



US ROCKIES REGION PLANNING

COLORADO NORTHERN ZONE - 83

WELD_BRYANT 37-30 PAD

P_BRYANT 37-30

P_BRYANT 37-30

Plan: PLAN #1 4-9-10 RHS

Standard Planning Report

09 April, 2010





Project: COLORADO NORTHERN ZONE - 83
 Site: WELD_BRYANT 37-30 PAD
 Well: P_BRYANT 37-30
 Wellbore: P_BRYANT 37-30
 Section: SECTION 30 T2N R68W
 SHL: 284 FSL 1296 FEL
 Design: PLAN #1 4-9-10 RHS
 Latitude: 40° 6' 11.016 N
 Longitude: 105° 2' 29.353 W
 GL: 4928.00
 KB: WELL @ 4943.00ft (Original Well Elev)



Weatherford



Azimuths to True North
 Magnetic North: 9.14°

Magnetic Field
 Strength: 53068.1snT
 Dip Angle: 66.80°
 Date: 4/9/2010
 Model: IGRF2010

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3835.00	3837.92	PARKMAN
4375.00	4378.48	SUSSEX
4805.00	4808.93	SHANNON
7255.00	7260.36	NIO A
7545.00	7550.36	CODELL
7615.00	7620.36	GRNHRN
7980.00	7985.36	JSAND

CASING DETAILS

TVD	MD	Name	Size
850.00	850.00	8 5/8"	8.62

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
950.00	0.00	0.00	950.00	0.00	0.00	0.00	0.00	0.00	Start Build 2.00
1080.83	2.62	168.88	1080.79	-2.93	0.58	2.00	168.88	2.99	Start 5048.69 hold at 1080.83 MD
6129.52	2.62	168.88	6124.21	-229.10	45.02	0.00	0.00	233.48	Start Drop -2.00
6260.36	0.00	0.00	6255.00	-232.03	45.60	2.00	180.00	236.47	Start 1875.00 hold at 6260.36 MD
8135.36	0.00	0.00	8130.00	-232.03	45.60	0.00	0.00	236.47	TD at 8135.36

WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)

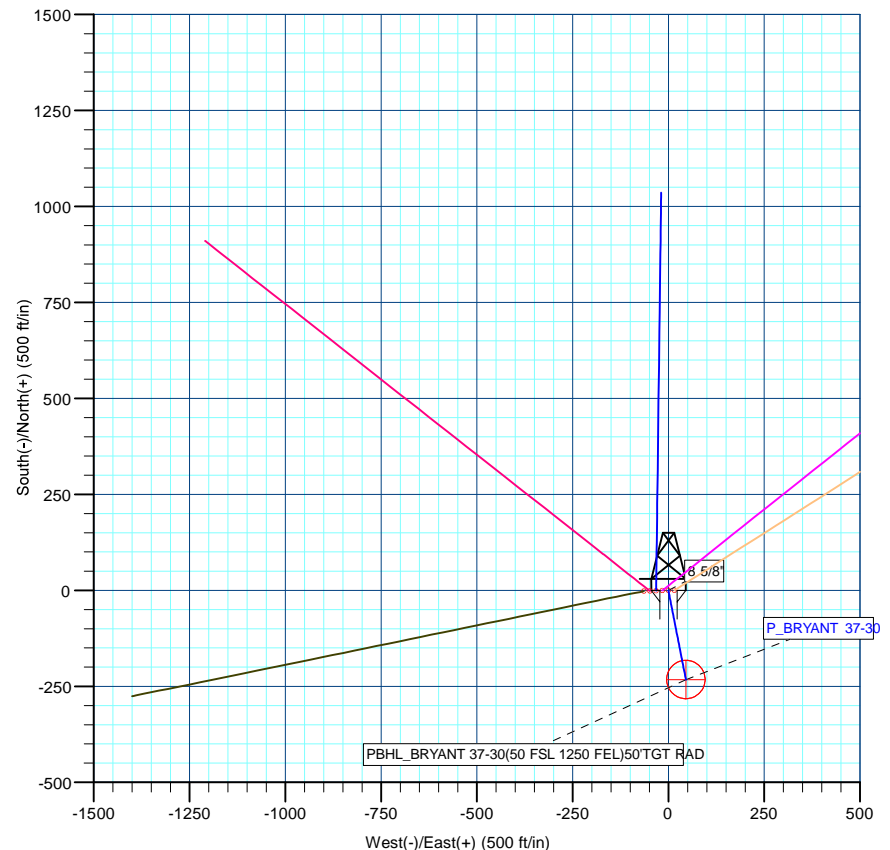
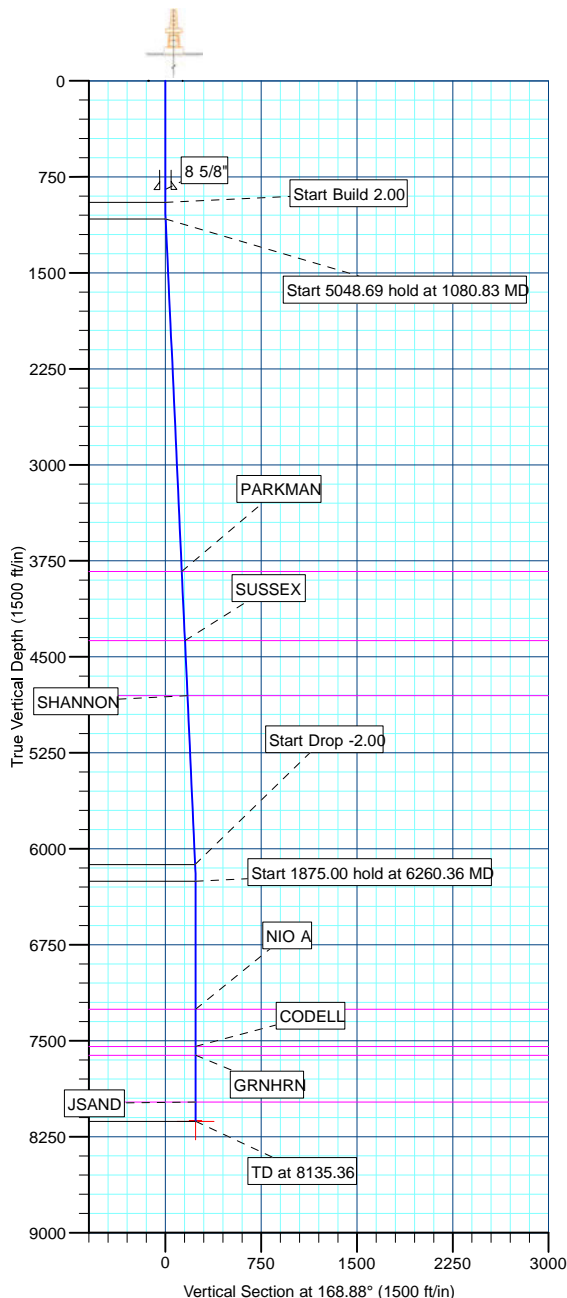
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
PBHL	8130.00	-232.03	45.60	40° 6' 8.723 N	105° 2' 28.766 W	Circle (Radius: 50.00)

WELL DETAILS: P_BRYANT 37-30

+N/-S	+E/-W	Northing	Ground Level: Easting	4928.00 Latitude	Longitude	Slot
0.00	0.00	1280720.69	3128259.37	40° 6' 11.016 N	105° 2' 29.353 W	

LEGEND

- P_BRYANT 16-30, P_BRYANT 16-30, PLAN #1 4-9-10 RHS V0
- P_BRYANT 20-30, P_BRYANT 20-30, PLAN #1 4-9-10 RHS V0
- P_BRYANT 23-30, P_BRYANT 23-30, PLAN #1 4-9-10 RHS V0
- P_BRYANT 33-29, P_BRYANT 33-29, PLAN #1 4-9-10 RHS V0
- P_BRYANT 36-30, P_BRYANT 36-30, PLAN #1 4-9-10 RHS V0
- PLAN #1 4-9-10 RHS



Plan: PLAN #1 4-9-10 RHS (P_BRYANT 37-30/P_BRYANT 37-30)

Created By: Robert H. Scott Date: 15:33, April 09 2010

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well P_BRYANT 37-30
Company:	US ROCKIES REGION PLANNING	TVD Reference:	WELL @ 4943.00ft (Original Well Elev)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	WELL @ 4943.00ft (Original Well Elev)
Site:	WELD_BRYANT 37-30 PAD	North Reference:	True
Well:	P_BRYANT 37-30	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_BRYANT 37-30		
Design:	PLAN #1 4-9-10 RHS		

Project	COLORADO NORTHERN ZONE - 83, KERR MCGEE OIL & GAS ONSHORE LP		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site	WELD_BRYANT 37-30 PAD, SECTION 30 T2N R68W				
Site Position:		Northing:	1,280,720.26ft	Latitude:	40° 6' 11.012 N
From:	Lat/Long	Easting:	3,128,243.43ft	Longitude:	105° 2' 29.558 W
Position Uncertainty:	0.00 ft	Slot Radius:	in	Grid Convergence:	0.30 °

Well	P_BRYANT 37-30					
Well Position	+N/-S	0.35 ft	Northing:	1,280,720.69 ft	Latitude:	40° 6' 11.016 N
	+E/-W	15.94 ft	Easting:	3,128,259.37 ft	Longitude:	105° 2' 29.353 W
Position Uncertainty	0.00 ft	Wellhead Elevation:	ft	Ground Level:	4,928.00 ft	

Wellbore	P_BRYANT 37-30				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	4/9/2010	9.14	66.80	53,068

Design	PLAN #1 4-9-10 RHS			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	168.88

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
950.00	0.00	0.00	950.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,080.83	2.62	168.88	1,080.79	-2.93	0.58	2.00	2.00	0.00	168.88	
6,129.52	2.62	168.88	6,124.21	-229.10	45.02	0.00	0.00	0.00	0.00	
6,260.36	0.00	0.00	6,255.00	-232.03	45.60	2.00	-2.00	0.00	180.00	
8,135.36	0.00	0.00	8,130.00	-232.03	45.60	0.00	0.00	0.00	0.00	PBHL_BRYANT 37

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well P_BRYANT 37-30
Company:	US ROCKIES REGION PLANNING	TVD Reference:	WELL @ 4943.00ft (Original Well Elev)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	WELL @ 4943.00ft (Original Well Elev)
Site:	WELD_BRYANT 37-30 PAD	North Reference:	True
Well:	P_BRYANT 37-30	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_BRYANT 37-30		
Design:	PLAN #1 4-9-10 RHS		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
Start Build 2.00									
950.00	0.00	0.00	950.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	1.00	168.88	1,000.00	-0.43	0.08	0.44	2.00	2.00	0.00
Start 5048.69 hold at 1080.83 MD									
1,080.83	2.62	168.88	1,080.79	-2.93	0.58	2.99	2.00	2.00	0.00
1,100.00	2.62	168.88	1,099.93	-3.79	0.74	3.86	0.00	0.00	0.00
1,200.00	2.62	168.88	1,199.83	-8.27	1.63	8.43	0.00	0.00	0.00
1,300.00	2.62	168.88	1,299.73	-12.75	2.51	12.99	0.00	0.00	0.00
1,400.00	2.62	168.88	1,399.62	-17.23	3.39	17.56	0.00	0.00	0.00
1,500.00	2.62	168.88	1,499.52	-21.71	4.27	22.12	0.00	0.00	0.00
1,600.00	2.62	168.88	1,599.41	-26.19	5.15	26.69	0.00	0.00	0.00
1,700.00	2.62	168.88	1,699.31	-30.67	6.03	31.25	0.00	0.00	0.00
1,800.00	2.62	168.88	1,799.20	-35.15	6.91	35.82	0.00	0.00	0.00
1,900.00	2.62	168.88	1,899.10	-39.63	7.79	40.39	0.00	0.00	0.00
2,000.00	2.62	168.88	1,999.00	-44.11	8.67	44.95	0.00	0.00	0.00
2,100.00	2.62	168.88	2,098.89	-48.59	9.55	49.52	0.00	0.00	0.00
2,200.00	2.62	168.88	2,198.79	-53.07	10.43	54.08	0.00	0.00	0.00
2,300.00	2.62	168.88	2,298.68	-57.55	11.31	58.65	0.00	0.00	0.00
2,400.00	2.62	168.88	2,398.58	-62.03	12.19	63.21	0.00	0.00	0.00
2,500.00	2.62	168.88	2,498.47	-66.51	13.07	67.78	0.00	0.00	0.00
2,600.00	2.62	168.88	2,598.37	-70.99	13.95	72.34	0.00	0.00	0.00
2,700.00	2.62	168.88	2,698.27	-75.47	14.83	76.91	0.00	0.00	0.00
2,800.00	2.62	168.88	2,798.16	-79.94	15.71	81.47	0.00	0.00	0.00
2,900.00	2.62	168.88	2,898.06	-84.42	16.59	86.04	0.00	0.00	0.00
3,000.00	2.62	168.88	2,997.95	-88.90	17.47	90.60	0.00	0.00	0.00
3,100.00	2.62	168.88	3,097.85	-93.38	18.35	95.17	0.00	0.00	0.00
3,200.00	2.62	168.88	3,197.74	-97.86	19.23	99.74	0.00	0.00	0.00
3,300.00	2.62	168.88	3,297.64	-102.34	20.11	104.30	0.00	0.00	0.00
3,400.00	2.62	168.88	3,397.54	-106.82	20.99	108.87	0.00	0.00	0.00
3,500.00	2.62	168.88	3,497.43	-111.30	21.87	113.43	0.00	0.00	0.00
3,600.00	2.62	168.88	3,597.33	-115.78	22.75	118.00	0.00	0.00	0.00
3,700.00	2.62	168.88	3,697.22	-120.26	23.63	122.56	0.00	0.00	0.00
3,800.00	2.62	168.88	3,797.12	-124.74	24.51	127.13	0.00	0.00	0.00
PARKMAN									
3,837.92	2.62	168.88	3,835.00	-126.44	24.85	128.86	0.00	0.00	0.00
3,900.00	2.62	168.88	3,897.02	-129.22	25.39	131.69	0.00	0.00	0.00
4,000.00	2.62	168.88	3,996.91	-133.70	26.27	136.26	0.00	0.00	0.00
4,100.00	2.62	168.88	4,096.81	-138.18	27.15	140.82	0.00	0.00	0.00
4,200.00	2.62	168.88	4,196.70	-142.66	28.03	145.39	0.00	0.00	0.00
4,300.00	2.62	168.88	4,296.60	-147.14	28.91	149.95	0.00	0.00	0.00
SUSSEX									
4,378.48	2.62	168.88	4,375.00	-150.66	29.61	153.54	0.00	0.00	0.00
4,400.00	2.62	168.88	4,396.49	-151.62	29.80	154.52	0.00	0.00	0.00
4,500.00	2.62	168.88	4,496.39	-156.10	30.68	159.09	0.00	0.00	0.00
4,600.00	2.62	168.88	4,596.29	-160.58	31.56	163.65	0.00	0.00	0.00
4,700.00	2.62	168.88	4,696.18	-165.06	32.44	168.22	0.00	0.00	0.00
4,800.00	2.62	168.88	4,796.08	-169.54	33.32	172.78	0.00	0.00	0.00
SHANNON									
4,808.93	2.62	168.88	4,805.00	-169.94	33.40	173.19	0.00	0.00	0.00
4,900.00	2.62	168.88	4,895.97	-174.02	34.20	177.35	0.00	0.00	0.00
5,000.00	2.62	168.88	4,995.87	-178.50	35.08	181.91	0.00	0.00	0.00
5,100.00	2.62	168.88	5,095.76	-182.98	35.96	186.48	0.00	0.00	0.00
5,200.00	2.62	168.88	5,195.66	-187.46	36.84	191.04	0.00	0.00	0.00
5,300.00	2.62	168.88	5,295.56	-191.94	37.72	195.61	0.00	0.00	0.00

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Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	WELL @ 4943.00ft (Original Well Elev)
Site:	WELD_BRYANT 37-30 PAD	North Reference:	True
Well:	P_BRYANT 37-30	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_BRYANT 37-30		
Design:	PLAN #1 4-9-10 RHS		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,400.00	2.62	168.88	5,395.45	-196.42	38.60	200.17	0.00	0.00	0.00
5,500.00	2.62	168.88	5,495.35	-200.90	39.48	204.74	0.00	0.00	0.00
5,600.00	2.62	168.88	5,595.24	-205.38	40.36	209.30	0.00	0.00	0.00
5,700.00	2.62	168.88	5,695.14	-209.86	41.24	213.87	0.00	0.00	0.00
5,800.00	2.62	168.88	5,795.03	-214.34	42.12	218.44	0.00	0.00	0.00
5,900.00	2.62	168.88	5,894.93	-218.82	43.00	223.00	0.00	0.00	0.00
6,000.00	2.62	168.88	5,994.83	-223.30	43.88	227.57	0.00	0.00	0.00
6,100.00	2.62	168.88	6,094.72	-227.78	44.76	232.13	0.00	0.00	0.00
Start Drop -2.00									
6,129.52	2.62	168.88	6,124.21	-229.10	45.02	233.48	0.00	0.00	0.00
6,200.00	1.21	168.88	6,194.65	-231.40	45.47	235.83	2.00	-2.00	0.00
Start 1875.00 hold at 6260.36 MD									
6,260.36	0.00	0.00	6,255.00	-232.03	45.60	236.47	2.00	-2.00	0.00
6,300.00	0.00	0.00	6,294.64	-232.03	45.60	236.47	0.00	0.00	0.00
6,400.00	0.00	0.00	6,394.64	-232.03	45.60	236.47	0.00	0.00	0.00
6,500.00	0.00	0.00	6,494.64	-232.03	45.60	236.47	0.00	0.00	0.00
6,600.00	0.00	0.00	6,594.64	-232.03	45.60	236.47	0.00	0.00	0.00
6,700.00	0.00	0.00	6,694.64	-232.03	45.60	236.47	0.00	0.00	0.00
6,800.00	0.00	0.00	6,794.64	-232.03	45.60	236.47	0.00	0.00	0.00
6,900.00	0.00	0.00	6,894.64	-232.03	45.60	236.47	0.00	0.00	0.00
7,000.00	0.00	0.00	6,994.64	-232.03	45.60	236.47	0.00	0.00	0.00
7,100.00	0.00	0.00	7,094.64	-232.03	45.60	236.47	0.00	0.00	0.00
7,200.00	0.00	0.00	7,194.64	-232.03	45.60	236.47	0.00	0.00	0.00
NIO A									
7,260.36	0.00	0.00	7,255.00	-232.03	45.60	236.47	0.00	0.00	0.00
7,300.00	0.00	0.00	7,294.64	-232.03	45.60	236.47	0.00	0.00	0.00
7,400.00	0.00	0.00	7,394.64	-232.03	45.60	236.47	0.00	0.00	0.00
7,500.00	0.00	0.00	7,494.64	-232.03	45.60	236.47	0.00	0.00	0.00
CODELL									
7,550.36	0.00	0.00	7,545.00	-232.03	45.60	236.47	0.00	0.00	0.00
7,600.00	0.00	0.00	7,594.64	-232.03	45.60	236.47	0.00	0.00	0.00
GRNHRN									
7,620.36	0.00	0.00	7,615.00	-232.03	45.60	236.47	0.00	0.00	0.00
7,700.00	0.00	0.00	7,694.64	-232.03	45.60	236.47	0.00	0.00	0.00
7,800.00	0.00	0.00	7,794.64	-232.03	45.60	236.47	0.00	0.00	0.00
7,900.00	0.00	0.00	7,894.64	-232.03	45.60	236.47	0.00	0.00	0.00
JSAND									
7,985.36	0.00	0.00	7,980.00	-232.03	45.60	236.47	0.00	0.00	0.00
8,000.00	0.00	0.00	7,994.64	-232.03	45.60	236.47	0.00	0.00	0.00
8,100.00	0.00	0.00	8,094.64	-232.03	45.60	236.47	0.00	0.00	0.00
PBHL_BRYANT 37-30(50 FSL 1250 FEL)50'TGT RAD									
8,135.36	0.00	0.00	8,130.00	-232.03	45.60	236.47	0.00	0.00	0.00

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- hit/miss target									
- Shape									
PBHL_BRYANT 37-30	0.00	0.00	8,130.00	-232.03	45.60	1,280,488.90	3,128,306.17	40° 6' 8.723 N	105° 2' 28.766 W
- plan hits target center									
- Circle (radius 50.00)									

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well P_BRYANT 37-30
Company:	US ROCKIES REGION PLANNING	TVD Reference:	WELL @ 4943.00ft (Original Well Elev)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	WELL @ 4943.00ft (Original Well Elev)
Site:	WELD_BRYANT 37-30 PAD	North Reference:	True
Well:	P_BRYANT 37-30	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_BRYANT 37-30		
Design:	PLAN #1 4-9-10 RHS		

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)
850.00	850.00	8 5/8"	8.62	11.00

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,837.92	3,835.00	PARKMAN			
4,378.48	4,375.00	SUSSEX			
4,808.93	4,805.00	SHANNON			
7,260.36	7,255.00	NIO A			
7,550.36	7,545.00	CODELL			
7,620.36	7,615.00	GRNHRN			
7,985.36	7,980.00	JSAND			

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
950.00	950.00	0.00	0.00	Start Build 2.00
1,080.83	1,080.79	-2.93	0.58	Start 5048.69 hold at 1080.83 MD
6,129.52	6,124.21	-229.10	45.02	Start Drop -2.00
6,260.36	6,255.00	-232.03	45.60	Start 1875.00 hold at 6260.36 MD
8,135.36	8,130.00	-232.03	45.60	TD at 8135.36