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
District IV
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

Form C-101
August 1, 2011

Permit 333085

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

1. Operator Name and Address	2. OGRID Number
Silverback Operating II, LLC 19707 IH10 West, Suite 201 San Antonio, TX 78256	330968
	3. API Number: 30-015-53756

4. Property Code	5. Property Name	6. Well No.
333974	GREASEWOOD 5 STATE COM	101H

7. Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
D	4	19S	25E		670	N	370	W	Eddy

8. Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
D	5	19S	25E	D	350	N	100	W	Eddy

9. Pool Information

PENASCO DRAW;SA-YESO (ASSOC)	50270

Additional Well Information

11. Work Type	12. Well Type	13. Cable/Rotary	14. Lease Type	15. Ground Level Elevation
New Well	OIL		Private	3569
16. Multiple	**17. Proposed Depth**	**18. Formation**	**19. Contractor**	**20. Spud Date**
N	7865	Yeso		9/22/2023
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

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

21. Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surf	12.25	9.625	36	1250	277	0
Prod	8.75	7	32	2763	129	0
Prod	8.75	5.5	20	7865	1567	1611

Casing/Cement Program: Additional Comments

22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Double Ram	5000	5000	Shaffer

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief.
I further certify I have complied with 19.15.14.9 (A) NMAC ☒ and/or 19.15.14.9 (B) NMAC ☒, if applicable.

Signature:

Printed Name:	Electronically filed by Matthew Alley	Approved By:	John Harrison
Title:	Chief Financial Officer	Title:	Petroleum Specialist A
Email Address:	malley@silverbackexp.com	Approved Date:	5/1/2023
Date:	4/24/2023 Phone: 303-513-0990	Conditions of Approval Attached	

Expiration Date: 5/1/2025

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1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & 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	[2] Pool Code	[3] Pool Name
30-015-53756	50270	PENASCO DRAW, SA-YESO (ASSOC)

[4] Property Code	[5] Property Name	[6] Well Number
333974	GREASEWOOD 5 STATE COM	101H

[7] OGRID No.	[8] Operator Name	[9] Elevation
330968	SILVERBACK EXPLORATION II, LLC	3,569'

[10] Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	4	19-S	25-E		670'	NORTH	370'	WEST	EDDY

[11] 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
D	5	19-S	25-E		350'	NORTH	100'	WEST	EDDY

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
320			

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.

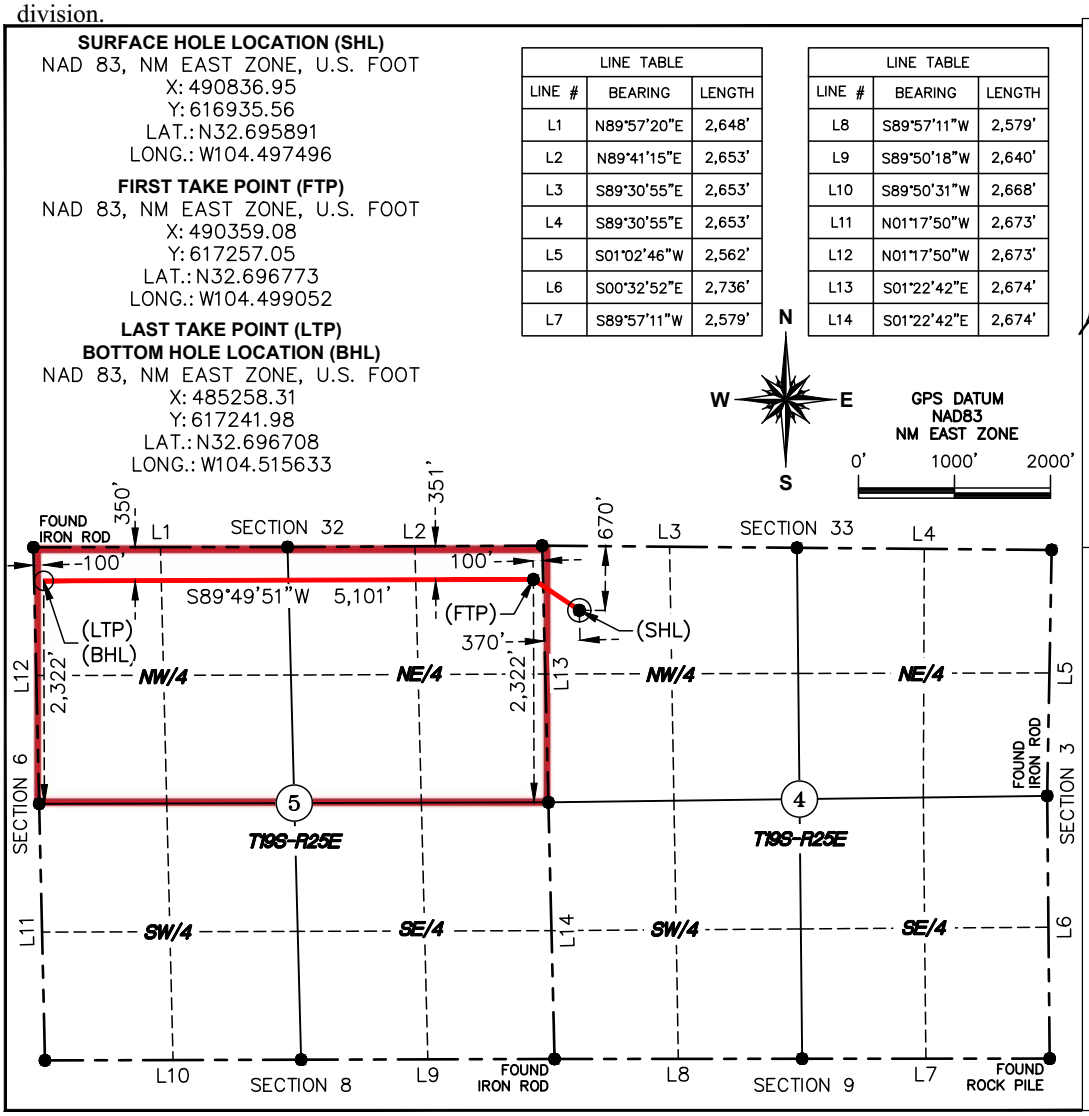
SURFACE HOLE LOCATION (SHL)
NAD 83, NM EAST ZONE, U.S. FOOT
X: 490836.95
Y: 616935.56
LAT.: N32.695891
LONG.: W104.497496

FIRST TAKE POINT (FTP)
NAD 83, NM EAST ZONE, U.S. FOOT
X: 490359.08
Y: 617257.05
LAT.: N32.696773
LONG.: W104.499052

LAST TAKE POINT (LTP)
BOTTOM HOLE LOCATION (BHL)
NAD 83, NM EAST ZONE, U.S. FOOT
X: 485258.31
Y: 617241.98
LAT.: N32.696708
LONG.: W104.515633

LINE TABLE		
LINE #	BEARING	LENGTH
L1	N89°57'20"E	2,648'
L2	N89°41'15"E	2,653'
L3	S89°30'55"E	2,653'
L4	S89°30'55"E	2,653'
L5	S01°02'46"W	2,562'
L6	S00°32'52"E	2,736'
L7	S89°57'11"W	2,579'

LINE TABLE		
LINE #	BEARING	LENGTH
L8	S89°57'11"W	2,579'
L9	S89°50'18"W	2,640'
L10	S89°50'31"W	2,668'
L11	N01°17'50"W	2,673'
L12	N01°17'50"W	2,673'
L13	S01°22'42"E	2,674'
L14	S01°22'42"E	2,674'



[17] OPERATOR CERTIFICATION

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

Fatma Abdallah 4/10/23
Signature Date

Fatma Abdallah
Printed Name

fabdallah@silverbackexp.com
E-mail Address

[18] SURVEYOR CERTIFICATION

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

3/21/23
Date of Survey

Signature and Seal of Professional Surveyor:

MATTHEW C. BISSETT
NEW MEXICO
20450
PROFESSIONAL SURVEYOR

20450
Certificate Number

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

Form APD Conditions

Permit 333085

PERMIT CONDITIONS OF APPROVAL

Operator Name and Address:	API Number:
Silverback Operating II, LLC [330968] 19707 IH10 West, Suite 201 San Antonio, TX 78256	30-015-53756
	Well: GREASEWOOD 5 STATE COM #101H

OCD Reviewer	Condition
john.harrison	Notify OCD 24 hours prior to casing & cement
john.harrison	Will require a File As Drilled C-102 and a Directional Survey with the C-104
john.harrison	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
john.harrison	Cement is required to circulate on both surface and intermediate1 strings of casing
john.harrison	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
john.harrison	The Operator is to notify NMOCD by sundry (Form C-103) within ten (10) days of the well being spud
john.harrison	Well is within the designated area within 19.15.39.11.A. NMAC and shall be drilled and operated in accordance with 19.15.39.11 NMAC (Special Provisions for a Selected Area of the Roswell Artesian Basin).

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: Silverback Operating II, LLC **OGRID:** 330968 **Date:** 04 / 18 / 2023

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

If Other, please describe: _____

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

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
See attached table						

IV. Central Delivery Point Name: GREASEWOOD 5 STATE COM CDP [See 19.15.27.9(D)(1) NMAC]

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

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
See attached table						

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

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

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

Section 2 – Enhanced Plan

EFFECTIVE APRIL 1, 2022

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

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

IX. Anticipated Natural Gas Production:

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

X. Natural Gas Gathering System (NGGS):

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

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

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

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

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

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

Section 3 - Certifications

Effective May 25, 2021

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

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

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

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

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

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

Section 4 - Notices

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

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

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

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

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

Signature: Fatma Abdallah
Printed Name: Fatma Abdallah
Title: Regulatory Manager
E-mail Address: fabdallah@silverbackexp.com
Date: 04/18/2023
Phone: 210-585-3316

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

III. Wells

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
GREASEWOOD 5 STATE COM 101H	30-15-	D-4-19S-25E	670' N 370' W	515	800	3000
GREASEWOOD 5 STATE COM 102H	30-15-	E-4-19S-25E	1809' N 370' W	515	800	3000
GREASEWOOD 5 STATE COM 103H	30-15-	E-4-19S-25E	1849' N 370' W	515	800	3000
GREASEWOOD 5 STATE COM 151H	30-15-	D-4-19S-25E	690' N 370' W	515	800	3000
GREASEWOOD 5 STATE COM 152H	30-15-	E-4-19S-25E	1829' N 370' E	515	800	3000

V. Anticipated Schedule

Well Name	API	Spud date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
GREASEWOOD 5 STATE COM 101H	30-15-	9/22/23	10/2/23	11/17/23	12/22/23	12/22/23
GREASEWOOD 5 STATE COM 102H	30-15-	10/16/23	10/26/23	11/27/23	12/22/23	12/22/23
GREASEWOOD 5 STATE COM 103H	30-15-	11/7/23	11/17/23	11/27/23	12/22/23	12/22/23
GREASEWOOD 5 STATE COM 151H	30-15-	10/3/23	10/13/23	11/17/23	12/22/23	12/22/23
GREASEWOOD 5 STATE COM 152H	30-15-	10/27/23	11/6/23	11/27/23	**12/22/23**	12/22/23

Separation Equipment

Silverback Operating II (LLC) has sampled existing producing wells and performed laboratory testing to determine composition. Performance of existing producing wells was analyzed to predict expected production volumes including a low probably, high volume production case (approximately 75% higher than type curve or most likely amount of production). Production composition and the volumes were utilized as inputs to a process model which predicts relative amounts of gas, oil and water throughout the process. The high volume case was used to size equipment, piping and instrumentation. Equipment sizing is based on drop settlement and limits the amount of carry over to the gas phase.

Each well has a dedicated 3 phase separator and gas from that separator is taken directly to gas sales. Facility piping and pipeline were sized to allow peak volumes to flow with minimal pressure loss and deliver to midstream gatherer at an acceptable pressure. Water is conveyed directly to tankage.

Oil from 3 phase separators is comingled and conveyed to a heated separator for enhanced liquid-liquid separation and degassing. Vapors from the heater treater are routed to a Vapor Recovery Unit (VRU).

Oil and water storage tanks vapor outlets are common and utilize a closed vent vapor system to ensure all working & breathing and flashing losses are routed to the Vapor Recovery Unit (VRU) Site VRUs are sized to accommodate peak expected production volume. Flash volumes were estimated using the high volume case and process modeling software. Gas from the VRU outlet is combined with 1st stage separation gas and sent to sales.

Venting and Flaring

Silverback Operating II, LLC will ensure pipeline connectivity before producing hydrocarbons and will operate a closed vent vapor capture system that is designed to capture all associated and evolved gas during normal operation. Venting or flaring will only occur during start up and shut down, maintenance activities or equipment failure or upset. Silverback may utilize the following from list A-I of Section 3 for its operations to minimize flaring:

a) Power generation on lease – Natural gas driven gen set to produce power required to run supply well pad electrical loads

c) Compression on lease – gas lift or gas compression as required

d) Liquids removal on lease – gas pressure will be used to convey fluids as needed

Best Management Practices

Silverback utilizes automate engineering controls included in facility design to minimize venting and flaring. Additionally, operational best practices support minimization of flare and venting as described below.

If the main gas outlet becomes unavailable and pressure increases on the outlet sales line, produced gas will be routed directly to the facility flare. The facility control system will alert personnel to the need for maintenance and appropriate response to the temporary flaring event.

The facility design includes a closed vent vapor capture system to route flash or evolved from the heater treater and tanks to the Vapor Recovery Unit (VRU) Compressor. If the VRU requires planned or unplanned maintenance, vapors will automatically be routed to the facility flare.

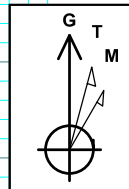
For maintenance activities, Silverback will utilize the facility flare to blowdown equipment and piping whenever practical to minimize venting

Silverback Exploration

Greasewood 5 State Com 101H
Eddy County, NM (NAD 83 NME)
Job No. WT-23-*
Lateral 1r1

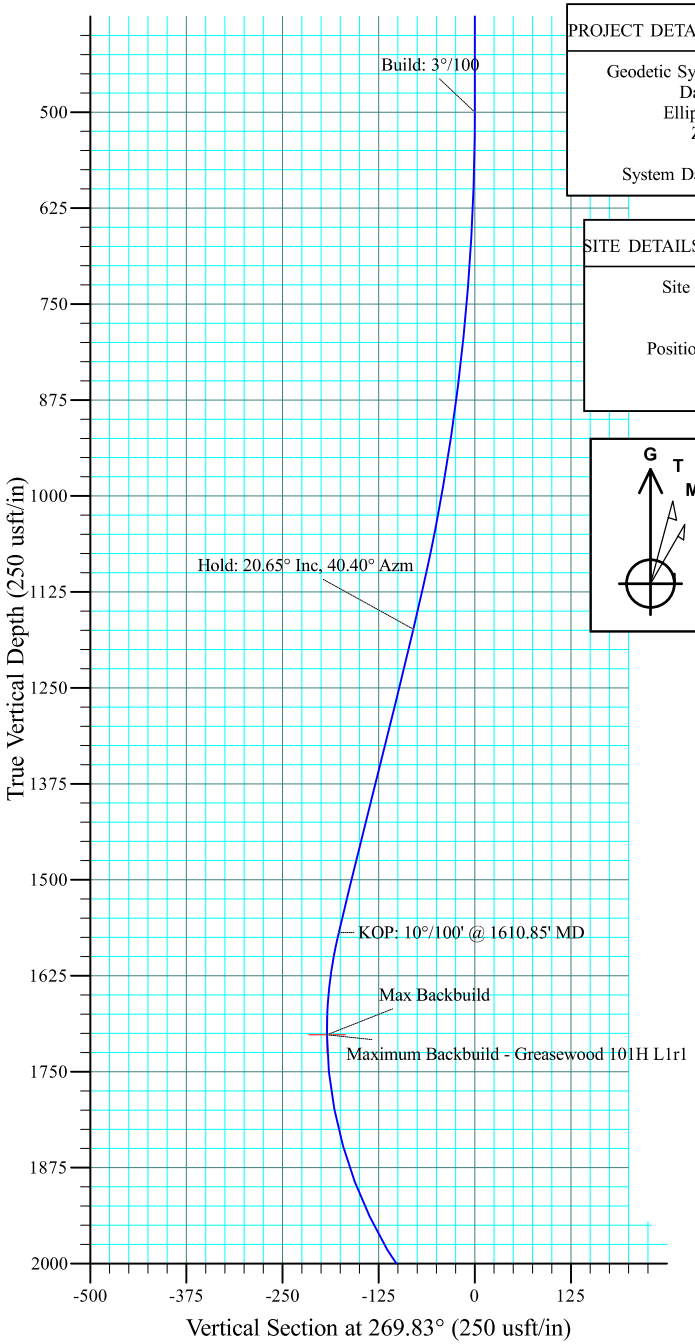
PROJECT DETAILS: Eddy County, NM (NAD 83 NME)	
Geodetic System:	US State Plane 1983
Datum:	North American Datum 1983
Ellipsoid:	GRS 1980
Zone:	New Mexico Eastern Zone
System Datum:	Mean Sea Level

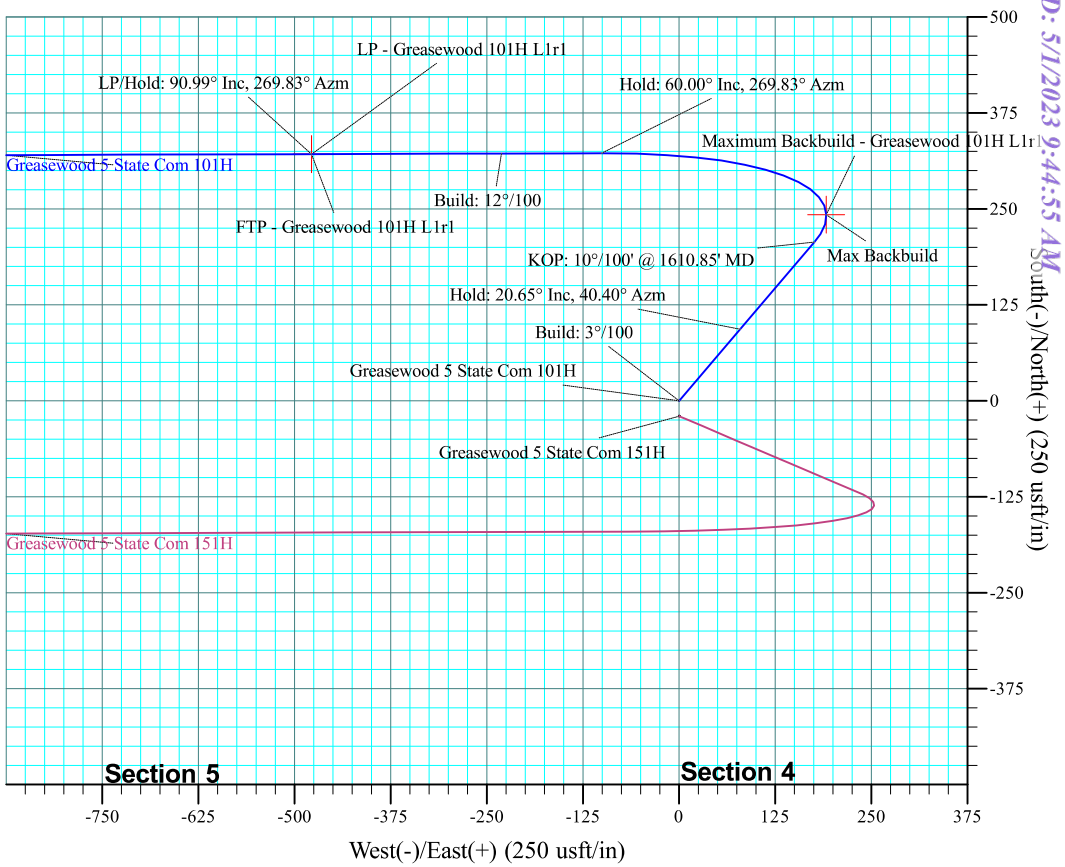
SITE DETAILS: Greasewood 5 State Com North Pad	
Site Centre Northing:	616935.56
Easting:	490836.95
Positional Uncertainity:	0.00
Convergence:	-0.09
Local North:	Grid



Azimuths to Grid North
True North: 0.09°
Magnetic North: 7.01°

Magnetic Field
Strength: 47635.1nT
Dip Angle: 60.31°
Date: 4/15/2023
Model: MVHD





SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.00	0.00	
2	500.00	0.00	0.00	500.00	0.00	0.00	0.000	0.00	0.00	Build: 3°/100
3	1188.48	20.65	40.40	1173.66	93.48	79.56	3.000	40.40	-79.84	Hold: 20.65° Inc, 40.40° Azm
4	1610.85	20.65	40.40	1568.89	206.93	176.13	0.000	0.00	-176.74	KOP: 10°/100' @ 1610.85' MD
5	2354.69	60.00	269.83	2193.10	322.60	-101.00	10.000	-136.92	100.04	Hold: 60.00° Inc, 269.83° Azm
6	2504.69	60.00	269.83	2268.10	322.22	-230.90	0.000	0.00	229.95	Build: 12°/100
7	2762.93	90.99	269.83	2332.00	321.49	-477.87	12.000	0.00	476.91	LP/Hold: 90.99° Inc, 269.83° Azm
8	7864.48	90.99	269.83	2244.00	306.42	-5578.64	0.000	0.00	5577.71	PBHL

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Maximum Backbuild - Greasewood 101H L1r1	1702.15	242.64	191.43	617178.20	491028.38	32.69656	-104.49688
LTP/PBHL - Greasewood 101H L1r1	2244.00	306.42	-5578.64	617241.98	485258.31	32.69671	-104.51563
FTP - Greasewood 101H L1r1	2332.00	321.49	-477.87	617257.05	490359.08	32.69677	-104.49905
LP - Greasewood 101H L1r1	2332.00	321.49	-477.87	617257.05	490359.08	32.69677	-104.49905

Silverback Exploration

Greasewood 5 State Com 101H
Eddy County, NM (NAD 83 NME)
Job No. WT-23-*
Lateral 1r1

SILVERBACK EXPLORATION

Aim Directional Services

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.00	0.00		
2	500.00	0.00	0.00	500.00	0.00	0.00	0.000	0.00	0.00		Build: 3°/100
3	1188.48	20.65	40.40	1173.66	93.48	79.56	3.000	40.40	-79.84		Hold: 20.65° Inc, 40.40° Azm
4	1610.85	20.65	40.40	1568.89	206.93	176.13	0.000	0.00	-176.74		KOP: 10°/100' @ 1610.85' MD
5	2354.69	60.00	269.83	2193.10	322.60	-101.00	10.000	-136.92	100.04		Hold: 60.00° Inc, 269.83° Azm
6	2504.69	60.00	269.83	2268.10	322.22	-230.90	0.000	0.00	229.95		Build: 12°/100
7	2762.93	90.99	269.83	2332.00	321.49	-477.87	12.000	0.00	476.91	FTP - Greasewood 101H L1r1	LP/Hold: 90.99° Inc, 269.83° Azm
8	7864.48	90.99	269.83	2244.00	306.42	-5578.64	0.000	0.00	5577.71	LTP/PBHL - Greasewood 101H L1r1	PBHL

SITE DETAILS: Greasewood 5 State Com North Pad

Site Centre Northing: 616935.56
Easting: 490836.95

Positional Uncertainity: 0.00
Convergence: -0.09
Local North: Grid

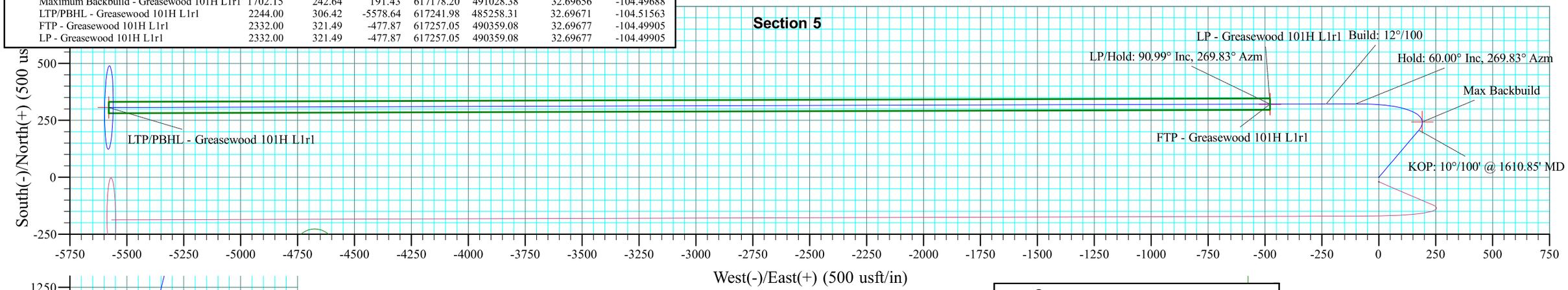
PROJECT DETAILS: Eddy County, NM (NAD 83 NME)

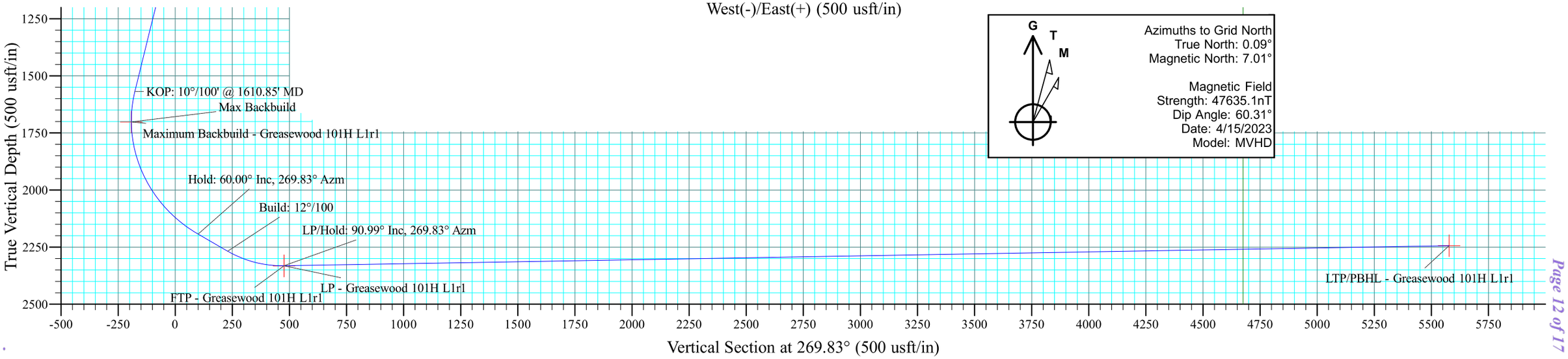
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone

System Datum: Mean Sea Level

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Maximum Backbuild - Greasewood 101H L1r1	1702.15	242.64	191.43	617178.20	491028.38	32.69656	-104.49688
LTP/PBHL - Greasewood 101H L1r1	2244.00	306.42	-5578.64	617241.98	485258.31	32.69671	-104.51563
FTP - Greasewood 101H L1r1	2332.00	321.49	-477.87	617257.05	490359.08	32.69677	-104.49905
LP - Greasewood 101H L1r1	2332.00	321.49	-477.87	617257.05	490359.08	32.69677	-104.49905





Azimuths to Grid North
True North: 0.09°
Magnetic North: 7.01°

Magnetic Field
Strength: 47635.1nT
Dip Angle: 60.31°
Date: 4/15/2023
Model: MVHD

Silverback Exploration

Eddy County, NM (NAD 83 NME)
Greasewood 5 State Com North Pad
Greasewood 5 State Com 101H

OH

Plan: Lateral 1r1

Standard Planning Report

30 March, 2023

Aim Directional Services

Planning Report

Database:	EDM 5000.17-Aim-DB	**Local Co-ordinate Reference:**	Site Greasewood 5 State Com North Pad
Company:	Silverback Exploration	**TVD Reference:**	Well @ 3583.00usft
Project:	Eddy County, NM (NAD 83 NME)	**MD Reference:**	Well @ 3583.00usft
Site:	Greasewood 5 State Com North Pad	**North Reference:**	Grid
Well:	Greasewood 5 State Com 101H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Lateral 1r1		

Project Eddy County, NM (NAD 83 NME)

Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site Greasewood 5 State Com North Pad

Site Position:		**Northing:**	616,935.56 usft	**Latitude:**	32.69589
From:	Map	**Easting:**	490,836.95 usft	**Longitude:**	-104.49750
Position Uncertainty:	0.00 usft	**Slot Radius:**	13-3/16 "		

Well Greasewood 5 State Com 101H

Well Position	**+N/-S**	0.00 usft	**Northing:**	616,935.56 usft	**Latitude:**	32.69589
	+E/-W	0.00 usft	**Easting:**	490,836.95 usft	**Longitude:**	-104.49750
Position Uncertainty		0.00 usft	**Wellhead Elevation:**	usft	**Ground Level:**	3,569.00 usft
Grid Convergence:		-0.09 °				

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	MVHD	4/15/2023	6.92	60.31	47,635.09001816

Design Lateral 1r1

Audit Notes:

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

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	269.83

Plan Survey Tool Program **Date** 3/30/2023

	Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	7,864.48	Lateral 1r1 (OH)	MWD+HRGM	
				OWSG MWD + HRGM	

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.00	
500.00	0.00	0.00	500.00	0.00	0.00	0.000	0.000	0.000	0.00	
1,188.48	20.65	40.40	1,173.66	93.48	79.56	3.000	3.000	0.000	40.40	
1,610.85	20.65	40.40	1,568.89	206.93	176.13	0.000	0.000	0.000	0.00	
2,354.69	60.00	269.83	2,193.10	322.60	-101.00	10.000	5.290	-17.554	-136.92	
2,504.69	60.00	269.83	2,268.10	322.22	-230.90	0.000	0.000	0.000	0.00	
2,762.93	90.99	269.83	2,332.00	321.49	-477.87	12.000	12.000	0.000	0.00	FTP - Greasewood
7,864.48	90.99	269.83	2,244.00	306.42	-5,578.64	0.000	0.000	0.000	0.00	LTP/PBHL - Grease

Aim Directional Services

Planning Report

Database:	EDM 5000.17-Aim-DB	**Local Co-ordinate Reference:**	Site Greasewood 5 State Com North Pad
Company:	Silverback Exploration	**TVD Reference:**	Well @ 3583.00usft
Project:	Eddy County, NM (NAD 83 NME)	**MD Reference:**	Well @ 3583.00usft
Site:	Greasewood 5 State Com North Pad	**North Reference:**	Grid
Well:	Greasewood 5 State Com 101H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Lateral 1r1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.000	0.000	0.000
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.000	0.000	0.000
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.000	0.000	0.000
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.000	0.000	0.000
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.000	0.000	0.000
Build: 3°/100									
600.00	3.00	40.40	599.95	1.99	1.70	-1.70	3.000	3.000	0.000
700.00	6.00	40.40	699.63	7.97	6.78	-6.80	3.000	3.000	0.000
800.00	9.00	40.40	798.77	17.91	15.24	-15.29	3.000	3.000	0.000
900.00	12.00	40.40	897.08	31.78	27.05	-27.14	3.000	3.000	0.000
1,000.00	15.00	40.40	994.31	49.56	42.18	-42.33	3.000	3.000	0.000
1,100.00	18.00	40.40	1,090.18	71.18	60.59	-60.80	3.000	3.000	0.000
1,188.48	20.65	40.40	1,173.67	93.48	79.56	-79.84	3.000	3.000	0.000
Hold: 20.65° Inc, 40.40° Azm									
1,200.00	20.65	40.40	1,184.44	96.57	82.20	-82.48	0.000	0.000	0.000
1,300.00	20.65	40.40	1,278.02	123.44	105.06	-105.43	0.000	0.000	0.000
1,400.00	20.65	40.40	1,371.59	150.30	127.92	-128.37	0.000	0.000	0.000
1,500.00	20.65	40.40	1,465.16	177.16	150.78	-151.31	0.000	0.000	0.000
1,600.00	20.65	40.40	1,558.73	204.02	173.65	-174.25	0.000	0.000	0.000
1,610.85	20.65	40.40	1,568.89	206.93	176.13	-176.74	0.000	0.000	0.000
KOP: 10°/100' @ 1610.85' MD									
1,650.00	17.99	31.72	1,605.84	217.34	183.78	-184.43	10.000	-6.816	-22.189
1,700.00	15.35	16.83	1,653.75	230.24	189.76	-190.44	10.000	-5.280	-29.779
1,750.00	14.02	357.70	1,702.15	242.64	191.43	-192.15	10.000	-2.656	-38.242
Max Backbuild									
1,800.00	14.37	337.26	1,750.65	254.42	188.79	-189.54	10.000	0.706	-40.886
1,850.00	16.30	319.71	1,798.90	265.50	181.85	-182.64	10.000	3.849	-35.098
1,900.00	19.33	306.64	1,846.51	275.79	170.67	-171.49	10.000	6.065	-26.136
1,950.00	23.03	297.31	1,893.14	285.23	155.33	-156.18	10.000	7.413	-18.663
2,000.00	27.14	290.56	1,938.42	293.72	135.95	-136.82	10.000	8.211	-13.513
2,050.00	31.49	285.50	1,982.02	301.22	112.67	-113.57	10.000	8.696	-10.112
2,100.00	35.99	281.58	2,023.59	307.66	85.68	-86.59	10.000	9.005	-7.846
2,150.00	40.60	278.43	2,062.83	313.00	55.18	-56.10	10.000	9.210	-6.296
2,200.00	45.27	275.83	2,099.43	317.19	21.39	-22.33	10.000	9.352	-5.207
2,250.00	50.00	273.61	2,133.11	320.20	-15.41	14.46	10.000	9.452	-4.423
2,300.00	54.76	271.69	2,163.63	322.01	-54.96	54.00	10.000	9.525	-3.847
2,354.69	60.00	269.83	2,193.10	322.60	-101.00	100.04	10.000	9.581	-3.402
Hold: 60.00° Inc, 269.83° Azm									
2,400.00	60.00	269.83	2,215.76	322.49	-140.24	139.28	0.000	0.000	0.000
2,504.69	60.00	269.83	2,268.10	322.22	-230.90	229.94	0.000	0.000	0.000
Build: 12°/100									
2,525.00	62.44	269.83	2,277.88	322.17	-248.70	247.74	11.999	11.999	0.000
2,550.00	65.44	269.83	2,288.86	322.10	-271.16	270.20	12.000	12.000	0.000
2,575.00	68.44	269.83	2,298.66	322.03	-294.16	293.20	12.000	12.000	0.000
2,600.00	71.44	269.83	2,307.23	321.96	-317.64	316.68	12.000	12.000	0.000
2,625.00	74.44	269.83	2,314.57	321.89	-341.53	340.58	12.000	12.000	0.000
2,650.00	77.44	269.83	2,320.64	321.82	-365.78	364.82	12.000	12.000	0.000
2,675.00	80.44	269.83	2,325.44	321.75	-390.31	389.36	12.000	12.000	0.000
2,700.00	83.44	269.83	2,328.94	321.68	-415.06	414.11	12.000	12.000	0.000
2,725.00	86.44	269.83	2,331.15	321.60	-439.96	439.01	12.000	12.000	0.000
2,750.00	89.44	269.83	2,332.05	321.53	-464.94	463.99	12.000	12.000	0.000
2,762.93	90.99	269.83	2,332.00	321.49	-477.87	476.92	11.998	11.998	0.000

Aim Directional Services

Planning Report

Database:	EDM 5000.17-Aim-DB	**Local Co-ordinate Reference:**	Site Greasewood 5 State Com North Pad
Company:	Silverback Exploration	**TVD Reference:**	Well @ 3583.00usft
Project:	Eddy County, NM (NAD 83 NME)	**MD Reference:**	Well @ 3583.00usft
Site:	Greasewood 5 State Com North Pad	**North Reference:**	Grid
Well:	Greasewood 5 State Com 101H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Lateral 1r1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
LP/Hold: 90.99° Inc, 269.83° Azm									
2,800.00	90.99	269.83	2,331.36	321.38	-514.94	513.98	0.000	0.000	0.000
2,900.00	90.99	269.83	2,329.64	321.09	-614.92	613.97	0.000	0.000	0.000
3,000.00	90.99	269.83	2,327.91	320.79	-714.91	713.95	0.000	0.000	0.000
3,100.00	90.99	269.83	2,326.19	320.49	-814.89	813.94	0.000	0.000	0.000
3,200.00	90.99	269.83	2,324.46	320.20	-914.88	913.92	0.000	0.000	0.000
3,300.00	90.99	269.83	2,322.74	319.90	-1,014.86	1,013.91	0.000	0.000	0.000
3,400.00	90.99	269.83	2,321.01	319.61	-1,114.85	1,113.89	0.000	0.000	0.000
3,500.00	90.99	269.83	2,319.29	319.31	-1,214.83	1,213.88	0.000	0.000	0.000
3,600.00	90.99	269.83	2,317.56	319.02	-1,314.81	1,313.86	0.000	0.000	0.000
3,700.00	90.99	269.83	2,315.84	318.72	-1,414.80	1,413.85	0.000	0.000	0.000
3,800.00	90.99	269.83	2,314.11	318.43	-1,514.78	1,513.83	0.000	0.000	0.000
3,900.00	90.99	269.83	2,312.39	318.13	-1,614.77	1,613.82	0.000	0.000	0.000
4,000.00	90.99	269.83	2,310.66	317.84	-1,714.75	1,713.80	0.000	0.000	0.000
4,100.00	90.99	269.83	2,308.94	317.54	-1,814.74	1,813.79	0.000	0.000	0.000
4,200.00	90.99	269.83	2,307.21	317.24	-1,914.72	1,913.77	0.000	0.000	0.000
4,300.00	90.99	269.83	2,305.49	316.95	-2,014.71	2,013.76	0.000	0.000	0.000
4,400.00	90.99	269.83	2,303.76	316.65	-2,114.69	2,113.74	0.000	0.000	0.000
4,500.00	90.99	269.83	2,302.04	316.36	-2,214.68	2,213.73	0.000	0.000	0.000
4,600.00	90.99	269.83	2,300.31	316.06	-2,314.66	2,313.71	0.000	0.000	0.000
4,700.00	90.99	269.83	2,298.59	315.77	-2,414.65	2,413.70	0.000	0.000	0.000
4,800.00	90.99	269.83	2,296.86	315.47	-2,514.63	2,513.68	0.000	0.000	0.000
4,900.00	90.99	269.83	2,295.14	315.18	-2,614.62	2,613.67	0.000	0.000	0.000
5,000.00	90.99	269.83	2,293.41	314.88	-2,714.60	2,713.65	0.000	0.000	0.000
5,100.00	90.99	269.83	2,291.69	314.59	-2,814.58	2,813.64	0.000	0.000	0.000
5,200.00	90.99	269.83	2,289.96	314.29	-2,914.57	2,913.62	0.000	0.000	0.000
5,300.00	90.99	269.83	2,288.24	314.00	-3,014.55	3,013.61	0.000	0.000	0.000
5,400.00	90.99	269.83	2,286.51	313.70	-3,114.54	3,113.59	0.000	0.000	0.000
5,500.00	90.99	269.83	2,284.79	313.40	-3,214.52	3,213.58	0.000	0.000	0.000
5,600.00	90.99	269.83	2,283.06	313.11	-3,314.51	3,313.56	0.000	0.000	0.000
5,700.00	90.99	269.83	2,281.34	312.81	-3,414.49	3,413.55	0.000	0.000	0.000
5,800.00	90.99	269.83	2,279.61	312.52	-3,514.48	3,513.53	0.000	0.000	0.000
5,900.00	90.99	269.83	2,277.89	312.22	-3,614.46	3,613.52	0.000	0.000	0.000
6,000.00	90.99	269.83	2,276.16	311.93	-3,714.45	3,713.51	0.000	0.000	0.000
6,100.00	90.99	269.83	2,274.44	311.63	-3,814.43	3,813.49	0.000	0.000	0.000
6,200.00	90.99	269.83	2,272.71	311.34	-3,914.42	3,913.48	0.000	0.000	0.000
6,300.00	90.99	269.83	2,270.99	311.04	-4,014.40	4,013.46	0.000	0.000	0.000
6,400.00	90.99	269.83	2,269.26	310.75	-4,114.39	4,113.45	0.000	0.000	0.000
6,500.00	90.99	269.83	2,267.54	310.45	-4,214.37	4,213.43	0.000	0.000	0.000
6,600.00	90.99	269.83	2,265.81	310.16	-4,314.36	4,313.42	0.000	0.000	0.000
6,700.00	90.99	269.83	2,264.09	309.86	-4,414.34	4,413.40	0.000	0.000	0.000
6,800.00	90.99	269.83	2,262.36	309.56	-4,514.32	4,513.39	0.000	0.000	0.000
6,900.00	90.99	269.83	2,260.64	309.27	-4,614.31	4,613.37	0.000	0.000	0.000
7,000.00	90.99	269.83	2,258.91	308.97	-4,714.29	4,713.36	0.000	0.000	0.000
7,100.00	90.99	269.83	2,257.19	308.68	-4,814.28	4,813.34	0.000	0.000	0.000
7,200.00	90.99	269.83	2,255.46	308.38	-4,914.26	4,913.33	0.000	0.000	0.000
7,300.00	90.99	269.83	2,253.74	308.09	-5,014.25	5,013.31	0.000	0.000	0.000
7,400.00	90.99	269.83	2,252.01	307.79	-5,114.23	5,113.30	0.000	0.000	0.000
7,500.00	90.99	269.83	2,250.29	307.50	-5,214.22	5,213.28	0.000	0.000	0.000
7,600.00	90.99	269.83	2,248.56	307.20	-5,314.20	5,313.27	0.000	0.000	0.000
7,700.00	90.99	269.83	2,246.84	306.91	-5,414.19	5,413.25	0.000	0.000	0.000
7,800.00	90.99	269.83	2,245.11	306.61	-5,514.17	5,513.24	0.000	0.000	0.000
7,864.48	90.99	269.83	2,244.00	306.42	-5,578.64	5,577.71	0.000	0.000	0.000
PBHL									

Aim Directional Services

Planning Report

Database:	EDM 5000.17-Aim-DB	**Local Co-ordinate Reference:**	Site Greasewood 5 State Com North Pad
Company:	Silverback Exploration	**TVD Reference:**	Well @ 3583.00usft
Project:	Eddy County, NM (NAD 83 NME)	**MD Reference:**	Well @ 3583.00usft
Site:	Greasewood 5 State Com North Pad	**North Reference:**	Grid
Well:	Greasewood 5 State Com 101H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Lateral 1r1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Maximum Backbuild - - plan hits target center - Point	0.00	360.00	1,702.15	242.64	191.43	617,178.20	491,028.38	32.69656	-104.49688
LTP/PBHL - Greasew - plan hits target center - Point	0.00	0.00	2,244.00	306.42	-5,578.64	617,241.98	485,258.31	32.69671	-104.51564
FTP - Greasewood 10 - plan hits target center - Point	0.00	0.00	2,332.00	321.49	-477.87	617,257.05	490,359.08	32.69677	-104.49905
LP - Greasewood 101 - plan hits target center - Point	0.00	360.00	2,332.00	321.49	-477.87	617,257.05	490,359.08	32.69677	-104.49905

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
500.00	500.00	0.00	0.00	Build: 3°/100
1,188.48	1,173.67	93.48	79.56	Hold: 20.65° Inc, 40.40° Azm
1,610.85	1,568.89	206.93	176.13	KOP: 10°/100' @ 1610.85' MD
1,750.00	1,702.15	242.64	191.43	Max Backbuild
2,354.69	2,193.10	322.60	-101.00	Hold: 60.00° Inc, 269.83° Azm
2,504.69	2,268.10	322.22	-230.90	Build: 12°/100
2,762.93	2,332.00	321.49	-477.87	LP/Hold: 90.99° Inc, 269.83° Azm
7,864.48	2,244.00	306.42	-5,578.64	PBHL