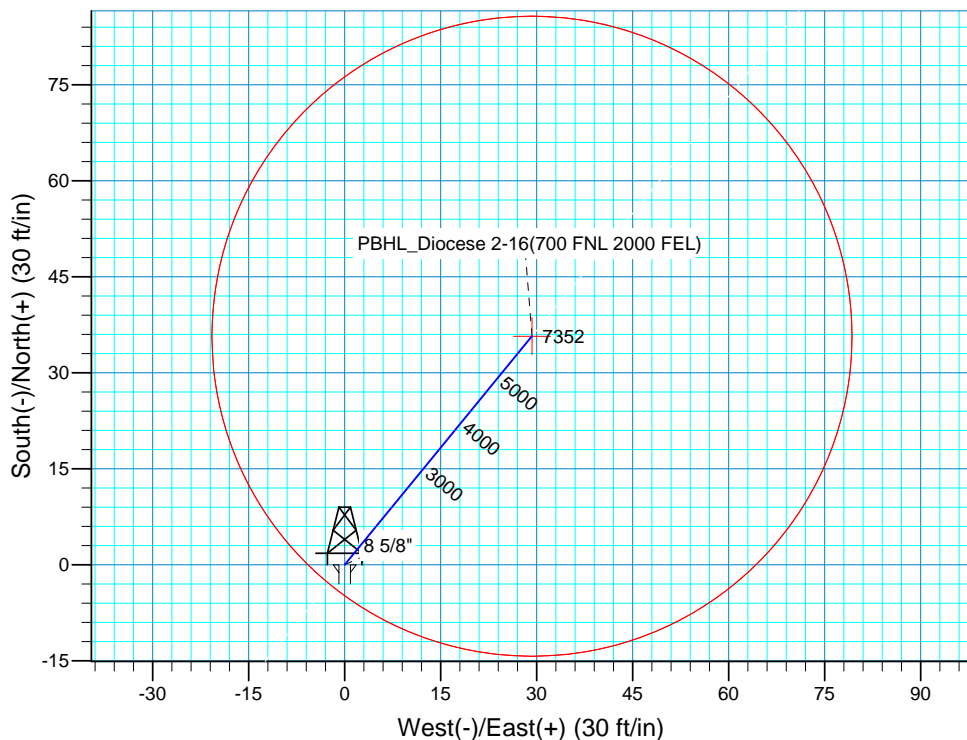
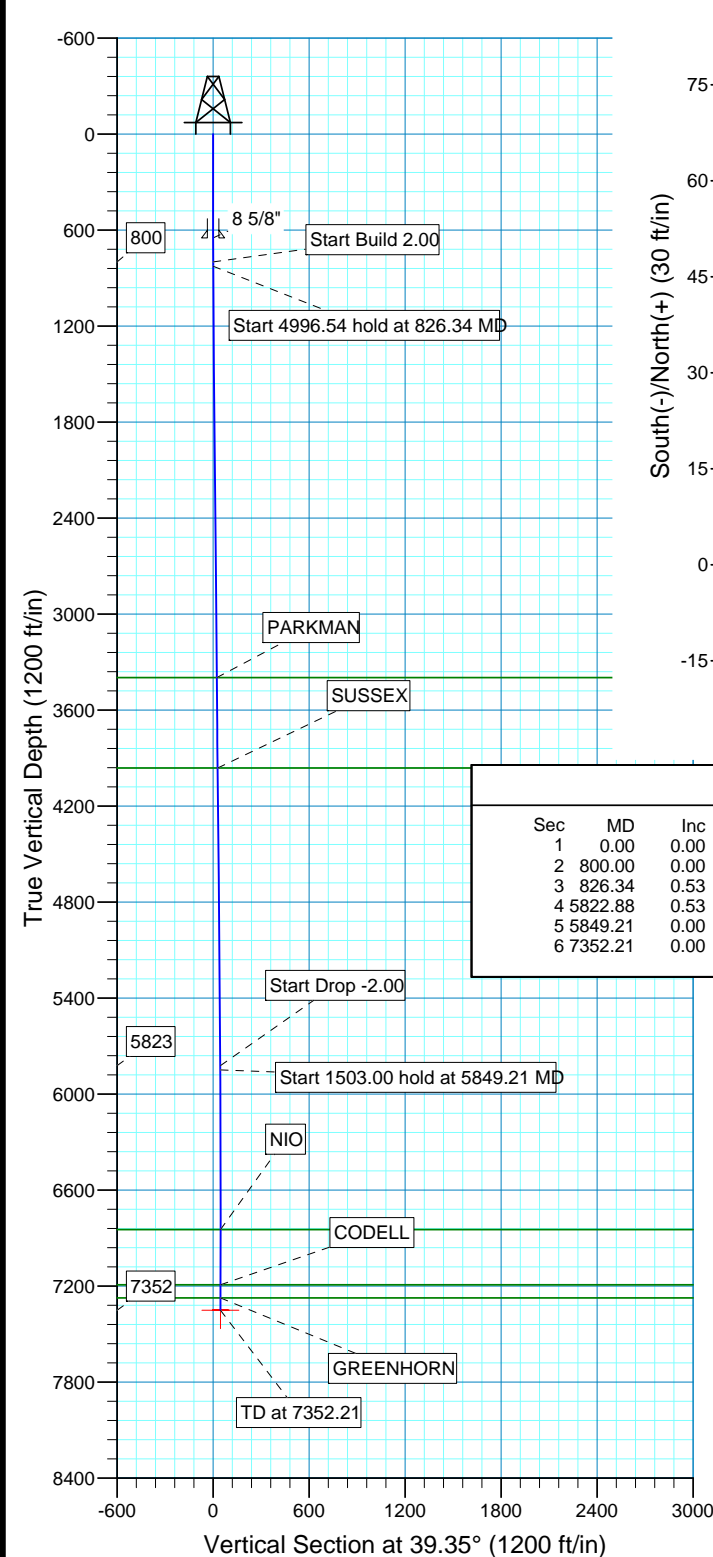
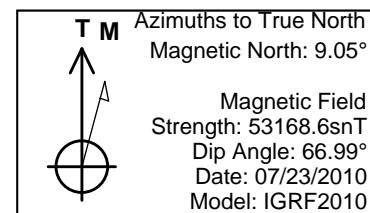


WELL DETAILS: P_Diocese 2-16						
GL 4833 & RKB 15' @ 4848.00ft (ASSUMED) 4833.00						
+N/-S	+E/-W	North	East	Latitude	Longitude	
0.00	0.00	1359220.95	3169041.20	40° 19' 4.354 N	104° 53' 37.615 W	
WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)						
Name	TVD	+N/-S	+E/-W	North	East	Latitude
PBHL	7352.00	35.70	29.28	1359256.85	3169070.24	40° 19' 4.706 N
104° 53' 37.237 W Circle (Radius: 50.00)						



SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	
3	826.34	0.53	39.35	826.34	0.09	0.08	2.00	39.35	0.12	
4	5822.88	0.53	39.35	5822.66	35.61	29.20	0.00	0.00	46.05	
5	5849.21	0.00	0.00	5849.00	35.70	29.28	2.00	180.00	46.17	
6	7352.21	0.00	0.00	7352.00	35.70	29.28	0.00	0.00	46.17	PBHL_Diocese 2-16(700 FNL 2000 FEL)

FORMATION TOP DETAILS	
TVDPath	MDPath
3398.00	3398.11
3963.00	3963.13
6848.00	6848.21
7192.00	7192.21
7275.00	7275.21
Formation	
PARKMAN	
SUSSEX	
NIO	
CODELL	
GREENHORN	

PROJECT DETAILS: COLORADO NORTHERN ZONE - 83	
Geodetic System:	US State Plane 1983
Datum:	North American Datum 1983
Ellipsoid:	GRS 1980
Zone:	Colorado Northern Zone
Location:	SEC 16 T4N R67W
System Datum:	Mean Sea Level
Local North:	No north reference data is available

US ROCKIES REGION PLANNING

COLORADO NORTHERN ZONE - 83

WELD_Diocese 2-16 PAD

P_Diocese 2-16

P_Diocese 2-16

Plan: PLAN #1 7-23-10 RHS

Standard Planning Report

26 July, 2010

Database:	EDM 2003.16 Single User Db	Local Co-ordinate Reference:	Well P_Diocese 2-16
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 4833 & RKB 15' @ 4848.00ft (ASSUMED)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL 4833 & RKB 15' @ 4848.00ft (ASSUMED)
Site:	WELD_Diocese 2-16 PAD	North Reference:	True
Well:	P_Diocese 2-16	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_Diocese 2-16		
Design:	PLAN #1 7-23-10 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_Diocese 2-16 PAD, SEC 16 T4N R67W			
Site Position:		Northing:	1,359,220.33ft	Latitude:	40° 19' 4.346 N
From:	Lat/Long	Easting:	3,169,057.38ft	Longitude:	104° 53' 37.406 W
Position Uncertainty:	0.00 ft	Slot Radius:	in	Grid Convergence:	0.39 °

Well	P_Diocese 2-16, 737 FNL 2029 FEL					
Well Position	+N-S	0.00 ft	Northing:	1,359,220.95 ft	Latitude:	40° 19' 4.354 N
	+E-W	0.00 ft	Easting:	3,169,041.20 ft	Longitude:	104° 53' 37.615 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	4,833.00 ft

Wellbore	P_Diocese 2-16				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	07/23/2010	9.05	66.99	53,169

Design	PLAN #1 7-23-10 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	39.35

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	
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00	
826.34	0.53	39.35	826.34	0.09	0.08	2.00	2.00	0.00	39.35	
5,822.88	0.53	39.35	5,822.66	35.61	29.20	0.00	0.00	0.00	0.00	
5,849.21	0.00	0.00	5,849.00	35.70	29.28	2.00	-2.00	0.00	180.00	
7,352.21	0.00	0.00	7,352.00	35.70	29.28	0.00	0.00	0.00	0.00	PBHL_Diocese 2-16

Database:	EDM 2003.16 Single User Db	Local Co-ordinate Reference:	Well P_Diocese 2-16
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 4833 & RKB 15' @ 4848.00ft (ASSUMED)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL 4833 & RKB 15' @ 4848.00ft (ASSUMED)
Site:	WELD_Diocese 2-16 PAD	North Reference:	True
Well:	P_Diocese 2-16	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_Diocese 2-16		
Design:	PLAN #1 7-23-10 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)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
650.00	0.00	0.00	650.00	0.00	0.00	0.00	0.00	0.00	0.00
8 5/8"									
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00									
826.34	0.53	39.35	826.34	0.09	0.08	0.12	2.00	2.00	0.00
Start 4996.54 hold at 826.34 MD									
900.00	0.53	39.35	900.00	0.62	0.51	0.80	0.00	0.00	0.00
1,000.00	0.53	39.35	999.99	1.33	1.09	1.72	0.00	0.00	0.00
1,100.00	0.53	39.35	1,099.99	2.04	1.67	2.64	0.00	0.00	0.00
1,200.00	0.53	39.35	1,199.98	2.75	2.25	3.56	0.00	0.00	0.00
1,300.00	0.53	39.35	1,299.98	3.46	2.84	4.48	0.00	0.00	0.00
1,400.00	0.53	39.35	1,399.98	4.17	3.42	5.39	0.00	0.00	0.00
1,500.00	0.53	39.35	1,499.97	4.88	4.00	6.31	0.00	0.00	0.00
1,600.00	0.53	39.35	1,599.97	5.59	4.59	7.23	0.00	0.00	0.00
1,700.00	0.53	39.35	1,699.96	6.30	5.17	8.15	0.00	0.00	0.00
1,800.00	0.53	39.35	1,799.96	7.01	5.75	9.07	0.00	0.00	0.00
1,900.00	0.53	39.35	1,899.95	7.73	6.34	9.99	0.00	0.00	0.00
2,000.00	0.53	39.35	1,999.95	8.44	6.92	10.91	0.00	0.00	0.00
2,100.00	0.53	39.35	2,099.95	9.15	7.50	11.83	0.00	0.00	0.00
2,200.00	0.53	39.35	2,199.94	9.86	8.08	12.75	0.00	0.00	0.00
2,300.00	0.53	39.35	2,299.94	10.57	8.67	13.67	0.00	0.00	0.00
2,400.00	0.53	39.35	2,399.93	11.28	9.25	14.59	0.00	0.00	0.00
2,500.00	0.53	39.35	2,499.93	11.99	9.83	15.51	0.00	0.00	0.00
2,600.00	0.53	39.35	2,599.92	12.70	10.42	16.43	0.00	0.00	0.00
2,700.00	0.53	39.35	2,699.92	13.41	11.00	17.35	0.00	0.00	0.00
2,800.00	0.53	39.35	2,799.92	14.12	11.58	18.26	0.00	0.00	0.00
2,900.00	0.53	39.35	2,899.91	14.83	12.16	19.18	0.00	0.00	0.00
3,000.00	0.53	39.35	2,999.91	15.54	12.75	20.10	0.00	0.00	0.00
3,100.00	0.53	39.35	3,099.90	16.26	13.33	21.02	0.00	0.00	0.00
3,200.00	0.53	39.35	3,199.90	16.97	13.91	21.94	0.00	0.00	0.00
3,300.00	0.53	39.35	3,299.90	17.68	14.50	22.86	0.00	0.00	0.00
3,398.11	0.53	39.35	3,398.00	18.37	15.07	23.76	0.00	0.00	0.00
PARKMAN									
3,400.00	0.53	39.35	3,399.89	18.39	15.08	23.78	0.00	0.00	0.00
3,500.00	0.53	39.35	3,499.89	19.10	15.66	24.70	0.00	0.00	0.00
3,600.00	0.53	39.35	3,599.88	19.81	16.24	25.62	0.00	0.00	0.00
3,700.00	0.53	39.35	3,699.88	20.52	16.83	26.54	0.00	0.00	0.00
3,800.00	0.53	39.35	3,799.87	21.23	17.41	27.46	0.00	0.00	0.00
3,900.00	0.53	39.35	3,899.87	21.94	17.99	28.38	0.00	0.00	0.00
3,963.13	0.53	39.35	3,963.00	22.39	18.36	28.96	0.00	0.00	0.00
SUSSEX									
4,000.00	0.53	39.35	3,999.87	22.65	18.58	29.30	0.00	0.00	0.00
4,100.00	0.53	39.35	4,099.86	23.36	19.16	30.22	0.00	0.00	0.00
4,200.00	0.53	39.35	4,199.86	24.08	19.74	31.13	0.00	0.00	0.00
4,300.00	0.53	39.35	4,299.85	24.79	20.33	32.05	0.00	0.00	0.00

Database:	EDM 2003.16 Single User Db	Local Co-ordinate Reference:	Well P_Diocese 2-16
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 4833 & RKB 15' @ 4848.00ft (ASSUMED)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL 4833 & RKB 15' @ 4848.00ft (ASSUMED)
Site:	WELD_Diocese 2-16 PAD	North Reference:	True
Well:	P_Diocese 2-16	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_Diocese 2-16		
Design:	PLAN #1 7-23-10 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)
4,400.00	0.53	39.35	4,399.85	25.50	20.91	32.97	0.00	0.00	0.00
4,500.00	0.53	39.35	4,499.84	26.21	21.49	33.89	0.00	0.00	0.00
4,600.00	0.53	39.35	4,599.84	26.92	22.07	34.81	0.00	0.00	0.00
4,700.00	0.53	39.35	4,699.84	27.63	22.66	35.73	0.00	0.00	0.00
4,800.00	0.53	39.35	4,799.83	28.34	23.24	36.65	0.00	0.00	0.00
4,900.00	0.53	39.35	4,899.83	29.05	23.82	37.57	0.00	0.00	0.00
5,000.00	0.53	39.35	4,999.82	29.76	24.41	38.49	0.00	0.00	0.00
5,100.00	0.53	39.35	5,099.82	30.47	24.99	39.41	0.00	0.00	0.00
5,200.00	0.53	39.35	5,199.81	31.18	25.57	40.33	0.00	0.00	0.00
5,300.00	0.53	39.35	5,299.81	31.89	26.15	41.25	0.00	0.00	0.00
5,400.00	0.53	39.35	5,399.81	32.61	26.74	42.17	0.00	0.00	0.00
5,500.00	0.53	39.35	5,499.80	33.32	27.32	43.09	0.00	0.00	0.00
5,600.00	0.53	39.35	5,599.80	34.03	27.90	44.00	0.00	0.00	0.00
5,700.00	0.53	39.35	5,699.79	34.74	28.49	44.92	0.00	0.00	0.00
5,800.00	0.53	39.35	5,799.79	35.45	29.07	45.84	0.00	0.00	0.00
5,822.88	0.53	39.35	5,822.66	35.61	29.20	46.05	0.00	0.00	0.00
Start Drop -2.00									
5,849.21	0.00	0.00	5,849.00	35.70	29.28	46.17	2.00	-2.00	0.00
Start 1503.00 hold at 5849.21 MD									
5,900.00	0.00	0.00	5,899.79	35.70	29.28	46.17	0.00	0.00	0.00
6,000.00	0.00	0.00	5,999.79	35.70	29.28	46.17	0.00	0.00	0.00
6,100.00	0.00	0.00	6,099.79	35.70	29.28	46.17	0.00	0.00	0.00
6,200.00	0.00	0.00	6,199.79	35.70	29.28	46.17	0.00	0.00	0.00
6,300.00	0.00	0.00	6,299.79	35.70	29.28	46.17	0.00	0.00	0.00
6,400.00	0.00	0.00	6,399.79	35.70	29.28	46.17	0.00	0.00	0.00
6,500.00	0.00	0.00	6,499.79	35.70	29.28	46.17	0.00	0.00	0.00
6,600.00	0.00	0.00	6,599.79	35.70	29.28	46.17	0.00	0.00	0.00
6,700.00	0.00	0.00	6,699.79	35.70	29.28	46.17	0.00	0.00	0.00
6,800.00	0.00	0.00	6,799.79	35.70	29.28	46.17	0.00	0.00	0.00
6,848.21	0.00	0.00	6,848.00	35.70	29.28	46.17	0.00	0.00	0.00
NIO									
6,900.00	0.00	0.00	6,899.79	35.70	29.28	46.17	0.00	0.00	0.00
7,000.00	0.00	0.00	6,999.79	35.70	29.28	46.17	0.00	0.00	0.00
7,100.00	0.00	0.00	7,099.79	35.70	29.28	46.17	0.00	0.00	0.00
7,192.21	0.00	0.00	7,192.00	35.70	29.28	46.17	0.00	0.00	0.00
CODELL									
7,200.00	0.00	0.00	7,199.79	35.70	29.28	46.17	0.00	0.00	0.00
7,275.21	0.00	0.00	7,275.00	35.70	29.28	46.17	0.00	0.00	0.00
GREENHORN									
7,300.00	0.00	0.00	7,299.79	35.70	29.28	46.17	0.00	0.00	0.00
7,352.21	0.00	0.00	7,352.00	35.70	29.28	46.17	0.00	0.00	0.00
TD at 7352.21 - PBHL_Diocese 2-16(700 FNL 2000 FEL)									

Targets

Target Name

- hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
PBHL_Diocese 2-16(700 FNL 2000 FEL) - plan hits target center - Circle (radius 50.00)	0.00	0.00	7,352.00	35.70	29.28	1,359,256.85	3,169,070.24	40° 19' 4.706 N	104° 53' 37.237 W

Database:	EDM 2003.16 Single User Db	Local Co-ordinate Reference:	Well P_Diocese 2-16
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 4833 & RKB 15' @ 4848.00ft (ASSUMED)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL 4833 & RKB 15' @ 4848.00ft (ASSUMED)
Site:	WELD_Diocese 2-16 PAD	North Reference:	True
Well:	P_Diocese 2-16	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_Diocese 2-16		
Design:	PLAN #1 7-23-10 RHS		

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)
650.00	650.00	8 5/8"	8.625	11.000

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,398.11	3,398.00	PARKMAN			
6,848.21	6,848.00	NIO			
3,963.13	3,963.00	SUSSEX			
7,275.21	7,275.00	GREENHORN			
7,192.21	7,192.00	CODELL			

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
800.00	800.00	0.00	0.00	Start Build 2.00
826.34	826.34	0.09	0.08	Start 4996.54 hold at 826.34 MD
5,822.88	5,822.66	35.61	29.20	Start Drop -2.00
5,849.21	5,849.00	35.70	29.28	Start 1503.00 hold at 5849.21 MD
7,352.21	7,352.00	35.70	29.28	TD at 7352.21