



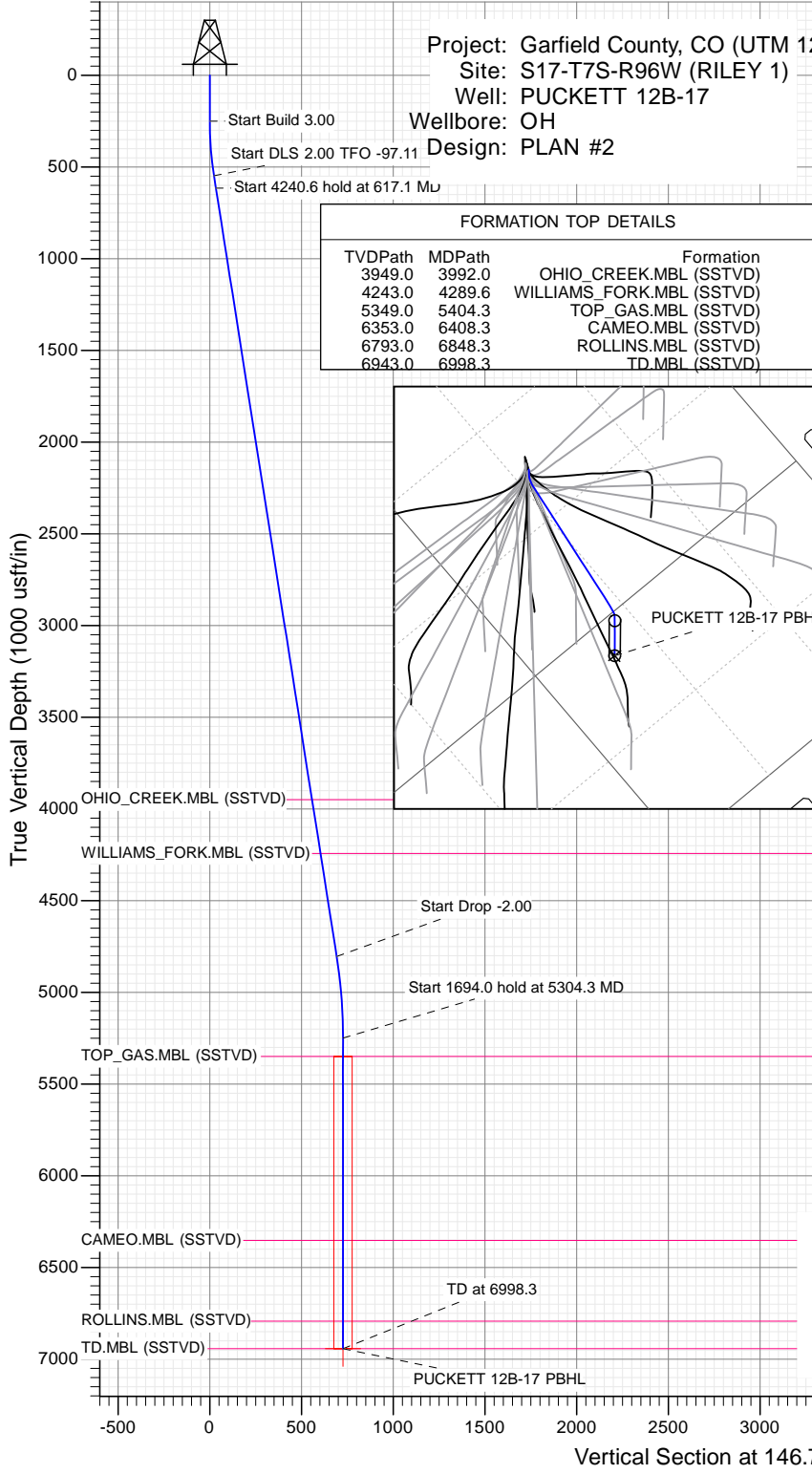
SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	250.0	0.00	0.00	250.0	0.0	0.0	0.00	0.00	0.0	
3	550.0	9.00	155.00	548.8	-21.3	9.9	3.00	155.00	23.3	
4	617.1	8.93	146.40	615.0	-30.4	15.0	2.00	-97.11	33.7	
5	4857.6	8.93	146.40	4804.2	-578.8	379.5	0.00	0.00	692.1	
6	5304.3	0.00	0.00	5249.0	-607.8	398.7	2.00	180.00	726.9	
7	6998.3	0.00	0.00	6943.0	-607.8	398.7	0.00	0.00	726.9	PUCKETT 12B-17 PBHL

Project: Garfield County, CO (UTM 12
 Site: S17-T7S-R96W (RILEY 1)
 Well: PUCKETT 12B-17
 Wellbore: OH
 Design: PLAN #2

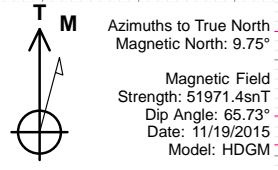
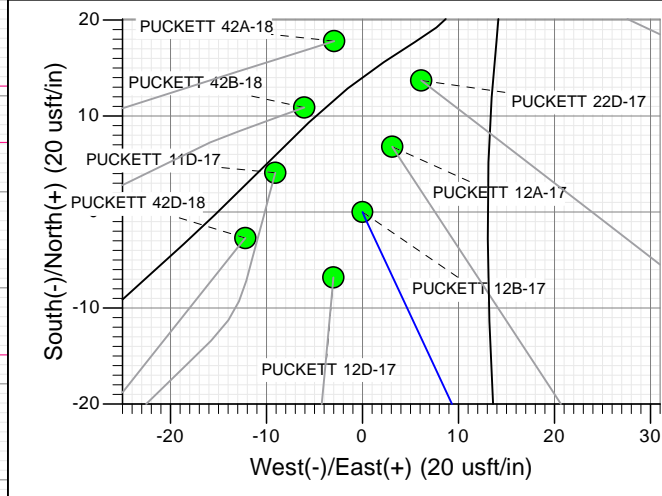
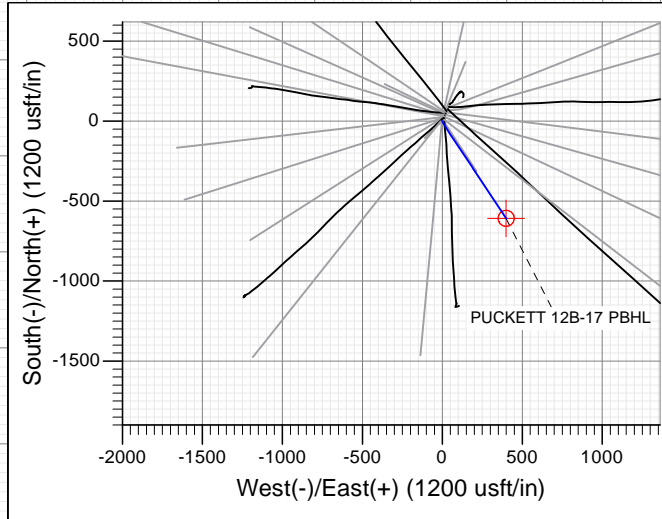
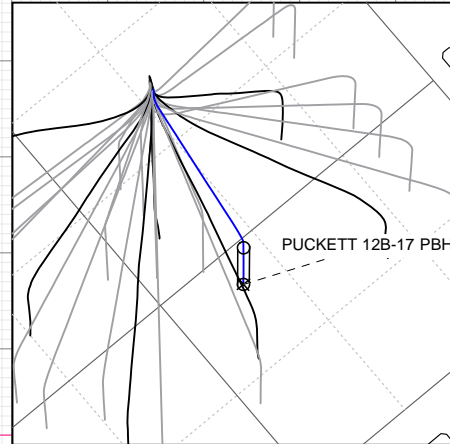
PLAN #2
 PUCKETT 12B-17
 15XXX; LR
 KB @ 6764.0usft
 Ground Level @ 6734.0
 NAD 1927 - Western US
 Well PUCKETT 12B-17, True North

Name	Type	Target	No Target (Freehand)	Azimuth	Origin	Type	N/S	E/W	From	TVD	+N/-S	+E/-W	Latitude	Longitude
PUCKETT 12B-17 PBHL	TD			146.73	Slot		0.0	0.0	0.0	6943.0	-607.8	398.7	39.440158	-108.136612



FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3949.0	3992.0	OHIO_CREEK.MBL (SSTVD)
4243.0	4289.6	WILLIAMS_FORK.MBL (SSTVD)
5349.0	5404.3	TOP_GAS.MBL (SSTVD)
6353.0	6408.3	CAMEO.MBL (SSTVD)
6793.0	6848.3	ROLLINS.MBL (SSTVD)
6943.0	6998.3	TD.MBL (SSTVD)



CASING DETAILS

No casing data is available

Azimuths to True North
 Magnetic North: 9.75°
 Magnetic Field
 Strength: 51971.4snT
 Dip Angle: 65.73°
 Date: 11/19/2015
 Model: HDGM



WELL DETAILS: PUCKETT 12B-17

Ground Level: 6734.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	14335631.60	2448490.10	39.441826	-108.138023

Planning Report

Database: USA EDM 5000 Multi Users DB	Local Co-ordinate Reference: Well PUCKETT 12B-17
Company: Caerus Oil & Gas	TVD Reference: KB @ 6764.0usft
Project: Garfield County, CO (UTM 12N)	MD Reference: KB @ 6764.0usft
Site: S17-T7S-R96W (RILEY 1)	North Reference: True
Well: PUCKETT 12B-17	Survey Calculation Method: Minimum Curvature
Wellbore: OH	
Design: PLAN #2	

Project Garfield County, CO (UTM 12N)			
Map System: Universal Transverse Mercator (US Survey Feet)	System Datum: Mean Sea Level		
Geo Datum: NAD 1927 - Western US			
Map Zone: Zone 12N (114 W to 108 W)			

Site S17-T7S-R96W (RILEY 1)			
Site Position:	Northing: 14,335,697.50 usft	Latitude: 39.442005	
From: Map	Easting: 2,448,508.30 usft	Longitude: -108.137952	
Position Uncertainty: 0.0 usft	Slot Radius: 13-3/16"	Grid Convergence: 1.82 °	

Well PUCKETT 12B-17					
Well Position	+N/-S 0.0 usft	Northing: 14,335,631.60 usft	Latitude: 39.441826		
	+E/-W 0.0 usft	Easting: 2,448,490.10 usft	Longitude: -108.138023		
Position Uncertainty	0.0 usft	Wellhead Elevation: 0.0 usft	Ground Level: 6,734.0 usft		

Wellbore OH					
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	11/19/2015	9.75	65.73	51,971

Design PLAN #2				
Audit Notes:				
Version:	Phase: PLAN	Tie On Depth: 0.0		
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	146.73

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
250.0	0.00	0.00	250.0	0.0	0.0	0.00	0.00	0.00	0.00	
550.0	9.00	155.00	548.8	-21.3	9.9	3.00	3.00	0.00	155.00	
617.1	8.93	146.40	615.0	-30.4	15.0	2.00	-0.10	-12.83	-97.11	
4,857.6	8.93	146.40	4,804.2	-578.8	379.5	0.00	0.00	0.00	0.00	
5,304.3	0.00	0.00	5,249.0	-607.8	398.7	2.00	-2.00	0.00	180.00	
6,998.3	0.00	0.00	6,943.0	-607.8	398.7	0.00	0.00	0.00	0.00	PUCKETT 12B-17 PE

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 12B-17
Company:	Caerus Oil & Gas	TVD Reference:	KB @ 6764.0usft
Project:	Garfield County, CO (UTM 12N)	MD Reference:	KB @ 6764.0usft
Site:	S17-T7S-R96W (RILEY 1)	North Reference:	True
Well:	PUCKETT 12B-17	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #2		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100u)	Comments / Formations
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	
250.0	0.00	0.00	250.0	0.0	0.0	0.0	0.00	0.00	Start Build 3.00
300.0	1.50	155.00	300.0	-0.6	0.3	0.6	3.00	3.00	
400.0	4.50	155.00	399.8	-5.3	2.5	5.8	3.00	3.00	
500.0	7.50	155.00	499.3	-14.8	6.9	16.2	3.00	3.00	
550.0	9.00	155.00	548.8	-21.3	9.9	23.3	3.00	3.00	Start DLS 2.00 TFO -97.11
600.0	8.93	148.60	598.2	-28.2	13.6	31.0	2.00	-0.14	
617.1	8.93	146.40	615.0	-30.4	15.0	33.7	2.00	0.01	Start 4240.6 hold at 617.1 MD
700.0	8.93	146.40	696.9	-41.1	22.2	46.5	0.00	0.00	
800.0	8.93	146.40	795.7	-54.1	30.8	62.1	0.00	0.00	
900.0	8.93	146.40	894.5	-67.0	39.4	77.6	0.00	0.00	
1,000.0	8.93	146.40	993.3	-79.9	47.9	93.1	0.00	0.00	
1,100.0	8.93	146.40	1,092.1	-92.9	56.5	108.7	0.00	0.00	
1,200.0	8.93	146.40	1,190.9	-105.8	65.1	124.2	0.00	0.00	
1,300.0	8.93	146.40	1,289.7	-118.7	73.7	139.7	0.00	0.00	
1,400.0	8.93	146.40	1,388.5	-131.7	82.3	155.2	0.00	0.00	
1,500.0	8.93	146.40	1,487.2	-144.6	90.9	170.8	0.00	0.00	
1,600.0	8.93	146.40	1,586.0	-157.5	99.5	186.3	0.00	0.00	
1,700.0	8.93	146.40	1,684.8	-170.5	108.1	201.8	0.00	0.00	
1,800.0	8.93	146.40	1,783.6	-183.4	116.7	217.3	0.00	0.00	
1,900.0	8.93	146.40	1,882.4	-196.3	125.3	232.9	0.00	0.00	
2,000.0	8.93	146.40	1,981.2	-209.3	133.9	248.4	0.00	0.00	
2,100.0	8.93	146.40	2,080.0	-222.2	142.5	263.9	0.00	0.00	
2,200.0	8.93	146.40	2,178.8	-235.1	151.1	279.5	0.00	0.00	
2,300.0	8.93	146.40	2,277.5	-248.1	159.7	295.0	0.00	0.00	
2,400.0	8.93	146.40	2,376.3	-261.0	168.3	310.5	0.00	0.00	
2,500.0	8.93	146.40	2,475.1	-273.9	176.9	326.0	0.00	0.00	
2,600.0	8.93	146.40	2,573.9	-286.8	185.5	341.6	0.00	0.00	
2,700.0	8.93	146.40	2,672.7	-299.8	194.0	357.1	0.00	0.00	
2,800.0	8.93	146.40	2,771.5	-312.7	202.6	372.6	0.00	0.00	
2,900.0	8.93	146.40	2,870.3	-325.6	211.2	388.2	0.00	0.00	
3,000.0	8.93	146.40	2,969.0	-338.6	219.8	403.7	0.00	0.00	
3,100.0	8.93	146.40	3,067.8	-351.5	228.4	419.2	0.00	0.00	
3,200.0	8.93	146.40	3,166.6	-364.4	237.0	434.7	0.00	0.00	
3,300.0	8.93	146.40	3,265.4	-377.4	245.6	450.3	0.00	0.00	
3,400.0	8.93	146.40	3,364.2	-390.3	254.2	465.8	0.00	0.00	
3,500.0	8.93	146.40	3,463.0	-403.2	262.8	481.3	0.00	0.00	
3,600.0	8.93	146.40	3,561.8	-416.2	271.4	496.8	0.00	0.00	
3,700.0	8.93	146.40	3,660.6	-429.1	280.0	512.4	0.00	0.00	
3,800.0	8.93	146.40	3,759.3	-442.0	288.6	527.9	0.00	0.00	
3,900.0	8.93	146.40	3,858.1	-455.0	297.2	543.4	0.00	0.00	
3,992.0	8.93	146.40	3,949.0	-466.9	305.1	557.7	0.00	0.00	OHIO_CREEK.MBL (SSTVD)
4,000.0	8.93	146.40	3,956.9	-467.9	305.8	559.0	0.00	0.00	
4,100.0	8.93	146.40	4,055.7	-480.8	314.4	574.5	0.00	0.00	
4,200.0	8.93	146.40	4,154.5	-493.8	323.0	590.0	0.00	0.00	
4,289.6	8.93	146.40	4,243.0	-505.4	330.7	603.9	0.00	0.00	WILLIAMS_FORK.MBL (SSTVD)
4,300.0	8.93	146.40	4,253.3	-506.7	331.6	605.5	0.00	0.00	
4,400.0	8.93	146.40	4,352.1	-519.6	340.1	621.1	0.00	0.00	
4,500.0	8.93	146.40	4,450.9	-532.6	348.7	636.6	0.00	0.00	
4,600.0	8.93	146.40	4,549.6	-545.5	357.3	652.1	0.00	0.00	

Planning Report

Database: USA EDM 5000 Multi Users DB	Local Co-ordinate Reference: Well PUCKETT 12B-17
Company: Caerus Oil & Gas	TVD Reference: KB @ 6764.0usft
Project: Garfield County, CO (UTM 12N)	MD Reference: KB @ 6764.0usft
Site: S17-T7S-R96W (RILEY 1)	North Reference: True
Well: PUCKETT 12B-17	Survey Calculation Method: Minimum Curvature
Wellbore: OH	
Design: PLAN #2	

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100u)	Comments / Formations
4,700.0	8.93	146.40	4,648.4	-558.4	365.9	667.6	0.00	0.00	
4,800.0	8.93	146.40	4,747.2	-571.4	374.5	683.2	0.00	0.00	
4,857.6	8.93	146.40	4,804.2	-578.8	379.5	692.1	0.00	0.00	Start Drop -2.00
4,900.0	8.09	146.40	4,846.0	-584.0	382.9	698.4	2.00	-2.00	
5,000.0	6.09	146.40	4,945.3	-594.3	389.8	710.7	2.00	-2.00	
5,100.0	4.09	146.40	5,044.9	-601.7	394.7	719.6	2.00	-2.00	
5,200.0	2.09	146.40	5,144.7	-606.2	397.7	725.0	2.00	-2.00	
5,300.0	0.09	146.40	5,244.7	-607.8	398.7	726.9	2.00	-2.00	
5,304.3	0.00	0.00	5,249.0	-607.8	398.7	726.9	2.00	-2.00	Start 1694.0 hold at 5304.3 MD
5,400.0	0.00	0.00	5,344.7	-607.8	398.7	726.9	0.00	0.00	
5,404.3	0.00	0.00	5,349.0	-607.8	398.7	726.9	0.00	0.00	TOP_GAS.MBL (SSTVD)
5,500.0	0.00	0.00	5,444.7	-607.8	398.7	726.9	0.00	0.00	
5,600.0	0.00	0.00	5,544.7	-607.8	398.7	726.9	0.00	0.00	
5,700.0	0.00	0.00	5,644.7	-607.8	398.7	726.9	0.00	0.00	
5,800.0	0.00	0.00	5,744.7	-607.8	398.7	726.9	0.00	0.00	
5,900.0	0.00	0.00	5,844.7	-607.8	398.7	726.9	0.00	0.00	
6,000.0	0.00	0.00	5,944.7	-607.8	398.7	726.9	0.00	0.00	
6,100.0	0.00	0.00	6,044.7	-607.8	398.7	726.9	0.00	0.00	
6,200.0	0.00	0.00	6,144.7	-607.8	398.7	726.9	0.00	0.00	
6,300.0	0.00	0.00	6,244.7	-607.8	398.7	726.9	0.00	0.00	
6,400.0	0.00	0.00	6,344.7	-607.8	398.7	726.9	0.00	0.00	
6,408.3	0.00	0.00	6,353.0	-607.8	398.7	726.9	0.00	0.00	CAMEO.MBL (SSTVD)
6,500.0	0.00	0.00	6,444.7	-607.8	398.7	726.9	0.00	0.00	
6,600.0	0.00	0.00	6,544.7	-607.8	398.7	726.9	0.00	0.00	
6,700.0	0.00	0.00	6,644.7	-607.8	398.7	726.9	0.00	0.00	
6,800.0	0.00	0.00	6,744.7	-607.8	398.7	726.9	0.00	0.00	
6,848.3	0.00	0.00	6,793.0	-607.8	398.7	726.9	0.00	0.00	ROLLINS.MBL (SSTVD)
6,900.0	0.00	0.00	6,844.7	-607.8	398.7	726.9	0.00	0.00	
6,998.3	0.00	0.00	6,943.0	-607.8	398.7	726.9	0.00	0.00	TD at 6998.3 - TD.MBL (SSTVD)

Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PUCKETT 12B-17 PBHL - hit/miss target - Shape - Circle (radius 50.0)	0.00	0.00	6,943.0	-607.8	398.7	14,335,036.80	2,448,907.90	39.440158	-108.136612

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 12B-17
Company:	Caerus Oil & Gas	TVD Reference:	KB @ 6764.0usft
Project:	Garfield County, CO (UTM 12N)	MD Reference:	KB @ 6764.0usft
Site:	S17-T7S-R96W (RILEY 1)	North Reference:	True
Well:	PUCKETT 12B-17	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #2		

Formations					
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,992.0	3,949.0	OHIO_CREEK.MBL (SSTVD)		0.00	
4,289.6	4,243.0	WILLIAMS_FORK.MBL (SSTVD)		0.00	
5,404.3	5,349.0	TOP_GAS.MBL (SSTVD)		0.00	
6,408.3	6,353.0	CAMEO.MBL (SSTVD)		0.00	
6,848.3	6,793.0	ROLLINS.MBL (SSTVD)		0.00	
6,998.3	6,943.0	TD.MBL (SSTVD)		0.00	

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
250.0	250.0	0.0	0.0	Start Build 3.00	
550.0	548.8	-21.3	9.9	Start DLS 2.00 TFO -97.11	
617.1	615.0	-30.4	15.0	Start 4240.6 hold at 617.1 MD	
4,857.6	4,804.2	-578.8	379.5	Start Drop -2.00	
5,304.3	5,249.0	-607.8	398.7	Start 1694.0 hold at 5304.3 MD	
6,998.3	6,943.0	-607.8	398.7	TD at 6998.3	