

District I
1625 N French Dr., Hobbs, NM 88240

District II
1301 W. Grand Avenue, Artesia, NM 88210

District III
1000 Rio Brazos Rd., Aztec, NM 87410

District IV
1220 S St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised October 12, 2005
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☒ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT "As Drilled"

¹ API Number 3004534985	² Pool Code 97232 / 72319 / 71599	³ Pool Name BASIN MANCOS / BLANCO MESAVERDE / BASIN DAKOTA	
⁴ Property Code 17033	⁵ Property Name ROSA UNIT		⁶ Well Number 167D
⁷ GRID No. 120782	⁸ Operator Name WILLIAMS PRODUCTION COMPANY		⁹ Elevation 6262'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	8	31N	6W		1965	NORTH	5	EAST	SAN JUAN

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	8	31N	6W		2452	SOUTH	683	EAST	SAN JUAN

¹² Dedicated Acres 320.0 Acres - (E/2)	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No RCVD AUG 14 '09 OIL CON. DIV.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

DIST. 3

8/19/09	LEASE FEE	LEASE SF-078765	¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom-hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. Signature: <u>Heather Riley</u> Date: <u>8/13/09</u> Printed Name: <u>Heather Riley</u>
	LEASE FEE	¹⁸ SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. Date Revised: AUGUST 12, 2009 Date of Survey: APRIL 19, 2009 Signature and Seal of Professional Surveyor: JASON C. EDWARDS Certificate Number 15269	



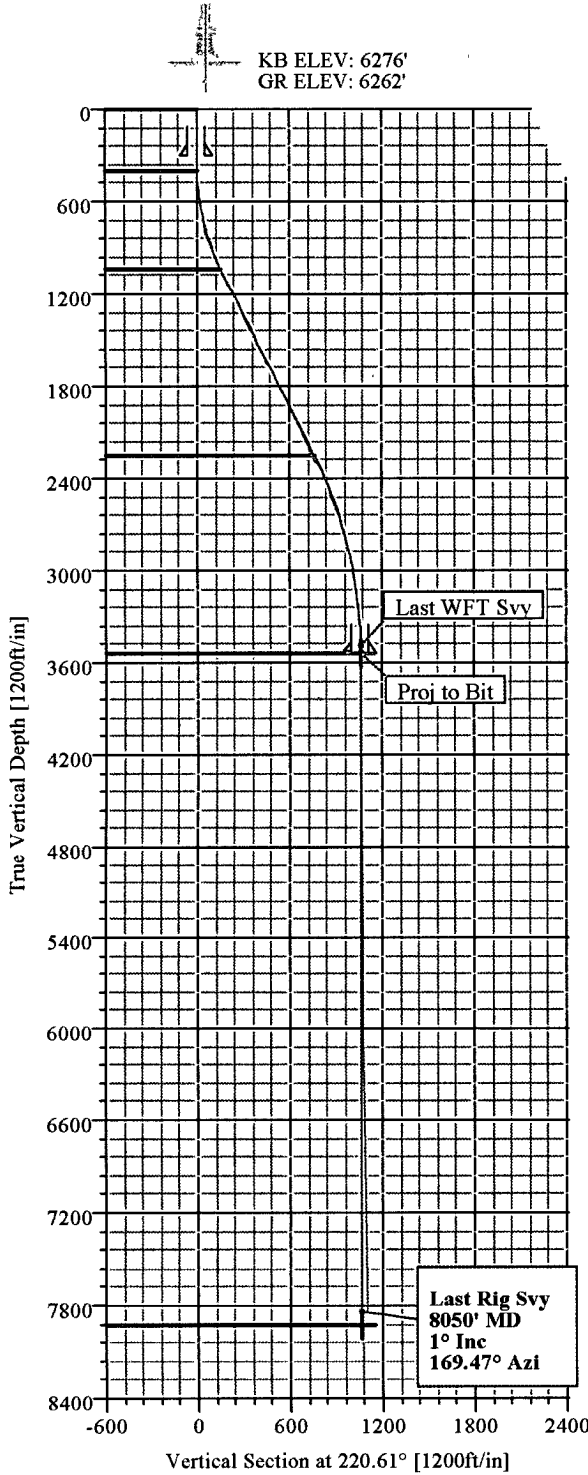
ROSA UNIT #167D
SAN JUAN CO., NEW MEXICO

API
3004534985

SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	220.61	0.00	0.00	0.00	0.00	0.00	0.00	
2	400.00	0.00	220.61	400.00	0.00	0.00	0.00	0.00	0.00	
3	1067.44	26.70	220.61	1043.55	-115.94	-99.39	4.00	220.61	152.71	
4	2416.63	26.70	220.61	2248.90	-576.15	-493.91	0.00	0.00	758.87	
5	3751.51	0.00	220.61	3536.00	-808.02	-692.69	2.00	180.00	1064.29	Int. Csg. Pt.
6	8136.51	0.00	220.61	7921.00	-808.02	-692.69	0.00	220.61	1064.29	PBHL

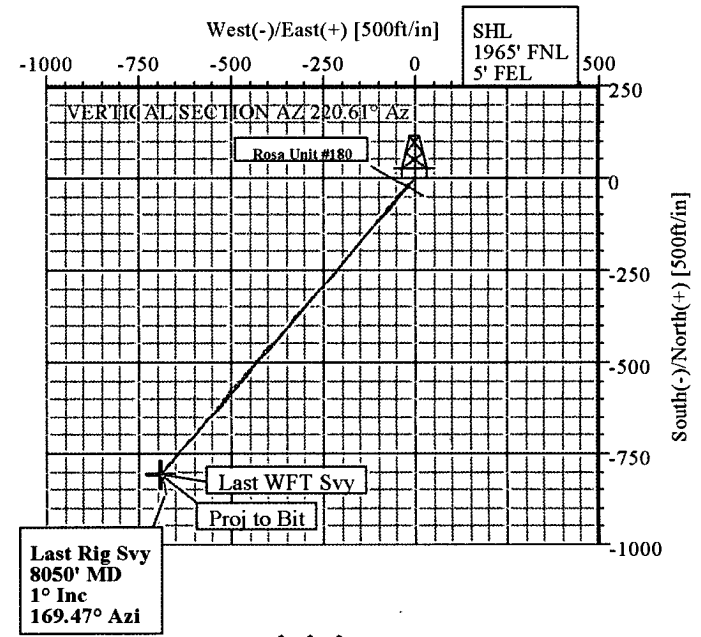
WELL DETAILS							
Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
#167D	0.00	0.00	2152920.59	2827196.80	36°54'57.310N	107°28'38.030W	N/A

TARGET DETAILS								
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
Int. Csg. Pt.	3536.00	-808.02	-692.69	2152109.99	2826507.13	36°54'49.320N	107°28'46.560W	Point
PBHL	7921.00	-808.02	-692.69	2152109.99	2826507.13	36°54'49.320N	107°28'46.560W	Point



Azimuths to True North
Magnetic North 10.04°
Magnetic Field
Strength 51158nT
Dip Angle 63.73°
Date 5/20/2009
Model igrf200510
Total Correction to True North: 10.04°

RCVD AUG 14 '09
OIL CONS. DIV.
DIST. 3



CASING DETAILS				
No	TVD	MD	Name	Sze
1	300.00	300.00	10 3/4"	10.750
2	3536.00	3751.51	7 5/8"	7.625

Plan: Plan #1 (#167D/1)
Created By: Lindsey Maddux Date: 8/4/2009



Weatherford International, Inc.

Survey Report



Weatherford

Company: WILLIAMS PRODUCTION	Date: 8/4/2009	Time: 08:59:32	Page: 1
Field: SAN JUAN CO. NM (NAD83)	Co-ordinate(NE) Reference: Well: #167D, True North		
Site: Rosa Unit #167D	Vertical (TVD) Reference: SITE 6276.0		
Well: #167D	Section (VS) Reference: Well (0.00N,0.00E,220.61Azi)		
Wellpath: 1	Survey Calculation Method: Minimum Curvature	Db: Sybase	

Field: SAN JUAN CO. NM (NAD83)

Map System: US State Plane Coordinate System 1983
Geo Datum: GRS 1980
Sys Datum: Mean Sea Level

Map Zone: New Mexico, Western Zone
Coordinate System: Well Centre
Geomagnetic Model: igrf200510

Site: Rosa Unit #167D

1965' FNL & 5' FEL

Site Position:	Northing: 2152920.59 ft	Latitude: 36 54 57.310 N
From: Geographic	Easting: 2827196.80 ft	Longitude: 107 28 38.030 W
Position Uncertainty: 0.00 ft		North Reference: True
Ground Level: 6262.00 ft		Grid Convergence: 0.21 deg

Well: #167D

Slot Name:

Well Position: +N/-S 0.00 ft	Northing: 2152920.59 ft	Latitude: 36 54 57.310 N
+E/-W 0.00 ft	Easting: 2827196.80 ft	Longitude: 107 28 38.030 W
Position Uncertainty: 0.00 ft		

Wellpath: 1

Current Datum: SITE	Height 6276.00 ft	Drilled From: Surface
Magnetic Data: 5/20/2009		Tie-on Depth: 0.00 ft
Field Strength: 51158 nT		Above System Datum: Mean Sea Level
Vertical Section: Depth From (TVD)		Declination: 10.04 deg
ft	+N/-S ft	Mag Dip Angle: 63.73 deg
		+E/-W ft
		Direction deg
0.00	0.00	220.61

Survey: WFT SVY

Start Date: 7/21/2009

Company: Weatherford International, Inc
Tool: MWD;MWD - Standard

Engineer: Lindsey Maddux
Tied-to: From Surface

Survey: WFT SVY

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	MWD
359.00	0.31	123.92	359.00	-0.54	0.81	-0.11	0.09	0.09	0.00	MWD
389.00	0.52	220.62	389.00	-0.69	0.78	0.01	2.12	0.70	322.33	MWD
419.00	1.31	231.04	418.99	-1.01	0.43	0.49	2.68	2.63	34.73	MWD
450.00	2.94	236.79	449.97	-1.67	-0.51	1.60	5.30	5.26	18.55	MWD
481.00	4.63	233.92	480.90	-2.84	-2.19	3.58	5.48	5.45	-9.26	MWD
542.00	7.75	228.17	541.54	-7.03	-7.24	10.05	5.21	5.11	-9.43	MWD
573.00	9.06	227.29	572.21	-10.08	-10.59	14.55	4.25	4.23	-2.84	MWD
603.00	10.06	227.54	601.79	-13.45	-14.26	19.50	3.34	3.33	0.83	MWD
633.00	11.06	227.42	631.28	-17.17	-18.32	24.96	3.33	3.33	-0.40	MWD
664.00	11.63	227.04	661.68	-21.31	-22.79	31.01	1.85	1.84	-1.23	MWD
693.00	12.31	224.79	690.04	-25.50	-27.11	37.00	2.84	2.34	-7.76	MWD
723.00	12.88	222.67	719.32	-30.23	-31.63	43.53	2.45	1.90	-7.07	MWD
753.00	14.13	220.92	748.49	-35.45	-36.29	50.54	4.38	4.17	-5.83	MWD
783.00	15.06	221.17	777.52	-41.15	-41.26	58.10	3.11	3.10	0.83	MWD
814.00	16.31	220.92	807.37	-47.47	-46.76	66.48	4.04	4.03	-0.81	MWD
845.00	17.44	220.54	837.03	-54.29	-52.63	75.48	3.66	3.65	-1.23	MWD
875.00	18.31	218.79	865.59	-61.38	-58.51	84.68	3.41	2.90	-5.83	MWD
906.00	19.44	217.79	894.92	-69.26	-64.72	94.70	3.79	3.65	-3.23	MWD
937.00	20.67	218.45	924.04	-77.62	-71.28	105.32	4.03	3.97	2.13	MWD
966.00	21.75	220.17	951.07	-85.73	-77.93	115.81	4.30	3.72	5.93	MWD
997.00	23.06	220.29	979.73	-94.75	-85.56	127.62	4.23	4.23	0.39	MWD
1028.00	24.25	219.54	1008.13	-104.29	-93.54	140.06	3.96	3.84	-2.42	MWD
1059.00	24.56	219.29	1036.36	-114.19	-101.67	152.87	1.05	1.00	-0.81	MWD



Weatherford International, Inc.

Survey Report



Weatherford

Company: WILLIAMS PRODUCTION
Field: SAN JUAN CO. NM (NAD83)
Site: Rosa Unit #167D
Well: #167D
Wellpath: 1

Date: 8/4/2009 Time: 08:59:32 Page: 2
Co-ordinate(NE) Reference: Well: #167D, True North
Vertical (TVD) Reference: SITE 6276.0
Section (VS) Reference: Well (0.00N,0.00E,220.61Azi)
Survey Calculation Method: Minimum Curvature Db: Sybase

Survey: WFT SVY

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
1089.00	25.19	218.17	1063.57	-124.03	-109.57	165.48	2.62	2.10	-3.73	MWD
1119.00	25.50	218.79	1090.69	-134.09	-117.56	178.31	1.36	1.03	2.07	MWD
1179.00	27.19	218.29	1144.45	-154.91	-134.14	204.92	2.84	2.82	-0.83	MWD
1211.00	27.69	218.29	1172.85	-166.49	-143.28	219.65	1.56	1.56	0.00	MWD
1274.00	26.75	219.17	1228.88	-188.97	-161.31	248.45	1.62	-1.49	1.40	MWD
1337.00	25.94	219.92	1285.33	-210.53	-179.10	276.41	1.39	-1.29	1.19	MWD
1368.00	26.13	219.42	1313.19	-221.00	-187.79	290.01	0.94	0.61	-1.61	MWD
1431.00	25.38	221.29	1369.93	-241.87	-205.51	317.38	1.76	-1.19	2.97	MWD
1491.00	25.00	222.54	1424.22	-260.87	-222.57	342.91	1.09	-0.63	2.08	MWD
1554.00	25.75	223.42	1481.14	-280.62	-240.97	369.89	1.33	1.19	1.40	MWD
1585.00	26.00	223.54	1509.04	-290.43	-250.28	383.40	0.82	0.81	0.39	MWD
1616.00	27.13	223.67	1536.76	-300.47	-259.84	397.24	3.65	3.65	0.42	MWD
1647.00	28.06	223.17	1564.24	-310.90	-269.71	411.58	3.09	3.00	-1.61	MWD
1678.00	27.75	223.29	1591.63	-321.47	-279.65	426.08	1.02	-1.00	0.39	MWD
1741.00	28.42	220.38	1647.22	-343.57	-299.42	455.72	2.42	1.06	-4.62	MWD
1773.00	28.25	219.79	1675.38	-355.19	-309.20	470.91	1.02	-0.53	-1.84	MWD
1803.00	28.06	219.67	1701.83	-366.08	-318.25	485.06	0.66	-0.63	-0.40	MWD
1834.00	28.31	219.29	1729.16	-377.38	-327.56	499.70	0.99	0.81	-1.23	MWD
1896.00	27.31	221.04	1784.00	-399.49	-346.21	528.62	2.08	-1.61	2.82	MWD
1957.00	26.38	220.79	1838.42	-420.30	-364.25	556.17	1.54	-1.52	-0.41	MWD
2020.00	25.75	221.29	1895.01	-441.18	-382.42	583.85	1.06	-1.00	0.79	MWD
2080.00	25.25	221.67	1949.17	-460.53	-399.53	609.68	0.88	-0.83	0.63	MWD
2113.00	25.69	221.67	1978.96	-471.13	-408.97	623.86	1.33	1.33	0.00	MWD
2145.00	26.13	221.92	2007.75	-481.56	-418.29	637.84	1.42	1.37	0.78	MWD
2206.00	25.38	223.04	2062.69	-501.11	-436.18	664.33	1.47	-1.23	1.84	MWD
2237.00	25.48	222.00	2090.68	-510.92	-445.18	677.64	1.48	0.32	-3.35	MWD
2269.00	25.19	220.79	2119.60	-521.19	-454.23	691.33	1.85	-0.91	-3.78	MWD
2300.00	25.13	219.67	2147.66	-531.25	-462.75	704.51	1.55	-0.19	-3.61	MWD
2331.00	24.81	220.92	2175.77	-541.23	-471.21	717.59	1.99	-1.03	4.03	MWD
2362.00	24.13	221.79	2203.98	-550.87	-479.69	730.43	2.48	-2.19	2.81	MWD
2393.00	24.44	221.42	2232.24	-560.41	-488.16	743.18	1.11	1.00	-1.19	MWD
2422.00	25.00	219.92	2258.58	-569.61	-496.06	755.31	2.90	1.93	-5.17	MWD
2453.00	25.56	219.04	2286.61	-579.82	-504.47	768.54	2.18	1.81	-2.84	MWD
2483.00	25.56	218.29	2313.68	-589.93	-512.56	781.48	1.08	0.00	-2.50	MWD
2512.00	25.49	217.19	2339.85	-599.81	-520.21	793.96	1.65	-0.24	-3.79	MWD
2543.00	24.88	216.54	2367.90	-610.36	-528.12	807.12	2.16	-1.97	-2.10	MWD
2575.00	24.00	215.67	2397.03	-621.06	-535.93	820.32	2.97	-2.75	-2.72	MWD
2605.00	23.63	217.29	2424.48	-630.80	-543.13	832.40	2.50	-1.23	5.40	MWD
2636.00	23.06	219.42	2452.94	-640.43	-550.75	844.67	3.29	-1.84	6.87	MWD
2667.00	22.69	219.04	2481.50	-649.77	-558.37	856.72	1.29	-1.19	-1.23	MWD
2697.00	22.25	218.42	2509.22	-658.71	-565.54	868.18	1.67	-1.47	-2.07	MWD
2728.00	21.54	218.14	2537.99	-667.79	-572.70	879.73	2.31	-2.29	-0.90	MWD
2759.00	20.69	220.04	2566.91	-676.45	-579.74	890.89	3.52	-2.74	6.13	MWD
2789.00	20.19	222.17	2595.02	-684.35	-586.63	901.37	2.99	-1.67	7.10	MWD
2819.00	19.31	222.04	2623.25	-691.87	-593.42	911.50	2.94	-2.93	-0.43	MWD
2851.00	18.69	221.04	2653.51	-699.67	-600.33	921.92	2.19	-1.94	-3.12	MWD
2882.00	17.94	219.79	2682.94	-707.08	-606.65	931.66	2.73	-2.42	-4.03	MWD
2912.00	17.25	218.42	2711.54	-714.12	-612.37	940.72	2.68	-2.30	-4.57	MWD
2943.00	16.44	218.29	2741.21	-721.16	-617.95	949.70	2.62	-2.61	-0.42	MWD
2973.00	15.75	219.04	2770.03	-727.66	-623.14	958.01	2.40	-2.30	2.50	MWD
3004.00	14.94	219.79	2799.92	-733.99	-628.35	966.21	2.69	-2.61	2.42	MWD
3033.00	14.38	221.17	2827.98	-739.58	-633.11	973.55	2.28	-1.93	4.76	MWD
3064.00	13.69	220.54	2858.05	-745.26	-638.03	981.07	2.28	-2.23	-2.03	MWD



Weatherford International, Inc.

Survey Report



Weatherford

Company: WILLIAMS PRODUCTION	Date: 8/4/2009	Time: 08:59:32	Page: 3
Field: SAN JUAN CO. NM (NAD83)	Co-ordinate(NE) Reference: Well: #167D, True North		
Site: Rosa Unit #167D	Vertical (TVD) Reference: SITE 6276.0		
Well: #167D	Section (VS) Reference: Well (0.00N,0.00E,220.61Azi)		
Wellpath: 1	Survey Calculation Method: Minimum Curvature	Db: Sybase	

Survey: WFT SVY

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
3093.00	12.69	219.29	2886.29	-750.34	-642.28	987.69	3.59	-3.45	-4.31	MWD
3124.00	12.31	217.67	2916.55	-755.59	-646.45	994.39	1.67	-1.23	-5.23	MWD
3156.00	11.63	219.04	2947.86	-760.79	-650.57	1001.02	2.30	-2.12	4.28	MWD
3186.00	10.81	221.17	2977.28	-765.26	-654.33	1006.86	3.06	-2.73	7.10	MWD
3218.00	9.88	221.29	3008.76	-769.58	-658.11	1012.60	2.91	-2.91	0.37	MWD
3249.00	9.50	221.54	3039.32	-773.49	-661.56	1017.82	1.23	-1.23	0.81	MWD
3280.00	9.38	220.79	3069.90	-777.32	-664.91	1022.91	0.55	-0.39	-2.42	MWD
3312.00	9.38	220.42	3101.47	-781.28	-668.31	1028.12	0.19	0.00	-1.16	MWD
3343.00	9.13	220.92	3132.07	-785.06	-671.55	1033.11	0.85	-0.81	1.61	MWD
3373.00	8.75	222.29	3161.71	-788.55	-674.65	1037.77	1.45	-1.27	4.57	MWD
3403.00	8.13	222.29	3191.38	-791.81	-677.61	1042.17	2.07	-2.07	0.00	MWD
3433.00	6.94	220.67	3221.12	-794.75	-680.22	1046.10	4.03	-3.97	-5.40	MWD
3464.00	5.69	221.54	3251.93	-797.32	-682.46	1049.51	4.04	-4.03	2.81	MWD
3495.00	4.60	223.53	3282.81	-799.37	-684.34	1052.29	3.56	-3.52	6.42	MWD
3526.00	3.38	224.04	3313.73	-800.93	-685.83	1054.44	3.94	-3.94	1.65	MWD
3555.00	2.69	227.54	3342.69	-802.01	-686.92	1055.97	2.46	-2.38	12.07	MWD
3586.00	2.06	226.04	3373.66	-802.88	-687.86	1057.25	2.04	-2.03	-4.84	MWD
3617.00	1.56	221.42	3404.65	-803.59	-688.54	1058.23	1.68	-1.61	-14.90	MWD
3646.00	1.31	210.79	3433.64	-804.17	-688.97	1058.95	1.26	-0.86	-36.66	MWD
3676.00	0.75	185.42	3463.63	-804.66	-689.17	1059.45	2.36	-1.87	-84.57	MWD
3707.00	0.57	169.47	3494.63	-805.01	-689.16	1059.71	0.82	-0.58	-51.45	Last WFT Svy
3756.00	0.57	169.47	3543.63	-805.49	-689.07	1060.01	0.00	0.00	0.00	Proj to Bit
8050.00	1.00	169.47	7837.22	-863.33	-678.32	1096.93	0.01	0.01	0.00	Last Rig Svy

Annotation

MD ft	TVD ft	
3707.00	3494.63	Last WFT Svy
3756.00	3543.63	Proj to Bit
8050.00	7837.22	Last Rig Svy