

Results of Directional Survey

API number:	30-025-40641		
OGRID:		Operator:	DEVON ENERGY PRODUCTION COMPANY, LP
		Property:	BUTTER CUP 36 STATE COM # 2H

surface	ULSTR:	I	35	T 18S	R 34E
				1600 FSL	250 FEL

BH Loc	ULSTR:	L	36	T 18S	R 34E
15630	MD	10573.8	TVD	2062 FSL	380 FEL
					4940 FWL

Top Perf/OH	ULSTR:	I	35	T 18S	R 34E
10520	MD	10476.0	TVD	1627 FSL	85 FEL

Bot Perf/OH	ULSTR:	L	36	T 18S	R 34E
15558	MD	10578.7	TVD	2053 FSL	411 FEL
					4869 FEL

	MD	N/S	E/W	VD
	10510	27.04	158.18	10474.16
TOP PERFS/OH	10520	27.36	164.61	10481.81
	10542	28.06	178.74	10498.65
	15548	451.26	5109.03	10650.34
BOT PERFS/OH	15558	452.62	5118.93	10650.61
	15630	462.38	5190.24	10652.54

NEXT TO LAST	15548	451.26	5109.03	10650.34
LAST READING	15630	462.38	5190.24	10652.54
TD	15630	462.38	5190.24	10652.54

Surface Location	1600	FS	250	FE
Projected BHL	2062	FS	4940	FW
Location of				
Top Perfs/OH	1627	FS	85	FE
Bottom Perfs/OH	2053	FS	4869	FW

SUMMARY of Subsurface Locations

Surface Location	I-35-18S-34E	1600	FS	250	FE	Vert. Depth
Top Perfs/OH	I-35-18S-34E	1627	FS	85	FE	10481.81
Bottom Perfs/OH	L-36-18S-34E	2053	FS	4869	FW	10650.61
Projected TD	L-36-18S-34E	2062	FS	4940	FW	10652.54

Needs 200 acres dedicated Sec 35 u/l: I Sec 36 u/l: IJKL

AUG 15 2013



A GYRO TECHNOLOGIES INC. COMPANY

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

March 12, 2013

HOBBS OCD

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

JUL 10 2013

RECEIVED

Attn: Patti Riechers

Re: **Butter Cup 36 State Com No 002H**

Please find enclosed a copy of the survey from 0' to 10,056' ran on the above referenced well.

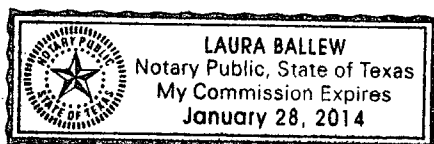
If I can be of any further service, please do not hesitate to call me at 800-606-4976.

Sincerely,

Keith Havelka
Operations

STATE OF TEXAS §
 §
COUNTY OF NUECES §

This instrument was acknowledged before me on the 12th day of March, A.D., 2013, by Keith Havelka.



Laura Balley
Notary Public, State of Texas

Company: Devon Energy Production Co., LP
Lease/Well: Butter Cup 36 State Com/No 002H



Rig Name: McVay 8
State/County: New Mexico/Lea
Latitude: 32.70, Longitude: -103.52
GRID North is 0.44 Degrees East of True North
VS-Azi: 0.00 Degrees



Depth Reference : RKB=18

HOBBS OCD

JUL 10 2013

RECEIVED

DRILLOG MS GYRO SURVEY CALCULATIONS

Filename: survey.ut

Minimum Curvature Method

Report Date/Time: 3/12/2013 / 08:30

Vaughn Energy Services

Midland, Texas

432-563-5444

Surveyor: Kyle Willis

Butter Cup 36 State Com No 002H / API 30-025-40641

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	****
100.95	1.25	60.65	100.94	0.54	0.96	0.54	1.10	60.65	1.24
195.76	1.43	64.10	195.73	1.56	2.93	1.56	3.32	61.87	0.20
290.57	1.26	58.16	290.51	2.63	4.87	2.63	5.54	61.65	0.23
385.38	1.32	57.92	385.30	3.76	6.68	3.76	7.66	60.65	0.06
480.19	1.26	57.13	480.08	4.90	8.48	4.90	9.79	59.97	0.07
575.00	1.03	60.20	574.87	5.89	10.09	5.89	11.68	59.74	0.24
669.81	1.17	59.48	669.67	6.81	11.67	6.81	13.51	59.75	0.15
764.62	1.26	52.55	764.45	7.93	13.33	7.93	15.51	59.25	0.18
859.43	1.20	61.00	859.24	9.05	15.03	9.05	17.54	58.95	0.20
954.24	1.43	51.33	954.03	10.27	16.82	10.27	19.71	58.60	0.34
1049.05	1.50	49.27	1048.81	11.82	18.69	11.82	22.11	57.69	0.09
1143.86	1.51	47.44	1143.58	13.48	20.55	13.48	24.58	56.74	0.05
1238.67	1.51	40.14	1238.36	15.28	22.28	15.28	27.01	55.56	0.20
1333.48	1.47	32.59	1333.14	17.26	23.74	17.26	29.35	53.98	0.21
1428.29	1.01	19.78	1427.93	19.07	24.67	19.07	31.18	52.31	0.56
1523.10	0.83	347.65	1522.73	20.52	24.81	20.52	32.20	50.40	0.57
1617.91	0.78	343.38	1617.53	21.82	24.48	21.82	32.79	48.29	0.08
1712.72	0.82	344.79	1712.33	23.10	24.11	23.10	33.39	46.23	0.05

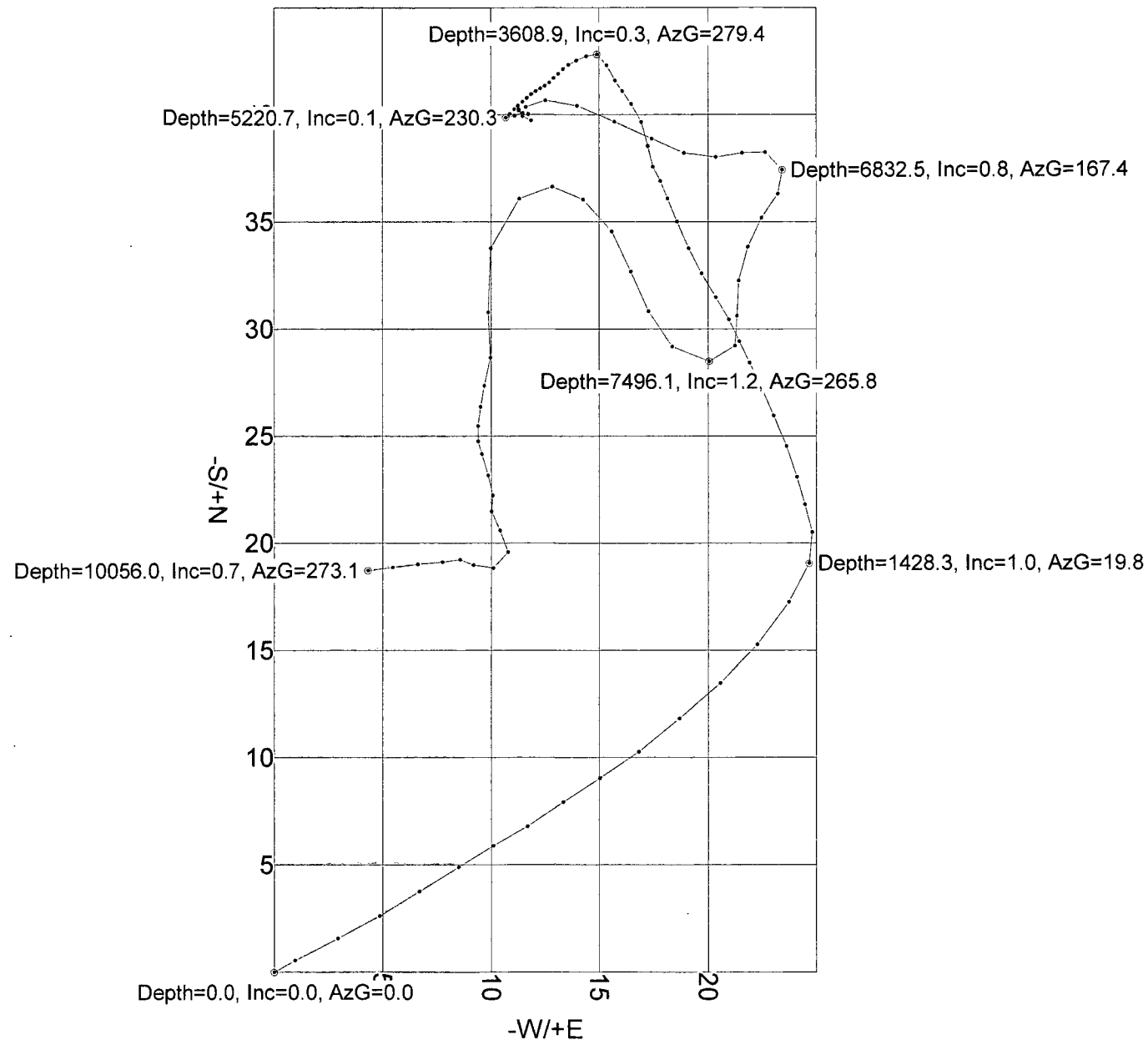
Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
1807.53	1.01	338.18	1807.12	24.53	23.62	24.53	34.06	43.91	0.23
1902.34	0.86	336.79	1901.92	25.97	23.03	25.97	34.71	41.57	0.16
1997.15	0.88	336.61	1996.72	27.29	22.46	27.29	35.34	39.45	0.02
2091.96	0.66	331.98	2091.52	28.44	21.91	28.44	35.90	37.62	0.25
2186.77	0.68	337.71	2186.33	29.43	21.45	29.43	36.42	36.08	0.07
2281.58	0.70	331.34	2281.13	30.46	20.96	30.46	36.97	34.53	0.08
2376.39	0.76	327.65	2375.93	31.50	20.34	31.50	37.49	32.86	0.09
2471.20	0.78	331.56	2470.73	32.59	19.70	32.59	38.08	31.15	0.06
2566.01	0.82	335.51	2565.53	33.78	19.11	33.78	38.81	29.51	0.07
2660.82	0.82	338.04	2660.33	35.02	18.58	35.02	39.64	27.95	0.04
2755.63	0.59	337.82	2755.14	36.09	18.15	36.09	40.40	26.69	0.24
2850.44	0.47	338.11	2849.94	36.90	17.82	36.90	40.98	25.77	0.12
2945.25	0.45	326.48	2944.75	37.57	17.47	37.57	41.43	24.94	0.10
3040.06	0.80	357.46	3039.55	38.54	17.24	38.54	42.22	24.10	0.50
3134.87	0.64	331.00	3134.36	39.66	16.95	39.66	43.13	23.14	0.38
3229.68	0.51	330.15	3229.16	40.50	16.48	40.50	43.72	22.14	0.14
3324.49	0.38	319.43	3323.97	41.10	16.07	41.10	44.13	21.35	0.16
3419.30	0.34	331.59	3418.78	41.59	15.73	41.59	44.46	20.71	0.09
3514.11	0.65	332.35	3513.58	42.31	15.34	42.31	45.01	19.93	0.33
3608.92	0.26	279.39	3608.39	42.83	14.88	42.83	45.34	19.16	0.57
3703.73	0.36	245.21	3703.20	42.73	14.40	42.73	45.10	18.62	0.22
3798.54	0.24	247.71	3798.01	42.53	13.94	42.53	44.76	18.15	0.13
3893.35	0.26	235.83	3892.82	42.33	13.58	42.33	44.46	17.78	0.06
3988.16	0.14	221.30	3987.63	42.12	13.32	42.12	44.18	17.55	0.14
4082.97	0.22	227.53	4082.44	41.91	13.11	41.91	43.92	17.37	0.09
4177.78	0.14	219.25	4177.25	41.70	12.90	41.70	43.65	17.19	0.09
4272.59	0.20	228.46	4272.05	41.50	12.70	41.50	43.40	17.02	0.07
4367.40	0.11	240.01	4366.86	41.34	12.50	41.34	43.19	16.82	0.10
4462.21	0.18	240.09	4461.67	41.22	12.29	41.22	43.02	16.60	0.07
4557.02	0.12	240.70	4556.48	41.10	12.07	41.10	42.84	16.37	0.06
4651.83	0.19	231.91	4651.29	40.95	11.86	40.95	42.64	16.15	0.08
4746.64	0.13	224.23	4746.10	40.78	11.66	40.78	42.41	15.96	0.07
4841.45	0.20	231.01	4840.91	40.60	11.46	40.60	42.18	15.76	0.08
4936.26	0.14	226.63	4935.72	40.41	11.24	40.41	41.95	15.54	0.06
5031.07	0.13	223.11	5030.53	40.25	11.08	40.25	41.74	15.39	0.01
5125.88	0.23	225.30	5125.34	40.03	10.86	40.03	41.48	15.18	0.10
5220.69	0.07	230.33	5220.15	39.86	10.68	39.86	41.27	15.00	0.17
5315.50	0.57	76.12	5314.96	39.93	11.09	39.93	41.44	15.52	0.67
5410.31	0.10	285.89	5409.77	40.07	11.47	40.07	41.68	15.97	0.69

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
5505.12	0.17	317.85	5504.58	40.19	11.29	40.19	41.75	15.69	0.10
5599.93	0.10	121.24	5599.39	40.26	11.27	40.26	41.80	15.64	0.28
5694.74	0.38	158.75	5694.20	39.92	11.46	39.92	41.53	16.01	0.33
5789.55	0.38	68.72	5789.01	39.74	11.86	39.74	41.47	16.62	0.57
5884.36	0.55	293.23	5883.81	40.03	11.73	40.03	41.71	16.33	0.91
5979.17	0.41	63.29	5978.62	40.36	11.61	40.36	42.00	16.05	0.92
6073.98	0.76	75.89	6073.43	40.67	12.52	40.67	42.55	17.12	0.40
6168.79	1.12	115.91	6168.23	40.42	13.97	40.42	42.76	19.07	0.77
6263.60	1.16	110.82	6263.02	39.67	15.70	39.67	42.66	21.59	0.11
6358.41	1.13	118.74	6357.81	38.88	17.41	38.88	42.60	24.12	0.17
6453.22	0.86	107.82	6452.60	38.22	18.90	38.22	42.64	26.32	0.35
6548.03	0.94	88.73	6547.40	38.02	20.35	38.02	43.12	28.16	0.32
6642.84	0.57	67.30	6642.20	38.22	21.56	38.22	43.88	29.43	0.48
6737.65	0.79	103.09	6737.01	38.25	22.63	38.25	44.45	30.61	0.49
6832.46	0.83	167.44	6831.81	37.43	23.42	37.43	44.15	32.04	0.91
6927.27	0.67	217.76	6926.61	36.31	23.23	36.31	43.11	32.61	0.69
7022.08	0.97	211.06	7021.41	35.19	22.48	35.19	41.75	32.57	0.32
7116.89	0.85	199.21	7116.21	33.84	21.83	33.84	40.27	32.83	0.23
7211.70	1.12	191.76	7211.01	32.28	21.41	32.28	38.73	33.56	0.31
7306.51	0.91	171.84	7305.80	30.63	21.33	30.63	37.33	34.86	0.43
7401.32	0.83	196.74	7400.60	29.23	21.24	29.23	36.13	36.01	0.40
7496.13	1.21	265.76	7495.40	28.49	20.05	28.49	34.84	35.13	1.26
7590.94	1.24	317.77	7590.19	29.18	18.37	29.18	34.48	32.19	1.13
7685.75	1.19	335.38	7684.98	30.83	17.27	30.83	35.34	29.25	0.40
7780.56	1.27	337.38	7779.77	32.70	16.45	32.70	36.60	26.71	0.10
7875.37	1.22	331.65	7874.56	34.55	15.57	34.55	37.90	24.26	0.14
7970.18	1.26	305.09	7969.35	36.04	14.24	36.04	38.75	21.56	0.60
8064.99	0.67	270.48	8064.14	36.64	12.83	36.64	38.82	19.30	0.85
8159.80	1.37	239.66	8158.94	36.07	11.30	36.07	37.80	17.39	0.91
8254.61	2.13	191.20	8253.71	33.77	9.98	33.77	35.21	16.46	1.69
8349.42	1.54	169.80	8348.47	30.78	9.86	30.78	32.32	17.76	0.95
8444.23	1.04	188.52	8443.25	28.68	9.96	28.68	30.36	19.15	0.68
8539.04	0.60	197.82	8538.05	27.35	9.68	27.35	29.01	19.49	0.48
8633.85	0.61	182.98	8632.86	26.37	9.50	26.37	28.03	19.81	0.17
8728.66	0.49	192.45	8727.67	25.47	9.38	25.47	27.14	20.23	0.15
8823.47	0.39	165.08	8822.47	24.76	9.38	24.76	26.47	20.75	0.24
8918.28	0.36	161.37	8917.28	24.16	9.56	24.16	25.98	21.59	0.05
9013.09	0.88	164.13	9012.08	23.18	9.85	23.18	25.18	23.03	0.56
9107.90	0.29	176.97	9106.89	22.23	10.07	22.23	24.41	24.36	0.64

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
9202.71	0.62	187.77	9201.70	21.49	10.01	21.49	23.71	24.97	0.36
9297.52	0.72	129.48	9296.50	20.60	10.40	20.60	23.08	26.78	0.69
9392.33	0.78	188.57	9391.30	19.59	10.77	19.59	22.35	28.80	0.78
9487.14	0.71	259.34	9486.11	18.84	10.09	18.84	21.37	28.18	0.91
9581.95	0.52	304.53	9580.91	18.97	9.16	18.97	21.07	25.78	0.53
9676.76	0.31	272.31	9675.72	19.23	8.55	19.23	21.04	23.98	0.32
9771.57	0.70	257.73	9770.53	19.11	7.73	19.11	20.62	22.01	0.43
9866.38	0.67	272.27	9865.33	19.01	6.60	19.01	20.13	19.15	0.19
9961.19	0.73	253.67	9960.13	18.86	5.46	18.86	19.64	16.15	0.25
10056.00	0.66	273.06	10054.94	18.72	4.33	18.72	19.22	13.02	0.26



Vaughn Energy Services
Midland, Texas
432-563-5444
Surveyor: Kyle Willis
Butter Cup 36 State Com No 002H / API 30-025-40641



VES Survey Date: 02/28/2013

DEVON ENERGY

Airstrip
Lea County, NM
Butter Cup 36 State Com #2H
VH - Job #320313-KW-275

HOBBS OCD

JUL 10 2013

RECEIVED

Survey: Gyro

SDI Standard Survey Report

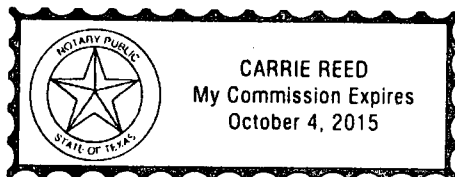
This survey is correct to the best of my knowledge and is supported by actual field data.

Richard

Notarized this date 1st of April, 2013.

Carrie Reed

Notary Signature
County of Midland
State of Texas



Scientific Drilling International, Inc.
SDI Standard Survey Report



Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well Butter Cup 26 State Com #2H
Project:	Airstrip	TVD Reference:	WELL @ 0.00usft (Original Well Elev)
Site:	Lea County, NM	MD Reference:	WELL @ 0.00usft (Original Well Elev)
Well:	Butter Cup 36 State Com #2H	North Reference:	Grid
Wellbore:	VH - Job #320313-KW-275	Survey Calculation Method:	Minimum Curvature
Design:	VH - Job #320313-KW-275	Database:	EDM-Regulatory

Project	Airstrip		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site		Lea County, NM			
Site Position:		Northing:	619,839.39 usft	Latitude:	32° 42' 4.910 N
From:	Lat/Long	Easting:	790,544.76 usft	Longitude:	103° 31' 23.490 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16"	Grid Convergence:	0.44 °

Well	Butter Cup 36 State Com #2H, Directional (Pathfinder)					
Well Position	+N/-S	0.00 usft	Northing:	619,839.39 usft	Latitude:	32° 42' 4.910 N
	+E/-W	0.00 usft	Easting:	790,544.76 usft	Longitude:	103° 31' 23.490 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	0.00 usft

Wellbore	VH - Job #320313-KW-275				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	03/12/13	7.39	60.59	48,761

Design	VH - Job #320313-KW-275			
Audit Notes:				
Version:	1.0	Phase:	ACTUAL	Tie On Depth: 0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	2.96

Survey Program		Date	04/07/13		
From	To	Survey (Wellbore)	Tool Name	Description	
(usft)	(usft)				
100.00	9,850.00	Gyro (VH - Job #320313-KW-275)	Keeper	Keeper Gyro	

Survey							
Measured Depth (usft)	Inclination (°)	Azimuth (°)	True Vertical Depth	North/South (usft)	East/West (usft)	Closure Azimuth (°)	Closure Distance (usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.24	42.17	100.00	0.16	0.14	42.17	0.21
200.00	1.56	21.94	199.99	1.57	0.79	26.66	1.76
300.00	2.37	14.56	299.93	4.84	1.82	20.60	5.17
400.00	3.58	15.18	399.79	9.85	3.16	17.76	10.34
500.00	4.41	17.53	499.55	16.53	5.13	17.24	17.31
600.00	5.20	15.69	599.19	24.56	7.51	17.01	25.68
700.00	5.36	15.10	698.77	33.43	9.96	16.58	34.88
800.00	4.73	14.41	798.38	41.93	12.20	16.22	43.67
900.00	3.99	10.11	898.09	49.35	13.84	15.66	51.26
1,000.00	3.64	2.27	997.87	55.95	14.57	14.60	57.82
1,100.00	3.53	358.42	1,097.67	62.20	14.61	13.22	63.89

Scientific Drilling International, Inc.
SDI Standard Survey Report



Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well Butter Cup 36 State Com #2H
Project:	Airstrip	TVD Reference:	WELL @ 0.00usft (Original Well Elev)
Site:	Lea County, NM	MD Reference:	WELL @ 0.00usft (Original Well Elev)
Well:	Butter Cup 36 State Com #2H	North Reference:	Grid
Wellbore:	VH - Job #320313-KW-275	Survey Calculation Method:	Minimum Curvature
Design:	VH - Job #320313-KW-275	Database:	EDM-Regulatory

Survey							
Measured Depth (usft)	Inclination (°)	Azimuth (°)	True Vertical Depth	North/South (usft)	East/West (usft)	Closure Azimuth (°)	Closure Distance (usft)
1,200.00	3.78	345.85	1,197.47	68.47	13.72	11.33	69.84
1,300.00	3.77	339.21	1,297.26	74.74	11.75	8.93	75.66
1,400.00	4.79	330.18	1,396.98	81.44	8.51	5.96	81.88
1,500.00	5.04	325.82	1,496.61	88.70	3.96	2.56	88.78
1,600.00	3.62	316.64	1,596.32	94.63	-0.67	359.59	94.63
1,700.00	1.73	316.22	1,696.21	98.01	-3.88	357.73	98.09
1,800.00	0.78	11.49	1,796.19	99.77	-4.79	357.25	99.88
1,900.00	0.93	55.64	1,896.18	100.89	-3.99	357.74	100.97
2,000.00	1.03	46.86	1,996.16	101.97	-2.66	358.50	102.00
2,100.00	1.05	46.35	2,096.15	103.21	-1.34	359.25	103.22
2,200.00	0.99	50.06	2,196.13	104.40	-0.02	359.99	104.40
2,300.00	1.07	48.70	2,296.11	105.57	1.35	0.73	105.58
2,400.00	0.93	51.33	2,396.10	106.69	2.68	1.44	106.73
2,500.00	1.01	52.20	2,496.08	107.74	4.01	2.13	107.82
2,600.00	1.10	54.80	2,596.07	108.83	5.49	2.89	108.97
2,700.00	1.01	47.14	2,696.05	109.99	6.92	3.60	110.20
2,800.00	1.06	55.89	2,796.03	111.11	8.33	4.29	111.42
2,900.00	1.11	54.13	2,896.02	112.19	9.88	5.04	112.63
3,000.00	1.20	49.36	2,996.00	113.44	11.46	5.77	114.02
3,100.00	1.25	55.54	3,095.97	114.74	13.16	6.54	115.49
3,200.00	1.41	50.50	3,195.95	116.14	15.01	7.36	117.11
3,300.00	1.30	46.50	3,295.92	117.70	16.78	8.11	118.89
3,400.00	1.27	41.84	3,395.89	119.31	18.34	8.74	120.71
3,500.00	0.92	18.96	3,495.88	120.89	19.34	9.09	122.43
3,600.00	0.74	12.57	3,595.86	122.28	19.74	9.17	123.87
3,700.00	0.82	358.43	3,695.86	123.63	19.86	9.13	125.22
3,800.00	0.74	347.17	3,795.85	124.97	19.70	8.96	126.52
3,900.00	0.70	353.38	3,895.84	126.21	19.49	8.78	127.71
4,000.00	0.83	343.07	3,995.83	127.51	19.21	8.57	128.95
4,100.00	0.69	354.13	4,095.82	128.80	18.93	8.36	130.19
4,200.00	0.62	342.04	4,195.81	129.92	18.70	8.19	131.26
4,300.00	0.69	343.75	4,295.81	131.01	18.37	7.98	132.29
4,400.00	0.72	347.28	4,395.80	132.20	18.06	7.78	133.43
4,500.00	0.64	338.15	4,495.79	133.33	17.72	7.57	134.50
4,600.00	0.46	352.99	4,595.79	134.25	17.46	7.41	135.38
4,700.00	0.52	343.34	4,695.78	135.08	17.28	7.29	136.18
4,800.00	0.51	331.51	4,795.78	135.91	16.94	7.10	136.96
4,900.00	0.37	340.02	4,895.78	136.60	16.62	6.93	137.61
5,000.00	0.46	348.76	4,995.78	137.30	16.43	6.82	138.28
5,100.00	0.37	327.69	5,095.77	137.97	16.18	6.69	138.91
5,200.00	0.44	335.07	5,195.77	138.59	15.84	6.52	139.49
5,300.00	0.19	320.57	5,295.77	139.06	15.57	6.39	139.93
5,400.00	0.30	277.29	5,395.77	139.22	15.21	6.23	140.05
5,500.00	0.18	279.18	5,495.77	139.28	14.79	6.06	140.07

Scientific Drilling International, Inc.
SDI Standard Survey Report



Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well Butter Cup 36 State Com #2H
Project:	Airstrip	TVD Reference:	WELL @ 0.00usft (Original Well Elev)
Site:	Lea County, NM	MD Reference:	WELL @ 0.00usft (Original Well Elev)
Well:	Butter Cup 36 State Com #2H	North Reference:	Grid
Wellbore:	VH - Job #320313-KW-275	Survey Calculation Method:	Minimum Curvature
Design:	VH - Job #320313-KW-275	Database:	EDM-Regulatory

Survey							
Measured Depth (usft)	Inclination (°)	Azimuth (°)	True Vertical Depth	North/South (usft)	East/West (usft)	Closure Azimuth (°)	Closure Distance (usft)
5,600.00	0.30	267.94	5,595.77	139.30	14.38	5.89	140.04
5,700.00	0.07	251.07	5,695.77	139.27	14.06	5.76	139.98
5,800.00	0.20	257.81	5,795.77	139.21	13.83	5.67	139.90
5,900.00	0.03	195.07	5,895.77	139.15	13.65	5.60	139.82
6,000.00	0.09	355.94	5,995.76	139.20	13.64	5.60	139.87
6,100.00	0.10	287.66	6,095.76	139.31	13.55	5.56	139.97
6,200.00	0.13	110.46	6,195.76	139.29	13.57	5.57	139.95
6,300.00	0.20	179.57	6,295.76	139.08	13.68	5.62	139.75
6,400.00	0.22	168.86	6,395.76	138.72	13.72	5.65	139.39
6,500.00	0.26	107.08	6,495.76	138.46	13.97	5.76	139.17
6,600.00	0.27	87.62	6,595.76	138.41	14.43	5.95	139.16
6,700.00	0.57	112.56	6,695.76	138.22	15.12	6.24	139.05
6,800.00	0.67	128.77	6,795.75	137.67	16.04	6.64	138.60
6,900.00	0.70	119.13	6,895.75	137.00	17.03	7.08	138.06
7,000.00	0.55	128.61	6,995.74	136.41	17.93	7.49	137.58
7,100.00	0.48	99.77	7,095.74	136.04	18.72	7.84	137.32
7,200.00	0.54	74.13	7,195.73	136.09	19.59	8.19	137.50
7,300.00	0.57	46.32	7,295.73	136.57	20.40	8.50	138.08
7,400.00	0.70	43.34	7,395.72	137.35	21.18	8.77	138.98
7,500.00	0.81	43.55	7,495.71	138.31	22.09	9.07	140.06
7,600.00	0.83	49.86	7,595.70	139.29	23.13	9.43	141.20
7,700.00	0.73	37.88	7,695.69	140.26	24.07	9.74	142.31
7,800.00	0.76	27.01	7,795.69	141.35	24.76	9.94	143.51
7,900.00	0.96	15.91	7,895.67	142.75	25.30	10.05	144.97
8,000.00	0.73	0.69	7,995.66	144.19	25.53	10.04	146.44
8,100.00	0.48	300.54	8,095.66	145.04	25.18	9.85	147.21
8,200.00	1.12	243.45	8,195.65	144.82	23.94	9.39	146.79
8,300.00	1.57	246.24	8,295.62	143.83	21.82	8.63	145.48
8,400.00	1.84	247.57	8,395.58	142.67	19.08	7.62	143.94
8,500.00	1.81	246.72	8,495.53	141.43	16.14	6.51	142.35
8,600.00	1.42	244.67	8,595.49	140.27	13.57	5.53	140.93
8,700.00	0.71	253.48	8,695.47	139.57	11.86	4.86	140.07
8,800.00	0.43	234.94	8,795.46	139.18	10.96	4.50	139.61
8,900.00	0.65	246.73	8,895.46	138.74	10.13	4.18	139.11
9,000.00	0.44	223.71	8,995.46	138.24	9.34	3.87	138.55
9,100.00	0.33	206.88	9,095.45	137.70	8.95	3.72	137.99
9,200.00	0.37	233.46	9,195.45	137.25	8.56	3.57	137.52
9,300.00	0.04	87.00	9,295.45	137.06	8.33	3.48	137.31
9,400.00	0.17	81.23	9,395.45	137.09	8.52	3.55	137.35
9,500.00	0.61	347.62	9,495.45	137.63	8.55	3.55	137.89
9,600.00	0.81	338.39	9,595.44	138.81	8.17	3.37	139.05
9,700.00	0.60	337.92	9,695.43	139.95	7.72	3.16	140.16
9,800.00	0.53	346.29	9,795.43	140.88	7.41	3.01	141.08
9,850.00	0.38	341.96	9,845.43	141.26	7.30	2.96	141.45

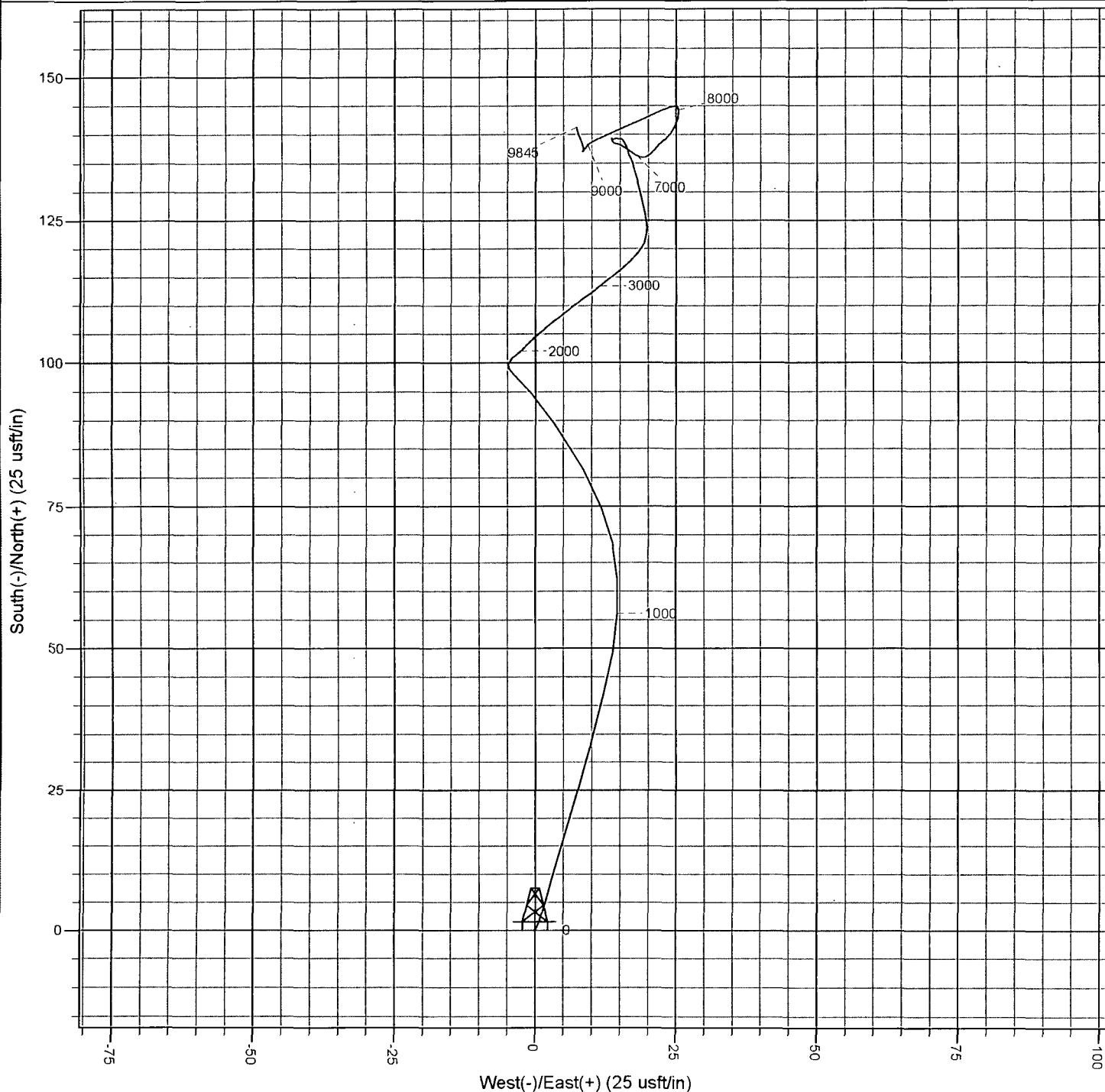


Scientific Drilling

Project: Airstrip
Lea County, NM
Well: Butter Cup 36 State Com #2H
Wellbore: VH - Job #320313-KW-275
Design: VH - Job #320313-KW-275

WELL DETAILS: Butter Cup 36 State Com #2H
WELL @ 0.00usft (Original Well Elev)
Ground Level: 0.00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	619839.39	790544.76	32° 42' 4.910 N	103° 31' 23.490 W	



PROJECT DETAILS: Airstrip
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone
System Datum: Mean Sea Level

SITE DETAILS: Lea County, NM
Site Centre Latitude: 32° 42' 4.910 N
Longitude: 103° 31' 23.490 W
Positional Uncertainty: 0.00
Convergence: 0.44
Local North: Grid



Directional Survey Data

District PERMIAN BASIN	County LEA	Field Name MESCALERO ESCARPE	Project Group DELAWARE BASIN	State/Province NM
Surface Legal Location SEC35 T18S R34E	API/UWI 3002540641	Latitude (°) 32° 42' 4.91" N	Longitude (°) 103° 31' 23.49" W	Ground Elev... 3,971.30
Wellbore Name OH	Parent Wellbore OH	Kick Off Depth (ftKB) 10,071.0	KB - GL (ft) 18.00	Orig KB Elev (ft) 3,989.30
Date 3/1/2013	Definitive? Yes	Description MWD	Vertical Section Direction (°) 84.76	Tubing Head Elevation (ft)
MD Tie In (ftKB) 0.00	TVD Tie In (ftKB) 0.00	Inclination Tie In (°) 0.00	Azimuth Tie In (°) 0.00	NSTie In (ft) 0.00
				EWTie 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
3/1/2013	0.00	91.63	84.04	0.00	0.00	0.00	0.00	0.00	MWD	PATHFINDER E...
2/28/2013	100.95	1.25	60.65	100.94	1.01	0.54	0.96	1.24	GYRO	VAUHG N ENER...
2/28/2013	195.76	1.43	64.10	195.73	3.06	1.56	2.93	0.21	GYRO	VAUHG N ENER...
2/28/2013	290.57	1.26	58.16	290.51	5.09	2.63	4.88	0.23	GYRO	VAUHG N ENER...
2/28/2013	385.38	1.32	57.92	385.30	7.00	3.76	6.69	0.06	GYRO	VAUHG N ENER...
2/28/2013	480.19	1.26	57.13	480.08	8.90	4.91	8.49	0.07	GYRO	VAUHG N ENER...
2/28/2013	575.00	1.03	60.20	574.87	10.60	5.89	10.10	0.25	GYRO	VAUHG N ENER...
2/28/2013	669.81	1.17	59.48	669.67	12.25	6.81	11.68	0.15	GYRO	VAUHG N ENER...
2/28/2013	764.62	1.26	52.55	764.45	14.01	7.94	13.34	0.18	GYRO	VAUHG N ENER...
2/28/2013	859.43	1.20	61.00	859.24	15.80	9.05	15.03	0.20	GYRO	VAUHG N ENER...
2/28/2013	954.24	1.43	51.33	954.03	17.69	10.27	16.82	0.34	GYRO	VAUHG N ENER...
2/28/2013	1,049.05	1.50	49.27	1,048.81	19.69	11.82	18.69	0.09	GYRO	VAUHG N ENER...
2/28/2013	1,143.86	1.51	47.44	1,143.58	21.69	13.47	20.55	0.05	GYRO	VAUHG N ENER...
2/28/2013	1,238.67	1.51	40.14	1,238.36	23.58	15.27	22.27	0.20	GYRO	VAUHG N ENER...
2/28/2013	1,333.48	1.47	32.59	1,333.14	25.21	17.25	23.73	0.21	GYRO	VAUHG N ENER...
2/28/2013	1,428.29	1.01	19.78	1,427.93	26.31	19.06	24.67	0.56	GYRO	VAUHG N ENER...
2/28/2013	1,523.10	0.83	347.65	1,522.73	26.58	20.52	24.81	0.57	GYRO	VAUHG N ENER...
2/28/2013	1,617.91	0.78	343.38	1,617.53	26.37	21.81	24.48	0.08	GYRO	VAUHG N ENER...
2/28/2013	1,712.72	0.82	344.79	1,712.33	26.12	23.08	24.11	0.05	GYRO	VAUHG N ENER...
2/28/2013	1,807.53	1.01	338.18	1,807.12	25.77	24.51	23.63	0.23	GYRO	VAUHG N ENER...
2/28/2013	1,902.34	0.86	336.79	1,901.92	25.31	25.94	23.03	0.16	GYRO	VAUHG N ENER...
2/28/2013	1,997.15	0.88	336.61	1,996.72	24.86	27.27	22.47	0.02	GYRO	VAUHG N ENER...
2/28/2013	2,091.96	0.66	331.98	2,091.52	24.42	28.42	21.92	0.24	GYRO	VAUHG N ENER...
2/28/2013	2,186.77	0.68	337.71	2,186.33	24.05	29.42	21.45	0.07	GYRO	VAUHG N ENER...
2/28/2013	2,281.58	0.70	331.34	2,281.13	23.65	30.45	20.96	0.08	GYRO	VAUHG N ENER...
2/28/2013	2,376.39	0.76	327.65	2,375.93	23.14	31.49	20.34	0.08	GYRO	VAUHG N ENER...
2/28/2013	2,471.20	0.78	331.56	2,470.73	22.59	32.59	19.70	0.06	GYRO	VAUHG N ENER...
2/28/2013	2,566.01	0.82	335.51	2,565.53	22.12	33.77	19.11	0.07	GYRO	VAUHG N ENER...
2/28/2013	2,660.82	0.82	338.04	2,660.33	21.70	35.02	18.58	0.04	GYRO	VAUHG N ENER...
2/28/2013	2,755.63	0.59	337.82	2,755.14	21.36	36.10	18.14	0.24	GYRO	VAUHG N ENER...
2/28/2013	2,850.44	0.47	338.11	2,849.94	21.11	36.91	17.81	0.13	GYRO	VAUHG N ENER...
2/28/2013	2,945.25	0.45	326.48	2,944.75	20.82	37.58	17.46	0.10	GYRO	VAUHG N ENER...
2/28/2013	3,040.06	0.80	357.46	3,039.55	20.67	38.55	17.22	0.50	GYRO	VAUHG N ENER...
2/28/2013	3,134.87	0.64	331.00	3,134.36	20.49	39.68	16.94	0.38	GYRO	VAUHG N ENER...
2/28/2013	3,229.68	0.51	330.15	3,229.16	20.10	40.51	16.47	0.14	GYRO	VAUHG N ENER...
2/28/2013	3,324.49	0.38	319.43	3,323.97	19.74	41.11	16.06	0.16	GYRO	VAUHG N ENER...
2/28/2013	3,419.30	0.34	331.59	3,418.78	19.45	41.60	15.72	0.09	GYRO	VAUHG N ENER...
2/28/2013	3,514.11	0.65	332.35	3,513.58	19.14	42.32	15.34	0.33	GYRO	VAUHG N ENER...
2/28/2013	3,608.92	0.26	279.39	3,608.39	18.72	42.83	14.87	0.56	GYRO	VAUHG N ENER...
2/28/2013	3,703.73	0.36	245.21	3,703.20	18.23	42.74	14.39	0.22	GYRO	VAUHG N ENER...
2/28/2013	3,798.54	0.24	247.71	3,798.01	17.76	42.54	13.94	0.13	GYRO	VAUHG N ENER...
2/28/2013	3,893.35	0.26	235.83	3,892.82	17.39	42.35	13.58	0.06	GYRO	VAUHG N ENER...
2/28/2013	3,988.16	0.14	221.30	3,987.63	17.11	42.14	13.32	0.14	GYRO	VAUHG N ENER...
2/28/2013	4,082.97	0.22	227.53	4,082.44	16.88	41.93	13.11	0.09	GYRO	VAUHG N ENER...
2/28/2013	4,177.78	0.14	219.25	4,177.25	16.66	41.72	12.90	0.09	GYRO	VAUHG N ENER...
2/28/2013	4,272.59	0.20	228.46	4,272.05	16.44	41.52	12.71	0.07	GYRO	VAUHG N ENER...
2/28/2013	4,367.40	0.11	240.01	4,366.86	16.23	41.36	12.50	0.10	GYRO	VAUHG N ENER...
2/28/2013	4,462.21	0.18	240.09	4,461.67	16.01	41.24	12.29	0.07	GYRO	VAUHG N ENER...
2/28/2013	4,557.02	0.12	240.70	4,556.48	15.78	41.12	12.08	0.06	GYRO	VAUHG N ENER...
2/28/2013	4,651.83	0.19	231.91	4,651.29	15.56	40.97	11.87	0.08	GYRO	VAUHG N ENER...
2/28/2013	4,746.64	0.13	224.23	4,746.10	15.35	40.80	11.67	0.07	GYRO	VAUHG N ENER...



Directional Survey Data

District PERMIAN BASIN	County LEA	Field Name MESCALERO ESCARPE	Project Group DELAWARE BASIN	State/Province NM
Surface Legal Location SEC35 T18S R34E	API/UWI 3002540641	Latitude (°) 32° 42' 4.91" N	Longitude (°) 103° 31' 23.49" W	Ground Elev... 3,971.30
			KB - GL (ft) 18.00	Orig KB Elev (ft) 3,989.30
				Tubing Head Elevation (ft)

Survey Data

Date	MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	N/S (ft)	E/W (ft)	DLS (°/100ft)	Survey Tool	Survey Company
2/28/2013	4,841.45	0.20	231.01	4,840.91	15.13	40.62	11.47	0.08	GYRO	VAUHGN ENER...
2/28/2013	4,936.26	0.14	226.63	4,935.72	14.90	40.44	11.25	0.06	GYRO	VAUHGN ENER...
2/28/2013	5,031.07	0.13	223.11	5,030.53	14.73	40.28	11.10	0.01	GYRO	VAUHGN ENER...
2/28/2013	5,125.88	0.23	225.30	5,125.34	14.50	40.07	10.89	0.11	GYRO	VAUHGN ENER...
2/28/2013	5,220.69	0.07	230.33	5,220.15	14.31	39.89	10.71	0.17	GYRO	VAUHGN ENER...
2/28/2013	5,315.50	0.57	76.12	5,314.96	14.72	39.97	11.12	0.67	GYRO	VAUHGN ENER...
2/28/2013	5,410.31	0.10	285.89	5,409.77	15.11	40.11	11.50	0.69	GYRO	VAUHGN ENER...
2/28/2013	5,505.12	0.17	317.85	5,504.58	14.95	40.23	11.32	0.11	GYRO	VAUHGN ENER...
2/28/2013	5,599.93	0.10	121.24	5,599.39	14.93	40.30	11.30	0.28	GYRO	VAUHGN ENER...
2/28/2013	5,694.74	0.38	158.75	5,694.20	15.09	39.96	11.49	0.32	GYRO	VAUHGN ENER...
2/28/2013	5,789.55	0.38	68.72	5,789.01	15.48	39.78	11.89	0.57	GYRO	VAUHGN ENER...
2/28/2013	5,884.36	0.55	293.23	5,883.81	15.38	40.07	11.77	0.91	GYRO	VAUHGN ENER...
2/28/2013	5,979.17	0.41	63.29	5,978.62	15.29	40.41	11.65	0.92	GYRO	VAUHGN ENER...
2/28/2013	6,073.98	0.76	75.89	6,073.43	16.23	40.71	12.57	0.39	GYRO	VAUHGN ENER...
2/28/2013	6,168.79	1.12	115.91	6,168.23	17.64	40.46	14.01	0.77	GYRO	VAUHGN ENER...
2/28/2013	6,263.60	1.16	110.82	6,263.02	19.30	39.71	15.74	0.11	GYRO	VAUHGN ENER...
2/28/2013	6,358.41	1.13	118.74	6,357.81	20.94	38.92	17.46	0.17	GYRO	VAUHGN ENER...
2/28/2013	6,453.22	0.86	107.82	6,452.60	22.37	38.26	18.95	0.35	GYRO	VAUHGN ENER...
2/28/2013	6,548.03	0.94	88.73	6,547.40	23.80	38.06	20.41	0.33	GYRO	VAUHGN ENER...
2/28/2013	6,642.84	0.57	67.30	6,642.20	25.02	38.25	21.62	0.48	GYRO	VAUHGN ENER...
2/28/2013	6,737.65	0.79	103.09	6,737.01	26.09	38.29	22.69	0.49	GYRO	VAUHGN ENER...
2/28/2013	6,832.46	0.83	167.44	6,831.81	26.80	37.47	23.48	0.91	GYRO	VAUHGN ENER...
2/28/2013	6,927.27	0.67	217.76	6,926.61	26.51	36.36	23.29	0.69	GYRO	VAUHGN ENER...
2/28/2013	7,022.08	0.97	211.06	7,021.41	25.66	35.24	22.53	0.33	GYRO	VAUHGN ENER...
2/28/2013	7,116.89	0.85	199.21	7,116.21	24.89	33.88	21.89	0.23	GYRO	VAUHGN ENER...
2/28/2013	7,211.70	1.12	191.76	7,211.01	24.33	32.31	21.47	0.31	GYRO	VAUHGN ENER...
2/28/2013	7,306.51	0.91	171.84	7,305.80	24.10	30.66	21.39	0.43	GYRO	VAUHGN ENER...
2/28/2013	7,401.32	0.83	196.74	7,400.60	23.88	29.26	21.30	0.40	GYRO	VAUHGN ENER...
2/28/2013	7,496.13	1.21	265.76	7,495.40	22.62	28.53	20.10	1.26	GYRO	VAUHGN ENER...
2/28/2013	7,590.94	1.24	317.77	7,590.19	21.00	29.21	18.41	1.13	GYRO	VAUHGN ENER...
2/28/2013	7,685.75	1.19	335.38	7,684.98	20.06	30.87	17.31	0.40	GYRO	VAUHGN ENER...
2/28/2013	7,780.56	1.27	337.38	7,779.77	19.42	32.73	16.50	0.10	GYRO	VAUHGN ENER...
2/28/2013	7,875.37	1.22	331.65	7,874.56	18.71	34.59	15.61	0.14	GYRO	VAUHGN ENER...
2/28/2013	7,970.18	1.26	305.09	7,969.34	17.52	36.08	14.28	0.60	GYRO	VAUHGN ENER...
2/28/2013	8,064.99	0.67	270.48	8,064.14	16.17	36.68	12.87	0.85	GYRO	VAUHGN ENER...
2/28/2013	8,159.80	1.37	239.66	8,158.94	14.59	36.11	11.34	0.91	GYRO	VAUHGN ENER...
2/28/2013	8,254.61	2.13	191.20	8,253.71	13.07	33.81	10.02	1.68	GYRO	VAUHGN ENER...
2/28/2013	8,349.42	1.54	169.80	8,348.47	12.68	30.83	9.91	0.94	GYRO	VAUHGN ENER...
2/28/2013	8,444.23	1.04	188.52	8,443.25	12.58	28.73	10.00	0.68	GYRO	VAUHGN ENER...
2/28/2013	8,539.04	0.60	197.82	8,538.05	12.19	27.40	9.72	0.48	GYRO	VAUHGN ENER...
2/28/2013	8,633.85	0.61	182.98	8,632.86	11.92	26.42	9.55	0.17	GYRO	VAUHGN ENER...
2/28/2013	8,728.66	0.49	192.45	8,727.66	11.72	25.53	9.43	0.16	GYRO	VAUHGN ENER...
2/28/2013	8,823.47	0.39	165.08	8,822.47	11.65	24.82	9.43	0.24	GYRO	VAUHGN ENER...
2/28/2013	8,918.28	0.36	161.37	8,917.28	11.78	24.22	9.61	0.04	GYRO	VAUHGN ENER...
2/28/2013	9,013.09	0.88	164.13	9,012.08	11.98	23.24	9.90	0.55	GYRO	VAUHGN ENER...
2/28/2013	9,107.90	0.29	176.97	9,106.89	12.11	22.30	10.11	0.63	GYRO	VAUHGN ENER...
2/28/2013	9,202.71	0.62	187.77	9,201.70	11.98	21.55	10.06	0.36	GYRO	VAUHGN ENER...
2/28/2013	9,297.52	0.72	129.48	9,296.50	12.29	20.67	10.45	0.69	GYRO	VAUHGN ENER...
2/28/2013	9,392.33	0.78	188.57	9,391.30	12.56	19.65	10.81	0.78	GYRO	VAUHGN ENER...
2/28/2013	9,487.14	0.71	259.34	9,486.11	11.82	18.90	10.14	0.91	GYRO	VAUHGN ENER...
2/28/2013	9,581.95	0.52	304.53	9,580.91	10.90	19.04	9.20	0.53	GYRO	VAUHGN ENER...
2/28/2013	9,676.76	0.31	272.31	9,675.72	10.32	19.29	8.59	0.32	GYRO	VAUHGN ENER...
2/28/2013	9,771.57	0.70	257.73	9,770.53	9.49	19.18	7.77	0.43	GYRO	VAUHGN ENER...
2/28/2013	9,866.38	0.67	272.27	9,865.33	8.37	19.08	6.65	0.19	GYRO	VAUHGN ENER...
2/28/2013	9,961.19	0.73	253.67	9,960.13	7.22	18.93	5.52	0.25	GYRO	VAUHGN ENER...



Directional Survey Data

District PERMIAN BASIN	County LEA	Field Name MESCALERO ESCARPE	Project Group DELAWARE BASIN	State/Province NM
Surface Legal Location SEC35 T18S R34E	API/UWI 3002540641	Latitude (°) 32° 42' 4.91" N	Longitude (°) 103° 31' 23.49" W	Ground Elev... 3,971.30
			KB - GL (ft) 18.00	Orig KB Elev (ft) 3,989.30
				Tubing Head Elevation (ft)

Survey Data

Date	MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	N/S (ft)	E/W (ft)	DLS (°/100ft)	Survey Tool	Survey Company
2/28/2013	10,056.00	0.66	273.06	10,054.94	6.09	18.79	4.39	0.26	GYRO	VAUHGN ENER...
3/1/2013	10,071.00	1.23	57.76	10,069.93	6.15	18.88	4.44	12.06	MWD	PATHFINDER E...
3/1/2013	10,102.00	3.96	77.18	10,100.90	7.51	19.29	5.77	9.13	MWD	PATHFINDER E...
3/1/2013	10,133.00	7.65	82.81	10,131.74	10.63	19.79	8.86	12.03	MWD	PATHFINDER E...
3/1/2013	10,165.00	11.61	85.61	10,163.28	15.98	20.30	14.19	12.46	MWD	PATHFINDER E...
3/1/2013	10,197.00	15.92	88.26	10,194.35	23.59	20.68	21.79	13.61	MWD	PATHFINDER E...
3/1/2013	10,228.00	19.79	88.43	10,223.85	33.07	20.96	31.29	12.48	MWD	PATHFINDER E...
3/1/2013	10,260.00	21.10	88.96	10,253.84	44.22	21.21	42.46	4.13	MWD	PATHFINDER E...
3/1/2013	10,290.00	21.37	88.79	10,281.80	55.06	21.42	53.32	0.92	MWD	PATHFINDER E...
3/1/2013	10,321.00	22.51	88.26	10,310.56	66.62	21.72	64.90	3.73	MWD	PATHFINDER E...
3/1/2013	10,353.00	24.80	87.38	10,339.86	79.44	22.22	77.73	7.24	MWD	PATHFINDER E...
3/1/2013	10,384.00	26.91	87.12	10,367.76	92.94	22.87	91.23	6.82	MWD	PATHFINDER E...
3/1/2013	10,416.00	29.11	86.24	10,396.01	107.96	23.74	106.24	7.00	MWD	PATHFINDER E...
3/1/2013	10,447.00	32.10	85.89	10,422.69	123.74	24.83	121.98	9.66	MWD	PATHFINDER E...
3/1/2013	10,479.00	35.09	86.59	10,449.34	141.43	25.98	139.65	9.42	MWD	PATHFINDER E...
3/1/2013	10,510.00	38.51	86.85	10,474.16	159.99	27.04	158.18	11.04	MWD	PATHFINDER E...
3/1/2013	10,542.00	41.59	87.47	10,498.65	180.56	28.06	178.74	9.71	MWD	PATHFINDER E...
3/1/2013	10,573.00	43.35	86.68	10,521.52	201.47	29.13	199.65	5.93	MWD	PATHFINDER E...
3/1/2013	10,605.00	46.25	87.64	10,544.22	224.00	30.24	222.17	9.31	MWD	PATHFINDER E...
3/1/2013	10,636.00	49.77	87.73	10,564.96	247.01	31.17	245.18	11.36	MWD	PATHFINDER E...
3/1/2013	10,668.00	53.82	88.17	10,584.75	272.11	32.07	270.31	12.70	MWD	PATHFINDER E...
3/1/2013	10,700.00	57.16	88.61	10,602.87	298.42	32.81	296.66	10.50	MWD	PATHFINDER E...
3/1/2013	10,731.00	61.03	88.52	10,618.79	324.95	33.47	323.25	12.49	MWD	PATHFINDER E...
3/1/2013	10,763.00	65.51	88.61	10,633.18	353.46	34.19	351.81	14.00	MWD	PATHFINDER E...
3/1/2013	10,794.00	69.73	88.96	10,644.98	382.05	34.79	380.46	13.65	MWD	PATHFINDER E...
3/1/2013	10,826.00	73.78	89.58	10,655.00	412.34	35.18	410.85	12.79	MWD	PATHFINDER E...
3/1/2013	10,889.00	80.72	89.93	10,668.89	473.52	35.44	472.26	11.03	MWD	PATHFINDER E...
3/1/2013	10,921.00	82.48	89.84	10,673.57	505.05	35.50	503.91	5.51	MWD	PATHFINDER E...
3/1/2013	10,952.00	84.77	89.49	10,677.01	535.74	35.68	534.72	7.47	MWD	PATHFINDER E...
3/1/2013	11,015.00	88.02	86.06	10,680.97	598.51	38.13	597.53	7.49	MWD	PATHFINDER E...
3/1/2013	11,110.00	89.34	82.55	10,683.16	693.47	47.55	692.02	3.95	MWD	PATHFINDER E...
3/1/2013	11,205.00	90.92	83.42	10,682.95	788.42	59.15	786.30	1.90	MWD	PATHFINDER E...
3/1/2013	11,299.00	92.33	83.95	10,680.28	882.36	69.49	879.69	1.60	MWD	PATHFINDER E...
3/1/2013	11,394.00	93.91	84.92	10,675.11	977.21	78.69	974.10	1.95	MWD	PATHFINDER E...
3/1/2013	11,489.00	94.97	85.53	10,667.76	1,071.92	86.57	1,068.48	1.29	MWD	PATHFINDER E...
3/1/2013	11,584.00	90.57	87.47	10,663.16	1,166.74	92.36	1,163.17	5.06	MWD	PATHFINDER E...
3/1/2013	11,679.00	88.90	88.61	10,663.60	1,261.58	95.61	1,258.10	2.13	MWD	PATHFINDER E...
3/1/2013	11,774.00	88.46	86.15	10,665.79	1,356.45	99.95	1,352.97	2.63	MWD	PATHFINDER E...
3/1/2013	11,868.00	89.78	83.34	10,667.24	1,450.42	108.56	1,446.55	3.30	MWD	PATHFINDER E...
3/1/2013	12,058.00	92.24	84.74	10,663.89	1,640.36	128.28	1,635.48	1.49	MWD	PATHFINDER E...
3/1/2013	12,147.00	92.33	84.92	10,660.34	1,729.29	136.30	1,724.05	0.23	MWD	PATHFINDER E...
3/1/2013	12,247.00	90.57	84.74	10,657.81	1,829.25	145.30	1,823.60	1.77	MWD	PATHFINDER E...
3/1/2013	12,341.00	91.45	84.48	10,656.15	1,923.24	154.13	1,917.17	0.98	MWD	PATHFINDER E...
3/1/2013	12,436.00	91.89	84.57	10,653.38	2,018.20	163.19	2,011.70	0.47	MWD	PATHFINDER E...
3/1/2013	12,531.00	90.04	84.92	10,651.78	2,113.18	171.89	2,106.28	1.98	MWD	PATHFINDER E...
3/1/2013	12,625.00	89.96	85.27	10,651.78	2,207.18	179.93	2,199.94	0.38	MWD	PATHFINDER E...
3/1/2013	12,720.00	89.52	85.45	10,652.21	2,302.17	187.61	2,294.62	0.50	MWD	PATHFINDER E...
3/1/2013	12,814.00	88.90	84.30	10,653.51	2,396.16	196.01	2,388.24	1.39	MWD	PATHFINDER E...
3/1/2013	12,909.00	88.46	84.30	10,655.70	2,491.13	205.44	2,482.74	0.46	MWD	PATHFINDER E...
3/1/2013	13,004.00	88.29	84.13	10,658.39	2,586.09	215.01	2,577.22	0.25	MWD	PATHFINDER E...
3/1/2013	13,098.00	91.45	83.42	10,658.61	2,680.06	225.21	2,670.65	3.45	MWD	PATHFINDER E...
3/1/2013	13,193.00	91.63	83.34	10,656.05	2,775.00	236.15	2,764.99	0.21	MWD	PATHFINDER E...
3/1/2013	13,382.00	91.63	83.86	10,650.68	2,963.88	257.21	2,952.73	0.28	MWD	PATHFINDER E...
3/1/2013	13,477.00	91.54	83.95	10,648.05	3,058.84	267.30	3,047.16	0.13	MWD	PATHFINDER E...
3/1/2013	13,572.00	91.54	84.13	10,645.50	3,153.79	277.16	3,141.61	0.19	MWD	PATHFINDER E...



Directional Survey Data

District	County	Field Name	Project Group	State/Province			
PERMIAN BASIN	LEA	MESCALERO ESCARPE	DELAWARE BASIN	NM			
Surface Legal Location	API/UWI	Latitude (°)	Longitude (°)	Ground Elev...	KB - GL (ft)	Orig KB Elev (ft)	Tubing Head Elevation (ft)
SEC35 T18S R34E	3002540641	32° 42' 4.91" N	103° 31' 23.49" W	3,971.30	18.00	3,989.30	

Survey Data

Date	MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	N/S (ft)	E/W (ft)	DLS (°/100ft)	Survey Tool	Survey Company
3/1/2013	14,233.00	90.57	85.09	10,633.33	3,814.66	339.23	3,799.56	0.21	MWD	PATHFINDER E...
3/1/2013	14,328.00	89.69	85.53	10,633.11	3,909.66	347.00	3,894.24	1.04	MWD	PATHFINDER E...
3/1/2013	14,422.00	89.60	86.06	10,633.69	4,003.64	353.89	3,987.99	0.57	MWD	PATHFINDER E...
3/1/2013	14,517.00	89.96	86.15	10,634.06	4,098.61	360.35	4,082.77	0.39	MWD	PATHFINDER E...
3/1/2013	14,612.00	90.13	86.76	10,633.98	4,193.57	366.22	4,177.58	0.67	MWD	PATHFINDER E...
3/1/2013	14,706.00	91.01	86.85	10,633.05	4,287.51	371.46	4,271.43	0.94	MWD	PATHFINDER E...
3/1/2013	14,801.00	89.78	85.97	10,632.39	4,382.46	377.41	4,366.24	1.59	MWD	PATHFINDER E...
3/1/2013	14,895.00	89.60	86.24	10,632.90	4,476.43	383.79	4,460.02	0.35	MWD	PATHFINDER E...
3/1/2013	14,990.00	88.72	86.33	10,634.29	4,571.39	389.95	4,554.81	0.93	MWD	PATHFINDER E...
3/1/2013	15,085.00	88.64	86.06	10,636.48	4,666.33	396.25	4,649.58	0.30	MWD	PATHFINDER E...
3/1/2013	15,179.00	87.93	83.51	10,639.30	4,760.28	404.79	4,743.14	2.81	MWD	PATHFINDER E...
3/1/2013	15,274.00	88.46	82.81	10,642.29	4,855.20	416.10	4,837.41	0.92	MWD	PATHFINDER E...
3/1/2013	15,368.00	88.29	82.63	10,644.95	4,949.10	428.00	4,930.62	0.26	MWD	PATHFINDER E...
3/1/2013	15,463.00	88.20	82.72	10,647.86	5,043.99	440.11	5,024.80	0.13	MWD	PATHFINDER E...
3/1/2013	15,548.00	88.46	82.20	10,650.34	5,128.89	451.26	5,109.03	0.68	MWD	PATHFINDER E...
3/1/2013	15,630.00	88.46	82.20	10,652.54	5,210.78	462.38	5,190.24	0.00	BIT	PATHFINDER E...



Stimulations Summary

District PERMIAN BASIN		County LEA		Field Name MESCALERO ESCARPE		Project Group DELAWARE BASIN		State/Province NM													
Surface Legal Location SEC35 T18S R34E		API/UWI 3002540641		Latitude (°) 32° 42' 4.91" N		Longitude (°) 103° 31' 23.49" W		Ground Elev... 3,971.30		KB - GL (ft) 18.00		Orig KB Elev (ft) 3,989.30		Tubing Head Elevation (ft)							
HYDRAULIC FRAC , 5/7/2013 15:16 , BONE SPRING, OH , 15,118.0 ftKB - 15,558.0 ftKB, HALLIBURTON , CRC Bulk Sand 112841 LB; OTTAWA Bul																					
Proppant De...		Total Clean Volu...		Pre Trt S/I Prs (psi)		Pst Trt S/I Prs (psi)		P Break (psi)		ISIP (psi)		Avg Treat Pressur...		Q Treat Avg (bbl/...		P Max (psi)		Q Treat Max (bbl/...		Conc Max...	
301,500.0		5773.36				3,700.0				3,703.0		5,875.0		71		6,837.0		73		4.00	
HYDRAULIC FRAC , 5/8/2013 12:31 , BONE SPRING, OH , 14,461.0 ftKB - 14,901.0 ftKB, HALLIBURTON , CRC Bulk Sand 111625 LB; OTTAWA Bul																					
Proppant De...		Total Clean Volu...		Pre Trt S/I Prs (psi)		Pst Trt S/I Prs (psi)		P Break (psi)		ISIP (psi)		Avg Treat Pressur...		Q Treat Avg (bbl/...		P Max (psi)		Q Treat Max (bbl/...		Conc Max...	
301,500.0		5730.24				3,870.0				3,858.0		5,956.0		69		8,535.0		72		4.00	
HYDRAULIC FRAC , 5/8/2013 17:03 , BONE SPRING, OH , 13,804.0 ftKB - 14,244.0 ftKB, HALLIBURTON , CRC Bulk Sand 113007 LB; OTTAWA Bul																					
Proppant De...		Total Clean Volu...		Pre Trt S/I Prs (psi)		Pst Trt S/I Prs (psi)		P Break (psi)		ISIP (psi)		Avg Treat Pressur...		Q Treat Avg (bbl/...		P Max (psi)		Q Treat Max (bbl/...		Conc Max...	
301,500.0		5731.10				3,779.0				3,840.0		5,866.0		69		8,704.0		73		4.00	
HYDRAULIC FRAC , 5/9/2013 11:33 , BONE SPRING, OH , 13,147.0 ftKB - 13,587.0 ftKB, HALLIBURTON , CRC Bulk Sand 128400 LB; OTTAWA Bul																					
Proppant De...		Total Clean Volu...		Pre Trt S/I Prs (psi)		Pst Trt S/I Prs (psi)		P Break (psi)		ISIP (psi)		Avg Treat Pressur...		Q Treat Avg (bbl/...		P Max (psi)		Q Treat Max (bbl/...		Conc Max...	
301,500.0		5640.12				3,750.0				3,879.0		5,532.0		70		8,275.0		71		4.00	
HYDRAULIC FRAC , 5/9/2013 14:09 , BONE SPRING, OH , 12,491.0 ftKB - 12,931.0 ftKB, HALLIBURTON , CRC Bulk Sand 127358 LB; OTTAWA Bul																					
Proppant De...		Total Clean Volu...		Pre Trt S/I Prs (psi)		Pst Trt S/I Prs (psi)		P Break (psi)		ISIP (psi)		Avg Treat Pressur...		Q Treat Avg (bbl/...		P Max (psi)		Q Treat Max (bbl/...		Conc Max...	
301,500.0		5823.26				3,750.0				3,966.0		5,824.0		68		8,256.0		71		4.00	
HYDRAULIC FRAC , 5/10/2013 07:57 , BONE SPRING, OH , 11,834.0 ftKB - 12,274.0 ftKB, HALLIBURTON , CRC Bulk Sand 120293 LB; OTTAWA Bu																					
Proppant De...		Total Clean Volu...		Pre Trt S/I Prs (psi)		Pst Trt S/I Prs (psi)		P Break (psi)		ISIP (psi)		Avg Treat Pressur...		Q Treat Avg (bbl/...		P Max (psi)		Q Treat Max (bbl/...		Conc Max...	
301,500.0		5719.95				3,750.0				3,814.0		5,579.0		70		7,940.0		77		4.00	
HYDRAULIC FRAC , 5/10/2013 10:24 , BONE SPRING, OH , 11,177.0 ftKB - 11,617.0 ftKB, HALLIBURTON , CRC Bulk Sand 113927 LB; OTTAWA Bu																					
Proppant De...		Total Clean Volu...		Pre Trt S/I Prs (psi)		Pst Trt S/I Prs (psi)		P Break (psi)		ISIP (psi)		Avg Treat Pressur...		Q Treat Avg (bbl/...		P Max (psi)		Q Treat Max (bbl/...		Conc Max...	
301,500.0		5664.48				3,750.0				3,878.0		5,520.0		70		7,666.0		72		4.00	
HYDRAULIC FRAC , 5/10/2013 16:40 , BONE SPRING, OH , 10,520.0 ftKB - 10,960.0 ftKB, HALLIBURTON , CRC Bulk Sand 113927 LB; OTTAWA Bu																					
Proppant De...		Total Clean Volu...		Pre Trt S/I Prs (psi)		Pst Trt S/I Prs (psi)		P Break (psi)		ISIP (psi)		Avg Treat Pressur...		Q Treat Avg (bbl/...		P Max (psi)		Q Treat Max (bbl/...		Conc Max...	
301,500.0		5664.48				3,954.0				4,049.0		5,827.0		68		8,103.0		90		4.00	