

Results of Directional Survey

API number:	30-025-40665		
OGRID:		Operator:	CIMAREX ENERGY CO.
		Property:	TRISTE DRAW; 36 STATE # 2H

surface	ULSTR:	D	36	T	23S	R	32E
				150	FNL	1261	FWL

BH Loc	ULSTR:	M	36	T	23S	R	32E
	13691	MD	9848.8	TVD	1044 FSL ✓	1159	FWL ✓
				4236	FNL		

Top Perf/OH	ULSTR:	D	36	T	23S	R	32E
	9475	MD	9471.2	TVD	200 FNL	1241	FWL

Bot Perf/OH	ULSTR:	M	36	T	23S	R	32E
	13655	MD	9847.2	TVD	1080 FSL	1160	FWL
				4200	FNL		

	MD	N/S	E/W	VD
	9453	-42.52	-20.37	9450.48
TOP PERFS/OH	9475	-49.85	-20.45	9471.22
	9485	-53.18	-20.48	9480.65
	13639	-4033.73	-101.43	9846.50
BOT PERFS/OH	13655	-4049.71	-101.47	9847.21
	13691	-4085.68	-101.56	9848.81

NEXT TO LAST	13639	-4033.73	-101.43	9846.50
LAST READING	13691	-4085.68	-101.56	9848.81
TD	13691	-4085.68	-101.56	9848.81

Surface Location	150	FN	1261	FW
Projected BHL	4236	FN	1159	FW
Location of				
Top Perfs/OH	200	FN	1241	FW
Bottom Perfs/OH	4200	FN	1160	FW

SUMMARY of Subsurface Locations

Surface Location	D-36-23S-32E	150	FN	1261	FW	Vert. Depth
Top Perfs/OH	D-36-23S-32E	200	FN	1241	FW	9471.22
Bottom Perfs/OH	M-36-23S-32E	4200	FN	1160	FW	9847.21
Projected TD	M-36-23S-32E	4236	FN	1159	FW	9848.81



Reservoir Development
PathFinder, a Schlumberger Company
9200 West Reno Avenue
Oklahoma City, Oklahoma 73127USA
Phone: (405) 789-1515
Fax: (405) 789-1519

March 5, 2014

HOBBS OCD

Cimarex
600 N MARIENFELD STREET SUITE 600

JUN 09 2014

MIDLAND, TX 79701

RECEIVED

D-S36-T23S-R32E 150 FNL 1261 FWL
N 32.26806 W 103.63277

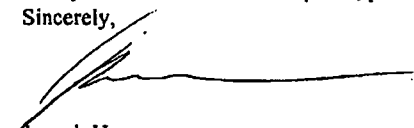
Re:

CLIENT: Cimarex Energy Co.
WELL: Triste Draw 36 State 2H
FIELD: Triste Draw: Bone Spring
RIG: Cactus 104
COUNTY: Lea
API NO: 30-025-40665
JOB NO: 14MLD0058

Enclosed, please find the original copy of the survey performed on the referenced well by PathFinder, a division of Schlumberger Technology Corporation .
Other information required by your office is as follows.

<u>Name & Title of Surveyor</u>	<u>Drainhole Number</u>	<u>Surveyed Depths</u>	<u>Dates Performed</u>	<u>Type of Survey</u>
Brandon Chandler MWD	Triste Draw 36 State 2H Original Hole	9358.00 Ft to 13639.00 Ft	February 4, 2014 to March 1, 2014	SlimPulse

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


Joseph Hogan
Field Service Manager



Reservoir Development
PathFinder, a Schlumberger Company
9200 West Reno Avenue
Oklahoma City, Oklahoma 73127USA
Phone: (405) 789-1515
Fax: (405) 789-1519

Well Reference:
D-S36-T23S-R32E 150 FNL 1261 FWL
N 32.26806 W 103.63277

I, Brandon Chandler certify that; I am employed by PathFinder, a division of Schlumberger Technology Corporation; that I did on the day(s) of February 04, 2014 through March 01, 2014, conduct or supervise the taking of the SlimPulse surveys from a depth of 9358.00 feet to a depth of 13639.00 feet referenced to driller's depth; 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 Cimarex Energy Co. for the Triste Draw 36 State 2H Well (Original Hole) API No. 30-025-40665 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.

By
Brandon Chandler
MWD

Subscribed and Sworn to before me this 6th day of March (month) 2014 (yr)

My Commission expires:

September 5, 2016

Michelle Ellwood



Notary Public

Midland, TX
(County State)

SCHLUMBERGER
Survey Report

17-Mar-2014

Client.....: Comater Energy Co.
Field.....: Triste Draw- Bone Spring

Well.....: Triste Draw 36 State 2H
API number.....: 30-025-40665
Engineer.....: Brandon Chandler
County.....: Lea
State.....: New Mexico
Rig.....: Cactus 104

Spud date.....: 23-Jan-14
Last survey date.....: 1-Mar-14
Total accepted surveys.....: 63
MO of first survey.....: 9358.00 ft
MO of last survey.....: 13639.00 ft
Latitude.....: 32° 16' 4.933" N
Longitude.....: 103° 37' 56.122" W

--- Survey calculation methods ---
Method for positions.....: Minimum curvature
Method for DLS.....: Lubinski

--- Depth reference ---
Permanent datum.....: MSL
Depth reference.....: Driller's Depth
GI above permanent.....: 3588.00
KI above permanent.....: 3708.00
DI above permanent.....: 3708.00

--- Vertical section origin ---
Latitude (+N/S).....: 0.00 ft
Departure (+E/W).....: 0.00 ft

--- Grid Coordinates ---
NAD27 Texas State Plane, Central Zone, US Feet
X.....: 758030.80 ft
Y.....: 461952.70 ft

Azimuth from West Origin to target: 181.34 degrees

MWD Survey Reference Criteria

--- Run 1 --- Calculation Date: 2-Feb-2014
Location G...: 998.9432 mgn Tolerance G...: 2.50 mgn
Location B...: 48352.26 nT Tolerance B...: 300.00 nT
Magnetic Dip: 60.1379 degrees Tolerance Dip: 0.45 degrees

--- Run 2 --- Calculation Date: 4-Feb-2014
Location G...: 998.9432 mgn Tolerance G...: 2.50 mgn
Location B...: 48351.62 nT Tolerance B...: 300.00 nT
Magnetic Dip: 60.1377 degrees Tolerance Dip: 0.45 degrees

--- Run 3 --- Calculation Date: 6-Feb-2014
Location G...: 998.9432 mgn Tolerance G...: 2.50 mgn
Location B...: 48350.98 nT Tolerance B...: 300.00 nT
Magnetic Dip: 60.1375 degrees Tolerance Dip: 0.45 degrees

--- Run 4 --- Calculation Date: 9-Feb-2014
Location G...: 998.9432 mgn Tolerance G...: 2.50 mgn
Location B...: 48350.03 nT Tolerance B...: 300.00 nT
Magnetic Dip: 60.1373 degrees Tolerance Dip: 0.45 degrees

--- Run 5 --- Calculation Date: 10-Feb-2014
Location G...: 998.9432 mgn Tolerance G...: 2.50 mgn
Location B...: 48349.71 nT Tolerance B...: 300.00 nT
Magnetic Dip: 60.1372 degrees Tolerance Dip: 0.45 degrees

--- Run 6 --- Calculation Date: 11-Feb-2014
Location G...: 998.9432 mgn Tolerance G...: 2.50 mgn
Location B...: 48349.39 nT Tolerance B...: 300.00 nT
Magnetic Dip: 60.1371 degrees Tolerance Dip: 0.45 degrees

--- Run 7 --- Calculation Date: 15-Feb-2014
Location G...: 998.9432 mgn Tolerance G...: 2.50 mgn
Location B...: 48348.75 nT Tolerance B...: 300.00 nT
Magnetic Dip: 60.1369 degrees Tolerance Dip: 0.45 degrees

--- Run 8 --- Calculation Date: 15-Feb-2014
Location G...: 998.9432 mgn Tolerance G...: 2.50 mgn
Location B...: 48348.11 nT Tolerance B...: 300.00 nT
Magnetic Dip: 60.1368 degrees Tolerance Dip: 0.45 degrees

--- Run 9 --- Calculation Date: 16-Feb-2014
Location G...: 998.9432 mgn Tolerance G...: 2.50 mgn
Location B...: 48347.8 nT Tolerance B...: 300.00 nT
Magnetic Dip: 60.1367 degrees Tolerance Dip: 0.45 degrees

--- Run 10 --- Calculation Date: 18-Feb-2014
Location G...: 998.9432 mgn Tolerance G...: 2.50 mgn
Location B...: 48346.84 nT Tolerance B...: 300.00 nT
Magnetic Dip: 60.1364 degrees Tolerance Dip: 0.45 degrees

--- Run 11 --- Calculation Date: 20-Feb-2014
Location G...: 998.9432 mgn Tolerance G...: 2.50 mgn
Location B...: 48346.52 nT Tolerance B...: 300.00 nT
Magnetic Dip: 60.1364 degrees Tolerance Dip: 0.45 degrees

--- Run 12 --- Calculation Date: 23-Feb-2014
Location G...: 998.9432 mgn Tolerance G...: 2.50 mgn
Location B...: 48345.56 nT Tolerance B...: 300.00 nT
Magnetic Dip: 60.1361 degrees Tolerance Dip: 0.45 degrees

--- Run 13 --- Calculation Date: 25-Feb-2014
Location G...: 998.9432 mgn Tolerance G...: 2.50 mgn
Location B...: 48344.93 nT Tolerance B...: 300.00 nT
Magnetic Dip: 60.1359 degrees Tolerance Dip: 0.45 degrees

--- Run 14 --- Calculation Date: 27-Feb-2014
Location G...: 998.9432 mgn Tolerance G...: 2.50 mgn
Location B...: 48344.29 nT Tolerance B...: 300.00 nT
Magnetic Dip: 60.1358 degrees Tolerance Dip: 0.45 degrees

BOGMI Model: 2013

--- Run 1 ---
Magnetic dec (+E/W).....: 7.404 degrees
Grid Conv (+E/W).....: 0.374 degrees
Total Azim Corr (+E/W).....: 7.031 degrees

--- Run2 ---
 Magnetic dec (+E/W).....: 7.4034 degrees
 Grid Conv (+E/W).....: 0.3734 degrees
 Total Azim Corr (+E/W).....: 7.03 degrees

--- Run3 ---
 Magnetic dec (+E/W).....: 7.4027 degrees
 Grid Conv (+E/W).....: 0.3727 degrees
 Total Azim Corr (+E/W).....: 7.03 degrees

--- Run4 ---
 Magnetic dec (+E/W).....: 7.4018 degrees
 Grid Conv (+E/W).....: 0.3718 degrees
 Total Azim Corr (+E/W).....: 7.03 degrees

--- Run5 ---
 Magnetic dec (+E/W).....: 7.4015 degrees
 Grid Conv (+E/W).....: 0.3715 degrees
 Total Azim Corr (+E/W).....: 7.03 degrees

--- Run6 ---
 Magnetic dec (+E/W).....: 7.4012 degrees
 Grid Conv (+E/W).....: 0.3712 degrees
 Total Azim Corr (+E/W).....: 7.03 degrees

--- Run7 ---
 Magnetic dec (+E/W).....: 7.4006 degrees
 Grid Conv (+E/W).....: 0.3706 degrees
 Total Azim Corr (+E/W).....: 7.03 degrees

--- Run8 ---
 Magnetic dec (+E/W).....: 7.4 degrees
 Grid Conv (+E/W).....: 0.37 degrees
 Total Azim Corr (+E/W).....: 7.03 degrees

--- Run9 ---
 Magnetic dec (+E/W).....: 7.3997 degrees
 Grid Conv (+E/W).....: 0.3697 degrees
 Total Azim Corr (+E/W).....: 7.03 degrees

--- Run10 ---
 Magnetic dec (+E/W).....: 7.3988 degrees
 Grid Conv (+E/W).....: 0.3788 degrees
 Total Azim Corr (+E/W).....: 7.02 degrees

--- Run11 ---
 Magnetic dec (+E/W).....: 7.3985 degrees
 Grid Conv (+E/W).....: 0.3785 degrees
 Total Azim Corr (+E/W).....: 7.02 degrees

--- Run12 ---
 Magnetic dec (+E/W).....: 7.3976 degrees
 Grid Conv (+E/W).....: 0.3776 degrees
 Total Azim Corr (+E/W).....: 7.02 degrees

--- Run13 ---
 Magnetic dec (+E/W).....: 7.3969 degrees
 Grid Conv (+E/W).....: 0.3769 degrees
 Total Azim Corr (+E/W).....: 7.02 degrees

--- Run14 ---
 Magnetic dec (+E/W).....: 7.3963 degrees
 Grid Conv (+E/W).....: 0.3763 degrees
 Total Azim Corr (+E/W).....: 7.02 degrees

----- Survey Correction Index Description -----

0 = Uncorrected 1 = Sag Corrected
 2 = DMAG Corrected 3 = Sag + DMAG Corrected

Seq	MD (ft)	Incl (deg)	Azim (deg)	Course (ft)	TVD (ft)	V Sec (ft)	H/S (ft)	E/W (ft)	Closure (ft)	at Az (deg)	DLS (deg/100ft)	Tool	Correction
1	0.00	0.00	0.00	-999.25	0.00	0.00	0.00	0.00	0	90.00	0.00	Tip	0
2	134.72	0.22	100.64	134.72	134.72	0.04	-0.05	0.25	0.76	100.64	0.16	SingleShot	0
3	233.64	0.09	62.67	98.93	233.64	0.04	-0.05	0.51	0.51	95.28	0.16	SingleShot	0
4	318.49	0.31	56.65	94.45	318.49	-0.15	0.11	0.79	0.8	82.79	0.23	SingleShot	0
5	445.40	0.40	69.57	116.91	445.40	-0.48	0.44	1.44	1.5	72.81	0.10	SingleShot	0
6	531.64	0.31	90.18	86.24	531.63	-0.59	0.55	1.95	2.03	74.30	0.18	SingleShot	0
7	656.63	0.31	104.86	124.99	656.62	-0.52	0.46	2.62	2.66	80.01	0.06	SingleShot	0
8	752.77	0.40	97.48	96.14	752.76	-0.43	0.35	3.20	3.22	83.75	0.10	SingleShot	0
9	845.00	0.21	109.87	93.23	845.99	-0.31	0.22	3.76	3.77	86.61	0.11	SingleShot	0
10	942.91	0.31	127.75	96.91	942.90	-0.07	-0.03	4.22	4.22	90.37	0.10	SingleShot	0
11	1037.96	0.31	121.86	95.05	1037.95	0.21	-0.32	4.64	4.65	93.95	0.03	SingleShot	0
12	1134.03	0.22	114.57	96.07	1134.02	0.42	-0.53	5.03	5.05	96.07	0.10	SingleShot	0
13	1257.68	0.22	160.45	123.65	1257.66	0.73	-0.86	5.32	5.39	99.14	0.14	SingleShot	0
14	1317.30	0.09	143.88	59.62	1317.28	0.88	-1.00	5.39	5.48	100.54	0.23	SingleShot	0
15	1413.57	0.22	158.95	96.27	1413.55	1.11	-1.24	5.50	5.63	102.67	0.14	SingleShot	0
16	1508.37	0.22	144.67	94.80	1508.35	1.42	-1.55	5.67	5.88	105.35	0.06	SingleShot	0
17	1602.53	0.22	141.24	94.16	1602.51	1.70	-1.84	5.89	6.17	107.38	0.01	SingleShot	0
18	1697.72	0.31	150.56	95.19	1697.70	2.07	-2.21	6.13	6.51	109.83	0.10	SingleShot	0
19	1792.91	0.31	119.58	95.19	1792.89	2.41	-2.56	6.48	6.97	111.57	0.17	SingleShot	0
20	1888.11	0.22	153.04	95.20	1888.09	2.69	-2.85	6.79	7.36	112.75	0.18	SingleShot	0
21	1983.17	0.22	167.35	95.06	1983.15	3.02	-3.19	6.92	7.62	114.72	0.07	SingleShot	0
22	2077.58	0.31	163.57	94.41	2077.56	3.44	-3.61	7.03	7.9	117.16	0.10	SingleShot	0
23	2172.25	0.22	183.56	94.67	2172.23	3.87	-4.03	7.09	8.16	119.64	0.13	SingleShot	0
24	2266.75	0.09	63.94	94.50	2266.73	4.01	-4.18	7.15	8.28	120.34	0.29	SingleShot	0
25	2361.65	0.09	358.16	94.90	2361.63	3.91	-4.08	7.21	8.28	119.47	0.10	SingleShot	0
26	2457.74	0.22	218.46	96.09	2457.72	3.98	-4.14	7.09	8.22	120.30	0.31	SingleShot	0
27	2552.10	0.09	87.57	94.45	2552.18	4.11	-4.28	7.05	8.25	121.23	0.31	SingleShot	0
28	2647.14	0.22	262.75	94.94	2647.12	4.13	-4.29	6.95	8.17	121.70	0.23	SingleShot	0
29	2741.64	0.09	333.86	94.50	2741.62	4.09	-4.25	6.74	7.56	122.24	0.22	SingleShot	0
30	2837.41	0.22	49.75	95.77	2837.39	3.90	-4.06	6.84	7.96	120.69	0.23	SingleShot	0
31	2933.10	0.09	205.67	95.69	2933.08	3.85	-4.01	6.95	8.02	119.99	0.32	SingleShot	0
32	3028.85	0.09	207.87	95.75	3028.82	3.98	-4.14	6.88	8.03	121.06	0.00	SingleShot	0
33	3124.02	0.09	175.64	95.17	3123.99	4.09	-4.25	6.91	8.11	121.63	0.12	SingleShot	0
34	3219.16	0.09	87.68	95.14	3219.13	4.13	-4.29	7.04	8.25	121.37	0.06	SingleShot	0
35	3314.99	0.00	316.85	95.83	3314.96	4.12	-4.20	7.12	8.31	121.08	0.09	SingleShot	0
36	3409.74	0.00	351.48	94.75	3409.71	4.12	-4.29	7.12	8.31	121.08	0.00	SingleShot	0
37	3503.74	0.22	59.77	94.00	3503.71	4.03	-4.20	7.27	8.4	120.00	0.23	SingleShot	0
38	3598.73	0.31	14.64	94.99	3598.70	3.68	-3.86	7.50	8.43	117.24	0.23	SingleShot	0
39	3693.38	0.40	43.38	94.65	3693.35	3.19	-3.37	7.79	8.49	113.41	0.21	SingleShot	0
40	3788.93	0.27	64.78	95.54	3788.89	2.86	-3.05	8.18	8.73	110.45	0.22	SingleShot	0
41	3883.15	0.31	29.98	94.23	3883.12	2.56	-2.75	8.48	8.91	108.00	0.19	SingleShot	0

