

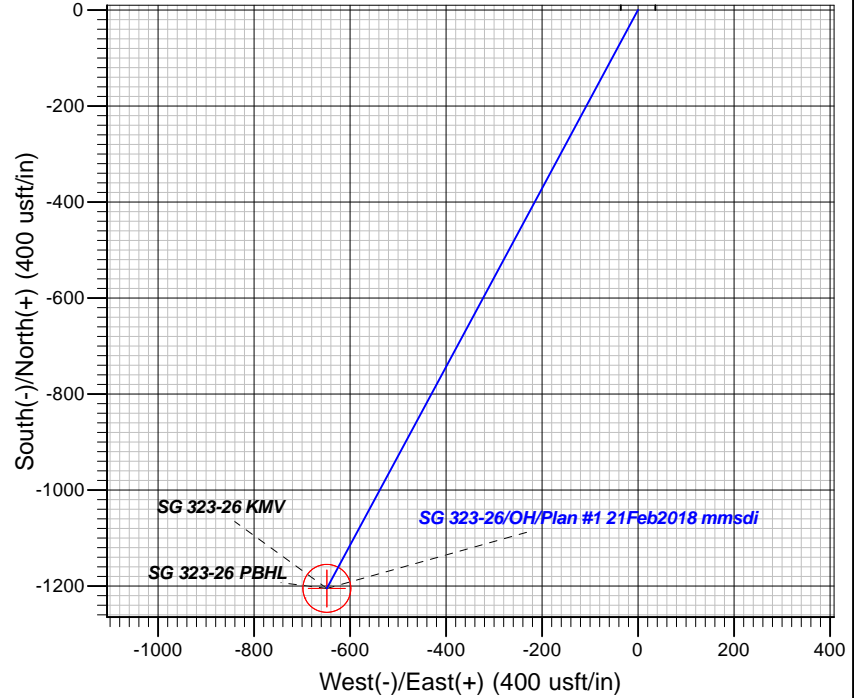
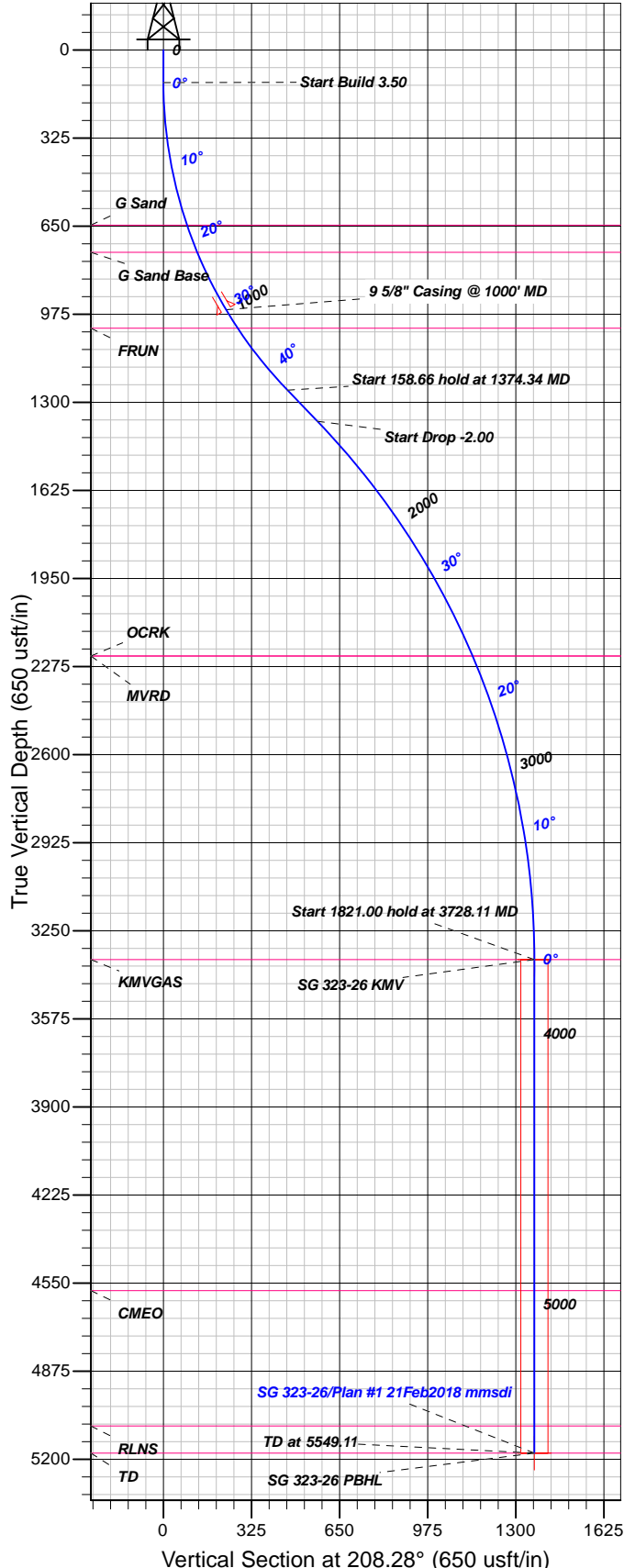


Azimuths to True North  
Magnetic North: 9.42°

Magnetic Field  
Strength: 51743.0snT  
Dip Angle: 65.60°  
Date: 2/21/2018  
Model: HDGM

## Well Details: SG 323-26

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	1584785.60	2272330.20	39.4106766	-108.0757794	



### FORMATION TOP DETAILS

TVDPth	MDPath	Formation
646.00	655.50	G Sand
746.00	762.36	G Sand Base
1026.00	1080.10	FRUN
2236.00	2577.42	MVRD
2236.00	2577.42	OCRK
3356.00	3728.11	KMGAS
4577.00	4949.11	CMEO
5077.00	5449.11	RLNS
5177.00	5549.11	TD

Plan: Plan #1 21Feb2018 mmsdi

19:07, February 22 2018  
Created By: Mel Mireles

PROJECT DETAILS: Garfield County, CO NAD83

Geodetic System: US State Plane 1983  
Datum: North American Datum 1983  
Ellipsoid: GRS 1980  
Zone: Colorado Central Zone

System Datum: Mean Sea Level

### CASING DETAILS

TVD	MD	Name	Size
958.23	1000.00	5/8" Casing @ 1000' MD	9.62

### SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	120.00	0.00	0.00	120.00	0.00	0.00	0.00	0.00	0.00	
3	1374.34	43.90	208.28	1255.16	-402.90	-216.76	3.50	208.28	457.50	
4	1533.01	43.90	208.28	1369.48	-499.79	-268.88	0.00	0.00	567.53	
5	3728.11	0.00	0.00	3356.00	-1204.86	-648.20	2.00	180.00	1368.16	SG 323-26 KMV
6	5549.11	0.00	0.00	5177.00	-1204.86	-648.20	0.00	0.00	1368.16	SG 323-26 PBHL

### DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
SG 323-26 KMV	3356.00	-1204.86	-648.20	1583599.60	2271648.10	39.4073686	-108.0780734	Circle (Radius: 50.00)
- plan hits target center								
SG 323-26 PBHL	5177.00	-1204.86	-648.20	1583599.60	2271648.10	39.4073686	-108.0780734	Point
- plan hits target center								



# **TEP Rocky Mountain LLC**

**Garfield County, CO NAD83**

**SG 32-26 Pad**

**SG 323-26**

**OH**

**Plan: Plan #1 21Feb2018 mmsdi**

## **Standard Planning Report**

**22 February, 2018**



<b>Database:</b>	Grand Junction District	<b>Local Co-ordinate Reference:</b>	Well SG 323-26
<b>Company:</b>	TEP Rocky Mountain LLC	<b>TVD Reference:</b>	GL 5076' & RKB 24' @ 5100.00usft
<b>Project:</b>	Garfield County, CO NAD83	<b>MD Reference:</b>	GL 5076' & RKB 24' @ 5100.00usft
<b>Site:</b>	SG 32-26 Pad	<b>North Reference:</b>	True
<b>Well:</b>	SG 323-26	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #1 21Feb2018 mmsdi		

<b>Project</b>	Garfield County, CO NAD83		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Colorado Central Zone		

Site		SG 32-26 Pad			
Site Position:		Northing:		1,584,791.50 usft	
From:		Easting:		2,272,334.80 usft	
Position Uncertainty:		Slot Radius:		Grid Convergence:	
Map		0.00 usft		13.20 in	
				39.4106932	
				-108.0757637	
				-1.62 °	

Well	SG 323-26					
Well Position	+N/-S	-6.03 usft	Northing:	1,584,785.60 usft	Latitude:	39.4106766
	+E/-W	-4.43 usft	Easting:	2,272,330.20 usft	Longitude:	-108.0757794
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	5,076.00 usft

<b>Wellbore</b>	OH				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	HDGM	2/21/2018	9.42	65.60	51,743

<b>Design</b>	Plan #1 21Feb2018 mmsdi			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	208.28

<b>Plan Sections</b>										
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
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
120.00	0.00	0.00	120.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,374.34	43.90	208.28	1,255.16	-402.90	-216.76	3.50	3.50	0.00	208.28	
1,533.01	43.90	208.28	1,369.48	-499.79	-268.88	0.00	0.00	0.00	0.00	
3,728.11	0.00	0.00	3,356.00	-1,204.86	-648.20	2.00	-2.00	0.00	180.00	SG 323-26 KMV
5,549.11	0.00	0.00	5,177.00	-1,204.86	-648.20	0.00	0.00	0.00	0.00	SG 323-26 PBHL

<b>Database:</b>	Grand Junction District	<b>Local Co-ordinate Reference:</b>	Well SG 323-26
<b>Company:</b>	TEP Rocky Mountain LLC	<b>TVD Reference:</b>	GL 5076' & RKB 24' @ 5100.00usft
<b>Project:</b>	Garfield County, CO NAD83	<b>MD Reference:</b>	GL 5076' & RKB 24' @ 5100.00usft
<b>Site:</b>	SG 32-26 Pad	<b>North Reference:</b>	True
<b>Well:</b>	SG 323-26	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #1 21Feb2018 mmsdi		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
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
120.00	0.00	0.00	120.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Start Build 3.50</b>									
200.00	2.80	208.28	199.97	-1.72	-0.93	1.95	3.50	3.50	0.00
300.00	6.30	208.28	299.64	-8.71	-4.68	9.89	3.50	3.50	0.00
400.00	9.80	208.28	398.64	-21.04	-11.32	23.89	3.50	3.50	0.00
500.00	13.30	208.28	496.60	-38.67	-20.80	43.91	3.50	3.50	0.00
600.00	16.80	208.28	593.15	-61.53	-33.10	69.87	3.50	3.50	0.00
655.50	18.74	208.28	646.00	-76.45	-41.13	86.81	3.50	3.50	0.00
<b>G Sand</b>									
700.00	20.30	208.28	687.94	-89.54	-48.17	101.68	3.50	3.50	0.00
762.36	22.48	208.28	746.00	-109.57	-58.95	124.42	3.50	3.50	0.00
<b>G Sand Base</b>									
800.00	23.80	208.28	780.61	-122.60	-65.96	139.21	3.50	3.50	0.00
900.00	27.30	208.28	870.82	-160.57	-86.39	182.34	3.50	3.50	0.00
1,000.00	30.80	208.28	958.23	-203.33	-109.39	230.89	3.50	3.50	0.00
<b>9 5/8" Casing @ 1000' MD</b>									
1,080.10	33.60	208.28	1,026.00	-240.92	-129.61	273.57	3.50	3.50	0.00
<b>FRUN</b>									
1,100.00	34.30	208.28	1,042.50	-250.70	-134.88	284.68	3.50	3.50	0.00
1,200.00	37.80	208.28	1,123.34	-302.52	-162.75	343.52	3.50	3.50	0.00
1,300.00	41.30	208.28	1,200.44	-358.59	-192.92	407.19	3.50	3.50	0.00
1,374.34	43.90	208.28	1,255.16	-402.90	-216.76	457.50	3.50	3.50	0.00
<b>Start 158.66 hold at 1374.34 MD</b>									
1,400.00	43.90	208.28	1,273.64	-418.57	-225.18	475.30	0.00	0.00	0.00
1,500.00	43.90	208.28	1,345.69	-479.63	-258.04	544.64	0.00	0.00	0.00
1,533.01	43.90	208.28	1,369.48	-499.79	-268.88	567.53	0.00	0.00	0.00
<b>Start Drop -2.00</b>									
1,600.00	42.56	208.28	1,418.29	-540.20	-290.62	613.41	2.00	-2.00	0.00
1,700.00	40.56	208.28	1,493.11	-598.62	-322.05	679.75	2.00	-2.00	0.00
1,800.00	38.56	208.28	1,570.20	-654.71	-352.23	743.44	2.00	-2.00	0.00
1,900.00	36.56	208.28	1,649.46	-708.39	-381.11	804.40	2.00	-2.00	0.00
2,000.00	34.56	208.28	1,730.81	-759.60	-408.66	862.55	2.00	-2.00	0.00
2,100.00	32.56	208.28	1,814.13	-808.29	-434.85	917.84	2.00	-2.00	0.00
2,200.00	30.56	208.28	1,899.33	-854.38	-459.65	970.18	2.00	-2.00	0.00
2,300.00	28.56	208.28	1,986.31	-897.83	-483.02	1,019.51	2.00	-2.00	0.00
2,400.00	26.56	208.28	2,074.96	-938.57	-504.94	1,065.78	2.00	-2.00	0.00
2,500.00	24.56	208.28	2,165.16	-976.57	-525.38	1,108.93	2.00	-2.00	0.00
2,577.42	23.01	208.28	2,236.00	-1,004.07	-540.18	1,140.15	2.00	-2.00	0.00
<b>OCRK - MVRD</b>									
2,600.00	22.56	208.28	2,256.82	-1,011.77	-544.32	1,148.90	2.00	-2.00	0.00
2,700.00	20.56	208.28	2,349.82	-1,044.13	-561.73	1,185.65	2.00	-2.00	0.00
2,800.00	18.56	208.28	2,444.04	-1,073.62	-577.60	1,219.13	2.00	-2.00	0.00
2,900.00	16.56	208.28	2,539.38	-1,100.19	-591.89	1,249.30	2.00	-2.00	0.00
3,000.00	14.56	208.28	2,635.71	-1,123.81	-604.60	1,276.13	2.00	-2.00	0.00
3,100.00	12.56	208.28	2,732.91	-1,144.46	-615.71	1,299.58	2.00	-2.00	0.00
3,200.00	10.56	208.28	2,830.88	-1,162.11	-625.21	1,319.62	2.00	-2.00	0.00
3,300.00	8.56	208.28	2,929.48	-1,176.74	-633.08	1,336.23	2.00	-2.00	0.00
3,400.00	6.56	208.28	3,028.61	-1,188.33	-639.31	1,349.39	2.00	-2.00	0.00
3,500.00	4.56	208.28	3,128.13	-1,196.87	-643.90	1,359.08	2.00	-2.00	0.00
3,600.00	2.56	208.28	3,227.93	-1,202.34	-646.85	1,365.29	2.00	-2.00	0.00
3,700.00	0.56	208.28	3,327.89	-1,204.74	-648.14	1,368.02	2.00	-2.00	0.00

<b>Database:</b>	Grand Junction District	<b>Local Co-ordinate Reference:</b>	Well SG 323-26
<b>Company:</b>	TEP Rocky Mountain LLC	<b>TVD Reference:</b>	GL 5076' & RKB 24' @ 5100.00usft
<b>Project:</b>	Garfield County, CO NAD83	<b>MD Reference:</b>	GL 5076' & RKB 24' @ 5100.00usft
<b>Site:</b>	SG 32-26 Pad	<b>North Reference:</b>	True
<b>Well:</b>	SG 323-26	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #1 21Feb2018 mmsdi		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
3,728.11	0.00	0.00	3,356.00	-1,204.86	-648.20	1,368.16	2.00	-2.00	0.00	
<b>Start 1821.00 hold at 3728.11 MD - KMGAS - SG 323-26 KMV</b>										
3,800.00	0.00	0.00	3,427.89	-1,204.86	-648.20	1,368.16	0.00	0.00	0.00	
3,900.00	0.00	0.00	3,527.89	-1,204.86	-648.20	1,368.16	0.00	0.00	0.00	
4,000.00	0.00	0.00	3,627.89	-1,204.86	-648.20	1,368.16	0.00	0.00	0.00	
4,100.00	0.00	0.00	3,727.89	-1,204.86	-648.20	1,368.16	0.00	0.00	0.00	
4,200.00	0.00	0.00	3,827.89	-1,204.86	-648.20	1,368.16	0.00	0.00	0.00	
4,300.00	0.00	0.00	3,927.89	-1,204.86	-648.20	1,368.16	0.00	0.00	0.00	
4,400.00	0.00	0.00	4,027.89	-1,204.86	-648.20	1,368.16	0.00	0.00	0.00	
4,500.00	0.00	0.00	4,127.89	-1,204.86	-648.20	1,368.16	0.00	0.00	0.00	
4,600.00	0.00	0.00	4,227.89	-1,204.86	-648.20	1,368.16	0.00	0.00	0.00	
4,700.00	0.00	0.00	4,327.89	-1,204.86	-648.20	1,368.16	0.00	0.00	0.00	
4,800.00	0.00	0.00	4,427.89	-1,204.86	-648.20	1,368.16	0.00	0.00	0.00	
4,900.00	0.00	0.00	4,527.89	-1,204.86	-648.20	1,368.16	0.00	0.00	0.00	
4,949.11	0.00	0.00	4,577.00	-1,204.86	-648.20	1,368.16	0.00	0.00	0.00	
<b>CME0</b>										
5,000.00	0.00	0.00	4,627.89	-1,204.86	-648.20	1,368.16	0.00	0.00	0.00	
5,100.00	0.00	0.00	4,727.89	-1,204.86	-648.20	1,368.16	0.00	0.00	0.00	
5,200.00	0.00	0.00	4,827.89	-1,204.86	-648.20	1,368.16	0.00	0.00	0.00	
5,300.00	0.00	0.00	4,927.89	-1,204.86	-648.20	1,368.16	0.00	0.00	0.00	
5,400.00	0.00	0.00	5,027.89	-1,204.86	-648.20	1,368.16	0.00	0.00	0.00	
5,449.11	0.00	0.00	5,077.00	-1,204.86	-648.20	1,368.16	0.00	0.00	0.00	
<b>RLNS</b>										
5,500.00	0.00	0.00	5,127.89	-1,204.86	-648.20	1,368.16	0.00	0.00	0.00	
5,549.11	0.00	0.00	5,177.00	-1,204.86	-648.20	1,368.16	0.00	0.00	0.00	
<b>TD at 5549.11 - TD - SG 323-26 PBHL</b>										

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
SG 323-26 KMV - plan hits target center - Circle (radius 50.00)	0.00	0.00	3,356.00	-1,204.86	-648.20	1,583,599.60	2,271,648.10	39.4073686	-108.0780735
SG 323-26 PBHL - plan hits target center - Point	0.00	0.00	5,177.00	-1,204.86	-648.20	1,583,599.60	2,271,648.10	39.4073686	-108.0780735

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,000.00	958.23	9 5/8" Casing @ 1000' MD	9.62	130.50	

<b>Database:</b>	Grand Junction District	<b>Local Co-ordinate Reference:</b>	Well SG 323-26
<b>Company:</b>	TEP Rocky Mountain LLC	<b>TVD Reference:</b>	GL 5076' & RKB 24' @ 5100.00usft
<b>Project:</b>	Garfield County, CO NAD83	<b>MD Reference:</b>	GL 5076' & RKB 24' @ 5100.00usft
<b>Site:</b>	SG 32-26 Pad	<b>North Reference:</b>	True
<b>Well:</b>	SG 323-26	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #1 21Feb2018 mmsdi		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
655.50	646.00	G Sand		0.00	0.00	
762.36	746.00	G Sand Base		0.00	0.00	
1,080.10	1,026.00	FRUN		0.00	0.00	
2,577.42	2,236.00	OCRK		0.00	0.00	
2,577.42	2,236.00	MVRD		0.00	0.00	
3,728.11	3,356.00	KMVGAS		0.00	0.00	
4,949.11	4,577.00	CMEO		0.00	0.00	
5,449.11	5,077.00	RLNS		0.00	0.00	
5,549.11	5,177.00	TD		0.00	0.00	

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
120.00	120.00	0.00	0.00	Start Build 3.50	
1,374.34	1,255.16	-402.90	-216.76	Start 158.66 hold at 1374.34 MD	
1,533.01	1,369.48	-499.79	-268.88	Start Drop -2.00	
3,728.11	3,356.00	-1,204.86	-648.20	Start 1821.00 hold at 3728.11 MD	
5,549.11	5,177.00	-1,204.86	-648.20	TD at 5549.11	