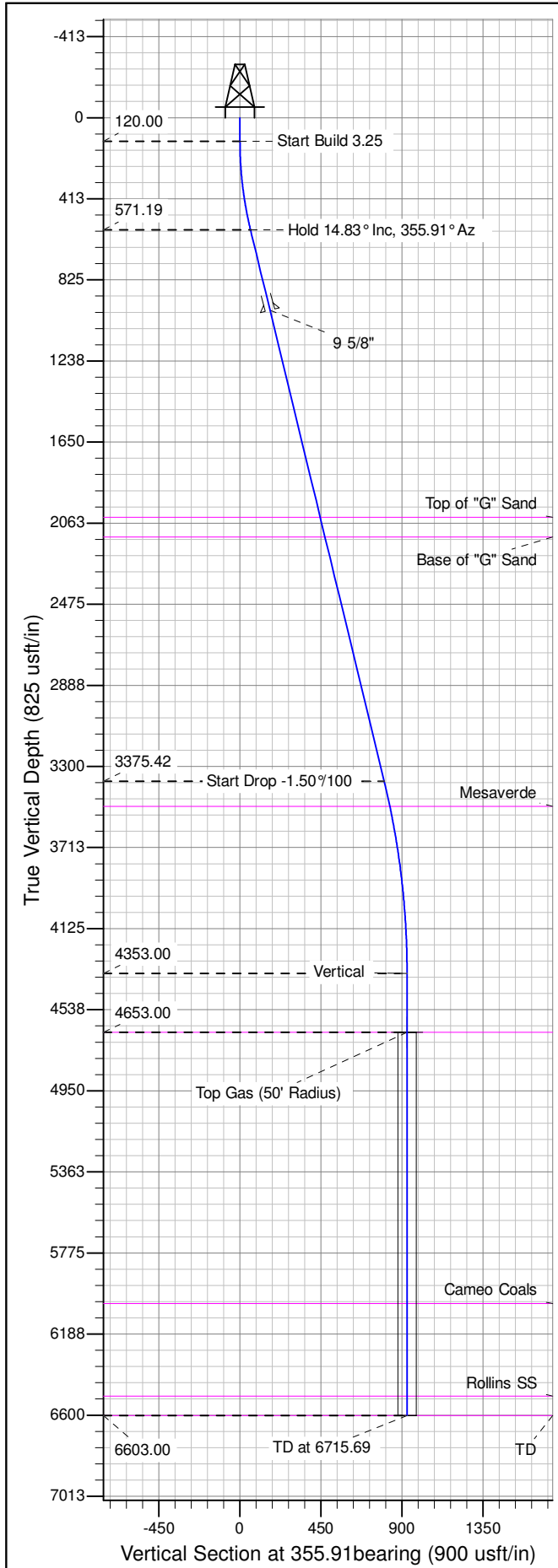
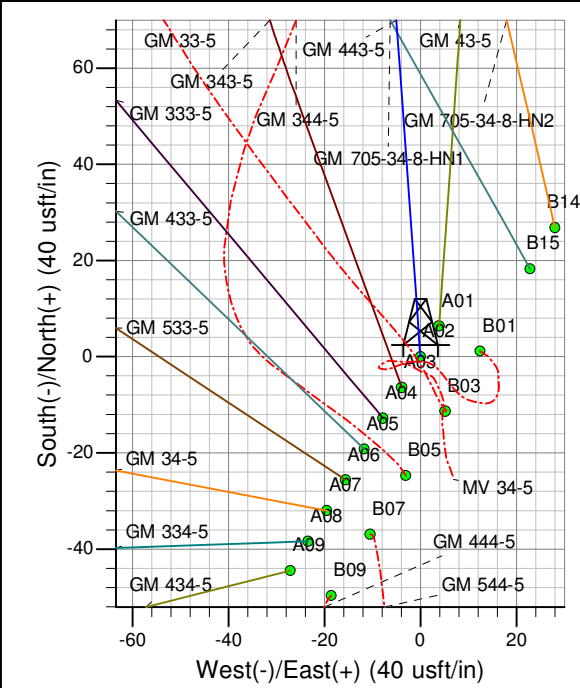
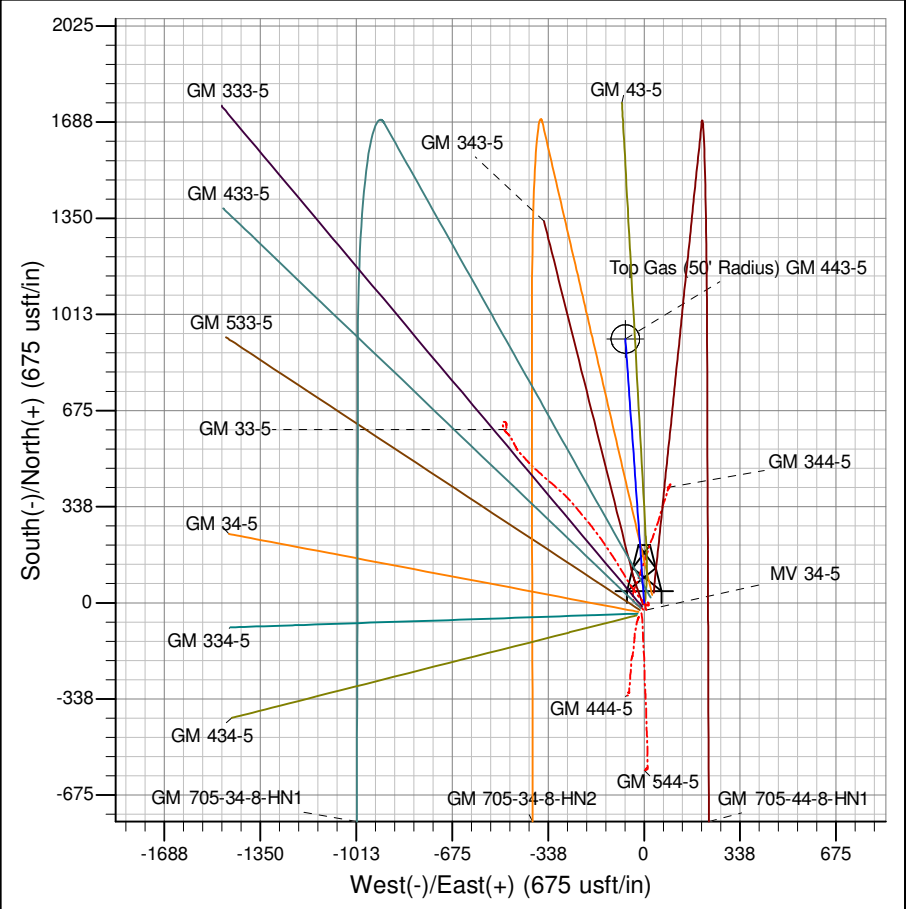




Well Name: GM 443-5
Surface Location: MV 34-5 Pad
North American Datum 1983 , US State Plane 1983 , Colorado Central Zone
Ground Elevation: 5977.00
+N/-S +E/-W Northing Easting Latitude Longitude Slot
0.00 0.00 1603539.29000 2258812.78000 39.46108 -108.12552 A02
KELLY BUSHING @ 6003.00usft (Nabors 577 (26' RKB) mab)



ANNOTATIONS									
TVD	MD	Inc	Azi	+N/-S	+E/-W	Vsect	Departure	Annotation	
120.00	120.00	0.00	0.00	0.00	0.00	0.00	0.00	Start Build 3.25	
571.19	576.27	14.83	355.91	58.56	-4.19	58.71	58.71	Hold 14.83° Inc, 355.91° Az	
3375.42	3477.11	14.83	355.91	799.08	-57.15	801.12	801.12	Start Drop -1.50°/100	
4353.00	4465.69	0.00	0.00	925.97	-66.23	928.34	928.34	Vertical	
4653.00	4765.69	0.00	0.00	925.97	-66.23	928.34	928.34	Top Gas	
6603.00	6715.69	0.00	0.00	925.97	-66.23	928.34	928.34	TD at 6715.69	



Azimuths to True North
Magnetic North: 9.99°

Magnetic Field
Strength: 51961.5snT
Dip Angle: 65.62°
Date: 5/27/2014
Model: IGRF2005-10

Project: GV 05-07S-096W
Site: MV 34-5 Pad
Well: GM 443-5
Design #2 24Jul14 mab

PICEANCE VLY NAD 83

GV 05-07S-096W

MV 34-5 Pad

GM 443-5 - Slot A02

Wellbore #1

Plan: Design #2 24Jul14 mab

Standard Planning Report - Geographic

30 September, 2014

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 443-5 - Slot A02
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 6003.00usft (Nabors 577 (26' RKB) mab)
Project:	GV 05-07S-096W	MD Reference:	KELLY BUSHING @ 6003.00usft (Nabors 577 (26' RKB) mab)
Site:	MV 34-5 Pad	North Reference:	True
Well:	GM 443-5	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #2 24Jul14 mab		

Project	GV 05-07S-096W, Garfield County, CO, 05-07S-096W		
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	MV 34-5 Pad			
Site Position:		Northing:	1,603,540.12600 usft	Latitude: 39.461085
From: Map		Easting:	2,258,825.25200 usft	Longitude: -108.125476
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in	Grid Convergence: -1.66 °

Well	GM 443-5 - Slot A02			
Well Position	+N/-S	0.00 usft	Northing:	1,603,539.29000 usft
	+E/-W	0.00 usft	Easting:	2,258,812.78000 usft
Position Uncertainty	0.00 usft		Wellhead Elevation:	0.00 usft
			Ground Level:	5,977.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2005-10	5/27/2014	9.99	65.62	51,961

Design	Design #2 24Jul14 mab			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (bearing)
	0.00	0.00	0.00	355.91

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (bearing)	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	
576.27	14.83	355.91	571.19	58.56	-4.19	3.25	3.25	0.00	355.91	
3,477.11	14.83	355.91	3,375.42	799.08	-57.15	0.00	0.00	0.00	0.00	
4,465.69	0.00	0.00	4,353.00	925.97	-66.23	1.50	-1.50	0.00	180.00	
4,765.69	0.00	0.00	4,653.00	925.97	-66.23	0.00	0.00	0.00	0.00	Top Gas (50' Radius)
6,715.69	0.00	0.00	6,603.00	925.97	-66.23	0.00	0.00	0.00	0.00	

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 443-5 - Slot A02
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 6003.00usft (Nabors 577 (26' RKB) mab)
Project:	GV 05-07S-096W	MD Reference:	KELLY BUSHING @ 6003.00usft (Nabors 577 (26' RKB) mab)
Site:	MV 34-5 Pad	North Reference:	True
Well:	GM 443-5	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #2 24Jul14 mab		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (bearing)	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	1,603,539.29000	2,258,812.78000	39.461081	-108.125520	
120.00	0.00	0.00	120.00	0.00	0.00	1,603,539.29000	2,258,812.78000	39.461081	-108.125520	
Start Build 3.25										
200.00	2.60	355.91	199.97	1.81	-0.13	1,603,541.10311	2,258,812.70290	39.461086	-108.125520	
400.00	9.10	355.91	398.82	22.13	-1.58	1,603,561.45777	2,258,811.83728	39.461142	-108.125525	
576.27	14.83	355.91	571.19	58.56	-4.19	1,603,597.94835	2,258,810.28546	39.461242	-108.125535	
Hold 14.83° Inc, 355.91° Az										
600.00	14.83	355.91	594.13	64.62	-4.62	1,603,604.01681	2,258,810.02738	39.461259	-108.125536	
800.00	14.83	355.91	787.47	115.68	-8.27	1,603,655.15414	2,258,807.85268	39.461399	-108.125549	
1,000.00	14.83	355.91	980.81	166.73	-11.93	1,603,706.29147	2,258,805.67798	39.461539	-108.125562	
9 5/8"										
1,200.00	14.83	355.91	1,174.15	217.79	-15.58	1,603,757.42881	2,258,803.50328	39.461679	-108.125575	
1,400.00	14.83	355.91	1,367.49	268.84	-19.23	1,603,808.56613	2,258,801.32857	39.461819	-108.125588	
1,600.00	14.83	355.91	1,560.83	319.90	-22.88	1,603,859.70346	2,258,799.15387	39.461960	-108.125601	
1,800.00	14.83	355.91	1,754.17	370.96	-26.53	1,603,910.84079	2,258,796.97917	39.462100	-108.125614	
2,000.00	14.83	355.91	1,947.51	422.01	-30.18	1,603,961.97812	2,258,794.80446	39.462240	-108.125627	
2,088.44	14.83	355.91	2,033.00	444.59	-31.80	1,603,984.59070	2,258,793.84283	39.462302	-108.125632	
Top of "G" Sand										
2,191.88	14.83	355.91	2,133.00	470.99	-33.69	1,604,011.04025	2,258,792.71801	39.462374	-108.125639	
Base of "G" Sand										
2,200.00	14.83	355.91	2,140.85	473.07	-33.84	1,604,013.11545	2,258,792.62976	39.462380	-108.125640	
2,400.00	14.83	355.91	2,334.19	524.12	-37.49	1,604,064.25278	2,258,790.45506	39.462520	-108.125653	
2,600.00	14.83	355.91	2,527.52	575.18	-41.14	1,604,115.39011	2,258,788.28036	39.462660	-108.125665	
2,800.00	14.83	355.91	2,720.86	626.23	-44.79	1,604,166.52744	2,258,786.10565	39.462801	-108.125678	
3,000.00	14.83	355.91	2,914.20	677.29	-48.44	1,604,217.66477	2,258,783.93095	39.462941	-108.125691	
3,200.00	14.83	355.91	3,107.54	728.34	-52.09	1,604,268.80210	2,258,781.75625	39.463081	-108.125704	
3,400.00	14.83	355.91	3,300.88	779.40	-55.75	1,604,319.93943	2,258,779.58154	39.463221	-108.125717	
3,477.11	14.83	355.91	3,375.42	799.08	-57.15	1,604,339.65553	2,258,778.74308	39.463275	-108.125722	
Start Drop -1.50°/100										
3,600.00	12.99	355.91	3,494.71	828.54	-59.26	1,604,369.16232	2,258,777.48826	39.463356	-108.125730	
3,608.51	12.86	355.91	3,503.00	830.44	-59.40	1,604,371.06359	2,258,777.40740	39.463361	-108.125730	
Mesaverde										
3,800.00	9.99	355.91	3,690.68	868.26	-62.10	1,604,408.94336	2,258,775.79650	39.463465	-108.125740	
4,000.00	6.99	355.91	3,888.47	897.69	-64.21	1,604,438.42318	2,258,774.54282	39.463546	-108.125747	
4,200.00	3.99	355.91	4,087.53	916.76	-65.57	1,604,457.52097	2,258,773.73065	39.463598	-108.125752	
4,400.00	0.99	355.91	4,287.32	925.41	-66.19	1,604,466.18438	2,258,773.36223	39.463622	-108.125754	
4,465.69	0.00	0.00	4,353.00	925.97	-66.23	1,604,466.74863	2,258,773.33823	39.463624	-108.125754	
Vertical										
4,600.00	0.00	0.00	4,487.31	925.97	-66.23	1,604,466.74863	2,258,773.33823	39.463624	-108.125754	
4,765.69	0.00	0.00	4,653.00	925.97	-66.23	1,604,466.74863	2,258,773.33823	39.463624	-108.125754	
Top Gas - Approx. Top Gas										
4,800.00	0.00	0.00	4,687.31	925.97	-66.23	1,604,466.74863	2,258,773.33823	39.463624	-108.125754	
5,000.00	0.00	0.00	4,887.31	925.97	-66.23	1,604,466.74863	2,258,773.33823	39.463624	-108.125754	
5,200.00	0.00	0.00	5,087.31	925.97	-66.23	1,604,466.74863	2,258,773.33823	39.463624	-108.125754	
5,400.00	0.00	0.00	5,287.31	925.97	-66.23	1,604,466.74863	2,258,773.33823	39.463624	-108.125754	
5,600.00	0.00	0.00	5,487.31	925.97	-66.23	1,604,466.74863	2,258,773.33823	39.463624	-108.125754	
5,800.00	0.00	0.00	5,687.31	925.97	-66.23	1,604,466.74863	2,258,773.33823	39.463624	-108.125754	
6,000.00	0.00	0.00	5,887.31	925.97	-66.23	1,604,466.74863	2,258,773.33823	39.463624	-108.125754	
6,145.69	0.00	0.00	6,033.00	925.97	-66.23	1,604,466.74863	2,258,773.33823	39.463624	-108.125754	
Cameo Coals										
6,200.00	0.00	0.00	6,087.31	925.97	-66.23	1,604,466.74863	2,258,773.33823	39.463624	-108.125754	

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 443-5 - Slot A02
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 6003.00usft (Nabors 577 (26' RKB) mab)
Project:	GV 05-07S-096W	MD Reference:	KELLY BUSHING @ 6003.00usft (Nabors 577 (26' RKB) mab)
Site:	MV 34-5 Pad	North Reference:	True
Well:	GM 443-5	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #2 24Jul14 mab		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (bearing)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
6,400.00	0.00	0.00	6,287.31	925.97	-66.23	1,604,466.74863	2,258,773.33823	39.463624	-108.125754
6,600.00	0.00	0.00	6,487.31	925.97	-66.23	1,604,466.74863	2,258,773.33823	39.463624	-108.125754
6,615.69	0.00	0.00	6,503.00	925.97	-66.23	1,604,466.74863	2,258,773.33823	39.463624	-108.125754
Rollins SS									
6,715.69	0.00	0.00	6,603.00	925.97	-66.23	1,604,466.74863	2,258,773.33823	39.463624	-108.125754
TD at 6715.69 - TD									

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (bearing)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Top Gas (50' Radius) GM - plan hits target center - Circle (radius 50.00)	0.00	0.00	4,653.00	925.97	-66.23	1,604,466.74863	2,258,773.33823	39.463624	-108.125754

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,000.00	980.81	9 5/8"	9.625	13.500	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (bearing)	
2,088.44	2,033.00	Top of "G" Sand				
2,191.88	2,133.00	Base of "G" Sand				
3,608.51	3,503.00	Mesaverde				
4,765.69	4,653.00	Approx. Top Gas				
6,145.69	6,033.00	Cameo Coals				
6,615.69	6,503.00	Rollins SS				
6,715.69	6,603.00	TD				

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 3.25	
576.27	571.19	58.56	-4.19	Hold 14.83° Inc, 355.91° Az	
3,477.11	3,375.42	799.08	-57.15	Start Drop -1.50°/100	
4,465.69	4,353.00	925.97	-66.23	Vertical	
4,765.69	4,653.00	925.97	-66.23	Top Gas	
6,715.69	6,603.00	925.97	-66.23	TD at 6715.69	