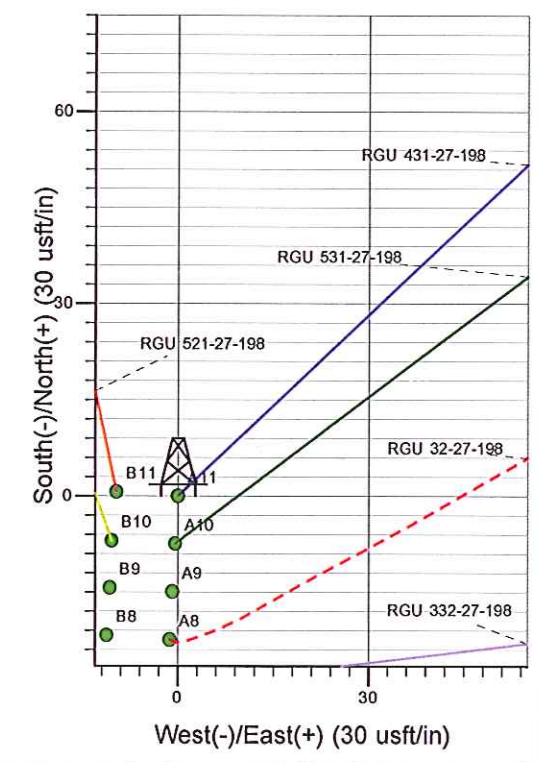
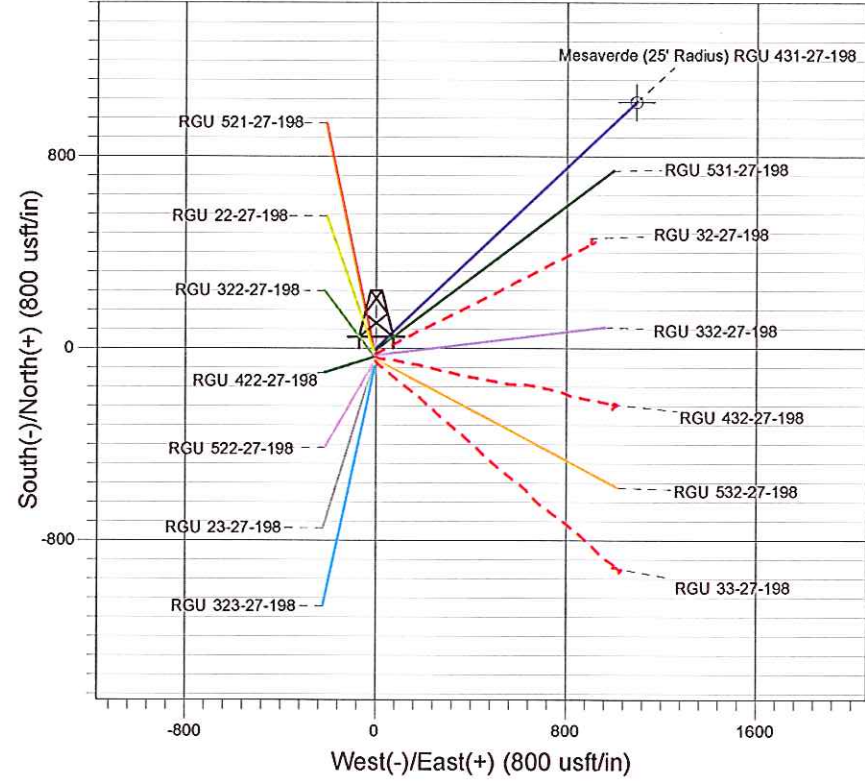
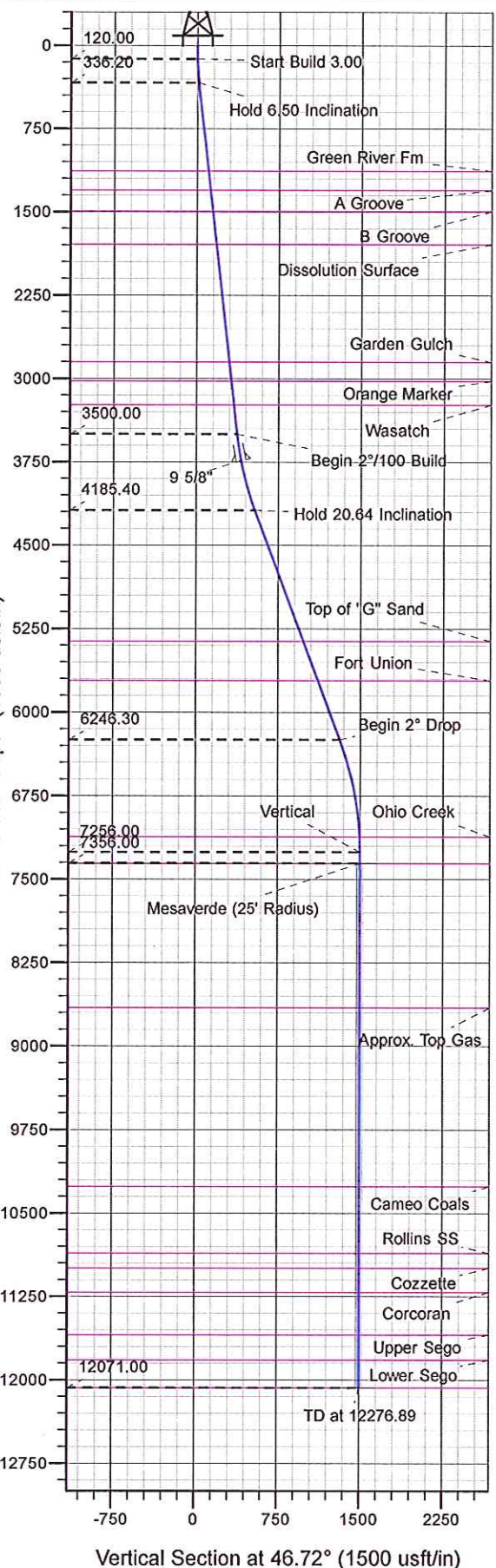




Surface Location: RGU 22-27-198 Pad
North American Datum 1983 , US State Plane 1983, Colorado Central Zone
Ground Elevation: 6560.00
+N/-S 0.00 +E/-W 0.00 Northing 1778707.80 Easting 2192507.20 Longitude 39.93623 Slot A11
KELLY BUSHING @ 6581.00usft (Cyclone 29)



Project: RG 27-01S-098W
Site: RGU 22-27-198 Pad
Well: RGU 431-27-198
Plan #2 31Oct12 kjs

Azimuths to True North
Magnetic North: 11.08°
Magnetic Field
Strength: 52828.5snT
Dip Angle: 66.14°
Date: 8/2/2007
Model: IGRF2010

ANNOTATIONS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	VSect	Departure	Annotation	
120.00	0.00	0.00	120.00	0.00	0.00	0.00	0.00	Start Build 3.00	
336.67	6.50	46.72	336.20	8.42	8.94	12.28	12.28	Hold 6.50 Inclination	
3520.93	6.50	46.72	3500.00	255.54	271.36	372.75	372.75	Begin 2 1/100 Build	
4227.80	20.64	46.72	4185.40	368.95	391.79	538.16	538.16	Hold 20.64 Inclination	
6430.02	20.64	46.72	6246.30	901.09	956.83	1314.34	1314.34	Begin 2° Drop	
7461.89	0.00	0.00	7256.00	1027.13	1090.66	1498.17	1498.17	Vertical	
7561.89	0.00	355.42	7356.00	1027.13	1090.66	1498.17	1498.17	Mesaverde	
12276.89	0.00	355.42	12071.00	1027.21	1090.65	1498.23	1498.26	TD at 12276.89	



PICEANCE HL NAD 83

RG 27-01S-098W

RGU 22-27-198 Pad

RGU 431-27-198 - Slot A11

RGU 431-27-198

Plan: Plan #2 31Oct12 kjs

Standard Planning Report - Geographic

24 January, 2013



WPX Energy
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well RGU 431-27-198 - Slot A11
Company:	PICEANCE HL NAD 83	TVD Reference:	KELLY BUSHING @ 6581.00usft (Cyclone 29)
Project:	RG 27-01S-098W	MD Reference:	KELLY BUSHING @ 6581.00usft (Cyclone 29)
Site:	RGU 22-27-198 Pad	North Reference:	True
Well:	RGU 431-27-198	Survey Calculation Method:	Minimum Curvature
Wellbore:	RGU 431-27-198		
Design:	Plan #2 31Oct12 kjs		

Project	RG 27-01S-098W, Rio Blanco County, CO, RG 27-01S-098W		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Central Zone		Using geodetic scale factor

Site	RGU 22-27-198 Pad		
Site Position:		Northing:	1,778,610.70 usft
From:	Map	Easting:	2,192,498.60 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in
		Latitude:	39.93596
		Longitude:	-108.37993
		Grid Convergence:	-1.82 °

Well	RGU 431-27-198 - Slot A11		
Well Position	+N/-S	0.00 usft	Northing: 1,778,707.80 usft
	+E/-W	0.00 usft	Easting: 2,192,507.20 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	Latitude: 39.93623
			Longitude: -108.37991
			Ground Level: 6,560.00 usft

Wellbore	RGU 431-27-198				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	8/2/2007	11.08	66.14	52,829

Design	Plan #2 31Oct12 kjs			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	46.72

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
0.00	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	
336.67	6.50	46.72	336.20	8.42	8.94	3.00	3.00	0.00	46.72	
3,520.93	6.50	46.72	3,500.00	255.54	271.36	0.00	0.00	0.00	0.00	
4,227.80	20.64	46.72	4,185.40	368.95	391.79	2.00	2.00	0.00	0.00	
6,430.02	20.64	46.72	6,246.30	901.09	956.83	0.00	0.00	0.00	0.00	
7,461.89	0.00	0.00	7,256.00	1,027.13	1,090.66	2.00	-2.00	-4.53	-180.00	
12,276.89	0.00	355.42	12,071.00	1,027.21	1,090.65	0.00	0.00	-0.10	355.42	TD / PBHL RGU 431-



WPX Energy
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well RGU 431-27-198 - Slot A11
Company:	PICEANCE HL NAD 83	TVD Reference:	KELLY BUSHING @ 6581.00usft (Cyclone 29)
Project:	RG 27-01S-098W	MD Reference:	KELLY BUSHING @ 6581.00usft (Cyclone 29)
Site:	RGU 22-27-198 Pad	North Reference:	True
Well:	RGU 431-27-198	Survey Calculation Method:	Minimum Curvature
Wellbore:	RGU 431-27-198		
Design:	Plan #2 31Oct12 kjs		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
0.00	0.00	0.00	0.00	0.00	0.00	1,778,707.80	2,192,507.20	39.93623	-108.37991	
120.00	0.00	0.00	120.00	0.00	0.00	1,778,707.80	2,192,507.20	39.93623	-108.37991	
Start Build 3.00										
336.67	6.50	46.72	336.20	8.42	8.94	1,778,715.93	2,192,516.40	39.93625	-108.37988	
Hold 6.50 Inclination										
500.00	6.50	46.72	498.49	21.09	22.40	1,778,728.17	2,192,530.26	39.93629	-108.37983	
1,000.00	6.50	46.72	995.27	59.90	63.61	1,778,765.65	2,192,572.67	39.93639	-108.37968	
1,136.61	6.50	46.72	1,131.00	70.50	74.86	1,778,775.89	2,192,584.26	39.93642	-108.37964	
Green River Fm										
1,312.74	6.50	46.72	1,306.00	84.17	89.38	1,778,789.10	2,192,599.20	39.93646	-108.37959	
A Groove										
1,500.00	6.50	46.72	1,492.06	98.70	104.81	1,778,803.13	2,192,615.09	39.93650	-108.37954	
1,503.97	6.50	46.72	1,496.00	99.01	105.14	1,778,803.43	2,192,615.43	39.93650	-108.37954	
B Groove										
1,800.88	6.50	46.72	1,791.00	122.05	129.61	1,778,825.69	2,192,640.62	39.93656	-108.37945	
Dissolution Surface										
2,000.00	6.50	46.72	1,988.84	137.50	146.02	1,778,840.61	2,192,657.51	39.93661	-108.37939	
2,500.00	6.50	46.72	2,485.63	176.31	187.23	1,778,878.09	2,192,699.93	39.93671	-108.37924	
2,867.73	6.50	46.72	2,851.00	204.85	217.53	1,778,905.66	2,192,731.12	39.93679	-108.37914	
Garden Gulch										
3,000.00	6.50	46.72	2,982.42	215.11	228.43	1,778,915.57	2,192,742.34	39.93682	-108.37910	
3,038.83	6.50	46.72	3,021.00	218.13	231.63	1,778,918.48	2,192,745.64	39.93683	-108.37909	
Orange Marker										
3,255.23	6.50	46.72	3,236.00	234.92	249.47	1,778,934.70	2,192,764.00	39.93687	-108.37902	
Wasatch										
3,500.00	6.50	46.72	3,479.20	253.92	269.64	1,778,953.05	2,192,784.76	39.93693	-108.37895	
3,520.93	6.50	46.72	3,500.00	255.54	271.36	1,778,954.62	2,192,786.54	39.93693	-108.37894	
Begin 2°/100 Build										
3,759.87	11.28	46.72	3,736.00	280.85	298.24	1,778,979.06	2,192,814.20	39.93700	-108.37885	
9 5/8"										
4,000.00	16.08	46.72	3,969.25	319.77	339.57	1,779,016.66	2,192,856.74	39.93711	-108.37870	
4,227.80	20.64	46.72	4,185.40	368.95	391.79	1,779,064.16	2,192,910.50	39.93724	-108.37851	
Hold 20.64 Inclination										
4,500.00	20.64	46.72	4,440.13	434.72	461.63	1,779,127.69	2,192,982.39	39.93742	-108.37827	
5,000.00	20.64	46.72	4,908.04	555.54	589.92	1,779,244.39	2,193,114.45	39.93775	-108.37781	
5,484.02	20.64	46.72	5,361.00	672.50	714.11	1,779,357.35	2,193,242.29	39.93808	-108.37737	
Top of "G" Sand										
5,500.00	20.64	46.72	5,375.96	676.36	718.21	1,779,361.09	2,193,246.51	39.93809	-108.37735	
5,863.36	20.64	46.72	5,716.00	764.16	811.44	1,779,445.89	2,193,342.48	39.93833	-108.37702	
Fort Union										
6,000.00	20.64	46.72	5,843.87	797.18	846.50	1,779,477.78	2,193,378.57	39.93842	-108.37689	
6,430.02	20.64	46.72	6,246.30	901.09	956.83	1,779,578.15	2,193,492.15	39.93870	-108.37650	
Begin 2° Drop										
6,500.00	19.24	46.72	6,312.08	917.45	974.20	1,779,593.95	2,193,510.03	39.93875	-108.37644	
7,000.00	9.24	46.72	6,796.11	1,001.65	1,063.61	1,779,675.28	2,193,602.07	39.93898	-108.37612	
7,321.83	2.80	46.72	7,116.00	1,024.78	1,088.17	1,779,697.62	2,193,627.35	39.93904	-108.37603	
Ohio Creek										
7,461.89	0.00	0.00	7,256.00	1,027.13	1,090.66	1,779,699.88	2,193,629.91	39.93905	-108.37602	
Vertical										
7,500.00	0.00	0.00	7,294.11	1,027.13	1,090.66	1,779,699.88	2,193,629.91	39.93905	-108.37602	



WPX Energy
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well RGU 431-27-198 - Slot A11
Company:	PICEANCE HL NAD 83	TVD Reference:	KELLY BUSHING @ 6581.00usft (Cyclone 29)
Project:	RG 27-01S-098W	MD Reference:	KELLY BUSHING @ 6581.00usft (Cyclone 29)
Site:	RGU 22-27-198 Pad	North Reference:	True
Well:	RGU 431-27-198	Survey Calculation Method:	Minimum Curvature
Wellbore:	RGU 431-27-198		
Design:	Plan #2 31Oct12 kjs		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
7,561.89	0.00	355.42	7,356.00	1,027.13	1,090.66	1,779,699.88	2,193,629.91	39.93905	-108.37602
Mesaverde - Mesaverde									
8,000.00	0.00	355.42	7,794.11	1,027.13	1,090.66	1,779,699.88	2,193,629.91	39.93905	-108.37602
8,500.00	0.00	355.42	8,294.11	1,027.13	1,090.66	1,779,699.89	2,193,629.91	39.93905	-108.37602
8,861.89	0.00	355.42	8,656.00	1,027.13	1,090.66	1,779,699.89	2,193,629.91	39.93905	-108.37602
Approx. Top Gas									
9,000.00	0.00	355.42	8,794.11	1,027.14	1,090.66	1,779,699.89	2,193,629.91	39.93905	-108.37602
9,500.00	0.00	355.42	9,294.11	1,027.14	1,090.66	1,779,699.90	2,193,629.91	39.93905	-108.37602
10,000.00	0.00	355.42	9,794.11	1,027.15	1,090.66	1,779,699.91	2,193,629.91	39.93905	-108.37602
10,466.89	0.00	355.42	10,261.00	1,027.16	1,090.66	1,779,699.92	2,193,629.91	39.93905	-108.37602
Cameo Coals									
10,500.00	0.00	355.42	10,294.11	1,027.16	1,090.66	1,779,699.92	2,193,629.91	39.93905	-108.37602
11,000.00	0.00	355.42	10,794.11	1,027.17	1,090.66	1,779,699.93	2,193,629.91	39.93905	-108.37602
11,066.89	0.00	355.42	10,861.00	1,027.18	1,090.66	1,779,699.93	2,193,629.91	39.93905	-108.37602
Rollins SS									
11,201.89	0.00	355.42	10,996.00	1,027.18	1,090.66	1,779,699.94	2,193,629.91	39.93905	-108.37602
Cozzette									
11,416.89	0.00	355.42	11,211.00	1,027.19	1,090.65	1,779,699.94	2,193,629.91	39.93905	-108.37602
Corcoran									
11,500.00	0.00	355.42	11,294.11	1,027.19	1,090.65	1,779,699.94	2,193,629.91	39.93905	-108.37602
11,801.89	0.00	355.42	11,596.00	1,027.20	1,090.65	1,779,699.95	2,193,629.91	39.93905	-108.37602
Upper Sego									
12,000.00	0.00	355.42	11,794.11	1,027.20	1,090.65	1,779,699.96	2,193,629.91	39.93905	-108.37602
12,026.89	0.00	355.42	11,821.00	1,027.20	1,090.65	1,779,699.96	2,193,629.91	39.93905	-108.37602
Lower Sego									
12,276.89	0.00	355.42	12,071.00	1,027.21	1,090.65	1,779,699.97	2,193,629.91	39.93905	-108.37602
TD at 12276.89									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
Mesaverde (25' Radius)	0.00	0.00	7,356.00	1,027.21	1,090.66	1,779,699.97	2,193,629.91	39.93905	-108.37602
- plan misses target center by 0.09usft at 7561.89usft MD (7356.00 TVD, 1027.13 N, 1090.66 E)									
- Circle (radius 25.00)									
TD / PBHL RGU 431-27-	0.00	0.00	12,071.00	1,027.21	1,090.65	1,779,699.97	2,193,629.91	39.93905	-108.37602
- plan hits target center									
- Point									

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
3,759.87	3,736.00	9 5/8"	9.625	13.500	



WPX Energy
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well RGU 431-27-198 - Slot A11
Company:	PICEANCE HL NAD 83	TVD Reference:	KELLY BUSHING @ 6581.00usft (Cyclone 29)
Project:	RG 27-01S-098W	MD Reference:	KELLY BUSHING @ 6581.00usft (Cyclone 29)
Site:	RGU 22-27-198 Pad	North Reference:	True
Well:	RGU 431-27-198	Survey Calculation Method:	Minimum Curvature
Wellbore:	RGU 431-27-198		
Design:	Plan #2 31Oct12 kjs		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,136.61	1,131.00	Green River Fm				
1,312.74	1,306.00	A Groove				
1,503.97	1,496.00	B Groove				
1,800.88	1,791.00	Dissolution Surface				
2,867.73	2,851.00	Garden Gulch				
3,038.83	3,021.00	Orange Marker				
3,255.23	3,236.00	Wasatch				
5,484.02	5,361.00	Top of "G" Sand				
5,863.36	5,716.00	Fort Union				
7,321.83	7,116.00	Ohio Creek				
7,561.89	7,356.00	Mesaverde				
8,861.89	8,656.00	Approx. Top Gas				
10,466.89	10,261.00	Cameo Coals				
11,066.89	10,861.00	Rollins SS				
11,201.89	10,996.00	Cozzette				
11,416.89	11,211.00	Corcoran				
11,801.89	11,596.00	Upper Sego				
12,026.89	11,821.00	Lower Sego				

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 3.00	
336.67	336.20	8.42	8.94	Hold 6.50 Inclination	
3,520.93	3,500.00	255.54	271.36	Begin 2°/100 Build	
4,227.80	4,185.40	368.95	391.79	Hold 20.64 Inclination	
6,430.02	6,246.30	901.09	956.83	Begin 2° Drop	
7,461.89	7,256.00	1,027.13	1,090.66	Vertical	
7,561.89	7,356.00	1,027.13	1,090.66	Mesaverde	
12,276.89	12,071.00	1,027.21	1,090.65	TD at 12276.89	