

Results of Directional Survey

API number:	30-025-41240		
OGRID:		Operator:	CIMAREX ENERGY CO.
		Property:	CASCADE 29 FEDERAL # 2H

surface	ULSTR:	C	29	T	25S	R	33E
				330	FNL	1905	FWL

BH Loc	ULSTR:	N	29	T	25S	R	33E
14248	MD	9876.0	TVD	340	FSL	2129	FWL
				4940	FNL		

Top Perf/OH	ULSTR:	C	29	T	25S	R	33E
9730	MD	9676.7	TVD	513	FNL	2033	FWL

Bot Perf/OH	ULSTR:	N	29	T	25S	R	33E
14220	MD	9876.3	TVD	368	FSL	2134	FWL
				4912	FNL		

	MD	N/S	E/W	VD
	9700.28	-165.57	115.41	9656.21
TOP PERFS/OH	9730	-183.25	127.69	9676.70
	9732	-184.44	128.52	9678.08
	14170	-4532.48	236.15	9876.89
BOT PERFS/OH	14220	-4581.90	228.59	9876.32
	14248	-4609.58	224.36	9876.00

NEXT TO LAST	14170	-4532.48	236.15	9876.89
LAST READING	14248	-4609.58	224.36	9876.00
TD	14248	-4609.58	224.36	9876.00

Surface Location	330	FN	1905	FW
Projected BHL	4940	FN	2129	FW
Location of				
Top Perfs/OH	513	FN	2033	FW
Bottom Perfs/OH	4912	FN	2134	FW

SUMMARY of Subsurface Locations

Surface Location	C-29-25S-33E	330	FN	1905	FW	Vert. Depth
Top Perfs/OH	C-29-25S-33E	513	FN	2033	FW	9676.70
Bottom Perfs/OH	N-29-25S-33E	4912	FN	2134	FW	9876.32
Projected TD	N-29-25S-33E	4940	FN	2129	FW	9876.00

JAN 29 2014

Reservoir Development

Drilling & Measurements (Anadrill)

4301 SW 44th St

Oklahoma City, Oklahoma 73119 USA

Phone: (405) 682-2284

Fax: (405) 682-3937

November 13, 2013

Cimarex

600 N MARIENFELD STREET SUITE 600

MIDLAND, TX 79701

HOBBS OCD

JAN 06 2014

RECEIVED

Re:

C-S29-T25S-R33E 330 FNL 1905 FWL

N 32.10793 W 103.59670

CLIENT: Cimarex Energy Co.
WELL: Cascade 29 Federal 2H
FIELD: Wildcat Bone Spring
RIG: Cactus 116
COUNTY: Lea
API NO: 30-025-41240
JOB NO: 13MLD0410

Enclosed, please find the original copy of the survey performed on the referenced well by Drilling & Measurements, 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>
Sam Maxfield MWD	Cascade 29 Federal 2H Original Hole	9291.00 Ft to 14170.00 Ft	October 14, 2013 to October 22, 2013	SlimPulse

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

Sincerely,

Jasem Alharer

Field Service Manager

HOBBS OCD

Schlumberger

Reservoir Development

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4301 SW 44th St

Oklahoma City, Oklahoma 73119 USA

Phone: (405) 682-2284

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JAN 06 2014

RECEIVED

Well Reference:

C-S29-T25S-R33E 330 FNL 1905 FWL

N 32.10793 W 103.59670

I, Sam Maxfield certify that; I am employed by Drilling & Measurements (formerly Anadrill), a division of Schlumberger Technology Corporation; that I did on the day(s) of October 14, 2013 through October 22, 2013, conduct or supervise the taking of the SlimPulse surveys from a depth of 0.00 feet to a depth of 14170.00 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 Cascade 29 Federal 2H Well (Original Hole) API No. 30-025-41240 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

Sam Maxfield

MWD

2013 Robert
on behalf of Sam Maxfield

Subscribed and Sworn to before me this 14 day of November (month) 2013 (yr)

My Commission expires:

September 5, 2016

Michelle Ellwood

Notary Public

Midland, Texas

(County State)



(signature)

13-Nov-2013

Client.....: Cimarex Energy Co.
Field.....: Wildcat Bone Spring

Well.....: Cascade 29 Federal 2H
API number.....: 30-025-41240
Engineer.....: S. Maxfield

Spud date.....: 3-Oct-13
Last survey date.....: 22-Oct-13
Total accepted surveys...: 71
MD of first survey.....: 9291.00 ft
MD of last survey.....: 14170.00 ft

County.....: Lea
State.....: New Mexico
Rig.....: Cactus 116

Latitude.....: 32° 6' 28.539" N
Longitude....: 103° 35' 48.102" W

----- Survey calculation methods-----

Method for positions...: Minimum curvature
Method for DLS.....: Lubinski

----- Depth reference -----

Permanent datum.....: MSL
Depth reference.....: Driller's Depth
GL above permanent.....: 3416.00 ft
KB above permanent.....: 3435.00 ft
DF above permanent.....: 3435.00 ft

----- 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.....: 403779.800 ft
Y.....: 769421.500 ft

Azimuth from Vsect Origin to target: 359.54 degrees

-----MWD Survey Reference Criteria-----

-----Run1-----

Geomag Model:	: BGGM 2012	Calculation Date:	: 13-Oct-2013
Location G	: 998.82 mgn	Tolerance G	: 2.50 mgn
Location B (Override):	48404.47 nT	Tolerance B	: 300.00 nT
Magnetic Dip (Override):	60.03 degrees	Tolerance Dip	: 0.45 degrees

-----Run2-----

Geomag Model:	: BGGM 2012	Calculation Date:	: 16-Oct-2013
Location G	: 998.82 mgn	Tolerance G	: 2.50 mgn
Location B (Override):	48404.47 nT	Tolerance B	: 300.00 nT
Magnetic Dip (Override):	60.03 degrees	Tolerance Dip	: 0.45 degrees

-----Run4-----

Geomag Model:	: BGGM 2012	Calculation Date:	: 18-Oct-2013
Location G	: 998.82 mgn	Tolerance G	: 2.50 mgn
Location B (Override):	48404.47 nT	Tolerance B	: 300.00 nT
Magnetic Dip (Override):	60.03 degrees	Tolerance Dip	: 0.45 degrees

-----Run5-----

Geomag Model:	: BGGM 2012	Calculation Date:	: 20-Oct-2013
Location G	: 998.82 mgn	Tolerance G	: 2.50 mgn
Location B (Override):	48404.47 nT	Tolerance B	: 300.00 nT
Magnetic Dip (Override):	60.03 degrees	Tolerance Dip	: 0.45 degrees

-----MWD Survey Azimuth Correction-----

-----Run1-----

Magnetic dec (+E/W-) : 7.5100 degrees(Override)
Grid convergence (+E/W-) : 0.3916 degrees
GTotal az corr (+E/W-) : 7.1184 degrees

-----Run2-----

Magnetic dec (+E/W-) : 7.5100 degrees(Override)

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Grid convergence (+E/W-) : 0.3916 degrees
GTotal az corr (+E/W-) : 7.1184 degrees

-----Run4-----
Magnetic dec (+E/W-) : 7.5100 degrees(Override)
Grid convergence (+E/W-) : 0.3916 degrees
GTotal az corr (+E/W-) : 7.1184 degrees

-----Run5-----
Magnetic dec (+E/W-) : 7.5100 degrees(Override)
Grid convergence (+E/W-) : 0.3916 degrees
GTotal az corr (+E/W-) : 7.1184 degrees

-----Survey Correction Index Description-----
0 = Uncorrected; 7 = Projection to Bit

===== Survey List =====													
Seq	MD (ft)	Incl (deg)	Azim (deg)	Course (ft)	TVD (ft)	V Sec (ft)	N/-S (ft)	E/-W (ft)	Closure (ft)	at Azi (deg)	DLS (deg/100ft)	Tool	Correction
1	0	0	0	-999.25	0	0	0	0	0	90.00		0 Other	0
2	202	1.41	115	202.00	201.98	1.16	-1.05	2.25	2.49	115.00		0.7 Other	0
3	323	1.58	110.21	121.00	322.94	2.51	-2.26	5.17	5.64	113.58		0.17 Other	0
4	438	1.58	112.72	115.00	437.89	3.82	-3.42	8.12	8.81	112.82		0.06 Other	0
5	553	1.41	113.03	115.00	552.86	5.13	-4.58	10.88	11.81	112.83		0.15 Other	0
6	645	1.1	110.21	92.00	644.83	5.97	-5.33	12.75	13.82	112.68		0.34 Other	0
7	824	0.7	130.69	179.00	823.81	7.4	-6.64	15.19	16.58	113.59		0.28 Other	0
8	923	0.22	113.11	99.00	922.81	7.9	-7.1	15.83	17.35	114.18		0.5 Other	0
9	1197	0.31	139.39	274.00	1196.81	8.72	-7.87	16.79	18.55	115.12		0.05 Other	0
10	1293	0.4	211.11	96.00	1292.8	9.2	-8.36	16.79	18.75	116.47		0.44 Other	0
11	1387	0.09	133.02	94.00	1386.8	9.52	-8.69	16.67	18.8	117.53		0.42 Other	0
12	1481	0.09	248.03	94.00	1480.8	9.6	-8.77	16.66	18.83	117.76		0.16 Other	0
13	1575	0.22	254	94.00	1574.8	9.67	-8.84	16.42	18.65	118.31		0.14 Other	0
14	1669	0.22	267.8	94.00	1668.8	9.7	-8.9	16.06	18.37	118.99		0.06 Other	0
15	1860	0.09	5.81	191.00	1859.8	9.55	-8.77	15.71	17.99	119.16		0.13 Other	0
16	1954	0.09	61.3	94.00	1953.8	9.45	-8.66	15.78	18	118.74		0.09 Other	0
17	2047	0.22	354.33	93.00	2046.8	9.24	-8.44	15.83	17.94	118.08		0.22 Other	0
18	2141	0.31	356.53	94.00	2140.8	8.8	-8.01	15.8	17.71	116.89		0.1 Other	0
19	2236	0.22	29.09	95.00	2235.8	8.39	-7.6	15.87	17.59	115.57		0.18 Other	0
20	2520	0.62	36.12	284.00	2519.79	6.73	-5.88	17.04	18.03	109.03		0.14 Other	0
21	2614	0.88	24.83	94.00	2613.78	5.7	-4.81	17.64	18.29	105.25		0.32 Other	0
22	2708	1.1	37.09	94.00	2707.77	4.37	-3.44	18.49	18.81	100.53		0.32 Other	0
23	2804	1.01	41.92	96.00	2803.75	3.06	-2.07	19.61	19.72	96.03		0.13 Other	0
24	2993	1.58	36.12	189.00	2992.7	-0.14	1.27	22.26	22.3	86.73		0.31 Other	0
25	3088	0.79	19.6	95.00	3087.68	-1.76	2.95	23.25	23.44	82.78		0.9 Other	0
26	3181	0.7	31.11	93.00	3180.67	-2.83	4.04	23.76	24.1	80.36		0.19 Other	0
27	3279	0.79	32.21	98.00	3278.67	-3.88	5.12	24.43	24.96	78.16		0.09 Other	0
28	3439	0.88	133.02	160.00	3438.66	-3.9	5.22	25.92	26.44	78.62		0.81 Other	0
29	3535	0.88	248.03	96.00	3534.65	-3.13	4.44	25.77	26.15	80.23		1.55 Other	0
30	3629	0.88	254	94.00	3628.64	-2.73	3.97	24.41	24.73	80.77		0.1 Other	0
31	3847	1.49	17.4	218.00	3846.61	-5.01	6.21	23.65	24.45	75.28		0.97 Other	0
32	3940	0.48	4	93.00	3939.6	-6.53	7.75	24.04	25.26	72.12		1.11 Other	0
33	4035	0.48	354.73	95.00	4034.6	-7.32	8.55	24.03	25.5	70.42		0.08 Other	0
34	4129	0.7	22.1	94.00	4128.59	-8.23	9.47	24.21	26	68.63		0.37 Other	0
35	4224	0.62	46.32	95.00	4223.58	-9.09	10.36	24.8	26.88	67.32		0.3 Other	0
36	4317	0.7	76.6	93.00	4316.58	-9.53	10.84	25.71	27.91	67.14		0.38 Other	0
37	4412	1.32	83.01	95.00	4411.56	-9.71	11.11	27.37	29.53	67.90		0.66 Other	0
38	4509	1.8	94.61	97.00	4508.53	-9.59	11.12	29.99	31.99	69.65		0.59 Other	0
39	4603	1.71	108.81	94.00	4602.48	-8.88	10.55	32.79	34.45	72.16		0.47 Other	0
40	4698	0.7	112.5	95.00	4697.46	-8.1	9.87	34.67	36.05	74.10		1.07 Other	0
41	4792	0.62	115.79	94.00	4791.46	-7.61	9.43	35.66	36.88	75.18		0.09 Other	0
42	4850	0.7	119.09	58.00	4849.45	-7.28	9.12	36.25	37.38	75.87		0.15 Other	0
43	4882	0.48	73.12	32.00	4881.45	-7.2	9.07	36.55	37.66	76.06		1.57 Other	0
44	4978	0.48	96.41	96.00	4977.45	-7.24	9.14	37.33	38.44	76.24		0.2 Other	0
45	5072	0.48	87.49	94.00	5071.44	-7.17	9.11	38.12	39.19	76.55		0.08 Other	0
46	5166	0.48	100.72	94.00	5165.44	-7.07	9.06	38.9	39.94	76.89		0.12 Other	0
47	5261	0.48	99.01	95.00	5260.44	-6.9	8.92	39.68	40.67	77.33		0.02 Other	0
48	5356	0.48	83.63	95.00	5355.43	-6.84	8.9	40.47	41.44	77.59		0.14 Other	0
49	5451	0.48	100.9	95.00	5450.43	-6.77	8.87	41.26	42.2	77.86		0.15 Other	0
50	5548	0.4	107.71	97.00	5547.43	-6.55	8.69	41.98	42.87	78.30		0.1 Other	0
51	5641	0.4	114.21	93.00	5640.43	-6.29	8.46	42.58	43.42	78.76		0.05 Other	0
52	5735	0.4	129.33	94.00	5734.42	-5.92	8.12	43.14	43.89	79.34		0.11 Other	0
53	5829	0.22	118.83	94.00	5828.42	-5.61	7.82	43.55	44.25	79.82		0.2 Other	0
54	5924	0.09	116.63	95.00	5923.42	-5.47	7.7	43.78	44.45	80.02		0.14 Other	0

Survey List													
Seq	MD (ft)	Incl (deg)	Azim (deg)	Course (ft)	TVD (ft)	V Sec (ft)	N/-S (ft)	E/-W (ft)	Closure (ft)	at Azi (deg)	DLS (deg/100ft)	Tool	Correction
55	6115	0.31	261.91	191.00	6114.42	-5.35	7.56	43.4	44.05	80.12	0.2	Other	0
56	6210	0.31	242.71	95.00	6209.42	-5.22	7.41	42.92	43.55	80.21	0.11	Other	0
57	6585	0.4	239.9	375.00	6584.41	-4.21	6.29	40.88	41.36	81.26	0.02	Other	0
58	6680	0.31	243.81	95.00	6679.41	-3.95	6.01	40.36	40.81	81.54	0.1	Other	0
59	6869	0.48	263.8	189.00	6868.41	-3.7	5.7	39.12	39.53	81.72	0.11	Other	0
60	6962	0.62	261.69	93.00	6961.4	-3.64	5.58	38.23	38.64	81.70	0.15	Other	0
61	7057	0.62	256.42	95.00	7056.4	-3.49	5.39	37.22	37.61	81.77	0.06	Other	0
62	7155	0.7	247.89	98.00	7154.39	-3.2	5.04	36.15	36.5	82.07	0.13	Other	0
63	7249	0.62	235.5	94.00	7248.38	-2.74	4.53	35.2	35.49	82.66	0.17	Other	0
64	7344	0.62	219.73	95.00	7343.38	-2.09	3.85	34.45	34.67	83.63	0.18	Other	0
65	7438	0.79	229.7	94.00	7437.37	-1.33	3.03	33.63	33.77	84.84	0.22	Other	0
66	7532	1.1	223.42	94.00	7531.36	-0.31	1.96	32.52	32.58	86.55	0.35	Other	0
67	7627	1.41	212.52	95.00	7626.33	1.27	0.31	31.26	31.26	89.43	0.41	Other	0
68	7723	0.88	208.83	96.00	7722.32	2.86	-1.33	30.27	30.3	92.51	0.56	Other	0
69	7817	0.79	209	94.00	7816.31	4.03	-2.53	29.61	29.72	94.88	0.1	Other	0
70	7911	1.01	192.52	94.00	7910.29	5.37	-3.9	29.12	29.38	97.64	0.36	Other	0
71	8005	1.01	170.81	94.00	8004.28	7	-5.53	29.07	29.59	100.77	0.4	Other	0
72	8289	1.58	172.4	284.00	8288.21	13.39	-11.88	29.99	32.25	111.62	0.2	Other	0
73	8478	1.01	140.62	189.00	8477.16	17.32	-15.75	31.39	35.12	116.65	0.47	Other	0
74	8572	1.01	134.52	94.00	8571.14	18.6	-16.97	32.5	36.67	117.57	0.11	Other	0
75	8667	1.19	143.61	95.00	8666.13	20.04	-18.36	33.69	38.36	118.59	0.26	Other	0
76	8761	1.1	146.29	94.00	8760.11	21.63	-19.89	34.77	40.05	119.78	0.11	Other	0
77	8856	1.1	151.61	95.00	8855.09	23.23	-21.45	35.71	41.65	121.00	0.11	Other	0
78	8954	1.32	152.31	98.00	8953.07	25.11	-23.28	36.68	43.44	122.40	0.22	Other	0
79	9049	1.41	178.72	95.00	9048.04	27.27	-25.42	37.21	45.06	124.33	0.66	Other	0
80	9143	1.32	179.03	94.00	9142.02	29.51	-27.66	37.26	46.4	126.59	0.1	Other	0
81	9238	1.58	193.62	95.00	9236.99	31.86	-30.02	36.97	47.62	129.08	0.47	Other	0
82	9291	2	193.08	53.00	9289.96	33.45	-31.63	36.59	48.36	130.85	0.79	SlimPulse	0
83	9354	4.59	172.14	63.00	9352.85	37.01	-35.2	36.68	50.84	133.82	4.46	SlimPulse	0
84	9385	9.16	163.16	31.00	9383.62	40.64	-38.79	37.57	54	135.92	15.1	SlimPulse	0
85	9416	14.91	157.81	31.00	9413.93	46.8	-44.85	39.79	59.95	138.42	18.88	SlimPulse	0
86	9448	18.72	152.72	32.00	9444.56	55.37	-53.22	43.7	68.86	140.61	12.74	SlimPulse	0
87	9479	22.35	148.06	31.00	9473.59	65.06	-62.65	49.1	79.6	141.91	12.86	SlimPulse	0
88	9511	26.21	146.99	32.00	9502.75	76.5	-73.74	56.17	92.7	142.70	12.14	SlimPulse	0
89	9543	29.1	148.02	32.00	9531.09	89.42	-86.27	64.14	107.51	143.37	9.14	SlimPulse	0
90	9574	31.94	147.99	31.00	9557.79	103.17	-99.62	72.48	123.2	143.96	9.18	SlimPulse	0
91	9606	35.56	148.24	32.00	9584.39	118.72	-114.72	81.87	140.94	144.49	11.29	SlimPulse	0
92	9637	38.85	147.56	31.00	9609.08	135.08	-130.59	91.84	159.65	144.88	10.71	SlimPulse	0
93	9669	41.8	145.73	32.00	9633.48	152.92	-147.88	103.23	180.34	145.08	9.91	SlimPulse	0
94	9700.28	44.95	145.19	31.28	9656.21	171.21	-165.57	115.41	201.82	145.12	10.15	SlimPulse	0
95	9732	47.9	145.24	31.72	9678.08	190.72	-184.44	128.52	224.8	145.13	9.31	SlimPulse	0
96	9763	50.44	144.75	31.00	9698.34	210.59	-203.65	141.97	248.25	145.12	8.27	SlimPulse	0
97	9795	52.7	145.69	32.00	9718.23	231.87	-224.24	156.27	273.32	145.13	7.44	SlimPulse	0
98	9826	53.37	148.05	31.00	9736.87	253.27	-244.98	169.8	298.07	145.27	6.45	SlimPulse	0
99	9857	53.86	152.17	31.00	9755.27	275.51	-266.61	182.23	322.94	145.65	10.81	SlimPulse	0
100	9888	55.28	156	31.00	9773.24	298.75	-289.33	193.26	347.94	146.26	11.06	SlimPulse	0
101	9920	57.23	158.36	32.00	9791.02	323.77	-313.85	203.57	374.09	147.03	8.64	SlimPulse	0
102	9952	59.3	161.33	32.00	9807.85	349.76	-339.4	212.94	400.67	147.90	10.2	SlimPulse	0
103	9983	63.55	164.46	31.00	9822.68	376.14	-365.41	220.93	427.01	148.84	16.32	SlimPulse	0
104	10015	67.02	168.07	32.00	9836.06	404.68	-393.64	227.82	454.81	149.94	14.92	SlimPulse	0
105	10046	69.11	170.99	31.00	9847.64	433.19	-421.91	233.04	481.99	151.09	11.04	SlimPulse	0
106	10078	72.75	173.53	32.00	9858.1	463.31	-451.87	237.1	510.3	152.31	13.63	SlimPulse	0
107	10110	78.41	175.86	32.00	9866.06	494.26	-482.72	239.96	539.07	153.57	19.04	SlimPulse	0
108	10141	83.9	177.46	31.00	9870.83	524.88	-513.29	241.74	567.36	154.78	18.43	SlimPulse	0
109	10173	88.34	178.66	32.00	9872.99	556.8	-545.19	242.82	596.81	155.99	14.37	SlimPulse	0
110	10205	89.85	180.27	32.00	9873.5	588.76	-577.18	243.12	626.29	157.16	6.9	SlimPulse	0
111	10268	90.89	179.83	63.00	9873.09	651.68	-640.18	243.06	684.77	159.21	1.8	SlimPulse	0
112	10362	90.79	181.59	94.00	9871.71	745.48	-734.16	241.9	772.98	161.76	1.87	SlimPulse	0
113	10457	90.14	181.29	95.00	9870.94	840.2	-829.12	239.52	863.03	163.89	0.76	SlimPulse	0
114	10552	90.72	181.02	95.00	9870.23	934.96	-924.1	237.61	954.16	165.58	0.68	SlimPulse	0
115	10647	90.28	181.49	95.00	9869.4	1029.7	-1019.07	235.52	1045.94	166.99	0.68	SlimPulse	0
116	10742	90.14	181.24	95.00	9869.06	1124.44	-1114.04	233.26	1138.2	168.17	0.31	SlimPulse	0
117	10837	90.21	180.51	95.00	9868.77	1219.23	-1209.03	231.81	1231.06	169.15	0.77	SlimPulse	0
118	10932	90.1	180.34	95.00	9868.52	1314.07	-1304.03	231.11	1324.35	169.95	0.21	SlimPulse	0
119	11026	90.1	180.21	94.00	9868.35	1407.92	-1398.03	230.66	1416.93	170.63	0.14	SlimPulse	0
120	11121	89.79	179.14	95.00	9868.43	1502.83	-1493.03	231.2	1510.82	171.20	1.17	SlimPulse	0
121	11217	90.48	179.62	96.00	9868.2	1598.75	-1589.02	232.23	1605.9	171.69	0.87	SlimPulse	0
122	11311	90.41	178.99	94.00	9867.47	1692.68	-1683.01	233.37	1699.11	172.11	0.67	SlimPulse	0
123	11406	90.79	178.45	95.00	9866.47	1787.63	-1777.98	235.49	1793.51	172.46	0.7	SlimPulse	0
124	11502	90.62	177.31	96.00	9865.29	1883.61	-1873.9	239.04	1889.09	172.73	1.2	SlimPulse	0
125	11596	90.28	175.86	94.00	9864.56	1977.6	-1967.73	244.64	1982.88	172.91	1.59	SlimPulse	0
126	11691	90.72	176.04	95.00	9863.73	2072.58	-2062.49	251.35	2077.75	173.05	0.51	SlimPulse	0
127	11785	90.38	175.91	94.00	9862.83	2166.56	-2156.25	257.94	2171.63	173.18	0.39	SlimPulse	0

Survey List													
Seq	MD (ft)	Incl (deg)	Azim (deg)	Course (ft)	TVD (ft)	V Sec (ft)	N/-S (ft)	E/-W (ft)	Closure (ft)	at Azi (deg)	DLS (deg/100ft)	Tool	Correction
128	11880	89.86	175.85	95.00	9862.63	2261.54	-2251.01	264.77	2266.53	173.29	0.55	SlimPulse	0
129	11975	89.35	174.48	95.00	9863.28	2356.48	-2345.67	272.77	2361.47	173.37	1.55	SlimPulse	0
130	12070	89.69	174.08	95.00	9864.08	2451.36	-2440.19	282.25	2456.46	173.40	0.56	SlimPulse	0
131	12164	89.83	173.1	94.00	9864.48	2545.18	-2533.6	292.75	2550.45	173.41	1.05	SlimPulse	0
132	12259	90.48	173	95.00	9864.22	2639.94	-2627.9	304.25	2645.45	173.40	0.7	SlimPulse	0
133	12355	90.83	172.84	96.00	9863.12	2735.68	-2723.16	316.08	2741.44	173.38	0.39	SlimPulse	0
134	12450	90.38	174.95	95.00	9862.13	2830.52	-2817.61	326.18	2836.43	173.40	2.27	SlimPulse	0
135	12545	90.58	179.69	95.00	9861.33	2925.49	-2912.48	330.62	2931.18	173.52	4.99	SlimPulse	0
136	12639	89.55	181.63	94.00	9861.22	3019.3	-3006.46	329.53	3024.47	173.74	2.34	SlimPulse	0
137	12733	87.42	181.87	94.00	9863.7	3112.96	-3100.38	326.66	3117.54	173.99	2.28	SlimPulse	0
138	12828	87.73	180.74	95.00	9867.72	3207.61	-3195.27	324.49	3211.71	174.20	1.23	SlimPulse	0
139	12923	88.18	180.35	95.00	9871.11	3302.38	-3290.21	323.59	3306.08	174.38	0.63	SlimPulse	0
140	13017	88.62	180.09	94.00	9873.73	3396.2	-3384.17	323.23	3399.57	174.54	0.55	SlimPulse	0
141	13112	88.9	179.92	95.00	9875.79	3491.06	-3479.15	323.22	3494.13	174.69	0.34	SlimPulse	0
142	13207	88.9	180.85	95.00	9877.61	3585.88	-3574.13	322.58	3588.65	174.84	0.97	SlimPulse	0
143	13302	89.28	182.04	95.00	9879.12	3680.6	-3669.08	320.19	3683.03	175.01	1.31	SlimPulse	0
144	13396	88.86	182.61	94.00	9880.64	3774.19	-3762.99	316.38	3776.27	175.19	0.76	SlimPulse	0
145	13491	89.83	183.53	95.00	9881.73	3868.67	-3857.85	311.29	3870.38	175.39	1.4	SlimPulse	0
146	13586	90.17	184.88	95.00	9881.73	3962.93	-3952.59	304.32	3964.29	175.60	1.47	SlimPulse	0
147	13680	90	185.57	94.00	9881.59	4055.99	-4046.2	295.76	4056.99	175.82	0.75	SlimPulse	0
148	13775	90.79	186.32	95.00	9880.93	4149.85	-4140.68	285.92	4150.54	176.05	1.15	SlimPulse	0
149	13870	90.31	186.55	95.00	9880.02	4243.59	-4235.08	275.27	4244.02	176.28	0.56	SlimPulse	0
150	13965	90.72	186.98	95.00	9879.16	4337.23	-4329.41	264.08	4337.46	176.51	0.63	SlimPulse	0
151	14060	90.58	187.77	95.00	9878.08	4430.7	-4423.62	251.89	4430.79	176.74	0.84	SlimPulse	0
152	14170	90.65	188.69	110.00	9876.89	4538.62	-4532.48	236.15	4538.63	177.02	0.84	SlimPulse	0
153	14248	90.65	188.69	78.00	9876	4615.03	-4609.58	224.36	4615.04	177.21	0	PROJ	0