

December 18, 2014

MAY 22 2015

30015 42655 RECEIVED

Devon Energy
333 West Sheridan Ave
Oklahoma City, Oklahoma 73102-5010

Attn: David Cook

Re: **Tomb Raider 1 Fed 1H**

Please find enclosed a copy of the survey from 0.00' to 9557.00' 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.

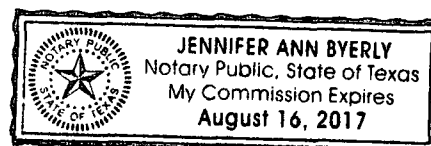
Sincerely,

Keith Havelka
Operations

STATE OF TEXAS §
 §
COUNTY OF NUECES §

This instrument was acknowledged before me on the 18 day of December A.D., 2014, by Keith Havelka.

Jennifer Ann Byerly
Jennifer Ann Byerly
Notary Public, State of Texas





Company: Devon Energy
Lease/Well: Tomb Raider 1 Fed/1H

Rig Name: HP 214
State/County: New Mexico/Eddy
Latitude: 32.34, Longitude: -103.72

GRID North is 0.33 Degrees East of True North

VS-Azi: 0.00 Degrees



Depth Reference : RKB = 25 feet

DRILLOG MS GYRO SURVEY CALCULATIONS

Filename: gyro survey.ut
Minimum Curvature Method
Report Date/Time: 12/18/2014 / 13:03

VES Survey International
Midland, Texas
432-563-5444
Surveyor: Adam Askew
Tomb Raider 1 Fed 1H / API 30-015-42655

NM OIL CONSERVATION
ARTESIA DISTRICT

MAY 22 2015

RECEIVED

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	****
102.15	0.52	352.81	102.15	0.46	-0.06	0.46	0.46	352.81	0.51
195.77	0.36	332.44	195.77	1.14	-0.25	1.14	1.17	347.80	0.24
289.39	0.33	337.68	289.38	1.65	-0.48	1.65	1.72	343.64	0.05
383.01	0.21	54.35	383.00	2.00	-0.45	2.00	2.04	347.42	0.37
476.63	0.62	351.04	476.62	2.60	-0.39	2.60	2.63	351.57	0.60
570.25	0.56	349.60	570.24	3.55	-0.55	3.55	3.59	351.25	0.07
663.87	0.76	13.93	663.85	4.60	-0.48	4.60	4.63	354.05	0.36
757.49	0.41	11.44	757.46	5.54	-0.26	5.54	5.54	357.28	0.37
851.11	0.70	350.27	851.08	6.43	-0.29	6.43	6.44	357.40	0.37
944.73	0.63	347.62	944.69	7.50	-0.50	7.50	7.52	356.19	0.08
1038.35	0.37	25.02	1038.31	8.28	-0.48	8.28	8.30	356.67	0.43
1131.97	0.56	345.16	1131.93	9.00	-0.47	9.00	9.01	357.02	0.39
1225.59	0.29	54.66	1225.55	9.58	-0.39	9.58	9.59	357.65	0.57
1319.21	0.21	74.11	1319.16	9.76	-0.03	9.76	9.76	359.81	0.12
1412.83	0.28	340.53	1412.78	10.03	0.06	10.03	10.03	0.34	0.39
1506.45	0.62	343.65	1506.40	10.73	-0.16	10.73	10.73	359.14	0.36
1600.07	0.25	338.31	1600.02	11.41	-0.38	11.41	11.42	358.10	0.39
1693.69	0.20	334.66	1693.64	11.75	-0.52	11.75	11.76	357.45	0.06

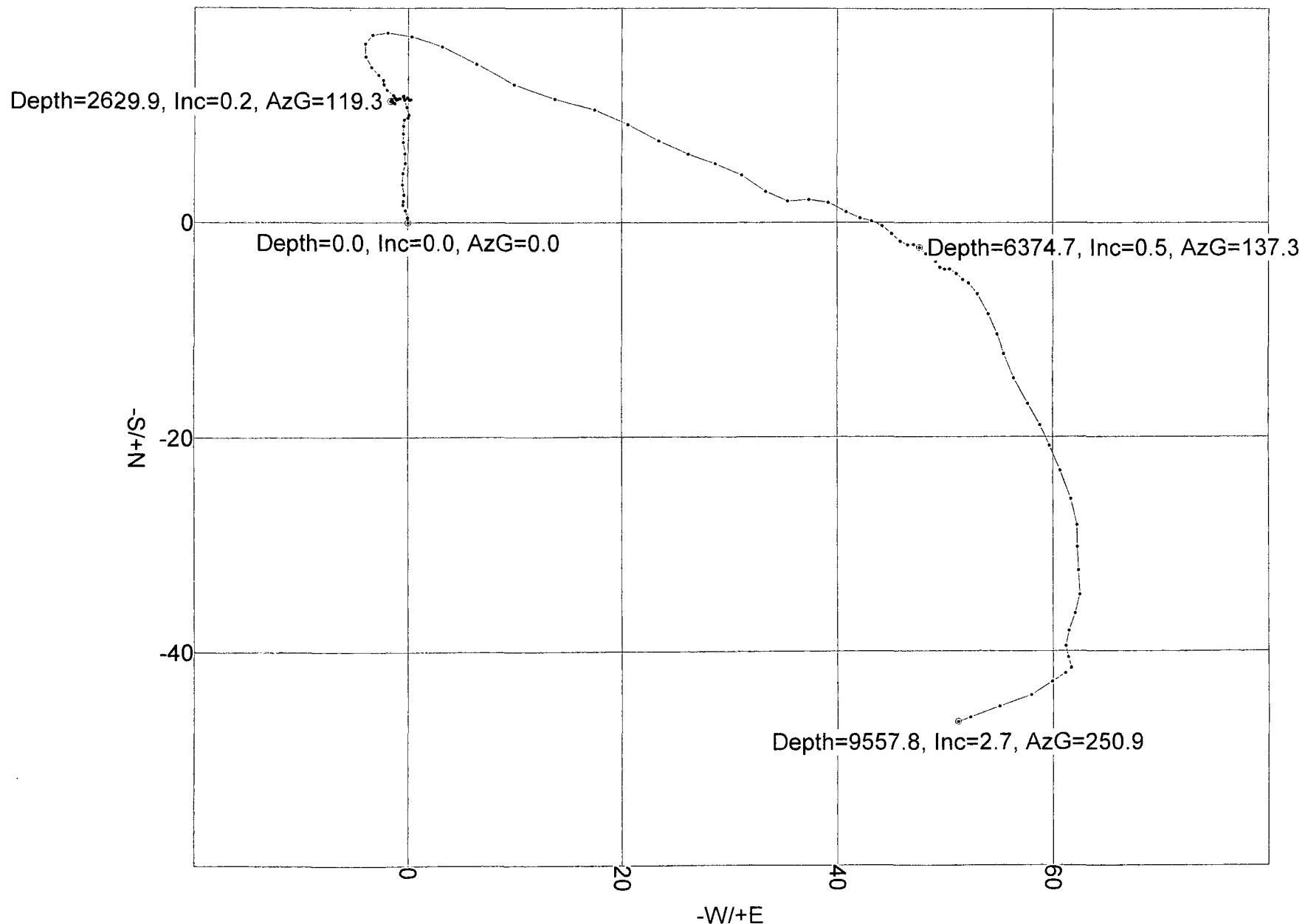
Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
1787.31	0.22	116.78	1787.26	11.81	-0.43	11.81	11.82	357.92	0.43
1880.93	0.24	118.87	1880.88	11.63	-0.09	11.63	11.63	359.55	0.02
1974.55	0.20	118.49	1974.50	11.46	0.23	11.46	11.46	1.14	0.04
2068.17	0.35	278.28	2068.12	11.42	0.09	11.42	11.42	0.43	0.59
2161.79	0.23	287.93	2161.73	11.52	-0.38	11.52	11.53	358.11	0.14
2255.41	0.33	264.61	2255.35	11.55	-0.83	11.55	11.58	355.90	0.16
2349.03	0.11	117.88	2348.97	11.48	-1.01	11.48	11.53	354.95	0.46
2442.65	0.27	266.10	2442.59	11.43	-1.15	11.43	11.48	354.24	0.40
2536.27	0.28	263.25	2536.21	11.38	-1.60	11.38	11.50	352.01	0.02
2629.89	0.18	119.28	2629.83	11.29	-1.69	11.29	11.41	351.48	0.47
2723.51	0.23	115.99	2723.45	11.13	-1.39	11.13	11.22	352.89	0.06
2817.13	0.11	292.29	2817.07	11.08	-1.30	11.08	11.16	353.29	0.37
2910.75	0.11	305.35	2910.69	11.17	-1.46	11.17	11.26	352.55	0.03
3004.37	0.19	309.79	3004.31	11.32	-1.65	11.32	11.44	351.69	0.10
3097.99	0.23	67.16	3097.93	11.49	-1.60	11.49	11.60	352.07	0.39
3191.61	0.20	72.48	3191.55	11.61	-1.27	11.61	11.68	353.74	0.04
3285.23	0.42	301.99	3285.17	11.85	-1.41	11.85	11.93	353.19	0.61
3378.85	0.53	314.15	3378.78	12.33	-2.02	12.33	12.49	350.71	0.16
3472.47	0.29	1.63	3472.40	12.87	-2.32	12.87	13.07	349.77	0.42
3566.09	0.22	342.63	3566.02	13.27	-2.37	13.27	13.48	349.88	0.11
3659.71	0.58	308.96	3659.64	13.75	-2.79	13.75	14.03	348.52	0.44
3753.33	0.63	322.47	3753.25	14.45	-3.48	14.45	14.87	346.48	0.16
3846.95	0.78	339.09	3846.87	15.46	-4.02	15.46	15.97	345.44	0.27
3940.57	0.79	15.07	3940.48	16.67	-4.08	16.67	17.16	346.26	0.52
4034.19	0.70	69.77	4034.09	17.49	-3.38	17.49	17.81	349.08	0.73
4127.81	1.11	89.30	4127.70	17.70	-1.94	17.70	17.80	353.75	0.54
4221.43	1.71	104.76	4221.29	17.35	0.32	17.35	17.35	1.05	0.76
4315.05	2.00	111.50	4314.86	16.39	3.19	16.39	16.70	11.01	0.38
4408.67	2.47	120.03	4408.41	14.79	6.46	14.79	16.13	23.60	0.62
4502.29	2.39	117.43	4501.95	12.88	9.94	12.88	16.27	37.66	0.15
4595.91	2.58	102.53	4595.48	11.52	13.72	11.52	17.92	49.99	0.72
4689.53	2.16	108.32	4689.02	10.51	17.45	10.51	20.37	58.94	0.52
4783.15	1.98	119.58	4782.58	9.16	20.53	9.16	22.48	65.96	0.47
4876.77	2.01	116.99	4876.14	7.62	23.40	7.62	24.61	71.97	0.10
4970.39	1.70	110.57	4969.71	6.38	26.16	6.38	26.93	76.29	0.39
5064.01	1.54	107.82	5063.30	5.51	28.66	5.51	29.19	79.12	0.19
5157.63	1.75	118.63	5156.88	4.44	31.12	4.44	31.43	81.88	0.39
5251.25	1.57	130.07	5250.46	2.93	33.35	2.93	33.48	84.98	0.40
5344.87	1.28	94.73	5344.05	2.02	35.38	2.02	35.44	86.74	0.97

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
5438.49	1.17	76.06	5437.65	2.16	37.35	2.16	37.41	86.69	0.44
5532.11	1.24	118.43	5531.25	1.91	39.17	1.91	39.21	87.21	0.93
5625.73	1.06	118.42	5624.85	1.01	40.82	1.01	40.83	88.58	0.19
5719.35	0.70	106.82	5718.46	0.43	42.13	0.43	42.13	89.41	0.43
5812.97	0.64	101.34	5812.08	0.17	43.19	0.17	43.19	89.78	0.09
5906.59	0.75	128.62	5905.69	-0.32	44.18	-0.32	44.19	90.41	0.37
6000.21	0.64	130.29	5999.30	-1.04	45.06	-1.04	45.07	91.32	0.11
6093.83	0.66	130.97	6092.92	-1.73	45.87	-1.73	45.90	92.16	0.03
6187.45	0.35	88.92	6186.53	-2.08	46.56	-2.08	46.61	92.56	0.50
6281.07	0.32	84.48	6280.15	-2.05	47.11	-2.05	47.15	92.50	0.04
6374.69	0.53	137.29	6373.77	-2.35	47.66	-2.35	47.72	92.82	0.45
6468.31	0.46	132.62	6467.38	-2.93	48.24	-2.93	48.32	93.47	0.09
6561.93	0.20	94.27	6561.00	-3.20	48.68	-3.20	48.78	93.76	0.35
6655.55	0.10	122.15	6654.62	-3.25	48.91	-3.25	49.01	93.80	0.13
6749.17	0.43	150.63	6748.24	-3.60	49.15	-3.60	49.28	94.19	0.37
6842.79	0.41	142.40	6841.86	-4.17	49.52	-4.17	49.70	94.81	0.07
6936.41	0.29	72.39	6935.48	-4.36	49.95	-4.36	50.14	94.99	0.44
7030.03	0.31	96.70	7029.10	-4.32	50.43	-4.32	50.62	94.90	0.14
7123.65	0.68	139.12	7122.71	-4.77	51.05	-4.77	51.27	95.34	0.53
7217.27	0.31	120.28	7216.33	-5.32	51.63	-5.32	51.90	95.88	0.42
7310.89	0.45	121.97	7309.95	-5.64	52.17	-5.64	52.47	96.17	0.15
7404.51	1.16	148.50	7403.56	-6.65	52.98	-6.65	53.39	97.15	0.84
7498.13	1.45	154.41	7497.15	-8.53	53.98	-8.53	54.65	98.98	0.34
7591.75	1.05	158.57	7590.75	-10.39	54.81	-10.39	55.79	100.74	0.44
7685.37	1.30	161.38	7684.35	-12.20	55.46	-12.20	56.79	102.41	0.28
7778.99	1.70	156.45	7777.94	-14.49	56.36	-14.49	58.19	104.41	0.45
7872.61	1.66	146.58	7871.52	-16.89	57.66	-16.89	60.08	106.33	0.31
7966.23	1.17	155.26	7965.11	-18.89	58.81	-18.89	61.77	107.81	0.57
8059.85	1.40	156.35	8058.71	-20.81	59.67	-20.81	63.19	109.23	0.25
8153.47	1.75	158.10	8152.29	-23.19	60.66	-23.19	64.95	110.92	0.38
8247.09	1.69	161.52	8245.87	-25.84	61.64	-25.84	66.83	112.74	0.13
8340.71	1.35	172.93	8339.46	-28.24	62.21	-28.24	68.32	114.42	0.49
8434.33	1.17	186.13	8433.05	-30.28	62.24	-30.28	69.22	115.94	0.36
8527.95	1.52	170.36	8526.65	-32.45	62.35	-32.45	70.29	117.50	0.55
8621.57	1.28	185.07	8620.24	-34.72	62.47	-34.72	71.47	119.07	0.46
8715.19	0.97	205.57	8713.84	-36.48	62.03	-36.48	71.96	120.46	0.54
8808.81	1.12	194.07	8807.45	-38.09	61.47	-38.09	72.31	121.78	0.28
8902.43	0.68	188.62	8901.05	-39.53	61.16	-39.53	72.82	122.87	0.48
8996.05	0.72	147.60	8994.67	-40.57	61.39	-40.57	73.59	123.46	0.52

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
9089.67	0.58	183.57	9088.28	-41.54	61.67	-41.54	74.36	123.96	0.45
9183.29	0.66	263.59	9181.90	-42.07	61.11	-42.07	74.19	124.54	0.86
9276.91	1.19	223.38	9275.51	-42.83	59.90	-42.83	73.64	125.57	0.86
9370.53	1.70	247.39	9369.10	-44.07	57.95	-44.07	72.81	127.25	0.83
9464.15	2.15	251.31	9462.66	-45.17	55.01	-45.17	71.18	129.39	0.50
9532.77	2.71	248.38	9531.22	-46.17	52.29	-46.17	69.76	131.45	0.84
9557.77	2.71	250.94	9556.19	-46.59	51.18	-46.59	69.21	132.31	0.49



VES Survey International
Midland, Texas
432-563-5444
Surveyor: Adam Askew
Tomb Raider 1 Fed 1H / API 30-015-42655



VES Survey Date: 12/1/2014



Weatherford

Evaluation, Drilling & Intervention
10000 West County Rd. 116
P.O. Box 61028
Midland, TX USA 79711
Tel. (432) 561-8892 Fax (432) 561-8895

Devon Energy
333 W. Sherridan Ave
Oklahoma City, OK, 73102

Date: December 17, 2014

Attention: Scott Schmidt

Re: Devon Energy
Well: Tomb Raider Fed 1H
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:

<u>Name & Title Of Surveyor</u>	<u>Well Number</u>	<u>Surveyed Depths</u>	<u>Dates Performed</u>	<u>Type of Survey</u>
Jesus Lopez MWD Supervisor	3H	9646 MD 14621 MD	11/29/2014 12/14/2014	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.

Jesus Aguilar
MWD Coordinator

On this, the 19th day of January, 2015, before me a notary public, the undersigned officer, personally appeared Jesus 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.

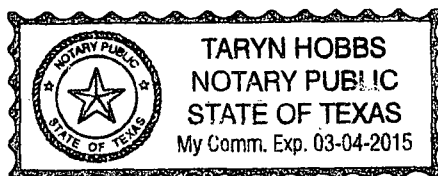
In witness hereof, I hereunto set my hand and official seal.

Notary Public

NM OIL CONSERVATION
ARTESIA DISTRICT

MAY 22 2015

RECEIVED



NM OIL CONSERVATION
ARTESIA DISTRICT

MAY 22 2015

RECEIVED

5D Survey Report

Devon Energy

Field Name: *Eddy Co, NM (Nad 83 NME)*

Site Name: *Tomb Raider 1 Fed 1H*

Well Name: *Tomb Raider 1 Fed 1H*

Survey: *Wft MWD Svy*

12 December 2014



Weatherford®

5D Survey Report

Tomb Raider 1 Fed 1H

Field Name Eddy Co NM (Nad 83 NME)	Map Units : US ft		Company Name : Devon Energy	
	Vertical Reference Datum (VRD) : Mean Sea Level			
	Projected Coordinate System : NAD83 / New Mexico East (ftUS)			
Comment :				
Site Name Tomb Raider 1 Fed 1H	Units : US ft	North Reference : Grid	Convergence Angle : 0.32	
	Position	Northing : 488010.37 US ft	Latitude : 32° 20' 24.60"	
		Easting : 727842.38 US ft	Longitude : 103° 43' 46.01"	
Elevation above Mean Sea Level: 3478.00 US ft				
Comment :				
Slot Name Tomb Raider 1 Fed 1H	Position (Offsets relative to Site Centre)			
	+N / -S : 0.00 US ft	Northing : 488010.37 US ft	Latitude : 32° 20' 24.60"	
	+E / -W : 0.00 US ft	Easting : 727842.38 US ft	Longitude : 103° 43' 46.01"	
Elevation above Mean Sea Level : 3478.00 US ft				
Comment :				
Well Name Tomb Raider 1 Fed 1H	Type : Main well		UWI :	
	Rig Height Kelly Bushing : 25.00 US ft		Comment :	
	Relative to Mean Sea Level: 3503.00 US ft			
Closure Distance : 4750.12 US ft		Closure Azimuth : 179.703°		
Vertical Section (Position of Origin Relative to Slot)				
+N / -S : 0.00 US ft		+E / -W : 0.00 US ft	Az : 179.37°	

Survey Name: Wft MWD Svy

Date : 03/Dec/2014

Survey Tool : MWD

Comment :

Company : Wft

Magnetic Model

Model Name: BGGM

Date: 10/Dec/2014

Field Strength:
48299.8 nT

Declination: 7.41°

Dip: 60.17°

Tie Point

MD: 9557.77

Inclination: 2.71 Azimuth: 250.94

TVD: 9556.2

North Offset: -46.59

East Offset: 51.18

Well path created using minimum curvature

Survey Points (Relative to Slot centre, TVD relative to Kelly Bushing)										
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N Offset (US ft)	E Offset (US ft)	VS (US ft)	DLS (°/100 US ft)	Northing (US ft)	Easting (US ft)	Comment
9646.00	2.48	239.99	9644.34	-48.23	47.56	48.75	0.00	487962.14	727889.94	First Wft Svy
9677.00	4.13	210.71	9675.29	-49.52	46.40	50.03	7.45	487960.85	727888.78	
9709.00	6.78	193.23	9707.14	-52.35	45.38	52.85	9.68	487958.02	727887.76	
9740.00	9.29	189.09	9737.83	-56.60	44.57	57.09	8.30	487953.77	727886.95	
9772.00	12.79	186.42	9769.24	-62.68	43.76	63.15	11.05	487947.69	727886.14	
9803.00	15.92	186.27	9799.26	-70.31	42.92	70.78	10.10	487940.06	727885.30	
9835.00	18.43	184.46	9829.84	-79.72	42.04	80.18	8.02	487930.65	727884.42	
9866.00	20.47	185.44	9859.06	-90.00	41.15	90.45	6.66	487920.37	727883.53	
9898.00	22.01	187.33	9888.89	-101.52	39.85	101.95	5.27	487908.85	727882.23	
9929.00	23.69	187.26	9917.46	-113.46	38.32	113.88	5.42	487896.91	727880.70	
9961.00	26.40	186.25	9946.45	-126.91	36.74	127.31	8.57	487883.46	727879.12	
9992.00	29.95	185.62	9973.77	-141.47	35.23	141.85	11.49	487868.90	727877.61	
10023.00	33.03	184.96	10000.20	-157.59	33.74	157.95	10.00	487852.78	727876.12	
10055.00	37.30	183.76	10026.35	-175.97	32.35	176.31	13.52	487834.40	727874.73	

5D Survey Report

Survey Points (Relative to Slot - centre TVD relative to Kelly Bushing)										
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N. Offset (US ft)	E. Offset (US ft)	VS (US ft)	DLS (%/100 US ft)	Northing (US ft)	Eastings (US ft)	Comments
10086.00	41.18	183.00	10050.36	-195.54	31.20	195.87	12.61	487814.83	727873.58	
10118.00	45.28	182.80	10073.67	-217.42	30.09	217.74	12.82	487792.95	727872.47	
10149.00	48.84	182.45	10094.78	-240.09	29.06	240.39	11.51	487770.28	727871.44	
10181.00	52.83	181.38	10114.99	-264.88	28.23	265.17	12.74	487745.49	727870.61	
10212.00	56.68	180.32	10132.88	-290.19	27.86	290.48	12.73	487720.18	727870.24	
10244.00	61.23	179.11	10149.38	-317.60	28.01	317.89	14.58	487692.77	727870.39	
10275.00	65.33	178.93	10163.31	-345.28	28.48	345.57	13.24	487665.09	727870.86	
10307.00	68.72	179.28	10175.80	-374.73	28.94	375.03	10.64	487635.64	727871.32	
10338.00	71.56	179.99	10186.33	-403.88	29.12	404.18	9.41	487606.49	727871.50	
10370.00	74.12	180.07	10195.77	-434.46	29.11	434.75	8.00	487575.91	727871.49	
10401.00	76.45	180.58	10203.64	-464.44	28.94	464.73	7.68	487545.93	727871.32	
10428.00	77.94	180.55	10209.63	-490.76	28.68	491.05	5.52	487519.61	727871.06	
10459.00	79.16	180.71	10215.78	-521.14	28.34	521.42	3.97	487489.23	727870.72	
10490.00	80.17	180.46	10221.34	-551.64	28.03	551.91	3.35	487458.73	727870.41	
10522.00	81.72	180.57	10226.38	-583.24	27.75	583.51	4.86	487427.13	727870.13	
10584.00	84.11	179.89	10234.03	-644.76	27.50	645.02	4.01	487365.61	727869.88	
10616.00	85.66	180.20	10236.88	-676.63	27.48	676.89	4.94	487333.74	727869.86	
10647.00	88.11	180.63	10238.56	-707.58	27.25	707.84	8.02	487302.79	727869.63	
10710.00	90.77	180.52	10239.18	-770.57	26.62	770.82	4.23	487239.80	727869.00	
10805.00	92.10	180.65	10236.80	-865.53	25.65	865.76	1.41	487144.84	727868.03	
10899.00	89.93	180.26	10235.14	-959.51	24.90	959.73	2.35	487050.86	727867.28	
10993.00	90.14	180.78	10235.08	-1053.51	24.05	1053.71	0.60	486956.86	727866.43	
11088.00	90.49	181.25	10234.56	-1148.49	22.37	1148.66	0.62	486861.88	727864.75	
11182.00	90.35	179.92	10233.87	-1242.48	21.41	1242.64	1.42	486767.89	727863.79	
11276.00	90.70	179.92	10233.01	-1336.47	21.54	1336.63	0.37	486673.90	727863.92	
11371.00	91.05	179.74	10231.55	-1431.46	21.82	1431.62	0.41	486578.91	727864.20	
11465.00	89.86	179.72	10230.81	-1525.46	22.26	1525.61	1.27	486484.91	727864.64	
11560.00	90.14	179.84	10230.81	-1620.46	22.63	1620.61	0.32	486389.91	727865.01	
11654.00	89.79	178.59	10230.87	-1714.45	23.92	1714.60	1.38	486295.92	727866.30	
11748.00	90.21	178.88	10230.87	-1808.42	25.99	1808.60	0.54	486201.95	727868.37	
11843.00	88.39	178.53	10232.03	-1903.39	28.14	1903.58	1.95	486106.98	727870.52	
11937.00	88.53	178.91	10234.55	-1997.33	30.24	1997.54	0.43	486013.04	727872.62	
12032.00	88.88	180.00	10236.70	-2092.30	31.14	2092.52	1.20	485918.07	727873.52	
12126.00	88.67	180.03	10238.71	-2186.28	31.12	2186.49	0.23	485824.09	727873.50	
12221.00	89.44	179.73	10240.28	-2281.26	31.32	2281.47	0.87	485729.11	727873.70	
12316.00	90.42	180.15	10240.39	-2376.26	31.42	2376.46	1.12	485634.11	727873.80	
12409.00	90.28	180.11	10239.82	-2469.26	31.20	2469.45	0.16	485541.11	727873.58	
12504.00	90.35	180.67	10239.30	-2564.26	30.56	2564.44	0.59	485446.11	727872.94	
12598.00	90.35	180.93	10238.73	-2658.25	29.25	2658.41	0.28	485352.12	727871.63	
12693.00	90.28	180.13	10238.20	-2753.24	28.37	2753.38	0.85	485257.13	727870.75	
12788.00	90.35	180.13	10237.68	-2848.24	28.15	2848.37	0.07	485162.13	727870.53	
12882.00	90.56	181.04	10236.94	-2942.23	27.19	2942.35	0.99	485068.14	727869.57	
12977.00	91.05	180.76	10235.60	-3037.21	25.70	3037.31	0.59	484973.16	727868.08	
13071.00	90.14	179.60	10234.63	-3131.20	25.40	3131.29	1.57	484879.17	727867.78	
13165.00	90.07	179.57	10234.45	-3225.20	26.08	3225.29	0.08	484785.17	727868.46	
13260.00	90.00	180.00	10234.39	-3320.20	26.44	3320.29	0.46	484690.17	727868.82	
13354.00	90.21	180.46	10234.22	-3414.19	26.06	3414.27	0.54	484596.18	727868.44	
13448.00	90.70	179.56	10233.48	-3508.19	26.05	3508.26	1.09	484502.18	727868.43	
13543.00	91.05	179.85	10232.03	-3603.18	26.54	3603.25	0.48	484407.19	727868.92	
13637.00	90.14	179.41	10231.05	-3697.17	27.14	3697.24	1.08	484313.20	727869.52	
13732.00	90.21	179.60	10230.76	-3792.16	27.96	3792.24	0.21	484218.21	727870.34	
13826.00	89.44	178.97	10231.05	-3886.16	29.14	3886.24	1.06	484124.21	727871.52	
13921.00	89.93	179.32	10231.57	-3981.14	30.55	3981.24	0.63	484029.23	727872.93	
14015.00	90.28	179.75	10231.40	-4075.14	31.32	4075.24	0.59	483935.23	727873.70	
14109.00	89.23	180.02	10231.80	-4169.14	31.51	4169.23	1.15	483841.23	727873.89	
14204.00	88.53	180.62	10233.66	-4264.12	30.98	4264.20	0.97	483746.25	727873.36	
14298.00	89.86	180.88	10234.98	-4358.10	29.75	4358.16	1.44	483652.27	727872.13	
14393.00	90.00	181.58	10235.09	-4453.07	27.71	4453.11	0.75	483557.30	727870.09	
14487.00	89.65	180.20	10235.38	-4547.06	26.25	4547.07	1.51	483463.31	727868.63	

5D Survey Report

Survey Points (Relative to Slot centre, TVD relative to Kelly Bushing)										
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N Offset (US ft)	E Offset (US ft)	VS (US ft)	DLS (%/100 US ft)	Northing (US ft)	Easting (US ft)	Comment
14582.00	90.00	180.34	10235.67	-4642.06	25.80	4642.06	0.40	483368.31	727868.18	
14621.00	90.14	180.70	10235.62	-4681.06	25.44	4681.05	0.99	483329.31	727867.82	Last Wft Svy
14690.00	90.14	180.70	10235.45	-4750.05	24.60	4750.03	0.00	483260.32	727866.98	Proj. To Bit 1H

devon

Tomb Raider Fed 1H
Eddy Co, NM

Weatherford

Plan Data for Tomb Raider 1 Fed 1H

Plan Point Information:

DogLeg Severity Unit: °/100.00ft Position offsets from Slot centre

MD	Inc	Az	TVD	+N/-S	+E/-W	Northing	Easting	VSec	DLS
(USft)	(°)	(°)	(USft)	(USft)	(USft)	(USft)	(USft)	(USft)	(DLSU)
9557.77	2.71	250.94	9556.20	-46.55	51.14	487963.82	727893.52	47.11	0.48
9650.00	2.71	250.94	9648.32	-47.97	47.02	487962.40	727889.40	48.49	0.00
10576.05	90.00	179.62	10234.00	-643.35	24.73	487367.02	727867.11	643.58	9.63
14682.85	90.00	179.62	10234.00	-4750.05	52.18	483260.32	727894.56	4750.34	0.00

Plan Data for Tomb Raider 1 Fed 1H

Slot: Tomb Raider 1 Fed 1H

Position:

Offset is from Site centre

+N/-S: 0.00USft Northing: 488010.37USft Latitude: 32°20'24.6"
+E/-W: 0.00USft Easting: 727842.38USft Longitude: -103°43'46.0"
Elevation Above VRD: 3478.00USft

Plan Data for Tomb Raider 1 Fed 1H

Target Set Information:

Name: Tomb Raider 1 Fed 1H

Position offsets from Slot centre

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape	Comment
(USft)	(USft)	(USft)	(USft)	(USft)	(USft)		
PBHL 1H	10234.00	-4750.05	52.18	483260.32	727894.56	Cuboid	

Plan Data for Tomb Raider 1 Fed 1H

Well: Tomb Raider 1 Fed 1H

Type: Main-Well

File Number:

Plan Folder: P2

Plan: P2:V1

Vertical Section: Position offset of origin from Slot centre:

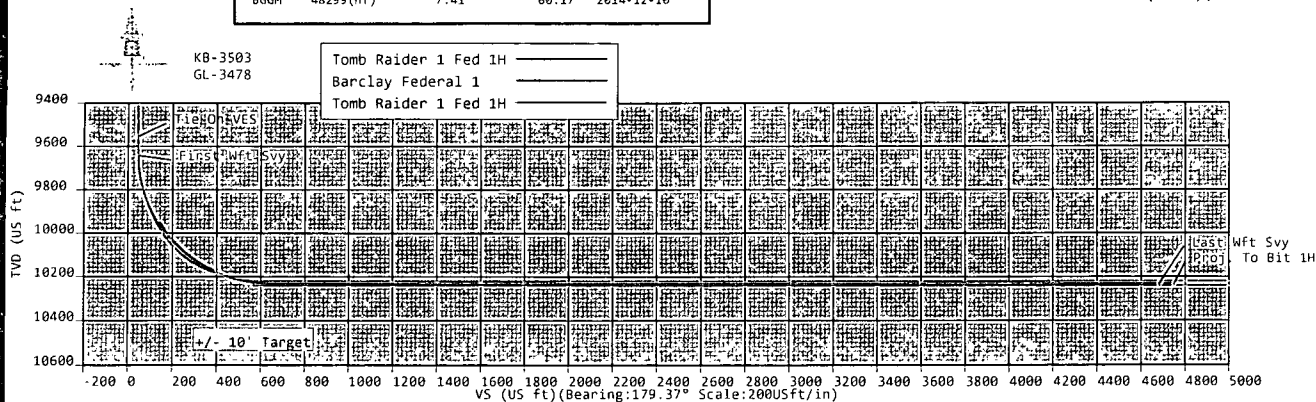
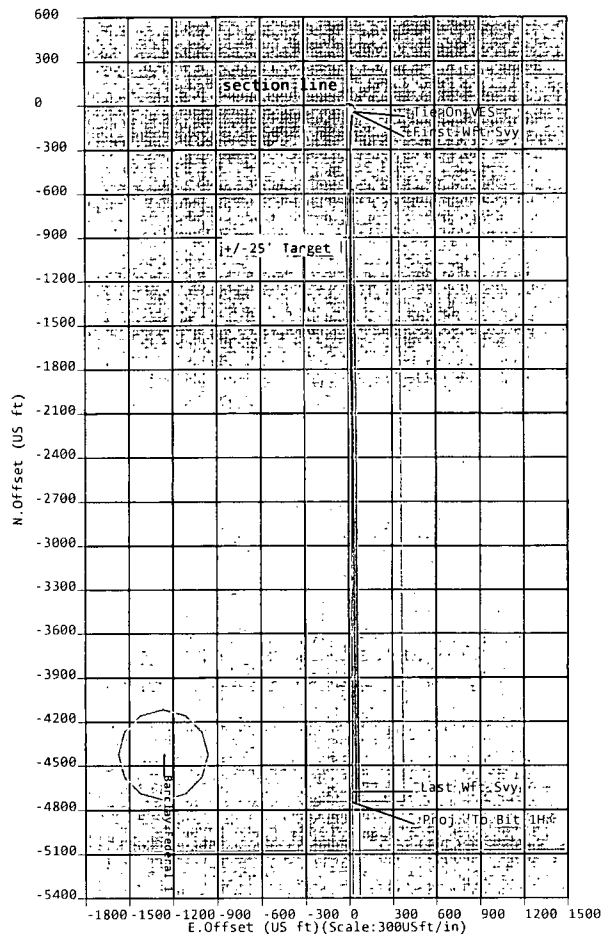
+N/-S: 0.00USft

Azimuth: 179.37°

+E/-W: 0.00USft

Magnetic Parameters:

Model: Field Strength: Declination: Dip: Date:
BGGM 48299(nT) 7.41° 60.17° 2014-12-10



Sign Off: Russell Joyner

Directional Survey

Sub-Division DELAWARE BASIN	County EDDY	Field Name INGLE WELLS	Region DELAWARE BASIN WEST	State/Province NM
Surface Legal Location SEC1 23S 31E	API/UWI 3001542655	Latitude (") 32° 20' 24.599" N	Longitude (") 103° 43' 46.006" W	Ground Elev M. 3,478.90
				Orig KB Elev (ft) 3,503.90
				Tubing Head Elevation (ft)

Wellbores	Wellbore Name OH	Parent Wellbore	SAP Well ID 37456	Vertical Section Direction (") NM OIL CONSERVATION
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Kick Offs & Key Depths

Date	Type	Top Depth (ftKB)
		MAY 22 2015
Actual Deviation Survey GYRO/MWD, Proposed? No	Definitive? Yes	Proposed? No
		Proposed Deviation Survey

Deviation Survey

Date 11/19/2014	Description GYRO/MWD	RECEIVED
MD Tie In (ftKB) 0.00	TVD Tie In (ftKB) 0.00	Inclination Tie In (") 0.00
		Azimuth Tie In (") 0.00
		NS Tie In (ft) 0.00
		EW Tie In (ft) 0.00

Survey Data

Date	MD (ftKB)	Incl (")	Azm (")	TVD (ftKB)	VS (ft)	N/S (ft)	E/W (ft)	DLS (")/100ft	Survey Tool	Survey Company
12/2/2014	102.15	0.52	352.81	102.15	0.46	0.46	-0.06	0.51	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	195.77	0.36	332.44	195.77	1.14	1.14	-0.25	0.24	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	289.39	0.33	337.68	289.38	1.65	1.65	-0.49	0.05	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	383.01	0.21	54.35	383.00	2.00	2.00	-0.45	0.37	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	476.63	0.62	351.04	476.62	2.60	2.60	-0.39	0.60	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	570.25	0.56	349.60	570.24	3.56	3.55	-0.55	0.07	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	663.87	0.76	13.93	663.85	4.61	4.60	-0.48	0.36	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	757.49	0.41	11.44	757.46	5.54	5.54	-0.27	0.37	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	851.11	0.70	350.27	851.08	6.43	6.43	-0.30	0.37	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	944.73	0.63	347.62	944.69	7.50	7.49	-0.50	0.08	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	1,038.35	0.37	25.02	1,038.31	8.27	8.27	-0.49	0.43	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	1,131.97	0.56	345.16	1,131.93	8.99	8.99	-0.48	0.39	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	1,225.59	0.29	54.66	1,225.55	9.57	9.57	-0.40	0.57	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	1,319.21	0.21	74.11	1,319.16	9.75	9.75	-0.04	0.12	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	1,412.83	0.28	340.53	1,412.78	10.01	10.01	-0.05	0.38	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	1,506.45	0.62	343.65	1,506.40	10.72	10.71	-0.17	0.36	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	1,600.07	0.25	338.31	1,600.02	11.39	11.39	-0.39	0.40	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	1,693.69	0.20	334.66	1,693.64	11.73	11.73	-0.54	0.06	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	1,787.31	0.22	116.78	1,787.26	11.80	11.79	-0.44	0.42	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	1,880.93	0.24	118.87	1,880.88	11.62	11.62	-0.11	0.02	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	1,974.55	0.20	118.49	1,974.50	11.45	11.45	-0.20	0.04	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	2,068.17	0.35	278.28	2,068.12	11.41	11.41	-0.06	0.58	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	2,161.79	0.23	287.93	2,161.73	11.51	11.51	-0.40	0.14	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	2,255.41	0.33	264.61	2,255.35	11.55	11.54	-0.85	0.16	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	2,349.03	0.11	117.88	2,348.97	11.48	11.47	-1.03	0.46	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	2,442.65	0.27	266.10	2,442.59	11.42	11.42	-1.18	0.39	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	2,536.27	0.28	263.25	2,536.21	11.38	11.37	-1.62	0.02	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	2,629.89	0.18	119.28	2,629.83	11.28	11.28	-1.72	0.47	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	2,723.51	0.23	115.99	2,723.45	11.13	11.12	-1.42	0.05	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	2,817.13	0.11	292.29	2,817.07	11.08	11.07	-1.34	0.36	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	2,910.75	0.11	305.35	2,910.69	11.17	11.16	-1.49	0.03	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	3,004.37	0.19	309.79	3,004.31	11.32	11.31	-1.69	0.09	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	3,097.99	0.23	67.16	3,097.93	11.49	11.48	-1.63	0.38	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	3,191.61	0.20	72.48	3,191.55	11.61	11.61	-1.30	0.04	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	3,285.23	0.42	301.99	3,285.17	11.84	11.84	-1.44	0.61	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	3,378.85	0.53	314.15	3,378.78	12.33	12.32	-2.04	0.16	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	3,472.47	0.29	1.63	3,472.40	12.87	12.86	-2.35	0.42	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	3,566.09	0.22	342.63	3,566.02	13.28	13.27	-2.39	0.12	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	3,659.71	0.58	308.96	3,659.64	13.75	13.74	-2.81	0.44	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	3,753.33	0.63	322.47	3,753.25	14.46	14.44	-3.50	0.16	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	3,846.95	0.78	339.09	3,846.87	15.47	15.45	-4.04	0.27	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	3,940.57	0.79	15.07	3,940.48	16.69	16.66	-4.10	0.52	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	4,034.19	0.70	69.77	4,034.09	17.50	17.49	-3.39	0.74	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	4,127.81	1.11	89.30	4,127.70	17.70	17.69	-1.95	0.54	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	4,221.43	1.71	104.76	4,221.29	17.35	17.35	-0.31	0.75	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	4,315.05	2.00	111.50	4,314.86	16.38	16.39	-3.18	0.39	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	4,408.67	2.47	120.03	4,408.41	14.75	14.79	-6.45	0.61	GYRO	VAUHG N ENERGY SERVICES

devon

Directional Survey

Sub-Division DELAWARE BASIN	County EDDY	Field Name INGLE WELLS	Region DELAWARE BASIN WEST	State/Province NM
Surface Legal Location SEC1 23S 31E	API/UWI 3001542655	Latitude (") 32° 20' 24.599" N	Longitude (") 103° 43' 46.006" W	Ground Elev M. 3,478.90
				Orig KB Elev (ft) 3,503.90
				Tubing Head Elevation (ft)

Date	MD (ftKB)	Incl (")	Azm (")	TVD (ftKB)	VS (ft)	N/S (ft)	E/W (ft)	DLS (")/100ft	Survey Tool	Survey Company
12/2/2014	4,502.29	2.39	117.43	4,501.95	12.83	12.88	9.92	0.15	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	4,595.91	2.58	102.53	4,595.48	11.45	11.52	13.71	0.72	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	4,689.53	2.16	108.32	4,689.02	10.42	10.51	17.45	0.52	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	4,783.15	1.98	119.58	4,782.58	9.05	9.16	20.53	0.47	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	4,876.77	2.01	116.99	4,876.14	7.49	7.61	23.40	0.10	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	4,970.39	1.70	110.57	4,969.71	6.24	6.38	26.16	0.40	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	5,064.01	1.54	107.82	5,063.30	5.36	5.51	28.66	0.19	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	5,157.63	1.75	118.63	5,156.88	4.28	4.44	31.11	0.40	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	5,251.25	1.57	130.07	5,250.46	2.75	2.93	33.35	0.40	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	5,344.87	1.28	94.73	5,344.05	1.83	2.01	35.37	0.97	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	5,438.49	1.17	76.06	5,437.65	1.97	2.16	37.34	0.44	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	5,532.11	1.24	118.43	5,531.25	1.70	1.91	39.16	0.93	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	5,625.73	1.06	118.42	5,624.85	0.80	1.01	40.81	0.19	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	5,719.35	0.70	106.82	5,718.46	0.22	0.43	42.12	0.43	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	5,812.97	0.64	101.34	5,812.08	0.06	0.17	43.18	0.09	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	5,906.59	0.75	128.62	5,905.69	0.55	0.32	44.17	0.37	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	6,000.21	0.64	130.29	5,999.30	1.27	1.04	45.05	0.12	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	6,093.83	0.66	130.97	6,092.92	1.97	1.73	45.85	0.02	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	6,187.45	0.35	88.92	6,186.53	2.32	2.08	46.55	0.50	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	6,281.07	0.32	84.48	6,280.15	2.29	2.05	47.09	0.04	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	6,374.69	0.53	137.29	6,373.77	2.59	2.34	47.65	0.45	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	6,468.31	0.46	132.62	6,467.38	3.16	2.91	48.22	0.09	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	6,561.93	0.20	94.27	6,561.00	3.43	3.18	48.66	0.35	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	6,655.55	0.10	122.15	6,654.62	3.49	3.24	48.89	0.13	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	6,749.17	0.43	150.63	6,748.24	3.84	3.59	49.13	0.37	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	6,842.79	0.41	142.40	6,841.86	4.41	4.16	49.51	0.07	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	6,936.41	0.29	72.39	6,935.48	4.61	4.35	49.94	0.44	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	7,030.03	0.31	96.70	7,029.10	4.57	4.31	50.42	0.14	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	7,123.65	0.68	139.12	7,122.71	5.02	4.76	51.03	0.53	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	7,217.27	0.31	120.28	7,216.33	5.57	5.31	51.61	0.43	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	7,310.89	0.45	121.97	7,309.95	5.90	5.63	52.14	0.15	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	7,404.51	1.16	148.50	7,403.56	6.91	6.63	52.95	0.84	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	7,498.13	1.45	154.41	7,497.15	8.79	8.51	53.96	0.34	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	7,591.75	1.05	158.57	7,590.75	10.66	10.37	54.78	0.44	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	7,685.37	1.30	161.38	7,684.35	12.47	12.18	55.43	0.27	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	7,778.99	1.70	156.45	7,777.94	14.75	14.46	56.33	0.45	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	7,872.61	1.66	146.58	7,871.52	17.16	16.86	57.63	0.31	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	7,966.23	1.17	155.26	7,965.11	19.17	18.86	58.78	0.57	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	8,059.85	1.40	156.35	8,058.71	21.09	20.78	59.64	0.25	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	8,153.47	1.75	158.10	8,152.29	23.47	23.15	60.63	0.38	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	8,247.09	1.69	161.52	8,245.87	26.11	25.79	61.60	0.13	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	8,340.71	1.35	172.93	8,339.46	28.51	28.19	62.17	0.48	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	8,434.33	1.17	186.13	8,433.05	30.56	30.24	62.21	0.36	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	8,527.95	1.52	170.36	8,526.65	32.73	32.41	62.31	0.54	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	8,621.57	1.28	185.07	8,620.24	35.00	34.68	62.43	0.46	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	8,715.19	0.97	205.57	8,713.84	36.75	36.43	61.99	0.54	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	8,808.81	1.12	194.07	8,807.45	38.35	38.04	61.43	0.27	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	8,902.43	0.68	188.62	8,901.06	39.79	39.47	61.12	0.48	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	8,996.05	0.72	147.60	8,994.67	40.84	40.52	61.35	0.53	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	9,089.67	0.58	183.57	9,088.28	41.81	41.49	61.64	0.45	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	9,183.29	0.66	263.59	9,181.90	42.34	42.02	61.07	0.85	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	9,276.91	1.19	223.38	9,275.51	43.10	42.79	59.87	0.86	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	9,370.53	1.70	247.39	9,369.10	44.33	44.03	57.92	0.83	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	9,464.15	2.15	251.31	9,462.67	45.41	45.13	54.98	0.50	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	9,532.77	2.71	248.38	9,531.22	46.41	46.14	52.25	0.84	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	9,557.77	2.71	250.94	9,556.20	46.81	46.55	51.14	0.48	GYRO	VAUHG N ENERGY SERVICES
12/2/2014	9,646.00	2.48	239.99	9,644.34	48.43	48.18	47.52	0.62	MWD	WEATHERFORD
12/2/2014	9,677.00	4.13	210.71	9,675.29	49.72	49.48	46.37	7.45	MWD	WEATHERFORD



TOMB RAIDER 1 FED 1H

DELAWARE BASIN UNRESTRICTED

Directional Survey

Sub-Division DELAWARE BASIN	County EDDY	Field Name INGLE WELLS	Region DELAWARE BASIN WEST	State/Province NM
Surface Legal Location SEC1 23S 31E	API/UWI 3001542655	Latitude (°) 32° 20' 24.599" N	Longitude (°) 103° 43' 46.006" W	Ground Elev M... 3,478.90
				Orig KB Elev (ft) 3,503.90
				Tubing Head Elevation (ft)

Date	MD (ft)	Incl (°)	Azm (°)	TVD (ft)	VS (ft)	N/S (ft)	E/W (ft)	DLS (°/100ft)	Survey Tool	Survey Company
12/2/2014	9,709.00	6.78	193.23	9,707.14	52.54	52.31	45.34	9.68	MWD	WEATHERFORD
12/2/2014	9,740.00	9.29	189.09	9,737.83	56.79	56.56	44.53	8.30	MWD	WEATHERFORD
12/2/2014	9,772.00	12.79	186.42	9,769.24	62.86	62.63	43.73	11.05	MWD	WEATHERFORD
12/2/2014	9,803.00	15.92	186.27	9,799.26	70.49	70.27	42.88	10.10	MWD	WEATHERFORD
12/2/2014	9,835.00	18.43	184.46	9,829.84	79.89	79.68	42.00	8.02	MWD	WEATHERFORD
12/2/2014	9,866.00	20.47	185.44	9,859.06	90.17	89.96	41.11	6.66	MWD	WEATHERFORD
12/3/2014	9,898.00	22.01	187.33	9,888.89	101.68	101.48	39.81	5.27	MWD	WEATHERFORD
12/4/2014	9,929.00	23.69	187.26	9,917.46	113.62	113.42	38.29	5.42	MWD	WEATHERFORD
12/4/2014	9,961.00	26.40	186.25	9,946.45	127.06	126.87	36.70	8.57	MWD	WEATHERFORD
12/4/2014	9,992.00	29.95	185.62	9,973.77	141.61	141.43	35.19	11.49	MWD	WEATHERFORD
12/4/2014	10,023.00	33.03	184.96	10,000.20	157.72	157.55	33.70	10.00	MWD	WEATHERFORD
12/4/2014	10,055.00	37.30	183.76	10,026.35	176.09	175.92	32.31	13.52	MWD	WEATHERFORD
12/4/2014	10,086.00	41.18	183.00	10,050.36	195.65	195.49	31.16	12.61	MWD	WEATHERFORD
12/4/2014	10,118.00	45.28	182.80	10,073.67	217.53	217.38	30.05	12.82	MWD	WEATHERFORD
12/4/2014	10,149.00	48.84	182.45	10,094.78	240.19	240.05	29.02	11.51	MWD	WEATHERFORD
12/4/2014	10,181.00	52.83	181.38	10,114.99	264.98	264.84	28.19	12.74	MWD	WEATHERFORD
12/4/2014	10,212.00	56.68	180.32	10,132.88	290.29	290.15	27.82	12.73	MWD	WEATHERFORD
12/4/2014	10,244.00	61.23	179.11	10,149.38	317.69	317.55	27.97	14.58	MWD	WEATHERFORD
12/4/2014	10,275.00	65.33	178.93	10,163.31	345.38	345.23	28.44	13.24	MWD	WEATHERFORD
12/4/2014	10,307.00	68.72	179.28	10,175.80	374.83	374.69	28.90	10.64	MWD	WEATHERFORD
12/4/2014	10,338.00	71.56	179.99	10,186.33	403.99	403.84	29.08	9.41	MWD	WEATHERFORD
12/8/2014	10,370.00	74.12	180.07	10,195.77	434.56	434.41	29.07	8.00	MWD	WEATHERFORD
12/8/2014	10,401.00	76.45	180.58	10,203.64	464.54	464.39	28.90	7.68	MWD	WEATHERFORD
12/8/2014	10,428.00	77.94	180.55	10,209.63	490.86	490.72	28.64	5.52	MWD	WEATHERFORD
12/8/2014	10,459.00	79.16	180.71	10,215.78	521.24	521.10	28.30	3.97	MWD	WEATHERFORD
12/8/2014	10,490.00	80.17	180.46	10,221.34	551.73	551.60	27.99	3.35	MWD	WEATHERFORD
12/8/2014	10,522.00	81.72	180.57	10,226.38	583.33	583.19	27.71	4.86	MWD	WEATHERFORD
12/8/2014	10,584.00	84.11	179.89	10,234.03	644.85	644.72	27.46	4.01	MWD	WEATHERFORD
12/8/2014	10,616.00	85.66	180.20	10,236.88	676.72	676.59	27.44	4.94	MWD	WEATHERFORD
12/8/2014	10,647.00	88.11	180.63	10,238.56	707.67	707.54	27.21	8.02	MWD	WEATHERFORD
12/8/2014	10,710.00	90.77	180.52	10,239.18	770.65	770.53	26.58	4.23	MWD	WEATHERFORD
12/8/2014	10,805.00	92.10	180.65	10,236.80	865.61	865.49	25.61	1.41	MWD	WEATHERFORD
12/8/2014	10,899.00	89.93	180.26	10,235.14	959.58	959.47	24.86	2.35	MWD	WEATHERFORD
12/8/2014	10,993.00	90.14	180.78	10,235.08	1,053.57	1,053.46	24.01	0.60	MWD	WEATHERFORD
12/8/2014	11,088.00	90.49	181.25	10,234.56	1,148.55	1,148.45	22.33	0.62	MWD	WEATHERFORD
12/8/2014	11,182.00	90.35	179.92	10,233.87	1,242.53	1,242.44	21.37	1.42	MWD	WEATHERFORD
12/8/2014	11,276.00	90.70	179.92	10,233.01	1,336.52	1,336.43	21.50	0.37	MWD	WEATHERFORD
12/8/2014	11,371.00	91.05	179.74	10,231.55	1,431.51	1,431.42	21.78	0.41	MWD	WEATHERFORD
12/8/2014	11,465.00	89.86	179.72	10,230.81	1,525.51	1,525.41	22.23	1.27	MWD	WEATHERFORD
12/8/2014	11,560.00	90.14	179.84	10,230.81	1,620.51	1,620.41	22.59	0.32	MWD	WEATHERFORD
12/9/2014	11,654.00	89.79	178.59	10,230.87	1,714.50	1,714.40	23.88	1.38	MWD	WEATHERFORD
12/9/2014	11,748.00	90.21	178.88	10,230.87	1,808.49	1,808.38	25.95	0.54	MWD	WEATHERFORD
12/9/2014	11,843.00	88.39	178.53	10,232.03	1,903.46	1,903.34	28.10	1.95	MWD	WEATHERFORD
12/9/2014	11,937.00	88.53	178.91	10,234.55	1,997.42	1,997.29	30.20	0.43	MWD	WEATHERFORD
12/9/2014	12,032.00	88.88	180.00	10,236.70	2,092.39	2,092.26	31.10	1.20	MWD	WEATHERFORD
12/9/2014	12,126.00	88.67	180.03	10,238.71	2,186.37	2,186.23	31.08	0.23	MWD	WEATHERFORD
12/9/2014	12,221.00	89.44	179.73	10,240.28	2,281.35	2,281.22	31.28	0.87	MWD	WEATHERFORD
12/9/2014	12,316.00	90.42	180.15	10,240.39	2,376.35	2,376.22	31.38	1.12	MWD	WEATHERFORD
12/9/2014	12,409.00	90.28	180.11	10,239.82	2,469.35	2,469.22	31.16	0.16	MWD	WEATHERFORD
12/9/2014	12,504.00	90.35	180.67	10,239.30	2,564.34	2,564.21	30.52	0.59	MWD	WEATHERFORD
12/9/2014	12,598.00	90.35	180.93	10,238.73	2,658.32	2,658.20	29.21	0.28	MWD	WEATHERFORD
12/9/2014	12,693.00	90.28	180.13	10,238.20	2,753.31	2,753.20	28.33	0.85	MWD	WEATHERFORD
12/9/2014	12,788.00	90.35	180.13	10,237.68	2,848.30	2,848.19	28.11	0.07	MWD	WEATHERFORD
12/9/2014	12,882.00	90.56	181.04	10,236.94	2,942.29	2,942.19	27.15	0.99	MWD	WEATHERFORD
12/9/2014	12,977.00	91.05	180.76	10,235.60	3,037.26	3,037.16	25.66	0.59	MWD	WEATHERFORD
12/9/2014	13,071.00	90.14	179.60	10,234.63	3,131.25	3,131.16	25.36	1.57	MWD	WEATHERFORD
12/9/2014	13,165.00	90.07	179.57	10,234.45	3,225.24	3,225.15	26.05	0.08	MWD	WEATHERFORD
12/9/2014	13,260.00	90.00	180.00	10,234.39	3,320.24	3,320.15	26.40	0.46	MWD	WEATHERFORD



Directional Survey

Sub-Division DELAWARE BASIN	County EDDY	Field Name INGLE WELLS	Region DELAWARE BASIN WEST	State/Province NM
Surface Legal Location SEC1.23S 31E	API/UWI 3001542655	Latitude (°) 32° 20' 24.599" N	Longitude (°) 103° 43' 46.006" W	Ground Elev M... 3,478.90
				Orig KB Elev (ft) 3,503.90
				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
12/9/2014	13,354.00	90.21	180.46	10,234.22	3,414.24	3,414.15	26.02	0.54	MWD	WEATHERFORD
12/9/2014	13,448.00	90.70	179.56	10,233.48	3,508.23	3,508.15	26.01	1.09	MWD	WEATHERFORD
12/9/2014	13,543.00	91.05	179.85	10,232.03	3,603.22	3,603.13	26.50	0.48	MWD	WEATHERFORD
12/9/2014	13,637.00	90.14	179.41	10,231.05	3,697.22	3,697.13	27.10	1.08	MWD	WEATHERFORD
12/9/2014	13,732.00	90.21	179.60	10,230.76	3,792.22	3,792.12	27.92	0.21	MWD	WEATHERFORD
12/10/2...	13,826.00	89.44	178.97	10,231.05	3,886.21	3,886.11	29.10	1.06	MWD	WEATHERFORD
12/10/2...	13,921.00	89.93	179.32	10,231.57	3,981.21	3,981.10	30.52	0.63	MWD	WEATHERFORD
12/10/2...	14,015.00	90.28	179.75	10,231.40	4,075.20	4,075.10	31.28	0.59	MWD	WEATHERFORD
12/10/2...	14,109.00	89.23	180.02	10,231.80	4,169.20	4,169.09	31.47	1.15	MWD	WEATHERFORD
12/10/2...	14,204.00	88.53	180.62	10,233.66	4,264.18	4,264.07	30.94	0.97	MWD	WEATHERFORD
12/10/2...	14,298.00	89.96	180.88	10,234.89	4,358.15	4,358.06	29.71	1.55	MWD	WEATHERFORD
12/10/2...	14,393.00	90.00	181.58	10,234.93	4,453.12	4,453.03	27.67	0.74	MWD	WEATHERFORD
12/10/2...	14,487.00	89.65	180.20	10,235.21	4,547.09	4,547.02	26.21	1.51	MWD	WEATHERFORD
12/10/2...	14,582.00	90.00	180.34	10,235.50	4,642.09	4,642.02	25.76	0.40	MWD	WEATHERFORD
12/11/2...	14,621.00	90.14	180.70	10,235.46	4,681.08	4,681.01	25.41	0.99	MWD	WEATHERFORD
12/11/2...	14,690.00	90.14	180.70	10,235.29	4,750.07	4,750.01	24.56	0.00	BIT	WEATHERFORD