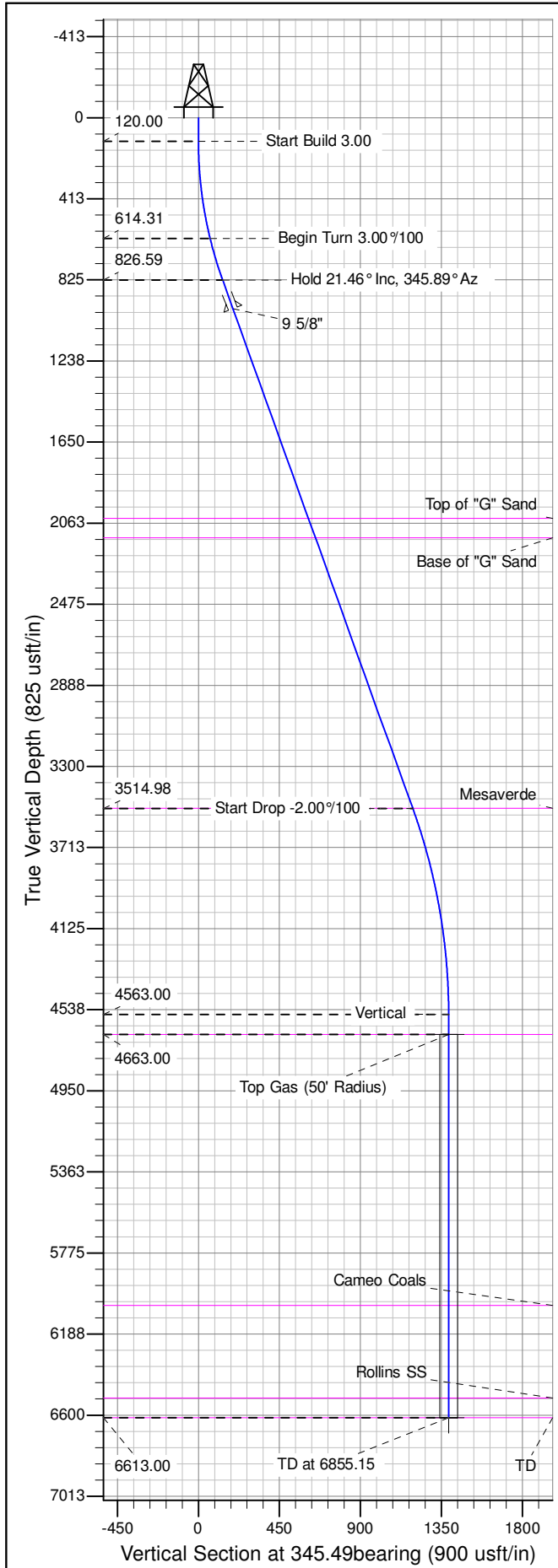




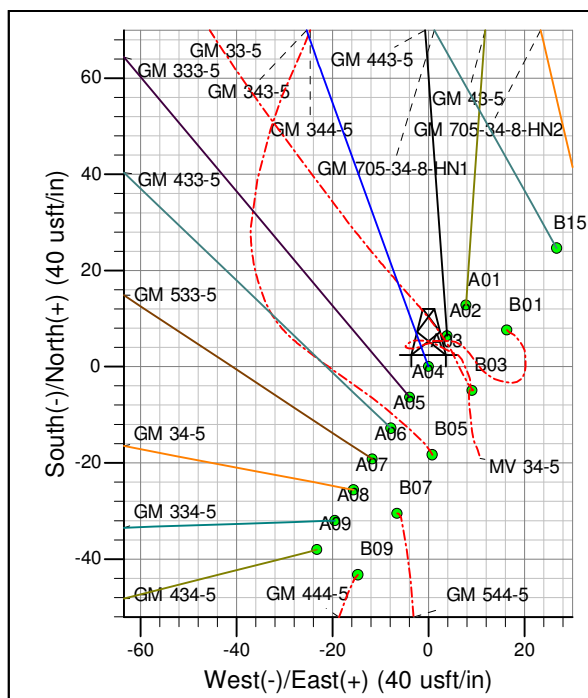
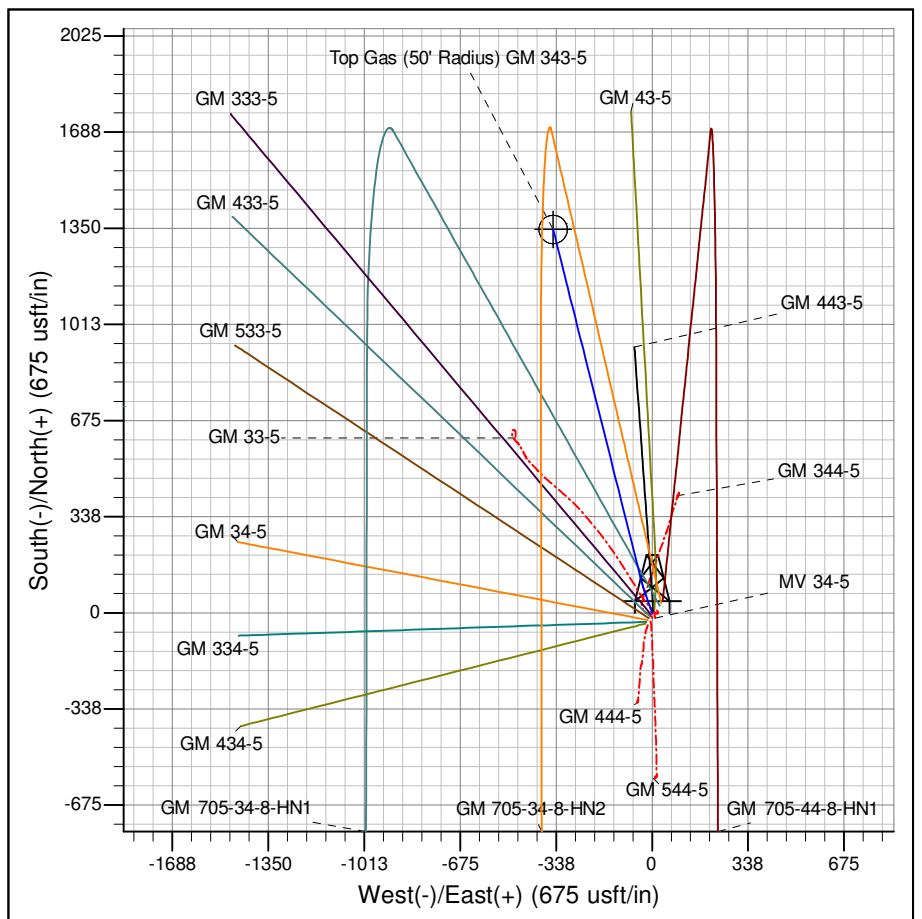
Well Name: GM 343-5
Surface Location: MV 34-5 Pad
North American Datum 1983 , US State Plane 1983 , Colorado Central Zone
Ground Elevation: 5977.00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	1603533.00000	2258808.70000	39.46106	-108.12553	A03

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 3.00	
614.31	620.00	15.00	340.00	61.15	-22.26	64.78	65.08	Begin Turn 3.00°/100	
826.59	843.59	21.46	345.89	128.08	-42.15	134.56	134.94	Hold 21.46° Inc, 345.89° Az	
3514.98	3732.22	21.46	345.89	1152.91	-299.86	1191.27	1191.68	Start Drop -2.00°/100	
4563.00	4805.15	0.00	0.00	1345.50	-348.28	1389.84	1390.25	Vertical	
4663.00	4905.15	0.00	0.00	1345.50	-348.28	1389.84	1390.25	Top Gas	
6613.00	6855.15	0.00	0.00	1345.50	-348.28	1389.84	1390.25	TD at 6855.15	



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 343-5
Design #2 24Jul14 mab

PICEANCE VLY NAD 83

GV 05-07S-096W

MV 34-5 Pad

GM 343-5 - Slot A03

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 343-5 - Slot A03
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 343-5	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 343-5 - Slot A03			
Well Position	+N/-S	0.00 usft	Northing:	1,603,533.00000 usft
	+E/-W	0.00 usft	Easting:	2,258,808.70000 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	345.49

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	
620.00	15.00	340.00	614.31	61.15	-22.26	3.00	3.00	0.00	340.00	
843.59	21.46	345.89	826.59	128.08	-42.15	3.00	2.89	2.63	18.73	
3,732.22	21.46	345.89	3,514.98	1,152.91	-299.86	0.00	0.00	0.00	0.00	
4,805.15	0.00	0.00	4,563.00	1,345.50	-348.28	2.00	-2.00	0.00	180.00	
6,855.15	0.00	0.00	6,613.00	1,345.50	-348.28	0.00	0.00	0.00	0.00	TD / PBHL GM 343-5

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 343-5 - Slot A03
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 343-5	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	1,603,533.00000	2,258,808.70000	39.461064	-108.125534	
120.00	0.00	0.00	120.00	0.00	0.00	1,603,533.00000	2,258,808.70000	39.461064	-108.125534	
Start Build 3.00										
200.00	2.40	340.00	199.98	1.57	-0.57	1,603,534.59007	2,258,808.17278	39.461068	-108.125536	
400.00	8.40	340.00	399.00	19.25	-7.01	1,603,552.44633	2,258,802.25213	39.461117	-108.125558	
600.00	14.40	340.00	594.96	56.38	-20.52	1,603,589.95014	2,258,789.81690	39.461219	-108.125606	
620.00	15.00	340.00	614.31	61.15	-22.26	1,603,594.76716	2,258,788.21971	39.461232	-108.125612	
Begin Turn 3.00°/100										
800.00	20.19	345.02	785.84	113.08	-38.26	1,603,647.13563	2,258,773.72318	39.461374	-108.125669	
843.59	21.46	345.89	826.59	128.08	-42.15	1,603,662.24135	2,258,770.26988	39.461415	-108.125683	
Hold 21.46° Inc, 345.89° Az										
1,000.00	21.46	345.89	972.15	183.57	-56.10	1,603,718.10868	2,258,757.92623	39.461568	-108.125732	
9 5/8"										
1,200.00	21.46	345.89	1,158.29	254.53	-73.95	1,603,789.54775	2,258,742.14207	39.461763	-108.125795	
1,400.00	21.46	345.89	1,344.42	325.48	-91.79	1,603,860.98682	2,258,726.35791	39.461957	-108.125859	
1,600.00	21.46	345.89	1,530.56	396.44	-109.63	1,603,932.42590	2,258,710.57375	39.462152	-108.125922	
1,800.00	21.46	345.89	1,716.70	467.40	-127.47	1,604,003.86498	2,258,694.78959	39.462347	-108.125985	
2,000.00	21.46	345.89	1,902.83	538.35	-145.32	1,604,075.30406	2,258,679.00544	39.462542	-108.126048	
2,145.23	21.46	345.89	2,038.00	589.88	-158.27	1,604,127.18094	2,258,667.54346	39.462683	-108.126094	
Top of "G" Sand										
2,200.00	21.46	345.89	2,088.97	609.31	-163.16	1,604,146.74313	2,258,663.22128	39.462737	-108.126111	
2,252.68	21.46	345.89	2,138.00	628.00	-167.86	1,604,165.56086	2,258,659.06358	39.462788	-108.126128	
Base of "G" Sand										
2,400.00	21.46	345.89	2,275.11	680.27	-181.00	1,604,218.18220	2,258,647.43712	39.462931	-108.126175	
2,600.00	21.46	345.89	2,461.24	751.22	-198.85	1,604,289.62128	2,258,631.65296	39.463126	-108.126238	
2,800.00	21.46	345.89	2,647.38	822.18	-216.69	1,604,361.06036	2,258,615.86880	39.463321	-108.126301	
3,000.00	21.46	345.89	2,833.52	893.14	-234.53	1,604,432.49943	2,258,600.08464	39.463516	-108.126364	
3,200.00	21.46	345.89	3,019.65	964.09	-252.37	1,604,503.93851	2,258,584.30048	39.463711	-108.126427	
3,400.00	21.46	345.89	3,205.79	1,035.05	-270.22	1,604,575.37759	2,258,568.51632	39.463905	-108.126491	
3,600.00	21.46	345.89	3,391.93	1,106.00	-288.06	1,604,646.81665	2,258,552.73216	39.464100	-108.126554	
3,730.09	21.46	345.89	3,513.00	1,152.16	-299.67	1,604,693.28466	2,258,542.46525	39.464227	-108.126595	
Mesaverde										
3,732.22	21.46	345.89	3,514.98	1,152.91	-299.86	1,604,694.04639	2,258,542.29695	39.464229	-108.126596	
Start Drop -2.00°/100										
3,800.00	20.10	345.89	3,578.35	1,176.23	-305.72	1,604,717.52494	2,258,537.10946	39.464293	-108.126616	
4,000.00	16.10	345.89	3,768.41	1,236.49	-320.87	1,604,778.19141	2,258,523.70546	39.464458	-108.126670	
4,200.00	12.10	345.89	3,962.34	1,283.74	-332.75	1,604,825.76489	2,258,513.19432	39.464588	-108.126712	
4,400.00	8.10	345.89	4,159.20	1,317.76	-341.31	1,604,860.01360	2,258,505.62721	39.464682	-108.126742	
4,600.00	4.10	345.89	4,358.03	1,338.38	-346.49	1,604,880.77069	2,258,501.04102	39.464738	-108.126761	
4,800.00	0.10	345.89	4,557.85	1,345.49	-348.28	1,604,887.93502	2,258,499.45809	39.464758	-108.126767	
4,805.15	0.00	0.00	4,563.00	1,345.50	-348.28	1,604,887.93953	2,258,499.45709	39.464758	-108.126767	
Vertical										
4,905.15	0.00	0.00	4,663.00	1,345.50	-348.28	1,604,887.93953	2,258,499.45709	39.464758	-108.126767	
Top Gas - Approx. Top Gas										
5,000.00	0.00	0.00	4,757.85	1,345.50	-348.28	1,604,887.93953	2,258,499.45709	39.464758	-108.126767	
5,200.00	0.00	0.00	4,957.85	1,345.50	-348.28	1,604,887.93953	2,258,499.45709	39.464758	-108.126767	
5,400.00	0.00	0.00	5,157.85	1,345.50	-348.28	1,604,887.93953	2,258,499.45709	39.464758	-108.126767	
5,600.00	0.00	0.00	5,357.85	1,345.50	-348.28	1,604,887.93953	2,258,499.45709	39.464758	-108.126767	
5,800.00	0.00	0.00	5,557.85	1,345.50	-348.28	1,604,887.93953	2,258,499.45709	39.464758	-108.126767	
6,000.00	0.00	0.00	5,757.85	1,345.50	-348.28	1,604,887.93953	2,258,499.45709	39.464758	-108.126767	
6,200.00	0.00	0.00	5,957.85	1,345.50	-348.28	1,604,887.93953	2,258,499.45709	39.464758	-108.126767	

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 343-5 - Slot A03
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 343-5	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
6,285.15	0.00	0.00	6,043.00	1,345.50	-348.28	1,604,887.93953	2,258,499.45709	39.464758	-108.126767
Cameo Coals									
6,400.00	0.00	0.00	6,157.85	1,345.50	-348.28	1,604,887.93953	2,258,499.45709	39.464758	-108.126767
6,600.00	0.00	0.00	6,357.85	1,345.50	-348.28	1,604,887.93953	2,258,499.45709	39.464758	-108.126767
6,755.15	0.00	0.00	6,513.00	1,345.50	-348.28	1,604,887.93953	2,258,499.45709	39.464758	-108.126767
Rollins SS									
6,800.00	0.00	0.00	6,557.85	1,345.50	-348.28	1,604,887.93953	2,258,499.45709	39.464758	-108.126767
6,855.15	0.00	0.00	6,613.00	1,345.50	-348.28	1,604,887.93953	2,258,499.45709	39.464758	-108.126767
TD at 6855.15 - 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	4,663.00	1,345.50	-348.28	1,604,887.93953	2,258,499.45709	39.464758	-108.126767
TD / PBHL GM 343-5 - plan hits target center - Point	0.00	0.00	6,613.00	1,345.50	-348.28	1,604,887.93953	2,258,499.45709	39.464758	-108.126767

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,000.00	972.15	9 5/8"	9.625	13.500	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (bearing)	
2,145.23	2,038.00	Top of "G" Sand				
2,252.68	2,138.00	Base of "G" Sand				
3,730.09	3,513.00	Mesaverde				
4,905.15	4,663.00	Approx. Top Gas				
6,285.15	6,043.00	Cameo Coals				
6,755.15	6,513.00	Rollins SS				
6,855.15	6,613.00	TD				

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 343-5 - Slot A03
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 343-5	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #2 24Jul14 mab		

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
120.00	120.00	0.00	0.00	Start Build 3.00
620.00	614.31	61.15	-22.26	Begin Turn 3.00°/100
843.59	826.59	128.08	-42.15	Hold 21.46° Inc, 345.89° Az
3,732.22	3,514.98	1,152.91	-299.86	Start Drop -2.00°/100
4,805.15	4,563.00	1,345.50	-348.28	Vertical
4,905.15	4,663.00	1,345.50	-348.28	Top Gas
6,855.15	6,613.00	1,345.50	-348.28	TD at 6855.15