025	March 1, 2025	March 15, 2025
Jawbone BS Fed Com 8H		November 4, 2024	December 24, 2024	February 1, 2025	March 1, 2025	March 15, 2025

- 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	Available Maximum Daily Capacity
	-		Start Date	of System Segment Tie-in

XI. Map. \square 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 \square will \square will not have capacity to gather 100% of the anticipated n	atural gas
production volume from the well prior to the date of first production.	

XIII. Line Pressure. Operator \Box does \Box 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).

$\overline{}$	A 44 1 0		1 4		1 4	•		41	. 1	1.	
	Affach C	nerator s	ทเลท เด	manage	production	in res	nonse to	The	increased	une	nressure
$\overline{}$	1 Ittucii O	perator 5	piuii io	manage	production	111 1 05	ponse to	uic	moreasea	11110	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.

(h)

(i)

Section 3 - Certifications <u>Effective May 25, 2021</u>

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: power generation on lease; (a) **(b)** power generation for grid; compression on lease; (c) (d) liquids removal on lease; reinjection for underground storage; (e) **(f)** reinjection for temporary storage; **(g)** reinjection for enhanced oil recovery;

Section 4 - Notices

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

other alternative beneficial uses approved by the division.

fuel cell production; and

- Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become (a) 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
- 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.

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 to a 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.



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

Well Name: JAWBONE BS FED COM

Drilling Plan Data Report 05/11/2024

APD ID: 10400095979

Submission Date: 12/01/2023

Highlighted data reflects the most recent changes

Operator Name: FLAT CREEK RESOURCES LLC

Well Number: 005H

Well Type: OIL WELL

Well Work Type: Drill

Show Final Text

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical	Measured Depth	Lithologies	Mineral Resources	Producing Formatio
13409115	SALADO	3369	0	Ö	SALŤ	USEABLE WATER	N
13409116	BASE OF SALT	1639	1730	1759	SALT	NONE	N
13409117	LAMAR	1425	1944	1988	LIMESTONE	NONE	N
13409118	BELL CANYON	1368	2001	2073	SANDSTONE	NATURAL GAS, OIL	N
13409119	CHERRY CANYON	525	2844	3142	SANDSTONE	NATURAL GAS, OIL	N
13409120	BRUSHY CANYON	-522	3891	4470	SANDSTONE	NATURAL GAS, OIL	N
13409121	BONE SPRING LIME	-2079	5448	6326	LIMESTONE	NATURAL GAS, OIL	N
13409122	BONE SPRING 1ST	-2996	6365	7273	SANDSTONE	NATURAL GAS, OIL	N
13409123	BONE SPRING 2ND	-3164	6533	7531	SHALE	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. See BOP & Choke diagrams for additional information.

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).

Testing Procedure: All BOPE will be tested in accordance with 43 CFR 3160 Onshore Oil & Gas Order 2. See BOP & Choke diagrams for additional information. 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

Well Name: JAWBONE BS FED COM Well Number: 005H

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. Speed head will be installed by a third-party welder under the supervision of the vendors representative.

Choke Diagram Attachment:

JB_BS_Choke_20231124124825.pdf

BOP Diagram Attachment:

JB_BS_BOP_20231124124836.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	14.7 5	10.75	NEW	API	N	0	300	0	300	3369	3069	300	J-55	40.5	ST&C	14.9	25.5	DRY	58.8	DRY	58.8
2	INTERMED IATE	9.87 5	7.625	NEW	API	N	0	2000	0	1940	3369	1429	2000	OTH ER	29.7	BUTT	7.2	7	DRY	12.1	DRY	12.1
3	PRODUCTI ON	6.75	5.5	NEW	NON API	N	0	17640	0	6600	3369	-3231	17640	OTH ER		OTHER - TCBC-HT	3.6	3.8	DRY	5	DRY	5

Casing Attachments

Well Name: JAWBONE BS FED COM Well Number: 005H

Casing Attachments

Casing ID: 1

String

SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

JB_BS_005H_Casing_Design_Assumptions_20231124125016.pdf

Casing ID: 2

String

INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

JB_BS_005H_Casing_Design_Assumptions_20231124125121.pdf

Casing ID: 3

String

PRODUCTION

Inspection Document:

Spec Document:

5.5in_Casing_Spec_20231124125224.pdf

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

JB_BS_005H_Casing_Design_Assumptions_20231124125247.pdf

Section 4 - Cement

Well Name: JAWBONE BS FED COM Well Number: 005H

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	2000	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	2000	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	1764 0	260	2.82	10.4	733	15	Class C	10% light weight bead + 5% silica fume alternative + 0.2% suspension aid + 0.3% fluid loss additive + 0.3% dispersant + 0.2% retarder
PRODUCTION	Tail		0	1764 0	690	1.42	13.2	979	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: A closed loop system will be used. 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

Well Name: JAWBONE BS FED COM Well Number: 005H

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	ЬН	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	300	OTHER : Fresh Water	8.8	8.8							
300	2000	OTHER : Cut Brine	10	10							
2000	1764 0	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: 2955 Anticipated Surface Pressure: 1502

Anticipated Bottom Hole Temperature(F): 143

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

JB_BS_PadB_H2S_Plan_20231124125918.pdf

Well Name: JAWBONE BS FED COM Well Number: 005H

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

JB_BS_005H_Horizontal_Plan_20231124125936.pdf

Other proposed operations facets description:

Other proposed operations facets attachment:

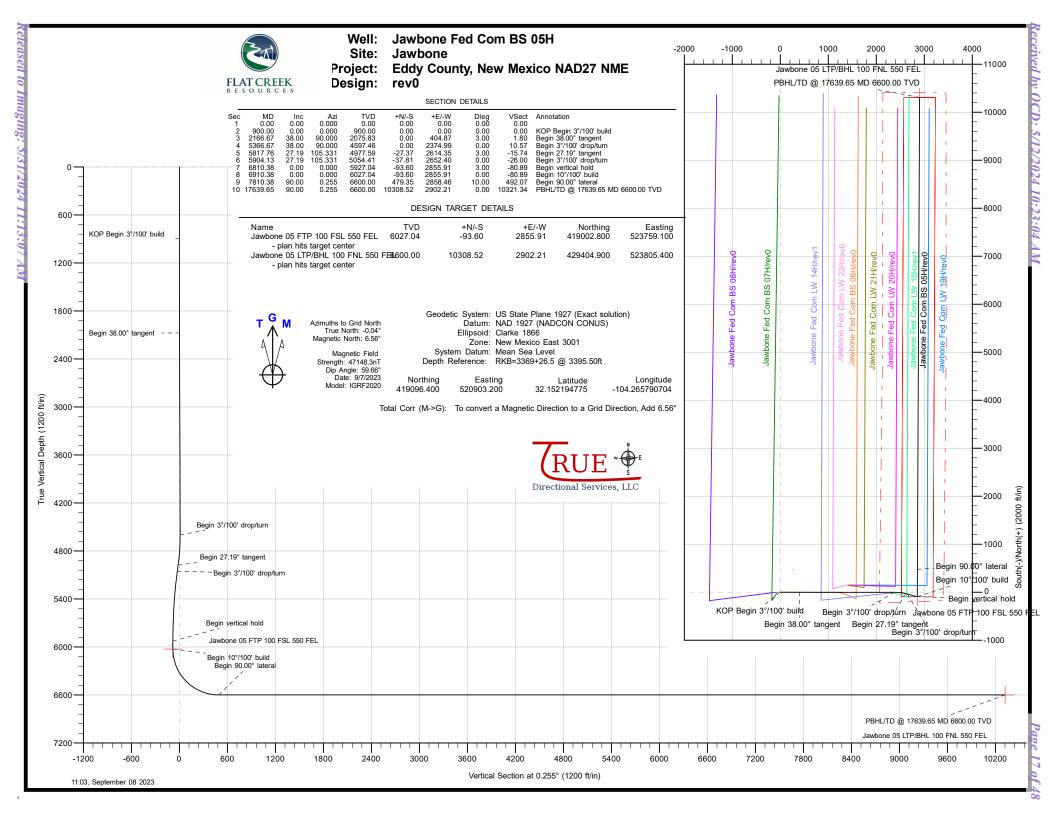
JB_BS_005H_Drill_Plan_20231124125954.pdf

JB_BS_005H_Anticollision_Report_20231124130004.pdf

Coflex_Certs_RDC_20231124130127.pdf

JB_BS_Wellhead_20231124130151.pdf

Other Variance attachment:





Database: DT_Aug2923v16

Company: Flat Creek Resources, LLC

Project: Eddy County, New Mexico NAD27 NME

Site: Jawbone

Well: Jawbone Fed Com BS 05H

Wellbore: Original Hole

Design: rev0

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well Jawbone Fed Com BS 05H RKB=3369+26.5 @ 3395.50ft RKB=3369+26.5 @ 3395.50ft

Grid

Minimum Curvature

Project Eddy County, New Mexico NAD27 NME

Map System: US State Plane 1927 (Exact solution)
Geo Datum: NAD 1927 (NADCON CONUS)

Map Zone: New Mexico East 3001

System Datum:

Mean Sea Level

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 05H, Surf loc: 272 FSL 1946 FWL Section 02-T25S-R26E

 Well Position
 +N/-S
 0.00 ft
 Northing:
 419,096.400 usft
 Latitude:
 32.152194776

 +E/-W
 0.00 ft
 Easting:
 520,903.200 usft
 Longitude:
 -104.265790703

Position Uncertainty 0.00 ft Wellhead Elevation: ft Ground Level: 3,369.00 ft

Grid Convergence: 0.04 °

Wellbore Original Hole

 Magnetics
 Model Name
 Sample Date
 Declination (°)
 Dip Angle (°)
 Field Strength (nT)

 IGRF2020
 9/7/2023
 6.60
 59.66
 47,148,34089686

Design rev0

0.00

Audit Notes:

Version: 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
 0.00
 0.255

Plan Survey Tool Program Date 9/8/2023

17,639.65

Depth From Depth To
(ft) (ft) Survey (Wellbore) Tool Name

rev0 (Original Hole)

MWD

Remarks

OWSG MWD - Standard



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Wellbore: Original Hole

Design: rev0

Local Co-ordinate Reference:

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Survey Calculation Method:

Well Jawbone Fed Com BS 05H RKB=3369+26.5 @ 3395.50ft RKB=3369+26.5 @ 3395.50ft

Grid

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	
900.00	0.00	0.000	900.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,166.67	38.00	90.000	2,075.83	0.00	404.87	3.00	3.00	0.00	90.00	
5,366.67	38.00	90.000	4,597.46	0.00	2,374.99	0.00	0.00	0.00	0.00	
5,817.76	27.19	105.331	4,977.59	-27.37	2,614.35	3.00	-2.40	3.40	148.92	
5,904.13	27.19	105.331	5,054.41	-37.81	2,652.40	0.00	0.00	0.00	0.00	
6,810.38	0.00	0.000	5,927.04	-93.60	2,855.91	3.00	-3.00	0.00	180.00	
6,910.38	0.00	0.000	6,027.04	-93.60	2,855.91	0.00	0.00	0.00	0.00	Jawbone 05 FTP 100
7,810.38	90.00	0.255	6,600.00	479.35	2,858.46	10.00	10.00	0.03	0.26	
17,639.65	90.00	0.255	6,600.00	10,308.52	2,902.21	0.00	0.00	0.00	0.00	Jawbone 05 LTP/BHL



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Wellbore: Original Hole

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Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well Jawbone Fed Com BS 05H RKB=3369+26.5 @ 3395.50ft RKB=3369+26.5 @ 3395.50ft

Grid

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
KOP Begin 3	°/100' build								
1,000.00	3.00	90.000	999.95	0.00	2.62	0.01	3.00	3.00	0.00
1,100.00	6.00	90.000	1,099.63	0.00	10.46	0.05	3.00	3.00	0.00
1,200.00	9.00	90.000	1,198.77	0.00	23.51	0.10	3.00	3.00	0.00
1,300.00	12.00	90.000	1,297.08	0.00	41.74	0.19	3.00	3.00	0.00
1,400.00	15.00	90.000	1,394.31	0.00	65.08	0.29	3.00	3.00	0.00
1,500.00	18.00	90.000	1,490.18	0.00	93.48	0.42	3.00	3.00	0.00
1,600.00	21.00	90.000	1,584.43	0.00	126.85	0.56	3.00	3.00	0.00
1,700.00	24.00	90.000	1,676.81	0.00	165.12	0.73	3.00	3.00	0.00
1,800.00	27.00	90.000	1,767.06	0.00	208.16	0.93	3.00	3.00	0.00
1,900.00	30.00	90.000	1,854.93	0.00	255.87	1.14	3.00	3.00	0.00
2,000.00	33.00	90.000	1,940.18	0.00	308.12	1.37	3.00	3.00	0.00
2,100.00	36.00	90.000	2,022.59	0.00	364.75	1.62	3.00	3.00	0.00
2,166.67	38.00	90.000	2,075.83	0.00	404.87	1.80	3.00	3.00	0.00
Begin 38.00°	•	00.000	0.400.00	0.00	405.00	4.00	0.00	0.00	0.00
2,200.00	38.00	90.000	2,102.09	0.00	425.39	1.89	0.00	0.00	0.00
2,300.00	38.00	90.000	2,180.89	0.00	486.96	2.17	0.00	0.00	0.00
2,400.00	38.00	90.000	2,259.70	0.00	548.52	2.44	0.00	0.00	0.00
2,500.00	38.00	90.000	2,338.50	0.00	610.09	2.72	0.00	0.00	0.00
2,600.00	38.00	90.000	2,417.30	0.00	671.66	2.99	0.00	0.00	0.00
2,700.00	38.00	90.000	2,496.10	0.00	733.22	3.26	0.00	0.00	0.00
2,800.00	38.00	90.000	2,574.90	0.00	794.79	3.54	0.00	0.00	0.00
2,900.00	38.00	90.000	2,653.70	0.00	856.35	3.81	0.00	0.00	0.00
3,000.00	38.00	90.000	2,732.50	0.00	917.92	4.09	0.00	0.00	0.00
3,100.00	38.00	90.000	2,811.30	0.00	979.49	4.36	0.00	0.00	0.00
3,200.00	38.00	90.000	2,890.10	0.00	1,041.05	4.63	0.00	0.00	0.00
3,300.00	38.00	90.000	2,968.91	0.00	1,102.62	4.91	0.00	0.00	0.00
3,400.00	38.00	90.000	3,047.71	0.00	1,164.19	5.18	0.00	0.00	0.00
3,500.00	38.00	90.000	3,126.51	0.00	1,225.75	5.46	0.00	0.00	0.00
3,600.00	38.00	90.000	3,205.31	0.00	1,287.32	5.73	0.00	0.00	0.00
3,700.00	38.00	90.000	3,284.11	0.00	1,348.88	6.00	0.00	0.00	0.00
3,800.00	38.00	90.000	3,362.91	0.00	1,410.45	6.28	0.00	0.00	0.00
3,900.00	38.00	90.000	3,441.71	0.00	1,472.02	6.55	0.00	0.00	0.00
4,000.00	38.00	90.000	3,520.51	0.00	1,533.58	6.83	0.00	0.00	0.00
4,100.00	38.00	90.000	3,599.31	0.00	1,595.15	7.10	0.00	0.00	0.00
4,200.00	38.00	90.000	3,678.12	0.00	1,656.71	7.37	0.00	0.00	0.00
4,300.00	38.00	90.000	3,756.92	0.00	1,718.28	7.65	0.00	0.00	0.00
4,400.00	38.00	90.000	3,835.72	0.00	1,779.85	7.92	0.00	0.00	0.00
4,500.00	38.00	90.000	3,914.52	0.00	1,841.41	8.20	0.00	0.00	0.00
4,600.00	38.00	90.000	3,993.32	0.00	1,902.98	8.47	0.00	0.00	0.00
4,700.00	38.00	90.000	4,072.12	0.00	1,964.55	8.74	0.00	0.00	0.00
4,800.00	38.00	90.000	4,150.92	0.00	2,026.11	9.02	0.00	0.00	0.00
4,900.00	38.00	90.000	4,229.72	0.00	2,087.68	9.29	0.00	0.00	0.00
5,000.00	38.00	90.000	4,308.52	0.00	2,149.24	9.57	0.00	0.00	0.00



Database: DT_Aug2923v16

Company: Flat Creek Resources, LLC

Project: Eddy County, New Mexico NAD27 NME

Site: Jawbone
Well: Jawbone Fed Com BS 05H

Wellbore: Original Hole
Design: rev0

Local Co-ordinate Reference: TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well Jawbone Fed Com BS 05H RKB=3369+26.5 @ 3395.50ft RKB=3369+26.5 @ 3395.50ft

Grid

yıı.	1010								
nned 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)
5,100.00 5,200.00 5,300.00	38.00 38.00 38.00	90.000 90.000 90.000	4,387.33 4,466.13 4,544.93	0.00 0.00 0.00	2,210.81 2,272.38 2,333.94	9.84 10.11 10.39	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
5,366.67	38.00	90.000	4,597.46	0.00	2,374.99	10.57	0.00	0.00	0.00
Begin 3°/10	0' drop/turn								
5,400.00	37.15	90.855	4,623.88	-0.15	2,395.31	10.51	3.00	-2.56	2.56
5,500.00	34.63	93.634	4,704.90	-2.40	2,453.87	8.52	3.00	-2.52	2.78
5,600.00	32.18	96.785	4,788.38	-7.35	2,508.68	3.82	3.00	-2.45	3.15
5,700.00	29.82	100.386	4,874.10	-14.98	2,559.59	-3.59	3.00	-2.36	3.60
5,800.00 5,817.76	27.57 27.19	104.531 105.331	4,961.82 4,977.59	-25.27 -27.37	2,606.46 2,614.35	-13.67 -15.74	3.00 3.00	-2.25 -2.17	4.14 4.51
Begin 27.19			1,011.00	2	2,0 :00		0.00		
5,904.13	27.19	105.331	5,054.41	-37.81	2,652.40	-26.00	0.00	0.00	0.00
	0' drop/turn		-,	27.2	,				
6,000.00	24.31	105.331	5,140.76	-48.82	2,692.57	-36.84	3.00	-3.00	0.00
6,100.00	21.31	105.331	5,232.93	-59.07	2,729.95	-46.92	3.00	-3.00	0.00
6,200.00	18.31	105.331	5,327.00	-68.03	2,762.64	-55.73	3.00	-3.00	0.00
6,300.00	15.31	105.331	5,422.71	-75.68	2,790.53	-63.26	3.00	-3.00	0.00
6,400.00	12.31	105.331	5,519.81	-81.99	2,813.55	-69.46	3.00	-3.00	0.00
6,500.00 6,600.00	9.31 6.31	105.331 105.331	5,618.02 5,717.08	-86.95 -90.54	2,831.64 2,844.74	-74.34 -77.88	3.00 3.00	-3.00 -3.00	0.00 0.00
6,700.00	3.31	105.331	5,816.72	-92.76	2,852.83	-80.06	3.00	-3.00	0.00
6,800.00	0.31	105.331	5,916.66	-93.59	2,855.88	-80.88	3.00	-3.00	0.00
6,810.38	0.00	0.000	5,927.04	-93.60	2,855.91	-80.89	3.00	-3.00	0.00
Begin vertic	cal hold								
6,900.00	0.00	0.000	6,016.66	-93.60	2,855.91	-80.89	0.00	0.00	0.00
6,910.38	0.00	0.000	6,027.04	-93.60	2,855.91	-80.89	0.00	0.00	0.00
Begin 10°/1	00' build								
6,950.00	3.96	0.255	6,066.63	-92.23	2,855.91	-79.52	10.00	10.00	0.00
7,000.00	8.96	0.255	6,116.29	-86.61	2,855.94	-73.89	10.00	10.00	0.00
7,050.00	13.96	0.255	6,165.28	-76.67	2,855.98	-63.96	10.00	10.00	0.00
7,100.00	18.96	0.255	6,213.22	-62.51	2,856.04	-49.80	10.00	10.00	0.00
7,150.00	23.96	0.255	6,259.74	-44.22	2,856.13	-31.51	10.00	10.00	0.00
7,200.00	28.96	0.255	6,304.48	-21.95	2,856.22	-9.24	10.00	10.00	0.00
7,250.00	33.96	0.255	6,347.12	4.14	2,856.34	16.85	10.00	10.00	0.00
7,300.00	38.96	0.255	6,387.32	33.85	2,856.47	46.56	10.00	10.00	0.00
7,350.00	43.96	0.255	6,424.78	66.94	2,856.62	79.65	10.00	10.00	0.00
7,400.00	48.96	0.255	6,459.21	103.17	2,856.78	115.89	10.00	10.00	0.00
7,450.00	53.96	0.255	6,490.35	142.27	2,856.96	154.99	10.00	10.00	0.00
7,500.00	58.96	0.255	6,517.96	183.93	2,857.14	196.65	10.00	10.00	0.00
7,550.00	63.96	0.255	6,541.84	227.84	2,857.34	240.56	10.00	10.00	0.00
7,600.00	68.96	0.255	6,561.81	273.67	2,857.54	286.38	10.00	10.00	0.00
7,650.00 7,700.00	73.96 78.96	0.255 0.255	6,577.70 6,589.40	321.06 369.65	2,857.75 2,857.97	333.77 382.37	10.00 10.00	10.00 10.00	0.00
7,750.00	83.96	0.255	6,589.40	419.08	2,857.97 2,858.19	382.37 431.80	10.00	10.00	0.00
7,750.00	88.96	0.255	6,599.90	468.97	2,858.41	481.69	10.00	10.00	0.00
7,810.38	90.00	0.255	6,600.00	479.35	2,858.46	492.07	10.00	10.00	0.00
Begin 90.00		0.200	5,500.00		2,000.10	.52.07	10.00	10.00	0.00
7,900.00	90.00	0.255	6,600.00	568.97	2,858.85	581.69	0.00	0.00	0.00
8,000.00	90.00	0.255	6,600.00	668.97	2,859.30	681.69	0.00	0.00	0.00
8,100.00	90.00	0.255	6,600.00	768.97	2,859.75	781.69	0.00	0.00	0.00
8,200.00	90.00	0.255	6,600.00	868.97	2,860.19	881.69	0.00	0.00	0.00
8,300.00	90.00	0.255	6,600.00	968.97	2,860.64	981.69	0.00	0.00	0.00



DT_Aug2923v16 Database: Company:

Flat Creek Resources, LLC

Project: Eddy County, New Mexico NAD27 NME

Site: Jawbone

Well: Jawbone Fed Com BS 05H

Wellbore: Original Hole Design: rev0

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well Jawbone Fed Com BS 05H RKB=3369+26.5 @ 3395.50ft RKB=3369+26.5 @ 3395.50ft

Grid

nned 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)
8,400.00	90.00	0.255	6,600.00	1,068.97	2,861.08	1,081.69	0.00	0.00	0.00
8,500.00	90.00	0.255	6,600.00	1,168.96	2,861.53	1,181.69	0.00	0.00	0.00
8,600.00	90.00	0.255	6,600.00	1,268.96	2,861.97	1,281.69	0.00	0.00	0.00
8,700.00	90.00	0.255	6,600.00	1,368.96	2,862.42	1,381.69	0.00	0.00	0.00
8,800.00		0.255	6,600.00	1,468.96	2,862.86	1,481.69	0.00	0.00	0.00
8,900.00		0.255	6,600.00	1,568.96	2,863.31	1,581.69	0.00	0.00	0.00
9,000.00		0.255	6,600.00	1,668.96	2,863.75	1,681.69	0.00	0.00	0.00
9,100.00		0.255	6,600.00	1,768.96	2,864.20	1,781.69	0.00	0.00	0.00
9,200.00		0.255	6,600.00	1,868.96	2,864.64	1,881.69	0.00	0.00	0.00
9,300.00	90.00	0.255	6,600.00	1,968.96	2,865.09	1,981.69	0.00	0.00	0.00
9,400.00	90.00	0.255	6,600.00	2,068.96	2,865.53	2,081.69	0.00	0.00	0.00
9,500.00		0.255	6,600.00	2,168.95	2,865.98	2,181.69	0.00	0.00	0.00
9,600.00		0.255	6,600.00	2,268.95	2,866.42	2,281.69	0.00	0.00	0.00
9,700.00		0.255	6,600.00	2,368.95	2,866.87	2,381.69	0.00	0.00	0.00
9,800.00	90.00	0.255	6,600.00	2,468.95	2,867.31	2,481.69	0.00	0.00	0.00
9,900.00	90.00	0.255	6,600.00	2,568.95	2,867.76	2,581.69	0.00	0.00	0.00
10,000.00	90.00	0.255	6,600.00	2,668.95	2,868.20	2,681.69	0.00	0.00	0.00
10,100.00		0.255	6,600.00	2,768.95	2,868.65	2,781.69	0.00	0.00	0.00
10,200.00		0.255	6.600.00	2,868.95	2,869.09	2,881.69	0.00	0.00	0.00
10,300.00		0.255	6,600.00	2,968.95	2,869.54	2,981.69	0.00	0.00	0.00
10,400.00		0.255	6,600.00	3,068.95	2,869.98	3,081.69	0.00	0.00	0.00
10,500.00	90.00	0.255	6,600.00	3,168.94	2,870.43	3,181.69	0.00	0.00	0.00
10,600.00	90.00	0.255	6,600.00	3,268.94	2,870.87	3,281.69	0.00	0.00	0.00
10,700.00		0.255	6,600.00	3,368.94	2,871.32	3,381.69	0.00	0.00	0.00
10,800.00		0.255	6,600.00	3,468.94	2,871.76	3,481.69	0.00	0.00	0.00
10,900.00		0.255	6,600.00	3,568.94	2,872.21	3,581.69	0.00	0.00	0.00
11,000.00	90.00	0.255	6,600.00	3,668.94	2,872.65	3,681.69	0.00	0.00	0.00
11,100.00	90.00	0.255	6,600.00	3,768.94	2,873.10	3,781.69	0.00	0.00	0.00
11,200.00	90.00	0.255	6,600.00	3,868.94	2,873.54	3,881.69	0.00	0.00	0.00
11,300.00		0.255	6,600.00	3,968.94	2,873.99	3,981.69	0.00	0.00	0.00
11,400.00		0.255	6,600.00	4,068.94	2,874.43	4,081.69	0.00	0.00	0.00
11,500.00	90.00	0.255	6,600.00	4,168.93	2,874.88	4,181.69	0.00	0.00	0.00
11,600.00	90.00	0.255	6,600.00	4,268.93	2,875.32	4,281.69	0.00	0.00	0.00
11,700.00	90.00	0.255	6,600.00	4,368.93	2,875.77	4,381.69	0.00	0.00	0.00
11,800.00	90.00	0.255	6,600.00	4,468.93	2,876.21	4,481.69	0.00	0.00	0.00
11,900.00		0.255	6,600.00	4,568.93	2,876.66	4,581.69	0.00	0.00	0.00
12,000.00		0.255	6,600.00	4,668.93	2,877.10	4,681.69	0.00	0.00	0.00
12,100.00		0.255	6,600.00	4,768.93	2,877.55	4,781.69	0.00	0.00	0.00
12,200.00		0.255	6,600.00	4,868.93	2,877.99	4,881.69	0.00	0.00	0.00
12,300.00		0.255	6,600.00	4,968.93	2,878.44	4,981.69	0.00	0.00	0.00
12,400.00	90.00	0.255	6,600.00	5,068.93	2,878.88	5,081.69	0.00	0.00	0.00
12,500.00		0.255	6,600.00	5,168.93	2,879.33	5,181.69	0.00	0.00	0.00
12,600.00		0.255	6,600.00	5,268.92	2,879.77	5,281.69	0.00	0.00	0.00
12,700.00		0.255	6,600.00	5,368.92	2,880.22	5,381.69	0.00	0.00	0.00
12,800.00		0.255	6,600.00	5,468.92	2,880.66	5,481.69	0.00	0.00	0.00
12,900.00	90.00	0.255	6,600.00	5,568.92	2,881.11	5,581.69	0.00	0.00	0.00
13,000.00		0.255	6,600.00	5,668.92	2,881.55	5,681.69	0.00	0.00	0.00
13,100.00		0.255	6,600.00	5,768.92	2,882.00	5,781.69	0.00	0.00	0.00
13,200.00		0.255	6,600.00	5,868.92	2,882.45	5,881.69	0.00	0.00	0.00
13,300.00	90.00	0.255	6,600.00	5,968.92	2,882.89	5,981.69	0.00	0.00	0.00
13,400.00	90.00	0.255	6,600.00	6,068.92	2,883.34	6,081.69	0.00	0.00	0.00
13,500.00		0.255	6,600.00	6,168.92	2,883.78	6,181.69	0.00	0.00	0.00
13,600.00		0.255	6,600.00	6,268.91	2,884.23	6,281.69	0.00	0.00	0.00
13,700.00	90.00	0.255	6,600.00	6,368.91	2,884.67	6,381.69	0.00	0.00	0.00



Database: DT_Aug2923v16

Company: Flat Creek Resources, LLC

Project: Eddy County, New Mexico NAD27 NME

Site: Jawbone

Well: Jawbone Fed Com BS 05H

Wellbore: Original Hole
Design: rev0

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well Jawbone Fed Com BS 05H RKB=3369+26.5 @ 3395.50ft RKB=3369+26.5 @ 3395.50ft

Grid

Measured			Vertical			Vertical	Dogleg	Build	Turn
Depth (ft)	Inclination (°)	Azimuth (°)	Depth (ft)	+N/-S (ft)	+E/-W (ft)	Section (ft)	Rate (°/100ft)	Rate (°/100ft)	Rate (°/100ft)
13,800.00 13,900.00	90.00 90.00	0.255 0.255	6,600.00 6,600.00	6,468.91 6,568.91	2,885.12 2,885.56	6,481.69 6,581.69	0.00 0.00	0.00 0.00	0.00 0.00
14,000.00	90.00	0.255	6,600.00	6,668.91	2,886.01	6,681.69	0.00	0.00	0.00
14,100.00	90.00	0.255	6,600.00	6,768.91	2,886.45	6,781.69	0.00	0.00	0.00
14,200.00	90.00	0.255	6,600.00	6,868.91	2,886.90	6,881.69	0.00	0.00	0.00
14,300.00	90.00	0.255	6,600.00	6,968.91	2,887.34	6,981.69	0.00	0.00	0.00
14,400.00	90.00	0.255	6,600.00	7,068.91	2,887.79	7,081.69	0.00	0.00	0.00
14,500.00	90.00	0.255	6,600.00	7,168.91	2,888.23	7,181.69	0.00	0.00	0.00
14,600.00	90.00	0.255	6,600.00	7,108.91	2,888.68	7,181.69	0.00	0.00	0.00
14,700.00	90.00	0.255	6,600.00	7,268.90	2,000.00	7,261.69	0.00	0.00	0.00
,			,	,	,	,			
14,800.00 14,900.00	90.00 90.00	0.255 0.255	6,600.00 6,600.00	7,468.90 7,568.90	2,889.57 2,890.01	7,481.69 7,581.69	0.00 0.00	0.00 0.00	0.00 0.00
15,000.00	90.00	0.255	6,600.00	7,668.90	2,890.46	7,681.69	0.00	0.00	0.00
15,100.00	90.00	0.255	6,600.00	7,768.90	2,890.90	7,781.69	0.00	0.00	0.00
15,200.00	90.00	0.255	6,600.00	7,868.90	2,891.35	7,881.69	0.00	0.00	0.00
15,300.00	90.00	0.255	6,600.00	7,968.90	2,891.79	7,981.69	0.00	0.00	0.00
15,400.00	90.00	0.255	6,600.00	8,068.90	2,892.24	8,081.69	0.00	0.00	0.00
15,500.00	90.00	0.255	6,600.00	8,168.90	2,892.68	8,181.69	0.00	0.00	0.00
15,600.00	90.00	0.255	6,600.00	8,268.89	2,893.13	8,281.69	0.00	0.00	0.00
15,700.00	90.00	0.255	6,600.00	8,368.89	2,893.57	8,381.69	0.00	0.00	0.00
15,800.00	90.00	0.255	6,600.00	8,468.89	2,894.02	8,481.69	0.00	0.00	0.00
15,900.00	90.00	0.255	6,600.00	8,568.89	2,894.46	8,581.69	0.00	0.00	0.00
16,000.00	90.00	0.255	6.600.00	8,668.89	2,894.91	8,681.69	0.00	0.00	0.00
16,100.00	90.00	0.255	6,600.00	8,768.89	2,895.35	8,781.69	0.00	0.00	0.00
,		0.255	6,600.00	,	,				
16,200.00 16,300.00	90.00 90.00	0.255	6.600.00	8,868.89 8,968.89	2,895.80 2,896.24	8,881.69 8,981.69	0.00 0.00	0.00 0.00	0.00 0.00
,	90.00	0.255 0.255	6,600.00	,	,	,	0.00	0.00	0.00
16,400.00				9,068.89	2,896.69	9,081.69			
16,500.00	90.00	0.255	6,600.00	9,168.89	2,897.13	9,181.69	0.00	0.00	0.00
16,600.00	90.00	0.255	6,600.00	9,268.88	2,897.58	9,281.69	0.00	0.00	0.00
16,700.00	90.00	0.255	6,600.00	9,368.88	2,898.02	9,381.69	0.00	0.00	0.00
16,800.00	90.00	0.255	6,600.00	9,468.88	2,898.47	9,481.69	0.00	0.00	0.00
16,900.00	90.00	0.255	6,600.00	9,568.88	2,898.91	9,581.69	0.00	0.00	0.00
17,000.00	90.00	0.255	6,600.00	9,668.88	2,899.36	9,681.69	0.00	0.00	0.00
17,100.00	90.00	0.255	6,600.00	9,768.88	2,899.80	9,781.69	0.00	0.00	0.00
17,200.00	90.00	0.255	6,600.00	9,868.88	2,900.25	9,881.69	0.00	0.00	0.00
17,300.00	90.00	0.255	6,600.00	9,968.88	2,900.69	9,981.69	0.00	0.00	0.00
17,400.00	90.00	0.255	6,600.00	10,068.88	2,901.14	10,081.69	0.00	0.00	0.00
17,500.00	90.00	0.255	6,600.00	10,168.88	2,901.58	10,181.69	0.00	0.00	0.00
17,600.00	90.00	0.255	6,600.00	10,268.87	2,902.03	10,281.69	0.00	0.00	0.00
17,639.65	90.00	0.255	6,600.00	10,308.52	2,902.21	10,321.34	0.00	0.00	0.00



Database: DT_Aug2923v16

Company: Flat Creek Resources, LLC

Project: Eddy County, New Mexico NAD27 NME Site: Jawbone

Well: Jawbone Fed Com BS 05H

Wellbore: Original Hole
Design: rev0

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well Jawbone Fed Com BS 05H RKB=3369+26.5 @ 3395.50ft RKB=3369+26.5 @ 3395.50ft

Grid

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 05 FTP 100 FS - plan hits target cen - Rectangle (sides W		0.255 02.23 D0.00	6,027.04	-93.60	2,855.91	419,002.800	523,759.100	32.151932205	-104.256562913
Jawbone 05 LTP/BHL 10 - plan hits target cen - Point	0.00 ter	0.255	6,600.00	10,308.52	2,902.21	429,404.900	523,805.400	32.180527678	-104.256389278

Plan Annotations				
Measured	Vertical	Local Coor	dinates	
Depth (ft)	Depth (ft)	+N/-S (ft)	+E/-W (ft)	Comment
900.00	900.00	0.00	0.00	KOP Begin 3°/100' build
2,166.67	2,075.83	0.00	404.87	Begin 38.00° tangent
5,366.67	4,597.46	0.00	2,374.99	Begin 3°/100' drop/turn
5,817.76	4,977.59	-27.37	2,614.35	Begin 27.19° tangent
5,904.13	5,054.41	-37.81	2,652.40	Begin 3°/100' drop/turn
6,810.38	5,927.04	-93.60	2,855.91	Begin vertical hold
6,910.38	6,027.04	-93.60	2,855.91	Begin 10°/100' build
7,810.38	6,600.00	479.35	2,858.46	Begin 90.00° lateral
17,639.65	6,600.00	10,308.52	2,902.21	PBHL/TD @ 17639.65 MD 6600.00 TVD



DT_Aug2923v16 Database:

Company: Flat Creek Resources, LLC

Project:

Well:

Eddy County, New Mexico NAD27 NME

Jawbone Fed Com BS 05H

Site: Jawbone

Wellbore: Original Hole

Design: rev0 **Local Co-ordinate Reference:**

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well Jawbone Fed Com BS 05H RKB=3369+26.5 @ 3395.50ft

RKB=3369+26.5 @ 3395.50ft

Minimum Curvature

Project Eddy County, New Mexico NAD27 NME

US State Plane 1927 (Exact solution) Map System: NAD 1927 (NADCON CONUS) Geo Datum:

Map Zone: New Mexico East 3001 System Datum:

Mean Sea Level

59.66

47,148.34089686

Site Jawbone

Northing: 419,218.600 usft 32.152532039 Site Position: Latitude: 520,115.600 usft Easting: -104.268335365 Мар From: Longitude:

Position Uncertainty: 0.00 ft Slot Radius: 13-3/16 "

IGRF2020

Date

Well Jawbone Fed Com BS 05H, Surf loc: 272 FSL 1946 FWL Section 02-T25S-R26E

Well Position +N/-S 0.00 ft Northing: 419,096.400 usft Latitude: 32.152194776

+E/-W 0.00 ft Easting: 520,903.200 usft Longitude: -104.265790703

0.00 ft ft 3,369.00 ft **Position Uncertainty** Wellhead Elevation: Ground Level:

Grid Convergence:

Plan Survey Tool Program

Design

Original Hole Wellbore Field Strength Model Name Declination Sample Date Dip Angle Magnetics (°) (°) (nT)

6.60

Audit Notes: PLAN 0.00 Version: Phase: Tie On Depth:

9/7/2023

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

(ft) (ft) (ft) (°) 0.00 0.00 0.00 0.255

Depth From Depth To

Tool Name (ft) (ft) Survey (Wellbore) Remarks

0.00 17,639.65 rev0 (Original Hole)

rev0



Wellbore:

Planning Report - Geographic

Database: DT_Aug2923v16

Company: Flat Creek Resources, LLC

Project: Eddy County, New Mexico NAD27 NME

Original Hole

Site: Jawbone

Well: Jawbone Fed Com BS 05H

Design: rev0

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well Jawbone Fed Com BS 05H RKB=3369+26.5 @ 3395.50ft

RKB=3369+26.5 @ 3395.50ft

Grid

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	
900.00	0.00	0.000	900.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,166.67	38.00	90.000	2,075.83	0.00	404.87	3.00	3.00	0.00	90.00	
5,366.67	38.00	90.000	4,597.46	0.00	2,374.99	0.00	0.00	0.00	0.00	
5,817.76	27.19	105.331	4,977.59	-27.37	2,614.35	3.00	-2.40	3.40	148.92	
5,904.13	27.19	105.331	5,054.41	-37.81	2,652.40	0.00	0.00	0.00	0.00	
6,810.38	0.00	0.000	5,927.04	-93.60	2,855.91	3.00	-3.00	0.00	180.00	
6,910.38	0.00	0.000	6,027.04	-93.60	2,855.91	0.00	0.00	0.00	0.00	Jawbone 05 FTP 100
7,810.38	90.00	0.255	6,600.00	479.35	2,858.46	10.00	10.00	0.03	0.26	
17,639.65	90.00	0.255	6,600.00	10,308.52	2,902.21	0.00	0.00	0.00	0.00	Jawbone 05 LTP/BHL



Database: DT_Aug2923v16

Company: Flat Creek Resources, LLC

Project: Eddy County, New Mexico NAD27 NME

Site: Jawbone

Well: Jawbone Fed Com BS 05H

Wellbore: Original Hole
Design: rev0

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well Jawbone Fed Com BS 05H RKB=3369+26.5 @ 3395.50ft

RKB=3369+26.5 @ 3395.50ft

Grid

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	419,096.400	520,903.200	32.152194776	-104.265790703
100.00	0.00	0.000	100.00	0.00	0.00	419,096.400	520,903.200	32.152194776	-104.265790703
200.00	0.00	0.000	200.00	0.00	0.00	419,096.400	520,903.200	32.152194776	-104.265790703
300.00	0.00	0.000	300.00	0.00	0.00	419,096.400	520,903.200	32.152194776	-104.265790703
400.00	0.00	0.000	400.00	0.00	0.00	419,096.400	520,903.200	32.152194776	-104.265790703
500.00	0.00	0.000	500.00	0.00	0.00	419,096.400	520,903.200	32.152194776	-104.265790703
600.00	0.00	0.000	600.00	0.00	0.00	419,096.400	520,903.200	32.152194776	-104.265790703
700.00	0.00	0.000	700.00	0.00	0.00	419,096.400	520,903.200	32.152194776	-104.265790703
800.00	0.00	0.000	800.00	0.00	0.00	419,096.400		32.152194776	-104.265790703
900.00	0.00	0.000	900.00				520,903.200		
			900.00	0.00	0.00	419,096.400	520,903.200	32.152194776	-104.265790703
	gin 3°/100' bui		000.05	0.00	0.00	440.000.400	500 005 040	00.450404774	404 005700040
1,000.00	3.00	90.000	999.95	0.00	2.62	419,096.400	520,905.818	32.152194771	-104.265782246
1,100.00	6.00	90.000	1,099.63	0.00	10.46	419,096.400	520,913.663	32.152194758	-104.265756897
1,200.00	9.00	90.000	1,198.77	0.00	23.51	419,096.400	520,926.714	32.152194735	-104.265714726
1,300.00	12.00	90.000	1,297.08	0.00	41.74	419,096.400	520,944.935	32.152194704	-104.265655849
1,400.00	15.00	90.000	1,394.31	0.00	65.08	419,096.400	520,968.277	32.152194663	-104.265580427
1,500.00	18.00	90.000	1,490.18	0.00	93.48	419,096.400	520,996.675	32.152194614	-104.265488666
1,600.00	21.00	90.000	1,584.43	0.00	126.85	419,096.400	521,030.052	32.152194556	-104.265380819
1,700.00	24.00	90.000	1,676.81	0.00	165.12	419,096.400	521,068.316	32.152194490	-104.265257180
1,800.00	27.00	90.000	1,767.06	0.00	208.16	419,096.400	521,111.362	32.152194415	-104.265118089
1,900.00	30.00	90.000	1,854.93	0.00	255.87	419,096.400	521,159.072	32.152194332	-104.264963927
2,000.00	33.00	90.000	1,940.18	0.00	308.12	419,096.400	521,211.316	32.152194240	-104.264795117
2,100.00	36.00	90.000	2,022.59	0.00	364.75	419,096.400	521,267.950	32.152194141	-104.264612120
2,166.67	38.00	90.000	2,075.83	0.00	404.87	419,096.400	521,308.069	32.152194071	-104.264482488
Begin 38	3.00° tangent								
2,200.00	38.00	90.000	2,102.09	0.00	425.39	419,096.400	521,328.591	32.152194035	-104.264416177
2,300.00	38.00	90.000	2,180.89	0.00	486.96	419,096.400	521,390.157	32.152193926	-104.264217244
2,400.00	38.00	90.000	2,259.70	0.00	548.52	419,096.400	521,451.723	32.152193817	-104.264018312
2,500.00	38.00	90.000	2,338.50	0.00	610.09	419,096.400	521,513.289	32.152193708	-104.263819379
2,600.00	38.00	90.000	2,417.30	0.00	671.66	419,096.400	521,574.855	32.152193599	-104.263620447
2,700.00	38.00	90.000	2,496.10	0.00	733.22	419,096.400	521,636.421	32.152193489	-104.263421514
2,800.00	38.00	90.000	2,574.90	0.00	794.79	419,096.400	521,697.987	32.152193379	-104.263222581
2,900.00	38.00	90.000	2,653.70	0.00	856.35	419,096.400	521,759.553	32.152193268	-104.263023649
3,000.00	38.00	90.000	2,732.50	0.00	917.92	419,096.400	521,821.119	32.152193158	-104.262824716
3,100.00	38.00	90.000	2,811.30	0.00	979.49	419,096.400	521,882.685	32.152193047	-104.262625783
3,200.00	38.00	90.000	2,890.10	0.00	1,041.05	419,096.400	521,944.251	32.152192935	-104.262426851
3,300.00	38.00	90.000	2,968.91	0.00	1,102.62	419,096.400	522,005.817	32.152192824	-104.262227918
3,400.00	38.00	90.000	3,047.71	0.00	1,164.19	419,096.400	522,067.383	32.152192712	-104.262028986
3,500.00	38.00	90.000	3,126.51	0.00	1,225.75	419,096.400	522,128.949	32.152192600	-104.261830053
3,600.00	38.00	90.000	3,205.31	0.00	1,287.32	419,096.400	522,190.515	32.152192487	-104.261631120
3,700.00	38.00	90.000	3,284.11	0.00	1,348.88	419,096.400	522,252.081	32.152192374	-104.261432188
3,800.00	38.00	90.000	3,362.91	0.00	1,410.45	419,096.400	522,313.647	32.152192261	-104.261233255
3,900.00	38.00	90.000	3,441.71	0.00	1,472.02	419,096.400	522,375.213	32.152192148	-104.261034322
4,000.00	38.00	90.000	3,520.51	0.00	1,533.58	419,096.400	522,436.779	32.152192034	-104.260835390
4,100.00	38.00	90.000	3,599.31	0.00	1,595.15	419,096.400	522,498.345	32.152191920	-104.260636457
4,200.00	38.00	90.000	3,678.12	0.00	1,656.71	419,096.400	522,559.912	32.152191805	-104.260437525
4,300.00	38.00	90.000	3,756.92	0.00	1,718.28	419,096.400	522,621.478	32.152191690	-104.260238592
4,400.00	38.00	90.000	3,835.72	0.00	1,779.85	419,096.400	522,683.044	32.152191575	-104.260039659
4,500.00	38.00	90.000	3,914.52	0.00	1,779.65	419,096.400	522,744.610	32.152191460	-104.259840727
	38.00	90.000	3,993.32	0.00		419,096.400	522,806.176	32.152191344	-104.259640727
4,600.00					1,902.98 1,964.55		522,867.742		
4,700.00	38.00	90.000	4,072.12	0.00	1,964.55	419,096.400		32.152191228	-104.259442862
4,800.00	38.00	90.000	4,150.92	0.00	2,026.11	419,096.400	522,929.308	32.152191112	-104.259243929
4,900.00	38.00	90.000	4,229.72	0.00	2,087.68	419,096.400	522,990.874	32.152190995	-104.259044996
5,000.00	38.00	90.000	4,308.52	0.00	2,149.24	419,096.400	523,052.440	32.152190878	-104.258846064



Database: DT_Aug2923v16

Company: Flat Creek Resources, LLC

Project: Eddy County, New Mexico NAD27 NME Site: Jawbone

Well: Jawbone Fed Com BS 05H

Wellbore: Original Hole
Design: rev0

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well Jawbone Fed Com BS 05H RKB=3369+26.5 @ 3395.50ft RKB=3369+26.5 @ 3395.50ft

Grid

Design.	1640								
Planned Survey									
r iainica carvey									
Measured			Vertical			Мар	Мар		
Depth	Inclination	Azimuth	Depth	+N/-S	+E/-W	Northing	Easting		
(ft)	(°)	(°)	(ft)	(ft)	+⊑/-vv (ft)	(usft)	(usft)	Latituda	Lamaituda
(10)	()	()	(10)	(11)	(11)	(usit)	(usit)	Latitude	Longitude
5,100.00	38.00	90.000	4,387.33	0.00	2,210.81	419,096.400	523,114.006	32.152190761	-104.258647131
5,200.00	38.00	90.000	4,466.13	0.00	2,272.38	419,096.400	523,175.572	32.152190644	-104.258448198
5,300.00	38.00	90.000	4,544.93	0.00	2,333.94	419,096.400	523,237.138	32.152190526	-104.258249266
5,366.67	38.00	90.000	4,597.46	0.00	2,374.99	419,096.400	523,278.182	32.152190447	-104.258116644
Begin 3°	/100' drop/turi	n							
5,400.00	37.15	90.855	4,623.88	-0.15	2,395.31	419,096.250	523,298.506	32.152189995	-104.258050971
5,500.00	34.63	93.634	4,704.90	-2.40	2,453.87	419,093.998	523,357.063	32.152183693	-104.257861767
5,600.00	32.18	96.785	4,788.38	-7.35	2,508.68	419,089.051	523,411.871	32.152169986	-104.257684682
5,700.00	29.82	100.386	4,874.10	-14.98	2,559.59	419,081.421	523,462.780	32.152148912	-104.257520203
5,800.00	27.57	104.531	4,961.82	-25.27	2,606.46	419,071.129	523,509.650	32.152120530	-104.257368780
5,817.76	27.19	105.331	4,977.59	-27.37	2,614.35	419,069.025	523,517.542	32.152114731	-104.257343283
Begin 27	'.19° tangent								
5,904.13	27.19	105.331	5,054.41	-37.81	2,652.40	419,058.592	523,555.599	32.152085975	-104.257220338
	/100' drop/turi		-,		,	-,	,		
6,000.00	24.31	105.331	5,140.76	-48.82	2,692.57	419,047.580	523,595.763	32.152055626	-104.257090583
6,100.00	21.31	105.331	5,232.93	-59.07	2,729.95	419,037.331	523,633.149	32.152027376	-104.256969805
6,200.00	18.31	105.331	5,327.00	-68.03	2,762.64	419,028.370	523,665.832	32.152002681	-104.256864222
6,300.00	15.31	105.331	5,422.71	-75.68	2,790.53	419,020.724	523,693.722	32.151981607	-104.256774122
6,400.00	12.31	105.331	5,519.81	-81.99	2,813.55	419,014.413	523,716.742	32.151964212	-104.256699752
6,500.00	9.31	105.331	5,618.02	-86.95	2,831.64	419,009.454	523,734.831	32.151950544	-104.256641317
6,600.00	6.31	105.331	5,717.08	-90.54	2,844.74	419,005.861	523,747.937	32.151940641	-104.256598977
6,700.00	3.31	105.331	5,816.72	-92.76	2,852.83	419,003.643	523,756.025	32.151934529	-104.256572847
6,800.00	0.31	105.331	5,916.66	-93.59	2,855.88	419,002.807	523,759.073	32.151932225	-104.256562999
6,810.38	0.00	0.000	5,927.04	-93.60	2,855.91	419,002.800	523,759.100	32.151932205	-104.256562913
	rtical hold	0.000	0,027.0	00.00	2,000.0.	,	020,. 0000	02.101002200	1011200002010
6,900.00	0.00	0.000	6,016.66	-93.60	2,855.91	419,002.800	523,759.100	32.151932205	-104.256562913
6,910.38	0.00	0.000	6,027.04	-93.60	2,855.91	419,002.800	523,759.100	32.151932205	-104.256562913
	°/100' build	0.000	0,027.01	00.00	2,000.01	110,002.000	020,700.700	02.101002200	101.200002010
6,950.00	3.96	0.255	6,066.63	-92.23	2,855.91	419,004.169	523,759.106	32.151935969	-104.256562890
7,000.00	8.96	0.255	6,116.29	-86.61	2,855.94	419,009.795	523,759.131	32.151951433	-104.256562796
7,050.00	13.96	0.255	6,165.28	-76.67	2,855.98	419,019.727	523,759.175	32.151978738	-104.256562630
7,100.00	18.96	0.255	6,213.22	-62.51	2,856.04	419,033.892	523,759.239	32.152017676	-104.256562394
7,150.00	23.96	0.255	6,259.74	-44.22	2,856.13	419,052.180	523,759.320	32.152067950	-104.256562089
7,200.00	28.96	0.255	6,304.48	-21.95	2,856.22	419,074.452	523,759.419	32.152129179	-104.256561717
7,250.00	33.96	0.255	6,347.12	4.14	2,856.34	419,100.540	523,759.535	32.152200895	-104.256561282
7,300.00	38.96	0.255	6,387.32	33.85	2,856.47	419,130.245	523,759.667	32.152282554	-104.256560786
7,350.00	43.96	0.255	6,424.78	66.94	2,856.62	419,163.340	523,759.815	32.152373533	-104.256560234
7,400.00	48.96	0.255	6,459.21	103.17	2,856.78	419,199.574	523,759.976	32.152473141	-104.256559629
7,450.00	53.96	0.255	6,490.35	142.27	2,856.96	419,238.671	523,760.150	32.152580618	-104.256558977
7,500.00	58.96	0.255	6,517.96	183.93	2,857.14	419,280.333	523,760.335	32.152695149	-104.256558282
7,550.00	63.96	0.255	6,541.84	227.84	2,857.34	419,324.244	523,760.531	32.152815859	-104.256557549
7,600.00	68.96	0.255	6,561.81	273.67	2,857.54	419,370.069	523,760.735	32.152941832	-104.256556784
7,650.00	73.96	0.255	6,577.70	321.06	2,857.75	419,417.459	523,760.946	32.153072108	-104.256555994
7,700.00	78.96	0.255	6,589.40	369.65	2,857.97	419,466.053	523,761.162	32.153205696	-104.256555183
7,750.00	83.96	0.255	6,596.82	419.08	2,858.19	419,515.483	523,761.382	32.153341578	-104.256554358
7,800.00	88.96	0.255	6,599.90	468.97	2,858.41	419,565.371	523,761.604	32.153478722	-104.256553525
7,810.38	90.00	0.255	6,600.00	479.35	2,858.46	419,575.751	523,761.650	32.153507256	-104.256553352
	.00° lateral					,	,		
7,900.00	90.00	0.255	6,600.00	568.97	2,858.85	419,665.369	523,762.049	32.153753619	-104.256551857
8,000.00	90.00	0.255	6,600.00	668.97	2,859.30	419,765.368	523,762.494	32.154028517	-104.256550188
8,100.00	90.00	0.255	6,600.00	768.97	2,859.75	419,865.367	523,762.939	32.154303415	-104.256548519
8,200.00	90.00	0.255	6,600.00	868.97	2,860.19	419,965.366	523,763.385	32.154578313	-104.256546851
8,300.00	90.00	0.255	6,600.00	968.97	2,860.64	420,065.365	523,763.830	32.154853212	-104.256545182
8,400.00	90.00	0.255	6,600.00	1,068.97	2,861.08	420,165.363	523,764.275	32.155128110	-104.256543513
=, 100.00			.,	,,,,,,,,,	,,,,,,,,,	-,	,		



TVD Reference:

Database: DT_Aug2923v16

Company: Flat Creek Resources, LLC

Project: Eddy County, New Mexico NAD27 NME Site: Jawbone

Well: Jawbone Fed Com BS 05H

Wellbore: Original Hole
Design: rev0

MD Reference: North Reference:

Local Co-ordinate Reference:

North Reference: Survey Calculation Method: Well Jawbone Fed Com BS 05H RKB=3369+26.5 @ 3395.50ft

RKB=3369+26.5 @ 3395.50ft Grid

sign.	1640								
lanned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
8,500.00	90.00	0.255	6,600.00	1,168.96	2,861.53	420,265.362	523,764.720	32.155403008	-104.256541844
8,600.00	90.00	0.255	6,600.00	1,268.96	2,861.97	420,365.361	523,765.165	32.155677906	-104.256540176
8,700.00	90.00	0.255	6,600.00	1,368.96	2,862.42	420,465.360	523,765.610	32.155952804	-104.256538507
8,800.00	90.00	0.255	6,600.00	1,468.96	2,862.86	420,565.359	523,766.055	32.156227702	-104.256536838
8,900.00	90.00	0.255	6,600.00	1,568.96	2,863.31	420,665.357	523,766.500	32.156502601	-104.256535169
9,000.00	90.00	0.255	6,600.00	1,668.96	2,863.75	420,765.356	523,766.945	32.156777499	-104.25653350
9,100.00	90.00	0.255	6,600.00	1,768.96	2,864.20	420,865.355	523,767.390	32.157052397	-104.25653183
9,200.00	90.00	0.255	6,600.00	1,868.96	2,864.64	420,965.354	523,767.835	32.157327295	-104.25653016
9,300.00	90.00	0.255	6,600.00	1,968.96	2,865.09	421,065.353	523,768.281	32.157602193	-104.25652849
9,400.00	90.00	0.255	6,600.00	2,068.96	2,865.53	421,165.351	523,768.726	32.157877091	-104.25652682
9,500.00	90.00	0.255	6,600.00	2,168.95	2,865.98	421,265.350	523,769.171	32.158151989	-104.25652515
9,600.00	90.00	0.255	6,600.00	2,268.95	2,866.42	421,365.349	523,769.616	32.158426886	-104.25652348
9,700.00	90.00	0.255	6,600.00	2,368.95	2,866.87	421,465.348	523,770.061	32.158701784	-104.25652181
9,800.00	90.00	0.255	6,600.00	2,468.95	2,867.31	421,565.347	523,770.506	32.158976682	-104.25652015
9,900.00	90.00	0.255	6,600.00	2,568.95	2,867.76	421,665.346	523,770.951	32.159251580	-104.25651848
10,000.00	90.00	0.255	6,600.00	2,668.95	2,868.20	421,765.344	523,771.396	32.159526478	-104.25651681
10,100.00	90.00	0.255	6,600.00	2,768.95	2,868.65	421,865.343	523,771.841	32.159801376	-104.25651514
10,200.00	90.00	0.255	6,600.00	2,868.95	2,869.09	421,965.342	523,772.286	32.160076274	-104.25651347
10,300.00	90.00	0.255	6,600.00	2,968.95	2,869.54	422,065.341	523,772.732	32.160351172	-104.25651180
10,400.00	90.00	0.255	6,600.00	3,068.95	2,869.98	422,165.340	523,773.177	32.160626070	-104.25651013
10,500.00	90.00	0.255	6,600.00	3,168.94	2,870.43	422,265.338	523,773.622	32.160900968	-104.25650846
10,600.00	90.00	0.255	6,600.00	3,268.94	2,870.87	422,365.337	523,774.067	32.161175866	-104.25650679
10,700.00	90.00	0.255	6,600.00	3,368.94	2,871.32	422,465.336	523,774.512	32.161450764	-104.25650512
10,800.00	90.00	0.255	6,600.00	3,468.94	2,871.76	422,565.335	523,774.957	32.161725662	-104.25650346
10,900.00	90.00	0.255	6,600.00	3,568.94	2,872.21	422,665.334	523,775.402	32.162000560	-104.25650179
11,000.00	90.00	0.255	6,600.00	3,668.94	2,872.65	422,765.332	523,775.847	32.162275457	-104.25650012
11,100.00	90.00	0.255	6,600.00	3,768.94	2,873.10	422,865.331	523,776.292	32.162550355	-104.25649845
11,200.00	90.00	0.255	6,600.00	3,868.94	2,873.54	422,965.330	523,776.737	32.162825253	-104.25649678
11,300.00	90.00	0.255	6,600.00	3,968.94	2,873.99	423,065.329	523,777.183	32.163100151	-104.25649511
11,400.00	90.00	0.255	6,600.00	4,068.94	2,874.43	423,165.328	523,777.628	32.163375049	-104.25649344
11,500.00	90.00	0.255	6,600.00	4,168.93	2,874.88	423,265.326	523,778.073	32.163649947	-104.25649177
11,600.00	90.00	0.255	6,600.00	4,268.93	2,875.32	423,365.325	523,778.518	32.163924844	-104.25649010
11,700.00	90.00	0.255	6,600.00	4,368.93	2,875.77	423,465.324	523,778.963	32.164199742	-104.25648843
11,800.00	90.00	0.255	6,600.00	4,468.93	2,876.21	423,565.323	523,779.408	32.164474640	-104.25648677
11,900.00	90.00	0.255	6,600.00	4,568.93	2,876.66	423,665.322	523,779.853	32.164749538	-104.25648510
12,000.00	90.00	0.255	6,600.00	4,668.93	2,877.10	423,765.320	523,780.298	32.165024436	-104.25648343
12,100.00	90.00	0.255	6,600.00	4,768.93	2,877.55	423,865.319	523,780.743	32.165299333	-104.25648176
12,200.00	90.00	0.255	6,600.00	4,868.93	2,877.99	423,965.318	523,781.188	32.165574231	-104.25648009
12,300.00	90.00	0.255	6,600.00	4,968.93	2,878.44	424,065.317	523,781.634	32.165849129	-104.25647842
12,400.00	90.00	0.255	6,600.00	5,068.93	2,878.88	424,165.316	523,782.079	32.166124026	-104.25647675
12,500.00	90.00	0.255	6,600.00	5,168.93	2,879.33	424,265.314	523,782.524	32.166398924	-104.25647508
12,600.00	90.00	0.255	6,600.00	5,268.92	2,879.77	424,365.313	523,782.969	32.166673822	-104.25647341
12,700.00	90.00	0.255	6,600.00	5,368.92	2,880.22	424,465.312	523,783.414	32.166948719	-104.25647174
12,800.00	90.00	0.255	6,600.00	5,468.92	2,880.66	424,565.311	523,783.859	32.167223617	-104.25647007
12,900.00	90.00	0.255	6,600.00	5,568.92	2,881.11	424,665.310	523,784.304	32.167498515	-104.25646840
13,000.00	90.00	0.255	6,600.00	5,668.92	2,881.55	424,765.308	523,784.749	32.167773412	-104.25646673
13,100.00	90.00	0.255	6,600.00	5,768.92	2,882.00	424,865.307	523,785.194	32.168048310	-104.25646507
13,200.00	90.00	0.255	6,600.00	5,868.92	2,882.45	424,965.306	523,785.639	32.168323208	-104.25646340
13,300.00	90.00	0.255	6,600.00	5,968.92	2,882.89	425,065.305	523,786.084	32.168598105	-104.25646173
13,400.00	90.00	0.255	6,600.00	6,068.92	2,883.34	425,165.304	523,786.530	32.168873003	-104.25646006
13,500.00	90.00	0.255	6,600.00	6,168.92	2,883.78	425,265.302	523,786.975	32.169147900	-104.25645839
13,600.00	90.00	0.255	6,600.00	6,268.91	2,884.23	425,365.301	523,787.420	32.169422798	-104.25645672
13,700.00	90.00	0.255	6,600.00	6,368.91	2,884.67	425,465.300	523,787.865	32.169697695	-104.25645505
13,800.00	90.00	0.255	6,600.00	6,468.91	2,885.12	425,565.299	523,788.310	32.169972593	-104.25645338
13,900.00	90.00	0.255	6,600.00	6,568.91	2,885.56	425,665.298	523,788.755	32.170247491	-104.25645171



Database: DT_Aug2923v16

Company: Flat Creek Resources, LLC

Project: Eddy County, New Mexico NAD27 NME Site: Jawbone

Well: Jawbone Fed Com BS 05H

Wellbore: Original Hole
Design: rev0

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well Jawbone Fed Com BS 05H RKB=3369+26.5 @ 3395.50ft RKB=3369+26.5 @ 3395.50ft

Grid

leasured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	÷E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
14,000.00	90.00	0.255	6,600.00	6,668.91	2,886.01	425,765.297	523,789.200	32.170522388	-104.256450
14,100.00	90.00	0.255	6,600.00	6,768.91	2,886.45	425,865.295	523,789.645	32.170797286	-104.256448
14,200.00	90.00	0.255	6,600.00	6,868.91	2,886.90	425,965.294	523,790.090	32.171072183	-104.256446
14,300.00	90.00	0.255	6,600.00	6,968.91	2,887.34	426,065.293	523,790.535	32.171347080	-104.25644
14,400.00	90.00	0.255	6,600.00	7,068.91	2,887.79	426,165.292	523,790.981	32.171621978	-104.256443
14,500.00	90.00	0.255	6,600.00	7,168.91	2,888.23	426,265.291	523,791.426	32.171896875	-104.25644
14,600.00	90.00	0.255	6,600.00	7,268.90	2,888.68	426,365.289	523,791.871	32.172171773	-104.25644
14,700.00	90.00	0.255	6,600.00	7,368.90	2,889.12	426,465.288	523,792.316	32.172446670	-104.256438
14,800.00	90.00	0.255	6,600.00	7,468.90	2,889.57	426,565.287	523,792.761	32.172721568	-104.256436
14,900.00	90.00	0.255	6,600.00	7,568.90	2,890.01	426,665.286	523,793.206	32.172996465	-104.25643
15,000.00	90.00	0.255	6,600.00	7,668.90	2,890.46	426,765.285	523,793.651	32.173271362	-104.256433
15,100.00	90.00	0.255	6,600.00	7,768.90	2,890.90	426,865.283	523,794.096	32.173546260	-104.25643
15,200.00	90.00	0.255	6,600.00	7,868.90	2,891.35	426,965.282	523,794.541	32.173821157	-104.25643
15,300.00	90.00	0.255	6,600.00	7,968.90	2,891.79	427,065.281	523,794.986	32.174096055	-104.25642
15,400.00	90.00	0.255	6,600.00	8,068.90	2,892.24	427,165.280	523,795.432	32.174370952	-104.25642
15,500.00	90.00	0.255	6,600.00	8,168.90	2,892.68	427,265.279	523,795.877	32.174645849	-104.25642
15,600.00	90.00	0.255	6,600.00	8,268.89	2,893.13	427,365.277	523,796.322	32.174920747	-104.25642
15,700.00	90.00	0.255	6,600.00	8,368.89	2,893.57	427,465.276	523,796.767	32.175195644	-104.25642
15,800.00	90.00	0.255	6,600.00	8,468.89	2,894.02	427,565.275	523,797.212	32.175470541	-104.25641
15,900.00	90.00	0.255	6,600.00	8,568.89	2,894.46	427,665.274	523,797.657	32.175745438	-104.25641
16,000.00	90.00	0.255	6,600.00	8,668.89	2,894.91	427,765.273	523,798.102	32.176020336	-104.25641
16,100.00	90.00	0.255	6,600.00	8,768.89	2,895.35	427,865.271	523,798.547	32.176295233	-104.25641
16,200.00	90.00	0.255	6,600.00	8,868.89	2,895.80	427,965.270	523,798.992	32.176570130	-104.25641
16,300.00	90.00	0.255	6,600.00	8,968.89	2,896.24	428,065.269	523,799.437	32.176845027	-104.25641
16,400.00	90.00	0.255	6,600.00	9,068.89	2,896.69	428,165.268	523,799.882	32.177119925	-104.25640
16,500.00	90.00	0.255	6,600.00	9,168.89	2,897.13	428,265.267	523,800.328	32.177394822	-104.25640
16,600.00	90.00	0.255	6,600.00	9,268.88	2,897.58	428,365.265	523,800.773	32.177669719	-104.25640
16,700.00	90.00	0.255	6,600.00	9,368.88	2,898.02	428,465.264	523,801.218	32.177944616	-104.256404
16,800.00	90.00	0.255	6,600.00	9,468.88	2,898.47	428,565.263	523,801.663	32.178219513	-104.25640
16,900.00	90.00	0.255	6,600.00	9,568.88	2,898.91	428,665.262	523,802.108	32.178494411	-104.25640
17,000.00	90.00	0.255	6,600.00	9,668.88	2,899.36	428,765.261	523,802.553	32.178769308	-104.25639
17,100.00	90.00	0.255	6,600.00	9,768.88	2,899.80	428,865.259	523,802.998	32.179044205	-104.25639
17,200.00	90.00	0.255	6,600.00	9,868.88	2,900.25	428,965.258	523,803.443	32.179319102	-104.25639
17,300.00	90.00	0.255	6,600.00	9,968.88	2,900.69	429,065.257	523,803.888	32.179593999	-104.25639
17,400.00	90.00	0.255	6,600.00	10,068.88	2,901.14	429,165.256	523,804.333	32.179868896	-104.25639
17,500.00	90.00	0.255	6,600.00	10,168.88	2,901.58	429,265.255	523,804.779	32.180143793	-104.25639
17,600.00	90.00	0.255	6,600.00	10,268.87	2,902.03	429,365.253	523,805.224	32.180418690	-104.256389
17,639.65	90.00	0.255	6,600.00	10,308.52	2,902.21	429,404.900	523,805.400	32.180527678	-104.256389

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 05 FTP 100 FS - plan hits target cen - Rectangle (sides W		0.255 102.23 D0.00	6,027.04	-93.60	2,855.91	419,002.800	523,759.100	32.151932205	-104.256562913
Jawbone 05 LTP/BHL 10 - plan hits target cen - Point	0.00 ter	0.255	6,600.00	10,308.52	2,902.21	429,404.900	523,805.400	32.180527678	-104.256389278



TVD Reference:

Database: DT_Aug2923v16

Company: Flat Creek Resources, LLC

Project: Eddy County, New Mexico NAD27 NME

Site: Jawbone

Well: Jawbone Fed Com BS 05H

Design: rev0

Wellbore: Original Hole

MD Reference:
North Reference:
Survey Calculation Method:

Local Co-ordinate Reference:

Well Jawbone Fed Com BS 05H RKB=3369+26.5 @ 3395.50ft

RKB=3369+26.5 @ 3395.50ft

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coor +N/-S (ft)	dinates +E/-W (ft)	Comment
900.00	900.00	0.00	0.00	KOP Begin 3°/100' build
2,166.67	2,075.83	0.00	404.87	Begin 38.00° tangent
5,366.67	4,597.46	0.00	2,374.99	Begin 3°/100' drop/turn
5,817.76	4,977.59	-27.37	2,614.35	Begin 27.19° tangent
5,904.13	5,054.41	-37.81	2,652.40	Begin 3°/100' drop/turn
6,810.38	5,927.04	-93.60	2,855.91	Begin vertical hold
6,910.38	6,027.04	-93.60	2,855.91	Begin 10°/100' build
7,810.38	6,600.00	479.35	2,858.46	Begin 90.00° lateral
17,639.65	6,600.00	10,308.52	2,902.21	PBHL/TD @ 17639.65 MD 6600.00 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 BS Fed Com 5H

SURFACE HOLE FOOTAGE: 272'/S & 1946'/W **BOTTOM HOLE FOOTAGE** 100'/N & 550'/E **ATS/API ID: ATS-24-477**

APD ID: 10400095979

Sundry ID: N/a

WELL NAME & NO.: Jawbone BS Fed Com 6H

SURFACE HOLE FOOTAGE: 272'/S & 1916'/W **BOTTOM HOLE FOOTAGE** 100'/N & 1825'/E

ATS/API ID: ATS-24-478 APD ID: 10400095980

Sundry ID: N/a

WELL NAME & NO.: Jawbone BS Fed Com 7H

SURFACE HOLE FOOTAGE: 272'/S & 1886'/W **BOTTOM HOLE FOOTAGE** 100'/N & 1775'/W

ATS/API ID: ATS-24-479
APD ID: 10400095981

Sundry ID: N/a

WELL NAME & NO.: Jawbone BS Fed Com 8H

SURFACE HOLE FOOTAGE: 272'/S & 1856'/W **BOTTOM HOLE FOOTAGE** 100'/N & 1275'/WE

ATS/API ID: ATS-24-480 APD ID: 10400096058

Sundry ID: N/a

COA

H2S	Yes ▼		
Potash	None		
Cave/Karst Potential	High ▼		
Cave/Karst Potential	Critical		
Variance	□ None	Flex Hose	C Other
Wellhead	Conventional and Multibov	/l -	
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		
Special Requirements Variance	☐ Break Testing	☐ Offline Cementing	Casing Clearance

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 650 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 1940 feet is:
 - Cement to surface. If cement does not circulate see B.1.a, c-d above.
 - ❖ In <u>High Cave/Karst Areas</u> 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.

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 3000 (3M) 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 3000 (3M) 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.
- 3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report when present.
- 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, 2) until cement has been in place at least 24 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, cutoff 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 water basin (8 hours) or potash (24 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.

LVO 2/21/2024

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.
- 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.



■ 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



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

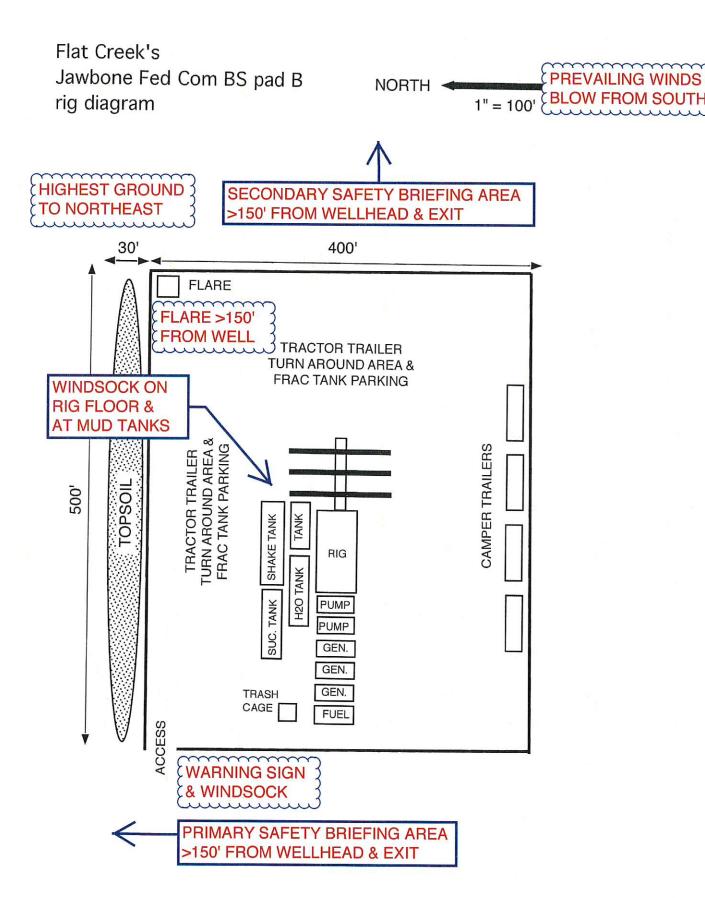
Air Evacuation

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

<u>Veterinarians</u>

Desert Willow Veterinary Services (Carlsbad)	(5/5) 885-3399
Animal Care Center (Carlsbad)	(575) 885-5352



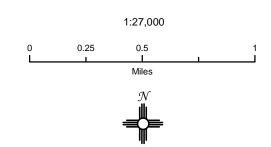




Jawbone Pad B H2S Contingency Plan: 2 Mile Radius Map

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

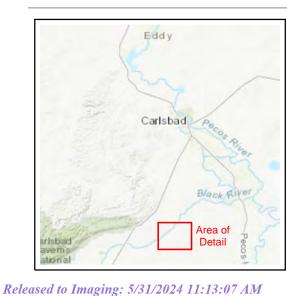


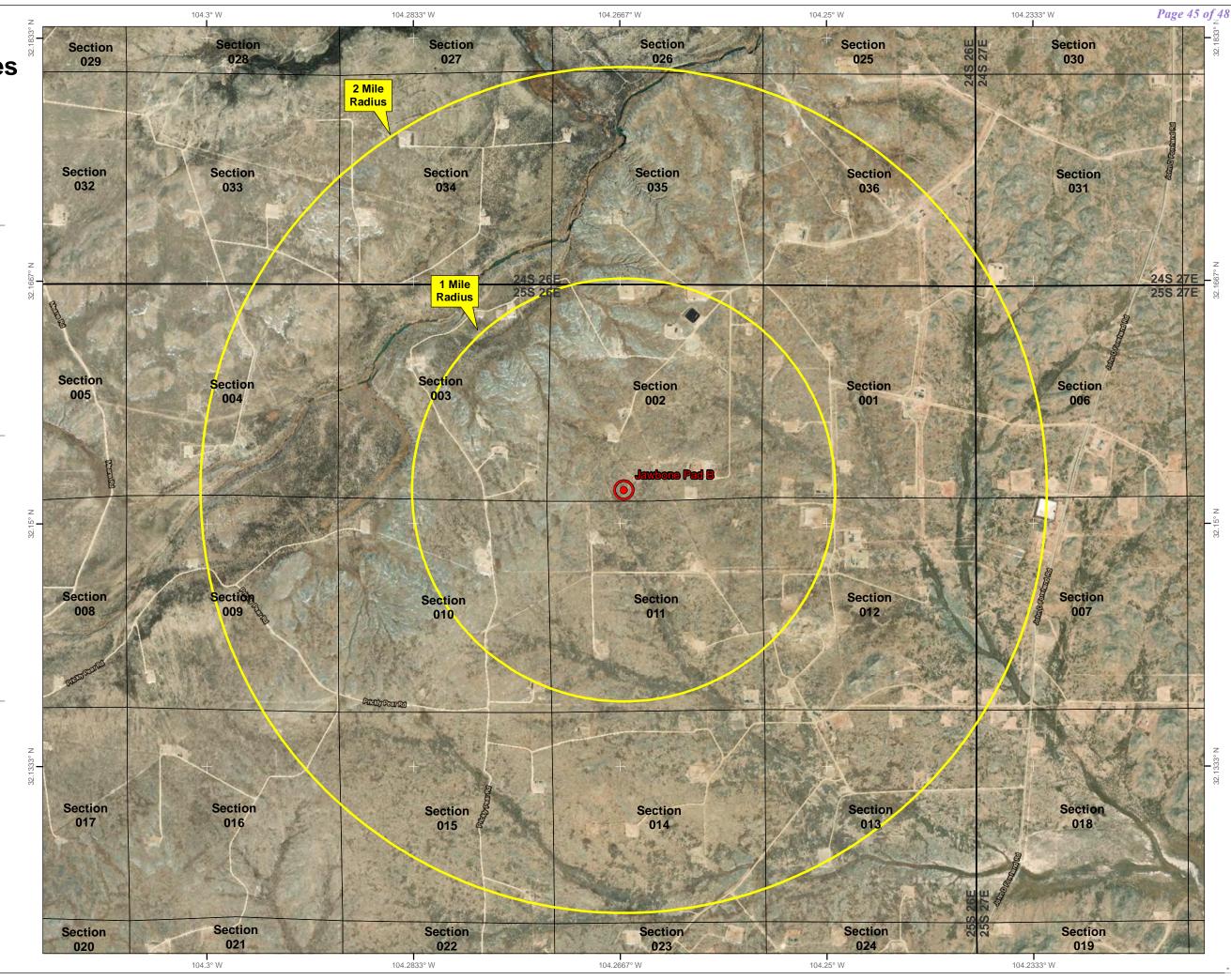


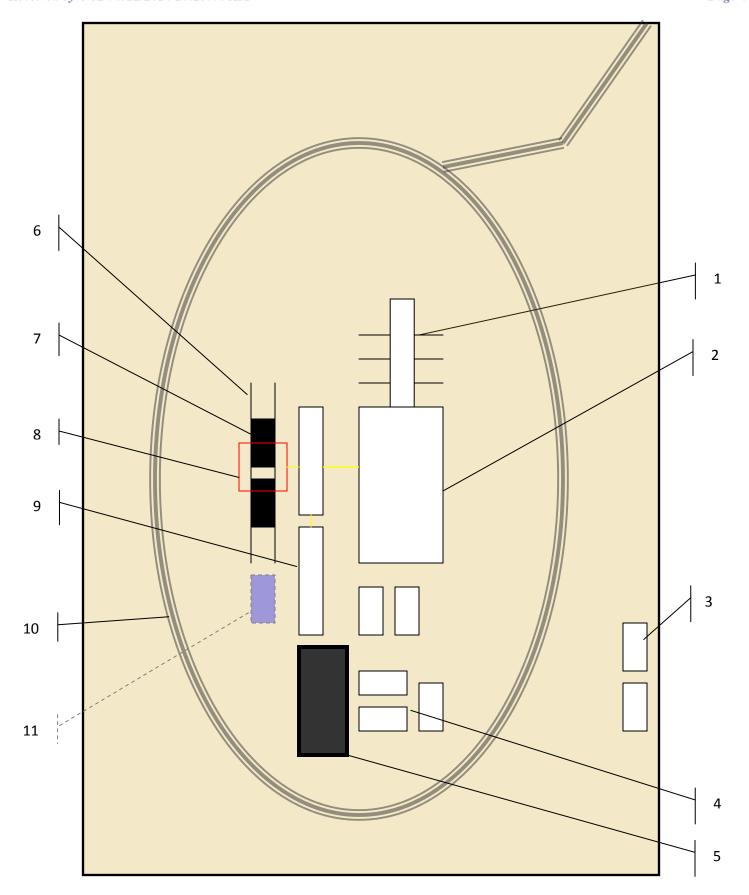
NAD 1983 New Mexico State Plane East FIPS 3001 Feet



Prepared by Permits West, Inc., November 7, 2023 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

37Verano Loop, Santa Fe, New Mexico 87508 (505) 466-8120 Released to Imaging: 5/31/2024 11:13:07 AM



Closed Loop Drilling System: Mud tanks to right (1)

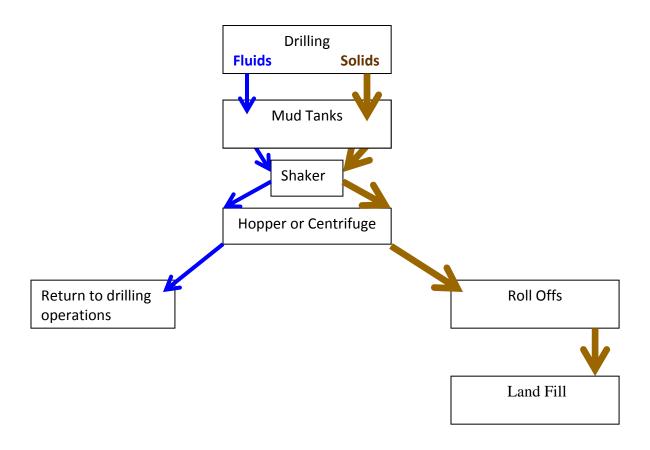
Hopper in air to settle out solids (2)

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



District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720

District II 811 S. First St., Artesia, NM 88210 Phone: (575) 748-1283 Fax: (575) 748-9720

District III 1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 343262

CONDITIONS

Operator:	OGRID:
Flat Creek Resources, LLC	374034
777 Main St.	Action Number:
Fort Worth, TX 76102	343262
	Action Type:
	[C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
ward.rikala	Notify OCD 24 hours prior to casing & cement	5/31/2024
ward.rikala	Will require a File As Drilled C-102 and a Directional Survey with the C-104	5/31/2024
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	5/31/2024
ward.rikala	Cement is required to circulate on both surface and intermediate1 strings of casing	5/31/2024
ward.rikala	If cement does not circulate on any string, a CBL is required for that string of casing	5/31/2024
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	5/31/2024