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

Occidental Permian Ltd.
5 Greenway Plaza Suite 110
Houston Tx 77046

30-015-41073

Date: March 26, 2013

Attention: Carlos Mercado

Re: Occidental Permian Ltd
Well: Cedar Canyon 28 Fed Com #2H
Eddy County, New Mexico

RECEIVED
JUN 10 2013
NMOCD ARTESIA

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

Name & Title Of Surveyor	Well Number	Surveyed Depths	Dates Performed	Type of Survey
Donnie Meister MWD Supervisor	2H	5781' MD 10198' MD	3-8-2013 3-23-2013	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 5th day of April, 2013, 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

TARYN HOBBS
NOTARY PUBLIC
STATE OF TEXAS
My Comm. Exp. 03-04-2015

Weatherford International Ltd.

WFT Survey Report X & Y's

Company:	Occidental Permian Ltd.	**Date:**	3/25/2013	**Time:** 07:53:19	**Page:** 1
Field:	Eddy Co, NM (Nad 27)	**Co-ordinate(NE) Reference:**	Well: Cedar Canyon 28 #2H, Grid North		
Site:	Cedar Canyon 28 #2H	**Vertical (TVD) Reference:**	SITE 2946.0		
Well:	Cedar Canyon 28 #2H	**Section (VS) Reference:**	Well (0.00N,0.00E,180.08Azi)		
Wellpath:	1	**Survey Calculation Method:**	Minimum Curvature	**Db:**	Sybase

Survey:		**Start Date:**	
Company:		**Engineer:**	
Tool:		**Tied-to:**	

Site: Cedar Canyon 28 #2H

Site Position:		**Northing:**	434580.30 ft	**Latitude:**	32	11	39.493 N
From:	Map	**Easting:**	607196.70 ft	**Longitude:**	103	59	12.479 W
Position Uncertainty:	0.00 ft			**North Reference:**			Grid
Ground Level:	2921.00 ft			**Grid Convergence:**			0.18 deg

Well: Cedar Canyon 28 #2H **Slot Name:**

Well Position:	+N/-S	0.00 ft	**Northing:**	434580.30 ft	**Latitude:**	32	11	39.493 N
	+E/-W	0.00 ft	**Easting :**	607196.70 ft	**Longitude:**	103	59	12.479 W
Position Uncertainty:		0.00 ft						

Wellpath:	1			**Drilled From:**	Surface
				Tie-on Depth:	0.00 ft
Current Datum:	SITE	**Height**	2946.00 ft	**Above System Datum:**	Mean Sea Level
Magnetic Data:	12/15/2012			**Declination:**	7.59 deg
Field Strength:	48428 nT			**Mag Dip Angle:**	60.05 deg

Vertical Section:	**Depth From (TVD)**	**+N/-S**	**+E/-W**	**Direction**
	ft	ft	ft	deg
	0.00	0.00	0.00	180.08

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	DLS deg/100ft	VS ft	MapN ft	MapE ft	Comment
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	434580.30	607196.70	
15.11	0.39	280.61	15.11	0.01	-0.05	2.58	-0.01	434580.31	607196.65	
107.30	1.35	266.17	107.29	-0.01	-1.44	1.06	0.01	434580.29	607195.26	
199.49	2.33	244.77	199.43	-0.88	-4.22	1.28	0.88	434579.42	607192.48	
291.68	2.50	295.86	291.55	-0.80	-7.73	2.26	0.81	434579.50	607188.97	
383.87	2.94	287.65	383.64	0.80	-11.79	0.64	-0.78	434581.10	607184.91	
476.06	2.86	298.11	475.71	2.60	-16.07	0.58	-2.57	434582.90	607180.63	
545.43	2.65	254.64	545.00	2.99	-19.14	2.95	-2.96	434583.29	607177.56	Srfc. Csg.
568.25	2.91	241.78	567.80	2.57	-20.16	2.95	-2.54	434582.87	607176.54	
660.44	2.92	251.23	659.87	0.71	-24.45	0.52	-0.68	434581.01	607172.25	
752.63	2.85	220.75	751.95	-1.78	-28.17	1.65	1.82	434578.52	607168.53	
844.82	2.84	248.99	844.03	-4.34	-31.79	1.51	4.38	434575.96	607164.91	
937.01	3.42	231.54	936.08	-6.87	-36.08	1.20	6.92	434573.43	607160.62	
1029.20	3.09	264.91	1028.13	-8.80	-40.71	2.06	8.85	434571.50	607155.99	
1121.39	2.59	250.16	1120.21	-9.72	-45.14	0.96	9.79	434570.58	607151.56	
1213.58	2.25	234.52	1212.32	-11.48	-48.58	0.80	11.55	434568.82	607148.12	
1305.77	2.30	223.67	1304.44	-13.87	-51.33	0.47	13.94	434566.43	607145.37	
1397.96	2.47	234.72	1396.55	-16.36	-54.23	0.53	16.43	434563.94	607142.47	
1490.15	2.44	205.68	1488.66	-19.27	-56.70	1.34	19.35	434561.03	607140.00	
1582.34	2.25	199.85	1580.77	-22.74	-58.16	0.33	22.82	434557.56	607138.54	
1674.53	2.06	209.06	1672.89	-25.89	-59.58	0.43	25.98	434554.41	607137.12	
1766.72	2.05	205.99	1765.02	-28.82	-61.11	0.12	28.91	434551.48	607135.59	
1858.91	2.15	215.42	1857.15	-31.71	-62.83	0.39	31.80	434548.59	607133.87	
1951.10	1.75	223.72	1949.29	-34.14	-64.81	0.53	34.23	434546.16	607131.89	
2043.29	1.81	151.05	2041.45	-36.43	-65.08	2.29	36.52	434543.87	607131.62	
2135.48	2.78	139.40	2133.56	-39.40	-62.92	1.16	39.49	434540.90	607133.78	
2227.67	3.64	143.13	2225.61	-43.44	-59.71	0.96	43.53	434536.86	607136.99	
2319.86	3.29	138.58	2317.63	-47.77	-56.20	0.48	47.85	434532.53	607140.50	
2412.05	4.17	144.30	2409.62	-52.47	-52.50	1.04	52.55	434527.83	607144.20	
2596.43	5.36	132.14	2593.37	-63.70	-42.20	0.84	63.76	434516.60	607154.50	

Weatherford International Ltd.

WFT Survey Report X & Y's

Company:	Occidental Permian Ltd.	**Date:**	3/25/2013	**Time:** 07:53:19	**Page:** 2
Field:	Eddy Co, NM (Nad 27)	**Co-ordinate(NE) Reference:**	Well: Cedar Canyon 28 #2H, Grid North		
Site:	Cedar Canyon 28 #2H	**Vertical (TVD) Reference:**	SITE 2946.0		
Well:	Cedar Canyon 28 #2H	**Section (VS) Reference:**	Well (0.00N,0.00E,180.08Azi)		
Wellpath:	1	**Survey Calculation Method:**	Minimum Curvature	**Db:**	Sybase

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	DLS deg/100ft	VS ft	MapN ft	MapE ft	Comment
2688.62	5.53	145.19	2685.14	-70.23	-36.47	1.35	70.28	434510.07	607160.23	
2780.81	5.12	155.18	2776.94	-77.61	-32.21	1.10	77.66	434502.69	607164.49	
2873.00	4.99	177.74	2868.78	-85.35	-30.32	2.15	85.40	434494.95	607166.38	Tie on VES
2963.00	4.48	142.42	2958.49	-92.05	-28.02	3.23	92.09	434488.25	607168.68	First Extreme S
3004.63	4.22	139.47	3000.00	-94.50	-26.04	0.83	94.54	434485.80	607170.66	Int. Csg.
3026.00	4.09	137.81	3021.31	-95.67	-25.01	0.83	95.70	434484.63	607171.69	
3120.00	2.02	111.05	3115.18	-98.75	-21.21	2.62	98.78	434481.55	607175.49	
3215.00	0.48	134.34	3210.15	-99.63	-19.37	1.67	99.65	434480.67	607177.33	
3404.00	0.70	148.31	3399.14	-101.16	-18.19	0.14	101.19	434479.14	607178.51	
3593.00	0.48	159.82	3588.13	-102.89	-17.31	0.13	102.91	434477.41	607179.39	
3782.00	0.22	203.95	3777.13	-103.96	-17.19	0.19	103.99	434476.34	607179.51	
3920.00	0.31	229.35	3915.13	-104.45	-17.58	0.11	104.47	434475.85	607179.12	
4159.00	0.48	222.62	4154.12	-105.60	-18.75	0.07	105.63	434474.70	607177.95	
4347.00	0.40	196.91	4342.12	-106.81	-19.47	0.11	106.84	434473.49	607177.23	
4536.00	0.48	215.42	4531.11	-108.09	-20.12	0.09	108.12	434472.21	607176.58	
4725.00	0.62	209.61	4720.10	-109.62	-21.09	0.08	109.65	434470.68	607175.61	
4914.00	0.48	213.44	4909.09	-111.17	-22.03	0.08	111.20	434469.13	607174.67	
5103.00	0.22	257.91	5098.09	-111.91	-22.82	0.19	111.94	434468.39	607173.88	
5292.00	0.40	229.43	5287.09	-112.41	-23.68	0.12	112.45	434467.89	607173.02	
5480.00	0.48	216.34	5475.08	-113.48	-24.64	0.07	113.51	434466.82	607172.06	
5746.00	0.40	311.83	5741.08	-113.75	-25.99	0.25	113.79	434466.55	607170.71	Last Extreme Sv
5781.00	0.16	330.39	5776.08	-113.63	-26.11	0.72	113.67	434466.67	607170.59	First Wft Svy
5812.00	1.29	193.01	5807.07	-113.93	-26.21	4.55	113.97	434466.37	607170.49	
5844.00	4.08	178.31	5839.04	-115.42	-26.26	8.91	115.46	434464.88	607170.44	
5875.00	7.25	185.31	5869.88	-118.47	-26.40	10.45	118.51	434461.83	607170.30	
5907.00	9.43	193.14	5901.54	-123.04	-27.19	7.67	123.07	434457.26	607169.51	
5938.00	12.26	189.25	5931.99	-128.76	-28.29	9.42	128.80	434451.54	607168.41	
5970.00	15.04	187.80	5963.08	-136.23	-29.40	8.75	136.27	434444.07	607167.30	
6001.00	17.10	188.34	5992.87	-144.72	-30.61	6.66	144.77	434435.58	607166.09	
6033.00	20.11	188.41	6023.19	-154.82	-32.10	9.41	154.87	434425.48	607164.60	
6064.00	22.87	185.47	6052.03	-166.09	-33.45	9.55	166.14	434414.21	607163.25	
6096.00	25.05	185.23	6081.27	-179.03	-34.66	6.82	179.08	434401.27	607162.04	
6127.00	28.27	185.57	6108.97	-192.88	-35.97	10.40	192.93	434387.42	607160.73	
6159.00	30.81	185.33	6136.81	-208.58	-37.47	7.95	208.63	434371.72	607159.23	
6190.00	33.28	184.46	6163.09	-224.97	-38.87	8.11	225.02	434355.33	607157.83	
6222.00	35.17	183.55	6189.54	-242.92	-40.12	6.12	242.98	434337.38	607156.58	
6253.00	36.04	182.05	6214.75	-260.95	-41.00	3.98	261.00	434319.35	607155.70	
6285.00	37.81	179.47	6240.33	-280.16	-41.25	7.35	280.22	434300.14	607155.45	
6316.00	40.06	177.71	6264.44	-299.64	-40.76	8.09	299.69	434280.66	607155.94	
6348.00	41.96	177.06	6288.59	-320.61	-39.80	6.09	320.67	434259.69	607156.90	
6379.00	44.56	176.54	6311.16	-341.82	-38.61	8.47	341.88	434238.48	607158.09	
6410.00	46.84	178.40	6332.82	-363.98	-37.64	8.52	364.04	434216.32	607159.06	
6442.00	49.34	177.99	6354.19	-387.78	-36.89	7.87	387.83	434192.52	607159.81	
6473.00	51.91	176.58	6373.85	-411.72	-35.75	9.00	411.77	434168.58	607160.95	
6505.00	56.45	176.13	6392.58	-437.60	-34.10	14.23	437.65	434142.70	607162.60	
6537.00	61.74	176.09	6409.01	-464.99	-32.23	16.53	465.03	434115.31	607164.47	
6568.00	66.32	175.31	6422.58	-492.77	-30.14	14.95	492.81	434087.53	607166.56	
6600.00	71.34	174.50	6434.13	-522.48	-27.49	15.86	522.52	434057.82	607169.21	
6631.00	75.51	175.01	6442.97	-552.07	-24.78	13.54	552.10	434028.23	607171.92	
6663.00	79.42	176.90	6449.92	-583.22	-22.58	13.51	583.25	433997.08	607174.12	
6694.00	82.14	178.54	6454.88	-613.79	-21.36	10.21	613.82	433966.51	607175.34	
6726.00	84.25	178.57	6458.67	-645.55	-20.56	6.59	645.58	433934.75	607176.14	

Weatherford International Ltd.

WFT Survey Report X & Y's

Company:	Occidental Permian Ltd.	**Date:** 3/25/2013	**Time:** 07:53:19	**Page:**	3
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Well:	Cedar Canyon 28 #2H	**Section (VS) Reference:**	Well (0.00N,0.00E,180.08Azi)		
Wellpath:	1	**Survey Calculation Method:**	Minimum Curvature	**Db:**	Sybase

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	DLS deg/100ft	VS ft	MapN ft	MapE ft	Comment
6757.00	86.70	178.41	6461.12	-676.44	-19.75	7.92	676.47	433903.86	607176.95	
6852.00	88.53	179.13	6465.07	-771.33	-17.71	2.07	771.36	433808.97	607178.99	
6946.00	90.70	178.78	6465.70	-865.31	-15.99	2.34	865.33	433714.99	607180.71	
7041.00	90.63	178.80	6464.60	-960.28	-13.99	0.08	960.30	433620.02	607182.71	
7135.00	88.67	177.11	6465.18	-1054.21	-10.63	2.75	1054.23	433526.09	607186.07	
7229.00	88.53	176.66	6467.47	-1148.04	-5.53	0.50	1148.05	433432.26	607191.17	
7324.00	90.42	179.29	6468.34	-1242.97	-2.17	3.41	1242.97	433337.33	607194.53	
7418.00	90.35	179.86	6467.71	-1336.96	-1.47	0.61	1336.96	433243.34	607195.23	
7512.00	91.05	177.84	6466.56	-1430.93	0.41	2.27	1430.93	433149.37	607197.11	
7606.00	90.35	179.38	6465.42	-1524.89	2.69	1.80	1524.89	433055.41	607199.39	
7700.00	91.88	179.12	6463.59	-1618.87	3.92	1.65	1618.86	432961.43	607200.62	
7794.00	91.53	181.03	6460.79	-1712.82	3.80	2.06	1712.81	432867.48	607200.50	
7889.00	89.79	181.46	6459.69	-1807.79	1.73	1.89	1807.78	432772.51	607198.43	
7983.00	89.93	180.34	6459.92	-1901.77	0.26	1.20	1901.77	432678.53	607196.96	
8077.00	89.86	178.62	6460.10	-1995.77	1.11	1.83	1995.76	432584.53	607197.81	
8172.00	89.23	179.33	6460.85	-2090.75	2.81	1.00	2090.74	432489.55	607199.51	
8266.00	89.30	180.26	6462.06	-2184.74	3.15	0.99	2184.73	432395.56	607199.85	
8360.00	89.58	180.78	6462.98	-2278.73	2.29	0.63	2278.72	432301.57	607198.99	
8451.00	90.42	181.17	6462.98	-2369.71	0.75	1.02	2369.71	432210.59	607197.45	
8546.00	90.56	180.58	6462.16	-2464.70	-0.71	0.64	2464.70	432115.60	607195.99	
8640.00	91.19	180.11	6460.73	-2558.69	-1.27	0.84	2558.68	432021.61	607195.43	
8734.00	89.30	180.34	6460.33	-2652.68	-1.64	2.03	2652.68	431927.62	607195.06	
8828.00	89.93	178.99	6460.96	-2746.67	-1.09	1.58	2746.67	431833.63	607195.61	
8923.00	90.70	179.26	6460.44	-2841.66	0.36	0.86	2841.66	431738.64	607197.06	
9017.00	91.82	179.03	6458.37	-2935.63	1.76	1.22	2935.62	431644.67	607198.46	
9112.00	90.21	178.86	6456.69	-3030.59	3.51	1.70	3030.58	431549.71	607200.21	
9206.00	90.07	177.71	6456.46	-3124.55	6.32	1.23	3124.54	431455.75	607203.02	
9301.00	91.12	177.40	6455.47	-3219.45	10.38	1.15	3219.44	431360.85	607207.08	
9395.00	89.93	176.39	6454.61	-3313.31	15.47	1.66	3313.28	431266.99	607212.17	
9489.00	90.63	178.39	6454.15	-3407.21	19.75	2.25	3407.17	431173.09	607216.45	
9584.00	90.56	179.63	6453.16	-3502.18	21.39	1.31	3502.15	431078.12	607218.09	
9678.00	89.30	181.47	6453.28	-3596.17	20.49	2.37	3596.14	430984.13	607217.19	
9772.00	90.00	182.13	6453.85	-3690.12	17.53	1.02	3690.10	430890.18	607214.23	
9867.00	89.44	181.90	6454.32	-3785.06	14.19	0.64	3785.04	430795.24	607210.89	
9961.00	89.37	181.62	6455.29	-3879.01	11.31	0.31	3879.00	430701.29	607208.01	
10056.00	90.35	182.23	6455.52	-3973.96	8.12	1.22	3973.94	430606.34	607204.82	
10150.00	90.56	181.90	6454.78	-4067.90	4.73	0.42	4067.88	430512.40	607201.43	
10198.00	91.05	181.75	6454.10	-4115.87	3.20	1.07	4115.86	430464.43	607199.90	Last Wft Svy
10258.00	91.05	181.75	6453.00	-4175.83	1.37	0.00	4175.82	430404.47	607198.07	Proj. to Bit

Annotation

MD ft	TVD ft	
2873.00	2868.78	Tie on VES
2963.00	2958.49	First Extreme Svy
5746.00	5741.08	Last Extreme Svy
5781.00	5776.08	First Wft Svy
10198.00	6454.10	Last Wft Svy
10258.00	6453.00	Proj. to Bit

Cedar Canyon 28 #2H
Eddy Co, New Mexico

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	2873.00	4.99	177.74	2868.78	-85.33	-30.28	0.00	0.00	85.37	
2	3205.67	0.00	0.00	3201.02	-99.80	-29.71	1.50	180.00	99.84	
3	5881.69	0.00	0.00	5877.04	-99.80	-29.71	0.00	0.00	99.84	
4	6781.69	90.00	179.70	6450.00	-672.75	-26.69	10.00	179.70	672.78	
5	10622.30	90.00	179.70	6450.00	-4513.31	-6.42	0.00	0.00	4513.31	PBHL

WELL DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
Cedar Canyon 28 #2H	0.00	0.00	434580.30	607196.70	32°11'39.493N	103°59'12.479W	N/A

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
PBHL	6450.00	-4513.31	-6.42	430066.99	607190.28	Point

SITE DETAILS

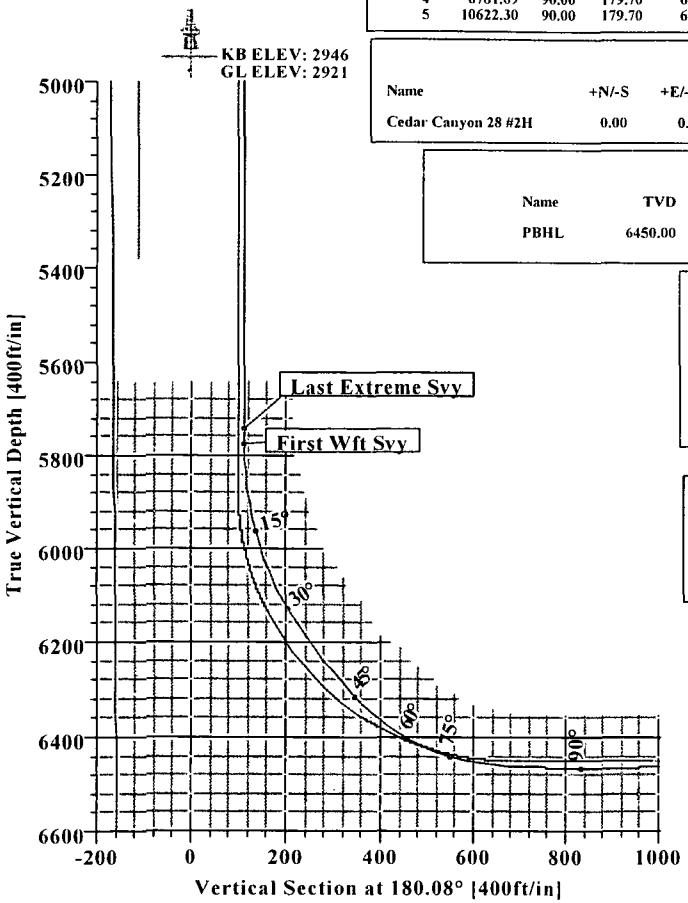
Cedar Canyon 28 #2H

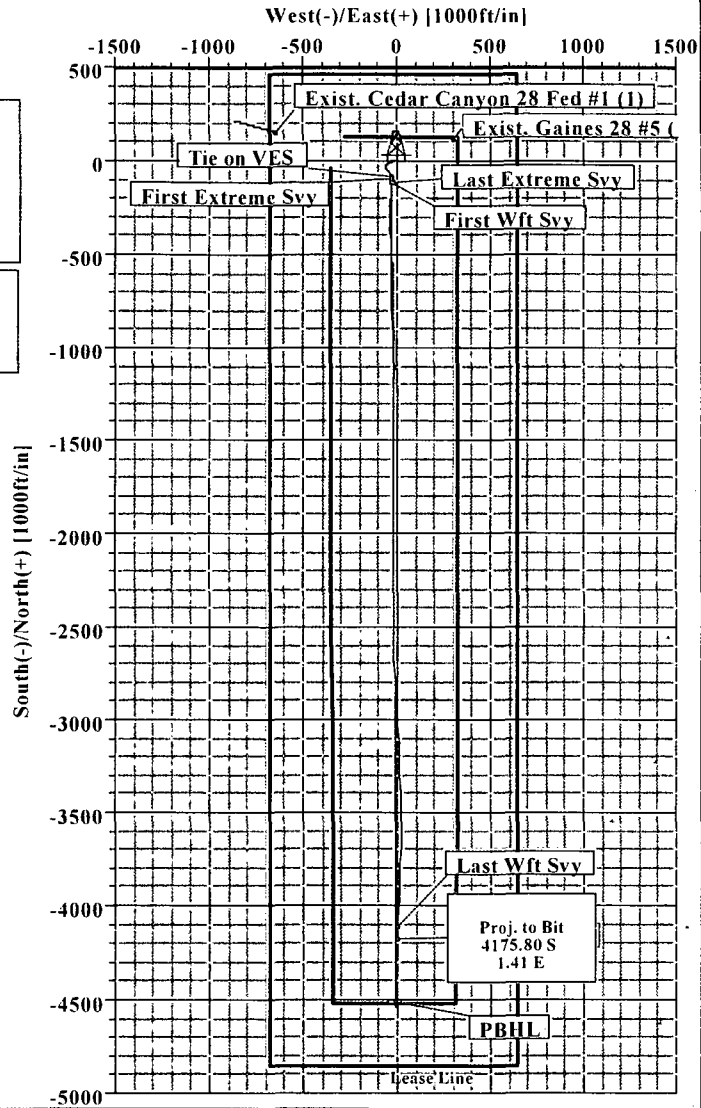
Site Centre Northing: 434580.30
Easting: 607196.70

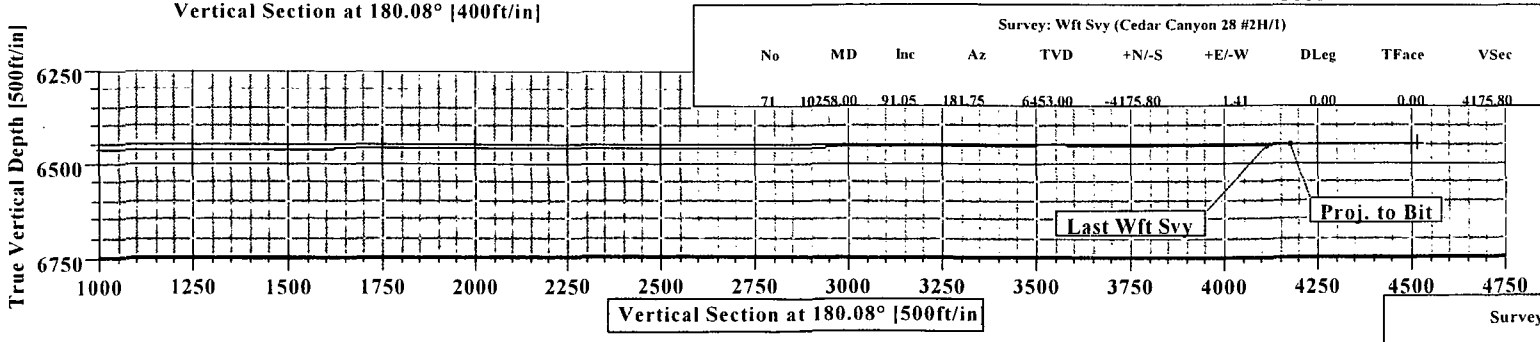
Ground Level: 2921.00
Positional Uncertainty: 0.00
Convergence: 0.18

LEGEND

Cedar Canyon 28 #2H,1,Plan #5
Exist. Cedar Canyon 28 Fed #1 (1)
Exist. Gaines 28 #5 (1)
1
Wft Svy







Survey: Wft Svy (Cedar Canyon 28 #2H/1)

No	MD	Inc	Az	TVD	+N/-S	+E/-W	DLeg	TFace	VSec
71	10258.00	91.05	181.75	6453.00	-4175.80	1.41	0.00	0.00	4175.80

Weatherford

Survey: Wft Svy (Cedar Canyon 28 #2H/1)

Created By: Patrick Rudolph Date: 3/25/2013

Reservoir Development
Drilling & Measurements (Extreme Engineering)
6724 Corporation Pkwy Suite 100
Fort Worth, TX 76126
Phone: (817) 717-1820
Fax: (817) 546-7551

March 29, 2013

Occidental Permian Ltd
5 Greenway Plaza Suite 110
Houston, Texas77046

Attention: Anthony Tschacher

Re:

CLIENT: OXY Permain
WELL: CEDAR CANYON 28 STATE 2H
FIELD: BONE SPRINGS
RIG: HP 477
COUNTY: Eddy
API NO: 30-015-41024
JOB NO: NM-OXY-0050

Enclosed, please find the original copy of the survey performed on the referenced well by Drilling & Measurements (formerly Extreme), a division of Schlumberger Technology Corporation (P-5 No. 754900).
Other information required by your office is as follows.

Name & Title of Surveyor	Drainhole Number	Surveyed Depths		Dates Performed		Type of Survey
Tim Daws FST-1	CEDAR CANYON 28 STATE 2H Original Hole	2780.00 Ft 5746.00 Ft	to	March 8, 2013 March 11, 2013	to	SlimPulse

A plat of the bottom hole location is oriented both to the surface location and to the lease lines (or until line in case of pooling), is attached to the survey report.

If any other information is required, please contact the undersigned at the above letterhead and phone number.
Sincerely,

Mike Johns
Field Service Manager

CC: OXY Permain
Enclosures: [2]
County of Eddy
State of New Mexico

Reservoir Development
Drilling & Measurements (Extreme Engineering)
6724 Corporation Pkwy Suite 100
Fort Worth, TX 76126
Phone: (817) 717-1820
Fax: (817) 546-7551

I, Tim Daws certify that; I am employed by Drilling & Measurements (formerly Extreme), a division of Schlumberger Technology Corporation; that I did on the day(s) of March 08, 2013 through March 11, 2013, conduct or supervise the taking of the SlimPulse surveys from a depth of 2780.00 feet to a depth of 5746.00 feet; that the data is true, correct, complete and within the limitations of the tool as set forth by Drilling & Measurements, a division of Schlumberger Technology Corporation; that I am authorized and qualified to make this report; that this survey was conducted at the request of OXY Permain for the CEDAR CANYON 28 STATE 2H Well (Original Hole) API No. 30-015-41024 in New Mexico; and that I have reviewed this report and find that it conforms to the principals and procedures as set forth by Drilling & Measurements, a division of Schlumberger Technology Corporation.

Tim Daws
FST-1

Before me, Abdul Khan, on this day personally appeared Timothy Daws, known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that he/she executed the same for the purposes and consideration therein expressed.

Given under my hand and seal of office this 29 day of March 2013 (year).

Notary Public

ABDUL AZIZ KHAN
My Commission Expires
April 23, 2016

CEDAR CANYON 28 FED COM 2H MWD 0' to 5746' Survey Report

(Def Survey)

Report Date:	March 14, 2013 - 04:41 PM	**Survey / DLS Computation:**	Minimum Curvature / Lubinski
Client:		**Vertical Section Azimuth:**	0.000 ° (Grid North)
Field:	NM, Eddy Co (NAD27 EZ) 2012	**Vertical Section Origin:**	0.000 ft, 0.000 ft
Structure / Slot:	OXY (CEDAR CANYON 28 FED COM 2H) HP 477 / CEDAR CANYON 28 FED COM 2H	**TVD Reference Datum:**	RKB
Well:	CEDAR CANYON 28 FED COM 2H	**TVD Reference Elevation:**	2945.000 ft above Unknown
Borehole:	Original Hole	**Seabed / Ground Elevation:**	2921.000 ft above Unknown
UWI / API#:	Unknown / 30-015-41073	**Magnetic Declination:**	7.596 °
Survey Name:	CEDAR CANYON 28 FED COM 2H MWD 0' to 5746'	**Total Field Strength:**	48365.711 nT
Survey Date:	March 14, 2013	**Magnetic Dip Angle:**	60.015 °
Tort / AHD / DDI / ERD Ratio:	42.302 ° / 183.227 ft / 3.890 / 0.032	**Declination Date:**	March 14, 2013
Coordinate Reference System:	NAD27 New Mexico State Plane, Eastern Zone, US Feet	**Magnetic Declination Model:**	BGGM 2012
Location Lat / Long:	N 32° 12' 38.88000", W 103° 58' 53.04000"	**North Reference:**	Grid North
Location Grid N/E Y/X:	N 440586.668 ftUS, E 608847.429 ftUS	**Grid Convergence Used:**	0.186 °
CRS Grid Convergence Angle:	0.18759477 °	**Total Corr Mag North->Grid North:**	7.411 °
Grid Scale Factor:	0.99992266	**Local Coord Referenced To:**	Well Head

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
Tie-In	2780.81	5.12	155.18	2776.94	-77.61	-77.61	-32.21	1.10	440509.06	608815.23	N 32 12 38.11	W 103 58 53.42
Begin MWD Surveys	2873.00	4.99	177.74	2868.78	-85.35	-85.35	-30.32	2.15	440501.32	608817.11	N 32 12 38.04	W 103 58 53.40
	2963.00	4.48	142.42	2958.49	-92.05	-92.05	-26.02	3.23	440494.62	608819.41	N 32 12 37.97	W 103 58 53.37
	3026.00	4.09	137.81	3021.31	-95.67	-95.67	-25.01	0.83	440491.01	608822.42	N 32 12 37.93	W 103 58 53.33
	3120.00	2.02	111.05	3115.18	-98.75	-98.75	-21.21	2.62	440487.93	608826.22	N 32 12 37.90	W 103 58 53.29
	3215.00	0.48	134.34	3210.15	-99.63	-99.63	-19.37	1.67	440487.06	608828.06	N 32 12 37.89	W 103 58 53.27
	3404.00	0.70	148.31	3399.14	-101.16	-101.16	-18.19	0.14	440485.51	608829.24	N 32 12 37.88	W 103 58 53.26
	3593.00	0.48	159.62	3588.13	-102.89	-102.89	-17.31	0.13	440483.79	608830.12	N 32 12 37.86	W 103 58 53.25
	3782.00	0.22	203.95	3777.13	-103.96	-103.96	-17.19	0.19	440482.71	608830.24	N 32 12 37.85	W 103 58 53.24
	3970.00	0.31	229.35	3965.13	-104.62	-104.62	-17.72	0.08	440482.06	608829.71	N 32 12 37.85	W 103 58 53.25
	4159.00	0.48	222.62	4154.12	-105.54	-105.54	-18.85	0.09	440481.14	608828.79	N 32 12 37.84	W 103 58 53.26
	4347.00	0.40	196.91	4342.12	-106.75	-106.75	-19.37	0.11	440479.93	608828.06	N 32 12 37.82	W 103 58 53.27
	4536.00	0.48	215.42	4531.11	-108.02	-108.02	-20.02	0.09	440478.66	608827.41	N 32 12 37.81	W 103 58 53.28
	4725.00	0.62	209.61	4720.10	-109.56	-109.56	-20.98	0.08	440477.12	608826.45	N 32 12 37.80	W 103 58 53.29
	4914.00	0.48	213.44	4909.09	-111.11	-111.11	-21.93	0.08	440475.57	608825.50	N 32 12 37.78	W 103 58 53.30
	5103.00	0.22	257.91	5098.09	-111.84	-111.84	-22.72	0.19	440474.83	608824.71	N 32 12 37.77	W 103 58 53.31
	5292.00	0.40	229.43	5287.09	-112.35	-112.35	-23.57	0.12	440474.33	608823.86	N 32 12 37.77	W 103 58 53.32
	5481.00	0.48	216.34	5476.08	-113.41	-113.41	-24.54	0.07	440473.28	608822.89	N 32 12 37.76	W 103 58 53.33
	5670.00	0.40	264.08	5665.08	-114.12	-114.12	-25.87	0.19	440472.56	608821.76	N 32 12 37.75	W 103 58 53.34
End MWD Surveys	5746.00	0.40	311.83	5741.08	-113.97	-113.97	-26.13	0.43	440472.71	608821.30	N 32 12 37.75	W 103 58 53.35

Survey Type: Def Survey

Survey Error Model: ISCWSA Rev 0 *** 3-D 95.000% Confidence 2.7955 sigma

Survey Program:

Description	MD From (ft)	MD To (ft)	EOU Freq (ft)	Survey Tool Type	Borehole / Survey
	0.000	15.110	Act Stns	SLB_UNKNOWN-Depth Only	Original Hole / Tie In
	15.110	24.000	Act Stns	SLB_UNKNOWN-Depth Only	Original Hole / Tie In
	24.000	2780.810	Act Stns	SLB_UNKNOWN	Original Hole / Tie In
	2780.810	5746.000	Act Stns	SLB_MWD-STD	Original Hole / CEDAR CANYON 28 FED COM 2H MWD 0' to 5746'

VAUGHN ENERGY SERVICES
A GYRO TECHNOLOGIES INC. COMPANY

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

April 30, 2013

RECEIVED
JUN 10 2013
NMOCD ARTESIA

OXY USA INC.
P O Box 50250
Midland, Texas 79710

Attn: David Stewart

RE: **Cedar Canyon 28 Federal Com No. 002H**

Please find enclosed a copy of the survey from 0.00' to 2873.00' ran on the above referenced well.

Sincerely,

Keith Havelka
Operations

STATE OF TEXAS §
§
COUNTY OF NUECES §

This instrument was acknowledged before me on the 30th day of April A.D. 2013, by Keith Havelka.

LAURA BALLEW
Notary Public, State of Texas
My Commission Expires
January 28, 2014

Laura Ballew
Notary Public, State of Texas

Company: Oxy USA, Inc.

Lease/Well: Cedar Canyon 28 Federal Com/ No. 002H

Rig Name: H&P #477

State/County: New Mexico/ Eddy

Latitude: 32.19, Longitude: -103.99

GRID North is 0.18 Degrees East of True North

VS-Azi: 0.00 Degrees

Depth Reference : RKB=25'

DRILLOG MS GYRO SURVEY CALCULATIONS

Filename: ...8 fed com #2h gyro survey1.ut

Minimum Curvature Method

Report Date/Time: 4/30/2013 / 15:39

Vaughn Energy Services

Midland, Texas

432-563-5444

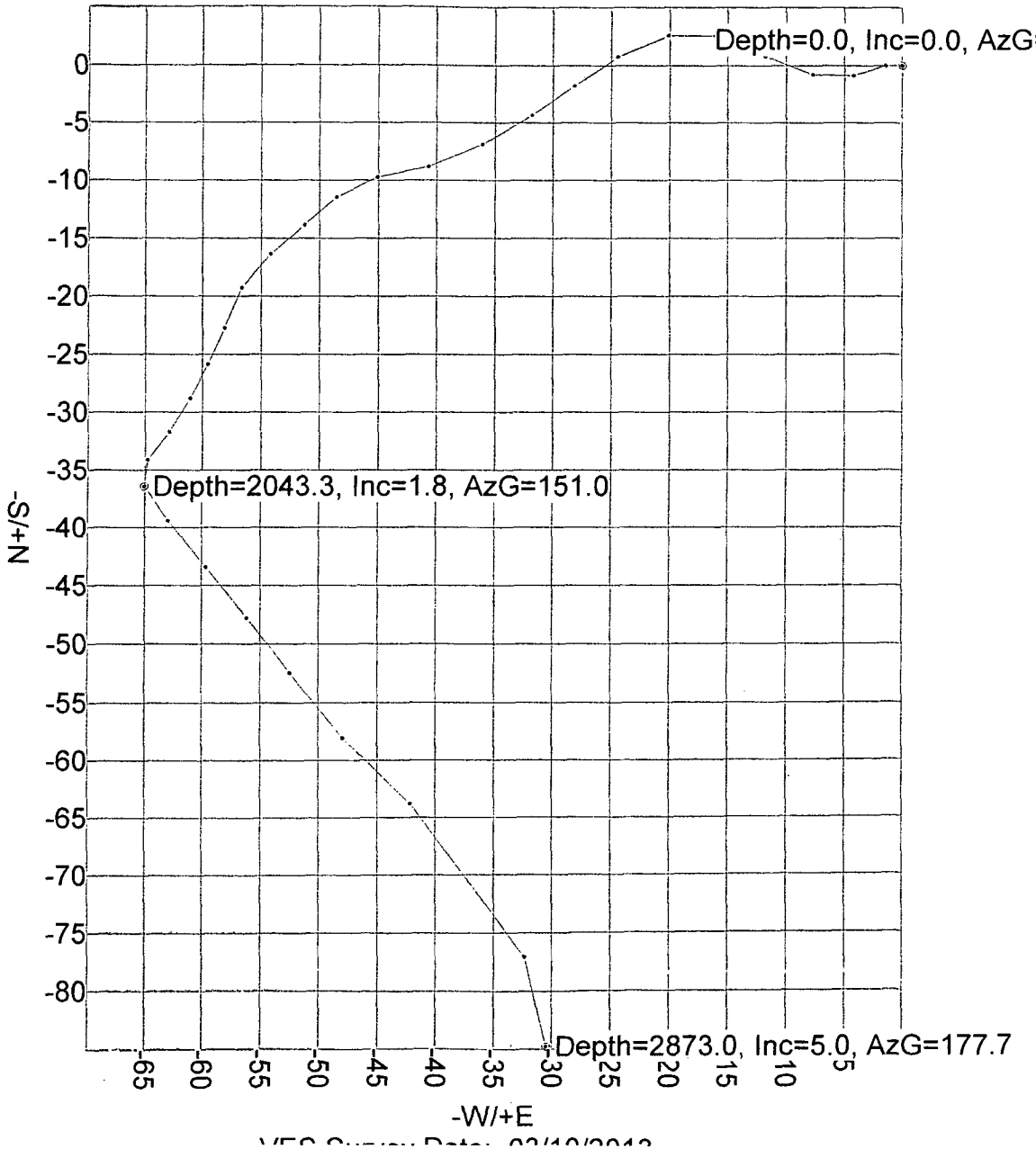
Survey Engineer: Logan Henry

Cedar Canyon 28 Federal Com No. 002H / API 30-015-41073

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	****
15.11	0.39	280.61	15.11	0.01	-0.05	0.01	0.05	280.61	2.58
107.30	1.35	266.17	107.29	-0.01	-1.44	-0.01	1.44	269.78	1.06
199.49	2.33	244.77	199.43	-0.88	-4.22	-0.88	4.31	258.27	1.28
291.68	2.50	295.86	291.55	-0.80	-7.73	-0.80	7.77	264.10	2.26
383.87	2.94	287.65	383.64	0.80	-11.79	0.80	11.82	273.86	0.64
476.06	2.86	298.11	475.71	2.60	-16.07	2.60	16.28	279.18	0.58
568.25	2.91	241.78	567.80	2.57	-20.16	2.57	20.32	277.27	2.95
660.44	2.92	251.23	659.87	0.71	-24.44	0.71	24.45	271.67	0.52
752.63	2.85	220.75	751.95	-1.78	-28.16	-1.78	28.22	266.39	1.65
844.82	2.84	248.99	844.03	-4.33	-31.79	-4.33	32.08	262.24	1.51
937.01	3.42	231.54	936.08	-6.86	-36.08	-6.86	36.72	259.23	1.20
1029.20	3.09	264.91	1028.13	-8.79	-40.70	-8.79	41.64	257.81	2.05
1121.39	2.59	250.16	1120.21	-9.72	-45.13	-9.72	46.16	257.85	0.95
1213.58	2.25	234.52	1212.32	-11.47	-48.56	-11.47	49.89	256.70	0.80
1305.77	2.30	223.67	1304.44	-13.86	-51.30	-13.86	53.14	254.88	0.47
1397.96	2.47	234.72	1396.55	-16.34	-54.20	-16.34	56.61	253.22	0.53
1490.15	2.44	205.68	1488.66	-19.25	-56.67	-19.25	59.85	251.23	1.33
1582.34	2.25	199.85	1580.77	-22.72	-58.13	-22.72	62.41	248.65	0.33

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
1674.53	2.06	209.06	1672.90	-25.87	-59.55	-25.87	64.93	246.52	0.43
1766.72	2.05	205.99	1765.03	-28.80	-61.08	-28.80	67.52	244.76	0.12
1858.91	2.15	215.42	1857.15	-31.69	-62.80	-31.69	70.34	243.23	0.39
1951.10	1.75	223.72	1949.29	-34.12	-64.78	-34.12	73.21	242.23	0.54
2043.29	1.81	151.05	2041.45	-36.41	-65.04	-36.41	74.54	240.76	2.29
2135.48	2.78	139.40	2133.56	-39.38	-62.88	-39.38	74.20	237.94	1.15
2227.67	3.64	143.13	2225.61	-43.42	-59.67	-43.42	73.80	233.96	0.97
2319.86	3.29	138.58	2317.63	-47.75	-56.16	-47.75	73.72	229.63	0.48
2412.05	4.17	144.30	2409.62	-52.46	-52.45	-52.46	74.18	225.00	1.03
2504.43	4.77	138.21	2501.72	-58.04	-47.94	-58.04	75.28	219.55	0.83
2596.62	5.36	132.17	2593.55	-63.79	-42.19	-63.79	76.48	213.48	0.87
2780.81	5.12	155.18	2776.99	-77.03	-32.36	-77.03	83.55	202.79	1.14
2873.00	4.99	177.74	2868.83	-84.77	-30.48	-84.77	90.08	199.78	2.15

Vaughn Energy Services
Midland, Texas
432-563-5444
Survey Engineer: Logan Henry
Cedar Canyon 28 Federal Com No. 002H / API 30-015-41073



VES Survey Date: 02/10/2013