

Reservoir Development

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



December 22, 2014

Cimarex
600 N MARIENFELD STREET SUITE 600
MIDLAND, TX 79701

NM OIL CONSERVATION
ARTESIA DISTRICT

JAN 29 2015

RECEIVED

Re:

Sec 35, T26S, R27E Eddy NM
N 32.00058 W 104.16499

CLIENT: Cimarex Energy Company of Co
WELL: Hornsby 35 Federal Com 3H ST01
FIELD: Wildcat
RIG: Cactus 112
COUNTY: Eddy
API NO: 30-015-42208-01
JOB NO: 14MLD0400

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>
De'Jon Douglas MWD	Hornsby 35 Federal Com 3H ST01 Side Track	9328.00 Ft to 16835.00 Ft	June 20, 2014 to August 5, 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

RD 1/30/2015
Accepted for record
NMOC

Reservoir Development

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



Well Reference:

Sec 35, T26S, R27E Eddy NM
N 32.00058 W 104.16499

I, De'Jon Douglas certify that; I am employed by PathFinder, a division of Schlumberger Technology Corporation; that I did on the day(s) of June 20, 2014 through August 05, 2014, conduct or supervise the taking of the SlimPulse surveys from a depth of 9328.00 feet to a depth of 16835.00 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 Company of Co for the Hornsby 35 Federal Com 3H ST01 Well (Side Track) API No. 30-015-42208-01 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
De'Jon Douglas
MWD

Subscribed and Sworn to before me this 30 day of December (month) 2014 (yr)

My Commission expires:

September 13, 2017

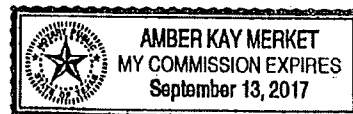
Amber Kay Merket

Notary Public

Midland County, Texas

(County State)

(signature)



SCHLUMBERGER
Survey Report

12-Jan-2015

Client..... Cimarex Energy Company of Co
Field..... Wildcat

Well..... Hornsby 35 Federal Com 1H STD1
API number..... 30 015-42208 01
Engineer..... D. Douglas

County..... Eddy
State..... New Mexico
Rig..... Cactus 112

Spud date..... 5-Jun-14
Last survey date..... 5-Aug-14
Total accepted surveys..... 111
MO of first survey..... 9328.00 ft
MO of last survey..... 16835.00 ft

Latitude..... 32° 0' 2.089" N
Longitude..... 104° 9' 53.988" 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..... 3274.00
KB above permanent..... 3798.00
DI above permanent..... 3298.00

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..... 593519.58 ft
Y..... 307991.26 ft

Azimuth from Vsect Origin to Target: 355.78 degrees

MWD Survey Reference Criteria

Run1..... Calculation Date: 19-Jun-2014
Location G..... 998.6847 mgn Tolerance G..... 2.50 mgn
Location B..... 48081.93 nT Tolerance B..... 300.00 nT
Magnetic Dip: 59.79 degrees Tolerance Dip: 0.45 degrees

Run2..... Calculation Date: 20-Jun-2014
Location G..... 998.6815 mgn Tolerance G..... 2.50 mgn
Location B..... 48081.93 nT Tolerance B..... 300.00 nT
Magnetic Dip: 59.79 degrees Tolerance Dip: 0.45 degrees

Run3..... Calculation Date: 26-Jun-2014
Location G..... 998.6815 mgn Tolerance G..... 2.50 mgn
Location B..... 48081.93 nT Tolerance B..... 300.00 nT
Magnetic Dip: 59.79 degrees Tolerance Dip: 0.45 degrees

Run4..... Calculation Date: 4-Jul-2014
Location G..... 998.6815 mgn Tolerance G..... 2.50 mgn
Location B..... 48081.93 nT Tolerance B..... 300.00 nT
Magnetic Dip: 59.79 degrees Tolerance Dip: 0.45 degrees

Run5..... Calculation Date: 8-Jul-2014
Location G..... 998.6815 mgn Tolerance G..... 2.50 mgn
Location B..... 48081.93 nT Tolerance B..... 300.00 nT
Magnetic Dip: 59.79 degrees Tolerance Dip: 0.45 degrees

Run6..... Calculation Date: 10-Jul-2014
Location G..... 998.6815 mgn Tolerance G..... 2.50 mgn
Location B..... 48081.93 nT Tolerance B..... 300.00 nT
Magnetic Dip: 59.79 degrees Tolerance Dip: 0.45 degrees

Run7..... Calculation Date: 15-Jul-2014
Location G..... 998.6815 mgn Tolerance G..... 2.50 mgn
Location B..... 48081.93 nT Tolerance B..... 300.00 nT
Magnetic Dip: 59.79 degrees Tolerance Dip: 0.45 degrees

Run8..... Calculation Date: 25-Jul-2014
Location G..... 998.6815 mgn Tolerance G..... 2.50 mgn
Location B..... 48081.93 nT Tolerance B..... 300.00 nT
Magnetic Dip: 59.79 degrees Tolerance Dip: 0.45 degrees

Run9..... Calculation Date: 1-Aug-2014
Location G..... 998.6815 mgn Tolerance G..... 2.50 mgn
Location B..... 48081.93 nT Tolerance B..... 300.00 nT
Magnetic Dip: 59.79 degrees Tolerance Dip: 0.45 degrees

BGGM Model: 2014

Run1.....
Magnetic dec (E/W)..... 7.637 degrees
Grid Corv (E/W)..... 0.08921 degrees
Total Azim Corr (E/W)..... 7.54779 degrees

Run2.....
Magnetic dec (E/W)..... 7.637 degrees
Grid Corv (E/W)..... 0.08921 degrees
Total Azim Corr (E/W)..... 7.54779 degrees

Run3.....
Magnetic dec (E/W)..... 7.637 degrees
Grid Corv (E/W)..... 0.08921 degrees
Total Azim Corr (E/W)..... 7.54779 degrees

Run4.....
Magnetic dec (E/W)..... 7.637 degrees
Grid Corv (E/W)..... 0.08921 degrees
Total Azim Corr (E/W)..... 7.54779 degrees

Run5.....
Magnetic dec (E/W)..... 7.637 degrees
Grid Corv (E/W)..... 0.08921 degrees
Total Azim Corr (E/W)..... 7.54779 degrees

Run6
Magnetic dec (+E/W)..... 7.637 degrees
Grid Conv (+E/W)..... 0.08921 degrees
Total Azim Corr (+E/W)..... 7.54779 degrees

Run7
Magnetic dec (+E/W)..... 7.637 degrees
Grid Conv (+E/W)..... 0.08921 degrees
Total Azim Corr (+E/W)..... 7.54779 degrees

Run8
Magnetic dec (+E/W)..... 7.637 degrees
Grid Conv (+E/W)..... 0.08921 degrees
Total Azim Corr (+E/W)..... 7.54779 degrees

Run9
Magnetic dec (+E/W)..... 7.637 degrees
Grid Conv (+E/W)..... 0.08921 degrees
Total Azim Corr (+E/W)..... 7.54779 degrees

Survey Correction Index Description

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

Survey Log														Correction	
Seq	MD (ft)	Incl (deg)	Azim (deg)	Course (ft)	TVD (ft)	V Sec (ft)	N/S (ft)	E/W (ft)	Closure (ft)	at Azl (deg)	MS (deg/100ft)	Tool	Correction		
1	0.00	0.00	0.00	-999.25	0.00	0.00	0.00	0.00	0.00	90.00	0.00	TIP	0		
2	358.00	1.58	288.53	398.00	397.94	7.17	1.74	-5.20	5.48732	288.53	0.40	Other	0		
3	491.00	0.09	6.54	93.00	490.94	2.74	2.22	-6.41	6.78508	289.13	1.68	Other	0		
4	585.00	0.22	323.42	94.00	584.94	2.97	2.44	-6.51	6.95245	290.57	0.18	Other	0		
5	682.00	0.09	102.55	97.00	681.94	3.11	2.58	-6.55	7.03414	291.47	0.30	Other	0		
6	767.00	0.00	7.50	85.00	766.94	3.09	2.56	-6.48	6.9684	291.56	0.11	Other	0		
7	861.00	0.00	118.72	94.00	860.94	3.09	2.56	-6.48	6.9684	291.56	0.00	Other	0		
8	953.00	0.62	340.95	92.00	952.94	3.57	3.03	-6.64	7.30217	294.53	0.67	Other	0		
9	1043.00	0.00	141.35	90.00	1042.93	4.04	3.49	-6.80	7.64597	297.17	0.69	Other	0		
10	1132.00	0.09	252.54	89.00	1131.93	4.02	3.47	-6.87	7.69588	296.80	0.10	Other	0		
11	1224.00	0.00	296.01	92.00	1223.93	4.01	3.45	-6.94	7.74778	296.43	0.10	Other	0		
12	1320.00	0.00	7.50	96.00	1319.93	4.01	3.45	-6.94	7.74778	296.43	0.00	Other	0		
13	1419.00	0.09	246.11	99.00	1418.93	3.98	3.42	-7.01	7.79767	295.99	0.09	Other	0		
14	1513.00	0.09	140.34	94.00	1512.91	1.90	3.33	-7.03	7.77847	295.35	0.15	Other	0		
15	1608.00	0.09	5.52	95.00	1607.93	3.91	3.35	-6.97	7.73626	295.64	0.17	Other	0		
16	1707.00	0.00	9.43	99.00	1706.93	3.99	3.42	-6.97	7.76334	296.18	0.09	Other	0		
17	1799.00	0.00	7.05	99.00	1798.93	3.99	3.42	-6.97	7.76334	296.18	0.00	Other	0		
18	1896.00	0.09	184.33	97.00	1895.93	3.91	3.35	-6.97	7.73532	295.65	0.09	Other	0		
19	1991.00	0.00	30.39	95.00	1990.93	3.84	3.27	-6.98	7.7085	295.14	0.09	Other	0		
20	2087.00	0.22	60.45	91.00	2086.93	3.91	3.36	-6.83	7.60885	296.21	0.24	Other	0		
21	2177.00	0.00	207.05	95.00	2176.93	3.94	3.39	-6.77	7.57124	296.63	0.61	Other	0		
22	2238.00	0.09	207.05	121.00	2237.93	3.86	3.31	-6.81	7.57251	295.91	0.07	Other	0		
23	2266.00	0.09	292.75	28.00	2265.93	3.85	3.30	-6.84	7.59496	295.74	0.44	Other	0		
24	2362.00	0.09	204.63	96.00	2361.93	3.82	3.26	-6.94	7.66921	295.14	0.13	Other	0		
25	2456.00	0.22	205.12	94.00	2455.93	3.60	3.03	-7.05	7.67269	293.25	0.14	Other	0		
26	2551.00	0.40	273.67	95.00	2550.93	3.22	2.62	-7.36	7.80969	289.62	0.21	Other	0		
27	2645.00	0.40	242.12	94.00	2644.93	2.87	2.23	-7.87	8.18273	285.83	0.14	Other	0		
28	2740.00	1.71	279.03	95.00	2739.93	3.08	2.30	-9.57	9.834	283.52	1.49	Other	0		
29	2836.00	1.71	289.05	96.00	2835.87	4.00	2.99	-12.33	12.69167	283.63	0.31	Other	0		
30	2930.00	0.31	293.42	94.00	2929.85	4.43	3.30	-13.86	14.35089	283.38	1.66	Other	0		
31	3076.00	1.32	152.34	96.00	3075.84	3.27	2.16	-13.56	13.73081	279.07	1.36	Other	0		
32	3174.00	1.32	161.04	98.00	3173.82	1.14	0.10	-12.67	12.66886	270.44	0.20	Other	0		
33	3277.00	1.10	172.25	93.00	3276.80	0.79	-1.80	-12.20	12.33232	261.60	0.35	Other	0		
34	3311.00	0.70	160.25	94.00	3310.29	-2.25	-3.24	-11.88	12.31606	254.77	0.47	Other	0		
35	3406.00	0.62	130.61	95.00	3405.78	-3.17	-4.12	-11.30	12.02475	249.98	0.36	Other	0		
36	3504.00	0.48	109.05	98.00	3503.77	-3.72	-4.60	-10.51	11.48884	246.38	0.25	Other	0		
37	3598.00	0.70	113.45	94.00	3597.77	-4.15	-4.95	-9.61	10.81015	242.73	0.74	Other	0		
38	3692.00	0.70	111.82	94.00	3691.76	-4.57	-5.39	-8.55	10.1088	237.75	0.02	Other	0		
39	3787.00	0.48	109.45	95.00	3786.76	-5.10	-5.74	-7.64	9.55377	233.05	0.23	Other	0		
40	3881.00	0.40	158.36	94.00	3880.76	-5.57	-6.18	-7.14	8.44452	229.14	0.40	Other	0		
41	3975.00	0.70	174.93	94.00	3974.75	-6.46	-7.06	-6.97	9.91873	224.65	0.36	Other	0		
42	4071.00	0.48	126.06	96.00	4070.75	-7.31	-7.88	-6.59	10.27258	219.93	0.55	Other	0		
43	4165.00	0.70	114.24	94.00	4164.74	-7.84	-8.34	-5.75	10.13485	214.58	0.27	Other	0		
44	4268.00	0.48	128.93	103.00	4267.74	-8.45	-8.88	-4.85	10.11662	208.63	0.26	Other	0		
45	4354.00	0.40	148.34	86.00	4353.73	-8.97	-9.37	-4.41	10.35418	205.23	0.19	Other	0		
46	4447.00	0.48	160.52	95.00	4446.73	-9.59	-9.96	-3.99	10.72426	201.82	0.11	Other	0		
47	4545.00	0.48	173.83	96.00	4544.72	-10.23	-10.67	-3.69	11.38441	199.07	0.29	Other	0		
48	4640.00	0.62	192.86	95.00	4639.72	-11.21	-11.56	-3.76	12.1584	198.01	0.24	Other	0		
49	4735.00	0.70	105.76	95.00	4734.72	-11.91	-12.22	-3.32	12.66301	195.18	0.96	Other	0		
50	4830.00	0.09	144.25	95.00	4829.72	-12.17	-12.44	-2.71	12.73191	192.30	0.67	Other	0		
51	4925.00	0.40	51.84	95.00	4924.72	-12.06	-12.30	-2.41	12.57889	191.09	0.44	Other	0		
52	5021.00	0.62	49.42	96.00	5020.71	-11.57	-11.75	-1.75	11.87995	188.48	0.23	Other	0		
53	5116.00	0.70	41.73	95.00	5115.70	-10.87	-10.98	-0.97	11.0299	185.07	0.13	Other	0		
54	5211.00	0.48	81.54	95.00	5210.70	-10.44	-10.49	-0.19	10.49293	181.06	0.48	Other	0		
55	5306.00	0.31	87.52	95.00	5305.70	-10.42	-10.42	0.46	10.43145	177.50	0.18	Other	0		
56	5403.00	0.48	111.56	97.00	5402.70	-10.61	-10.56	1.10	10.61613	174.04	0.24	Other	0		
57	5497.00	0.70	30.83	94.00	5496.69	-10.32	-10.21	1.76	10.36099	170.24	0.83	Other	0		
58	5592.00	0.79	31.62	95.00	5591.68	-9.32	-9.16	2.40	9.46167	165.33	0.10	Other	0		
59	5689.00	0.48	344.34	97.00	5688.60	-8.38	-8.19	2.64	8.60855	162.16	0.60	Other	0		
60	5782.00	0.48	295.73	93.00	5781.68	-7.80	-7.65	2.18	7.95525	164.08	0.42	Other	0		
61	5879.00	0.39	285.05	97.00	5878.67	-7.37	-7.30	1.17	7.39333	170.89	0.34	Other	0		
62	5969.00	2.11	127.86	90.00	5968.64	-5.69	-5.74	0.31	5.74443	184.10	1.80	Other	0		
63	6063.00	2.29	341.74	94.00	6062.57	-2.33	-2.49	1.82	1.08181	216.19	0.60	Other	0		
64	6159.00	2.59	327.55	96.00	6158.49	1.46	1.16	-3.58	3.76879	288.00	0.70	Other	0		
65	6255.00	1.89	338.36	96.00	6254.41	4.89	4.47	-5.33	6.95553	309.95	0.85	Other	0		
66	6350.00	1.80	346.36	95.00	6349.36	7.86	7.37	-6.26	9.67773	319.64	0.79	Other	0		
67	6443.00	1.49	23.62	93.00	6442.33	10.37	9.90	-6.12	11.6396	328.27	1.17	Other	0		
68	6539.00	1.71	2.42	96.00	6538.29	12.89	12.47	-5.56	13.65788	335.97	0.65	Other	0		
69	6634.00	1.58	27.54	95.00	6633.25	15.40	15.05	-4.90	15.87811	341.98	0.76	Other	0		
70	6729.00	1.58	94.42	95.00	6728.27	16.30	16.11	-2.98	16.38643	348.51	1.81	Other	0		
71	6824.00	1.71	70.95	95.00	6823.19	16.45	16.47	-0.34	16.47762	358.82	0.72	Other	0		
72	6918.00	1.10	72.36	94.00	6917.16	17.00	17.21	1.85	17.30421	6.13	0.65	Other	0		
73	7012.00	1.19	76.05	94.00	7011.14	17.35	17.71	3.65	18.00708	11.66	0.12	Other	0		
74	7109.00	0.88	93.15	97.00	7108.12	17.41	17.97	5.38	18.70506	16.40	0.45	Other	0		
75	7203.00	0.67	115.03	95.00	7203.11	17.06	17.66	6.57	18.84095	20.71	0.45	Other	0		
76	7300.00	0.40	130.05	96.00	7299.11	16.67	17.33	7.36	18.82635	23.00	0.24	Other	0		
77	7395.00	0.27	123.11	95.00	7394.11	16.43	17.12	7.82	18.86246	24.66	0.11	Other	0		
78	7489.00	0.79	108.75	94.00	7488.11	16.05	16.81	8.55	18.87777	27.05	0.58	Other	0		
79	7583.00	1.01	142.54	94.00	7582.09	15.99	15.95	9.70	18.86636	31.12	0.60	Other	0		
80	7678.00	1.10	176.33	95.00	7677.08	14.88	14.37	10.27	17.66445	35.55	0.65	Other	0		
81	7774.00	1.01	184.33	96.00	7773.06	13.72	12.61	10.27	16.29791	39.16	0.18	Other	0		
82	7870.00	1.49	185.05	96.00	7869.04	9.85	10.52	10.09	14.80662	43.87	0.50	Other	0		
83	7965.00	2.29	177.19	95.00	7963.99	6.54	7.39	10.08	12.50449	53.75	0.88	Other	0		
84	8061.00	2.29	135.86	92.00	8059.94	3.90	4.82	10.90	11.91393	66.16	1.71	Other	0		
85	8157.00	0.40	155.03	95.00	8156.94	3.19	4.16	11.95	12.05639	70.70	1.26	Other	0		
86	8258.00	0.40	151.45	95.00	8256.93	2.61	3.57	12.10	13.05771	60.14	0.59	Other	0		
87	8343.00	1.89	128.34	95.00	8341.91	5.36	6.31	11.33	12.969	60.88	1.16	Other	0		
88															

90	8629.00	1.32	308.13	96.00	8677.87	11.08	11.64	6.32	13.24824	28.51	0.21	Other	0
91	8722.00	1.19	297.75	93.00	8720.79	12.33	12.75	4.68	13.56602	19.94	0.20	Other	0
92	8817.00	1.01	279.34	95.00	8815.78	13.06	13.35	2.93	13.66527	12.37	0.41	Other	0
93	8913.00	1.19	270.34	96.00	8911.76	13.36	13.49	1.09	13.53579	4.64	0.26	Other	0
94	9006.00	1.01	257.23	93.00	9005.74	13.26	13.25	-0.65	13.76302	357.18	0.42	Other	0
95	9101.00	1.10	248.14	95.00	9099.71	12.80	12.65	-2.30	12.85842	349.72	0.12	Other	0
96	9198.00	0.88	239.44	97.00	9196.71	12.20	11.93	-3.80	12.51746	342.32	0.27	Other	0
97	9280.00	1.10	230.34	92.00	9278.70	11.47	11.10	-4.95	12.15887	335.98	0.33	Other	0
98	9328.00	1.36	217.85	48.00	9316.69	10.76	10.31	-5.61	11.75838	331.49	0.94	SlmPulse	0
99	9360.00	1.61	205.65	32.00	9358.68	10.07	9.61	-6.01	11.32493	327.97	0.99	SlmPulse	0
100	9392.00	1.90	221.86	32.00	9390.66	9.33	8.82	-6.57	11.00161	323.31	1.95	SlmPulse	0
101	9424.00	4.37	248.54	32.00	9422.61	8.63	7.99	-8.08	11.36313	314.70	8.64	SlmPulse	0
102	9456.00	8.45	260.25	32.00	9454.41	8.07	7.15	-11.53	13.56705	301.80	13.32	SlmPulse	0
103	9487.00	12.42	260.06	31.00	9484.89	7.57	6.19	-17.06	18.14952	289.93	12.81	SlmPulse	0
104	9519.00	15.62	259.36	32.00	9515.93	6.81	4.80	-24.69	25.14901	280.99	9.99	SlmPulse	0
105	9550.00	18.91	262.10	31.00	9545.51	6.10	3.34	-33.77	33.92957	275.64	10.94	SlmPulse	0
106	9582.00	22.20	266.55	32.00	9575.87	5.39	2.26	-43.94	44.99628	272.88	11.39	SlmPulse	0
107	9614.00	25.78	271.43	32.00	9604.73	4.63	2.07	-57.94	57.97364	272.04	12.78	SlmPulse	0
108	9645.00	30.00	275.97	31.00	9632.12	3.89	3.04	-72.39	72.45614	272.41	15.24	SlmPulse	0
109	9677.00	34.14	280.13	32.00	9659.74	3.18	2.46	-89.20	89.36517	273.50	14.66	SlmPulse	0
110	9709.00	37.66	287.77	32.00	9685.15	17.94	9.32	-107.60	107.98102	274.84	11.68	SlmPulse	0
111	9741.00	41.94	287.25	32.00	9709.74	24.80	14.37	-127.38	128.18456	276.44	16.66	SlmPulse	0
112	9772.00	44.69	290.91	31.00	9732.30	33.40	21.33	-147.46	148.99417	278.23	12.02	SlmPulse	0
113	9804.00	46.81	295.44	32.00	9754.63	44.13	30.36	-168.51	171.22676	280.21	12.10	SlmPulse	0
114	9835.00	48.85	301.07	31.00	9775.45	50.63	41.74	-188.73	191.18481	282.33	14.88	SlmPulse	0
115	9867.00	51.85	305.50	32.00	9795.87	71.80	54.76	-209.31	216.35524	284.66	14.27	SlmPulse	0
116	9899.00	54.65	309.04	32.00	9815.02	88.96	70.30	-229.69	240.21078	287.02	12.47	SlmPulse	0
117	9930.00	58.33	310.99	31.00	9832.14	107.16	86.92	-249.48	264.18499	289.21	12.97	SlmPulse	0
118	9962.00	60.79	313.03	32.00	9848.35	176.91	105.03	-270.29	289.97835	291.23	7.70	Other	11
119	10008.00	59.86	314.48	106.00	9900.84	194.76	167.53	-337.90	377.1531	296.37	2.95	SlmPulse	0
120	10086.00	59.09	312.82	18.00	9909.98	206.35	178.23	-349.12	391.98441	297.04	9.01	SlmPulse	0
121	10116.00	58.98	312.75	30.00	9915.42	275.32	195.70	-368.00	416.80734	298.00	0.42	SlmPulse	0
122	10164.00	58.62	313.07	48.00	9950.29	275.65	223.65	-398.07	456.60054	299.33	0.95	SlmPulse	1
123	10196.00	59.88	314.26	32.00	9966.65	276.21	242.64	-417.97	489.29144	300.14	5.07	SlmPulse	1
124	10227.00	62.96	317.99	31.00	9981.48	297.32	262.27	-436.82	509.50391	300.98	14.50	SlmPulse	1
125	10259.00	64.19	320.55	32.00	9995.72	320.50	283.98	-455.51	536.78173	301.94	8.15	SlmPulse	1
126	10291.00	65.57	321.48	32.00	10009.31	344.45	306.51	-473.73	564.2417	302.90	5.04	SlmPulse	1
127	10323.00	67.58	324.07	32.00	10022.03	369.21	329.89	-491.49	591.93188	303.87	9.73	SlmPulse	1
128	10354.00	69.99	326.21	31.00	10033.25	394.20	353.60	-508.00	618.94761	304.84	10.09	SlmPulse	1
129	10386.00	71.71	328.58	32.00	10043.75	420.92	379.06	-524.28	646.96192	305.87	8.82	SlmPulse	1
130	10417.00	73.75	332.84	31.00	10052.95	447.83	404.88	-538.76	673.91061	306.92	14.68	SlmPulse	1
131	10449.00	75.16	336.89	32.00	10061.48	476.74	432.79	-551.85	701.31925	308.11	13.20	SlmPulse	1
132	10481.00	75.94	340.11	32.00	10069.41	506.42	461.64	-563.18	728.21091	309.34	10.71	SlmPulse	1
133	10513.00	77.35	343.00	32.00	10076.80	536.67	491.19	-573.01	754.71814	310.60	9.60	SlmPulse	1
134	10544.00	79.17	345.83	31.00	10083.10	566.48	520.42	-581.16	780.11565	311.84	10.64	SlmPulse	1
135	10576.00	80.92	348.71	32.00	10088.63	597.68	551.16	-588.10	806.00071	313.14	10.42	SlmPulse	1
136	10608.00	83.73	353.13	32.00	10092.90	629.29	582.46	-593.10	831.28742	314.48	16.26	SlmPulse	1
137	10638.00	83.73	354.90	30.00	10096.18	659.10	612.12	-596.71	854.49335	315.75	5.85	SlmPulse	0
138	10670.00	84.04	356.49	32.00	10099.59	690.92	643.83	-598.88	879.29812	317.07	2.08	SlmPulse	0
139	10702.00	84.49	358.77	32.00	10103.07	722.73	675.56	-601.04	904.23028	318.34	4.18	SlmPulse	0
140	10734.00	82.59	358.77	31.00	10106.82	751.47	706.31	-602.25	928.21264	319.55	7.17	SlmPulse	0
141	10765.00	81.89	364.84	32.00	10111.15	785.08	738.01	-601.26	952.6294	320.78	6.78	SlmPulse	0
142	10797.00	81.12	365.33	32.00	10115.87	816.53	769.65	-601.43	976.7644	321.99	5.81	SlmPulse	0
143	10828.00	81.24	366.33	31.00	10120.63	846.90	800.25	-599.98	1000.1834	323.14	1.06	SlmPulse	0
144	10860.00	82.09	366.33	32.00	10125.27	878.28	831.87	-598.37	1024.7184	324.27	2.69	SlmPulse	0
145	10892.00	83.14	368.33	32.00	10129.38	909.73	863.56	-596.72	1049.6725	325.36	3.28	SlmPulse	0
146	10924.00	83.70	368.33	32.00	10133.96	940.49	895.08	-591.35	1125.8814	326.32	4.83	SlmPulse	0
147	10956.00	84.73	371.33	32.00	10140.64	972.99	926.89	-586.67	1205.3041	330.87	1.47	SlmPulse	0
148	11017.00	88.73	381.33	32.00	10151.95	1147.80	1147.80	-583.82	1287.7476	333.04	1.25	SlmPulse	0
149	11127.00	88.56	391.33	32.00	10164.42	1284.42	1284.42	-581.91	1372.2472	334.91	0.38	SlmPulse	0
150	11158.00	89.04	391.33	32.00	10171.33	1381.90	1381.90	-580.00	1458.9593	336.58	0.59	SlmPulse	0
151	11190.00	89.59	391.33	32.00	10178.33	1476.34	1476.34	-577.55	1545.6378	338.06	0.70	SlmPulse	0
152	11222.00	89.45	391.33	32.00	10185.33	1570.77	1570.77	-575.05	1633.2745	339.38	0.36	SlmPulse	0
153	11254.00	89.31	391.33	32.00	10192.33	1665.24	1665.24	-572.86	1721.7081	340.57	0.16	SlmPulse	0
154	11286.00	89.17	391.33	32.00	10199.33	1759.73	1759.73	-570.87	1810.9172	341.62	0.34	SlmPulse	0
155	11318.00	89.55	391.33	32.00	10206.33	1854.21	1854.21	-568.93	1900.707	342.58	0.11	SlmPulse	0
156	11350.00	89.66	391.33	32.00	10213.33	1948.70	1948.70	-566.80	1990.9222	343.46	0.18	SlmPulse	0
157	11382.00	89.55	391.33	32.00	10220.33	2043.19	2043.19	-564.70	2082.5214	344.27	0.27	SlmPulse	0
158	11414.00	89.69	391.33	32.00	10227.33	2137.68	2137.68	-562.68	2174.6888	344.98	0.21	SlmPulse	0
159	11446.00	89.88	391.33	32.00	10234.33	2232.17	2232.17	-560.65	2266.8562	345.69	0.18	SlmPulse	0
160	11478.00	89.66	391.33	32.00	10241.33	2326.66	2326.66	-558.62	2359.0236	346.40	0.16	SlmPulse	0
161	11510.00	89.11	391.33	32.00	10248.33	2421.15	2421.15	-556.59	2451.1910	347.11	0.13	SlmPulse	0
162	11542.00	89.35	391.33	32.00	10255.33	2515.64	2515.64	-554.56	2543.3584	347.82	0.10	SlmPulse	0
163	11574.00	89.61	391.33	32.00	10262.33	2610.13	2610.13	-552.53	2635.5258	348.53	0.07	SlmPulse	0
164	11606.00	89.80	391.33	32.00	10269.33	2704.62	2704.62	-550.50	2727.6932	349.24	0.04	SlmPulse	0
165	11638.00	89.78	391.33	32.00	10276.33	2799.11	2799.11	-548.47	2819.8606	349.95	0.01	SlmPulse	0
166	11670.00	89.78	391.33	32.00	10283.33	2893.60	2893.60	-546.44	2912.0280	350.66	0.01	SlmPulse	0
167	11702.00	89.88	391.33	32.00	10290.33	2988.09	2988.09	-544.41	3004.1954	351.37	0.01	SlmPulse	0
168	11734.00	89.66	391.33	32.00	10297.33	3082.58	3082.58	-542.38	3096.3628	352.08	0.01	SlmPulse	0
169	11766.00	89.34	391.33	32.00	10304.33	3177.07	3177.07	-540.35	3188.5302	352.79	0.01	SlmPulse	0
170	11798.00	89.17	391.33	32.00	10311.33	3271.56	3271.56	-538.32	3280.6976	353.50	0.01	SlmPulse	0
171	11830.00	89.24	391.33	32.00	10318.33	3366.05	3366.05	-536.29	3372.8650	354.21	0.01	SlmPulse	0
172	11862.00	88.52	391.33	32.00	10325.33	346							