

A Gyrodata Directional Survey

Field Copy Not Definitive

for

DEVON ENERGY

Lease: AGATE PWU 21 Well: #2H, 4 1/2" DRILL PIPE

Location: PATTERSON DRILLING RIG #41, EDDY COUNTY, NEW MEXICO

Job Number: MD0911GDM405

Run Date: 23 Sep 2011

Surveyor: Michael Robles, Steve Winther

Calculation Method: MINIMUM CURVATURE

Survey surface coordinates obtained from: Well Plan/Plot

Survey Latitude: 32.648641 deg. N Longitude: 104.087315 deg. W

Azimuth Correction:

Gyro: -0.13000 deg to Grid North

Rotary Table Elevation: 16.00

Vertical Section Calculated from Well Head Location

Closure Calculated from Well Head Location

Horizontal Coordinates Calculated from Well Head Location

30-015-38605

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MEASURED DEPTH feet	INCL deg.	AZIMUTH deg.	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. AZIMUTH feet deg.	HORIZONTAL COORDINATES feet
0.00	0.00	0.00	0.00	0.00	0.0 0.0	0.00 N 0.00 E

0 TO 7228 FT. RATE GYROSCOPIC MULTISHOT SURVEY RUN INSIDE 4 1/2" DRILLPIPE						
ALL MEASURED DEPTHS AND COORDINATES REFERENCED TO PATTERSON DRILLING RIG #41 R.K.B. HEIGHT OF 16FT						

93.00	0.17	216.21	0.18	93.00	0.1 216.2	0.11 S 0.08 W
185.00	0.62	258.85	0.55	185.00	0.7 244.0	0.32 S 0.65 W
277.00	0.58	260.91	0.05	276.99	1.7 253.0	0.49 S 1.60 W
369.00	0.16	249.39	0.46	368.99	2.3 254.4	0.61 S 2.18 W
460.00	0.16	63.92	0.35	459.99	2.3 254.8	0.60 S 2.18 W
552.00	0.29	65.79	0.14	551.99	1.9 256.6	0.44 S 1.86 W
644.00	0.63	58.71	0.37	643.99	1.2 266.0	0.09 S 1.21 W
735.00	0.86	55.72	0.26	734.98	0.6 338.6	0.56 N 0.22 W
825.00	1.43	71.62	0.72	824.96	1.9 47.3	1.29 N 1.40 E
917.00	1.91	74.49	0.53	916.92	4.5 62.5	2.07 N 3.97 E
1008.00	1.71	75.07	0.22	1007.88	7.3 67.3	2.82 N 6.74 E
1100.00	1.47	74.71	0.26	1099.84	9.8 69.3	3.49 N 9.21 E
1191.00	1.16	74.15	0.34	1190.82	11.9 70.2	4.05 N 11.22 E
1287.00	0.88	76.16	0.29	1286.80	13.6 70.8	4.49 N 12.87 E
1383.00	0.62	75.07	0.27	1382.79	14.9 71.2	4.80 N 14.09 E
1479.00	0.40	100.54	0.32	1478.79	15.7 71.9	4.87 N 14.92 E
1575.00	0.33	105.22	0.08	1574.79	16.2 73.0	4.74 N 15.52 E

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MEASURED DEPTH feet	INCL deg.	AZIMUTH deg.	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. AZIMUTH feet deg.	HORIZONTAL COORDINATES feet
1671.00	0.22	165.12	0.30	1670.79	16.5 74.2	4.49 N 15.83 E
1766.00	0.28	176.56	0.08	1765.79	16.4 75.6	4.08 N 15.89 E
1862.00	0.14	208.38	0.18	1861.78	16.3 76.7	3.74 N 15.85 E
1958.00	0.28	212.89	0.15	1957.78	16.0 77.6	3.44 N 15.67 E
2054.00	0.25	239.48	0.13	2053.78	15.7 78.5	3.14 N 15.36 E
2150.00	0.21	288.20	0.20	2149.78	15.3 78.4	3.09 N 15.01 E
2246.00	0.14	241.03	0.16	2245.78	15.1 78.2	3.08 N 14.74 E
2341.00	0.30	180.09	0.28	2340.78	14.9 79.3	2.78 N 14.64 E
2437.00	0.33	217.34	0.21	2436.78	14.7 80.9	2.31 N 14.47 E
2533.00	0.25	205.23	0.10	2532.78	14.3 82.4	1.90 N 14.21 E
2629.00	0.29	224.10	0.10	2628.78	14.0 83.7	1.53 N 13.96 E
2725.00	0.21	130.36	0.38	2724.78	14.0 84.9	1.25 N 13.92 E
3012.00	0.30	2.83	0.16	3011.78	14.5 83.4	1.66 N 14.36 E
3108.00	0.37	10.55	0.09	3107.77	14.6 81.3	2.21 N 14.43 E
3204.00	0.43	2.98	0.08	3203.77	14.8 78.8	2.88 N 14.50 E
3300.00	0.48	349.03	0.13	3299.77	14.9 75.9	3.63 N 14.45 E
3395.00	0.56	353.83	0.10	3394.76	15.0 72.6	4.48 N 14.32 E
3491.00	0.56	353.79	0.00	3490.76	15.2 69.2	5.42 N 14.22 E
3587.00	0.78	14.97	0.34	3586.75	15.7 65.6	6.51 N 14.34 E
3683.00	0.73	10.06	0.09	3682.75	16.5 62.1	7.75 N 14.61 E
3779.00	0.75	345.97	0.32	3778.74	17.1 58.4	8.96 N 14.57 E
3874.00	0.96	306.17	0.65	3873.73	17.0 53.9	10.03 N 13.77 E

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Job Number: MD0911GDM405

MEASURED DEPTH feet	INCL deg.	AZIMUTH deg.	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. AZIMUTH feet deg.	HORIZONTAL COORDINATES feet
3970.00	1.38	326.03	0.60	3969.71	16.9 47.4	11.46 N 12.48 E
4066.00	1.83	318.45	0.52	4065.67	17.4 38.6	13.57 N 10.82 E
4162.00	2.26	319.21	0.45	4161.61	18.3 27.9	16.15 N 8.56 E
4258.00	2.23	325.17	0.25	4257.53	20.1 18.1	19.12 N 6.26 E
4354.00	2.34	319.09	0.28	4353.46	22.5 10.0	22.13 N 3.91 E
4449.00	2.95	318.03	0.64	4448.36	25.4 2.3	25.41 N 1.00 E
4545.00	2.88	313.06	0.27	4544.23	29.0 355.2	28.90 N 2.41 W
4641.00	3.15	327.83	0.85	4640.10	33.2 350.3	32.78 N 5.58 W
4737.00	2.56	335.33	0.73	4735.98	37.8 348.0	36.96 N 7.87 W
4833.00	2.58	332.87	0.12	4831.89	42.0 346.6	40.83 N 9.76 W
4928.00	2.58	339.98	0.34	4926.79	46.2 345.6	44.74 N 11.46 W
5024.00	2.52	350.35	0.48	5022.70	50.4 345.6	48.85 N 12.56 W
5120.00	2.35	351.48	0.18	5118.61	54.5 346.0	52.88 N 13.20 W
5216.00	2.13	350.92	0.23	5214.53	58.2 346.3	56.59 N 13.77 W
5312.00	1.52	326.46	1.02	5310.49	61.2 346.0	59.41 N 14.76 W
5408.00	1.31	269.66	1.42	5406.46	62.7 344.7	60.46 N 16.56 W
5503.00	1.29	267.47	0.06	5501.44	63.2 342.8	60.41 N 18.71 W
5599.00	1.51	279.85	0.39	5597.41	64.1 340.8	60.58 N 21.04 W
5695.00	1.42	273.34	0.20	5693.38	65.2 338.9	60.87 N 23.47 W
5791.00	1.18	266.26	0.30	5789.35	66.1 337.2	60.87 N 25.65 W
5887.00	0.46	249.57	0.78	5885.34	66.4 336.0	60.67 N 27.00 W

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Job Number: MD0911GDM405

MEASURED DEPTH feet	INCL deg.	AZIMUTH deg.	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. AZIMUTH feet deg.	HORIZONTAL COORDINATES feet
5982.00	0.58	195.99	0.51	5980.34	66.1 335.4	60.08 N 27.49 W
6078.00	0.75	185.52	0.22	6076.33	65.2 334.9	58.98 N 27.68 W
6174.00	0.66	180.76	0.11	6172.33	64.1 334.4	57.80 N 27.75 W
6270.00	0.32	192.72	0.37	6268.32	63.4 334.0	56.99 N 27.81 W
6366.00	0.45	334.22	0.76	6364.32	63.6 333.8	57.07 N 28.04 W
6462.00	0.39	1.55	0.22	6460.32	64.2 334.0	57.73 N 28.19 W
6557.00	0.85	35.82	0.60	6555.31	64.9 334.7	58.63 N 27.77 W
6653.00	1.65	58.01	0.96	6651.29	65.4 336.4	59.94 N 26.18 W
6749.00	1.98	58.05	0.34	6747.24	65.9 339.0	61.55 N 23.60 W
6845.00	2.42	58.57	0.46	6843.17	66.7 342.1	63.48 N 20.47 W
6941.00	2.56	61.24	0.19	6939.08	67.7 345.6	65.57 N 16.86 W
7037.00	2.61	59.59	0.09	7034.98	69.0 349.1	67.71 N 13.09 W
7132.00	2.92	63.01	0.37	7129.87	70.5 352.6	69.90 N 9.07 W
7228.00	3.56	68.13	0.73	7225.72	72.2 356.7	72.12 N 4.13 W

Final Station Closure: Distance: 72.24 ft Az: 356.73 deg.

DEVON ENERGY

WELL NUMBER : AGATE PWU 21 #2H

4 1/2" DRILL PIPE SURVEY

DATE RUN : 230911

JOB NUMBER : MD0911GDM405

Azimuth Corrected: -0.1300 deg to Grid North

MD	INC	AZ	TVD	LOCAL		V/S	DOG/ 100FT	
				N	E			
93	0.17	216.21	93	-0.11	-0.08	-0.1	0.18	
185	0.62	258.85	185	-0.32	-0.65	-0.3	0.55	
277	0.58	260.91	276.99	-0.49	-1.6	-0.5	0.05	
369	0.16	249.39	368.99	-0.61	-2.18	-0.6	0.46	
460	0.16	63.92	459.99	-0.6	-2.18	-0.6	0.35	
552	0.29	65.79	551.99	-0.44	-1.86	-0.4	0.14	
644	0.63	58.71	643.99	-0.09	-1.21	-0.1	0.37	
735	0.86	55.72	734.98	0.56	-0.22	0.6	0.26	
825	1.43	71.62	824.96	1.29	1.4	1.3	0.72	
917	1.91	74.49	916.92	2.07	3.97	2.1	0.53	
1008	1.71	75.07	1007.88	2.82	6.74	2.8	0.22	
1100	1.47	74.71	1099.84	3.49	9.21	3.5	0.26	
1191	1.16	74.15	1190.82	4.05	11.22	4	0.34	
1287	0.88	76.16	1286.8	4.49	12.87	4.5	0.29	
1383	0.62	75.07	1382.79	4.8	14.09	4.8	0.27	
1479	0.4	100.54	1478.79	4.87	14.92	4.9	0.32	
1575	0.33	105.22	1574.79	4.74	15.52	4.7	0.08	
1671	0.22	165.12	1670.79	4.49	15.83	4.5	0.3	
1766	0.28	176.56	1765.79	4.08	15.89	4.1	0.08	
1862	0.14	208.38	1861.78	3.74	15.85	3.7	0.18	
1958	0.28	212.89	1957.78	3.44	15.67	3.4	0.15	
2054	0.25	239.48	2053.78	3.14	15.36	3.1	0.13	
2150	0.21	288.2	2149.78	3.09	15.01	3.1	0.2	
2246	0.14	241.03	2245.78	3.08	14.74	3.1	0.16	
2341	0.3	180.09	2340.78	2.78	14.64	2.8	0.28	
2437	0.33	217.34	2436.78	2.31	14.47	2.3	0.21	
2533	0.25	205.23	2532.78	1.9	14.21	1.9	0.1	
2629	0.29	224.1	2628.78	1.53	13.96	1.5	0.1	
2725	0.21	130.36	2724.78	1.25	13.92	1.2	0.38	
3012	0.3	2.83	3011.78	1.66	14.36	1.7	0.16	
3108	0.37	10.55	3107.77	2.21	14.43	2.2	0.09	
3204	0.43	2.98	3203.77	2.88	14.5	2.9	0.08	
3300	0.48	349.03	3299.77	3.63	14.45	3.6	0.13	
3395	0.56	353.83	3394.76	4.48	14.32	4.5	0.1	
3491	0.56	353.79	3490.76	5.42	14.22	5.4	0	
3587	0.78	14.97	3586.75	6.51	14.34	6.5	0.34	
3683	0.73	10.06	3682.75	7.75	14.61	7.7	0.09	
3779	0.75	345.97	3778.74	8.96	14.57	9	0.32	
3874	0.96	306.17	3873.73	10.03	13.77	10	0.65	

3970	1.38	326.03	3969.71	11.46	12.48	11.5	0.6
4066	1.83	318.45	4065.67	13.57	10.82	13.6	0.52
4162	2.26	319.21	4161.61	16.15	8.56	16.2	0.45
4258	2.23	325.17	4257.53	19.12	6.26	19.1	0.25
4354	2.34	319.09	4353.46	22.13	3.91	22.1	0.28
4449	2.95	318.03	4448.36	25.41	1	25.4	0.64
4545	2.88	313.06	4544.23	28.9	-2.41	28.9	0.27
4641	3.15	327.83	4640.1	32.78	-5.58	32.8	0.85
4737	2.56	335.33	4735.98	36.96	-7.87	37	0.73
4833	2.58	332.87	4831.89	40.83	-9.76	40.8	0.12
4928	2.58	339.98	4926.79	44.74	-11.46	44.7	0.34
5024	2.52	350.35	5022.7	48.85	-12.56	48.9	0.48
5120	2.35	351.48	5118.61	52.88	-13.2	52.9	0.18
5216	2.13	350.92	5214.53	56.59	-13.77	56.6	0.23
5312	1.52	326.46	5310.49	59.41	-14.76	59.4	1.02
5408	1.31	269.66	5406.46	60.46	-16.56	60.5	1.42
5503	1.29	267.47	5501.44	60.41	-18.71	60.4	0.06
5599	1.51	279.85	5597.41	60.58	-21.04	60.6	0.39
5695	1.42	273.34	5693.38	60.87	-23.47	60.9	0.2
5791	1.18	266.26	5789.35	60.87	-25.65	60.9	0.3
5887	0.46	249.57	5885.34	60.67	-27	60.7	0.78
5982	0.58	195.99	5980.34	60.08	-27.49	60.1	0.51
6078	0.75	185.52	6076.33	58.98	-27.68	59	0.22
6174	0.66	180.76	6172.33	57.8	-27.75	57.8	0.11
6270	0.32	192.72	6268.32	56.99	-27.81	57	0.37
6366	0.45	334.22	6364.32	57.07	-28.04	57.1	0.76
6462	0.39	1.55	6460.32	57.73	-28.19	57.7	0.22
6557	0.85	35.82	6555.31	58.63	-27.77	58.6	0.6
6653	1.65	58.01	6651.29	59.94	-26.18	59.9	0.96
6749	1.98	58.05	6747.24	61.55	-23.6	61.5	0.34
6845	2.42	58.57	6843.17	63.48	-20.47	63.5	0.46
6941	2.56	61.24	6939.08	65.57	-16.86	65.6	0.19
7037	2.61	59.59	7034.98	67.71	-13.09	67.7	0.09
7132	2.92	63.01	7129.87	69.9	-9.07	69.9	0.37
7228	3.56	68.13	7225.72	72.12	-4.13	72.1	0.73



Weatherford®

Evaluation, Drilling & Intervention
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P.O. Box 61028
Midland, TX USA 79711
Tel. (432) 561-8892 Fax (432) 561-8895

Devon Energy
20 North Broadway
Oklahoma City, OK, 73102

Date: October 7, 2011

Attention: Johnathan Azhcraft

Re: Devon Energy
Well: Agate PWU 21 #2H
Eddy County, New Mexico

Enclosed, please find the original survey performed on the referenced well by Precision Energy Services, Inc. (P-5 No. 676004), a Weatherford company. Other information required by your office is as follows:

Name & Title Of Surveyor	Well Number	Surveyed Depths	Dates Performed	Type of Survey
Justin Ward MWD Supervisor	2H	7247' MD 12146' MD	9/22/2011 10/7/2011	Measurement While Drilling

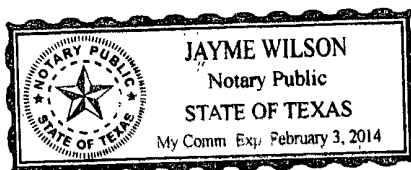
A notarized plan vs. actual is attached to the survey report. If any other information is required, please contact the undersigned at the letterhead address and phone number.

Jesse Aguilar
Area Manager

On this, the 10th day of October, 2011, before me a notary public, the undersigned officer, personally appeared Jesse Aguilar, known to me (or satisfactorily proven) to be the person whose name is subscribed to the within instrument, and acknowledged that he executed the same for the purposes therein contained.

In witness hereof, I hereunto set my hand and official seal.

Notary Public





Agate PWU 21 #2H
Eddy Co, NM



KB ELEV: 3327
GL ELEV: 3311

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	10511.00	89.41	89.61	7871.32	23.20	2920.81	0.00	0.00	2920.79	
2	10607.49	91.98	90.94	7870.15	22.74	3017.28	3.00	27.25	3017.26	
3	10673.60	90.00	90.94	7869.00	21.67	3083.37	3.00	180.00	3083.35	
4	11200.00	90.00	90.94	7869.00	13.07	3609.70	0.00	0.00	3609.69	
5	11230.84	89.07	90.94	7869.25	12.57	3640.53	3.00	179.91	3640.52	
6	12206.26	89.07	90.94	7885.00	-3.38	4615.69	0.00	0.00	4615.69	Pbhl

WELL DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
PWU 21 #2H	0.00	0.00	599794.27	617057.88	32°38'55.096N	104°05'14.357W	N/A

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
Actual BHL	7881.23	6.75	4615.51	599801.02	621673.39	32°38'55.054N	104°04'20.372W	Point

FIELD DETAILS

Eddy Co., NM (NAD 83)

Geodetic System: US State Plane Coordinate System 1983

Ellipsoid: GRS 1980

Zone: New Mexico, Eastern Zone

Magnetic Model: IGRF2010

System Datum: Mean Sea Level

Local North: Grid North

SITE DETAILS

Agate PWU 21 #2H

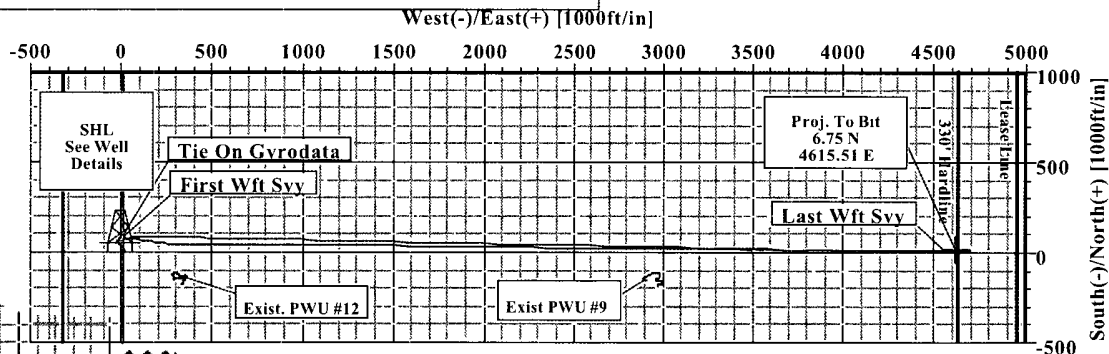
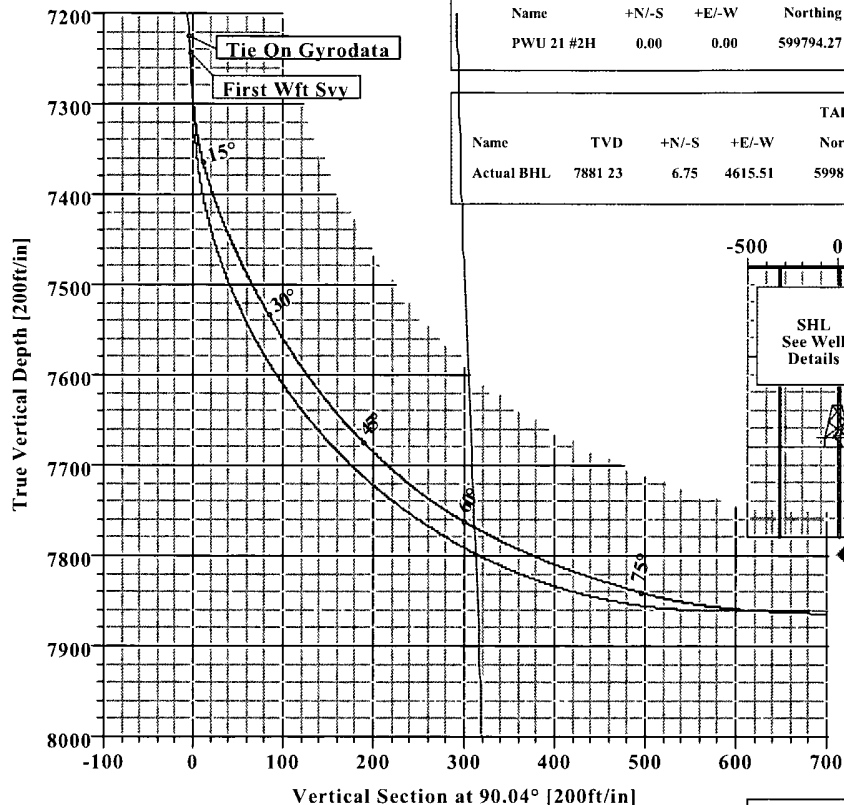
Site Centre Northing: 599794.27

Easting: 617057.88

Ground Level: 3311.00

Positional Uncertainty: 0.00

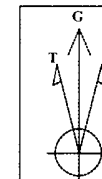
Convergence: 0.13



Weatherford

LEGEND

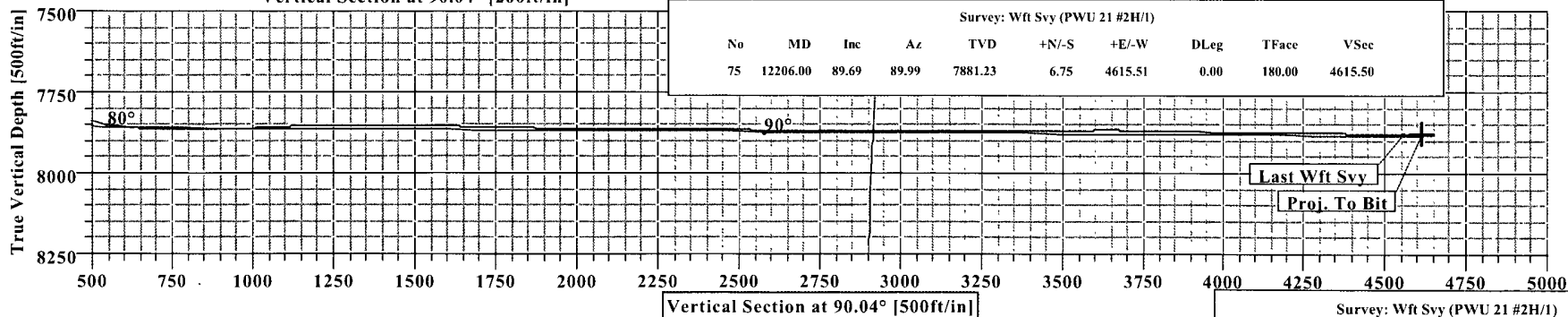
- PWU 21 #2H.1.Gyro
- PWU 21 #2H.1, Plan #2
- Exist. PWU #12 (I)
- Exist. PWU #9 (I)
- Wft Svy



Azimuths to Grid North
True North: -0.13°
Magnetic North: 7.69°

Magnetic Field
Strength: 48816nT
Dip Angle: 60.48°
Date: 9/10/2011
Model: IGRF2010

Total Correction to Grid North: 7.69°



Survey: Wft Svy (PWU 21 #2H/I)

No	MD	Inc	Az	TVD	+N/-S	+E/-W	DLeg	TFace	VSec
75	12206.00	89.69	89.99	7881.23	6.75	4615.51	0.00	180.00	4615.50

Created By: Russell W. Joyner

Date: 10/7/2011



Weatherford International Ltd.

WFT Survey Report X & Y's

**Weatherford**

Company: Devon Energy	Date: 10/7/2011	Time: 05:15:14	Page: 1
Field: Eddy Co., NM (NAD 83)	Co-ordinate(NE) Reference: Well: PWU 21 #2H, Grid North		
Site: Agate PWU 21 #2H	Vertical (TVD) Reference: SITE 3327 0		
Well: PWU 21 #2H	Section (VS) Reference: Well (0.00N,0.00E,90.04Azi)		
Wellpath: 1	Survey Calculation Method: Minimum Curvature	Db: Sybase	

Survey: Wft Svy	Start Date: 9/26/2011
Company: Weatherford International Ltd.	Engineer: Russell W. Joyner
Tool: MWD,MWD - Standard	Tied-to: User Defined

Field: Eddy Co , NM (NAD 83)

Map System: US State Plane Coordinate System 1983
Geo Datum: GRS 1980
Sys Datum: Mean Sea Level

Map Zone: New Mexico, Eastern Zone
Coordinate System: Well Centre
Geomagnetic Model: IGRF2010

Site: Agate PWU 21 #2H

Site Position:	Northing: 599794 27 ft	Latitude: 32 38 55 096 N
From: Map	Easting: 617057 88 ft	Longitude: 104 5 14.357 W
Position Uncertainty: 0 00 ft		North Reference: Grid
Ground Level: 3311 00 ft		Grid Convergence: 0 13 deg

Well: PWU 21 #2H**Slot Name:**

Well Position: +N/-S 0.00 ft	Northing: 599794 27 ft	Latitude: 32 38 55 096 N
+E/-W 0.00 ft	Easting : 617057 88 ft	Longitude: 104 5 14 357 W
Position Uncertainty: 0 00 ft		

Wellpath: 1

Current Datum: SITE	Height 3327.00 ft	Drilled From: Surface
Magnetic Data: 9/10/2011		Tie-on Depth: 0.00 ft
Field Strength: 48816 nT		Above System Datum: Mean Sea Level
Vertical Section: Depth From (TVD)	+N/-S ft	Declination: 7 83 deg
		Mag Dip Angle: 60 48 deg
		+E/-W ft
		Direction deg
0.00	0 00	0.00 90 04

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	DLS deg/100ft	VS ft	MapN ft	MapE ft	Comment
7228.00	3 56	68 13	7225 72	72.12	-4.13	0.00	-4.18	599866.39	617053.75	Tie On Gyrodata First Wft Svy
7247 00	3.75	67.68	7244 68	72 58	-3 00	1 01	-3 05	599866 85	617054.88	
7278.00	3 63	71.35	7275.62	73 28	-1 14	0 85	-1 19	599867 55	617056 74	
7310 00	5 86	80 27	7307 50	73 88	1 43	7 32	1.38	599868 15	617059 31	
7341.00	10 66	86 59	7338.17	74 32	5 86	15 74	5 81	599868 59	617063 74	
7373.00	15 78	87 94	7369.32	74 65	13 17	16 03	13 11	599868 92	617071 05	
7405.00	19 21	89 92	7399 83	74 81	22 78	10 88	22 73	599869 08	617080 66	
7437 00	21 47	91 35	7429 83	74 68	33 90	7 23	33 85	599868 95	617091 78	
7468.00	24 09	94 10	7458.41	74.10	45 89	9 12	45 84	599868 37	617103.77	
7500 00	26.83	96 34	7487 30	72 83	59 58	9 07	59 53	599867 10	617117 46	
7532.00	29 13	96 34	7515 56	71.17	74 50	7 19	74.45	599865 44	617132.38	
7564.00	30 43	96 52	7543 34	69.39	90 30	4 07	90 25	599863 66	617148 18	
7595.00	32 72	97.32	7569.74	67.43	106.41	7 51	106 36	599861 70	617164.29	
7627 00	35 32	97 99	7596.27	65 05	124 15	8 21	124 10	599859 32	617182 03	
7659.00	38 32	98 47	7621.88	62.30	143.13	9 42	143.08	599856 57	617201 01	
7690 00	41 15	99.30	7645.72	59.23	162.70	9.29	162 66	599853 50	617220 58	
7722 00	44 23	99 52	7669.23	55.68	184 10	9 64	184.07	599849.95	617241.98	
7754.00	46.90	99 46	7691.64	51.92	206 64	8 34	206 60	599846 19	617264 52	
7786.00	49 35	98 30	7712 99	48.24	230.18	8 12	230 15	599842 51	617288 06	
7817.00	53.47	96 35	7732.33	45.17	254 21	14 17	254.17	599839 44	617312 09	
7849.00	57.36	94.78	7750.49	42.62	280.42	12 81	280.39	599836.89	617338.30	
7881 00	61.12	93.13	7766.85	40 73	307.85	12.56	307 82	599835 00	617365.73	
7913 00	63.94	91.46	7781.61	39.60	336.21	9.95	336 19	599833 87	617394 09	
7944 00	66 20	90.81	7794 68	39 05	364.32	7 53	364.29	599833.32	617422.20	



Weatherford International Ltd.

WFT Survey Report X & Y's

**Weatherford**

Company: Devon Energy	Date: 10/7/2011	Time: 05:15:14	Page: 2
Field: Eddy Co., NM (NAD 83)	Co-ordinate(NE) Reference: Well: PWU 21 #2H, Grid North		
Site: Agate PWU 21 #2H	Vertical (TVD) Reference: SITE 3327 0		
Well: PWU 21 #2H	Section (VS) Reference: Well (0.00N,0.00E,90 04Azi)		
Wellpath: 1	Survey Calculation Method: Minimum Curvature	Db: Sybase	

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	DLS deg/100ft	VS ft	MapN ft	MapE ft	Comment
7976.00	68.17	90.24	7807.09	38 78	393.81	6 37	393 78	599833.05	617451.69	
8008.00	70.92	88.97	7818.27	38 99	423.79	9 36	423 76	599833.26	617481.67	
8040.00	72.49	89.28	7828.31	39 45	454.17	4.99	454 14	599833.72	617512.05	
8071.00	73.94	88.87	7837.27	39 93	483.84	4.85	483 81	599834.20	617541.72	
8103.00	76.47	88.63	7845.44	40 61	514.77	7 94	514 74	599834.88	617572.65	
8135.00	80.12	88.42	7851.93	41.41	546.09	11.42	546 06	599835.68	617603.97	
8167.00	83.02	88.73	7856.62	42.20	577.73	9 11	577.70	599836.47	617635.61	
8198.00	85.56	89.14	7859.70	42.77	608.57	8 30	608.54	599837.04	617666.45	
8230.00	87.09	89.74	7861.75	43.08	640.50	5 13	640.47	599837.35	617698.38	
8325.00	88.98	89.47	7865.01	43.74	735.44	2 01	735 41	599838.01	617793.32	
8420.00	90.46	90.96	7865.48	43.38	830.43	2 21	830 40	599837.65	617888.31	
8515.00	91.01	90.60	7864.26	42 09	925.41	0.69	925.38	599836.36	617983.29	
8611.00	92.27	90.02	7861.51	41.57	1021.37	1.44	1021 34	599835.84	618079.25	
8706.00	93.19	90.22	7856.99	41.37	1116.26	0.99	1116 23	599835.64	618174.14	
8801.00	91.30	89.76	7853.26	41.39	1211.18	2.05	1211 15	599835.66	618269.06	
8896.00	89.41	90.32	7852.68	41.32	1306.18	2 07	1306 15	599835.59	618364.06	
8991.00	89.13	91.50	7853.89	39.81	1401.16	1 28	1401.13	599834.08	618459.04	
9086.00	90.31	91.36	7854.35	37.44	1496.12	1 25	1496 10	599831.71	618554.00	
9181.00	88.21	90.28	7855.58	36.08	1591.10	2.49	1591 07	599830.35	618648.98	
9276.00	89.27	90.22	7857.67	35.67	1686.07	1 12	1686 05	599829.94	618743.95	
9371.00	88.22	90.10	7859.75	35.40	1781.05	1.11	1781 02	599829.67	618838.93	
9466.00	88.99	89.72	7862.06	35.55	1876.02	0.90	1876 00	599829.82	618933.90	
9561.00	89.27	91.22	7863.50	34.77	1971.00	1 61	1970 98	599829.04	619028.88	
9657.00	90.38	92.03	7863.80	32.05	2066.96	1.43	2066.94	599826.32	619124.84	
9751.00	89.41	91.44	7863.97	29.21	2160.92	1 21	2160.90	599823.48	619218.80	
9846.00	88.99	91.08	7865.29	27.12	2255.88	0.58	2255 87	599821.39	619313.76	
9941.00	90.59	91.06	7865.64	25.34	2350.86	1 68	2350.85	599819.61	619408.74	
10036.00	89.41	90.47	7865.64	24.07	2445.85	1.39	2445 84	599818.34	619503.73	
10131.00	88.71	90.23	7867.20	23.49	2540.84	0 78	2540.82	599817.76	619598.72	
10226.00	90.10	90.24	7868.19	23.10	2635.83	1.46	2635 81	599817.37	619693.71	
10321.00	89.06	90.13	7868.88	22.80	2730.83	1 10	2730 81	599817.07	619788.71	
10416.00	90.45	89.77	7869.29	22.88	2825.82	1.51	2825 81	599817.15	619883.70	
10511.00	89.41	89.61	7869.41	23.39	2920.82	1.11	2920.80	599817.66	619978.70	
10606.00	89.19	90.70	7870.57	23.14	3015.81	1.17	3015.79	599817.41	620073.69	
10701.00	89.69	91.31	7871.49	21.47	3110.79	0.83	3110 78	599815.74	620168.67	
10796.00	91.16	89.88	7870.79	20.48	3205.78	2 16	3205.76	599814.75	620263.66	
10891.00	90.24	91.66	7869.63	19.21	3300.76	2 11	3300.74	599813.48	620358.64	
10986.00	90.18	91.12	7869.28	16.90	3395.73	0 57	3395.72	599811.17	620453.61	
11081.00	90.31	90.50	7868.87	15.56	3490.72	0 67	3490 71	599809.83	620548.60	
11176.00	91.43	90.70	7867.43	14.57	3585.70	1.20	3585 69	599808.84	620643.58	
11271.00	88.77	91.29	7867.27	12.92	3680.68	2.87	3680 67	599807.19	620738.56	
11367.00	89.48	90.70	7868.73	11.25	3776.65	0 96	3776.64	599805.52	620834.53	
11462.00	88.35	90.53	7870.53	10.23	3871.63	1 20	3871.62	599804.50	620929.51	
11557.00	88.22	90.43	7873.37	9.43	3966.58	0 17	3966 57	599803.70	621024.46	
11652.00	89.41	90.15	7875.34	8.95	4061.56	1 29	4061 55	599803.22	621119.44	
11747.00	89.62	89.93	7876.14	8.89	4156.55	0 32	4156.55	599803.16	621214.43	
11842.00	89.76	90.53	7876.66	8.51	4251.55	0.65	4251 54	599802.78	621309.43	
11937.00	89.55	90.43	7877.23	7.71	4346.55	0.24	4346.54	599801.98	621404.43	
12032.00	88.36	90.34	7878.96	7 07	4441.53	1.26	4441.52	599801.34	621499.41	
12146.00	89.69	89.99	7880.90	6 74	4555.51	1 21	4555.50	599801.01	621613.39	Last Wft Svy
12206.00	89.69	89.99	7881.23	6.75	4615.51	0.00	4615 50	599801.02	621673.39	Proj. To Bit



Weatherford International Ltd.
WFT Survey Report X & Y's



Company:	Devon Energy	Date:	10/7/2011	Time:	05:15.14	Page:	3
Field:	Eddy Co., NM (NAD 83)	Co-ordinate(NE) Reference:	Well: PWU 21 #2H, Grid North				
Site:	Agate PWU 21 #2H	Vertical (TVD) Reference:	SITE 3327 0				
Well:	PWU 21 #2H	Section (VS) Reference:	Well (0.00N,0.00E,90.04Azi)				
Wellpath:	1	Survey Calculation Method:	Minimum Curvature				Db: Sybase

Annotation

MD ft	TVD ft	
7228.00	7225.72	Tie On Gyrodata
7247.00	7244.68	First Wft Svy
12146.00	7880.90	Last Wft Svy
12206.00	7881.23	Proj. To Bit