

State of New Mexico
Energy, Minerals and Natural Resources Department

Michelle Lujan Grisham
Governor

Sarah Cottrell Propst
Cabinet Secretary

Todd E. Leahy, JD, PhD
Deputy Secretary

Adrienne Sandoval, Division Director
Oil Conservation Division



4/8/2020

**Operator Notice Regarding
C-104 Denial and Request for Information**

OCD is providing notice to operators that it will deny your C-104 – *Request for Allowable and Authorization to Transport* if it fails to provide complete and accurate information, including:

30-015-45945

Test Allowable, New Well and Recompleted Well

Amend C-104, see attached

- ☐ C-103 (or BLM equivalent) for all casing strings
 - ☐ Spud Notice
 - ☐ Surface Casing
 - ☐ Intermediate Casing (if applicable)
 - ☐ Additional Intermediate Casing (if applicable)
 - ☒ Production Casing or Liner Missing TD reached, and Date.
- ☐ Applicable Order (NSL, NSP, Other _____)
- ☐ Deviation Survey for Vertical Wells
- ☐ Directional Survey

☒ C-102 (As-Drilled Plat for Horizontal Well) Is C-102 AS-DRILLED? If so, mark it.

New Well and Recompleted Well Only

- ☒ C-103 Completion Sundry (or BLM equivalent) Amend C-103 by adding PBTD and date. Currently in well files.
- ☒ C-105 Completion Report (or BLM equivalent) Amend C-105

☒ All Logs Run on Well All logs ran? If so, electronically submit them via e docs.

The sale or transport of product without an approved C-104 violates the Oil and Gas Act and the implementing rules, including 19.15.7.15 and 19.15.16.19 NMAC. If OCD determines that your C-104 is incomplete or inaccurate, it will give you notice to resubmit your C-104 within 30 days. Failure to comply with this notice may result in enforcement action.

Once C-104 and attachments are amended and complete, please submit electronically via e docs
If you have any questions, please contact the local OCD District Office.

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources

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

RECEIVED

MAR 04 2020

Submit one copy to appropriate District Office

EMNRD-OCDARTESIA

Form C-104
Revised August 1, 2011

AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

¹ Operator name and Address BTA OIL PRODUCERS, LLC		² OGRID Number 260297
		³ Reason for Filing Code/ Effective Date
⁴ API Number 30 -015-45945	⁵ Pool Name PURPLE SAGE (WOLFCAMP)	⁶ Pool Code 98820
⁷ Property Code 325477	⁸ Property Name PARDUE 8808	⁹ Well Number 4H

II. 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	11	23S	28E		220	NORTH	1125	WEST	EDDY

¹¹ Bottom Hole Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	11	23S	28E		46.9	SOUTH	2298.8	WEST	EDDY
¹² Lse Code 325477	¹³ Producing Method Code F	¹⁴ Gas Connection Date 2/14/2020	¹⁵ C-129 Permit Number	¹⁶ C-129 Effective Date	¹⁷ C-129 Expiration Date				

III. Oil and Gas Transporters

¹⁸ Transporter OGRID	¹⁹ Transporter Name and Address	²⁰ O/G/W
214984	PLAINS MARKETING LP P O BOX 4648 HOUSTON, TX 77210-4648	O
	SENDERO CARLSBAD MIDSTREAM, LLC 1000 LOUISIANA AVE., SUITE 6900 HOUSTON, TX. 77002	G

IV. Well Completion Data

²¹ Spud Date 7/30/2019	²² Ready Date 1/6/2020	²³ TD 14,660'	²⁴ PBTD	²⁵ Perforations 9,780-14,370	²⁶ DHC, MC
²⁷ Hole Size	²⁸ Casing & Tubing Size	²⁹ Depth Set	³⁰ Sacks Cement		
17 1/2"	13 3/8"	535'	425		
12 1/4"	9 5/8"	2,618'	800		
8 3/4"	7"	9,966'	705		
6 1/8"	4 1/2"	9,187-14,657	370		

V. Well Test Data

³¹ Date New Oil 1/06/2020	³² Gas Delivery Date 1/08/2020	³³ Test Date 1/10/2020	³⁴ Test Length 24 hour	³⁵ Tbg. Pressure 2250	³⁶ Csg. Pressure 2100
³⁷ Choke Size 34/64	³⁸ Oil 1230	³⁹ Water 3022	⁴⁰ Gas 3014	2400	⁴¹ Test Method FLOWING

⁴² I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.
Signature:

Katy Reddell

Printed name:
KATY REDDELL

REGULATORY ANALYST

E-mail Address: Kredell@btaoil

Date: 2/28/2020

Phone:
432-682-3753

Approved by:

Title:

Approval Date:

OIL CONSERVATION DIVISION

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

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

DISTRICT III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170

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

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

RECEIVED

MAR 04 2020

EMNRD-OCD ARTESIA

Form C-102

Revised August 1, 2011

Submit one copy to appropriate District Office

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-015-45945	Pool Code 98820	Pool Name PURPLE SAGE (WOLFCAMP)
Property Code 325477	Property Name PARDUE 8808	Well Number 4H
OGRID No. 260297	Operator Name BTA OIL PRODUCERS, LLC	Elevation 2996'

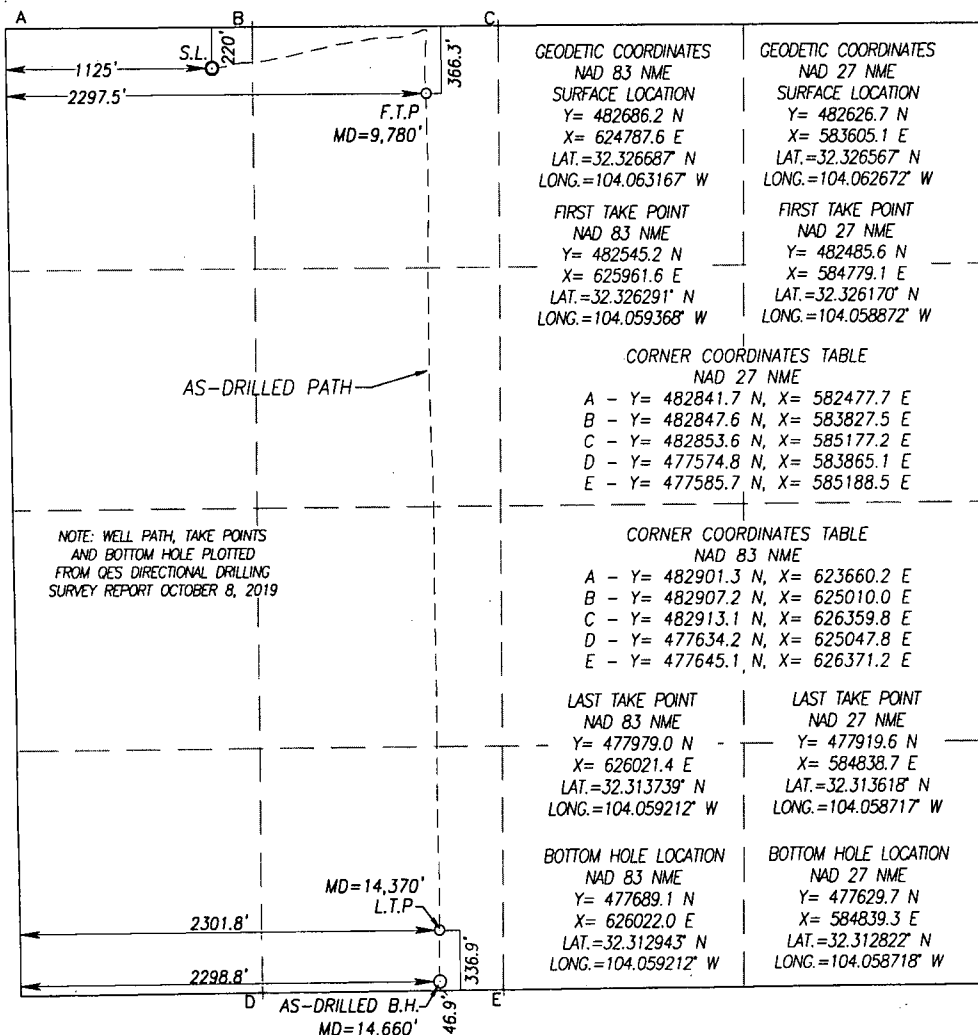
Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	11	23-S	28-E		220	NORTH	1125	WEST	EDDY

AS- Drilled 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
N	11	23-S	28-E		46.9	SOUTH	2298.8	WEST	EDDY
Dedicated Acres 320	Joint or Infill	Consolidation Code	Order No.						

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



OPERATOR CERTIFICATION

I hereby certify that the information 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 mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Katy Reddell 03/02/2020

Signature

Date

KATY REDDELL

Printed Name

kraddell@btaoil.com

E-mail Address

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.

FEBRUARY 26, 2019

Date of Survey
Signature of Professional Surveyor:

RONALD J. EIDSON
NEW MEXICO
REGISTERED SURVEYOR
3239

Certificate Number
Ronald J. Eidson 12641
Ronald J. Eidson 3239

LSL REL.19.11.0215

JWSC W.O.: 20.13.0011

Intent ☐ As Drilled ☒

API #
30-015-45945

Operator Name:
BTA OIL PRODUCERS, LLC

Property Name:
PARDUE 8808

Well Number
4H

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
D	11	23S	28E		220	N	1125	W	EDDY
Latitude					Longitude				NAD
32.326687					104.063361				83

First Take Point (FTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
D	11	23S	28E		366	N	2297.5	W	EDDY
Latitude					Longitude				NAD
32.326291					104.059368				83

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
M	11	23S	28E		336.9	S	2301.8	W	EDDY
Latitude					Longitude				NAD
32.312943					104.059212				83

Is this well the defining well for the Horizontal Spacing Unit?

☐ NO

Is this well an infill well?

☐ YES

If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

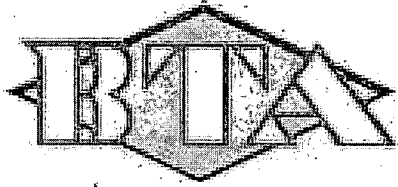
API #
30-015-45942

Operator Name:
BTA OIL PRODUCERS LLC

Property Name:
PARDUE 8808

Well Number
1H

KZ 06/29/2018



RECEIVED

MAR 04 2020

EMNRD-OCDARTESIA

BTA Oil Producers, LLC

Eddy County, New Mexico (NAD 83)

Sec 11, T23-S, R28-E

Pardue 8808 #4H

Wellbore #1

Design: Wellbore #1

Survey Report - Geographic

08 October, 2019





QES
Survey Report - Geographic



Company:	BTA Oil Producers, LLC	Local Co-ordinate Reference:	Well Pardue 8808 #4H
Project:	Eddy County, New Mexico (NAD 83)	TVD Reference:	WELL @ 3021.0usft (Patterson #597)
Site:	Sec 11, T23-S, R28-E	MD Reference:	WELL @ 3021.0usft (Patterson #597)
Well:	Pardue 8808 #4H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Project:	Eddy County, New Mexico (NAD 83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site:	Sec 11, T23-S, R28-E		
Site Position:		Northing:	482,685.90 usft
From:	Map	Easting:	624,697.70 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 19' 36.073 N
		Longitude:	104° 3' 48.450 W
		Grid Convergence:	0.14 °

Well:	Pardue 8808 #4H		
Well Position	+N/-S	0.0 usft	Northing:
	+E/-W	0.0 usft	Easting:
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft
		Latitude:	32° 19' 36.074 N
		Longitude:	104° 3' 47.402 W
		Ground Level:	2,996.0 usft

Wellbore:	Wellbore #1		
Magnetics	Model Name	Sample Date	Declination
			(°)
	HDGM	9/30/2019	7.08
			Dip Angle
			(°)
			60.05
			Field Strength
			(nT)
			47,881.60000000

Design:	Wellbore #1		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.0	0.0	0.0
			Direction
			(°)
			166.10

Survey Program	Date 10/8/2019		
From	To	Survey (Wellbore)	Tool Name
(usft)	(usft)		
145.0	14,660.0	QES MWD Surveys (Wellbore #1)	OWSG (Rev2) MWD
			Description
			OWSG MWD - Standard

Survey										
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Map	Map			
Depth	(°)	(°)	Depth	(usft)	(usft)	Northing	Easting	Latitude	Longitude	
(usft)			(usft)			(usft)	(usft)			
0.0	0.00	0.00	0.0	0.0	0.0	482,686.20	624,787.60	32° 19' 36.074 N	104° 3' 47.402 W	
145.0	2.00	86.20	145.0	0.2	2.5	482,686.37	624,790.13	32° 19' 36.076 N	104° 3' 47.373 W	
First MWD Survey @ 145.0' MD / 145.0' TVD										
234.0	1.80	94.50	233.9	0.2	5.5	482,686.36	624,793.07	32° 19' 36.076 N	104° 3' 47.338 W	
323.0	1.40	106.40	322.9	-0.3	7.9	482,685.95	624,795.51	32° 19' 36.071 N	104° 3' 47.310 W	
412.0	1.30	128.20	411.9	-1.2	9.7	482,685.01	624,797.34	32° 19' 36.062 N	104° 3' 47.288 W	
504.0	1.30	165.00	503.8	-2.8	10.8	482,683.36	624,798.44	32° 19' 36.046 N	104° 3' 47.276 W	
544.0	1.40	165.10	543.8	-3.8	11.1	482,682.45	624,798.68	32° 19' 36.037 N	104° 3' 47.273 W	
633.0	1.80	83.00	632.8	-4.6	12.7	482,681.57	624,800.35	32° 19' 36.028 N	104° 3' 47.254 W	
695.0	3.70	67.90	694.7	-3.8	15.6	482,682.44	624,803.17	32° 19' 36.037 N	104° 3' 47.221 W	
790.0	5.80	67.40	789.4	-0.8	22.8	482,685.44	624,810.44	32° 19' 36.066 N	104° 3' 47.136 W	
883.0	7.70	80.20	881.8	2.1	33.3	482,688.31	624,820.92	32° 19' 36.094 N	104° 3' 47.014 W	



QES
Survey Report - Geographic



Company:	BTA Oil Producers, LLC	Local Co-ordinate Reference:	Well Pardue 8808 #4H
Project:	Eddy County, New Mexico (NAD 83)	TVD Reference:	WELL @ 3021.0usft (Patterson #597)
Site:	Sec 11, T23-S, R28-E	MD Reference:	WELL @ 3021.0usft (Patterson #597)
Well:	Pardue 8808 #4H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
978.0	8.50	84.30	975.8	3.9	46.6	482,690.09	624,834.18	32° 19' 36.111 N	104° 3' 46.859 W	
1,073.0	7.40	82.00	1,069.9	5.4	59.6	482,691.64	624,847.22	32° 19' 36.126 N	104° 3' 46.707 W	
1,167.0	9.10	77.20	1,162.9	7.9	72.9	482,694.12	624,860.46	32° 19' 36.151 N	104° 3' 46.553 W	
1,262.0	9.70	76.50	1,256.6	11.5	88.0	482,697.66	624,875.57	32° 19' 36.185 N	104° 3' 46.376 W	
1,356.0	8.80	76.20	1,349.4	15.0	102.7	482,701.22	624,890.26	32° 19' 36.220 N	104° 3' 46.205 W	
1,451.0	8.30	75.80	1,443.4	18.4	116.4	482,704.64	624,903.96	32° 19' 36.254 N	104° 3' 46.045 W	
1,546.0	7.40	76.00	1,537.5	21.6	128.9	482,707.80	624,916.54	32° 19' 36.285 N	104° 3' 45.899 W	
1,641.0	8.70	78.60	1,631.5	24.5	141.9	482,710.70	624,929.52	32° 19' 36.313 N	104° 3' 45.747 W	
1,736.0	9.30	80.60	1,725.4	27.2	156.5	482,713.37	624,944.14	32° 19' 36.339 N	104° 3' 45.577 W	
1,831.0	8.80	84.30	1,819.2	29.1	171.3	482,715.35	624,958.94	32° 19' 36.358 N	104° 3' 45.404 W	
1,926.0	8.40	89.90	1,913.1	29.9	185.5	482,716.08	624,973.11	32° 19' 36.365 N	104° 3' 45.239 W	
2,021.0	7.70	90.10	2,007.2	29.9	198.8	482,716.08	624,986.42	32° 19' 36.365 N	104° 3' 45.084 W	
2,116.0	8.80	84.80	2,101.2	30.5	212.4	482,716.73	625,000.02	32° 19' 36.371 N	104° 3' 44.925 W	
2,211.0	9.50	87.40	2,195.0	31.5	227.5	482,717.75	625,015.09	32° 19' 36.381 N	104° 3' 44.750 W	
2,306.0	8.90	90.60	2,288.8	31.8	242.7	482,718.02	625,030.27	32° 19' 36.383 N	104° 3' 44.573 W	
2,401.0	9.10	81.30	2,382.6	32.9	257.4	482,719.08	625,045.04	32° 19' 36.393 N	104° 3' 44.401 W	
2,496.0	8.70	79.50	2,476.5	35.3	271.9	482,721.53	625,059.54	32° 19' 36.417 N	104° 3' 44.232 W	
2,563.0	7.80	81.80	2,542.8	36.9	281.4	482,723.10	625,069.02	32° 19' 36.432 N	104° 3' 44.121 W	
2,664.0	8.90	77.40	2,642.7	39.6	295.8	482,725.78	625,083.43	32° 19' 36.458 N	104° 3' 43.953 W	
2,759.0	9.80	76.00	2,736.4	43.1	310.8	482,729.34	625,098.44	32° 19' 36.493 N	104° 3' 43.778 W	
2,854.0	10.60	77.60	2,829.9	47.0	327.2	482,733.17	625,114.82	32° 19' 36.531 N	104° 3' 43.587 W	
2,950.0	11.40	78.80	2,924.2	50.7	345.1	482,736.91	625,132.75	32° 19' 36.567 N	104° 3' 43.378 W	
3,045.0	12.00	79.20	3,017.2	54.4	364.1	482,740.59	625,151.66	32° 19' 36.603 N	104° 3' 43.157 W	
3,140.0	12.60	82.20	3,110.0	57.6	384.0	482,743.84	625,171.63	32° 19' 36.635 N	104° 3' 42.925 W	
3,235.0	12.90	84.10	3,202.7	60.1	404.8	482,746.34	625,192.45	32° 19' 36.659 N	104° 3' 42.682 W	
3,328.0	13.60	75.70	3,293.2	63.9	425.8	482,750.11	625,213.37	32° 19' 36.696 N	104° 3' 42.438 W	
3,423.0	14.40	74.10	3,385.4	69.9	448.0	482,756.10	625,235.55	32° 19' 36.755 N	104° 3' 42.179 W	
3,517.0	12.10	74.60	3,476.9	75.7	468.7	482,761.92	625,256.30	32° 19' 36.812 N	104° 3' 41.937 W	
3,612.0	11.60	75.80	3,569.8	80.7	487.6	482,766.91	625,275.16	32° 19' 36.861 N	104° 3' 41.717 W	
3,707.0	12.00	76.70	3,662.8	85.3	506.4	482,771.53	625,294.03	32° 19' 36.906 N	104° 3' 41.497 W	
3,801.0	12.60	78.50	3,754.7	89.6	526.0	482,775.82	625,313.58	32° 19' 36.948 N	104° 3' 41.269 W	
3,896.0	13.50	78.60	3,847.2	93.9	547.0	482,780.08	625,334.61	32° 19' 36.989 N	104° 3' 41.024 W	
3,991.0	11.80	75.70	3,939.9	98.5	567.3	482,784.67	625,354.89	32° 19' 37.034 N	104° 3' 40.787 W	
4,086.0	12.00	75.10	4,032.9	103.4	586.2	482,789.61	625,373.85	32° 19' 37.083 N	104° 3' 40.566 W	
4,181.0	12.00	76.40	4,125.8	108.3	605.4	482,794.47	625,392.99	32° 19' 37.130 N	104° 3' 40.343 W	
4,276.0	12.80	78.10	4,218.6	112.8	625.3	482,798.96	625,412.89	32° 19' 37.174 N	104° 3' 40.111 W	
4,372.0	12.10	77.90	4,312.3	117.1	645.5	482,803.26	625,433.13	32° 19' 37.216 N	104° 3' 39.875 W	
4,466.0	12.50	78.10	4,404.2	121.2	665.1	482,807.42	625,452.72	32° 19' 37.257 N	104° 3' 39.647 W	
4,561.0	13.40	78.30	4,496.7	125.6	686.0	482,811.78	625,473.56	32° 19' 37.300 N	104° 3' 39.404 W	
4,656.0	11.60	78.50	4,589.5	129.7	706.1	482,815.91	625,493.70	32° 19' 37.340 N	104° 3' 39.169 W	
4,750.0	11.50	79.20	4,681.6	133.4	724.6	482,819.55	625,512.16	32° 19' 37.376 N	104° 3' 38.953 W	
4,845.0	11.30	80.20	4,774.7	136.7	743.0	482,822.91	625,530.64	32° 19' 37.408 N	104° 3' 38.738 W	
4,941.0	11.30	82.00	4,868.9	139.6	761.6	482,825.82	625,549.22	32° 19' 37.437 N	104° 3' 38.521 W	
5,034.0	11.60	83.40	4,960.0	142.0	779.9	482,828.16	625,567.53	32° 19' 37.459 N	104° 3' 38.308 W	
5,128.0	11.90	84.60	5,052.0	144.0	799.0	482,830.16	625,586.57	32° 19' 37.479 N	104° 3' 38.086 W	
5,223.0	9.70	78.30	5,145.3	146.5	816.6	482,832.71	625,604.16	32° 19' 37.503 N	104° 3' 37.881 W	
5,318.0	9.40	78.30	5,239.0	149.7	832.0	482,835.90	625,619.59	32° 19' 37.535 N	104° 3' 37.701 W	
5,412.0	9.10	79.50	5,331.8	152.6	846.8	482,838.82	625,634.42	32° 19' 37.563 N	104° 3' 37.528 W	
5,507.0	9.00	80.40	5,425.6	155.2	861.5	482,841.42	625,649.13	32° 19' 37.589 N	104° 3' 37.357 W	
5,600.0	8.40	81.80	5,517.6	157.4	875.4	482,843.61	625,663.03	32° 19' 37.610 N	104° 3' 37.194 W	
5,695.0	8.50	83.90	5,611.5	159.1	889.3	482,845.34	625,676.88	32° 19' 37.627 N	104° 3' 37.033 W	
5,789.0	8.50	85.00	5,704.5	160.5	903.1	482,846.69	625,690.70	32° 19' 37.640 N	104° 3' 36.872 W	
5,883.0	8.40	87.40	5,797.5	161.4	916.9	482,847.60	625,704.48	32° 19' 37.648 N	104° 3' 36.711 W	
5,978.0	8.50	89.40	5,891.4	161.8	930.8	482,847.99	625,718.44	32° 19' 37.652 N	104° 3' 36.549 W	
6,073.0	8.40	90.60	5,985.4	161.8	944.8	482,847.99	625,732.40	32° 19' 37.651 N	104° 3' 36.386 W	



QES
Survey Report - Geographic



Company:	BTA Oil Producers, LLC	Local Co-ordinate Reference:	Well Pardue 8808 #4H
Project:	Eddy County, New Mexico (NAD 83)	TVD Reference:	WELL @ 3021.0usft (Patterson #597)
Site:	Sec 11, T23-S, R28-E	MD Reference:	WELL @ 3021.0usft (Patterson #597)
Well:	Pardue 8808 #4H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
6,167.0	8.40	84.80	6,078.4	162.3	958.5	482,848.54	625,746.10	32° 19' 37.657 N	104° 3' 36.226 W
6,262.0	8.50	84.10	6,172.4	163.7	972.4	482,849.89	625,759.99	32° 19' 37.670 N	104° 3' 36.064 W
6,357.0	7.80	84.40	6,266.4	165.0	985.8	482,851.24	625,773.39	32° 19' 37.683 N	104° 3' 35.908 W
6,452.0	6.80	86.90	6,360.6	166.0	997.8	482,852.18	625,785.42	32° 19' 37.692 N	104° 3' 35.768 W
6,547.0	6.00	89.00	6,455.0	166.4	1,008.4	482,852.57	625,796.01	32° 19' 37.695 N	104° 3' 35.644 W
6,642.0	4.60	94.60	6,549.6	166.1	1,017.2	482,852.35	625,804.77	32° 19' 37.693 N	104° 3' 35.542 W
6,737.0	5.70	83.90	6,644.3	166.3	1,025.7	482,852.54	625,813.26	32° 19' 37.694 N	104° 3' 35.443 W
6,832.0	5.70	83.40	6,738.8	167.4	1,035.0	482,853.59	625,822.63	32° 19' 37.705 N	104° 3' 35.334 W
6,927.0	6.90	80.20	6,833.2	168.9	1,045.3	482,855.10	625,832.94	32° 19' 37.719 N	104° 3' 35.214 W
7,022.0	4.90	77.80	6,927.7	170.7	1,054.9	482,856.93	625,842.53	32° 19' 37.737 N	104° 3' 35.102 W
7,116.0	5.90	69.00	7,021.3	173.3	1,063.4	482,859.51	625,850.97	32° 19' 37.762 N	104° 3' 35.004 W
7,211.0	6.20	67.90	7,115.8	177.0	1,072.7	482,863.19	625,860.28	32° 19' 37.799 N	104° 3' 34.895 W
7,306.0	6.50	73.90	7,210.2	180.4	1,082.6	482,866.61	625,870.20	32° 19' 37.832 N	104° 3' 34.779 W
7,400.0	6.10	82.30	7,303.6	182.6	1,092.7	482,868.76	625,880.26	32° 19' 37.853 N	104° 3' 34.662 W
7,495.0	6.90	73.50	7,398.0	184.9	1,103.1	482,871.05	625,890.73	32° 19' 37.876 N	104° 3' 34.540 W
7,587.0	6.80	71.30	7,489.3	188.2	1,113.6	482,874.37	625,901.19	32° 19' 37.908 N	104° 3' 34.418 W
7,682.0	5.80	77.10	7,583.8	191.0	1,123.6	482,877.24	625,911.20	32° 19' 37.936 N	104° 3' 34.301 W
7,778.0	5.80	67.60	7,679.3	194.0	1,132.8	482,880.17	625,920.41	32° 19' 37.965 N	104° 3' 34.194 W
7,873.0	5.00	59.70	7,773.9	197.9	1,140.8	482,884.09	625,928.42	32° 19' 38.004 N	104° 3' 34.100 W
7,968.0	4.40	62.60	7,868.5	201.7	1,147.6	482,887.86	625,935.23	32° 19' 38.041 N	104° 3' 34.021 W
8,063.0	4.70	75.50	7,963.2	204.3	1,154.6	482,890.51	625,942.24	32° 19' 38.067 N	104° 3' 33.939 W
8,157.0	3.70	83.20	8,057.0	205.6	1,161.4	482,891.83	625,948.98	32° 19' 38.080 N	104° 3' 33.860 W
8,252.0	1.90	90.60	8,151.9	206.0	1,166.0	482,892.18	625,953.60	32° 19' 38.083 N	104° 3' 33.807 W
8,347.0	2.00	105.00	8,246.8	205.5	1,169.2	482,891.73	625,956.77	32° 19' 38.079 N	104° 3' 33.770 W
8,442.0	2.40	69.90	8,341.8	205.8	1,172.6	482,891.99	625,960.24	32° 19' 38.081 N	104° 3' 33.729 W
8,537.0	1.30	81.80	8,436.7	206.6	1,175.6	482,892.83	625,963.18	32° 19' 38.089 N	104° 3' 33.695 W
8,631.0	1.00	121.70	8,530.7	206.3	1,177.3	482,892.55	625,964.93	32° 19' 38.086 N	104° 3' 33.674 W
8,727.0	1.40	138.80	8,626.7	205.0	1,178.8	482,891.22	625,966.42	32° 19' 38.073 N	104° 3' 33.657 W
8,822.0	1.80	141.40	8,721.6	203.0	1,180.5	482,889.19	625,968.11	32° 19' 38.053 N	104° 3' 33.637 W
8,916.0	2.10	165.00	8,815.6	200.2	1,181.9	482,886.37	625,969.48	32° 19' 38.025 N	104° 3' 33.622 W
9,010.0	2.30	176.40	8,909.5	196.6	1,182.4	482,882.82	625,970.04	32° 19' 37.990 N	104° 3' 33.615 W
9,106.0	2.30	189.20	9,005.4	192.8	1,182.3	482,879.00	625,969.86	32° 19' 37.952 N	104° 3' 33.617 W
9,145.0	2.20	192.20	9,044.4	191.3	1,182.0	482,877.49	625,969.57	32° 19' 37.937 N	104° 3' 33.621 W
9,227.0	5.30	188.70	9,126.2	186.0	1,181.1	482,872.21	625,968.67	32° 19' 37.885 N	104° 3' 33.631 W
9,322.0	20.50	186.90	9,218.5	165.0	1,178.4	482,851.24	625,965.99	32° 19' 37.678 N	104° 3' 33.663 W
9,417.0	29.40	184.30	9,304.6	125.2	1,174.6	482,811.39	625,962.23	32° 19' 37.283 N	104° 3' 33.708 W
9,510.0	42.00	181.70	9,380.0	71.1	1,172.0	482,757.30	625,959.59	32° 19' 36.748 N	104° 3' 33.741 W
9,606.0	48.90	181.50	9,447.3	2.8	1,170.1	482,688.96	625,957.69	32° 19' 36.072 N	104° 3' 33.765 W
9,695.0	55.80	177.60	9,501.6	-67.6	1,170.7	482,618.56	625,958.35	32° 19' 35.375 N	104° 3' 33.759 W
9,739.2	59.53	176.55	9,525.3	-104.9	1,172.7	482,581.27	625,960.26	32° 19' 35.006 N	104° 3' 33.738 W
330' HL Crossed @ 9739.2' MD / 9525.3' TVD									
9,746.0	60.10	176.40	9,528.7	-110.8	1,173.0	482,575.41	625,960.62	32° 19' 34.948 N	104° 3' 33.734 W
9,840.0	66.40	178.80	9,571.0	-194.6	1,176.5	482,491.59	625,964.09	32° 19' 34.119 N	104° 3' 33.696 W
9,934.0	69.90	179.40	9,606.0	-281.8	1,177.8	482,404.37	625,965.45	32° 19' 33.256 N	104° 3' 33.683 W
10,029.0	73.40	178.30	9,635.9	-372.0	1,179.7	482,314.23	625,967.27	32° 19' 32.364 N	104° 3' 33.664 W
10,123.0	84.70	178.50	9,653.7	-464.1	1,182.2	482,222.13	625,969.84	32° 19' 31.452 N	104° 3' 33.637 W
10,217.0	88.30	179.00	9,659.4	-557.9	1,184.3	482,128.34	625,971.89	32° 19' 30.524 N	104° 3' 33.616 W
10,311.0	88.80	179.20	9,661.8	-651.8	1,185.8	482,034.38	625,973.36	32° 19' 29.594 N	104° 3' 33.602 W
10,405.0	92.00	180.10	9,661.1	-745.8	1,186.3	481,940.40	625,973.94	32° 19' 28.664 N	104° 3' 33.598 W
10,500.0	94.40	180.90	9,655.8	-840.6	1,185.5	481,845.56	625,973.11	32° 19' 27.725 N	104° 3' 33.610 W
10,595.0	91.50	181.70	9,651.0	-935.5	1,183.4	481,750.72	625,970.96	32° 19' 26.787 N	104° 3' 33.638 W
10,689.0	90.20	179.70	9,649.6	-1,029.5	1,182.2	481,656.74	625,969.81	32° 19' 25.857 N	104° 3' 33.654 W
10,783.0	88.50	179.40	9,650.6	-1,123.4	1,182.9	481,562.76	625,970.55	32° 19' 24.927 N	104° 3' 33.649 W
10,878.0	88.90	179.40	9,652.8	-1,218.4	1,183.9	481,467.79	625,971.54	32° 19' 23.987 N	104° 3' 33.640 W
10,972.0	90.00	179.70	9,653.7	-1,312.4	1,184.7	481,373.80	625,972.28	32° 19' 23.057 N	104° 3' 33.634 W



QES
Survey Report - Geographic



Company:	BTA Oil Producers, LLC	Local Co-ordinate Reference:	Well Pardue 8808 #4H
Project:	Eddy County, New Mexico (NAD 83)	TVD Reference:	WELL @ 3021.0usft (Patterson #597)
Site:	Sec 11, T23-S, R28-E	MD Reference:	WELL @ 3021.0usft (Patterson #597)
Well:	Pardue 8808 #4H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
11,066.0	90.60	179.70	9,653.2	-1,406.4	1,185.2	481,279.80	625,972.77	32° 19' 22.127 N	104° 3' 33.631 W	
11,161.0	90.90	179.50	9,651.9	-1,501.4	1,185.8	481,184.81	625,973.43	32° 19' 21.187 N	104° 3' 33.626 W	
11,255.0	88.40	179.20	9,652.5	-1,595.4	1,186.9	481,090.82	625,974.50	32° 19' 20.257 N	104° 3' 33.617 W	
11,350.0	90.50	179.20	9,653.4	-1,690.4	1,188.2	480,995.84	625,975.83	32° 19' 19.317 N	104° 3' 33.604 W	
11,444.0	90.90	178.50	9,652.3	-1,784.3	1,190.1	480,901.87	625,977.71	32° 19' 18.387 N	104° 3' 33.585 W	
11,539.0	92.20	178.70	9,649.7	-1,879.3	1,192.4	480,806.93	625,980.03	32° 19' 17.447 N	104° 3' 33.561 W	
11,633.0	87.90	178.00	9,649.6	-1,973.2	1,195.1	480,713.00	625,982.74	32° 19' 16.518 N	104° 3' 33.532 W	
11,728.0	85.60	177.10	9,655.0	-2,068.0	1,199.2	480,618.24	625,986.79	32° 19' 15.580 N	104° 3' 33.487 W	
11,822.0	88.10	177.40	9,660.2	-2,161.7	1,203.7	480,524.50	625,991.29	32° 19' 14.652 N	104° 3' 33.438 W	
11,916.0	88.40	177.40	9,663.1	-2,255.6	1,208.0	480,430.64	625,995.56	32° 19' 13.723 N	104° 3' 33.391 W	
12,009.0	90.90	180.10	9,663.6	-2,348.5	1,210.0	480,337.68	625,997.59	32° 19' 12.803 N	104° 3' 33.370 W	
12,103.0	89.60	179.90	9,663.2	-2,442.5	1,210.0	480,243.68	625,997.59	32° 19' 11.873 N	104° 3' 33.373 W	
12,197.0	88.20	179.20	9,665.0	-2,536.5	1,210.7	480,149.71	625,998.32	32° 19' 10.943 N	104° 3' 33.367 W	
12,292.0	91.20	180.80	9,665.5	-2,631.5	1,210.7	480,054.72	625,998.32	32° 19' 10.003 N	104° 3' 33.370 W	
12,386.0	88.60	178.00	9,665.7	-2,725.5	1,211.7	479,960.75	625,999.31	32° 19' 9.073 N	104° 3' 33.361 W	
12,479.0	92.90	180.20	9,664.5	-2,818.4	1,213.2	479,867.79	626,000.77	32° 19' 8.153 N	104° 3' 33.347 W	
12,574.0	91.30	179.20	9,661.0	-2,913.3	1,213.7	479,772.86	626,001.27	32° 19' 7.214 N	104° 3' 33.344 W	
12,668.0	94.50	179.70	9,656.2	-3,007.2	1,214.6	479,679.00	626,002.17	32° 19' 6.285 N	104° 3' 33.336 W	
12,761.0	93.60	179.20	9,649.7	-3,100.0	1,215.5	479,586.24	626,003.06	32° 19' 5.367 N	104° 3' 33.329 W	
12,855.0	90.20	179.00	9,646.5	-3,193.9	1,216.9	479,492.31	626,004.53	32° 19' 4.437 N	104° 3' 33.314 W	
12,949.0	86.00	178.00	9,649.7	-3,287.8	1,219.4	479,398.42	626,006.99	32° 19' 3.508 N	104° 3' 33.288 W	
13,043.0	90.90	180.10	9,652.2	-3,381.7	1,220.9	479,304.50	626,008.55	32° 19' 2.579 N	104° 3' 33.273 W	
13,137.0	88.50	179.90	9,652.7	-3,475.7	1,220.9	479,210.51	626,008.55	32° 19' 1.649 N	104° 3' 33.276 W	
13,231.0	89.00	179.70	9,654.7	-3,569.7	1,221.3	479,116.53	626,008.87	32° 19' 0.719 N	104° 3' 33.275 W	
13,325.0	90.00	180.10	9,655.6	-3,663.7	1,221.4	479,022.54	626,009.04	32° 18' 59.789 N	104° 3' 33.276 W	
13,420.0	87.90	179.40	9,657.3	-3,758.6	1,221.8	478,927.56	626,009.45	32° 18' 58.849 N	104° 3' 33.274 W	
13,514.0	90.00	179.70	9,659.0	-3,852.6	1,222.6	478,833.58	626,010.19	32° 18' 57.919 N	104° 3' 33.268 W	
13,608.0	90.00	179.70	9,659.0	-3,946.6	1,223.1	478,739.59	626,010.68	32° 18' 56.988 N	104° 3' 33.265 W	
13,702.0	90.60	179.50	9,658.5	-4,040.6	1,223.7	478,645.59	626,011.34	32° 18' 56.058 N	104° 3' 33.260 W	
13,796.0	88.90	178.10	9,658.9	-4,134.6	1,225.7	478,551.62	626,013.31	32° 18' 55.128 N	104° 3' 33.240 W	
13,890.0	87.50	177.60	9,661.9	-4,228.5	1,229.2	478,457.73	626,016.83	32° 18' 54.199 N	104° 3' 33.202 W	
13,985.0	87.60	178.30	9,666.0	-4,323.3	1,232.6	478,362.88	626,020.23	32° 18' 53.260 N	104° 3' 33.165 W	
14,079.0	89.30	179.50	9,668.5	-4,417.3	1,234.4	478,268.94	626,022.03	32° 18' 52.331 N	104° 3' 33.147 W	
14,173.0	91.20	180.60	9,668.1	-4,511.3	1,234.3	478,174.94	626,021.95	32° 18' 51.401 N	104° 3' 33.151 W	
14,267.0	89.00	179.50	9,667.9	-4,605.2	1,234.3	478,080.95	626,021.87	32° 18' 50.470 N	104° 3' 33.154 W	
14,361.0	91.70	180.60	9,667.3	-4,699.2	1,234.2	477,986.96	626,021.78	32° 18' 49.540 N	104° 3' 33.158 W	
14,375.8	91.13	180.54	9,667.0	-4,714.0	1,234.0	477,972.17	626,021.64	32° 18' 49.394 N	104° 3' 33.160 W	
330° HL Crossed @ 14375.8' MD / 9667.0' TVD										
14,455.0	88.10	180.20	9,667.5	-4,793.2	1,233.5	477,892.98	626,021.13	32° 18' 48.610 N	104° 3' 33.168 W	
14,549.0	90.70	179.90	9,668.5	-4,887.2	1,233.4	477,798.99	626,021.05	32° 18' 47.680 N	104° 3' 33.172 W	
14,606.0	90.40	179.20	9,667.9	-4,944.2	1,233.9	477,742.00	626,021.49	32° 18' 47.116 N	104° 3' 33.169 W	
14,660.0	90.40	179.20	9,667.6	-4,998.2	1,234.6	477,688.01	626,022.25	32° 18' 46.582 N	104° 3' 33.162 W	
TD @ 14660.0' MD / 9667.6' TVD										

Design Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
145.0	145.0	0.2	2.5	First MWD Survey @ 145.0' MD / 145.0' TVD	
9,739.2	9,525.3	-104.9	1,172.7	330° HL Crossed @ 9739.2' MD / 9525.3' TVD	
14,375.8	9,667.0	-4,714.0	1,234.0	330° HL Crossed @ 14375.8' MD / 9667.0' TVD	
14,660.0	9,667.6	-4,998.2	1,234.6	TD @ 14660.0' MD / 9667.6' TVD	



QES
Survey Report - Geographic



Company:	BTA Oil Producers, LLC	Local Co-ordinate Reference:	Well Pardue 8808 #4H
Project:	Eddy County, New Mexico (NAD 83)	TVD Reference:	WELL @ 3021.0usft (Patterson #597)
Site:	Sec 11, T23-S, R28-E	MD Reference:	WELL @ 3021.0usft (Patterson #597)
Well:	Pardue 8808 #4H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db