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

General Information Phone: (505) 629-6116

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

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

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

1. Operator Nam	e and Address OIL PRODUC	ERS II C							2. 0	GRID Number 26029			
	S Pecos	LINO, LLO							3 4	PI Number	1		
-	nd, TX 7970 ⁻	1							0.7		5-54820		
4. Property Code)		5. Property Nam	ie					6. W	/ell No.			
3373	80		VINE	CATOR C	CANYON STATE	UNIT COM				418H			
					7. Su	urface Location							
UL - Lot	Section	Township	Range		Lot Idn	Feet From	N/S Line	Fee	t From	E/W Lir	ne	County	
F	21	1 1	7S	36E	F	2250		Ν	1495		W		Lea
					8. Proposed	Bottom Hole Location	on						
UL - Lot	Section	Township	Range		Lot Idn	Feet From	N/S Line		From	E/W Lir		County	
К	9	17	S	36E	K	2605		S	1815		W		Lea
					9. P	ool Information							
WC-025 G-09	S173615C;U	IPPER PENN									98333		
					Addition	al Well Information							
11. Work Type		12. Well Type	13. Cat	ole/Rotary				14. Lease Ty	/pe	15. Ground I	_evel Elev	ation	
New	Well	OIL						P	rivate	38	875		
16. Multiple		17. Proposed Dept	h 18. For					19. Contracte	or	20. Spud Da			
N		22648			Pennsylvanian l	0					8/2025		
Depth to Ground	water		Distanc	e from near	est fresh water wel	I				Distance to n	earest sur	face water	
	-	I-loop system in		2		asing and Cement Pr							
Туре	Hole S		asing Size	(Casing Weight/ft	Setting			Sacks of Ceme	ent		Estimated T	JC
Surf	17.		13.375		54.5	20			1070			0	
Int1	12.2		9.625		36	51			1295			0	
Liner1 Prod	8.7		7.625 5.5		29.7 20					315 4950 855 0			
FIOU	0.73	5	5.5				-		000			0	
				Ca	sing/Cement Pr	ogram: Additional Co	omments						
-	Туре		Workin	g Pressure	22. Proposed Bi	owout Prevention Pr	Test Pressu	ire			Manufact	urer	
	nular			5000			140000						
			-										
knowledge an	d belief.	nformation given plied with 19.15.						OIL CO	NSERVATIO	N DIVISION			
X, if applicabl Signature:	е.												
Printed Name:	Electro	nically filed by Ka	ty Reddell			Approved By:	Jeffre	y Harrison					
Title:						Title:	Petro	leum Specia	alist III				
Email Address:	kredde	ll@btaoil.com				Approved Date:	7/10/2	2025		Expiration Da	ate: 7/10/	2027	

Conditions of Approval Attached

Phone: 432-682-3753

Form C-101 August 1, 2011 Permit 393127

7/3/2025

Date:

<u>C-102</u>

Submit Electronically Via OCD Permitting

Email Address

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

Revised July 9, 2024 PAGE 1 OF 2									
	X Initial Submittal								
Submittal Type:	Amended Report								
Type.	As Drilled								

Page 2 of 20

					WELL LOCATIO	N INFORMATION					
API Nur	^{nber} 025-548	20	Pool Code	гс	8333]	Pool Name WC-025 G-09 S173615C; UPPER PENN					
Property		020	Property Nat	-	[6555]	WC-025 G-07 ST75015C, OFFER FENN Well Number					
337380 VINDICATOR CANYO					INDICATOR CANY						
OGRID No. Operator Name						Ground Level Elevation					
	26029	7			BTA OIL PRO	DUCERS, LLC		3875	5'		
Surface	e Owner: [State X	Fee 🗌 Tri	bal 🗌	Federal	Mineral Owner: X	State Fee	Tribal Federal			
UL	Section	Surface Location Township Range Lot Ft. from N/S Ft. from E/W Latitude (NAD83)						Longitude (NAD83)	County		
F	21	17S	36E		2250' FNL	1495' FWL	32.82147208	-103.36326277	LEA		
	1			1	Dettern Ue			1	<u> </u>		
UL	Section	Township	Range	Lot	Bottom Ho Ft. from N/S	Ft. from E/W	Latitude (NAD83)	Longitude (NAD83)	County		
K	09	17S	36E		2605' FSL	1815' FWL	32.84932876	-103.36236307	LEA		
L			1								
Dedicat	ed Acres	Infill or Defin	ing Well	Definin	g Well API	Overlapping Spacing Unit	(Y/N)	Consolidation Code			
3	20.00	Defining	c		-	N			Р		
Order 1	Numbers:	Pending				Well setbacks are under	Common Ownership	: Yes No	0		
		Tenung				<u> </u>					
UL	Section	Township	Range	Lot	Ft. from N/S	oint (KOP) Ft. from E/W	Latitude (NAD83)	Longitude (NAD83)	County		
К	21	17S	36E		2140' FSL	1815' FWL	32.81897728	-103.36222263	LEA		
L			I								
UL	Section	Township	Range	Lot	First Take	Point (FTP) Ft. from E/W	Latitude (NAD83)	Longitude (NAD83)	County		
F	21	17S	36E		2518' FNL	1815' FWL	32.82074136	-103.36220950	LEA		
UL	Section	Township	Range	Lot	Last Take]	Point (LTP) Ft. from E/W	Latitude (NAD83)	Longitude (NAD83)	County		
K	09	17S	36E	201	2555' FSL	1815' FWL	32.84919134	-103.36236282	LEA		
	07	175	JOL		2355 151	1015 1 WL	52.04717154	-105.50250202	LLIN		
Unitized	d Area or Area	of Uniform Inter	act	r –			Ground Floor	Flevation			
	Pending	or onnorm mer	est	Spacin	g Unit Type: 🛛 🗙 Horizo	zontal Vertical Ground Floor Elevation 3875'					
· ·	renuing							3875			
OPER	RATOR CEI	RTIFICATIO	NS			SURVEYOR CERT	IFICATIONS				
					complete to the best of my	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					
either o	wns a working	interest or unlea	sed mineral in	terest in th	well, that this organization e land including the	the best of my belief.	e or under my supervision	n, ana that the same is th	ue ana correct to		
					this location pursuant to a il interest, or to a voluntary						
pooling	agreement or	a compulsory po	oling order her	retofore en	tered by the division.		JOHN M RU	SSE			
If this well is a horizontal well, I further certify that this organization has received the consent of at least one lessee or owner of a working interest or unleased mineral interest in							S IN MEY	$\langle \langle \langle \rangle \rangle$			
each tro	act (in the targ	et pool or format	ion) in which a	ny part of	the well's completed		1 Ser Con	8//			
interval	will be located	d or obtained a c	ompulsory poo	ling order	from the division.	h	(29049				
	2/26/2025							D			
Signa	ture		Date			, A	sh-+1	4811			
	z Velasco					/	ROFESSIONAL S	ave			
	ed Name						SSIONAL S	01			
lvel	lvelasco@btaoil.com					Signature and Seal of Professional Surveyor					

Released to Imaging will ware as a strate in the interests have been consolidated or a non-standard unit has been approved by the division.

Certificate Number

29049

Date of Survey

FEBRUARY 24, 2025

ACREAGE DEDICATION PLATS VINDICATOR CANYON STATE UNIT COM 418H

Page 3 of 20 PAGE <u>2 OF 2</u>



Distances/areas relative to NAD 83 grid measurements. Combined Scale Factor: 0.99981955 and a Convergence Angle: 0.50466944°

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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

PERMIT CONDITIONS OF APPROVAL

Operator Name a	nd Address:	API Number:						
BTA (DIL PRODUCERS, LLC [260297]	30-025-54820						
104 S	Pecos	Well:						
Midla	nd, TX 79701	VINDICATOR CANYON STATE UNIT COM #418H						
OCD Reviewer	r Condition							
jeffrey.harrison	Administrative order required for non-standard location prior to production.							
jeffrey.harrison	Surface casing shall be set a minimum of 25' into the Rustler Anhydrite, above the salt, and encountered set casing at least 25 ft. above the salt.	below usable fresh water and cemented to the surface. If salt is						
jeffrey.harrison	Notify the OCD 24 hours prior to casing & cement.							
jeffrey.harrison	A [C-103] Sub. Drilling (C-103N) is required within (10) days of spud.							
jeffrey.harrison	File As Drilled C-102 and a directional Survey with C-104 completion packet.							
ieffrev.harrison	Once the well is spud, to prevent ground water contamination through whole or partial conc	luits from the surface, the operator shall drill without interruption through the						

 infresh water zone or zones and shall immediately set in cement the water protection string.

 jeffrey.harrison
 Cement is required to circulate on both surface and intermediate1 strings of casing.

 jeffrey.harrison
 If cement does not circulate on any string, a Cement Bond Log (CBL) is required for that string of casing.

 jeffrey.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.

Page 4 of 20

Form APD Conditions

Permit 393127

Re	ceived b	v OCD:	7/3/2025	3:57:21 PM
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	E	Stat nergy, Minerals a	e of New Mex nd Natural Res		ent		Subr Via l	nit Electronically E-permitting
		1220 S	nservation Di outh St. Fran ta Fe, NM 87:	cis Dr.				
	N	ATURAL GA	AS MANAO	GEMENT PI	LAN			
This Natural Gas Manag	ement Plan m	<u>Section</u>	th each Applicat <u>1 — Plan D</u> <u>fective May 25</u> ,	<u>escription</u>	Drill (A	PD) for a t	new of	recompleted well.
I. Operator:BTA O	il Producers	s, LLC	OGRID:	260297		Date:	7 /	3 / 2025
II. Type: 🗵 Original 🗆	Amendment	due to □ 19.15.27.	9.D(6)(a) NMA	C 🗆 19.15.27.9.D(6)(b) N	IMAC □ (Other.	
If Other, please describe:								
III. Well(s): Provide the be recompleted from a signal					wells pi	roposed to	be dri	lled or proposed to
Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D		icipated MCF/D	Р	Anticipated roduced Water BBL/D
VINDICATOR CANYON STATE UNIT COM 418H		F-21-17S-36E	, 2250 FNL, 1495 FW	L +/- 800	+/- 2	2000	+/-	1200
IV. Central Delivery Po	int Name:	VINDICATOR CI	ТВ			[See 1	9.15.2	7.9(D)(1) NMAC]
V. Anticipated Schedule proposed to be recomplet					vell or s	et of wells	propo	osed to be drilled or
Well Name	API	Spud Date	TD Reached Date	Completion Commencement		Initial F Back D		First Production Date
VINDICATOR CANYON STATE UNIT COM 418H		9/8/2025	9/28/2025	10/12/2025		11/2/202	25	12/2/2025
VI. Separation Equipm	ent: 🛛 Attach	a complete descrip	otion of how Ope	erator will size sep	aration	equipmen	it to op	timize gas capture.
VII. Operational Pract Subsection A through F of			iption of the act	tions Operator will	l take t	to comply	with t	he requirements of
VIII. Best Management during active and planned			te description of	Operator's best m	nanagei	ment pract	ices to	minimize venting

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.

Dependence of 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. \Box 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 \Box will \Box 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 \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).

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

XIV. Confidentiality: \Box 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.

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

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

 \boxtimes 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

 \Box 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. \Box 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. \Box 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: The lasso
Printed Name: Liz Velasco
Title: Regulatory Analyst
E-mail Address: lvelasco@btaoil.com
Date: 3/3/2025
Phone: 432-682-3753
OIL CONSERVATION DIVISION
(Only applicable when submitted as a standalone form)
Approved By:
Title:
Approval Date:
Conditions of Approval:

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

- Separation equipment will be sized to provide adequate separation for anticipated rates.
- Separation equipment will allow for adequate retention time to allow gas and liquids to separate.
- Separation equipment will utilize air power pneumatic dump controllers and ventless pressure control valves.
- Separation equipment will separate all three phases (Oil, Water, and Gas).
- Storage tanks will utilize blanket gas and vapor recovery systems to moderate tank pressures and capture gas from storage tanks.
- Collection systems are appropriately sized to handle facility production rates on all (3) phases.
- Ancillary equipment and metering is selected to be serviced without flow interruptions or the need to release gas from the well.

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

Drilling Operations

- All flare stacks will be properly sized. The flare stacks will be located at a minimum 100' from the nearest surface hole location on the pad.
- All natural gas produced during drilling operations will be flared, unless there is an equipment malfunction and/or to avoid risk of an immediate and substantial adverse impact on safety and the environment, at which point the gas will be vented.

Completions/Recompletions Operations

- New wells will not be flowed back until they are connected to a properly sized gathering system.
- The facility will be built/sized for maximum anticipated flowrates and pressures to minimize waste.
- For flowback operations, multiple stages of separation will be used as well as excess VRU and blowers to make sure waste is minimized off the storage tanks and facility.
- During initial flowback, the well stream will be routed to separation equipment.
- At an existing facility, when necessary, post separation natural gas will be flared until it meets pipeline specifications, at which point it will be turned into a collection system.
- At a new facility, post separation natural gas will be vented until storage tanks can safely function, at which point it will be flared until it meets pipeline spec.

Production Operations

- Weekly AVOs will be performed on all facilities that produce more than 60 MCFD.
- All facilities will be inspected with an Optical Gas Imaging Thermographer Camera quarterly to find and repair fugitive emissions.
- Leaking thief hatches and pressure safety valves found during AVOs will be cleaned and properly re-sealed.

- All flares will be equipped with continuous pilot system and air assist systems that will ensure the flare burns efficiently.
- After a well is stabilized from liquid unloading, the well will be turned back into the collection system.
- All gas lift systems will be optimized to limit the amount of waste.
- All tanks will have automatic gauging equipment installed.

Performance Standards

- Production equipment will be designed to handle maximum anticipated rates and pressure.
- All flared gas will be combusted in a flare stack that is properly sized and designed to ensure proper combustion.
- All gas will have multiple points of separation to ensure no liquids enter flares, combustors, or gas sales line.
- Weekly AVOs will be performed on all wells and facilities that produce more than 60 MCFD.
- All OOOOa facilities will be filmed with an Optical Gas Imaging Thermographer camera once per month to check for fugitive emissions.

Measurement & Estimation

- All volume that is flared and vented that is not measured will be estimated.
- All measurement equipment for flared volumes will conform to API 14.10.
- All meters will be calibrated at regular intervals according to meter manufacturer recommendations.
- When metering is not practical due to low pressure/low rate, the vented or flared volume will be estimated.

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

- During downhole well maintenance, BTA will use best management practices to vent as minimally as possible.
- Prior to the commencement of any maintenance, the tank or vessel will be isolated from the rest of the facilities.
- All valves upstream of the equipment will be closed and isolated.
- After equipment has been isolated, the equipment will be blown down to as low a pressure as possible into the collection system.
- If the equipment being maintained cannot be relieved into the collection system, it shall be released to a tank where the vapor can either be captured or combusted if possible.
- After downhole well maintenance, natural gas will be flared until it reaches pipeline specification.

BTA Oil Producers, LLC

Lea County, NM (NAD 83) Vindicator Canyon State Vindicator Canyon State #418H

Wellbore #1

Plan: Design #1

Standard Planning Report - Geographic

14 March, 2025

Database: Company: Project: Site: Well: Wellbore: Design:	EDM16 BTA Oil Produc Lea County, NI Vindicator Can Vindicator Can Wellbore #1 Design #1	M (NAD 83 iyon State	,	TVD Refe MD Refe North Re	rence:	GL @ 3875 GL @ 3875 Grid	5.0usft 5.0usft	n State #418H
Project	Lea County, NM	1 (NAD 83)	, Lea County, NN	1				
Oco Datum.	US State Plane 1 North American I New Mexico Eas	Datum 1983	3	System Da	atum:	Ground Leve	-	tor
Site	Vindicator Cany	/on State						
Site Position: From: Position Uncertain	Мар ty: 0).0 usft	Northing: Easting: Slot Radius:	844,4	64.19 usft Latitu 36.41 usft Longi 3-3/16 "			32° 49' 15.966 N 103° 20' 48.060 W
Well	Vindicator Cany	on State #4	18H					
Well Position Position Uncertain Grid Convergence	•	0.0 usft 0.0 usft 0.0 usft 0.53 °	Northing: Easting: Wellhead El	evation:	663,951.77 usfl 839,341.81 usfl usfl	Latitude: Longitude: Ground Leve	:	32° 49' 17.299 N 103° 21' 47.746 W 3,875.0 usfi
Wellbore	Wellbore #1							
Magnetics	Model Name	e 5	Sample Date	Declina (°)	tion	Dip Angle (°)	Fie	eld Strength (nT)
	IGRF200	510	12/31/2009		7.70	60.83	3 4	9,173.26464224
Design	Design #1							
Audit Notes: Version:			Phase:	PROTOTYPE	Tie On D	epth:	0.0	
Vertical Section:			rom (TVD) sft)	+N/-S (usft)	+E/-W (usft)		Direction (°)	
		0	.0	0.0	0.0		1.04	
Plan Survey Tool F Depth From (usft)	Depth To	0ate 3/14/2 Irvey (Well		Tool Name	Rem	arks		
1 0.0	22,648.4 De	esign #1 (W	ellbore #1)					

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
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
5,531.7	0.00	0.00	5,531.7	0.0	0.0	0.00	0.00	0.00	0.00	
6,031.7	7 10.00	152.78	6,029.2	-38.7	19.9	2.00	2.00	0.00	152.78	
9,558.7	7 10.00	152.78	9,502.5	-583.3	300.1	0.00	0.00	0.00	0.00	
10,058.7	0.00	0.00	10,000.0	-622.0	320.0	2.00	-2.00	0.00	180.00	
11,560.7	0.00	0.00	11,502.0	-622.0	320.0	0.00	0.00	0.00	0.00	
12,460.7	90.00	359.27	12,075.0	-49.1	312.7	10.00	10.00	0.00	359.27	
22,648.4	90.00	359.27	12,075.0	10,137.8	183.2	0.00	0.00	0.00	0.00	Vindicator 418H BH

3/14/2025 10:35:39AM

- 1				
	Database:	EDM16	Local Co-ordinate Reference:	Well Vindicator Canyon State #418H
	Company:	BTA Oil Producers, LLC	TVD Reference:	GL @ 3875.0usft
	Project:	Lea County, NM (NAD 83)	MD Reference:	GL @ 3875.0usft
	Site:	Vindicator Canyon State	North Reference:	Grid
	Well:	Vindicator Canyon State #418H	Survey Calculation Method:	Minimum Curvature
	Wellbore:	Wellbore #1	-	
	Design:	Design #1		

Planned Survey

Measured Depth	Inclination		Vertical Depth	+N/-S	+E/-W	Map Northing	Map Easting		
(usft)	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)	Latitude	Longitude
0.0		0.00	0.0	0.0	0.0	663,951.77	839,341.81	32° 49' 17.299 N	103° 21' 47.746 W
100.0		0.00	100.0	0.0	0.0	663,951.77	839,341.81	32° 49' 17.299 N	103° 21' 47.746 W
200.0		0.00	200.0	0.0	0.0	663,951.77	839,341.81	32° 49' 17.299 N	103° 21' 47.746 W
300.0		0.00	300.0	0.0	0.0	663,951.77	839,341.81	32° 49' 17.299 N	103° 21' 47.746 W
400.0		0.00	400.0	0.0	0.0	663,951.77	839,341.81	32° 49' 17.299 N	103° 21' 47.746 W
500.0		0.00	500.0	0.0	0.0	663,951.77	839,341.81	32° 49' 17.299 N	103° 21' 47.746 W
600.0		0.00	600.0	0.0	0.0	663,951.77	839,341.81	32° 49' 17.299 N	103° 21' 47.746 W 103° 21' 47.746 W
700.0 800.0		0.00 0.00	700.0 800.0	0.0 0.0	0.0 0.0	663,951.77 663,951.77	839,341.81 839,341.81	32° 49' 17.299 N 32° 49' 17.299 N	103°21'47.746 W
900.0		0.00	900.0	0.0	0.0	663,951.77	839,341.81	32° 49' 17.299 N 32° 49' 17.299 N	103° 21' 47.746 W
1,000.0		0.00	1,000.0	0.0	0.0	663,951.77	839,341.81	32° 49' 17.299 N 32° 49' 17.299 N	103° 21' 47.746 W
1,100.0		0.00	1,100.0	0.0	0.0	663,951.77	839,341.81	32° 49' 17.299 N	103° 21' 47.746 W
1,200.0		0.00	1,200.0	0.0	0.0	663,951.77	839,341.81	32° 49' 17.299 N	103° 21' 47.746 W
1,300.0		0.00	1,300.0	0.0	0.0	663,951.77	839,341.81	32° 49' 17.299 N	103° 21' 47.746 W
1,400.0		0.00	1,400.0	0.0	0.0	663,951.77	839,341.81	32° 49' 17.299 N	103° 21' 47.746 W
1,500.0	0.00	0.00	1,500.0	0.0	0.0	663,951.77	839,341.81	32° 49' 17.299 N	103° 21' 47.746 W
1,600.0	0.00	0.00	1,600.0	0.0	0.0	663,951.77	839,341.81	32° 49' 17.299 N	103° 21' 47.746 W
1,700.0	0.00	0.00	1,700.0	0.0	0.0	663,951.77	839,341.81	32° 49' 17.299 N	103° 21' 47.746 W
1,800.0		0.00	1,800.0	0.0	0.0	663,951.77	839,341.81	32° 49' 17.299 N	103° 21' 47.746 W
1,900.0		0.00	1,900.0	0.0	0.0	663,951.77	839,341.81	32° 49' 17.299 N	103° 21' 47.746 W
2,000.0		0.00	2,000.0	0.0	0.0	663,951.77	839,341.81	32° 49' 17.299 N	103° 21' 47.746 W
2,100.0		0.00	2,100.0	0.0	0.0	663,951.77	839,341.81	32° 49' 17.299 N	103° 21' 47.746 W
2,200.0		0.00	2,200.0	0.0	0.0	663,951.77	839,341.81	32° 49' 17.299 N	103° 21' 47.746 W
2,300.0		0.00	2,300.0	0.0	0.0	663,951.77	839,341.81	32° 49' 17.299 N	103° 21' 47.746 W
2,400.0		0.00	2,400.0	0.0	0.0	663,951.77	839,341.81	32° 49' 17.299 N 32° 49' 17.299 N	103° 21' 47.746 W
2,500.0 2,600.0		0.00 0.00	2,500.0 2,600.0	0.0 0.0	0.0 0.0	663,951.77 663,951.77	839,341.81 839,341.81	32° 49' 17.299 N 32° 49' 17.299 N	103° 21' 47.746 W 103° 21' 47.746 W
2,000.0		0.00	2,000.0	0.0	0.0	663,951.77	839,341.81	32° 49' 17.299 N 32° 49' 17.299 N	103° 21' 47.746 W
2,800.0		0.00	2,800.0	0.0	0.0	663,951.77	839,341.81	32° 49' 17.299 N	103° 21' 47.746 W
2,900.0		0.00	2,900.0	0.0	0.0	663,951.77	839,341.81	32° 49' 17.299 N	103° 21' 47.746 W
3,000.0		0.00	3,000.0	0.0	0.0	663,951.77	839,341.81	32° 49' 17.299 N	103° 21' 47.746 W
3,100.0		0.00	3,100.0	0.0	0.0	663,951.77	839,341.81	32° 49' 17.299 N	103° 21' 47.746 W
3,200.0		0.00	3,200.0	0.0	0.0	663,951.77	839,341.81	32° 49' 17.299 N	103° 21' 47.746 W
3,300.0		0.00	3,300.0	0.0	0.0	663,951.77	839,341.81	32° 49' 17.299 N	103° 21' 47.746 W
3,400.0	0.00	0.00	3,400.0	0.0	0.0	663,951.77	839,341.81	32° 49' 17.299 N	103° 21' 47.746 W
3,500.0	0.00	0.00	3,500.0	0.0	0.0	663,951.77	839,341.81	32° 49' 17.299 N	103° 21' 47.746 W
3,600.0		0.00	3,600.0	0.0	0.0	663,951.77	839,341.81	32° 49' 17.299 N	103° 21' 47.746 W
3,700.0		0.00	3,700.0	0.0	0.0	663,951.77	839,341.81	32° 49' 17.299 N	103° 21' 47.746 W
3,800.0		0.00	3,800.0	0.0	0.0	663,951.77	839,341.81	32° 49' 17.299 N	103° 21' 47.746 W
3,900.0		0.00	3,900.0	0.0	0.0	663,951.77	839,341.81	32° 49' 17.299 N	103° 21' 47.746 W
4,000.0		0.00	4,000.0	0.0	0.0	663,951.77	839,341.81	32° 49' 17.299 N	103° 21' 47.746 W
4,100.0		0.00	4,100.0	0.0	0.0	663,951.77	839,341.81	32° 49' 17.299 N	103° 21' 47.746 W
4,200.0 4,300.0		0.00 0.00	4,200.0 4,300.0	0.0	0.0	663,951.77 663,951.77	839,341.81 839,341.81	32° 49' 17.299 N 32° 49' 17.299 N	103° 21' 47.746 W 103° 21' 47.746 W
4,300.0		0.00	4,300.0	0.0 0.0	0.0 0.0	663,951.77	839,341.81	32° 49' 17.299 N 32° 49' 17.299 N	103° 21' 47.746 W
4,400.0		0.00	4,400.0	0.0	0.0	663,951.77	839,341.81	32° 49' 17.299 N 32° 49' 17.299 N	103° 21' 47.746 W
4,600.0		0.00	4,600.0	0.0	0.0	663,951.77	839,341.81	32° 49' 17.299 N	103° 21' 47.746 W
4,700.0		0.00	4,700.0	0.0	0.0	663,951.77	839,341.81	32° 49' 17.299 N	103° 21' 47.746 W
4,800.0		0.00	4,800.0	0.0	0.0	663,951.77	839,341.81	32° 49' 17.299 N	103° 21' 47.746 W
4,900.0		0.00	4,900.0	0.0	0.0	663,951.77	839,341.81	32° 49' 17.299 N	103° 21' 47.746 W
5,000.0		0.00	5,000.0	0.0	0.0	663,951.77	839,341.81	32° 49' 17.299 N	103° 21' 47.746 W
5,100.0		0.00	5,100.0	0.0	0.0	663,951.77	839,341.81	32° 49' 17.299 N	103° 21' 47.746 W
5,200.0		0.00	5,200.0	0.0	0.0	663,951.77	839,341.81	32° 49' 17.299 N	103° 21' 47.746 W
5,300.0		0.00	5,300.0	0.0	0.0	663,951.77	839,341.81	32° 49' 17.299 N	103° 21' 47.746 W
5,400.0	0.00	0.00	5,400.0	0.0	0.0	663,951.77	839,341.81	32° 49' 17.299 N	103° 21' 47.746 W

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Database:	EDM16	Local Co-ordinate Reference:	Well Vindicator Canyon State #418H
Company:	BTA Oil Producers, LLC	TVD Reference:	GL @ 3875.0usft
Project:	Lea County, NM (NAD 83)	MD Reference:	GL @ 3875.0usft
Site:	Vindicator Canyon State	North Reference:	Grid
Well:	Vindicator Canyon State #418H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
. ,			. ,						-
5,500.0 5,531.7		0.00 0.00	5,500.0 5,531.7	0.0 0.0	0.0 0.0	663,951.77 663,951.77	839,341.81 839,341.81	32° 49' 17.299 N 32° 49' 17.299 N	103° 21' 47.746 W 103° 21' 47.746 W
	uild 2.00	0.00	5,551.7	0.0	0.0	003,951.77	039,341.01	32 49 17.299 N	103 21 47.740 W
5,600.0		152.78	5,600.0	-0.7	0.4	663,951.05	839,342.18	32° 49' 17.292 N	103° 21' 47.742 W
5,700.0		152.78	5,699.9	-4.4	2.3	663,947.38	839,344.07	32° 49' 17.256 N	103° 21' 47.720 W
5,800.0		152.78	5,799.6	-11.2	5.7	663,940.61	839,347.55	32° 49' 17.189 N	103° 21' 47.680 W
5,900.0		152.78	5,899.0	-21.0	10.8	663,930.76	839,352.62	32° 49' 17.091 N	103° 21' 47.621 W
6,000.0		152.78	5,997.9	-34.0	17.5	663,917.82	839,359.28	32° 49' 16.962 N	103° 21' 47.545 W
6,031.7	10.00	152.78	6,029.2	-38.7	19.9	663,913.07	839,361.72	32° 49' 16.915 N	103° 21' 47.517 W
Start 3	526.9 hold a	t 6031.7 MD							
6,100.0		152.78	6,096.4	-49.2	25.3	663,902.53	839,367.14	32° 49' 16.810 N	103° 21' 47.454 W
6,200.0		152.78	6,194.9	-64.7	33.3	663,887.09	839,375.09	32° 49' 16.657 N	103° 21' 47.363 W
6,300.0		152.78	6,293.4	-80.1	41.2	663,871.65	839,383.03	32° 49' 16.503 N	103° 21' 47.272 W
6,400.0		152.78	6,391.9	-95.6	49.2	663,856.21	839,390.98	32° 49' 16.350 N	103° 21' 47.180 W
6,500.0		152.78	6,490.4	-111.0	57.1	663,840.77	839,398.92	32° 49' 16.196 N	103° 21' 47.089 W
6,600.0		152.78	6,588.8	-126.4	65.1	663,825.32	839,406.86	32° 49' 16.043 N	103° 21' 46.997 W
6,700.0 6,800.0		152.78 152.78	6,687.3 6,785.8	-141.9 -157.3	73.0 80.9	663,809.88 663,794.44	839,414.81 839,422.75	32° 49' 15.889 N 32° 49' 15.736 N	103° 21' 46.906 W 103° 21' 46.814 W
6,900.0		152.78	6,884.3	-172.8	88.9	663,779.00	839,430.70	32° 49' 15.582 N	103° 21' 46.723 W
7,000.0		152.78	6,982.8	-188.2	96.8	663,763.56	839,438.64	32° 49' 15.429 N	103° 21' 46.632 W
7,100.0		152.78	7,081.2	-203.7	104.8	663,748.12	839,446.58	32° 49' 15.275 N	103° 21' 46.540 W
7,200.0		152.78	7,179.7	-219.1	112.7	663,732.68	839,454.53	32° 49' 15.122 N	103° 21' 46.449 W
7,300.0		152.78	7,278.2	-234.5	120.7	663,717.24	839,462.47	32° 49' 14.968 N	103° 21' 46.357 W
7,400.0	10.00	152.78	7,376.7	-250.0	128.6	663,701.79	839,470.42	32° 49' 14.815 N	103° 21' 46.266 W
7,500.0		152.78	7,475.2	-265.4	136.5	663,686.35	839,478.36	32° 49' 14.661 N	103° 21' 46.174 W
7,600.0		152.78	7,573.6	-280.9	144.5	663,670.91	839,486.30	32° 49' 14.508 N	103° 21' 46.083 W
7,700.0		152.78	7,672.1	-296.3	152.4	663,655.47	839,494.25	32° 49' 14.354 N	103° 21' 45.992 W
7,800.0		152.78	7,770.6	-311.7	160.4	663,640.03	839,502.19	32° 49' 14.201 N	103° 21' 45.900 W
7,900.0		152.78	7,869.1	-327.2	168.3	663,624.59	839,510.14	32° 49' 14.047 N	103° 21' 45.809 W
8,000.0 8,100.0		152.78 152.78	7,967.6 8,066.0	-342.6 -358.1	176.3 184.2	663,609.15 663,593.70	839,518.08 839,526.02	32° 49' 13.894 N 32° 49' 13.740 N	103° 21' 45.717 W 103° 21' 45.626 W
8,100.0		152.78	8,000.0 8,164.5	-373.5	192.2	663,578.26	839,533.97	32° 49' 13.587 N	103° 21' 45.525 W
8,300.0		152.78	8,263.0	-388.9	200.1	663,562.82	839,541.91	32° 49' 13.433 N	103° 21' 45.443 W
8,400.0		152.78	8,361.5	-404.4	208.0	663,547.38	839,549.86	32° 49' 13.280 N	103° 21' 45.352 W
8,500.0		152.78	8,460.0	-419.8	216.0	663,531.94	839,557.80	32° 49' 13.126 N	103° 21' 45.260 W
8,600.0		152.78	8,558.4	-435.3	223.9	663,516.50	839,565.75	32° 49' 12.973 N	103° 21' 45.169 W
8,700.0	10.00	152.78	8,656.9	-450.7	231.9	663,501.06	839,573.69	32° 49' 12.819 N	103° 21' 45.077 W
8,800.0		152.78	8,755.4	-466.2	239.8	663,485.62	839,581.63	32° 49' 12.666 N	103° 21' 44.986 W
8,900.0		152.78	8,853.9	-481.6	247.8	663,470.17	839,589.58	32° 49' 12.512 N	103° 21' 44.895 W
9,000.0		152.78	8,952.4	-497.0	255.7	663,454.73	839,597.52	32° 49' 12.359 N	103° 21' 44.803 W
9,100.0		152.78	9,050.9	-512.5	263.7	663,439.29	839,605.47	32° 49' 12.205 N	103° 21' 44.712 W
9,200.0		152.78	9,149.3	-527.9	271.6	663,423.85	839,613.41	32° 49' 12.052 N	103° 21' 44.620 W
9,300.0 9,400.0		152.78 152.78	9,247.8 9,346.3	-543.4	279.5 287.5	663,408.41	839,621.35 839,629.30	32° 49' 11.898 N 32° 49' 11.745 N	103° 21' 44.529 W 103° 21' 44.437 W
9,400.0		152.78	9,340.3 9,444.8	-558.8 -574.2	287.5	663,392.97 663,377.53	839,637.24	32° 49' 11.591 N	103° 21' 44.437 W
9,558.7		152.78	9,502.5	-583.3	300.1	663,368.47	839,641.90	32° 49' 11.501 N	103° 21' 44.292 W
	rop -2.00	102.10	0,002.0	000.0	000.1	000,000.47	000,041.00	02 10 11.001 N	
9,600.0	•	152.78	9,543.3	-589.4	303.2	663,362.35	839,645.05	32° 49' 11.440 N	103° 21' 44.256 W
9,700.0		152.78	9,642.3	-602.1	309.7	663,349.71	839,651.56	32° 49' 11.315 N	103° 21' 44.181 W
9,800.0		152.78	9,741.7	-611.6	314.7	663,340.14	839,656.47	32° 49' 11.220 N	103° 21' 44.125 W
9,900.0	3.17	152.78	9,841.4	-618.1	318.0	663,333.67	839,659.80	32° 49' 11.155 N	103° 21' 44.086 W
10,000.0		152.78	9,941.4	-621.5	319.7	663,330.30	839,661.54	32° 49' 11.122 N	103° 21' 44.066 W
10,058.7		0.00	10,000.0	-622.0	320.0	663,329.77	839,661.81	32° 49' 11.116 N	103° 21' 44.063 W
Start 1	502.0 hold a	t 10058.7 MI							

Database:	EDM16	Local Co-ordinate Reference:	Well Vindicator Canyon State #418H
Company:	BTA Oil Producers, LLC	TVD Reference:	GL @ 3875.0usft
Project:	Lea County, NM (NAD 83)	MD Reference:	GL @ 3875.0usft
Site:	Vindicator Canyon State	North Reference:	Grid
Well:	Vindicator Canyon State #418H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
10,100.0	0.00	0.00	10,041.3	-622.0	320.0	663,329.77	839,661.81	32° 49' 11.116 N	103° 21' 44.063 W
10,200.0		0.00	10,141.3	-622.0	320.0	663,329.77	839,661.81	32° 49' 11.116 N	103° 21' 44.063 W
10,300.0		0.00	10,241.3	-622.0	320.0	663,329.77	839,661.81	32° 49' 11.116 N	103° 21' 44.063 W
10,400.0		0.00	10,341.3	-622.0	320.0	663,329.77	839,661.81	32° 49' 11.116 N	103° 21' 44.063 W
10,500.0		0.00	10,441.3	-622.0	320.0	663,329.77	839,661.81	32° 49' 11.116 N	103° 21' 44.063 W
10,600.0		0.00	10,541.3	-622.0	320.0	663,329.77	839,661.81	32° 49' 11.116 N	103° 21' 44.063 W
10,700.0		0.00	10,641.3	-622.0	320.0	663,329.77	839,661.81	32° 49' 11.116 N	103° 21' 44.063 W
10,800.0		0.00	10,741.3	-622.0	320.0	663,329.77	839,661.81	32° 49' 11.116 N	103° 21' 44.063 W
10,900.0		0.00	10,841.3	-622.0	320.0	663,329.77	839,661.81	32° 49' 11.116 N	103° 21' 44.063 W
11,000.0		0.00	10,941.3	-622.0	320.0	663,329.77	839,661.81	32° 49' 11.116 N	103° 21' 44.063 W
11,100.0	0.00	0.00	11,041.3	-622.0	320.0	663,329.77	839,661.81	32° 49' 11.116 N	103° 21' 44.063 W
11,200.0	0.00	0.00	11,141.3	-622.0	320.0	663,329.77	839,661.81	32° 49' 11.116 N	103° 21' 44.063 W
11,300.0	0.00	0.00	11,241.3	-622.0	320.0	663,329.77	839,661.81	32° 49' 11.116 N	103° 21' 44.063 W
11,400.0	0.00	0.00	11,341.3	-622.0	320.0	663,329.77	839,661.81	32° 49' 11.116 N	103° 21' 44.063 W
11,500.0		0.00	11,441.3	-622.0	320.0	663,329.77	839,661.81	32° 49' 11.116 N	103° 21' 44.063 W
11,560.7	0.00	0.00	11,502.0	-622.0	320.0	663,329.77	839,661.81	32° 49' 11.116 N	103° 21' 44.063 W
	uild 10.00								
11,600.0		359.27	11,541.3	-620.7	320.0	663,331.12	839,661.80	32° 49' 11.130 N	103° 21' 44.063 W
11,700.0		359.27	11,640.0	-605.1	319.8	663,346.62	839,661.60	32° 49' 11.283 N	103° 21' 44.064 W
11,800.0		359.27	11,734.5	-572.8	319.4	663,379.02	839,661.19	32° 49' 11.604 N	103° 21' 44.065 W
11,900.0		359.27	11,821.9	-524.4	318.8	663,427.33	839,660.57	32° 49' 12.082 N	103° 21' 44.067 W
12,000.0		359.27	11,899.6	-461.7	318.0	663,490.08	839,659.77	32° 49' 12.703 N	103° 21' 44.070 W
12,100.0		359.27	11,965.2	-386.4	317.0	663,565.37	839,658.82	32° 49' 13.448 N	103° 21' 44.073 W
12,200.0		359.27	12,016.7	-300.9	315.9	663,650.91	839,657.73	32° 49' 14.294 N	103° 21' 44.077 W
12,300.0		359.27	12,052.6	-207.7	314.7	663,744.10	839,656.55	32° 49' 15.216 N	103° 21' 44.080 W
12,400.0 12,460.7		359.27 359.27	12,071.8 12,075.0	-109.7 -49.1	313.5 312.7	663,842.11 663,902.69	839,655.30 839,654.53	32° 49' 16.186 N 32° 49' 16.785 N	103° 21' 44.084 W 103° 21' 44.087 W
-	0187.7 hold		-	-49.1	512.7	003,902.09	039,034.33	32 49 10.703 N	103 21 44.007 10
12,500.0		359.27	12,075.0	-9.8	312.2	663,941.99	839,654.03	32° 49' 17.174 N	103° 21' 44.089 W
12,600.0		359.27	12,075.0	90.2	310.9	664,041.98	839,652.76	32° 49' 18.164 N	103° 21' 44.093 W
12,700.0		359.27	12,075.0	190.2	309.7	664,141.98	839,651.49	32° 49' 19.153 N	103° 21' 44.097 W
12,800.0		359.27	12,075.0	290.2	308.4	664,241.97	839,650.22	32° 49' 20.143 N	103° 21' 44.101 W
12,900.0		359.27	12,075.0	390.2	307.1	664,341.96	839,648.95	32° 49' 21.132 N	103° 21' 44.105 W
13,000.0		359.27	12,075.0	490.2	305.9	664,441.95	839,647.68	32° 49' 22.121 N	103° 21' 44.109 W
13,100.0		359.27	12,075.0	590.2	304.6	664,541.95	839,646.41	32° 49' 23.111 N	103° 21' 44.113 W
13,200.0		359.27	12,075.0	690.2	303.3	664,641.94	839,645.14	32° 49' 24.100 N	103° 21' 44.117 W
13,300.0	90.00	359.27	12,075.0	790.2	302.1	664,741.93	839,643.86	32° 49' 25.090 N	103° 21' 44.122 W
13,400.0	90.00	359.27	12,075.0	890.1	300.8	664,841.93	839,642.59	32° 49' 26.079 N	103° 21' 44.126 W
13,500.0	90.00	359.27	12,075.0	990.1	299.5	664,941.92	839,641.32	32° 49' 27.068 N	103° 21' 44.130 W
13,600.0	90.00	359.27	12,075.0	1,090.1	298.2	665,041.91	839,640.05	32° 49' 28.058 N	103° 21' 44.134 W
13,700.0		359.27	12,075.0	1,190.1	297.0	665,141.91	839,638.78	32° 49' 29.047 N	103° 21' 44.138 W
13,800.0		359.27	12,075.0	1,290.1	295.7	665,241.90	839,637.51	32° 49' 30.037 N	103° 21' 44.142 W
13,900.0		359.27	12,075.0	1,390.1	294.4	665,341.89	839,636.24	32° 49' 31.026 N	103° 21' 44.146 W
14,000.0		359.27	12,075.0	1,490.1	293.2	665,441.88	839,634.97	32° 49' 32.016 N	103° 21' 44.150 W
14,100.0		359.27	12,075.0	1,590.1	291.9	665,541.88	839,633.70	32° 49' 33.005 N	103° 21' 44.155 W
14,200.0		359.27	12,075.0	1,690.1	290.6	665,641.87	839,632.43	32° 49' 33.994 N	103° 21' 44.159 W
14,300.0		359.27	12,075.0	1,790.1	289.3	665,741.86	839,631.16	32° 49' 34.984 N	103° 21' 44.163 W
14,400.0		359.27	12,075.0	1,890.1	288.1	665,841.86	839,629.88	32° 49' 35.973 N	103° 21' 44.167 W
14,500.0		359.27	12,075.0	1,990.1	286.8	665,941.85	839,628.61	32° 49' 36.963 N	103° 21' 44.171 W
14,600.0		359.27	12,075.0	2,090.0	285.5	666,041.84 666,141.84	839,627.34	32° 49' 37.952 N	103° 21' 44.175 W
14,700.0 14,800.0		359.27 359.27	12,075.0 12,075.0	2,190.0 2,290.0	284.3	666,241.83	839,626.07 839,624.80	32° 49' 38.941 N 32° 49' 39.931 N	103° 21' 44.179 W 103° 21' 44.183 W
14,800.0		359.27 359.27	12,075.0	-	283.0 281.7	666,341.83	839,623.53		
14,900.0		359.27	12,075.0	2,390.0 2,490.0	281.7	666,441.81	839,622.26	32° 49' 40.920 N 32° 49' 41.910 N	103° 21' 44.188 W 103° 21' 44.192 W
13,000.0	30.00	553.21	12,070.0	2,730.0	200.4	000,441.01	000,022.20	52 75 71.310 N	100 21 44.192 10

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Database:	EDM16	Local Co-ordinate Reference:	Well Vindicator Canyon State #418H
Company:	BTA Oil Producers, LLC	TVD Reference:	GL @ 3875.0usft
Project:	Lea County, NM (NAD 83)	MD Reference:	GL @ 3875.0usft
Site:	Vindicator Canyon State	North Reference:	Grid
Well:	Vindicator Canyon State #418H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1	-	
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
15,100.0 15,200.0		359.27 359.27	12,075.0	2,590.0 2,690.0	279.2 277.9	666,541.81 666,641.80	839,620.99 839,619.72	32° 49' 42.899 N 32° 49' 43.889 N	103° 21' 44.196 W 103° 21' 44.200 W
15,200.0		359.27	12,075.0 12,075.0	2,090.0	276.6	666,741.79	839,618.45	32° 49' 44.878 N	103°21'44.200 W 103°21'44.204 W
15,400.0		359.27	12,075.0	2,790.0	275.4	666,841.79	839,617.18	32° 49' 45.867 N	103° 21' 44.204 W
15,500.0		359.27	12,075.0	2,990.0	274.1	666,941.78	839,615.91	32° 49' 46.857 N	103° 21' 44.212 W
15,600.0		359.27	12,075.0	3,090.0	272.8	667,041.77	839,614.63	32° 49' 47.846 N	103° 21' 44.216 W
15,700.0		359.27	12,075.0	3,190.0	271.6	667,141.77	839,613.36	32° 49' 48.836 N	103° 21' 44.221 W
15,800.0		359.27	12,075.0	3,289.9	270.3	667,241.76	839,612.09	32° 49' 49.825 N	103° 21' 44.225 W
15,900.0		359.27	12,075.0	3,389.9	269.0	667,341.75	839,610.82	32° 49' 50.814 N	103° 21' 44.229 W
16,000.0	90.00	359.27	12,075.0	3,489.9	267.7	667,441.74	839,609.55	32° 49' 51.804 N	103° 21' 44.233 W
16,100.0	90.00	359.27	12,075.0	3,589.9	266.5	667,541.74	839,608.28	32° 49' 52.793 N	103° 21' 44.237 W
16,200.0		359.27	12,075.0	3,689.9	265.2	667,641.73	839,607.01	32° 49' 53.783 N	103° 21' 44.241 W
16,300.0		359.27	12,075.0	3,789.9	263.9	667,741.72	839,605.74	32° 49' 54.772 N	103° 21' 44.245 W
16,400.0		359.27	12,075.0	3,889.9	262.7	667,841.72	839,604.47	32° 49' 55.762 N	103° 21' 44.249 W
16,500.0		359.27	12,075.0	3,989.9	261.4	667,941.71	839,603.20	32° 49' 56.751 N	103° 21' 44.254 W
16,600.0		359.27	12,075.0	4,089.9	260.1	668,041.70	839,601.93	32° 49' 57.740 N	103° 21' 44.258 W
16,700.0		359.27	12,075.0	4,189.9	258.8	668,141.70	839,600.65	32° 49' 58.730 N	103° 21' 44.262 W
16,800.0		359.27	12,075.0	4,289.9	257.6	668,241.69	839,599.38	32° 49' 59.719 N	103° 21' 44.266 W
16,900.0 17,000.0		359.27 359.27	12,075.0 12,075.0	4,389.9 4,489.9	256.3 255.0	668,341.68 668,441.68	839,598.11 839,596.84	32° 50' 0.709 N 32° 50' 1.698 N	103° 21' 44.270 W 103° 21' 44.274 W
17,000.0		359.27	12,075.0	4,469.9 4,589.8	253.0	668,541.67	839,595.57	32° 50' 2.687 N	103° 21' 44.274 W
17,100.0		359.27	12,075.0	4,689.8	252.5	668,641.66	839,594.30	32° 50' 3.677 N	103° 21' 44.282 W
17,300.0		359.27	12,075.0	4,789.8	251.2	668,741.65	839,593.03	32° 50' 4.666 N	103° 21' 44.287 W
17,400.0		359.27	12,075.0	4,889.8	249.9	668,841.65	839,591.76	32° 50' 5.656 N	103° 21' 44.291 W
17,500.0		359.27	12,075.0	4,989.8	248.7	668,941.64	839,590.49	32° 50' 6.645 N	103° 21' 44.295 W
17,600.0		359.27	12,075.0	5,089.8	247.4	669,041.63	839,589.22	32° 50' 7.634 N	103° 21' 44.299 W
17,700.0	90.00	359.27	12,075.0	5,189.8	246.1	669,141.63	839,587.95	32° 50' 8.624 N	103° 21' 44.303 W
17,800.0	90.00	359.27	12,075.0	5,289.8	244.9	669,241.62	839,586.68	32° 50' 9.613 N	103° 21' 44.307 W
17,900.0	90.00	359.27	12,075.0	5,389.8	243.6	669,341.61	839,585.40	32° 50' 10.603 N	103° 21' 44.311 W
18,000.0		359.27	12,075.0	5,489.8	242.3	669,441.61	839,584.13	32° 50' 11.592 N	103° 21' 44.315 W
18,100.0		359.27	12,075.0	5,589.8	241.1	669,541.60	839,582.86	32° 50' 12.582 N	103° 21' 44.320 W
18,200.0		359.27	12,075.0	5,689.8	239.8	669,641.59	839,581.59	32° 50' 13.571 N	103° 21' 44.324 W
18,300.0		359.27	12,075.0	5,789.7	238.5	669,741.58	839,580.32	32° 50' 14.560 N	103° 21' 44.328 W
18,400.0		359.27	12,075.0	5,889.7	237.2	669,841.58	839,579.05	32° 50' 15.550 N	103° 21' 44.332 W
18,500.0		359.27	12,075.0	5,989.7	236.0	669,941.57	839,577.78	32° 50' 16.539 N	103° 21' 44.336 W
18,600.0 18,700.0		359.27 359.27	12,075.0 12,075.0	6,089.7 6,189.7	234.7 233.4	670,041.56 670,141.56	839,576.51 839,575.24	32° 50' 17.529 N 32° 50' 18.518 N	103° 21' 44.340 W 103° 21' 44.344 W
18,800.0		359.27	12,075.0	6,289.7	233.4	670,241.55	839,573.97	32° 50' 19.507 N	103° 21' 44.344 W
18,900.0		359.27	12,075.0	6,389.7	230.9	670,341.54	839,572.70	32° 50' 19.507 N 32° 50' 20.497 N	103° 21' 44.353 W
19,000.0		359.27	12,075.0	6,489.7	229.6	670,441.54	839,571.42	32° 50' 21.486 N	103° 21' 44.357 W
19,100.0		359.27	12,075.0	6,589.7	228.3	670,541.53	839,570.15	32° 50' 22.476 N	103° 21' 44.361 W
19,200.0		359.27	12,075.0	6,689.7	227.1	670,641.52	839,568.88	32° 50' 23.465 N	103° 21' 44.365 W
19,300.0		359.27	12,075.0	6,789.7	225.8	670,741.51	839,567.61	32° 50' 24.455 N	103° 21' 44.369 W
19,400.0	90.00	359.27	12,075.0	6,889.7	224.5	670,841.51	839,566.34	32° 50' 25.444 N	103° 21' 44.373 W
19,500.0		359.27	12,075.0	6,989.6	223.3	670,941.50	839,565.07	32° 50' 26.433 N	103° 21' 44.377 W
19,600.0	90.00	359.27	12,075.0	7,089.6	222.0	671,041.49	839,563.80	32° 50' 27.423 N	103° 21' 44.381 W
19,700.0		359.27	12,075.0	7,189.6	220.7	671,141.48	839,562.53	32° 50' 28.412 N	103° 21' 44.386 W
19,800.0		359.27	12,075.0	7,289.6	219.4	671,241.47	839,561.26	32° 50' 29.402 N	103° 21' 44.390 W
19,900.0		359.27	12,075.0	7,389.6	218.2	671,341.46	839,559.99	32° 50' 30.391 N	103° 21' 44.394 W
20,000.0		359.27	12,075.0	7,489.6	216.9	671,441.46	839,558.72	32° 50' 31.380 N	103° 21' 44.398 W
20,100.0		359.27	12,075.0	7,589.6	215.6	671,541.45	839,557.45	32° 50' 32.370 N	103° 21' 44.402 W
20,200.0		359.27	12,075.0	7,689.6	214.4	671,641.44	839,556.17	32° 50' 33.359 N	103° 21' 44.406 W
20,300.0		359.27	12,075.0	7,789.6	213.1	671,741.43	839,554.90	32° 50' 34.349 N	103° 21' 44.410 W
20,400.0 20,500.0		359.27	12,075.0	7,889.6 7,989.6	211.8	671,841.43 671,941.42	839,553.63 839,552.36	32° 50' 35.338 N	103° 21' 44.414 W
20,500.0	90.00	359.27	12,075.0	1,309.0	210.6	071,941.42	039,332.30	32° 50' 36.327 N	103° 21' 44.419 W

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Database:	EDM16	Local Co-ordinate Reference:	Well Vindicator Canyon State #418H
Company:	BTA Oil Producers, LLC	TVD Reference:	GL @ 3875.0usft
Project:	Lea County, NM (NAD 83)	MD Reference:	GL @ 3875.0usft
Site:	Vindicator Canyon State	North Reference:	Grid
Well:	Vindicator Canyon State #418H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1	-	
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
	.,	••			. ,				-
20,600.0		359.27	12,075.0	8,089.6	209.3	672,041.41	839,551.09	32° 50' 37.317 N	103° 21' 44.423 W
20,700.0		359.27	12,075.0	8,189.6	208.0	672,141.41	839,549.82	32° 50' 38.306 N	103° 21' 44.427 W
20,800.0		359.27	12,075.0	8,289.5	206.7	672,241.40	839,548.55	32° 50' 39.296 N	103° 21' 44.431 W
20,900.0		359.27	12,075.0	8,389.5	205.5	672,341.39	839,547.28	32° 50' 40.285 N	103° 21' 44.435 W
21,000.0		359.27	12,075.0	8,489.5	204.2	672,441.39	839,546.01	32° 50' 41.275 N	103° 21' 44.439 W
21,100.0		359.27	12,075.0	8,589.5	202.9	672,541.38	839,544.74	32° 50' 42.264 N	103° 21' 44.443 W
21,200.0	90.00	359.27	12,075.0	8,689.5	201.7	672,641.37	839,543.47	32° 50' 43.253 N	103° 21' 44.447 W
21,300.0	90.00	359.27	12,075.0	8,789.5	200.4	672,741.36	839,542.19	32° 50' 44.243 N	103° 21' 44.452 W
21,400.0	90.00	359.27	12,075.0	8,889.5	199.1	672,841.36	839,540.92	32° 50' 45.232 N	103° 21' 44.456 W
21,500.0	90.00	359.27	12,075.0	8,989.5	197.8	672,941.35	839,539.65	32° 50' 46.222 N	103° 21' 44.460 W
21,600.0	90.00	359.27	12,075.0	9,089.5	196.6	673,041.34	839,538.38	32° 50' 47.211 N	103° 21' 44.464 W
21,700.0	90.00	359.27	12,075.0	9,189.5	195.3	673,141.34	839,537.11	32° 50' 48.200 N	103° 21' 44.468 W
21,800.0	90.00	359.27	12,075.0	9,289.5	194.0	673,241.33	839,535.84	32° 50' 49.190 N	103° 21' 44.472 W
21,900.0	90.00	359.27	12,075.0	9,389.5	192.8	673,341.32	839,534.57	32° 50' 50.179 N	103° 21' 44.476 W
22,000.0	90.00	359.27	12,075.0	9,489.4	191.5	673,441.32	839,533.30	32° 50' 51.169 N	103° 21' 44.480 W
22,100.0	90.00	359.27	12,075.0	9,589.4	190.2	673,541.31	839,532.03	32° 50' 52.158 N	103° 21' 44.484 W
22,200.0	90.00	359.27	12,075.0	9,689.4	188.9	673,641.30	839,530.76	32° 50' 53.147 N	103° 21' 44.489 W
22,300.0	90.00	359.27	12,075.0	9,789.4	187.7	673,741.29	839,529.49	32° 50' 54.137 N	103° 21' 44.493 W
22,400.0	90.00	359.27	12,075.0	9,889.4	186.4	673,841.29	839,528.22	32° 50' 55.126 N	103° 21' 44.497 W
22,500.0	90.00	359.27	12,075.0	9,989.4	185.1	673,941.28	839,526.94	32° 50' 56.116 N	103° 21' 44.501 W
22,600.0		359.27	12,075.0	10,089.4	183.9	674,041.27	839,525.67	32° 50' 57.105 N	103° 21' 44.505 W
22,648.4		359.27	12,075.0	10,137.8	183.2	674,089.63	839,525.06	32° 50' 57.584 N	103° 21' 44.507 W
TD at 2	2648.4								

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
Vindicator 418H BHL - plan hits target o - Point	0.00 center	0.00	12,075.0	10,137.8	183.2	674,089.63	839,525.06	32° 50' 57.584 N	103° 21' 44.507 W

Plan Annotations

Measured	Vertical	Local Coor	dinates		
Depth (usft)	Depth (usft)	+N/-S (usft)	+E/-W (usft)	Comment	
5,531.7	5,531.7	0.0	0.0	Start Build 2.00	
6,031.7	6,029.2	-38.7	19.9	Start 3526.9 hold at 6031.7 MD	
9,558.7	9,502.5	-583.3	300.1	Start Drop -2.00	
10,058.7	10,000.0	-622.0	320.0	Start 1502.0 hold at 10058.7 MD	
11,560.7	11,502.0	-622.0	320.0	Start Build 10.00	
12,460.7	12,075.0	-49.1	312.7	Start 10187.7 hold at 12460.7 MD	
22,648.4	12,075.0	10,137.8	183.2	TD at 22648.4	

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<u>C-102</u>

Submit Electronically Via OCD Permitting

Email Address

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

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					WELL LOCATIO	N INFORMATION			
API Number			Pool Code			Pool Name			
				-	98333]	WC-025 G-09 S173615C; UI			
Property Code Property N								Well Number	
					/INDICATOR CANY	ON STATE UNIT COM		418H	
OGRID No. Operator N				ime				Ground Level Elevation	
260297 Surface Owner: State X Fee T					BTA OIL PRO	· · · · · · · · · · · · · · · · · · ·		3875'	
Surfac	e Owner:	State X	Fee Tr	ibal 🔄	Federal	Mineral Owner: X State Fee Tribal Federal			
						Location			
UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude (NAD83)	Longitude (NAD83)	County
F	21	17S	36E		2250' FNL	1495' FWL	32.82147208	-103.36326277	LEA
Bottom Hole Location									
UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude (NAD83)	Longitude (NAD83)	County
Κ	09	17S	36E		2605' FSL	1815' FWL	32.84932876	-103.36236307	LEA
			•			•		•	
Dedicated Acres Infill or Definin			ng Well Defining Well API			Overlapping Spacing Unit (Y/N)		Consolidation Code	
320.00		Defining				N		Р	
			>	Well setbacks are under Common Ownersh			p: Yes No		
UL	Section	Township	Range	Lot	Kick Off P Ft. from N/S	Point (KOP) Ft. from E/W	Latitude (NAD83)	Longitude (NAD83)	County
K	21	17S	36E	Lot	2140' FSL	1815' FWL	32.81897728	-103.36222263	LEA
К	21	1/5	30E		2140 FSL	1013 F WL	32.81897728	-103.30222203	LEA
First Take Point (FTP)									
UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude (NAD83)	Longitude (NAD83)	County
F	21	17S	36E		2518' FNL	1815' FWL	32.82074136	-103.36220950	LEA
					Last Take	Point (LTP)			
UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude (NAD83)	Longitude (NAD83)	County
Κ	09	17S	36E		2555' FSL	1815' FWL	32.84919134	-103.36236282	LEA
			•	1		•	-	•	
Unitized Area or Area of Uniform Interest						Ground Floor Elevation			
Pending				Spacin	ng Unit Type: 🛛 🗙 Horiz	ontal Vertical		3875'	
	1 enamg							00,0	
						1			
OPERATOR CERTIFICATIONS						SURVEYOR CERTIFICATIONS			
I hereby certify that the information contained herein is true and complete to the best of my						I hereby certify that the well location shown on this plat was plotted from field notes of			
knowledge and belief, and, if the well is a vertical or directional well, that this organization either owns a working interest or unleased mineral interest in the land including the						actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.			
					t this location pursuant to a	\sim			
contract with an owner of a working interest or unleased mineral interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.						JOHN M RUSSEL			
If this well is a horizontal well, I further certify that this organization has received the									
consent of at least one lessee or owner of a working interest or unleased mineral interest in									
each tract (in the target pool or formation) in which any part of the well's completed interval will be located or obtained a compulsory pooling order from the division.									
Y. Xalara									
Signature Date									
Liz Velasco									
Printed Name									
lve	lasco@bta	aoil.com				Signature and Seal of Professional Surveyor			

Released to Imaging will will be added to this Umpletion until all interests have been consolidated or a non-standard unit has been approved by the division.

Certificate Number

29049

Date of Survey

FEBRUARY 24, 2025

ACREAGE DEDICATION PLATS VINDICATOR CANYON STATE UNIT COM 418H

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Distances/areas relative to NAD 83 grid measurements. Combined Scale Factor: 0.99981955 and a Convergence Angle: 0.50466944°