

District I
1625 N. French Drive, Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720

District II
811 S. First Street, Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720

District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170

District IV
1220 S. St. Francis Drive, Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
Revised August 1, 2011

Submit one copy to
Appropriate District Office

OIL CONSERVATION DIVISION

1220 South St. Francis Drive
Santa Fe, NM 87505

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-043-21247		*Pool Code 42289	*Pool Name LYBROOK GALLUP
*Property Code 314331	*Property Name S CHACO UT		*Well Number 340H
*GRID No. 120782	*Operator Name WPX ENERGY PRODUCTION, LLC		*Elevation 7084'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	35	23N	7W		889	SOUTH	692	EAST	SANDOVAL

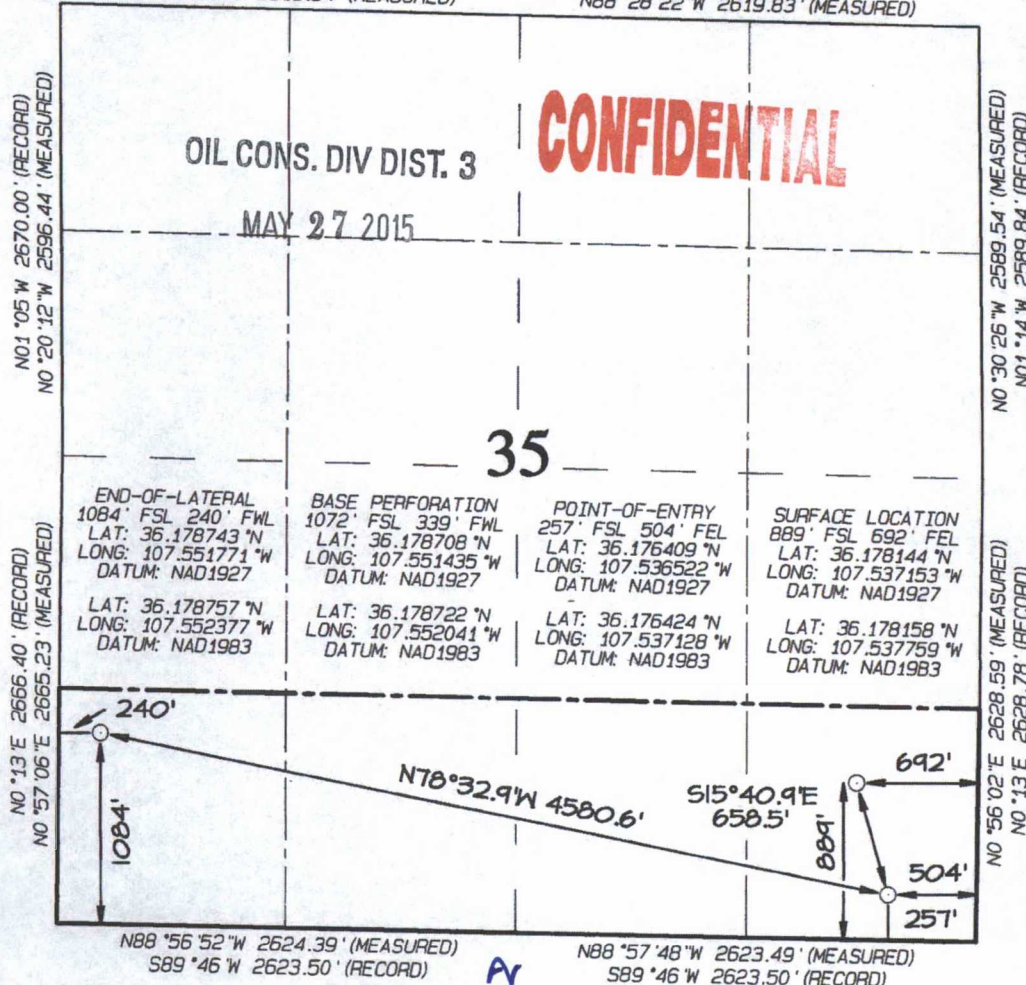
¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	35	23N	7W		1084	SOUTH	240	WEST	SANDOVAL

¹² Dedicated Acres 160.0 Acres S/2 S/2 Section 35	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No
--	-------------------------------	----------------------------------	------------------------

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

N89°11'W 2621.52' (RECORD)
N88°28'55"W 2619.94' (MEASURED)
N89°11'W 2621.52' (RECORD)
N88°28'22"W 2619.83' (MEASURED)



¹⁷ OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom-hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature *Marie E. Jaramillo* Date *5/27/15*

Printed Name Marie E. Jaramillo

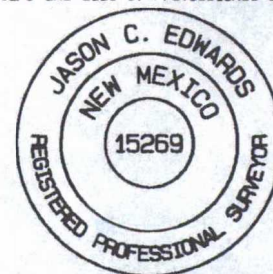
E-mail Address marie.jaramillo@wpxenergy.com

¹⁸ SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision and that the same is true and correct to the best of my belief.

Date Revised: MAY 27, 2015
Date of Survey: JUNE 25, 2014

Signature and Seal of Professional Surveyor



JASON C. EDWARDS

Certificate Number 15269



Project: SandwellCO, NM
Site: Sec 35-T23N-R7W
Well: Chaco 2307-35P 340H
Wellbore: Wellbore #1
Design: Wellbore #1



WELL DETAILS: Chaco 2307-35P 340H

Ground Point			
North	East	Latitude	Longitude
+N-S 0.00	+E-W 0.00	367844	-10737163
188573124	12071988		

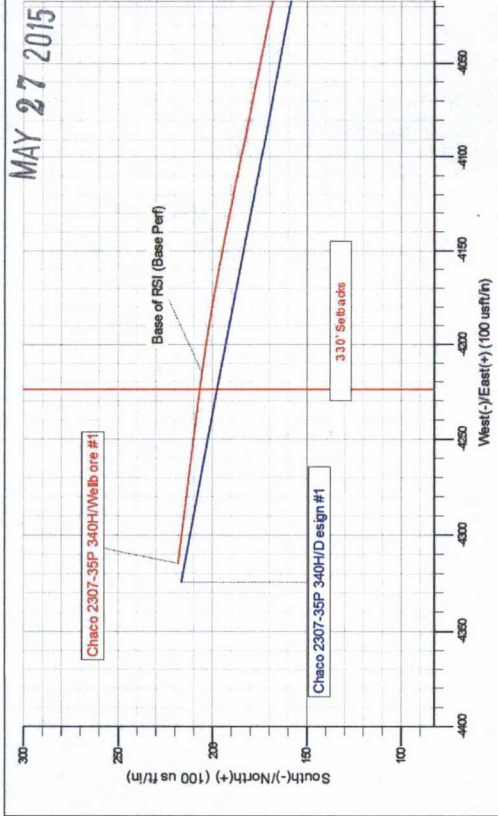
WELLBORE TARGET DETAILS (L AT LONG)

Name	True North	True East	Latitude	Longitude	Shape
Chaco 2307-35P 340H	534182	25549	367844	-10737163	Point
Base Perf 340H	534182	25549	367844	-10737163	Point

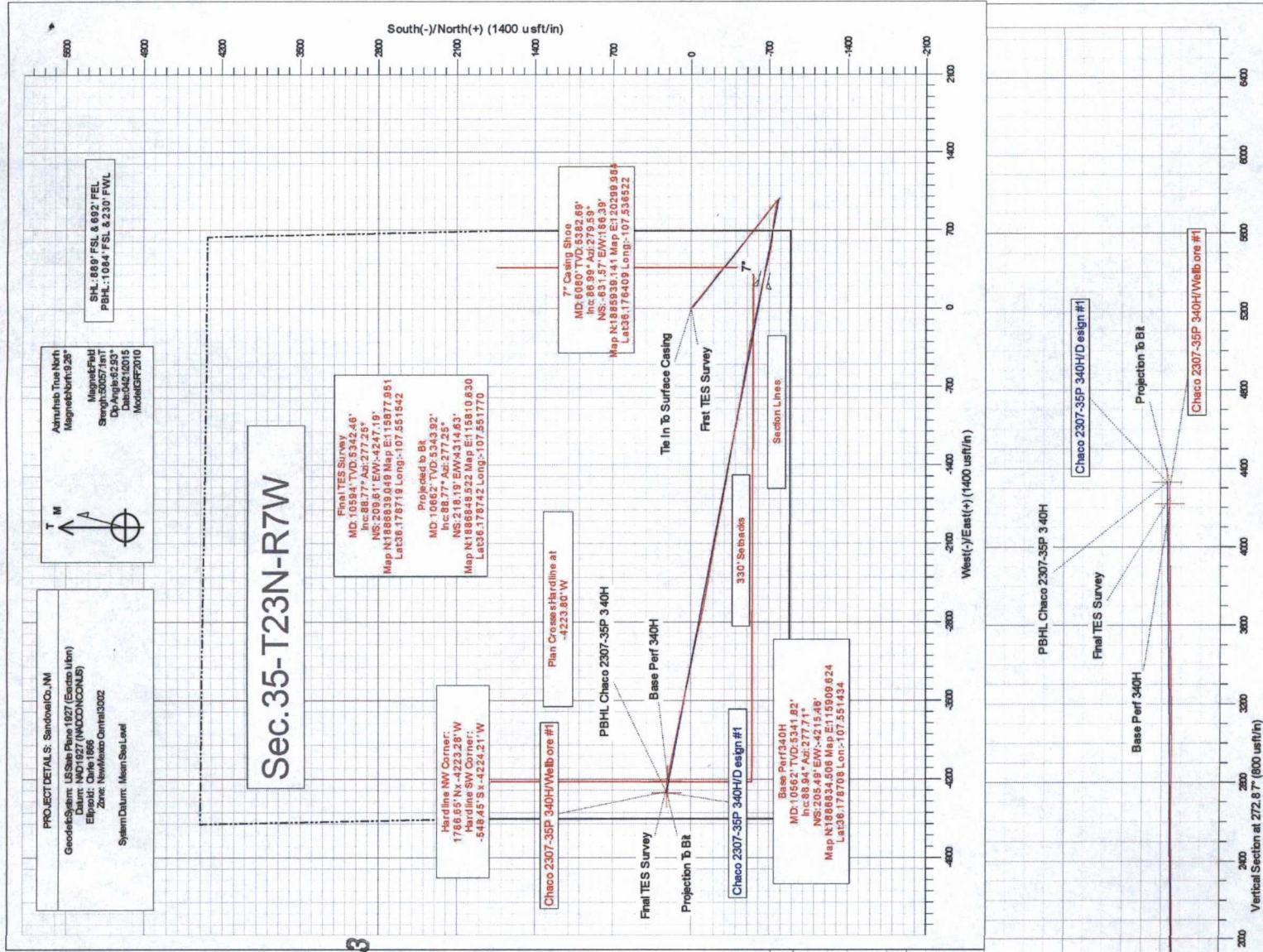
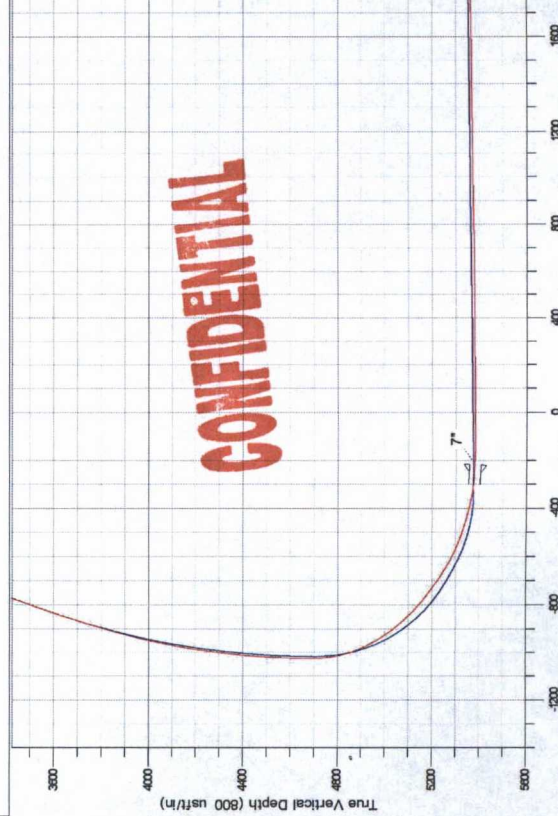
Design Wellbore #1 (Chaco 2307-35P 340H Wellbore #1)
Created By: BMH/bert Date: 1602/May/2015

OIL CONS. DIV DIST. 3

MAY 27 2015



CONFIDENTIAL





Company:	WPX Energy Production, LLC	Local Co-ordinate Reference:	Well Chaco 2307-35P 340H
Project:	Sandoval Co., NM	TVD Reference:	WELL @ 7098.00usft (Original Well Elev)
Site:	Sec.35-T23N-R7W	MD Reference:	WELL @ 7098.00usft (Original Well Elev)
Well:	Chaco 2307-35P 340H	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Project	Sandoval Co., NM		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)	CONFIDENTIAL	
Map Zone:	New Mexico Central 3002		

Site		Sec.35-T23N-R7W			
Site Position:		Northing:		1,886,594.524 usft	
From:		Lat/Long		Easting:	
				120,128.176 usft	
Position Uncertainty:		0.00 usft		Slot Radius:	
				13-3/16 "	
				Grid Convergence:	
				-0.76 °	
				Latitude:	
				36.178203	
				Longitude:	
				-107.537133	

Well	Chaco 2307-35P 340H					
Well Position	+N/-S	0.00 usft	Northing:	1,886,573.125 usft	Latitude:	36.178144
	+E/-W	0.00 usft	Easting:	120,121.988 usft	Longitude:	-107.537153
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	7,084.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	04/21/15	9.26	62.93	50,057

Design	Wellbore #1				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.00	0.00	0.00	272.87	

Survey Program		Date	05/26/15		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
14.00	298.00	Surface Gyro (Wellbore #1)	GYRO	Gyro-compassing and drop	
359.00	10,662.00	TES Surveys (Wellbore #1)	MWD	MWD - Standard	

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	1,886,573.125	120,121.988	36.178144	-107.537153
14.00	0.00	0.00	14.00	0.00	0.00	1,886,573.125	120,121.988	36.178144	-107.537153
44.00	0.16	225.40	44.00	-0.03	-0.03	1,886,573.096	120,121.958	36.178144	-107.537153
74.00	0.35	245.35	74.00	-0.10	-0.14	1,886,573.030	120,121.844	36.178144	-107.537154
104.00	0.29	234.75	104.00	-0.18	-0.29	1,886,572.949	120,121.698	36.178144	-107.537154
134.00	0.30	255.66	134.00	-0.24	-0.43	1,886,572.888	120,121.559	36.178143	-107.537155
164.00	0.37	295.06	164.00	-0.22	-0.59	1,886,572.912	120,121.395	36.178143	-107.537155
194.00	0.46	303.48	194.00	-0.11	-0.78	1,886,573.022	120,121.209	36.178144	-107.537156
224.00	0.56	284.57	224.00	-0.01	-1.02	1,886,573.128	120,120.968	36.178144	-107.537157
254.00	0.61	270.75	253.99	0.03	-1.32	1,886,573.171	120,120.667	36.178144	-107.537158
284.00	0.57	279.65	283.99	0.06	-1.63	1,886,573.202	120,120.360	36.178144	-107.537159



Terrapin Energy Services

Survey Report - Geographic



Company:	WPX Energy Production, LLC	Local Co-ordinate Reference:	Well Chaco 2307-35P 340H
Project:	Sandoval Co., NM	TVD Reference:	WELL @ 7098.00usft (Original Well Elev)
Site:	Sec.35-T23N-R7W	MD Reference:	WELL @ 7098.00usft (Original Well Elev)
Well:	Chaco 2307-35P 340H	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
298.00	0.66	281.58	297.99	0.08	-1.78	1,886,573.232	120,120.213	36.178144	-107.537159
Tie In To Surface Casing									
359.00	0.38	282.04	358.99	0.20	-2.32	1,886,573.352	120,119.673	36.178145	-107.537161
First TES Survey									
419.00	0.47	281.34	418.99	0.29	-2.75	1,886,573.448	120,119.238	36.178145	-107.537163
480.00	0.71	276.48	479.98	0.38	-3.38	1,886,573.548	120,118.618	36.178145	-107.537165
541.00	0.42	198.52	540.98	0.21	-3.82	1,886,573.384	120,118.170	36.178145	-107.537166
602.00	1.96	126.73	601.97	-0.63	-3.06	1,886,572.538	120,118.924	36.178142	-107.537164
662.00	3.85	123.14	661.89	-2.34	-0.55	1,886,570.790	120,121.410	36.178138	-107.537155
723.00	5.92	126.74	722.66	-5.34	3.69	1,886,567.733	120,125.606	36.178129	-107.537141
783.00	8.57	124.14	782.18	-9.70	9.87	1,886,563.291	120,131.728	36.178117	-107.537120
844.00	10.34	122.47	842.35	-15.19	18.25	1,886,557.690	120,140.036	36.178102	-107.537091
904.00	11.23	125.59	901.29	-21.49	27.54	1,886,551.276	120,149.246	36.178085	-107.537060
965.00	13.32	129.08	960.89	-29.37	37.83	1,886,543.252	120,159.427	36.178063	-107.537025
1,026.00	14.62	131.83	1,020.09	-38.94	49.02	1,886,533.540	120,170.490	36.178037	-107.536987
1,087.00	15.40	133.32	1,079.01	-49.63	60.65	1,886,522.696	120,181.977	36.178008	-107.536948
1,148.00	16.85	130.75	1,137.61	-60.96	73.24	1,886,511.201	120,194.416	36.177977	-107.536905
1,209.00	18.62	129.69	1,195.70	-72.95	87.44	1,886,499.023	120,208.449	36.177944	-107.536857
1,269.00	19.49	128.21	1,252.42	-85.26	102.67	1,886,486.513	120,223.520	36.177910	-107.536805
1,330.00	20.10	127.67	1,309.81	-97.96	118.96	1,886,473.598	120,239.643	36.177875	-107.536750
1,391.00	21.49	127.61	1,366.84	-111.18	136.11	1,886,460.147	120,256.615	36.177839	-107.536692
1,451.00	22.73	128.95	1,422.42	-125.18	153.83	1,886,445.918	120,274.149	36.177800	-107.536632
1,513.00	23.36	128.93	1,479.48	-140.43	172.71	1,886,430.415	120,292.823	36.177758	-107.536568
1,573.00	23.04	128.12	1,534.62	-155.15	191.20	1,886,415.449	120,311.117	36.177718	-107.536506
1,634.00	22.89	126.93	1,590.79	-169.65	210.08	1,886,400.703	120,329.797	36.177678	-107.536442
1,695.00	22.85	125.77	1,646.99	-183.70	229.17	1,886,386.400	120,348.702	36.177640	-107.536377
1,755.00	22.40	127.14	1,702.38	-197.41	247.74	1,886,372.443	120,367.084	36.177602	-107.536314
1,816.00	22.13	127.87	1,758.83	-211.48	266.07	1,886,358.130	120,385.231	36.177563	-107.536252
1,877.00	22.14	126.97	1,815.33	-225.45	284.32	1,886,343.923	120,403.298	36.177525	-107.536190
1,941.00	22.72	129.41	1,874.49	-240.55	303.51	1,886,328.570	120,422.281	36.177483	-107.536125
2,004.00	23.77	132.95	1,932.38	-256.93	322.20	1,886,311.948	120,440.756	36.177438	-107.536062
2,068.00	23.17	134.22	1,991.09	-274.50	340.67	1,886,294.135	120,458.986	36.177390	-107.535999
2,131.00	22.16	134.55	2,049.22	-291.48	358.02	1,886,276.927	120,476.110	36.177343	-107.535940
2,194.00	21.62	132.81	2,107.68	-307.70	375.00	1,886,260.480	120,492.875	36.177299	-107.535883
2,257.00	20.65	130.99	2,166.44	-322.87	391.90	1,886,245.083	120,509.572	36.177257	-107.535826
2,320.00	19.28	129.46	2,225.65	-336.77	408.32	1,886,230.969	120,525.803	36.177219	-107.535770
2,383.00	19.05	128.32	2,285.16	-349.75	424.41	1,886,217.772	120,541.726	36.177183	-107.535715
2,447.00	19.37	128.13	2,345.60	-362.78	440.96	1,886,204.524	120,558.094	36.177148	-107.535659
2,510.00	19.45	128.03	2,405.02	-375.70	457.44	1,886,191.394	120,574.402	36.177112	-107.535604
2,574.00	19.04	128.44	2,465.44	-388.75	474.01	1,886,178.120	120,590.797	36.177076	-107.535547
2,638.00	18.64	128.01	2,526.01	-401.54	490.24	1,886,165.118	120,606.862	36.177041	-107.535492
2,701.00	19.41	126.12	2,585.57	-413.91	506.63	1,886,152.530	120,623.085	36.177007	-107.535437
2,765.00	19.54	125.41	2,645.91	-426.38	523.94	1,886,139.832	120,640.232	36.176973	-107.535378
2,828.00	20.40	127.53	2,705.12	-439.18	541.24	1,886,126.810	120,657.355	36.176938	-107.535320
2,891.00	20.53	129.24	2,764.15	-452.85	558.50	1,886,112.905	120,674.436	36.176900	-107.535261
2,954.00	20.66	128.53	2,823.12	-466.76	575.75	1,886,098.766	120,691.500	36.176862	-107.535203
3,017.00	20.81	128.25	2,882.04	-480.61	593.24	1,886,084.684	120,708.798	36.176824	-107.535144
3,080.00	20.01	127.54	2,941.08	-494.11	610.57	1,886,070.959	120,725.953	36.176787	-107.535085
3,143.00	19.21	126.18	3,000.43	-506.80	627.48	1,886,058.050	120,742.696	36.176752	-107.535027
3,207.00	18.36	125.61	3,061.02	-518.88	644.18	1,886,045.745	120,759.228	36.176719	-107.534971
3,271.00	18.64	127.07	3,121.71	-530.92	660.53	1,886,033.494	120,775.423	36.176686	-107.534916
3,334.00	18.63	130.41	3,181.41	-543.51	676.23	1,886,020.695	120,790.950	36.176651	-107.534862
3,398.00	19.37	129.91	3,241.92	-556.95	692.15	1,886,007.048	120,806.695	36.176614	-107.534808
3,462.00	19.99	130.06	3,302.19	-570.80	708.67	1,885,992.981	120,823.024	36.176576	-107.534752
3,525.00	20.98	129.04	3,361.20	-584.83	725.67	1,885,978.722	120,839.839	36.176538	-107.534695



Terrapin Energy Services

Survey Report - Geographic



Company:	WPX Energy Production, LLC	Local Co-ordinate Reference:	Well Chaco 2307-35P 340H
Project:	Sandoval Co., NM	TVD Reference:	WELL @ 7098.00usft (Original Well Elev)
Site:	Sec.35-T23N-R7W	MD Reference:	WELL @ 7098.00usft (Original Well Elev)
Well:	Chaco 2307-35P 340H	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
3,589.00	21.90	127.27	3,420.77	-599.27	744.07	1,885,964.034	120,858.043	36.176498	-107.534633
3,652.00	22.35	126.88	3,479.13	-613.58	763.00	1,885,949.481	120,876.783	36.176459	-107.534568
3,715.00	21.97	126.12	3,537.48	-627.71	782.10	1,885,935.093	120,895.695	36.176420	-107.534504
3,778.00	22.21	124.97	3,595.86	-641.49	801.38	1,885,921.067	120,914.788	36.176382	-107.534438
3,841.00	21.50	127.24	3,654.33	-655.30	820.33	1,885,907.005	120,933.552	36.176344	-107.534374
3,905.00	20.81	129.45	3,714.02	-669.62	838.44	1,885,892.445	120,951.476	36.176305	-107.534313
3,968.00	20.18	129.65	3,773.03	-683.66	855.45	1,885,878.176	120,968.297	36.176266	-107.534255
4,032.00	19.30	129.59	3,833.27	-697.45	872.10	1,885,864.172	120,984.763	36.176228	-107.534199
4,095.00	18.29	129.48	3,892.91	-710.37	887.76	1,885,851.045	121,000.244	36.176193	-107.534146
4,159.00	16.18	126.94	3,954.03	-722.11	902.64	1,885,839.103	121,014.967	36.176161	-107.534095
4,222.00	14.58	128.74	4,014.77	-732.35	915.84	1,885,828.690	121,028.032	36.176132	-107.534051
4,287.00	13.55	129.01	4,077.82	-742.26	928.14	1,885,818.615	121,040.198	36.176105	-107.534009
4,350.00	12.54	128.45	4,139.20	-751.16	939.23	1,885,809.570	121,051.170	36.176081	-107.533971
4,413.00	11.17	127.78	4,200.85	-759.16	949.41	1,885,801.444	121,061.243	36.176059	-107.533937
4,476.00	10.18	138.94	4,262.77	-767.09	957.89	1,885,793.395	121,069.618	36.176037	-107.533908
4,540.00	9.77	141.56	4,325.80	-775.61	964.98	1,885,784.784	121,076.595	36.176014	-107.533884
4,571.00	8.89	141.26	4,356.39	-779.54	968.11	1,885,780.814	121,079.677	36.176003	-107.533874
4,634.00	5.87	123.30	4,418.87	-785.11	973.85	1,885,775.171	121,085.343	36.175988	-107.533854
4,697.00	4.35	117.35	4,481.62	-787.97	978.67	1,885,772.241	121,090.120	36.175980	-107.533838
4,760.00	3.31	114.31	4,544.47	-789.82	982.45	1,885,770.344	121,093.875	36.175975	-107.533825
4,823.00	1.87	114.94	4,607.41	-791.00	985.04	1,885,769.128	121,096.449	36.175971	-107.533816
4,868.00	0.64	114.84	4,652.40	-791.42	985.93	1,885,768.701	121,097.337	36.175970	-107.533813
4,887.00	0.74	101.03	4,671.40	-791.49	986.15	1,885,768.630	121,097.553	36.175970	-107.533812
4,950.00	3.20	303.73	4,734.37	-790.59	985.09	1,885,769.543	121,096.501	36.175972	-107.533816
5,013.00	13.23	300.78	4,796.64	-785.91	977.41	1,885,774.322	121,088.888	36.175985	-107.533842
5,076.00	20.74	296.20	4,856.85	-777.28	961.18	1,885,783.163	121,072.778	36.176009	-107.533897
5,140.00	26.26	288.66	4,915.54	-767.74	937.58	1,885,793.018	121,049.301	36.176035	-107.533977
5,203.00	31.20	282.99	4,970.77	-759.61	908.45	1,885,801.537	121,020.283	36.176058	-107.534076
5,266.00	36.04	279.25	5,023.23	-752.95	874.23	1,885,808.642	120,986.158	36.176076	-107.534192
5,329.00	41.24	280.05	5,072.42	-746.35	835.47	1,885,815.763	120,947.484	36.176094	-107.534323
5,392.00	45.30	277.23	5,118.28	-739.90	792.79	1,885,822.773	120,904.892	36.176112	-107.534467
5,456.00	49.67	274.85	5,161.53	-734.97	745.89	1,885,828.323	120,858.063	36.176125	-107.534626
5,519.00	53.28	274.23	5,200.76	-731.08	696.76	1,885,832.868	120,808.995	36.176136	-107.534793
5,583.00	55.59	275.07	5,237.98	-726.85	644.88	1,885,837.781	120,757.170	36.176148	-107.534969
5,646.00	59.36	277.43	5,271.85	-721.05	592.09	1,885,844.285	120,704.467	36.176164	-107.535147
5,710.00	65.74	280.70	5,301.35	-712.06	536.06	1,885,854.016	120,648.553	36.176188	-107.535337
5,773.00	71.31	281.98	5,324.40	-700.53	478.60	1,885,866.312	120,591.256	36.176220	-107.535532
5,837.00	73.88	284.19	5,343.55	-686.69	419.13	1,885,880.931	120,531.972	36.176258	-107.535733
5,900.00	76.89	284.39	5,359.44	-671.65	360.06	1,885,896.760	120,473.108	36.176299	-107.535933
5,964.00	81.35	283.01	5,371.52	-656.77	299.01	1,885,912.443	120,412.265	36.176340	-107.536140
6,027.00	85.01	282.53	5,379.00	-642.95	238.02	1,885,927.075	120,351.457	36.176378	-107.536347
6,080.00	86.99	282.34	5,382.69	-631.57	186.39	1,885,939.141	120,299.984	36.176409	-107.536522
7"									
6,151.00	89.65	282.08	5,384.77	-616.56	117.03	1,885,955.066	120,230.831	36.176451	-107.536757
6,212.00	90.83	281.99	5,384.52	-603.84	57.37	1,885,968.575	120,171.347	36.176485	-107.536959
6,273.00	91.80	282.61	5,383.12	-590.85	-2.21	1,885,982.356	120,111.942	36.176521	-107.537161
6,333.00	90.35	281.56	5,381.99	-578.29	-60.87	1,885,995.691	120,053.456	36.176556	-107.537359
6,394.00	89.91	281.56	5,381.85	-566.07	-120.63	1,886,008.707	119,993.861	36.176589	-107.537562
6,455.00	90.18	281.12	5,381.81	-554.07	-180.44	1,886,021.494	119,934.216	36.176622	-107.537765
6,516.00	90.04	280.32	5,381.69	-542.73	-240.37	1,886,033.634	119,874.437	36.176653	-107.537968
6,577.00	90.31	280.94	5,381.50	-531.47	-300.33	1,886,045.680	119,814.639	36.176684	-107.538171
6,638.00	90.35	280.15	5,381.15	-520.31	-360.29	1,886,057.638	119,754.824	36.176715	-107.538374
6,698.00	89.78	279.80	5,381.08	-509.92	-419.39	1,886,068.814	119,695.875	36.176743	-107.538574
6,759.00	90.22	279.45	5,381.08	-499.72	-479.53	1,886,079.810	119,635.874	36.176771	-107.538778
6,820.00	90.88	279.09	5,380.50	-489.89	-539.73	1,886,090.433	119,575.810	36.176798	-107.538982



Terrapin Energy Services

Survey Report - Geographic



Company: WPX Energy Production, LLC
Project: Sandoval Co., NM
Site: Sec.35-T23N-R7W
Well: Chaco 2307-35P 340H
Wellbore: Wellbore #1
Design: Wellbore #1

Local Co-ordinate Reference: Well Chaco 2307-35P 340H
TVD Reference: WELL @ 7098.00usft (Original Well Elev)
MD Reference: WELL @ 7098.00usft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
6,881.00	90.44	279.45	5,379.80	-480.07	-599.93	1,886,101.056	119,515.746	36.176825	-107.539186
6,942.00	90.09	279.53	5,379.51	-470.01	-660.09	1,886,111.911	119,455.720	36.176853	-107.539390
7,002.00	90.66	280.15	5,379.12	-459.76	-719.21	1,886,122.947	119,396.746	36.176881	-107.539590
7,062.00	90.44	280.06	5,378.55	-449.23	-778.27	1,886,134.256	119,337.824	36.176910	-107.539790
7,122.00	91.58	280.76	5,377.49	-438.39	-837.28	1,886,145.877	119,278.971	36.176940	-107.539990
7,183.00	90.66	280.41	5,376.30	-427.19	-897.23	1,886,157.875	119,219.176	36.176971	-107.540193
7,245.00	91.27	279.89	5,375.25	-416.26	-958.25	1,886,169.607	119,158.305	36.177001	-107.540400
7,305.00	91.05	280.50	5,374.04	-405.65	-1,017.29	1,886,181.007	119,099.411	36.177030	-107.540600
7,366.00	90.00	279.53	5,373.48	-395.04	-1,077.35	1,886,192.410	119,039.491	36.177059	-107.540803
7,427.00	91.14	280.06	5,372.87	-384.66	-1,137.46	1,886,203.584	118,979.527	36.177087	-107.541007
7,488.00	90.79	279.71	5,371.84	-374.19	-1,197.55	1,886,214.850	118,919.585	36.177116	-107.541210
7,549.00	90.31	279.71	5,371.26	-363.90	-1,257.67	1,886,225.934	118,859.604	36.177144	-107.541414
7,610.00	90.39	280.15	5,370.89	-353.38	-1,317.75	1,886,237.249	118,799.664	36.177173	-107.541618
7,669.00	91.05	279.71	5,370.14	-343.21	-1,375.86	1,886,248.192	118,741.693	36.177201	-107.541814
7,730.00	90.09	279.36	5,369.54	-333.11	-1,436.02	1,886,259.093	118,681.679	36.177229	-107.542018
7,791.00	90.00	279.18	5,369.49	-323.28	-1,496.22	1,886,269.717	118,621.611	36.177256	-107.542222
7,852.00	90.84	280.06	5,369.04	-313.09	-1,556.36	1,886,280.707	118,561.612	36.177284	-107.542426
7,913.00	91.23	279.80	5,367.94	-302.57	-1,616.44	1,886,292.021	118,501.681	36.177313	-107.542629
7,974.00	90.88	280.15	5,366.82	-292.01	-1,676.50	1,886,303.381	118,441.758	36.177342	-107.542833
8,034.00	90.97	280.15	5,365.85	-281.43	-1,735.56	1,886,314.735	118,382.851	36.177371	-107.543033
8,096.00	92.81	280.24	5,363.80	-270.47	-1,796.54	1,886,326.511	118,322.016	36.177401	-107.543240
8,159.00	91.85	280.76	5,361.24	-258.99	-1,858.44	1,886,338.802	118,260.281	36.177433	-107.543449
8,223.00	91.80	280.76	5,359.20	-247.05	-1,921.28	1,886,351.577	118,197.602	36.177465	-107.543662
8,286.00	90.70	279.53	5,357.83	-235.96	-1,983.28	1,886,363.492	118,135.756	36.177496	-107.543872
8,349.00	90.35	279.89	5,357.25	-225.33	-2,045.37	1,886,374.940	118,073.808	36.177525	-107.544083
8,412.00	90.09	280.68	5,357.01	-214.08	-2,107.36	1,886,387.009	118,011.976	36.177556	-107.544293
8,475.00	90.57	279.89	5,356.65	-202.84	-2,169.34	1,886,399.078	117,950.145	36.177587	-107.544503
8,538.00	91.41	280.68	5,355.56	-191.59	-2,231.32	1,886,411.145	117,888.322	36.177618	-107.544713
8,603.00	90.13	279.53	5,354.69	-180.19	-2,295.31	1,886,423.396	117,824.495	36.177649	-107.544929
8,666.00	89.69	279.01	5,354.78	-170.04	-2,357.48	1,886,434.368	117,762.458	36.177677	-107.545140
8,730.00	90.00	279.53	5,354.96	-159.73	-2,420.65	1,886,445.514	117,699.437	36.177705	-107.545354
8,793.00	91.05	281.20	5,354.38	-148.40	-2,482.61	1,886,457.669	117,637.627	36.177736	-107.545564
8,857.00	90.57	280.41	5,353.48	-136.40	-2,545.47	1,886,470.498	117,574.933	36.177769	-107.545777
8,920.00	89.91	279.71	5,353.21	-125.39	-2,607.50	1,886,482.324	117,513.054	36.177799	-107.545987
8,983.00	90.00	280.50	5,353.26	-114.34	-2,669.52	1,886,494.199	117,451.184	36.177830	-107.546197
9,046.00	89.47	282.26	5,353.55	-101.91	-2,731.28	1,886,507.448	117,389.596	36.177864	-107.546406
9,110.00	90.18	283.66	5,353.75	-87.56	-2,793.65	1,886,522.626	117,327.425	36.177903	-107.546618
9,173.00	89.65	283.23	5,353.84	-72.91	-2,854.92	1,886,538.086	117,266.351	36.177943	-107.546825
9,236.00	89.82	283.49	5,354.13	-58.35	-2,916.22	1,886,553.455	117,205.255	36.177983	-107.547033
9,300.00	91.32	282.52	5,353.50	-43.95	-2,978.57	1,886,568.682	117,143.099	36.178023	-107.547244
9,363.00	90.92	280.50	5,352.26	-31.38	-3,040.29	1,886,582.067	117,081.553	36.178057	-107.547453
9,427.00	90.40	280.85	5,351.53	-19.53	-3,103.17	1,886,594.754	117,018.828	36.178090	-107.547666
9,490.00	90.09	281.12	5,351.26	-7.53	-3,165.02	1,886,607.578	116,957.148	36.178123	-107.547876
9,553.00	91.19	280.68	5,350.55	4.39	-3,226.88	1,886,620.310	116,895.453	36.178156	-107.548085
9,616.00	90.44	281.38	5,349.66	16.44	-3,288.71	1,886,633.181	116,833.789	36.178189	-107.548295
9,679.00	90.44	282.96	5,349.17	29.72	-3,350.29	1,886,647.277	116,772.390	36.178225	-107.548504
9,743.00	90.04	282.17	5,348.91	43.64	-3,412.75	1,886,662.027	116,710.114	36.178263	-107.548715
9,806.00	90.35	282.08	5,348.69	56.87	-3,474.35	1,886,676.075	116,648.701	36.178300	-107.548924
9,870.00	91.05	281.38	5,347.91	69.88	-3,537.01	1,886,689.915	116,586.221	36.178335	-107.549136
9,933.00	91.05	281.82	5,346.76	82.55	-3,598.71	1,886,703.398	116,524.692	36.178370	-107.549345
9,996.00	91.05	282.08	5,345.60	95.59	-3,660.33	1,886,717.257	116,463.246	36.178406	-107.549554
10,060.00	90.48	281.56	5,344.75	108.70	-3,722.97	1,886,731.195	116,400.788	36.178442	-107.549766
10,123.00	90.13	281.29	5,344.41	121.18	-3,784.72	1,886,744.492	116,339.209	36.178476	-107.549975
10,186.00	89.87	281.29	5,344.41	133.51	-3,846.50	1,886,757.644	116,277.597	36.178510	-107.550185
10,249.00	90.92	281.20	5,343.98	145.80	-3,908.29	1,886,770.747	116,215.977	36.178544	-107.550394



Terrapin Energy Services
Survey Report - Geographic



Company:	WPX Energy Production, LLC	Local Co-ordinate Reference:	Well Chaco 2307-35P 340H
Project:	Sandoval Co., NM	TVD Reference:	WELL @ 7098.00usft (Original Well Elev)
Site:	Sec.35-T23N-R7W	MD Reference:	WELL @ 7098.00usft (Original Well Elev)
Well:	Chaco 2307-35P 340H	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
10,312.00	91.36	281.91	5,342.72	158.42	-3,970.00	1,886,784.181	116,154.439	36.178578	-107.550603
10,376.00	90.84	281.38	5,341.49	171.33	-4,032.67	1,886,797.927	116,091.946	36.178614	-107.550815
10,439.00	90.31	281.38	5,340.86	183.76	-4,094.43	1,886,811.175	116,030.358	36.178648	-107.551025
10,502.00	89.47	280.76	5,340.98	195.86	-4,156.26	1,886,824.090	115,968.697	36.178681	-107.551234
10,562.00	88.94	277.71	5,341.82	205.49	-4,215.46	1,886,834.503	115,909.624	36.178708	-107.551435
Base of RSI (Base Perf) - Base Perf 340H									
10,566.00	88.90	277.51	5,341.89	206.02	-4,219.43	1,886,835.086	115,905.664	36.178709	-107.551448
10,594.00	88.77	277.25	5,342.46	209.61	-4,247.19	1,886,839.050	115,877.952	36.178719	-107.551542
Final TES Survey									
10,662.00	88.77	277.25	5,343.92	218.19	-4,314.63	1,886,848.523	115,810.631	36.178743	-107.551771
Projection To Bit - PBHL Chaco 2307-35P 340H									

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									
Base Perf 340H	0.00	0.00	5,341.82	205.49	-4,215.46	1,886,834.507	115,909.625	36.178708	-107.551435
- actual wellpath hits target center									
- Point									

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
6,080.00	5,382.69	7"	7	7-1/2

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
10,562.00	5,341.82	Base of RSI (Base Perf)		0.00	

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
298.00	297.99	0.08	-1.78	Tie In To Surface Casing
359.00	358.99	0.20	-2.32	First TES Survey
10,594.00	5,342.46	209.61	-4,247.19	Final TES Survey
10,662.00	5,343.92	218.19	-4,314.63	Projection To Bit

Checked By: _____ Approved By: _____ Date: _____