

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

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

Submit one copy to appropriate District Office

☐ 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 – 015-46976	⁵ Pool Name Purple Sage; Wolfcamp		⁶ Pool Code 98220
⁷ Property Code 328097	⁸ Property Name HARROUN RANCH FED COM		⁹ Well Number 5H

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
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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
P	20	23S	29E		310	South	765	East	Eddy
¹² Lse Code	¹³ Producing Method Code F	¹⁴ Gas Connection Date 5/22/2021	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
14035	MARATHON OIL CO PO BOX 1234 ARTESIA, NM	O
327139	SENDERO CARLSBAD MIDSTREAM, LLC 1000 LOUISIANA AVE., SUITE 6900 Houston, TX 77002	G

IV. Well Completion Data

²¹ Spud Date 11/3/2020	²² Ready Date 5/22/2021	²³ TD 12/7/2020	²⁴ PBT 21254	²⁵ Perforations 11,080'-21,065	²⁶ DHC, MC
²⁷ Hole Size	²⁸ Casing & Tubing Size	²⁹ Depth Set	³⁰ Sacks Cement		
14.75	10.75	460	600		
9.875	7.625	10368	1670		
6.75	5.5	10201	635		
6.75	5	21280	1175		

V. Well Test Data

³¹ Date New Oil 5/22/2021	³² Gas Delivery Date 5/22/2021	³³ Test Date 5/28/2021	³⁴ Test Length 24hrs	³⁵ Tbg. Pressure	³⁶ Csg. Pressure 4100
³⁷ Choke Size 28/64	³⁸ Oil 712	³⁹ Water 2502	⁴⁰ Gas 7018		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: SAMMY HAJAR			OIL CONSERVATION DIVISION Approved by: KURT SIMMONS NMOCD, SANTA FE Approval Date: 08/23/2021		
Printed name: Sammy Hajar					
Title: Regulatory Analyst					
E-mail Address: SHAJAR@BTAOIL.COM					
Date: 7/1/2021		Phone: 432-682-3753			

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

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-015-46976	Pool Code 98220	Pool Name PURPLE SAGE ; WOLFCAMP
Property Code 328097	Property Name 20702 HARROUN RANCH FEDERAL	Well Number 5H
OGRID No. 260297	Operator Name BTA OIL PRODUCERS, LLC	Elevation 3019'

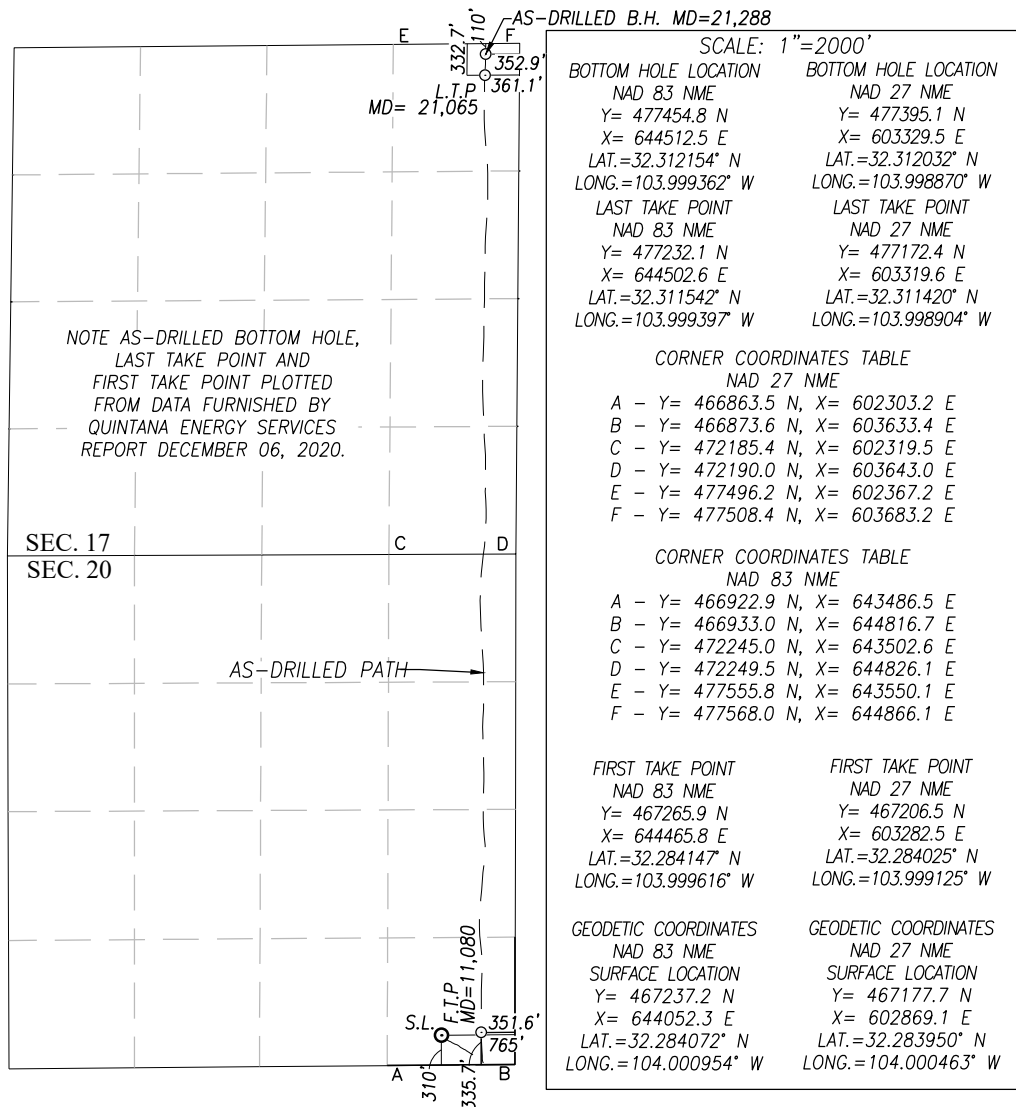
Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	20	23-S	29-E		310	SOUTH	765	EAST	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
A	17	23-S	29-E		110	NORTH	352.9	EAST	EDDY
Dedicated Acres 640	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.

Sammy Hajar 7/1/2021

Signature Date

Sammy Hajar

Printed Name

SHAJAR@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.

NOVEMBER 6, 2010

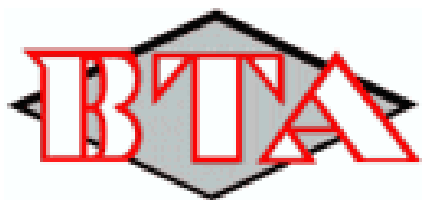
Date of Survey Signature & Seal of Professional Surveyor:



Ronald J. Eidson 06/11/2021

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

LSL REL. W.O.: 19131254 JWSC W.O.: 21.13.0231



BTA Oil Producers, LLC

Eddy County, New Mexico (NAD 83)

Sec 20, T23-S, R29-E

Harroun Ranch 20702 20-17 Fed Com #5H

Wellbore #1

Design: Wellbore #1

Survey Report - Geographic

06 December, 2020





QES
Survey Report - Geographic



Company:	BTA Oil Producers, LLC	Local Co-ordinate Reference:	Well Harroun Ranch 20702 20-17 Fed Com #5H
Project:	Eddy County, New Mexico (NAD 83)	TVD Reference:	WELL @ 3044.0usft (Patterson #288)
Site:	Sec 20, T23-S, R29-E	MD Reference:	WELL @ 3044.0usft (Patterson #288)
Well:	Harroun Ranch 20702 20-17 Fed Com #5H	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 20, T23-S, R29-E		
Site Position:		Northing:	467,071.70 usft
From:	Map	Easting:	642,041.70 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 17' 1.081 N
		Longitude:	104° 0' 26.864 W
		Grid Convergence:	0.17 °

Well	Harroun Ranch 20702 20-17 Fed Com #5H		
Well Position	+N/-S	0.0 usft	Northing:
	+E/-W	0.0 usft	Easting:
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft
		Latitude:	32° 17' 2.658 N
		Longitude:	104° 0' 3.436 W
		Ground Level:	3,019.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM2020	10/27/2020	6.88	60.00	47,771.60000000

Design	Wellbore #1				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.0	0.0	0.0	2.70	

Survey Program	Date	12/6/2020			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
138.0	21,288.0	QES MWD Surveys (Wellbore #1)	MWD	OWSG MWD - Standard	

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.0	0.00	0.00	0.0	0.0	0.0	467,237.20	644,052.30	32° 17' 2.658 N	104° 0' 3.436 W
138.0	0.10	40.30	138.0	0.1	0.1	467,237.29	644,052.38	32° 17' 2.659 N	104° 0' 3.435 W
First MWD Survey @ 138.0' MD / 138.0' TVD									
229.0	1.40	46.90	229.0	0.9	0.9	467,238.11	644,053.25	32° 17' 2.667 N	104° 0' 3.425 W
409.0	1.60	58.80	408.9	3.7	4.7	467,240.92	644,057.00	32° 17' 2.695 N	104° 0' 3.381 W
492.0	1.70	75.40	491.9	4.6	6.9	467,241.83	644,059.18	32° 17' 2.704 N	104° 0' 3.356 W
580.0	3.90	125.90	579.8	3.2	10.6	467,240.40	644,062.87	32° 17' 2.690 N	104° 0' 3.313 W
675.0	6.30	130.30	674.4	-2.1	17.2	467,235.13	644,069.46	32° 17' 2.637 N	104° 0' 3.236 W
771.0	7.30	134.00	769.7	-9.7	25.6	467,227.49	644,077.87	32° 17' 2.561 N	104° 0' 3.139 W
866.0	7.50	139.00	863.9	-18.6	34.0	467,218.62	644,086.28	32° 17' 2.473 N	104° 0' 3.041 W
961.0	7.50	146.50	958.1	-28.4	41.5	467,208.77	644,093.77	32° 17' 2.376 N	104° 0' 2.954 W
1,056.0	8.10	139.30	1,052.3	-38.7	49.3	467,198.52	644,101.55	32° 17' 2.274 N	104° 0' 2.864 W



QES

Survey Report - Geographic



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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
1,151.0	8.30	126.30	1,146.3	-47.8	59.1	467,189.39	644,111.45	32° 17' 2.183 N	104° 0' 2.749 W
1,246.0	7.90	115.90	1,240.4	-54.7	70.5	467,182.48	644,122.85	32° 17' 2.114 N	104° 0' 2.616 W
1,341.0	7.80	115.60	1,334.5	-60.4	82.2	467,176.84	644,134.53	32° 17' 2.058 N	104° 0' 2.480 W
1,436.0	7.30	119.80	1,428.6	-66.1	93.3	467,171.06	644,145.58	32° 17' 2.001 N	104° 0' 2.352 W
1,531.0	7.10	127.30	1,522.9	-72.7	103.2	467,164.50	644,155.49	32° 17' 1.936 N	104° 0' 2.237 W
1,626.0	7.20	113.90	1,617.2	-78.7	113.3	467,158.53	644,165.61	32° 17' 1.876 N	104° 0' 2.119 W
1,721.0	7.40	112.20	1,711.4	-83.4	124.4	467,153.81	644,176.71	32° 17' 1.829 N	104° 0' 1.990 W
1,816.0	6.80	111.20	1,805.7	-87.7	135.3	467,149.46	644,187.62	32° 17' 1.786 N	104° 0' 1.863 W
1,911.0	6.00	107.50	1,900.1	-91.3	145.3	467,145.93	644,197.60	32° 17' 1.751 N	104° 0' 1.747 W
2,006.0	5.20	102.30	1,994.6	-93.7	154.2	467,143.52	644,206.54	32° 17' 1.726 N	104° 0' 1.643 W
2,101.0	6.30	119.60	2,089.1	-97.2	163.0	467,140.03	644,215.28	32° 17' 1.692 N	104° 0' 1.541 W
2,196.0	8.20	125.90	2,183.4	-103.7	173.0	467,133.48	644,225.30	32° 17' 1.626 N	104° 0' 1.425 W
2,291.0	8.40	129.60	2,277.4	-112.1	183.8	467,125.09	644,236.14	32° 17' 1.543 N	104° 0' 1.299 W
2,386.0	7.30	130.90	2,371.5	-120.5	193.7	467,116.71	644,246.05	32° 17' 1.460 N	104° 0' 1.183 W
2,481.0	9.00	119.80	2,465.5	-128.1	204.8	467,109.07	644,257.06	32° 17' 1.384 N	104° 0' 1.055 W
2,577.0	10.00	120.70	2,560.2	-136.1	218.4	467,101.08	644,270.74	32° 17' 1.304 N	104° 0' 0.896 W
2,672.0	8.80	116.00	2,653.9	-143.5	232.1	467,093.68	644,284.36	32° 17' 1.231 N	104° 0' 0.738 W
2,767.0	7.70	120.40	2,748.0	-149.9	244.1	467,087.28	644,296.39	32° 17' 1.167 N	104° 0' 0.598 W
2,862.0	6.00	123.00	2,842.3	-155.8	253.7	467,081.35	644,306.04	32° 17' 1.108 N	104° 0' 0.486 W
2,956.0	5.50	125.10	2,935.8	-161.1	261.5	467,076.08	644,313.85	32° 17' 1.056 N	104° 0' 0.395 W
3,051.0	5.00	123.40	3,030.4	-166.0	268.7	467,071.19	644,321.03	32° 17' 1.007 N	104° 0' 0.312 W
3,147.0	5.10	122.00	3,126.0	-170.6	275.8	467,066.62	644,328.14	32° 17' 0.962 N	104° 0' 0.229 W
3,241.0	5.30	121.30	3,219.6	-175.0	283.1	467,062.15	644,335.39	32° 17' 0.917 N	104° 0' 0.145 W
3,336.0	5.10	121.70	3,314.3	-179.5	290.4	467,057.66	644,342.73	32° 17' 0.873 N	104° 0' 0.059 W
3,431.0	5.00	121.40	3,408.9	-183.9	297.6	467,053.28	644,349.86	32° 17' 0.829 N	103° 59' 59.976 W
3,526.0	4.70	121.50	3,503.5	-188.1	304.4	467,049.09	644,356.71	32° 17' 0.787 N	103° 59' 59.897 W
3,621.0	5.70	123.90	3,598.2	-192.8	311.6	467,044.43	644,363.95	32° 17' 0.741 N	103° 59' 59.813 W
3,716.0	6.30	124.50	3,692.6	-198.4	319.9	467,038.84	644,372.16	32° 17' 0.685 N	103° 59' 59.717 W
3,811.0	5.60	122.70	3,787.1	-203.8	328.0	467,033.38	644,380.35	32° 17' 0.631 N	103° 59' 59.622 W
3,906.0	5.30	120.50	3,881.7	-208.5	335.7	467,028.65	644,388.03	32° 17' 0.584 N	103° 59' 59.533 W
4,001.0	5.10	119.20	3,976.3	-212.8	343.2	467,024.37	644,395.50	32° 17' 0.541 N	103° 59' 59.446 W
4,096.0	5.00	118.10	4,070.9	-216.8	350.5	467,020.36	644,402.84	32° 17' 0.502 N	103° 59' 59.360 W
4,190.0	6.20	127.20	4,164.5	-221.8	358.2	467,015.36	644,410.50	32° 17' 0.452 N	103° 59' 59.271 W
4,285.0	6.60	130.50	4,258.9	-228.5	366.4	467,008.71	644,418.73	32° 17' 0.386 N	103° 59' 59.176 W
4,381.0	6.20	128.80	4,354.3	-235.3	374.7	467,001.88	644,426.97	32° 17' 0.318 N	103° 59' 59.080 W
4,475.0	5.80	131.00	4,447.8	-241.6	382.2	466,995.58	644,434.51	32° 17' 0.255 N	103° 59' 58.992 W
4,570.0	5.30	131.00	4,542.3	-247.6	389.1	466,989.56	644,441.44	32° 17' 0.196 N	103° 59' 58.912 W
4,665.0	5.50	131.10	4,636.9	-253.5	395.9	466,983.68	644,448.19	32° 17' 0.137 N	103° 59' 58.834 W
4,760.0	5.50	129.70	4,731.5	-259.4	402.8	466,977.78	644,455.12	32° 17' 0.079 N	103° 59' 58.753 W
4,855.0	5.70	128.10	4,826.0	-265.2	410.0	466,971.96	644,462.33	32° 17' 0.021 N	103° 59' 58.669 W
4,950.0	5.70	128.70	4,920.6	-271.1	417.4	466,966.10	644,469.73	32° 16' 59.963 N	103° 59' 58.583 W
5,045.0	4.70	125.00	5,015.2	-276.3	424.3	466,960.92	644,476.60	32° 16' 59.911 N	103° 59' 58.503 W
5,140.0	2.90	122.10	5,109.9	-279.8	429.5	466,957.41	644,481.82	32° 16' 59.876 N	103° 59' 58.443 W
5,235.0	1.30	92.90	5,204.9	-281.1	432.6	466,956.08	644,484.94	32° 16' 59.863 N	103° 59' 58.406 W
5,330.0	0.90	81.30	5,299.9	-281.1	434.4	466,956.14	644,486.75	32° 16' 59.863 N	103° 59' 58.385 W
5,425.0	0.60	80.70	5,394.9	-280.9	435.7	466,956.33	644,487.98	32° 16' 59.865 N	103° 59' 58.371 W
5,520.0	0.20	91.40	5,489.9	-280.8	436.3	466,956.41	644,488.63	32° 16' 59.866 N	103° 59' 58.363 W
5,615.0	0.10	89.60	5,584.9	-280.8	436.6	466,956.40	644,488.88	32° 16' 59.866 N	103° 59' 58.360 W
5,710.0	0.10	101.30	5,679.9	-280.8	436.7	466,956.39	644,489.05	32° 16' 59.866 N	103° 59' 58.359 W
5,805.0	0.20	154.10	5,774.9	-281.0	436.9	466,956.22	644,489.20	32° 16' 59.864 N	103° 59' 58.357 W
5,900.0	0.40	154.70	5,869.9	-281.4	437.1	466,955.77	644,489.41	32° 16' 59.860 N	103° 59' 58.354 W
5,995.0	0.50	166.50	5,964.8	-282.1	437.3	466,955.07	644,489.65	32° 16' 59.853 N	103° 59' 58.352 W
6,090.0	0.60	160.80	6,059.8	-283.0	437.6	466,954.20	644,489.91	32° 16' 59.844 N	103° 59' 58.349 W
6,184.0	0.80	159.30	6,153.8	-284.1	438.0	466,953.12	644,490.31	32° 16' 59.833 N	103° 59' 58.344 W
6,280.0	0.80	167.80	6,249.8	-285.4	438.4	466,951.84	644,490.69	32° 16' 59.821 N	103° 59' 58.340 W



QES

Survey Report - Geographic



Company:	BTA Oil Producers, LLC	Local Co-ordinate Reference:	Well Harroun Ranch 20702 20-17 Fed Com #5H
Project:	Eddy County, New Mexico (NAD 83)	TVD Reference:	WELL @ 3044.0usft (Patterson #288)
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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
6,375.0	0.90	166.50	6,344.8	-286.7	438.7	466,950.46	644,491.00	32° 16' 59.807 N	103° 59' 58.336 W
6,469.0	0.90	163.70	6,438.8	-288.2	439.1	466,949.04	644,491.38	32° 16' 59.793 N	103° 59' 58.332 W
6,564.0	0.20	169.00	6,533.8	-289.0	439.3	466,948.16	644,491.62	32° 16' 59.784 N	103° 59' 58.329 W
6,660.0	0.20	156.70	6,629.8	-289.4	439.4	466,947.84	644,491.72	32° 16' 59.781 N	103° 59' 58.328 W
6,754.0	0.20	202.10	6,723.8	-289.7	439.4	466,947.54	644,491.72	32° 16' 59.778 N	103° 59' 58.328 W
6,849.0	0.60	230.00	6,818.8	-290.1	439.0	466,947.06	644,491.28	32° 16' 59.774 N	103° 59' 58.333 W
6,944.0	0.50	249.50	6,913.8	-290.6	438.2	466,946.60	644,490.51	32° 16' 59.769 N	103° 59' 58.342 W
7,039.0	1.20	289.90	7,008.8	-290.4	436.9	466,946.79	644,489.19	32° 16' 59.771 N	103° 59' 58.357 W
7,134.0	1.80	310.50	7,103.8	-289.1	434.8	466,948.10	644,487.12	32° 16' 59.784 N	103° 59' 58.381 W
7,229.0	0.70	269.20	7,198.7	-288.1	433.1	466,949.06	644,485.40	32° 16' 59.793 N	103° 59' 58.401 W
7,324.0	0.90	247.10	7,293.7	-288.4	431.8	466,948.76	644,484.13	32° 16' 59.791 N	103° 59' 58.416 W
7,419.0	0.40	251.50	7,388.7	-288.8	430.8	466,948.37	644,483.13	32° 16' 59.787 N	103° 59' 58.428 W
7,514.0	0.50	253.20	7,483.7	-289.1	430.1	466,948.14	644,482.42	32° 16' 59.784 N	103° 59' 58.436 W
7,609.0	0.90	117.50	7,578.7	-289.5	430.4	466,947.68	644,482.69	32° 16' 59.780 N	103° 59' 58.433 W
7,704.0	1.50	119.90	7,673.7	-290.5	432.1	466,946.71	644,484.43	32° 16' 59.770 N	103° 59' 58.413 W
7,799.0	1.30	131.00	7,768.7	-291.8	434.0	466,945.39	644,486.32	32° 16' 59.757 N	103° 59' 58.391 W
7,894.0	1.00	145.30	7,863.6	-293.2	435.3	466,944.00	644,487.60	32° 16' 59.743 N	103° 59' 58.376 W
7,989.0	0.20	94.10	7,958.6	-293.9	435.9	466,943.30	644,488.24	32° 16' 59.736 N	103° 59' 58.368 W
8,084.0	0.30	330.50	8,053.6	-293.7	436.0	466,943.51	644,488.28	32° 16' 59.738 N	103° 59' 58.368 W
8,179.0	0.70	311.30	8,148.6	-293.1	435.4	466,944.11	644,487.72	32° 16' 59.744 N	103° 59' 58.374 W
8,274.0	1.10	300.10	8,243.6	-292.3	434.2	466,944.95	644,486.50	32° 16' 59.753 N	103° 59' 58.389 W
8,370.0	1.50	277.60	8,339.6	-291.6	432.2	466,945.58	644,484.46	32° 16' 59.759 N	103° 59' 58.412 W
8,465.0	0.70	254.60	8,434.6	-291.6	430.4	466,945.59	644,482.66	32° 16' 59.759 N	103° 59' 58.433 W
8,560.0	0.70	254.40	8,529.6	-291.9	429.2	466,945.28	644,481.55	32° 16' 59.756 N	103° 59' 58.446 W
8,655.0	0.80	33.50	8,624.6	-291.5	429.0	466,945.67	644,481.35	32° 16' 59.760 N	103° 59' 58.449 W
8,750.0	1.20	51.40	8,719.5	-290.4	430.2	466,946.85	644,482.50	32° 16' 59.772 N	103° 59' 58.435 W
8,845.0	0.80	58.00	8,814.5	-289.4	431.5	466,947.82	644,483.84	32° 16' 59.781 N	103° 59' 58.420 W
8,940.0	0.50	156.50	8,909.5	-289.4	432.3	466,947.79	644,484.56	32° 16' 59.781 N	103° 59' 58.411 W
9,035.0	0.30	50.30	9,004.5	-289.6	432.6	466,947.57	644,484.92	32° 16' 59.779 N	103° 59' 58.407 W
9,130.0	0.40	99.00	9,099.5	-289.5	433.1	466,947.68	644,485.44	32° 16' 59.780 N	103° 59' 58.401 W
9,225.0	1.00	140.20	9,194.5	-290.2	434.0	466,946.99	644,486.30	32° 16' 59.773 N	103° 59' 58.391 W
9,320.0	1.00	146.40	9,289.5	-291.5	435.0	466,945.66	644,487.29	32° 16' 59.760 N	103° 59' 58.379 W
9,414.0	0.30	252.50	9,383.5	-292.3	435.2	466,944.90	644,487.51	32° 16' 59.752 N	103° 59' 58.377 W
9,509.0	1.10	322.80	9,478.5	-291.6	434.4	466,945.56	644,486.72	32° 16' 59.759 N	103° 59' 58.386 W
9,604.0	1.10	352.00	9,573.5	-290.0	433.7	466,947.19	644,486.04	32° 16' 59.775 N	103° 59' 58.394 W
9,699.0	1.10	352.20	9,668.5	-288.2	433.5	466,948.99	644,485.79	32° 16' 59.793 N	103° 59' 58.397 W
9,795.0	1.00	353.30	9,764.4	-286.5	433.3	466,950.74	644,485.57	32° 16' 59.810 N	103° 59' 58.399 W
9,891.0	0.80	340.30	9,860.4	-285.0	432.9	466,952.20	644,485.24	32° 16' 59.825 N	103° 59' 58.403 W
9,985.0	0.70	343.50	9,954.4	-283.8	432.6	466,953.37	644,484.86	32° 16' 59.836 N	103° 59' 58.407 W
10,080.0	0.60	346.70	10,049.4	-282.8	432.3	466,954.41	644,484.58	32° 16' 59.846 N	103° 59' 58.411 W
10,174.0	0.60	338.90	10,143.4	-281.9	432.0	466,955.35	644,484.29	32° 16' 59.856 N	103° 59' 58.414 W
10,272.0	0.80	3.40	10,241.4	-280.7	431.8	466,956.51	644,484.14	32° 16' 59.867 N	103° 59' 58.416 W
10,321.0	0.90	344.20	10,290.4	-280.0	431.8	466,957.22	644,484.06	32° 16' 59.874 N	103° 59' 58.417 W
10,462.0	1.50	307.60	10,431.4	-277.8	430.0	466,959.41	644,482.30	32° 16' 59.896 N	103° 59' 58.437 W
10,557.0	9.10	343.80	10,525.9	-269.8	426.9	466,967.40	644,479.21	32° 16' 59.975 N	103° 59' 58.473 W
10,651.0	18.90	356.30	10,617.0	-247.4	423.8	466,989.79	644,476.15	32° 17' 0.197 N	103° 59' 58.508 W
10,746.0	26.90	359.70	10,704.5	-210.5	422.7	467,026.69	644,475.04	32° 17' 0.562 N	103° 59' 58.519 W
10,841.0	37.10	355.70	10,784.9	-160.3	420.5	467,076.89	644,472.77	32° 17' 1.059 N	103° 59' 58.544 W
10,935.0	48.00	357.50	10,854.1	-96.9	416.8	467,140.25	644,469.11	32° 17' 1.686 N	103° 59' 58.584 W
11,029.0	64.50	358.20	10,906.1	-19.1	413.9	467,218.09	644,466.23	32° 17' 2.456 N	103° 59' 58.615 W
11,074.0	74.10	0.57	10,922.0	22.9	413.5	467,260.13	644,465.81	32° 17' 2.872 N	103° 59' 58.618 W
330' PA Crossed @ 11074.0' MD / 10922.0' TVD									
11,089.0	77.30	1.30	10,925.7	37.5	413.7	467,274.66	644,466.05	32° 17' 3.016 N	103° 59' 58.615 W
11,147.0	85.90	0.40	10,934.2	94.8	414.6	467,331.97	644,466.89	32° 17' 3.583 N	103° 59' 58.603 W
11,241.0	90.80	0.20	10,936.9	188.7	415.1	467,425.91	644,467.38	32° 17' 4.513 N	103° 59' 58.594 W



QES

Survey Report - Geographic



Company:	BTA Oil Producers, LLC	Local Co-ordinate Reference:	Well Harroun Ranch 20702 20-17 Fed Com #5H
Project:	Eddy County, New Mexico (NAD 83)	TVD Reference:	WELL @ 3044.0usft (Patterson #288)
Site:	Sec 20, T23-S, R29-E	MD Reference:	WELL @ 3044.0usft (Patterson #288)
Well:	Harroun Ranch 20702 20-17 Fed Com #5H	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
11,336.0	91.70	358.90	10,934.8	283.7	414.3	467,520.88	644,466.64	32° 17' 5.453 N	103° 59' 58.599 W
11,430.0	87.60	0.10	10,935.4	377.6	413.5	467,614.85	644,465.82	32° 17' 6.383 N	103° 59' 58.605 W
11,524.0	89.10	1.90	10,938.1	471.6	415.2	467,708.79	644,467.46	32° 17' 7.312 N	103° 59' 58.583 W
11,618.0	87.30	1.60	10,941.1	565.5	418.0	467,802.70	644,470.33	32° 17' 8.241 N	103° 59' 58.546 W
11,713.0	88.10	1.90	10,944.9	660.4	420.9	467,897.57	644,473.23	32° 17' 9.180 N	103° 59' 58.509 W
11,807.0	91.40	0.20	10,945.3	754.3	422.6	467,991.54	644,474.95	32° 17' 10.110 N	103° 59' 58.485 W
11,902.0	90.50	353.60	10,943.7	849.1	417.5	468,086.34	644,469.81	32° 17' 11.048 N	103° 59' 58.542 W
11,997.0	91.30	353.10	10,942.2	943.5	406.5	468,180.68	644,458.81	32° 17' 11.982 N	103° 59' 58.666 W
12,091.0	92.30	355.10	10,939.3	1,036.9	396.9	468,274.13	644,449.16	32° 17' 12.907 N	103° 59' 58.775 W
12,186.0	89.20	359.70	10,938.0	1,131.8	392.5	468,368.99	644,444.85	32° 17' 13.846 N	103° 59' 58.822 W
12,281.0	89.30	2.50	10,939.3	1,226.8	394.4	468,463.96	644,446.67	32° 17' 14.786 N	103° 59' 58.798 W
12,375.0	89.90	4.70	10,939.9	1,320.6	400.3	468,557.76	644,452.58	32° 17' 15.714 N	103° 59' 58.725 W
12,470.0	90.30	5.20	10,939.7	1,415.2	408.5	468,652.41	644,460.77	32° 17' 16.650 N	103° 59' 58.626 W
12,565.0	87.90	4.20	10,941.2	1,509.9	416.3	468,747.07	644,468.56	32° 17' 17.587 N	103° 59' 58.532 W
12,660.0	90.30	3.50	10,942.7	1,604.6	422.6	468,841.83	644,474.93	32° 17' 18.524 N	103° 59' 58.455 W
12,754.0	89.40	7.10	10,943.0	1,698.2	431.3	468,935.42	644,483.61	32° 17' 19.450 N	103° 59' 58.350 W
12,848.0	89.10	5.70	10,944.2	1,791.6	441.8	469,028.82	644,494.09	32° 17' 20.374 N	103° 59' 58.225 W
12,943.0	93.20	5.20	10,942.3	1,886.1	450.8	469,123.35	644,503.11	32° 17' 21.309 N	103° 59' 58.116 W
13,037.0	86.90	357.70	10,942.2	1,980.0	453.2	469,217.21	644,505.49	32° 17' 22.238 N	103° 59' 58.085 W
13,132.0	90.50	352.60	10,944.4	2,074.6	445.2	469,311.79	644,497.46	32° 17' 23.174 N	103° 59' 58.175 W
13,227.0	91.30	357.30	10,942.9	2,169.2	436.8	469,406.39	644,489.10	32° 17' 24.111 N	103° 59' 58.269 W
13,322.0	93.60	359.90	10,938.8	2,264.1	434.5	469,501.26	644,486.78	32° 17' 25.049 N	103° 59' 58.293 W
13,417.0	92.30	0.30	10,933.9	2,358.9	434.6	469,596.13	644,486.94	32° 17' 25.988 N	103° 59' 58.287 W
13,512.0	91.30	359.20	10,930.9	2,453.9	434.2	469,691.08	644,486.53	32° 17' 26.928 N	103° 59' 58.289 W
13,606.0	88.80	3.00	10,930.9	2,547.8	436.0	469,785.04	644,488.33	32° 17' 27.858 N	103° 59' 58.264 W
13,701.0	91.70	1.70	10,930.4	2,642.7	439.9	469,879.94	644,492.23	32° 17' 28.797 N	103° 59' 58.215 W
13,795.0	87.30	358.20	10,931.3	2,736.7	439.8	469,973.90	644,492.15	32° 17' 29.726 N	103° 59' 58.213 W
13,891.0	86.50	358.80	10,936.5	2,832.5	437.3	470,069.73	644,489.64	32° 17' 30.675 N	103° 59' 58.239 W
13,985.0	88.20	358.20	10,940.8	2,926.4	434.9	470,163.59	644,487.18	32° 17' 31.604 N	103° 59' 58.264 W
14,080.0	91.10	359.20	10,941.4	3,021.4	432.7	470,258.55	644,485.02	32° 17' 32.544 N	103° 59' 58.286 W
14,175.0	89.30	356.40	10,941.1	3,116.3	429.1	470,353.47	644,481.38	32° 17' 33.483 N	103° 59' 58.325 W
14,269.0	89.80	0.80	10,941.8	3,210.2	426.8	470,447.41	644,479.08	32° 17' 34.413 N	103° 59' 58.348 W
14,363.0	90.30	4.50	10,941.7	3,304.1	431.1	470,541.30	644,483.43	32° 17' 35.342 N	103° 59' 58.294 W
14,458.0	90.80	1.00	10,940.8	3,399.0	435.7	470,636.17	644,487.98	32° 17' 36.280 N	103° 59' 58.237 W
14,552.0	89.70	0.30	10,940.4	3,493.0	436.7	470,730.16	644,489.05	32° 17' 37.210 N	103° 59' 58.222 W
14,647.0	91.70	0.50	10,939.2	3,587.9	437.4	470,825.15	644,489.71	32° 17' 38.150 N	103° 59' 58.210 W
14,741.0	88.20	359.00	10,939.3	3,681.9	437.0	470,919.13	644,489.30	32° 17' 39.080 N	103° 59' 58.212 W
14,836.0	91.80	359.30	10,939.3	3,776.9	435.6	471,014.10	644,487.89	32° 17' 40.020 N	103° 59' 58.225 W
14,930.0	90.30	357.80	10,937.6	3,870.8	433.2	471,108.05	644,485.52	32° 17' 40.950 N	103° 59' 58.249 W
15,025.0	90.00	356.50	10,937.3	3,965.7	428.5	471,202.93	644,480.79	32° 17' 41.889 N	103° 59' 58.301 W
15,119.0	89.50	355.70	10,937.8	4,059.5	422.1	471,296.71	644,474.40	32° 17' 42.817 N	103° 59' 58.372 W
15,213.0	88.70	356.00	10,939.2	4,153.3	415.3	471,390.45	644,467.60	32° 17' 43.745 N	103° 59' 58.448 W
15,308.0	90.20	357.50	10,940.1	4,248.1	409.9	471,485.29	644,462.21	32° 17' 44.684 N	103° 59' 58.507 W
15,402.0	89.20	357.50	10,940.6	4,342.0	405.8	471,579.20	644,458.11	32° 17' 45.613 N	103° 59' 58.551 W
15,498.0	91.10	358.30	10,940.4	4,437.9	402.3	471,675.13	644,454.59	32° 17' 46.563 N	103° 59' 58.589 W
15,592.0	89.80	359.90	10,939.6	4,531.9	400.8	471,769.11	644,453.12	32° 17' 47.493 N	103° 59' 58.603 W
15,687.0	91.20	3.90	10,938.8	4,626.8	404.0	471,864.03	644,456.27	32° 17' 48.432 N	103° 59' 58.562 W
15,782.0	92.60	1.50	10,935.7	4,721.7	408.4	471,958.86	644,460.74	32° 17' 49.370 N	103° 59' 58.507 W
15,876.0	91.40	6.00	10,932.4	4,815.4	414.6	472,052.58	644,466.88	32° 17' 50.297 N	103° 59' 58.432 W
15,971.0	91.20	5.90	10,930.2	4,909.8	424.4	472,147.04	644,476.73	32° 17' 51.232 N	103° 59' 58.314 W
16,065.0	89.80	5.40	10,929.4	5,003.4	433.7	472,240.58	644,485.98	32° 17' 52.157 N	103° 59' 58.203 W
16,160.0	92.70	9.30	10,927.3	5,097.5	445.8	472,334.75	644,498.13	32° 17' 53.089 N	103° 59' 58.058 W
16,255.0	89.20	3.60	10,925.8	5,191.9	456.5	472,429.08	644,508.79	32° 17' 54.022 N	103° 59' 57.930 W
16,350.0	90.10	1.40	10,926.3	5,286.8	460.6	472,523.98	644,512.93	32° 17' 54.961 N	103° 59' 57.878 W
16,444.0	90.20	1.20	10,926.1	5,380.8	462.8	472,617.96	644,515.07	32° 17' 55.891 N	103° 59' 57.850 W



QES

Survey Report - Geographic



Company:	BTA Oil Producers, LLC	Local Co-ordinate Reference:	Well Harroun Ranch 20702 20-17 Fed Com #5H
Project:	Eddy County, New Mexico (NAD 83)	TVD Reference:	WELL @ 3044.0usft (Patterson #288)
Site:	Sec 20, T23-S, R29-E	MD Reference:	WELL @ 3044.0usft (Patterson #288)
Well:	Harroun Ranch 20702 20-17 Fed Com #5H	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
16,539.0	88.50	358.30	10,927.2	5,475.7	462.3	472,712.94	644,514.65	32° 17' 56.831 N	103° 59' 57.851 W
16,634.0	88.80	358.00	10,929.4	5,570.7	459.3	472,807.86	644,511.59	32° 17' 57.770 N	103° 59' 57.884 W
16,729.0	88.90	357.00	10,931.3	5,665.5	455.1	472,902.75	644,507.44	32° 17' 58.709 N	103° 59' 57.929 W
16,823.0	91.90	0.60	10,930.7	5,759.5	453.2	472,996.70	644,505.47	32° 17' 59.639 N	103° 59' 57.948 W
16,918.0	87.20	1.00	10,931.4	5,854.5	454.5	473,091.66	644,506.80	32° 18' 0.579 N	103° 59' 57.929 W
17,013.0	91.40	1.80	10,932.6	5,949.4	456.8	473,186.60	644,509.12	32° 18' 1.518 N	103° 59' 57.899 W
17,108.0	90.20	357.60	10,931.2	6,044.4	456.3	473,281.57	644,508.62	32° 18' 2.458 N	103° 59' 57.901 W
17,203.0	92.50	355.50	10,929.0	6,139.2	450.6	473,376.36	644,502.91	32° 18' 3.396 N	103° 59' 57.964 W
17,297.0	93.00	356.90	10,924.5	6,232.8	444.4	473,470.04	644,496.69	32° 18' 4.323 N	103° 59' 58.033 W
17,392.0	90.30	358.80	10,921.8	6,327.7	440.8	473,564.92	644,493.13	32° 18' 5.262 N	103° 59' 58.071 W
17,487.0	90.50	357.30	10,921.1	6,422.7	437.6	473,659.86	644,489.89	32° 18' 6.202 N	103° 59' 58.106 W
17,582.0	90.90	357.10	10,919.9	6,517.5	432.9	473,754.74	644,485.25	32° 18' 7.141 N	103° 59' 58.156 W
17,676.0	92.20	357.70	10,917.4	6,611.4	428.7	473,848.61	644,480.99	32° 18' 8.070 N	103° 59' 58.202 W
17,770.0	89.80	359.70	10,915.7	6,705.4	426.6	473,942.56	644,478.86	32° 18' 9.000 N	103° 59' 58.224 W
17,865.0	90.20	359.50	10,915.7	6,800.4	425.9	474,037.56	644,478.20	32° 18' 9.940 N	103° 59' 58.228 W
17,960.0	89.00	2.10	10,916.4	6,895.3	427.2	474,132.53	644,479.52	32° 18' 10.880 N	103° 59' 58.209 W
18,054.0	87.90	2.00	10,919.0	6,989.2	430.6	474,226.44	644,482.88	32° 18' 11.809 N	103° 59' 58.167 W
18,149.0	91.30	3.20	10,919.6	7,084.1	434.9	474,321.32	644,487.19	32° 18' 12.748 N	103° 59' 58.113 W
18,244.0	89.20	1.30	10,919.2	7,179.0	438.6	474,416.24	644,490.92	32° 18' 13.687 N	103° 59' 58.066 W
18,338.0	88.30	0.50	10,921.2	7,273.0	440.1	474,510.20	644,492.40	32° 18' 14.617 N	103° 59' 58.046 W
18,433.0	88.50	359.90	10,923.9	7,368.0	440.4	474,605.17	644,492.73	32° 18' 15.556 N	103° 59' 58.038 W
18,529.0	90.90	1.40	10,924.4	7,463.9	441.5	474,701.15	644,493.82	32° 18' 16.506 N	103° 59' 58.022 W
18,623.0	89.80	0.70	10,923.8	7,557.9	443.2	474,795.13	644,495.54	32° 18' 17.436 N	103° 59' 57.999 W
18,717.0	90.20	1.90	10,923.8	7,651.9	445.4	474,889.10	644,497.67	32° 18' 18.366 N	103° 59' 57.970 W
18,812.0	87.80	0.60	10,925.5	7,746.9	447.4	474,984.06	644,499.75	32° 18' 19.306 N	103° 59' 57.943 W
18,906.0	88.40	0.60	10,928.6	7,840.8	448.4	475,078.00	644,500.73	32° 18' 20.235 N	103° 59' 57.928 W
19,001.0	90.10	1.00	10,929.8	7,935.8	449.8	475,172.98	644,502.06	32° 18' 21.175 N	103° 59' 57.909 W
19,095.0	90.90	0.40	10,929.0	8,029.8	450.9	475,266.97	644,503.20	32° 18' 22.105 N	103° 59' 57.892 W
19,190.0	91.30	1.30	10,927.2	8,124.7	452.3	475,361.94	644,504.61	32° 18' 23.045 N	103° 59' 57.872 W
19,285.0	89.40	0.30	10,926.6	8,219.7	453.6	475,456.92	644,505.94	32° 18' 23.985 N	103° 59' 57.853 W
19,380.0	92.40	4.20	10,925.1	8,314.6	457.4	475,551.81	644,509.67	32° 18' 24.924 N	103° 59' 57.807 W
19,475.0	89.90	2.90	10,923.2	8,409.4	463.2	475,646.60	644,515.55	32° 18' 25.861 N	103° 59' 57.735 W
19,570.0	89.80	4.50	10,923.5	8,504.2	469.4	475,741.39	644,521.68	32° 18' 26.799 N	103° 59' 57.660 W
19,664.0	88.20	3.30	10,925.1	8,598.0	475.8	475,835.16	644,528.07	32° 18' 27.727 N	103° 59' 57.582 W
19,759.0	86.20	0.40	10,929.8	8,692.8	478.8	475,929.98	644,531.13	32° 18' 28.665 N	103° 59' 57.543 W
19,853.0	91.30	1.60	10,931.8	8,786.7	480.5	476,023.91	644,532.77	32° 18' 29.595 N	103° 59' 57.520 W
19,948.0	91.60	359.70	10,929.4	8,881.7	481.5	476,118.87	644,533.85	32° 18' 30.534 N	103° 59' 57.504 W
20,044.0	91.00	358.10	10,927.2	8,977.6	479.7	476,214.82	644,532.01	32° 18' 31.484 N	103° 59' 57.522 W
20,138.0	91.30	357.70	10,925.3	9,071.5	476.3	476,308.74	644,528.56	32° 18' 32.414 N	103° 59' 57.559 W
20,233.0	89.80	355.80	10,924.4	9,166.4	470.9	476,403.58	644,523.18	32° 18' 33.352 N	103° 59' 57.618 W
20,327.0	88.60	353.70	10,925.7	9,260.0	462.3	476,497.17	644,514.58	32° 18' 34.279 N	103° 59' 57.715 W
20,422.0	90.30	356.00	10,926.6	9,354.6	453.7	476,591.77	644,506.05	32° 18' 35.215 N	103° 59' 57.811 W
20,516.0	88.50	356.70	10,927.6	9,448.4	447.8	476,685.57	644,500.07	32° 18' 36.143 N	103° 59' 57.877 W
20,610.0	90.50	0.20	10,928.5	9,542.3	445.2	476,779.51	644,497.53	32° 18' 37.073 N	103° 59' 57.903 W
20,705.0	90.60	359.70	10,927.5	9,637.3	445.1	476,874.51	644,497.45	32° 18' 38.013 N	103° 59' 57.901 W
20,800.0	93.70	0.70	10,924.0	9,732.2	445.5	476,969.43	644,497.78	32° 18' 38.952 N	103° 59' 57.894 W
20,894.0	88.50	0.40	10,922.2	9,826.2	446.4	477,063.37	644,498.68	32° 18' 39.882 N	103° 59' 57.880 W
20,989.0	88.30	1.60	10,924.8	9,921.1	448.0	477,158.32	644,500.34	32° 18' 40.822 N	103° 59' 57.857 W
21,065.3	88.78	2.00	10,926.8	9,997.4	450.4	477,234.56	644,502.73	32° 18' 41.576 N	103° 59' 57.826 W
330' PA Crossed @ 21065.3' MD / 10926.8' TVD									
21,084.0	88.90	2.10	10,927.1	10,016.0	451.1	477,253.24	644,503.40	32° 18' 41.761 N	103° 59' 57.818 W
21,179.0	89.30	3.00	10,928.6	10,110.9	455.3	477,348.13	644,507.63	32° 18' 42.700 N	103° 59' 57.765 W
21,226.0	89.70	2.50	10,929.1	10,157.9	457.6	477,395.08	644,509.88	32° 18' 43.164 N	103° 59' 57.737 W
21,288.0	89.70	2.50	10,929.4	10,219.8	460.3	477,457.02	644,512.59	32° 18' 43.777 N	103° 59' 57.703 W
TD @ 21288.0' MD / 10929.4' TVD									



QES
Survey Report - Geographic



Company:	BTA Oil Producers, LLC	Local Co-ordinate Reference:	Well Harroun Ranch 20702 20-17 Fed Com #5H
Project:	Eddy County, New Mexico (NAD 83)	TVD Reference:	WELL @ 3044.0usft (Patterson #288)
Site:	Sec 20, T23-S, R29-E	MD Reference:	WELL @ 3044.0usft (Patterson #288)
Well:	Harroun Ranch 20702 20-17 Fed Com #5H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Design Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
138.0	138.0	0.1	0.1	First MWD Survey @ 138.0' MD / 138.0' TVD	
11,074.0	10,922.0	22.9	413.5	330' PA Crossed @ 11074.0' MD / 10922.0' TVD	
21,065.3	10,926.8	9,997.4	450.4	330' PA Crossed @ 21065.3' MD / 10926.8' TVD	
21,288.0	10,929.4	10,219.8	460.3	TD @ 21288.0' MD / 10929.4' TVD	

Well Name: HARROUN RANCH FED COM	Well Location: T23S / R29E / SEC 20 / SESE /	County or Parish/State:
Well Number: 5H	Type of Well: OTHER	Allottee or Tribe Name:
Lease Number: NMNM119271	Unit or CA Name:	Unit or CA Number: NMNM138686
US Well Number:	Well Status: Drilling Well	Operator: BTA OIL PRODUCERS LLC

Subsequent Report

Type of Submission: Subsequent Report	Type of Action: Hydraulic Fracturing
Date Sundry Submitted: 06/21/2021	Time Sundry Submitted: 01:50
Date Operation Actually Began: 05/22/2021	

Actual Procedure: TD reached: 12/7/2020 @ 21,288' 4/17/2021 - 5/7/2021: PERF AND FRAC wolfcamp 11,080'-21,065'. 614,169 total fluid. 30.45MM#sand 5/20/2021: DRILLED OUT PLUGS. 5/22/2021: BEGIN FLOWBACK OPERATIONS 5/22/2021: DATE OF FIRST PRODUCTION

Operator Certification

I certify that the foregoing is true and correct. Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction. Electronic submission of Sundry Notices through this system satisfies regulations requiring a submission of Form 3160-5 or a Sundry Notice.

Operator Electronic Signature: SAMMY HAJAR	Signed on: JUN 21, 2021 01:49 PM
Name: BTA OIL PRODUCERS LLC	
Title: Regulatory Analyst	
Street Address: 104 S. Pecos	
City: Midland	State: TX
Phone: (432) 682-3753	
Email address: shajar@btaoil.com	

Field Representative

Representative Name:		
Street Address:		
City:	State:	Zip:
Phone:		
Email address:		

Well Name: HARROUN RANCH FED COM	Well Location: T23S / R29E / SEC 20 / SESE /	County or Parish/State:
Well Number: 5H	Type of Well: OTHER	Allottee or Tribe Name:
Lease Number: NMNM119271	Unit or CA Name:	Unit or CA Number: NMNM138686
US Well Number:	Well Status: Drilling Well	Operator: BTA OIL PRODUCERS LLC

CONFIDENTIAL



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

Well Completion Print Report

07/01/2021

Operator Name BTA OIL PRODUCERS LLC	Well Name HARROUN RANCH FED COM	Well Number 5H	US Well Number 3001546976
SHL SESE Sec 20 23S 29E	County EDDY	State NM	Lease Number(s) NMNM119271
Well Type OTHER	Well Status Drilling Well	Agreement Name	Agreement Number(s) NMNM138686
Allottee/Tribe Name	Well Pad Name HARROUN RANCH FED COM	Well Pad Number 5H & 6H	ID 10400047899

Section 1 - General

Well Completion Report Id: 77553	Submission Date: N/A until DB Work	
BLM Office: Carlsbad Field Office	User: Sammy Hajar	Title: Regulatory Analyst
Federal/Indian: FEDERAL	Lease Number: NMNM119271	Lease Acres:
Agreement in place?: YES	Federal or Indian Agreement: FEDERAL	
Agreement Number: NMNM138686	Agreement Name:	
Keep this Well Completion Report confidential?: YES		
APD Operator: BTA OIL PRODUCERS LLC		

Section 2 - Well Information

Field/Pool or Exploratory: Field/Pool	Pool Name: PURPLE SAGE;	Field Name: WOLFCAMP
Well Type: OTHER	Describe Other Well Type: GAS WELL	
Spud Date: 11-03-2020		
Date Total Measured Depth Reached: 12-07-2020		
Drill & Abandon or Ready To Produce: READY TO PRODUCE		
Well Class: HORIZONTAL		

Section 3 - Geologic Formations

Formation Name	Lithology	Describe Lithology	Elevation	TVD	MD	Mineral Resources	Describe Mineral Resources

Operator Name BTA OIL PRODUCERS LLC	Well Name HARROUN RANCH FED COM	Well Number 5H	US Well Number 3001546976
SHL SESE Sec 20 23S 29E	County EDDY	State NM	Lease Number(s) NMNM119271
Well Type OTHER	Well Status Drilling Well	Agreement Name	Agreement Number(s) NMNM138686
Allottee/Tribe Name	Well Pad Name HARROUN RANCH FED COM	Well Pad Number 5H & 6H	ID 10400047899

Completion and Completed Intervals

Completion Data

Wellbore Code	Completion Code	Interval Number	Case Number	Lease Number	Well Completion Type	Describe Well Completion Type	Completion Status	Date Completed	Date First Produced	Formation	Interval Top (MD)	Interval Bottom (MD)	Interval Perforated?	Perforation Size	Number of Holes	Status of Interval
00	S1	1	NMNM138686	NMNM119271	NEW		PGW	05-22-2021	05-21-2021	WOLFCA MP	9928	10903	Y	.42	2304	OPEN

Treatment Data

Wellbore Code	Completion Code	Interval Number	Interval Treated?	Treatment Type	Totle Fluid (bbls)	Total Proppant (lbs)	Treatment Remarks
00	S1	1	Y	FRAC	614169		

Production Data

Wellbore Code	Completion Code	Interval Number	API Oil Gravity	Gas Gravity	Production Method	Describe Production	Disposition of Gas	Describe Disposition
00	S1	1			FLows FROM WELL		SOLD	

Operator Name BTA OIL PRODUCERS LLC	Well Name HARROUN RANCH FED COM	Well Number 5H	US Well Number 3001546976
SHL SESE Sec 20 23S 29E	County EDDY	State NM	Lease Number(s) NMNM119271
Well Type OTHER	Well Status Drilling Well	Agreement Name	Agreement Number(s) NMNM138686
Allottee/Tribe Name	Well Pad Name HARROUN RANCH FED COM	Well Pad Number 5H & 6H	ID 10400047899

Test Data

Wellbore Code	Completion Code	Interval Number	Test Date	Hours Tested	24-Hour Rate Oil (bbls)	24-Hour Rate Gas (MCF)	24-Hour Rate Water(BWPD)	Gas-Oil Ratio (SCF/Bbl)	Choke Size	Tubing Pressure	Tubing Pressure Shut-In (psi)	Casing Pressure (psi)
00	S1	1	05/28/2021	24	712	7018	2502	9856	28/64			4100

Well Location

Survey Type: RECTANGULAR

Survey Number:

Datum: NAD83

Vertical Datum: NGVD29

Reference Datum: GL

State	Meridian	County	Latitude	Longitude	Elevation (MSL)	Lease Type	Lease Number	Plug TVD (ft)	Plug MD (ft)	Plug Type	NS-Foot	NS-Indicator	EW-Foot	EW-Indicator	Township	Range	Section	Aliquot/Lot/Tract
SHL	NEW MEXICO	NEW MEXICO PRINCIPAL	EDDY	32.284072	-104.000954	3019	FEDERAL	NMNM119271			310	FSL	765	FEL	23S	29E	20	SESE
KOP Wellbore 00	NEW MEXICO	NEW MEXICO PRINCIPAL	EDDY	32.284147	-103.999616	-7906	FEE	FEE			335	FSL	351	FEL	23S	29E	20	SESE
PPP Wellbore 00	NEW MEXICO	NEW MEXICO PRINCIPAL	EDDY	32.284147	-103.999616	-7906	FEE	FEE			335	FSL	351	FEL	23S	29E	20	SESE
EXIT Wellbore 00	NEW MEXICO	NEW MEXICO PRINCIPAL	EDDY	32.311542	-103.999397	-7907	FEE	FEE			332	FNL	361	FEL	23S	29E	17	NENE
BHL Wellbore 00	NEW MEXICO	NEW MEXICO PRINCIPAL	EDDY	32.312154	-103.999362	-7910	FEE	FEE			110	FNL	353	FEL	23S	29E	17	NENE

Operator Name BTA OIL PRODUCERS LLC	Well Name HARROUN RANCH FED COM	Well Number 5H	US Well Number 3001546976
SHL SESE Sec 20 23S 29E	County EDDY	State NM	Lease Number(s) NMNM119271
Well Type OTHER	Well Status Drilling Well	Agreement Name	Agreement Number(s) NMNM138686
Allottee/Tribe Name	Well Pad Name HARROUN RANCH FED COM	Well Pad Number 5H & 6H	ID 10400047899

Casing, Liner and Tubing

Casing and Liner

Wellbore Code	Casing String Type	Hole Size	Top Setting Depth (MD)	Bottom Setting Depth (MD)	Casing Size	Wt(lbs/ft)	Casing Grade	Describe Other Casing Grade	Joint	Other Joint	Amount Pulled (ft)
00	SURFACE	14.75	0	460	10.75	40.5	J-55		ST&C		
00	PRODUCT ION	6.75	0	10201	5.5	20	P-110		BUTT		
00	INTERMEDIATE	9.875	0	10368	7.625	29.7	P-110		BUTT		
00	PRODUCT ION	6.75	10201	21280	5.0	18	P-110		BUTT		

Cementing

Wellbore Code	Casing String Type	Stage Tool Depth	Cement Lead Type	Cement Lead Qty (sks)	Cement Lead Yield (cu.ft/sks)	Cement Lead Top (MD)	Cement Tail Type	Cement Tail Qty (sks)	Cement Tail Yield(cu.ft/sks)	Cement Tail Top (MD)	Total (Lead + Tail) Cement Slurry Volume (bbbls)
00	SURFACE		Class C	160	1.8	0	Class C	200	1.34	255	
00	PRODUCT ION		Class H	0	0	9245					
00	INTERMEDIATE		Class H	525	2.64	2952	Class H	400	1.19	8560	
00	INTERMEDIATE	2952	Class C	405	2.19	0	Class C	150	1.33	2525	

Operator Name BTA OIL PRODUCERS LLC	Well Name HARROUN RANCH FED COM	Well Number 5H	US Well Number 3001546976
SHL SESE Sec 20 23S 29E	County EDDY	State NM	Lease Number(s) NMNM119271
Well Type OTHER	Well Status Drilling Well	Agreement Name	Agreement Number(s) NMNM138686
Allottee/Tribe Name	Well Pad Name HARROUN RANCH FED COM	Well Pad Number 5H & 6H	ID 10400047899

Cementing

Wellbore Code	Casing String Type	Stage Tool Depth	Cement Lead Type	Cement Lead Qty (sks)	Cement Lead Yield (cu.ft/sks)	Cement Lead Top (MD)	Cement Tail Type	Cement Tail Qty (sks)	Cement Tail Yield(cu.ft/sks)	Cement Tail Top (MD)	Total (Lead + Tail) Cement Slurry Volume (bbls)
00	PRODUCTION		Class H	1135	1.27	10248					

Tubing

Wellbore Code	Tubing Size	Describe Other	Tubing Setting Depth (MD/ft)	Packer Depth (MD/ft)	Tubing Weight	Tubing Grade	Describe Other	Tubing Coupling	Describe Other
00									

Logs

Wellbore Code	Log Upload	Was Well Cored?	Was DST Run?	Directional Survey?	Geologic Report Completed?	Wellbore Diagram
00	YES	NO	NO	YES	NO	YES

Operator Name BTA OIL PRODUCERS LLC	Well Name HARROUN RANCH FED COM	Well Number 5H	US Well Number 3001546976
SHL SESE Sec 20 23S 29E	County EDDY	State NM	Lease Number(s) NMNM119271
Well Type OTHER	Well Status Drilling Well	Agreement Name	Agreement Number(s) NMNM138686
Allottee/Tribe Name	Well Pad Name HARROUN RANCH FED COM	Well Pad Number 5H & 6H	ID 10400047899

Operator Certification

I hereby certify that the foregoing and attached information is complete and correct as determined from all available records. Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction. Electronic submission of Well Completion Reports through this system satisfies regulations requiring a submission of Form 3160-4 or a Well Completion Report.

Name: BTA OIL PRODUCERS LLC

Signed By: Sammy Hajar

Title: Regulatory Analyst

Signed on: 07/01/2021

Street Address: 104 S. Pecos

City: Midland

State: TX

Zip: 79701

Phone: (432)682-3753

Email address: shajar@btaoil.com

Field Representative

Representative Name:

Street Address:

City:

State:

Zip:

Phone:

Extension:

Email address:

Attachments

2_Inch_TVD_Logs_Harroun_Ranch_20702_20_17_Fed_Com_5H_1__20210701135612.pdf

QES__Harroun_Ranch_20702_20_17_Fed_Com__20210701135726

21130231_20702_HARROUN_RANCH_FEDERAL__20210701135731

Harroun_Ranch_5H_WBD_20210701135915.pdf

21130231_20702_HARROUN_RANCH_FEDERAL_5H_C102_20210701140003.pdf

Operator Name BTA OIL PRODUCERS LLC	Well Name HARROUN RANCH FED COM	Well Number 5H	US Well Number 3001546976
SHL SESE Sec 20 23S 29E	County EDDY	State NM	Lease Number(s) NMNM119271
Well Type OTHER	Well Status Drilling Well	Agreement Name	Agreement Number(s) NMNM138686
Allottee/Tribe Name	Well Pad Name HARROUN RANCH FED COM	Well Pad Number 5H & 6H	ID 10400047899

QES___Harroun_Ranch_20702_20_17_Fed_Com_5H___Final_Survey_Geo_Rpt_20210701140012.pdf

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

ACKNOWLEDGMENTS

Action 34668

ACKNOWLEDGMENTS

Operator: BTA OIL PRODUCERS, LLC 104 S Pecos Midland, TX 79701	OGRID: 260297
	Action Number: 34668
	Action Type: [C-104] Completion Packet (C-104C)

ACKNOWLEDGMENTS

☒	I hereby certify that the required Water Use Report has been, or will be, submitted for this wells completion.
☒	I hereby certify that the required FracFocus disclosure has been, or will be, submitted for this wells completion.

District I

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Phone:(575) 393-6161 Fax:(575) 393-0720

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

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

CONDITIONS

Action 34668

CONDITIONS

Operator: BTA OIL PRODUCERS, LLC 104 S Pecos Midland, TX 79701	OGRID: 260297
	Action Number: 34668
	Action Type: [C-104] Completion Packet (C-104C)

CONDITIONS

Created By	Condition	Condition Date
ksimmons	None	8/23/2021