

Submit 1 Copy To Appropriate District Office
District I - (575) 393-6161
1625 N. French Dr., Hobbs, NM 88240
District II - (575) 748-1283
811 S. First St., Artesia, NM 88210
District III - (505) 334-6178
1000 Rio Brazos Rd., Aztec, NM 87410
District IV - (505) 476-3460
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-103
Revised August 1, 2011

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)		WELL API NO. 30-043-21147
1. Type of Well: Oil Well ☒ Gas Well ☐ Other ☐		5. Indicate Type of Lease STATE ☒ FEE ☐
2. Name of Operator WPX Energy Production, LLC		6. State Oil & Gas Lease No.
3. Address of Operator P. O. Box 640, Aztec, NM 87410 (505) 333-1822		7. Lease Name or Unit Agreement Name Chaco 2206-02P
4. Well Location Unit Letter <u>P</u> : <u>577</u> feet from the <u>S</u> line and <u>805</u> feet from the <u>E</u> line Section <u>2</u> Township <u>22N</u> Range <u>6W</u> NMPM County <u>Sandoval</u>		8. Well Number <u>228H</u>
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 6944' GR		9. OGRID Number 120782
		10. Pool name or Wildcat Lybrook Gallup

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐
TEMPORARILY ABANDON ☐ CHANGE PLANS ☒
PULL OR ALTER CASING ☐ MULTIPLE COMPL. ☐
DOWNHOLE COMMINGLE ☐

OTHER: ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐
COMMENCE DRILLING OPNS. ☐ P AND A ☐
CASING/CEMENT JOB ☐

OTHER: ☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

WPX Energy Production, LLC requests authorization to change drilling plans pursuant to the attached Revised Operations Plan and Directional Plans. Changes are: 7" casing point has been moved up to 5285'TVD at 60 degrees inclination. The landing point of the curve has been moved slightly lower to 5362'TVD.

RCVD JUN 13 '13

OIL CONS. DIV.

DIST. 3

Hold C104

for Directional Survey
and "As Drilled" plat

Spud Date:

Rig Release Date:

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Heather Riley TITLE Regulatory Specialist Sr. DATE 6/13/13

Type or print name Heather Riley E-mail address: heather.riley@wpxenergy.com PHONE: (505) 333-1822
For State Use Only

APPROVED BY: Charles TITLE SUPERVISOR DISTRICT # 3 DATE JUN 14 2013
Conditions of Approval (if any): NY

WPX ENERGY**Operations Plan (REV)***(Note: This procedure will be adjusted on site based upon actual conditions)*

DATE: 6/13/2013 **FIELD:** Wildcat

WELL NAME: Chaco 2206-02P #228H **SURFACE:** State

SH Location: SESE of Sec 2 T22N R6W **ELEVATION:** 6,944' GR
Sandoval Co, NM

BH Location: SWSW Sec 2 T22N R6W **MINERALS:** STATE
Sandoval Co, NM

MEASURED DEPTH: 9,627' MD **LEASE #:** STATE

I. GEOLOGY: Surface formation – San Jose**A. FORMATION TOPS:** (KB)

Name	MD	TVD	Name	MD	TVD
Ojo Alamo	1,262	1,262	Point Lookout	4,130	4,079
Kirtland	1,548	1,548	Mancos	4,303	4,252
Pictured Cliffs	1,816	1,816	Kickoff Point	4,840	4,789
Lewis	1,923	1,922	Target Top	5,501	5,313
Chacra	2,240	2,235	Landing Point	5,753	5,362
Cliff House	3,364	3,323	Target Base	5,753	5,362
Menefee	3,388	3,346			
			TD	9,627	5,272

B. MUD LOGGING PROGRAM: Mudlogger on location from surface csg to TD.**C. LOGGING PROGRAM:** MWD GR for curve and lateral.**D. NATURAL GAUGES:** Gauge any noticeable increases in gas flow. Record all gauges in Tour book and on morning reports.**II. DRILLING****A. MUD PROGRAM:** LSND mud (WBM) will be used to drill 8 3/4" vertical Hole. Will use WBM to drill the curve portion of well, and OBM to drill the lateral portion of well. Treat for lost circulation as necessary. Obtain 100% returns prior to cementing. Notify Engineering of any mud losses.**B. BOP TESTING:** While drill pipe is in use, the pipe rams and the blind rams will be function tested once each trip. The anticipated reservoir is expected to be less than **1800 psi**, so the BOPE will be tested to **250 psi (Low) for 5 minutes** and **1500 psi (High) for 10 minutes**. Pressure test surface casing to **600 psi for 30 minutes** and intermediate casing to **1500 psi for 30 minutes**. Utilize a BOPE Testing Unit with a recording chart and appropriate test plug for testing. The drum brakes will be inspected and tested each tour. **All tests and inspections will be recorded in the tour book as to time and results.**

NOTE Vertical portion of the well (8-3/4 in.) will be vertically/directionally drilled as per attached Directional Plan to +/- 4,789' MD. The 8-3/4 in. Curve portion of wellbore will be drilled and landed at +/- 60 deg. at +/- 5,440' (MD). 7 in. csg will be set at this point. Will finish drilling Curve to 90 deg (6-1/8 in. hole) as per the attached Directional Plan + 30' of 6-1/8" Lateral, Log and run MDT. Finish drilling Lateral as per directional plan to +/- 9,627 (MD). Will run 4-1/2 in. Production Casing to TD and Cement.

III. MATERIALS**A. CASING PROGRAM:**

Surface	12.25"	400'	9 5/8	36#	J-55
Intermediate	8.75"	5,440	7	23#	K-55
Longstring	6.125"	9,627	4 1/2	11.6#	N-80

B. FLOAT EQUIPMENT:

1. **SURFACE CASING:** 9-5/8" notched regular pattern guide shoe. Run (1) standard centralizer on each of the bottom (4) joints of Surface Casing.
2. **INTERMEDIATE CASING:** 7" cement nose guide shoe with a self-fill insert float. Place float collar one joint above the shoe. Install (1) Turbulent centralizer on each of the bottom (3) joints and one standard centralizer every (3) joints to 2,500 ft. Run (1) Turbulent centralizer at 2,700 ft., 2,500 ft., 2,300ft., 2,000ft., 1,500 ft., and 1,000 ft. (**Need and setting depth of a DV Tool will be determined from Pilot Hole information.**)
3. **PRODUCTION CASING:** 4-1/2" whirler type cement nose guide Float Shoe + 1 jt of 4-1/2" Casing + Float Collar. Centralizer program will be determined when Lateral is evaluated by Geoscientists and Reservoir Engineers.

C. CEMENTING:

(Note: Volumes may be adjusted onsite due to actual conditions)

1. **SURFACE:** 10 bbl Fr Water Spacer + 190 sx (222.3 cu.ft.) of "Premium Cement" + 2% Calcium Chloride Cement + 0.125# pps of Poly-E-Flake, 15.8 #/gal (1.17 cu ft./sk, Vol 39.58 Bbls.). The 100% excess should circulate cement to the surface. WOC 12 hours. Test csg to 600psi. Total Volume: (222.3 cu-ft/190 sx/39.6 Bbls).
2. **INTERMEDIATE:** 20 bbl (112 cu-ft) Mud Flush III spacer + Lead: 850 sx Foamed 50/50 Poz Cement. 13.0 ppg (Yield :1.43 cu-ft/ sk. / Vol: 1216 cu-ft) + 0.1% Halad 766 + 0.2% Versaset + 1.5% Chem-Foamer 760 / TOTETANK + TAIL: 100 sx 13.5 #/gal. (Yield: 1.28 cu-ft / sk / Vol: 128 cu-ft) + 0.2% Versaset + 0.15% HALAD-766. + F. Water Displacement (1,511 cu-ft) + 100 sx Top-Out Cement Premium: Yield: (1.17 cu-ft/ sk (Vol: 117 cu-ft). Est TOC: Surface. Test Casing to 1500 PSI for 30 minutes. Total Volume: (2021 cu-ft/1050 sx/260 bbls).
3. **PRODUCTION CASING:** **STAGE 1:** 10 bbl (56.cu-ft) Fr Water Spacer. **STAGE 2:** 20 bbl 10 ppg (112.3 cu-ft) Tuned Spacer III + 0.2 gal/bbl Musol + 59.8 ppb Barite. **STAGE 3:** 10 bbl Fr Water Spacer. **STAGE 4: Lead Cement:** Standard Type V + .4% Halad-766 + .3% Halad R-344, Yield 1.19 cu ft/sk, 15.6 #/gal, (60 sx/71.4 cu ft.) **STAGE 5:** Foamed Lead Cement: 13.0 ppg (63.28 bbl / 355.3 cu-ft) 50/50 Poz Standard + 0.2% Versaset + 0.2% HALAD-766 + 1.5% Chem-Foamer 760. Yield 1.43 cu-ft/sk. **STAGE 6:** Tail Cement : 150 sx 50/50 Poz Standard + 0.2% Versaset + 0.25% HALAD-766, Weight: 13.5 ppg (Yield 1.29 cu ft/sk. / 193.5 cu ft.) **STAGE 7:** Displace w/176.6 bbl Fr Water. Total Cement (620.2 cu ft / 110.4 bbls). Mix w/ +/- 75,000 SCF Nitrogen. Est. TOC +/- 4,600 ft. Total Volume: (620.2 cu-ft/380 sx/110.4 bbls).

IV. COMPLETION

A. CBL

1. Run Cement Bond Log and ensure top of cement is above 7" casing shoe.

B. PRESSURE TEST

1. Pressure test 4-1/2" casing to 5000 psi max, hold at 1500 psi for 30 minutes.

C. STIMULATION

1. Stimulate with approximately 2,805,000# 20/40 mesh sand and 340,000# 16/30 mesh sand in 619,113 gallons water with 42,696 mscf N₂ for 17 stages.
2. Isolate stages with flow through frac plug.
3. Drill out frac plugs with CTU and flowback lateral.

D. RUNNING TUBING

1. Production Tubing: Run 2-3/8", 4.7#, N-80, EUE tubing with a SN (1.91" ID) on top of bottom joint. Land tubing at landing point of curve (~5,400' MD).

Weather Riley for
Garrey Sizemore



WPX Chaco 2206-02P #228H R1 mdv 12Jun13 Proposal Geodetic Report



(Def Plan)

Report Date: June 12, 2013 - 03:00 PM
Client: WPX Energy
Field: NM Sandoval County NAD27
Structure / Slot: WPX Chaco 2206-02P #228H / Chaco 2206-02P #228H
Well: Chaco 2206-02P #228H
Borehole: Original Borehole
UWI / API#: Unknown / Unknown
Survey Name: WPX Chaco 2206-02P #228H R1 mdv 12Jun13
Survey Date: April 02, 2013
Tort / AHD / DDI / ERD Ratio: 121.713 ° / 4929.156 ft / 6.032 / 0.919
Coordinate Reference System: NAD27 New Mexico State Plane, Central Zone, US Feet
Location Lat / Long: N 36° 9' 40.06800", W 107° 25' 52.39200"
Location Grid N/E Y/X: N 1879981.963 ftUS, E 151312.086 ftUS
CRS Grid Convergence Angle: -0.6971 °
Grid Scale Factor: 1.00003913

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 268.361 ° (True North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: RKB
TVD Reference Elevation: 6958.000 ft above MSL
Seabed / Ground Elevation: 6944.000 ft above MSL
Magnetic Declination: 9.518 °
Total Gravity Field Strength: 998.4843mgn (9.80665 Based)
Total Magnetic Field Strength: 50200.901 nT
Magnetic Dip Angle: 62.960 °
Declination Date: April 02, 2013
Magnetic Declination Model: BGGM 2012
North Reference: True North
Grid Convergence Used: 0.0000 °
Total Corr Mag North->True North: 9.5175 °
Local Coord Referenced To: Structure Reference Point

Comments	MD (ft)	Incl (°)	Azim True (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
SHL Chaco 2206-02P #228H	0.00	0.00	116.34	0.00	0.00	0.00	0.00	N/A	1879981.96	151312.09	N 36 9 40.07	W 107 25 52.39
Nudge 1.5"/100'	1500.00	0.00	116.34	1500.00	0.00	0.00	0.00	0.00	1879981.96	151312.09	N 36 9 40.07	W 107 25 52.39
Hold 15.2" Tangent	2512.74	15.19	116.34	2500.91	-117.87	-59.22	119.61	1.50	1879921.29	151430.97	N 36 9 39.48	W 107 25 50.93
Drop 1.5"/100'	3288.00	15.19	116.34	3249.09	-297.27	-149.37	301.67	0.00	1879828.93	151611.92	N 36 9 38.59	W 107 25 48.71
Hold Vertical	4300.74	0.00	116.34	4250.00	-415.14	-208.59	421.28	1.50	1879768.25	151730.81	N 36 9 38.01	W 107 25 47.25
KOP 10"/100'	4839.93	0.00	116.34	4789.19	-415.14	-208.59	421.28	0.00	1879768.25	151730.81	N 36 9 38.01	W 107 25 47.25
7" Casing Point	5439.90	60.00	271.20	5285.37	-129.04	-202.61	134.89	10.00	1879777.72	151444.50	N 36 9 38.06	W 107 25 50.75
Chaco #228H Landing	5753.24	91.33	271.20	5362.00	170.41	-196.35	-164.86	10.00	1879787.63	151144.84	N 36 9 38.13	W 107 25 54.40
Chaco #228H PBHL	9627.08	91.33	271.20	5272.00	4038.47	-115.48	-4036.82	0.00	1879915.60	147274.01	N 36 9 38.92	W 107 26 41.62

Survey Type: Def Plan

Survey Error Model: ISCWSA Rev 0 *** 3-D 95.000% Confidence 2.7955 sigma

Survey Program:

Description	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	0.000	14.000	1/100.000	30.000	30.000	SLB_UNKNOWN-Depth Only	Original Borehole / WPX Chaco 2206-02P #228H R1 mdv
	14.000	9627.085	1/100.000	30.000	30.000	SLB_UNKNOWN	Original Borehole / WPX Chaco 2206-02P #228H R1 mdv



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Total Corr Mag North-True North: 9.5175 °
Local Coord Referenced To: Structure Reference Point

Comments	MD (ft)	Incl (°)	Azim True (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (RUS)	Easting (RUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
SHL Chaco 2206-02P #228H	0.00	0.00	116.34	0.00	0.00	0.00	0.00	N/A	1879981.96	151312.09	N 36 9 40.07	W 107 25 52.39
	100.00	0.00	116.34	100.00	0.00	0.00	0.00	0.00	1879981.96	151312.09	N 36 9 40.07	W 107 25 52.39
	200.00	0.00	116.34	200.00	0.00	0.00	0.00	0.00	1879981.96	151312.09	N 36 9 40.07	W 107 25 52.39
	300.00	0.00	116.34	300.00	0.00	0.00	0.00	0.00	1879981.96	151312.09	N 36 9 40.07	W 107 25 52.39
	400.00	0.00	116.34	400.00	0.00	0.00	0.00	0.00	1879981.96	151312.09	N 36 9 40.07	W 107 25 52.39
	500.00	0.00	116.34	500.00	0.00	0.00	0.00	0.00	1879981.96	151312.09	N 36 9 40.07	W 107 25 52.39
	600.00	0.00	116.34	600.00	0.00	0.00	0.00	0.00	1879981.96	151312.09	N 36 9 40.07	W 107 25 52.39
	700.00	0.00	116.34	700.00	0.00	0.00	0.00	0.00	1879981.96	151312.09	N 36 9 40.07	W 107 25 52.39
	800.00	0.00	116.34	800.00	0.00	0.00	0.00	0.00	1879981.96	151312.09	N 36 9 40.07	W 107 25 52.39
	900.00	0.00	116.34	900.00	0.00	0.00	0.00	0.00	1879981.96	151312.09	N 36 9 40.07	W 107 25 52.39
	1000.00	0.00	116.34	1000.00	0.00	0.00	0.00	0.00	1879981.96	151312.09	N 36 9 40.07	W 107 25 52.39
	1100.00	0.00	116.34	1100.00	0.00	0.00	0.00	0.00	1879981.96	151312.09	N 36 9 40.07	W 107 25 52.39
	1200.00	0.00	116.34	1200.00	0.00	0.00	0.00	0.00	1879981.96	151312.09	N 36 9 40.07	W 107 25 52.39
	1300.00	0.00	116.34	1300.00	0.00	0.00	0.00	0.00	1879981.96	151312.09	N 36 9 40.07	W 107 25 52.39
	1400.00	0.00	116.34	1400.00	0.00	0.00	0.00	0.00	1879981.96	151312.09	N 36 9 40.07	W 107 25 52.39
Nudge 1.5"/100'	1500.00	0.00	116.34	1500.00	0.00	0.00	0.00	0.00	1879981.96	151312.09	N 36 9 40.07	W 107 25 52.39
	1600.00	1.50	116.34	1599.99	-1.16	-0.58	1.17	1.50	1879981.37	151313.25	N 36 9 40.06	W 107 25 52.38
	1700.00	3.00	116.34	1699.91	-4.62	-2.32	4.69	1.50	1879979.58	151316.75	N 36 9 40.05	W 107 25 52.33
	1800.00	4.50	116.34	1799.69	-10.40	-5.22	10.55	1.50	1879976.61	151322.57	N 36 9 40.02	W 107 25 52.26
	1900.00	6.00	116.34	1899.27	-18.48	-9.28	18.75	1.50	1879972.45	151330.72	N 36 9 39.98	W 107 25 52.16
	2000.00	7.50	116.34	1998.57	-28.86	-14.50	29.28	1.50	1879967.11	151341.19	N 36 9 39.92	W 107 25 52.03
	2100.00	9.00	116.34	2097.54	-41.53	-20.87	42.14	1.50	1879960.58	151353.97	N 36 9 39.86	W 107 25 51.88
	2200.00	10.50	116.34	2196.09	-56.48	-28.38	57.32	1.50	1879952.89	151369.06	N 36 9 39.79	W 107 25 51.69
	2300.00	12.00	116.34	2294.16	-73.71	-37.04	74.80	1.50	1879944.02	151386.44	N 36 9 39.70	W 107 25 51.48
	2400.00	13.50	116.34	2391.70	-93.20	-46.83	94.58	1.50	1879933.98	151408.09	N 36 9 39.60	W 107 25 51.24
Hold 15.2" Tangent	2500.00	15.00	116.34	2488.62	-114.94	-57.75	116.64	1.50	1879922.79	151428.02	N 36 9 39.50	W 107 25 50.97
	2512.74	15.19	116.34	2500.91	-117.87	-59.22	119.61	1.50	1879921.29	151430.97	N 36 9 39.48	W 107 25 50.93
	2600.00	15.19	116.34	2585.13	-138.06	-69.37	140.10	0.00	1879910.89	151451.34	N 36 9 39.38	W 107 25 50.68
	2700.00	15.19	116.34	2681.63	-161.20	-81.00	163.59	0.00	1879898.98	151474.68	N 36 9 39.27	W 107 25 50.40
	2800.00	15.19	116.34	2778.14	-184.34	-92.63	187.07	0.00	1879887.07	151498.02	N 36 9 39.15	W 107 25 50.11
	2900.00	15.19	116.34	2874.64	-207.48	-104.25	210.55	0.00	1879875.15	151521.36	N 36 9 39.04	W 107 25 49.82
	3000.00	15.19	116.34	2971.15	-230.63	-115.88	234.04	0.00	1879863.24	151544.70	N 36 9 38.92	W 107 25 49.54
	3100.00	15.19	116.34	3067.66	-253.77	-127.51	257.52	0.00	1879851.33	151568.04	N 36 9 38.81	W 107 25 49.25
Drop 1.5"/100'	3200.00	15.19	116.34	3164.16	-276.91	-139.13	281.00	0.00	1879839.41	151591.38	N 36 9 38.69	W 107 25 48.97
	3288.00	15.19	116.34	3249.09	-297.27	-149.37	301.67	0.00	1879828.93	151611.92	N 36 9 38.59	W 107 25 48.71
	3300.00	15.01	116.34	3260.67	-300.03	-150.75	304.47	1.50	1879827.51	151614.71	N 36 9 38.58	W 107 25 48.68
	3400.00	13.51	116.34	3357.59	-321.79	-161.68	326.54	1.50	1879816.31	151636.65	N 36 9 38.47	W 107 25 48.41
	3500.00	12.01	116.34	3455.12	-341.29	-171.49	346.34	1.50	1879806.27	151656.32	N 36 9 38.37	W 107 25 48.17
	3600.00	10.51	116.34	3553.19	-358.54	-180.15	363.84	1.50	1879797.39	151673.72	N 36 9 38.29	W 107 25 47.96
	3700.00	9.01	116.34	3651.74	-373.51	-187.67	379.03	1.50	1879789.69	151688.82	N 36 9 38.21	W 107 25 47.77
	3800.00	7.51	116.34	3750.70	-386.20	-194.05	391.91	1.50	1879783.15	151701.62	N 36 9 38.15	W 107 25 47.61
	3900.00	6.01	116.34	3850.00	-396.59	-199.27	402.46	1.50	1879777.80	151712.10	N 36 9 38.10	W 107 25 47.48
	4000.00	4.51	116.34	3949.57	-404.69	-203.34	410.67	1.50	1879773.63	151720.27	N 36 9 38.06	W 107 25 47.38
Hold Vertical	4100.00	3.01	116.34	4049.36	-410.48	-206.25	416.55	1.50	1879770.65	151726.11	N 36 9 38.03	W 107 25 47.31
	4200.00	1.51	116.34	4149.27	-413.97	-208.00	420.09	1.50	1879768.86	151729.63	N 36 9 38.01	W 107 25 47.27
	4300.00	0.01	116.34	4249.26	-415.14	-208.59	421.28	1.50	1879768.25	151730.81	N 36 9 38.01	W 107 25 47.25
	4300.74	0.00	116.34	4250.00	-415.14	-208.59	421.28	1.50	1879768.25	151730.81	N 36 9 38.01	W 107 25 47.25
	4400.00	0.00	116.34	4349.26	-415.14	-208.59	421.28	0.00	1879768.25	151730.81	N 36 9 38.01	W 107 25 47.25
	4500.00	0.00	116.34	4449.26	-415.14	-208.59	421.28	0.00	1879768.25	151730.81	N 36 9 38.01	W 107 25 47.25
	4600.00	0.00	116.34	4549.26	-415.14	-208.59	421.28	0.00	1879768.25	151730.81	N 36 9 38.01	W 107 25 47.25
	4700.00	0.00	116.34	4649.26	-415.14	-208.59	421.28	0.00	1879768.25	151730.81	N 36 9 38.01	W 107 25 47.25
	4800.00	0.00	116.34	4749.26	-415.14	-208.59	421.28	0.00	1879768.25	151730.81	N 36 9 38.01	W 107 25 47.25
	4839.93	0.00	116.34	4789.19	-415.14	-208.59	421.28	0.00	1879768.25	151730.81	N 36 9 38.01	W 107 25 47.25
KOP 10"/100'	4900.00	6.01	271.20	4849.15	-412.00	-208.53	418.13	10.00	1879768.36	151727.67	N 36 9 38.01	W 107 25 47.29
	5000.00	16.01	271.20	4947.19	-392.95	-208.13	399.07	10.00	1879768.99	151708.61	N 36 9 38.01	W 107 25 47.53
	5100.00	26.01	271.20	5040.42	-357.19	-207.38	363.27	10.00	1879770.17	151672.82	N 36 9 38.02	W 107 25 47.96
	5200.00	36.01	271.20	5126.03	-305.81	-206.31	311.83	10.00	1879771.87	151621.40	N 36 9 38.03	W 107 25 48.59
	5300.00	46.01	271.20	5201.39	-240.36	-204.94	246.32	10.00	1879774.04	151555.90	N 36 9 38.04	W 107 25 49.39
	5400.00	56.01	271.20	5264.24	-162.83	-203.32	168.71	10.00	1879767.60	151478.32	N 36 9 38.06	W 107 25 50.33
	5439.90	60.00	271.20	5285.37	-129.04	-202.61	134.89	10.00	1879777.72	151444.50	N 36 9 38.06	W 107 25 50.75
	5500.00	66.01	271.20	5312.64	-75.58	-201.49	81.37	10.00	1879779.49	151391.00	N 36 9 38.08	W 107 25 51.40
	5600.00	76.01	271.20	5345.15	18.74	-199.52	-13.04	10.00	1879762.61	151296.62	N 36 9 38.09	W 107 25 52.55
	5700.00	86.01	271.20	5360.76	117.27	-197.46	-111.67	10.00	1879785.87	151198.02	N 36 9 38.12	W 107 25 53.75

Comments	MD (ft)	Incl (°)	Azim True (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
Chaco #228H Landing	5753.24	91.33	271.20	5362.00	170.41	-196.35	-164.86	10.00	1879787.63	151144.84	N 36 9 38.13	W 107 25 54.40
	5800.00	91.33	271.20	5360.91	217.10	-195.37	-211.60	0.00	1879789.17	151098.12	N 36 9 38.14	W 107 25 54.97
	5900.00	91.33	271.20	5358.59	316.95	-193.29	-311.55	0.00	1879792.47	150998.20	N 36 9 38.16	W 107 25 56.19
	6000.00	91.33	271.20	5356.26	416.80	-191.20	-411.50	0.00	1879795.78	150898.27	N 36 9 38.18	W 107 25 57.41
	6100.00	91.33	271.20	5353.94	516.65	-189.11	-511.45	0.00	1879799.08	150798.35	N 36 9 38.20	W 107 25 58.63
	6200.00	91.33	271.20	5351.62	616.50	-187.02	-611.40	0.00	1879802.39	150698.43	N 36 9 38.22	W 107 25 59.85
	6300.00	91.33	271.20	5349.29	716.35	-184.94	-711.35	0.00	1879805.69	150598.51	N 36 9 38.24	W 107 26 1.07
	6400.00	91.33	271.20	5346.97	816.20	-182.85	-811.31	0.00	1879808.99	150498.59	N 36 9 38.26	W 107 26 2.29
	6500.00	91.33	271.20	5344.65	916.05	-180.76	-911.26	0.00	1879812.30	150398.66	N 36 9 38.28	W 107 26 3.50
	6600.00	91.33	271.20	5342.32	1015.90	-178.67	-1011.21	0.00	1879815.60	150298.74	N 36 9 38.30	W 107 26 4.72
	6700.00	91.33	271.20	5340.00	1115.75	-176.59	-1111.16	0.00	1879818.90	150198.82	N 36 9 38.32	W 107 26 5.94
	6800.00	91.33	271.20	5337.68	1215.61	-174.50	-1211.11	0.00	1879822.21	150098.90	N 36 9 38.34	W 107 26 7.16
	6900.00	91.33	271.20	5335.35	1315.46	-172.41	-1311.06	0.00	1879825.51	149998.97	N 36 9 38.36	W 107 26 8.38
	7000.00	91.33	271.20	5333.03	1415.31	-170.32	-1411.01	0.00	1879828.81	149899.05	N 36 9 38.38	W 107 26 9.60
	7100.00	91.33	271.20	5330.71	1515.16	-168.24	-1510.96	0.00	1879832.12	149799.13	N 36 9 38.40	W 107 26 10.82
	7200.00	91.33	271.20	5328.39	1615.01	-166.15	-1610.92	0.00	1879835.42	149699.21	N 36 9 38.42	W 107 26 12.04
	7300.00	91.33	271.20	5326.06	1714.86	-164.06	-1710.87	0.00	1879838.72	149599.29	N 36 9 38.45	W 107 26 13.25
	7400.00	91.33	271.20	5323.74	1814.71	-161.97	-1810.82	0.00	1879842.03	149499.36	N 36 9 38.47	W 107 26 14.47
	7500.00	91.33	271.20	5321.42	1914.56	-159.88	-1910.77	0.00	1879845.33	149399.44	N 36 9 38.49	W 107 26 15.69
	7600.00	91.33	271.20	5319.09	2014.41	-157.80	-2010.72	0.00	1879848.63	149299.52	N 36 9 38.51	W 107 26 16.91
	7700.00	91.33	271.20	5316.77	2114.26	-155.71	-2110.67	0.00	1879851.94	149199.60	N 36 9 38.53	W 107 26 18.13
	7800.00	91.33	271.20	5314.45	2214.11	-153.62	-2210.62	0.00	1879855.24	149099.68	N 36 9 38.55	W 107 26 19.35
	7900.00	91.33	271.20	5312.12	2313.96	-151.53	-2310.57	0.00	1879858.54	148999.75	N 36 9 38.57	W 107 26 20.57
	8000.00	91.33	271.20	5309.80	2413.81	-149.45	-2410.53	0.00	1879861.85	148899.83	N 36 9 38.59	W 107 26 21.79
	8100.00	91.33	271.20	5307.48	2513.66	-147.36	-2510.48	0.00	1879865.15	148799.91	N 36 9 38.61	W 107 26 23.01
	8200.00	91.33	271.20	5305.15	2613.51	-145.27	-2610.43	0.00	1879868.46	148699.99	N 36 9 38.63	W 107 26 24.22
	8300.00	91.33	271.20	5302.83	2713.37	-143.18	-2710.38	0.00	1879871.76	148600.06	N 36 9 38.65	W 107 26 25.44
	8400.00	91.33	271.20	5300.51	2813.22	-141.10	-2810.33	0.00	1879875.06	148500.14	N 36 9 38.67	W 107 26 26.66
	8500.00	91.33	271.20	5298.18	2913.07	-139.01	-2910.28	0.00	1879878.37	148400.22	N 36 9 38.69	W 107 26 27.88
	8600.00	91.33	271.20	5295.86	3012.92	-136.92	-3010.23	0.00	1879881.67	148300.30	N 36 9 38.71	W 107 26 29.10
	8700.00	91.33	271.20	5293.54	3112.77	-134.83	-3110.18	0.00	1879884.97	148200.38	N 36 9 38.73	W 107 26 30.32
	8800.00	91.33	271.20	5291.21	3212.62	-132.75	-3210.14	0.00	1879888.28	148100.45	N 36 9 38.75	W 107 26 31.54
	8900.00	91.33	271.20	5288.89	3312.47	-130.66	-3310.09	0.00	1879891.58	148000.53	N 36 9 38.77	W 107 26 32.76
	9000.00	91.33	271.20	5286.57	3412.32	-128.57	-3410.04	0.00	1879894.88	147900.61	N 36 9 38.79	W 107 26 33.98
	9100.00	91.33	271.20	5284.25	3512.17	-126.48	-3509.99	0.00	1879898.19	147800.69	N 36 9 38.82	W 107 26 35.19
	9200.00	91.33	271.20	5281.92	3612.02	-124.40	-3609.94	0.00	1879901.49	147700.77	N 36 9 38.84	W 107 26 36.41
	9300.00	91.33	271.20	5279.60	3711.87	-122.31	-3709.89	0.00	1879904.79	147600.84	N 36 9 38.86	W 107 26 37.63
	9400.00	91.33	271.20	5277.28	3811.72	-120.22	-3809.84	0.00	1879908.10	147500.92	N 36 9 38.88	W 107 26 38.85
	9500.00	91.33	271.20	5274.95	3911.57	-118.13	-3909.79	0.00	1879911.40	147401.00	N 36 9 38.90	W 107 26 40.07
	9600.00	91.33	271.20	5272.63	4011.42	-116.05	-4009.74	0.00	1879914.70	147301.08	N 36 9 38.92	W 107 26 41.29
Chaco #228H PBHL	9627.08	91.33	271.20	5272.00	4038.47	-115.48	-4036.82	0.00	1879915.60	147274.01	N 36 9 38.92	W 107 26 41.62

Survey Type: Def Plan

Survey Error Model: ISCWSA Rev 0 *** 3-D 95.000% Confidence 2.7955 sigma
Survey Program:

Description	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	0.000	14.000	1/100.000	30.000	30.000	SLB_UNKNOWN-Depth Only	Original Borehole / WPX Chaco 2206-02P #228H R1 mdv
	14.000	9627.085	1/100.000	30.000	30.000	SLB_UNKNOWN	Original Borehole / WPX Chaco 2206-02P #228H R1 mdv

WELL				FIELD				STRUCTURE					
Chaco 2206-02P #228H				NM Sandoval County NAD27				WPX Chaco 2206-02P #228H					
Magnetic Parameters				Surface Location				Miscellaneous					
Model:	BGGM 2012	Dip:	62.960°	Date:	April 02, 2013	Lat:	N 36 9 40.068	Northing:	NAD27 New Mexico State Plane, Central Zone, US Feet	Slot:	Chaco 2206-02P #228H	TVD Ref:	RKB(6958ft above MSL)
		Mag Dec:	9.518°	FS:	50200.9mT	Lon:	W 107 25 52.392	Eastings:	1679981.96 ftUS	Plan:	WPX Chaco 2206-02P #228H R1 mds&gData		April 02, 2013
								Scale Fact:	1.00003913				

