

BTA Oil Producers

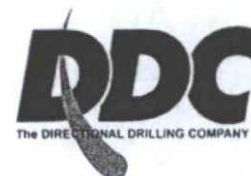
Lea County, NM
Sec 12 T10-S R33-E
8806 JV-P Eagle #2H

Sidetrack #1

Survey: MWD

DDC Survey Report

20 February, 2012



DEC 15 2015

DDC Survey Report



Company: BTA Oil Producers
Project: Lea County, NM
Site: Sec 12 T10-S R33-E
Well: 8806 JV-P Eagle #2H
Wellbore: Sidetrack #1
Design: Sidetrack #1

Local Co-ordinate Reference: Well 8806 JV-P Eagle #2H
TVD Reference: WELL @ 4219.0usft (Original Well Elev)
MD Reference: WELL @ 4219.0usft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Project	Lea County, NM		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site Sec 12 T10-S R33-E

Site Position: Northing: 897,289.50 usft Latitude: 33° 27' 50.395 N
From: Map Easting: 746,765.30 usft Longitude: 103° 31' 27.098 W
Position Uncertainty: 0.0 usft Slot Radius: 13-3/16 " Grid Convergence: 0.45 °

Well 8806 JV-P Eagle #2H

Well Position +N/-S 0.0 usft Northing: 897,289.50 usft Latitude: 33° 27' 50.395 N
+E/-W 0.0 usft Easting: 746,765.30 usft Longitude: 103° 31' 27.098 W
Position Uncertainty 0.0 usft Wellhead Elevation: usft Ground Level: 4,219.0 usft

Wellbore Sidetrack #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	1/26/2012	7.58	61.32	49,299

Design Sidetrack #1

Audit Notes:

Version: 1.0 Phase: ACTUAL Tie On Depth: 7,491.0

Vertical Section:

Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
0.0	0.0	0.0	133.84

Survey Program Date 2/20/2012

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
100.0	7,491.0	GYRO (Wellbore #1)	Good_gyro	Good Gyro
7,540.0	13,267.0	MWD (Sidetrack #1)	MWD default	MWD - Standard

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
Tie In @ 7491' MD / 7491' TVD									
7,491.0	0.58	275.54	7,490.8	-2.1	-4.5	-1.9	0.00	0.00	0.00
7,540.0	0.70	140.40	7,539.8	-2.3	-4.6	-1.8	2.42	0.24	-275.80
7,583.0	1.80	129.10	7,582.8	-2.9	-3.9	-0.8	2.61	2.56	-26.28
7,615.0	3.20	130.50	7,614.7	-3.8	-2.8	0.6	4.38	4.38	4.38
Crossed Hard Line @ 7665' MD / 7665' TVD									
7,665.0	3.85	131.17	7,664.6	-5.8	-0.5	3.6	1.29	1.29	1.34
7,677.0	4.00	131.30	7,676.6	-6.3	0.1	4.5	1.29	1.29	1.07
7,708.0	3.80	131.20	7,707.5	-7.7	1.7	6.6	0.65	-0.65	-0.32

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Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
7,771.0	2.80	133.20	7,770.4	-10.2	4.4	10.2	1.60	-1.59	3.17
7,834.0	2.60	138.60	7,833.4	-12.3	6.4	13.2	0.51	-0.32	8.57
7,897.0	1.50	149.40	7,896.3	-14.1	7.8	15.4	1.84	-1.75	17.14
7,960.0	1.20	176.10	7,959.3	-15.4	8.3	16.7	1.09	-0.48	42.38
8,023.0	1.40	174.00	8,022.3	-16.9	8.4	17.7	0.33	0.32	-3.33
8,086.0	1.10	190.80	8,085.3	-18.2	8.4	18.7	0.75	-0.48	26.67
8,181.0	0.50	196.80	8,180.3	-19.5	8.1	19.3	0.64	-0.63	6.32
8,224.0	0.60	198.60	8,223.3	-19.9	7.9	19.5	0.24	0.23	4.19
8,271.0	1.40	159.00	8,270.2	-20.7	8.1	20.1	2.15	1.70	-84.26
8,303.0	3.60	130.10	8,302.2	-21.7	9.0	21.5	7.71	6.88	-90.31
8,334.0	7.20	134.00	8,333.1	-23.7	11.1	24.4	11.67	11.61	12.58
8,366.0	10.90	137.60	8,364.7	-27.3	14.6	29.4	11.69	11.56	11.25
8,396.0	13.80	135.10	8,394.0	-31.9	19.1	35.8	9.83	9.67	-8.33
8,429.0	17.50	132.50	8,425.7	-38.1	25.5	44.7	11.41	11.21	-7.88
8,460.0	21.10	131.90	8,455.0	-44.9	33.1	55.0	11.63	11.61	-1.94
8,492.0	24.00	131.90	8,484.5	-53.1	42.2	67.3	9.06	9.06	0.00
8,523.0	26.80	133.40	8,512.5	-62.1	52.0	80.5	9.27	9.03	4.84
8,555.0	29.70	135.50	8,540.7	-72.8	62.8	95.7	9.58	9.06	6.56
8,586.0	33.10	135.60	8,567.2	-84.3	74.1	111.8	10.97	10.97	0.32
8,618.0	36.10	134.70	8,593.5	-97.2	86.9	130.0	9.51	9.38	-2.81
8,649.0	38.60	134.70	8,618.2	-110.4	100.3	148.8	8.06	8.06	0.00
8,681.0	41.60	134.40	8,642.6	-124.9	115.0	169.4	9.39	9.38	-0.94
8,712.0	44.60	134.40	8,665.3	-139.7	130.1	190.6	9.68	9.68	0.00
8,744.0	47.20	134.10	8,687.5	-155.7	146.6	213.6	8.15	8.13	-0.94
8,775.0	49.60	134.10	8,708.1	-171.8	163.2	236.7	7.74	7.74	0.00
8,807.0	52.60	133.40	8,728.2	-189.0	181.2	261.6	9.53	9.38	-2.19
8,838.0	54.90	133.50	8,746.5	-206.2	199.3	286.6	7.42	7.42	0.32
8,869.0	57.40	133.70	8,763.8	-224.0	218.0	312.4	8.08	8.06	0.65
8,901.0	60.90	133.70	8,780.2	-243.0	237.8	339.8	10.94	10.94	0.00
8,933.0	64.40	133.90	8,794.9	-262.6	258.4	368.3	10.95	10.94	0.63
8,964.0	67.20	134.00	8,807.6	-282.3	278.7	396.5	9.04	9.03	0.32
8,996.0	69.90	134.00	8,819.3	-303.0	300.1	426.3	8.44	8.44	0.00
9,028.0	73.80	133.60	8,829.3	-324.0	322.1	456.7	12.25	12.19	-1.25
9,059.0	76.90	133.20	8,837.1	-344.6	343.9	486.7	10.08	10.00	-1.29
9,090.0	79.60	132.50	8,843.4	-365.2	366.1	517.1	8.99	8.71	-2.26
9,122.0	83.40	132.50	8,848.2	-386.6	389.4	548.7	11.88	11.88	0.00
9,211.0	88.20	134.70	8,854.7	-447.8	453.7	637.4	5.93	5.39	2.47
9,275.0	88.90	134.10	8,856.3	-492.6	499.4	701.4	1.44	1.09	-0.94
9,338.0	89.30	134.10	8,857.3	-536.4	544.6	764.4	0.63	0.63	0.00
9,401.0	89.50	134.00	8,858.0	-580.2	589.9	827.4	0.35	0.32	-0.16
9,496.0	89.30	135.00	8,859.0	-646.8	657.7	922.4	1.07	-0.21	1.05
9,591.0	89.30	134.40	8,860.1	-713.6	725.2	1,017.3	0.63	0.00	-0.63
9,686.0	88.90	135.00	8,861.6	-780.4	792.7	1,112.3	0.76	-0.42	0.63

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Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,749.0	87.60	132.70	8,863.5	-824.0	838.1	1,175.3	4.19	-2.06	-3.65
9,781.0	87.20	132.30	8,865.0	-845.6	861.7	1,207.2	1.77	-1.25	-1.25
9,844.0	86.40	132.90	8,868.5	-888.2	908.0	1,270.1	1.59	-1.27	0.95
9,876.0	86.10	132.40	8,870.6	-909.8	931.5	1,302.1	1.82	-0.94	-1.56
9,939.0	86.50	131.30	8,874.7	-951.8	978.3	1,364.9	1.85	0.63	-1.75
10,002.0	87.90	131.10	8,877.7	-993.2	1,025.7	1,427.7	2.24	2.22	-0.32
10,066.0	88.60	131.60	8,879.7	-1,035.5	1,073.7	1,491.7	1.34	1.09	0.78
10,161.0	88.60	131.20	8,882.0	-1,098.3	1,144.9	1,586.5	0.42	0.00	-0.42
10,255.0	89.80	133.00	8,883.3	-1,161.3	1,214.6	1,680.5	2.30	1.28	1.91
10,350.0	89.90	134.20	8,883.6	-1,226.8	1,283.4	1,775.5	1.27	0.11	1.26
10,444.0	89.70	134.00	8,883.9	-1,292.2	1,350.9	1,869.5	0.30	-0.21	-0.21
10,539.0	89.00	133.50	8,885.0	-1,357.9	1,419.6	1,964.5	0.91	-0.74	-0.53
10,603.0	88.70	134.90	8,886.3	-1,402.5	1,465.4	2,028.5	2.24	-0.47	2.19
10,635.0	88.70	134.90	8,887.0	-1,425.1	1,488.1	2,060.4	0.00	0.00	0.00
10,698.0	88.70	135.00	8,888.4	-1,469.6	1,532.7	2,123.4	0.16	0.00	0.16
10,729.0	88.80	135.80	8,889.1	-1,491.7	1,554.4	2,154.4	2.60	0.32	2.58
10,761.0	87.80	135.20	8,890.0	-1,514.5	1,576.9	2,186.4	3.64	-3.13	-1.88
10,824.0	88.00	134.90	8,892.3	-1,559.1	1,621.3	2,249.3	0.57	0.32	-0.48
10,919.0	87.70	135.50	8,895.9	-1,626.4	1,688.2	2,344.2	0.71	-0.32	0.63
10,951.0	88.00	135.10	8,897.1	-1,649.2	1,710.7	2,376.2	1.56	0.94	-1.25
10,982.0	88.10	135.50	8,898.2	-1,671.2	1,732.5	2,407.2	1.33	0.32	1.29
11,046.0	89.10	134.80	8,899.7	-1,716.5	1,777.6	2,471.1	1.91	1.56	-1.09
11,109.0	89.40	132.80	8,900.6	-1,760.1	1,823.1	2,534.1	3.21	0.48	-3.17
11,140.0	89.50	132.50	8,900.9	-1,781.1	1,845.9	2,565.1	1.02	0.32	-0.97
11,203.0	89.50	133.50	8,901.4	-1,824.1	1,892.0	2,628.1	1.59	0.00	1.59
11,298.0	89.70	133.60	8,902.1	-1,889.5	1,960.8	2,723.1	0.24	0.21	0.11
11,392.0	87.80	133.90	8,904.1	-1,954.5	2,028.7	2,817.1	2.05	-2.02	0.32
11,487.0	89.30	133.20	8,906.5	-2,020.0	2,097.5	2,912.0	1.74	1.58	-0.74
11,582.0	89.50	133.10	8,907.5	-2,084.9	2,166.8	3,007.0	0.24	0.21	-0.11
11,676.0	88.70	131.80	8,909.0	-2,148.4	2,236.2	3,101.0	1.62	-0.85	-1.38
11,771.0	88.80	131.80	8,911.1	-2,211.7	2,307.0	3,195.9	0.11	0.11	0.00
11,866.0	88.60	131.20	8,913.2	-2,274.6	2,378.1	3,290.8	0.67	-0.21	-0.63
11,961.0	89.50	133.10	8,914.8	-2,338.3	2,448.5	3,385.7	2.21	0.95	2.00
12,056.0	89.80	133.30	8,915.4	-2,403.4	2,517.8	3,480.7	0.38	0.32	0.21
12,149.0	90.50	135.60	8,915.1	-2,468.5	2,584.2	3,573.7	2.59	0.75	2.47
12,213.0	89.30	135.50	8,915.2	-2,514.2	2,629.0	3,637.7	1.88	-1.88	-0.16
12,276.0	86.90	135.60	8,917.3	-2,559.1	2,673.1	3,700.6	3.81	-3.81	0.16
12,339.0	88.20	135.30	8,920.0	-2,604.0	2,717.2	3,763.5	2.12	2.06	-0.48
12,434.0	88.30	135.10	8,922.9	-2,671.4	2,784.1	3,858.4	0.24	0.11	-0.21
12,529.0	88.30	134.90	8,925.7	-2,738.5	2,851.3	3,953.4	0.21	0.00	-0.21
12,623.0	88.40	135.40	8,928.5	-2,805.1	2,917.6	4,047.3	0.54	0.11	0.53
12,718.0	87.90	134.50	8,931.5	-2,872.2	2,984.8	4,142.3	1.08	-0.53	-0.95
12,782.0	88.70	134.50	8,933.4	-2,917.0	3,030.4	4,206.2	1.25	1.25	0.00
12,845.0	89.10	134.00	8,934.6	-2,961.0	3,075.5	4,269.2	1.02	0.63	-0.79

DDC
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12,908.0	89.20	133.80	8,935.6	-3,004.7	3,120.9	4,332.2	0.35	0.16	-0.32
13,003.0	88.50	133.30	8,937.5	-3,070.1	3,189.7	4,427.2	0.91	-0.74	-0.53
13,098.0	89.70	132.80	8,939.0	-3,134.9	3,259.1	4,522.2	1.37	1.26	-0.53
13,193.0	89.30	133.00	8,939.8	-3,199.6	3,328.7	4,617.1	0.47	-0.42	0.21
13,215.0	89.10	132.50	8,940.1	-3,214.5	3,344.9	4,639.1	2.45	-0.91	-2.27
TD @ 13267' MD / 8941' TVD									
13,267.0	89.10	132.50	8,940.9	-3,249.7	3,383.2	4,691.1	0.00	0.00	0.00

Survey Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
7,491.0	7,490.8	-2.1	-4.5	Tie In @ 7491' MD / 7491' TVD
7,665.0	7,664.6	-5.8	-0.5	Crossed Hard Line @ 7665' MD / 7665' TVD
13,267.0	8,940.9	-3,249.7	3,383.2	TD @ 13267' MD / 8941' TVD

Checked By: _____ Approved By: _____ Date: _____

8806 JV-P Eagle #2H
Lea County, NM
Quote 110589 & WT-12020

Company Name: BTA Oil Producers
8806 JV-P Eagle #2H
Lea County, NM
Rig: Precision 877
Created By: Dina Chance
Date: 2/20/2012



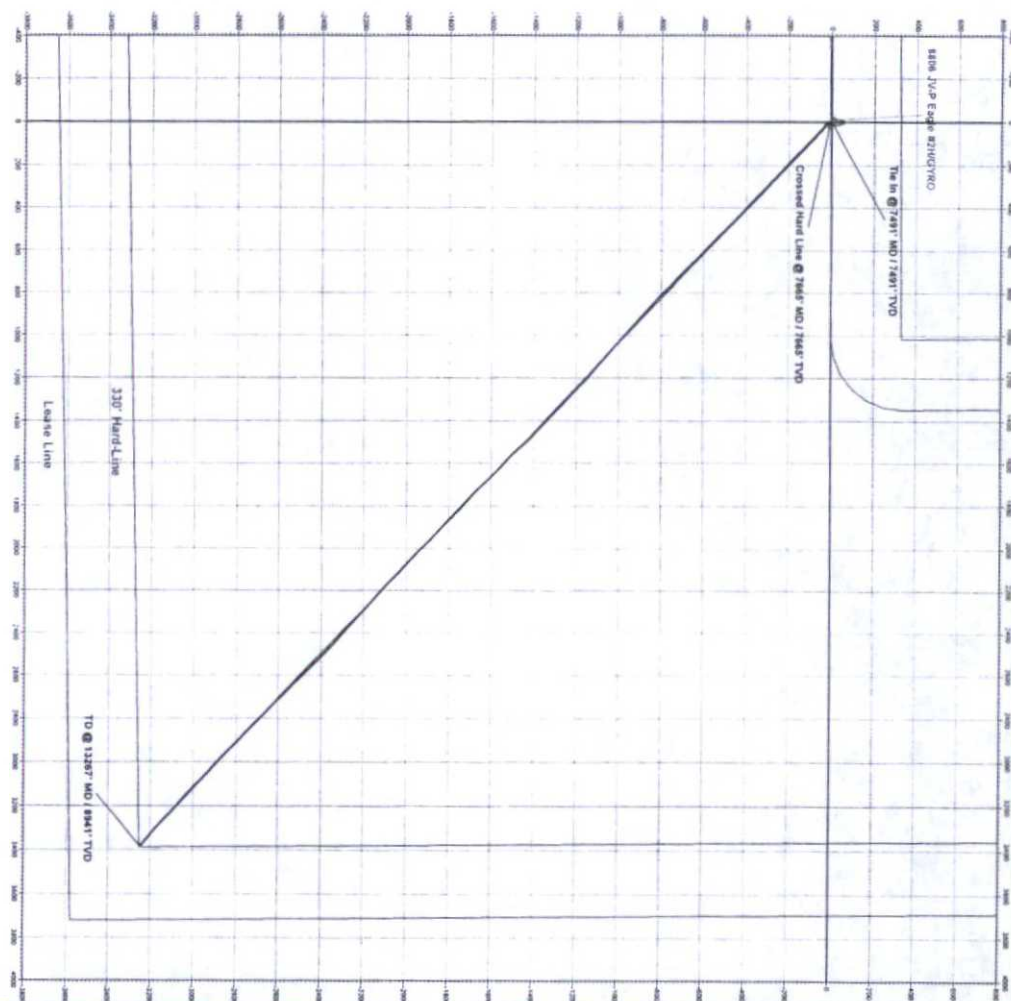
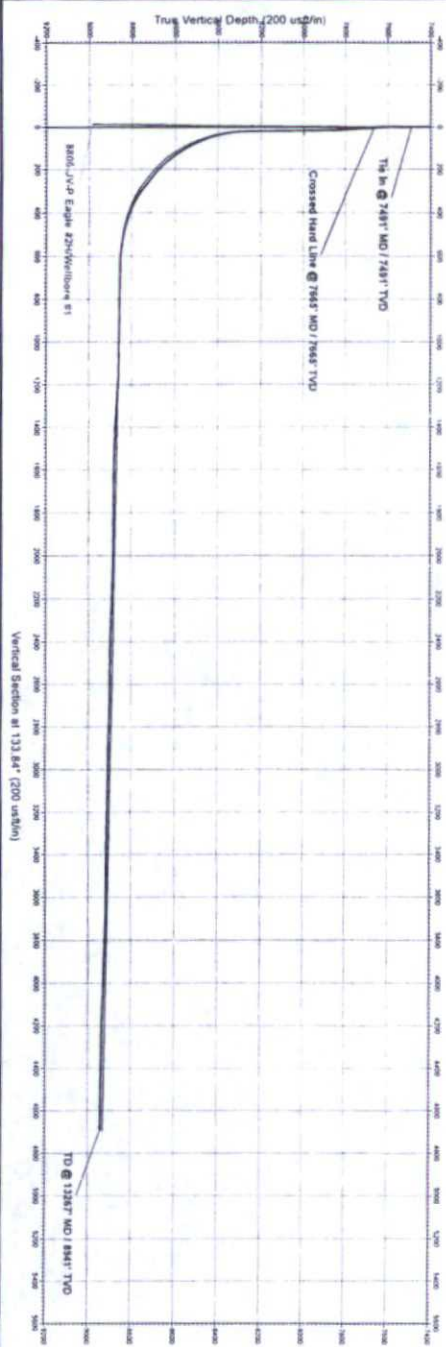
BTA Oil Producers

PROJECT DETAILS: Lea County, NM
Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico East 3001
System Datum: Mean Sea Level

WELL DETAILS: 8806 JV-P Eagle #2H			
Well Name	8806 JV-P Eagle #2H	Well Type	Oil
Well Status	Active	Well Depth	12,000 ft
Well Location	Lea County, NM	Well Coordinates	108° 27' 30.00" W, 37° 27' 30.00" N

OBSERVATION DETAILS			
Observed	True	Observed	True
Observed	True	Observed	True
Observed	True	Observed	True

ANALYSIS			
MD	Inc	MD	Inc
MD	Inc	MD	Inc
MD	Inc	MD	Inc



Azimuths to Grid North
Magnetic North: 7.13°
Magnetic Field
Strength: 49298.5 nT
Dip Angle: 61.32°
Date: 1/26/2012
Model: IGRF2010