

PO Box 261021
Corpus Christi, Texas 78426
(361) 767-0602 • (800) 606-GYRO • Fax (361) 767-0612

May 15, 2014

15-42016

Devon Energy Production Co., LP
333 West Sheridan Ave
Oklahoma City, Oklahoma 73102-5010

Attn: David Cook

Re: Antares 23 Federal No 013H

Please find enclosed a copy of the survey from 0' to 4,211' ran on the above referenced well.

If I can be of any further service, please do not hesitate to call me at 800-606-4976.

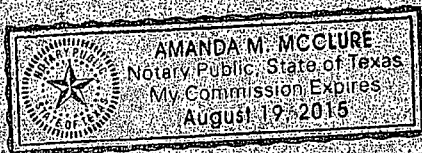
Sincerely,

Keith Havelka
Operations

STATE OF TEXAS §
 §
COUNTY OF NUECES §

This instrument was acknowledged before me on the 15 day of May, A.D., 2014, by Keith Havelka.

Amanda McClure
Amanda McClure
Notary Public, State of Texas





Company: Devon Energy
Lease/Well: Antares 23 Federal/No 013H

Rig Name: H&P 300
State/County: New Mexico/Eddy
Latitude: 32.65, Longitude: -103.85
GRID North is 0.26 Degrees East of True North
VS-Azi: 0.00 Degrees



Depth Reference : RKB=26.2

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: gyro survey.ut
Minimum Curvature Method
Report Date/Time: 5/15/2014 / 14:03

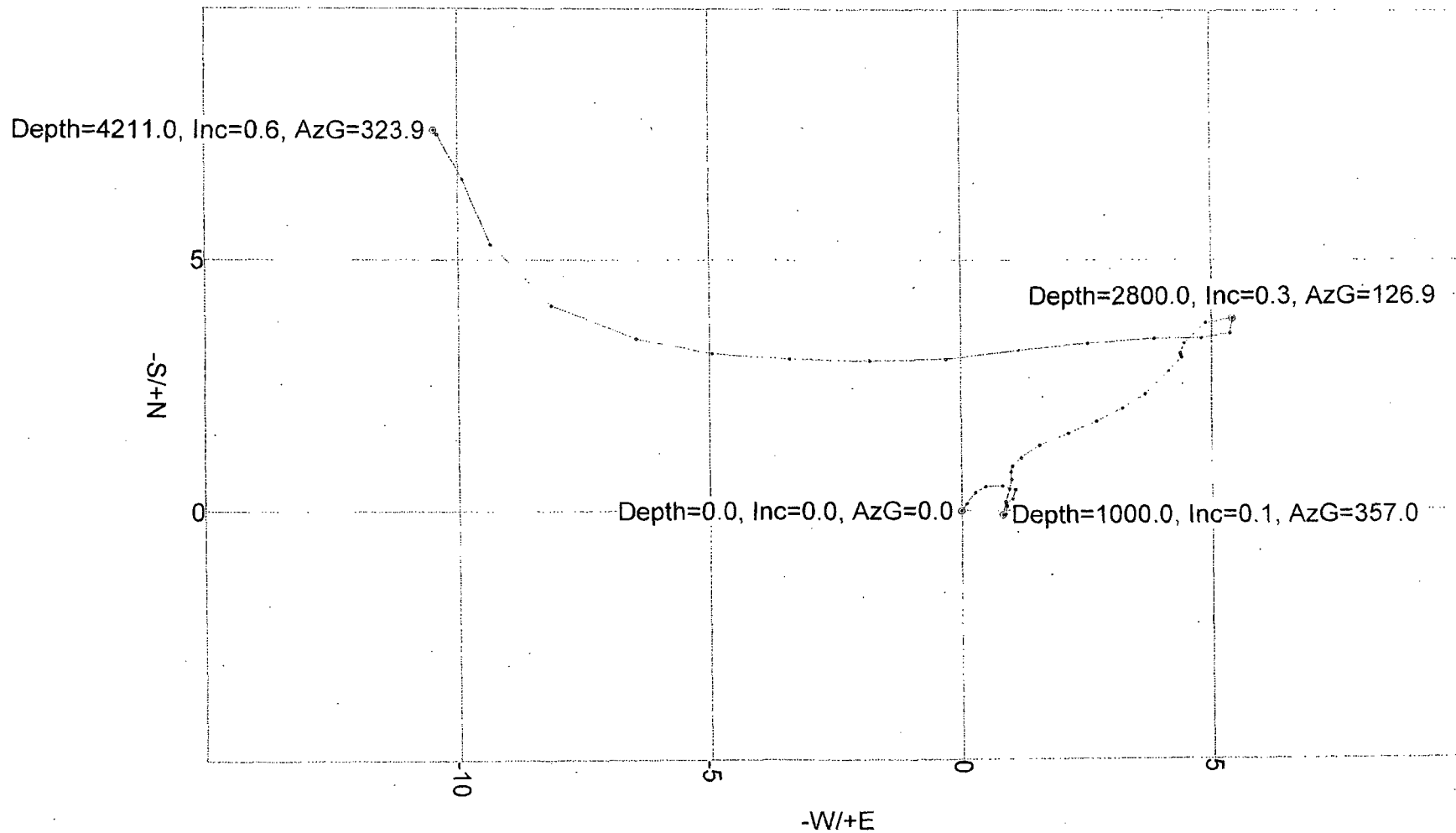
VES Survey International
West Texas
(432) 563-5444
Surveyor: Adam Gathright
Antares 23 Federal No 013H / API 30-015-42076

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	****
100.00	0.20	34.75	100.00	0.14	0.10	0.14	0.17	34.75	0.20
200.00	0.12	43.78	200.00	0.36	0.27	0.36	0.45	36.94	0.07
300.00	0.16	72.19	300.00	0.48	0.47	0.48	0.67	44.72	0.07
400.00	0.23	98.31	400.00	0.49	0.81	0.49	0.94	58.65	0.12
500.00	0.09	126.60	500.00	0.41	1.07	0.41	1.15	68.86	0.16
600.00	0.21	222.93	600.00	0.23	1.01	0.23	1.04	76.94	0.24
700.00	0.04	350.24	700.00	0.13	0.88	0.13	0.89	81.37	0.23
800.00	0.10	164.67	800.00	0.09	0.90	0.09	0.90	84.60	0.13
900.00	0.11	208.77	900.00	-0.08	0.88	-0.08	0.88	95.15	0.08
1000.00	0.09	356.95	1000.00	-0.09	0.83	-0.09	0.83	96.00	0.19
1100.00	0.22	16.00	1100.00	0.18	0.88	0.18	0.89	78.70	0.14
1200.00	0.08	15.84	1200.00	0.43	0.95	0.43	1.04	65.59	0.14
1300.00	0.14	12.19	1300.00	0.62	1.00	0.62	1.17	58.00	0.06
1400.00	0.06	300.64	1400.00	0.77	0.98	0.77	1.24	51.75	0.14
1500.00	0.15	44.12	1500.00	0.89	1.02	0.89	1.35	49.00	0.17
1600.00	0.13	51.01	1600.00	1.05	1.20	1.05	1.59	48.75	0.02
1700.00	0.39	57.93	1699.99	1.30	1.57	1.30	2.04	50.40	0.26
1800.00	0.33	80.01	1799.99	1.53	2.14	1.53	2.63	54.49	0.15

Measured. Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
1900.00	0.38	55.42	1899.99	1.77	2.70	1.77	3.23	56.81	0.16
2000.00	0.30	74.92	1999.99	2.03	3.23	2.03	3.82	57.92	0.14
2100.00	0.34	41.94	2099.99	2.32	3.69	2.32	4.35	57.87	0.19
2200.00	0.42	47.96	2199.99	2.78	4.15	2.78	5.00	56.22	0.09
2300.00	0.03	330.25	2299.98	3.04	4.41	3.04	5.36	55.36	0.41
2400.00	0.03	347.50	2399.98	3.09	4.39	3.09	5.37	54.82	0.01
2500.00	0.02	354.86	2499.98	3.13	4.38	3.13	5.39	54.45	0.01
2600.00	0.23	23.41	2599.98	3.33	4.46	3.33	5.56	53.27	0.21
2700.00	0.47	55.44	2699.98	3.74	4.88	3.74	6.15	52.49	0.30
2800.00	0.28	126.90	2799.98	3.83	5.41	3.83	6.63	54.73	0.46
2900.00	0.33	239.39	2899.98	3.53	5.36	3.53	6.42	56.61	0.51
3000.00	0.36	278.90	2999.98	3.44	4.80	3.44	5.90	54.42	0.24
3100.00	0.73	265.17	3099.97	3.43	3.86	3.43	5.16	48.34	0.39
3200.00	0.79	265.74	3199.96	3.33	2.54	3.33	4.18	37.33	0.06
3300.00	0.81	263.28	3299.96	3.19	1.15	3.19	3.39	19.74	0.04
3400.00	0.86	263.18	3399.94	3.02	-0.30	3.02	3.04	354.29	0.04
3500.00	0.88	273.96	3499.93	2.99	-1.81	2.99	3.49	328.74	0.17
3600.00	0.94	269.61	3599.92	3.03	-3.40	3.03	4.56	311.73	0.09
3700.00	0.84	278.19	3699.91	3.13	-4.94	3.13	5.85	302.35	0.17
3800.00	0.93	284.03	3799.90	3.43	-6.45	3.43	7.31	298.01	0.13
3900.00	1.14	297.61	3899.88	4.09	-8.12	4.09	9.09	296.73	0.32
4000.00	0.97	335.51	3999.86	5.32	-9.35	5.32	10.75	299.63	0.70
4100.00	0.65	338.70	4099.85	6.61	-9.90	6.61	11.91	303.72	0.32
4200.00	0.56	320.76	4199.85	7.51	-10.42	7.51	12.84	305.81	0.21
4211.00	0.62	323.86	4210.85	7.60	-10.49	7.60	12.95	305.95	0.66



VES Survey International
West Texas
(432) 563-5444
Surveyor: Adam Gathright
Antares 23 Federal No 013H / API 30-015-42076





ANTARES 23 FED 13H

WEST UNRESTRICTED

Directional Survey

District DELAWARE BASIN	County EDDY	Field Name HACKBERRY	Project Group DELAWARE BASIN REG	State/Province NM			
Surface Legal Location SEC23 T19S R31E	API/UWI 3001542076	Latitude (") 32° 38' 47.841" N	Longitude (") 103° 50' 52.518" W	Ground Elev... 3,540.50	KB - GL (ft) 26.20	Orig KB Elev (ft) 3,566.70	Tubing Head Elevation (ft)

Wellbores

Wellbore Name OH	Parent Wellbore OH	SAP Well ID	Kick Off Depth (ftKB)	Vertical Section Direction (") 93.74
Actual Deviation Survey GYRO/MWD, Proposed? No	Definitive? Yes	Proposed? No	Proposed Deviation Survey	

Deviation Survey

Date 5/9/2014		Description GYRO/MWD			
MD Tie In (ftKB) 0.00	TVD Tie In (ftKB) 0.00	Inclination Tie In (") 0.20	Azimuth Tie In (") 34.75	NSTie In (ft) 0.11	EW Tie In (ft) 0.12

Survey Data

Date	MD (ftKB)	Incl (")	Azm (")	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS ("/100ft)	Survey Tool	Survey Company
5/9/2014	100.00	0.20	34.75	100.00	0.29	0.40	0.32	0.00	GYRO	VAUHG ENERGY SERVICES
5/9/2014	200.00	0.12	43.78	200.00	0.45	0.62	0.49	0.08	GYRO	VAUHG ENERGY SERVICES
5/9/2014	300.00	0.16	72.19	300.00	0.65	0.73	0.70	0.08	GYRO	VAUHG ENERGY SERVICES
5/9/2014	400.00	0.23	98.31	400.00	0.98	0.75	1.03	0.11	GYRO	VAUHG ENERGY SERVICES
5/9/2014	500.00	0.09	126.60	500.00	1.24	0.67	1.29	0.16	GYRO	VAUHG ENERGY SERVICES
5/9/2014	600.00	0.21	222.93	600.00	1.19	0.49	1.23	0.24	GYRO	VAUHG ENERGY SERVICES
5/9/2014	700.00	0.04	350.24	700.00	1.07	0.39	1.10	0.24	GYRO	VAUHG ENERGY SERVICES
5/9/2014	800.00	0.10	164.67	800.00	1.09	0.34	1.11	0.14	GYRO	VAUHG ENERGY SERVICES
5/9/2014	900.00	0.11	208.77	900.00	1.08	0.17	1.09	0.08	GYRO	VAUHG ENERGY SERVICES
5/9/2014	1,000.00	0.09	356.95	1,000.00	1.03	0.17	1.04	0.19	GYRO	VAUHG ENERGY SERVICES
5/9/2014	1,100.00	0.22	16.00	1,100.00	1.06	0.43	1.09	0.14	GYRO	VAUHG ENERGY SERVICES
5/9/2014	1,200.00	0.08	15.84	1,200.00	1.11	0.68	1.16	0.14	GYRO	VAUHG ENERGY SERVICES
5/9/2014	1,300.00	0.14	12.19	1,300.00	1.15	0.87	1.21	0.06	GYRO	VAUHG ENERGY SERVICES
5/9/2014	1,400.00	0.06	300.64	1,400.00	1.12	1.01	1.19	0.13	GYRO	VAUHG ENERGY SERVICES
5/9/2014	1,500.00	0.15	44.12	1,500.00	1.16	1.14	1.23	0.17	GYRO	VAUHG ENERGY SERVICES
5/9/2014	1,600.00	0.13	51.01	1,600.00	1.32	1.30	1.41	0.03	GYRO	VAUHG ENERGY SERVICES
5/9/2014	1,700.00	0.39	57.93	1,699.99	1.68	1.55	1.79	0.26	GYRO	VAUHG ENERGY SERVICES
5/9/2014	1,800.00	0.33	80.01	1,799.99	2.24	1.78	2.36	0.15	GYRO	VAUHG ENERGY SERVICES
5/9/2014	1,900.00	0.38	55.42	1,899.99	2.78	2.02	2.92	0.16	GYRO	VAUHG ENERGY SERVICES
5/9/2014	2,000.00	0.30	74.92	1,999.99	3.29	2.28	3.44	0.14	GYRO	VAUHG ENERGY SERVICES
5/9/2014	2,100.00	0.34	41.94	2,099.99	3.72	2.57	3.89	0.19	GYRO	VAUHG ENERGY SERVICES
5/9/2014	2,200.00	0.42	47.96	2,199.99	4.16	3.03	4.36	0.09	GYRO	VAUHG ENERGY SERVICES
5/9/2014	2,300.00	0.03	330.25	2,299.98	4.40	3.30	4.62	0.41	GYRO	VAUHG ENERGY SERVICES
5/9/2014	2,400.00	0.03	347.50	2,399.98	4.38	3.35	4.61	0.01	GYRO	VAUHG ENERGY SERVICES
5/9/2014	2,500.00	0.02	354.86	2,499.98	4.37	3.39	4.60	0.01	GYRO	VAUHG ENERGY SERVICES
5/9/2014	2,600.00	0.23	23.41	2,599.98	4.43	3.59	4.68	0.21	GYRO	VAUHG ENERGY SERVICES
5/9/2014	2,700.00	0.47	55.44	2,699.98	4.82	4.01	5.09	0.30	GYRO	VAUHG ENERGY SERVICES
5/9/2014	2,800.00	0.28	126.90	2,799.98	5.35	4.10	5.63	0.46	GYRO	VAUHG ENERGY SERVICES
5/9/2014	2,900.00	0.33	239.39	2,899.98	5.31	3.80	5.57	0.51	GYRO	VAUHG ENERGY SERVICES
5/9/2014	3,000.00	0.36	278.90	2,999.98	4.76	3.71	5.02	0.23	GYRO	VAUHG ENERGY SERVICES
5/9/2014	3,100.00	0.73	265.17	3,099.97	3.82	3.70	4.07	0.39	GYRO	VAUHG ENERGY SERVICES
5/9/2014	3,200.00	0.79	265.74	3,199.96	2.51	3.60	2.75	0.06	GYRO	VAUHG ENERGY SERVICES
5/9/2014	3,300.00	0.81	263.28	3,299.95	1.13	3.46	1.36	0.04	GYRO	VAUHG ENERGY SERVICES
5/9/2014	3,400.00	0.86	263.18	3,399.94	-0.30	3.29	-0.09	0.05	GYRO	VAUHG ENERGY SERVICES
5/9/2014	3,500.00	0.88	273.96	3,499.93	-1.81	3.25	-1.60	0.16	GYRO	VAUHG ENERGY SERVICES
5/9/2014	3,600.00	0.94	269.61	3,599.92	-3.39	3.30	-3.19	0.09	GYRO	VAUHG ENERGY SERVICES
5/9/2014	3,700.00	0.84	278.19	3,699.91	-4.94	3.40	-4.73	0.17	GYRO	VAUHG ENERGY SERVICES
5/9/2014	3,800.00	0.93	284.03	3,799.90	-6.47	3.70	-6.24	0.13	GYRO	VAUHG ENERGY SERVICES
5/9/2014	3,900.00	1.14	297.61	3,899.88	-8.18	4.36	-7.91	0.32	GYRO	VAUHG ENERGY SERVICES
5/9/2014	4,000.00	0.97	335.51	3,999.86	-9.49	5.59	-9.14	0.70	GYRO	VAUHG ENERGY SERVICES
5/9/2014	4,100.00	0.65	338.70	4,099.85	-10.13	6.89	-9.70	0.32	GYRO	VAUHG ENERGY SERVICES
5/9/2014	4,200.00	0.56	320.76	4,199.85	-10.70	7.80	-10.22	0.21	GYRO	VAUHG ENERGY SERVICES
5/9/2014	4,211.00	0.62	323.86	4,210.85	-10.78	7.89	-10.29	0.62	GYRO	VAUHG ENERGY SERVICES
5/9/2014	4,367.00	0.44	317.67	4,366.84	-11.75	9.01	-11.19	0.12	MWD	PATHFINDER ENERGY SE...
5/9/2014	4,461.00	1.41	217.92	4,460.83	-12.66	8.36	-12.14	1.65	MWD	PATHFINDER ENERGY SE...
5/25/2014	4,556.00	2.55	216.95	4,555.77	-14.48	5.75	-14.13	1.20	MWD	PATHFINDER ENERGY SE...
5/25/2014	4,650.00	4.22	202.10	4,649.61	-16.71	0.88	-16.69	1.99	MWD	PATHFINDER ENERGY SE...



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Surface Legal Location SEC23 T19S R31E	API/UWI 3001542076	Latitude (°) 32° 38' 47.841" N	Longitude (°) 103° 50' 52.518" W	Ground Elev... 3,540.50
				KB - GL (ft) 26.20
				Orig KB Elev (ft) 3,566.70
				Tubing Head Elevation (ft)

Survey Data

Date	MD (ft)	Inc (°)	Azm (°)	TVD (ft)	VS (ft)	NS (ft)	EW (ft)	DLS 1 (ft/100ft)	Survey Tool	Survey Company
5/25/2014	4,745.00	5.98	199.55	4,744.23	-19.16	-7.02	-19.66	1.87	MWD	PATHFINDER ENERGY SE...
5/25/2014	4,839.00	7.47	194.63	4,837.58	-21.65	-17.55	-22.84	1.70	MWD	PATHFINDER ENERGY SE...
5/25/2014	4,934.00	8.18	189.00	4,931.70	-23.43	-30.20	-25.46	1.10	MWD	PATHFINDER ENERGY SE...
5/25/2014	5,028.00	8.71	179.42	5,024.68	-23.51	-43.93	-26.43	1.60	MWD	PATHFINDER ENERGY SE...
5/25/2014	5,122.00	8.53	179.25	5,117.62	-22.43	-58.01	-26.27	0.19	MWD	PATHFINDER ENERGY SE...
5/25/2014	5,217.00	8.09	178.54	5,211.62	-21.27	-71.74	-26.01	0.48	MWD	PATHFINDER ENERGY SE...
5/25/2014	5,311.00	7.56	178.63	5,304.75	-20.12	-84.53	-25.69	0.56	MWD	PATHFINDER ENERGY SE...
5/25/2014	5,405.00	7.56	178.63	5,397.93	-19.02	-96.90	-25.39	0.00	MWD	PATHFINDER ENERGY SE...
5/25/2014	5,500.00	7.21	179.95	5,492.14	-18.07	-109.11	-25.24	0.41	MWD	PATHFINDER ENERGY SE...
5/25/2014	5,594.00	7.03	180.21	5,585.42	-17.33	-120.76	-25.26	0.19	MWD	PATHFINDER ENERGY SE...
5/25/2014	5,689.00	7.03	181.09	5,679.70	-16.70	-132.38	-25.39	0.11	MWD	PATHFINDER ENERGY SE...
5/25/2014	5,783.00	7.21	171.51	5,772.98	-15.18	-143.97	-24.63	1.28	MWD	PATHFINDER ENERGY SE...
5/25/2014	5,878.00	7.21	171.42	5,867.23	-12.65	-155.76	-22.86	0.01	MWD	PATHFINDER ENERGY SE...
5/25/2014	5,973.00	7.12	171.69	5,961.49	-10.15	-167.48	-21.12	0.10	MWD	PATHFINDER ENERGY SE...
5/25/2014	6,067.00	7.12	172.13	6,054.76	-7.76	-179.02	-19.48	0.06	MWD	PATHFINDER ENERGY SE...
5/25/2014	6,161.00	7.12	172.30	6,148.04	-5.43	-190.56	-17.90	0.02	MWD	PATHFINDER ENERGY SE...
5/25/2014	6,256.00	7.12	172.83	6,242.30	-3.15	-202.24	-16.38	0.07	MWD	PATHFINDER ENERGY SE...
5/25/2014	6,350.00	6.95	173.88	6,335.60	-1.07	-213.67	-15.04	0.23	MWD	PATHFINDER ENERGY SE...
5/25/2014	6,445.00	6.95	173.71	6,429.90	0.91	-225.10	-13.80	0.02	MWD	PATHFINDER ENERGY SE...
5/25/2014	6,539.00	6.77	174.32	6,523.23	2.81	-236.27	-12.63	0.21	MWD	PATHFINDER ENERGY SE...
5/25/2014	6,634.00	6.95	182.50	6,617.55	3.85	-247.58	-12.32	1.04	MWD	PATHFINDER ENERGY SE...
5/25/2014	6,728.00	6.68	183.11	6,710.88	4.03	-258.72	-12.87	0.30	MWD	PATHFINDER ENERGY SE...
5/25/2014	6,823.00	6.51	183.29	6,805.25	4.14	-269.61	-13.48	0.18	MWD	PATHFINDER ENERGY SE...
5/25/2014	6,918.00	6.24	184.08	6,899.67	4.15	-280.14	-14.15	0.30	MWD	PATHFINDER ENERGY SE...
5/25/2014	7,012.00	5.80	185.49	6,993.15	3.97	-289.96	-14.97	0.49	MWD	PATHFINDER ENERGY SE...
5/25/2014	7,106.00	6.95	178.37	7,086.57	4.36	-300.38	-15.26	1.48	MWD	PATHFINDER ENERGY SE...
5/25/2014	7,201.00	6.77	180.21	7,180.89	5.24	-311.72	-15.12	0.30	MWD	PATHFINDER ENERGY SE...
5/25/2014	7,295.00	6.16	179.68	7,274.29	5.94	-322.31	-15.11	0.65	MWD	PATHFINDER ENERGY SE...
5/25/2014	7,390.00	7.30	175.99	7,368.63	7.12	-333.42	-14.66	1.28	MWD	PATHFINDER ENERGY SE...
5/25/2014	7,484.00	7.21	174.85	7,461.88	8.83	-345.26	-13.72	0.18	MWD	PATHFINDER ENERGY SE...
5/25/2014	7,579.00	8.00	178.28	7,556.04	10.38	-357.80	-12.98	0.96	MWD	PATHFINDER ENERGY SE...
5/25/2014	7,673.00	8.00	178.89	7,649.13	11.56	-370.88	-12.66	0.09	MWD	PATHFINDER ENERGY SE...
5/25/2014	7,767.00	8.27	177.05	7,742.18	12.90	-384.17	-12.19	0.40	MWD	PATHFINDER ENERGY SE...
5/25/2014	7,862.00	7.91	174.76	7,836.24	14.72	-397.50	-11.24	0.51	MWD	PATHFINDER ENERGY SE...
5/25/2014	7,956.00	7.03	173.06	7,929.44	16.79	-409.66	-9.95	0.97	MWD	PATHFINDER ENERGY SE...
5/25/2014	8,051.00	7.83	182.37	8,023.65	18.02	-421.89	-9.52	1.52	MWD	PATHFINDER ENERGY SE...
5/25/2014	8,145.00	7.47	182.11	8,116.81	18.35	-434.40	-10.01	0.38	MWD	PATHFINDER ENERGY SE...
5/25/2014	8,239.00	8.35	181.06	8,209.91	18.84	-447.33	-10.36	0.95	MWD	PATHFINDER ENERGY SE...
5/25/2014	8,334.00	7.91	179.74	8,303.96	19.62	-460.76	-10.45	0.50	MWD	PATHFINDER ENERGY SE...
5/25/2014	8,429.00	7.39	180.44	8,398.11	20.43	-473.41	-10.47	0.56	MWD	PATHFINDER ENERGY SE...
5/25/2014	8,523.00	6.86	180.35	8,491.39	21.11	-485.07	-10.55	0.56	MWD	PATHFINDER ENERGY SE...
5/25/2014	8,617.00	6.24	181.58	8,584.77	21.63	-495.79	-10.73	0.68	MWD	PATHFINDER ENERGY SE...
5/25/2014	8,725.00	8.97	168.14	8,691.82	24.12	-509.90	-9.16	3.00	MWD	PATHFINDER ENERGY SE...
5/25/2014	8,757.00	12.13	156.71	8,723.28	26.32	-515.43	-7.32	11.80	MWD	PATHFINDER ENERGY SE...
5/25/2014	8,788.00	15.04	148.18	8,753.41	30.14	-521.84	-3.91	11.37	MWD	PATHFINDER ENERGY SE...
5/25/2014	8,820.00	17.15	139.48	8,784.16	35.85	-528.96	1.35	10.00	MWD	PATHFINDER ENERGY SE...
5/25/2014	8,851.00	19.26	129.20	8,813.61	43.21	-535.67	8.28	12.37	MWD	PATHFINDER ENERGY SE...
5/25/2014	8,883.00	21.10	121.11	8,843.65	52.62	-541.98	17.31	10.43	MWD	PATHFINDER ENERGY SE...
5/25/2014	8,914.00	22.77	114.61	8,872.41	63.19	-547.36	27.54	9.50	MWD	PATHFINDER ENERGY SE...
5/25/2014	8,946.00	25.68	110.74	8,901.59	75.61	-552.40	39.66	10.36	MWD	PATHFINDER ENERGY SE...
5/25/2014	8,977.00	28.49	109.76	8,929.19	89.14	-557.28	52.90	9.18	MWD	PATHFINDER ENERGY SE...
5/25/2014	9,009.00	31.66	108.97	8,956.88	104.58	-562.59	68.03	9.98	MWD	PATHFINDER ENERGY SE...
5/25/2014	9,040.00	35.26	105.65	8,982.74	121.19	-567.65	84.35	13.02	MWD	PATHFINDER ENERGY SE...
5/25/2014	9,072.00	39.13	102.61	9,008.23	140.22	-572.35	103.10	13.39	MWD	PATHFINDER ENERGY SE...
5/25/2014	9,103.00	43.70	102.68	9,031.47	160.47	-576.83	123.11	14.74	MWD	PATHFINDER ENERGY SE...

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Directional Survey

District DELAWARE BASIN	County EDDY	Field Name HACKBERRY	Project Group DELAWARE BASIN REG	State/Province NM
Surface Legal Location SEC23 T19S R31E	API/UWI 3001542076	Latitude (°) 32° 38' 47.841" N	Longitude (°) 103° 50' 52.518" W	Ground Elev... 3,540.50
			KB - GL (ft) 26.20	Orig KB Elev (ft) 3,566.70
				Tubing Head Elevation (ft)

Survey Data

Date	MD (ft)	Incl. (°)	Azm (°)	TVD (ft)	VS (ft)	N/S (ft)	E/W (ft)	DLS (°/100ft)	Survey Tool	Survey Company
5/25/2014	9,135.00	48.28	100.38	9,053.70	183.27	-581.42	145.65	15.22	MWD	PATHFINDER ENERGY SE...
5/25/2014	9,166.00	52.85	99.00	9,073.39	207.07	-585.44	169.25	15.14	MWD	PATHFINDER ENERGY SE...
5/25/2014	9,198.00	57.42	98.34	9,091.67	233.23	-589.39	195.20	14.38	MWD	PATHFINDER ENERGY SE...
5/25/2014	9,229.00	62.26	98.00	9,107.24	259.94	-593.19	221.72	15.64	MWD	PATHFINDER ENERGY SE...
5/25/2014	9,261.00	67.36	97.54	9,120.86	288.82	-597.11	250.40	15.99	MWD	PATHFINDER ENERGY SE...
5/25/2014	9,312.00	75.62	94.25	9,137.04	337.10	-602.03	298.46	17.31	MWD	PATHFINDER ENERGY SE...
5/25/2014	9,343.00	79.93	93.94	9,143.60	367.39	-604.20	328.68	13.94	MWD	PATHFINDER ENERGY SE...
5/25/2014	9,375.00	81.34	93.62	9,148.81	398.96	-606.28	360.18	4.52	MWD	PATHFINDER ENERGY SE...
5/25/2014	9,406.00	83.27	93.27	9,152.96	429.68	-608.12	390.84	6.33	MWD	PATHFINDER ENERGY SE...
5/25/2014	9,438.00	84.50	93.82	9,156.37	461.49	-610.09	422.60	4.21	MWD	PATHFINDER ENERGY SE...
5/25/2014	9,469.00	86.35	94.44	9,158.84	492.39	-612.32	453.42	6.29	MWD	PATHFINDER ENERGY SE...
5/25/2014	9,501.00	87.14	94.80	9,160.66	524.34	-614.89	485.26	2.71	MWD	PATHFINDER ENERGY SE...
5/25/2014	9,595.00	87.76	95.12	9,164.84	618.22	-623.01	578.82	0.74	MWD	PATHFINDER ENERGY SE...
5/25/2014	9,690.00	88.37	95.43	9,168.05	713.13	-631.74	673.36	0.72	MWD	PATHFINDER ENERGY SE...
5/25/2014	9,784.00	87.32	95.46	9,171.58	807.02	-640.65	766.87	1.12	MWD	PATHFINDER ENERGY SE...
5/25/2014	9,879.00	87.23	94.25	9,176.10	901.90	-648.68	861.42	1.28	MWD	PATHFINDER ENERGY SE...
5/25/2014	9,973.00	87.67	94.06	9,180.28	995.80	-655.49	955.08	0.51	MWD	PATHFINDER ENERGY SE...
5/25/2014	10,068.00	87.05	93.05	9,184.66	1,090.70	-661.37	1,049.79	1.25	MWD	PATHFINDER ENERGY SE...
5/25/2014	10,257.00	87.49	93.42	9,193.66	1,279.48	-672.02	1,238.28	0.30	MWD	PATHFINDER ENERGY SE...
5/25/2014	10,351.00	87.85	93.88	9,197.48	1,373.40	-678.00	1,332.01	0.62	MWD	PATHFINDER ENERGY SE...
5/25/2014	10,446.00	88.29	92.84	9,200.68	1,468.34	-683.57	1,426.79	1.19	MWD	PATHFINDER ENERGY SE...
5/25/2014	10,540.00	88.37	92.37	9,203.42	1,562.28	-687.84	1,520.65	0.51	MWD	PATHFINDER ENERGY SE...
5/25/2014	10,635.00	88.39	92.35	9,206.11	1,657.22	-691.75	1,615.53	0.03	MWD	PATHFINDER ENERGY SE...
5/25/2014	10,729.00	88.20	92.56	9,208.90	1,751.15	-695.77	1,709.41	0.30	MWD	PATHFINDER ENERGY SE...
5/25/2014	10,824.00	88.11	92.55	9,211.96	1,846.08	-700.01	1,804.26	0.10	MWD	PATHFINDER ENERGY SE...
5/25/2014	10,918.00	89.52	92.84	9,213.91	1,940.04	-704.42	1,898.14	1.53	MWD	PATHFINDER ENERGY SE...
5/25/2014	11,013.00	89.69	93.02	9,214.56	2,035.03	-709.28	1,993.01	0.26	MWD	PATHFINDER ENERGY SE...
5/25/2014	11,107.00	90.31	92.34	9,214.56	2,129.01	-713.68	2,086.91	0.98	MWD	PATHFINDER ENERGY SE...
5/25/2014	11,201.00	90.57	91.77	9,213.84	2,222.97	-717.05	2,180.84	0.67	MWD	PATHFINDER ENERGY SE...
5/25/2014	11,296.00	89.69	92.80	9,213.62	2,317.94	-720.83	2,275.76	1.43	MWD	PATHFINDER ENERGY SE...
5/25/2014	11,390.00	88.90	94.02	9,214.78	2,411.93	-726.42	2,369.59	1.55	MWD	PATHFINDER ENERGY SE...
5/25/2014	11,485.00	88.99	94.50	9,216.53	2,506.91	-733.48	2,464.31	0.51	MWD	PATHFINDER ENERGY SE...
5/25/2014	11,579.00	89.08	94.98	9,218.11	2,600.88	-741.25	2,557.97	0.52	MWD	PATHFINDER ENERGY SE...
5/25/2014	11,674.00	88.55	95.17	9,220.08	2,695.83	-749.65	2,652.58	0.59	MWD	PATHFINDER ENERGY SE...
5/25/2014	11,768.00	88.29	95.17	9,222.67	2,789.77	-758.12	2,746.16	0.28	MWD	PATHFINDER ENERGY SE...
5/25/2014	11,862.00	87.93	95.05	9,225.77	2,883.69	-766.48	2,839.74	0.40	MWD	PATHFINDER ENERGY SE...
5/25/2014	11,957.00	87.67	93.38	9,229.42	2,978.61	-773.46	2,934.41	1.78	MWD	PATHFINDER ENERGY SE...
5/25/2014	12,051.00	87.32	93.24	9,233.53	3,072.52	-778.88	3,028.16	0.40	MWD	PATHFINDER ENERGY SE...
5/25/2014	12,146.00	88.37	92.76	9,237.10	3,167.44	-783.85	3,122.96	1.22	MWD	PATHFINDER ENERGY SE...
5/25/2014	12,240.00	89.43	92.36	9,238.90	3,261.40	-788.05	3,216.85	1.21	MWD	PATHFINDER ENERGY SE...
5/25/2014	12,335.00	89.08	92.02	9,240.14	3,356.36	-791.68	3,311.77	0.51	MWD	PATHFINDER ENERGY SE...
5/25/2014	12,429.00	88.72	92.04	9,241.94	3,450.30	-795.01	3,405.70	0.38	MWD	PATHFINDER ENERGY SE...
5/25/2014	12,524.00	88.81	91.79	9,243.99	3,545.23	-798.18	3,500.62	0.28	MWD	PATHFINDER ENERGY SE...
5/25/2014	12,618.00	88.72	91.08	9,246.02	3,639.13	-800.54	3,594.57	0.76	MWD	PATHFINDER ENERGY SE...
5/25/2014	12,712.00	88.55	91.94	9,248.25	3,733.03	-803.01	3,688.51	0.93	MWD	PATHFINDER ENERGY SE...
5/25/2014	12,807.00	88.81	93.03	9,250.44	3,827.98	-807.13	3,783.39	1.18	MWD	PATHFINDER ENERGY SE...
5/25/2014	12,996.00	89.43	93.67	9,253.35	4,016.96	-818.17	3,972.05	0.47	MWD	PATHFINDER ENERGY SE...
5/25/2014	13,090.00	89.96	93.93	9,253.85	4,110.95	-824.40	4,065.84	0.63	MWD	PATHFINDER ENERGY SE...
5/25/2014	13,185.00	89.16	94.28	9,254.58	4,205.95	-831.20	4,160.59	0.92	MWD	PATHFINDER ENERGY SE...
5/25/2014	13,279.00	88.37	94.05	9,256.60	4,299.92	-838.03	4,254.32	0.88	MWD	PATHFINDER ENERGY SE...
5/25/2014	13,374.00	88.20	93.99	9,259.44	4,394.88	-844.68	4,349.04	0.19	MWD	PATHFINDER ENERGY SE...
5/25/2014	13,469.00	88.81	93.73	9,261.92	4,489.85	-851.08	4,443.79	0.70	MWD	PATHFINDER ENERGY SE...
5/25/2014	13,563.00	88.90	94.20	9,263.80	4,583.83	-857.58	4,537.55	0.51	MWD	PATHFINDER ENERGY SE...
5/25/2014	13,658.00	88.81	93.23	9,265.70	4,678.81	-863.73	4,632.33	1.03	MWD	PATHFINDER ENERGY SE...
5/25/2014	13,775.00	88.90	92.79	9,268.04	4,795.77	-869.87	4,749.15	0.38	BIT	PATHFINDER ENERGY SE...