Form 3160-5
(June 2015)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on page 2

5. Lease Serial No.
NMNM18463

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

1. Type of Well
☐ Oil Well ☐ Gas Well ☒ Other: UNKNOWN OTH

8. Well Name and No.
CHACO 23 08 3 3H

2. Name of Operator
LOGOS OPERATING LLC
Contact: MARIE E FLOREZ
E-Mail: mflorez@logosresourcesllc.com

9. API Well No.
30-045-38171-00-X1

3a. Address
2010 AFTON PLACE
FARMINGTON, NM 87401

3b. Phone No. (include area code)
Ph: 505-787-2218

10. Field and Pool or Exploratory Area
BASIN MANCOS

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
Sec 3 T23N R8W SENE 2036FNL 187FEL
36.257961 N Lat, 107.660789 W Lon

11. County or Parish, State
SAN JUAN COUNTY, NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other Change to Original A PD
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

LOGOS Operating request a change in plans for the following:

Original surface location from 2036' FNL & 187' FEL to new surface location 1982' & 223' FEL.

Original TD @ 11389' MD 5434' TVD to new TD @ 11378' MD 5398' TVD.

Geology tops have been updated per changes.

Original KOP @ 4743' MD 4577' TVD to new KOP @ 4690' MD 4501' TVD.

Original Landing point @ 6064' MD 5469' TVD to new Landing point @ 6052' MD 5431' TVD.

NMOCD
FEB 25 2020
DISTRICT III

ADHERE TO PREVIOUS NMOCD CONDITIONS OF APPROVAL

14. I hereby certify that the foregoing is true and correct.
Electronic Submission #502772 verified by the BLM Well Information System
For LOGOS OPERATING LLC, sent to the Farmington
Committed to AFMSS for processing by JOE KILLINS on 02/25/2020 (20JK0121SE)

Name *(Printed/Typed)* MARIE E FLOREZ — Title REGULATORY SPECIALIST

Signature (Electronic Submission) — Date 02/11/2020

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By JOE KILLINS — Title ENGINEER — Date 02/25/2020

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office Farmington

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ****

nmocd AV

Additional data for EC transaction #502772 that would not fit on the form

32. Additional remarks, continued

Original 7" Casing Intermediate @ 6064' MD to new 6050' MD.
Original 4.5" Casing Production @ 5914' - 11389' to new 5950' - 11378'.

Original 7" Intermediate & 4.5" production cementing bbls and sacks have been updated per casing depth changes.

Attached: New C102 package, Operation and Directional Drill plans.

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

OIL CONSERVATION DIVISION

1220 South St. Francis Drive
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011

Submit one copy to
Appropriate District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number	2 Pool Code	3 Pool Name
30-045-38171	97232	BASIN MANCOS

4 Property Code	5 Property Name	6 Well Number
316581	CHACO 23-08-3	3H

7 OGRID No.	8 Operator Name	9 Elevation
289408	LOGOS OPERATING, LLC	6908'

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
H	3	23N	8W		1982	NORTH	223	EAST	SAN JUAN

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
D	3	23N	8W	4	1325	NORTH	20	WEST	SAN JUAN

12 Dedicated Acres	13 Joint or Infill	14 Consolidation Code	15 Order No.
323.20 Acres N/2 - Section 3			

END-OF-LATERAL (A)
1325' FNL 20' FWL
SECTION 3, T23N, R8W
LAT: 36.259922 °N
LONG: 107.677470 °W
DATUM: NAD1927

LAT: 36.259935 °N
LONG: 107.678081 °W
DATUM: NAD1983

S89°47.6'W 800'

FIRST PERFORATION (B)
1324' FNL 100' FWL
SECTION 3, T23N, R8W
LAT: 36.259922 °N
LONG: 107.677199 °W
DATUM: NAD1927

LAT: 36.259935 °N
LONG: 107.677810 °W
DATUM: NAD1983

S89°47.6'W 5045.8'

LAST PERFORATION (C)
1308' FNL 100' FEL
SECTION 3, T23N, R8W
LAT: 36.259949 °N
LONG: 107.659915 °W
DATUM: NAD1927

LAT: 36.259962 °N
LONG: 107.660525 °W
DATUM: NAD1983

S89°47.6'W 1500'

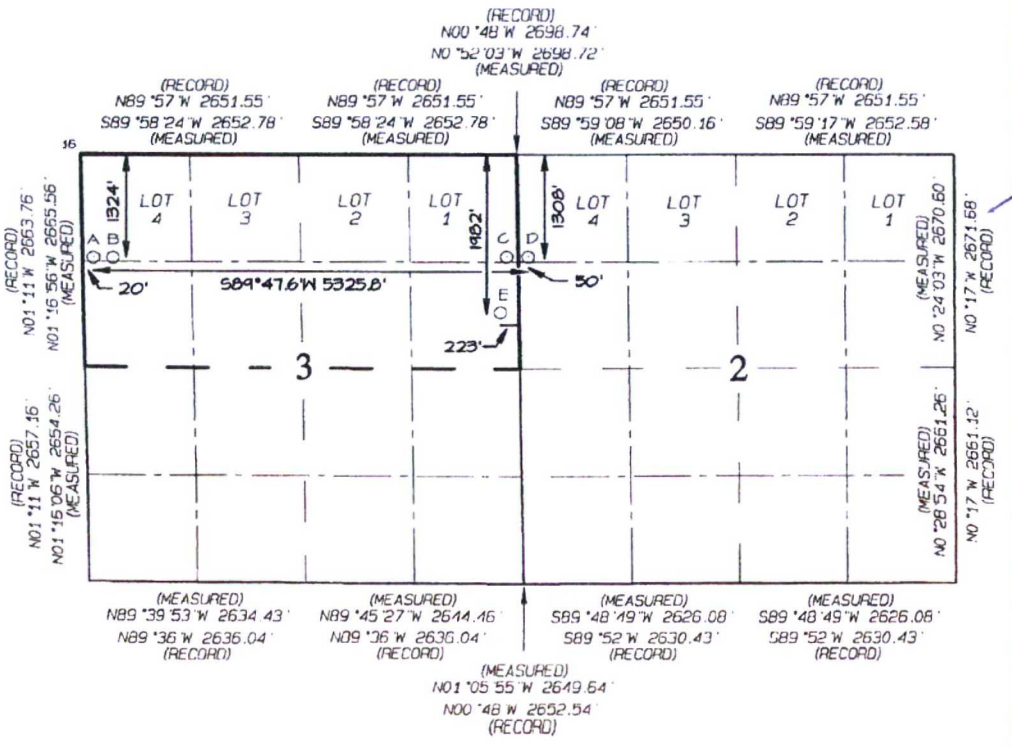
POINT-OF-ENTRY (D)
1308' FNL 50' FWL
SECTION 2, T23N, R8W
LAT: 36.259950 °N
LONG: 107.659406 °W
DATUM: NAD1927

LAT: 36.259963 °N
LONG: 107.660017 °W
DATUM: NAD1983

N21°16.0'E 723.7'

SURFACE LOCATION (E)
1982' FNL 223' FEL
SECTION 3, T23N, R8W
LAT: 36.258099 °N
LONG: 107.660301 °W
DATUM: NAD1927

LAT: 36.258111 °N
LONG: 107.660911 °W
DATUM: NAD1983



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

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.

Tamra Sessions — 5/28/19
Signature — Date

Tamra Sessions
Printed Name

tsessions@logosresourcesllc.com
E-mail Address

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: AUGUST 28, 2019
Date of Survey: MAY 4, 2019

Signature and Seal of Professional Surveyor

JASON C. EDWARDS
NEW MEXICO
15269
REGISTERED PROFESSIONAL SURVEYOR

JASON C. EDWARDS
Certificate Number 15269

LOGOS Operating, LLC
Operations Plan

Note: This procedure will be adjusted onsite based upon actual conditions

Date:	January 21, 2020	Pool:	Basin Mancos
Well Name:	**Chaco 23 08 3 #3H**	Elevation:	6,908
Surface Location:	Sec 3, T23N, R8W 1982 FNL, 223 FEL (36.258111° N, -107.660911° W – NAD83)	Measured Depth:	11,378
Bottom Hole Location:	Sec 3, T23N, R8W 1325 FNL, 20 FWL (36.259935° N, -107.678081° W – NAD83)	County:	San Juan

Lease Serial #NMNM 18463

I. GEOLOGY

A. Formation Tops (KB): Estimated top of important geological markers:
SURFACE FORMATION - NACIMIENTO

NAME	MD	TVD	NAME	MD	TVD
OJO ALAMO	1,068	1,068	MENEFEE	3,409	3,308
KIRTLAND	1,280	1,280	*POINT LOOKOUT	4,216	4,060
*FRUITLAND	1,445	1,445	*MANCOS	4,543	4,365
*PICTURED CLIFFS	1,780	1,777	GALLUP	5,421	5,178
CHACRA	2,648	2,598	KICKOFF POINT	4,690	4,501
*CLIFF HOUSE	3,364	3,249	LANDING POINT	6,052	5,431
			TD	11,378	5,398

* indicates depth at which anticipated water, oil, gas or other mineral bearing formations are expected to be encountered.

B. **MUD LOGGING PROGRAM;** Mudlogger on location from KOP to TD.

C. **LOGGING PROGRAM;** LWD GR from surface casing to TD.

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 the 12-1/4" Surface hole, the 8 ¾" Directional Vertical hole, and the curve portion of the wellbore. A LSND (WBM) or (OBM) will be used 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.

Above ground steel pits will be used for fluid and cuttings while drilling. In the unlikely event that a tank develops a leak, upon immediate visual discovery, the fluid would be transferred to another tank and contaminated soil would be removed and disposed. Any leaks, spills or other undesirable events will be reported in accordance with BLM NTL 3A. Rig crews will monitor the tanks at all times.

B. **BOP TESTING:** While drill pipe is in use, the pipe rams and the blind rams will be function tested once each trip. 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 and logged with time and results.**

III. MATERIALS

A. CASING EQUIPMENT:

CASING TYPE	OH SIZE (IN)	DEPTH (MD)	CSG SIZE	WEIGHT	GRADE	CONN
SURFACE	12.25"	320' or greater	9.625"	36 LBS	J-55 or equiv	LTC
INTERMEDIATE	8.75"	6,050'	7"	23 LBS	J-55 or equiv	LTC
PRODUCTION	6.125"	5,950' – 11,378'	4.5"	11.6 LBS	P-110 or equiv	LTC or BTC
TIE BACK	6.125"	Surf. – 5,950'	4.5"	11.6 LBS	P-110 or equiv	LTC or BTC

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) centralizer on each of the bottom (3) joints and one standard centralizer every (3) joints to 2,500 ft. Run (1) centralizer at 2,500 ft., 2,300ft., 2,000ft., 1,500 ft., and 1,000 ft. Optional use of DV Tool will be considered if losses while drilling are encountered. See note below.
3. PRODUCTION LINER: Run 4-1/2" Liner with cement nose guide Float Shoe+ 2jts. of 4-1/2" casing+ Landing Collar+ 4-1/2" pup joint+ 1 RSI (Sliding Sleeve). Centralizer program will be determined by wellbore condition. Set seals on Liner Hanger. Liner to be pressure tested during completion operations.

NOTE: Use of DV tool would be considered by operator as back up in case we experience heavy losses and are concerned with cement not reaching surface. If major losses are not encountered we will not run DV tool. Optional use of cancelation plugs for DV tools may be used if losses while cementing are not encountered.

C. CEMENTING:

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

1. SURFACE: 5 bbl Fresh Water Spacer, 100 sx (161 cu.ft.) of 14.5 ppg Type 1-11 (Neat G) + 20% Fly Ash cement w/ 7.41 gal/sack mix water ratio @ 1.61 cu ft/sx yield. Calculated @volume+ 50% excess. WOC 12 hours. Test csg to 600 psi. Total Volume: (160cu-ft/100 sx/ Bbls). TOC at Surface.

2. INTERMEDIATE: If deemed necessary, the intermediate casing will be cemented in 1 or 2

stages using DV/STAGE tools in order to reduce cement losses and maximize cement coverage. If losses are not observed a cancelation plug will be pumped and the remaining cement will be pumped during stage 1.

Stage 1: Spacer #1: 20 bbl (112 cuft) Chemwash. Lead Cement: 224.3 bbls, 646 sks, 12.3 ppg@ 1.95 cuft/sk yield. Tail Cement: 63.6 bbls, 275 sks, 13.5 ppg@ 1.3 cu'ft/sk yield. Displacement: Displace w/ Drilling mud or water. Total Cement: 287.9 bbls, 920.5 sks.

3. PRODUCTION LINER: Spacer #1:10 bbl (56.cu-ft) Water Spacer. Spacer #2: 40 bbl 9.5 ppg (224.6 cu-ft) Tuned Spacer Ill. Spacer #3: 10 bbl Water Spacer. Lead Cement: Extencem TM System. Yield 1.36 cuft/sk 13.3 ppg (514.8 sx / 124.7 bbls). Tail Spacer: 40 BBL of MMCR. Displacement: Displace w/ drilling mud or water.

IV. COMPLETION

A. CBL

CBLs and/or Temperature Surveys Will Be Performed as Needed or Required

B. PRESSURE TEST

With frac stack installed on wellhead, pressure test 4-1/2" casing to 4000 psi max, hold at 1500 psi for 15 minutes. Increase pressure to Open RSI sleeves.

C. STIMULATION

Stimulate with sand, water and N2. Isolate stages with flow through frac plugs. Drill out frac plugs and flowback lateral.

D. PRODUCTION TUBING

Run 2-7/8", 6.5#, J-55, EUE tubing

*NOTE: Although this horizontal well may be drilled past the applicable setbacks, an unorthodox location application is not required because the completed interval in this well, as defined by 19.15.16.7 8(1) NMAC, will be entirely within the applicable setbacks. This approach complies with all applicable rules, including 19.15.16.14 A(3) NMAC, 19.15.16.14 8(2) NMAC, 19.15.16.15 8(2)NMAC, and 19.15.16.15. 8(4) NMAC.

LOGOS RESOURCES II, LLC

Company: Logos Operating LLC
Project: San Juan, NM NAD83
Site: Chaco 2308-03 Pad
Well: Chaco 2308-03 3H
Wellbore: OH
Design: Plan #5

PROJECT DETAILS: San Juan, NM NAD83

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Western Zone
System Datum: Mean Sea Level
Local North: True

Scientific Drilling

T/M

Azimuths to True North
Magnetic North: 0.00°

Magnetic Field
Strength: 0.0nT
Dip Angle: 0.00°
Date: 5/3/2019
Model: USER DEFINED

WELL DETAILS: Chaco 2308-03 3H

GL 6908' & RKB 25' @ 6933.00usft (Aztec 1000)

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	1913296.34	2773925.33	36.2581110	-107.6609110

Plan: Plan #5 (Chaco 2308-03 3H/OH)

Created By: Janie Collins Date: 11:35, January 21 2020

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Chaco 3H POE	5431.00	674.17	263.56	1913970.98	2774187.70	36.2599630	-107.6600170
Chaco 3H BHL	5398.00	664.43	-5061.96	1913951.76	2768862.19	36.2599350	-107.6780810
Chaco 3H FPerf	5398.00	664.42	-4982.07	1913951.89	2768942.09	36.2599350	-107.6778100
Chaco 3H LPerf	5431.00	673.81	113.80	1913970.35	2774037.93	36.2599620	-107.6605250

SECTION DETAILS

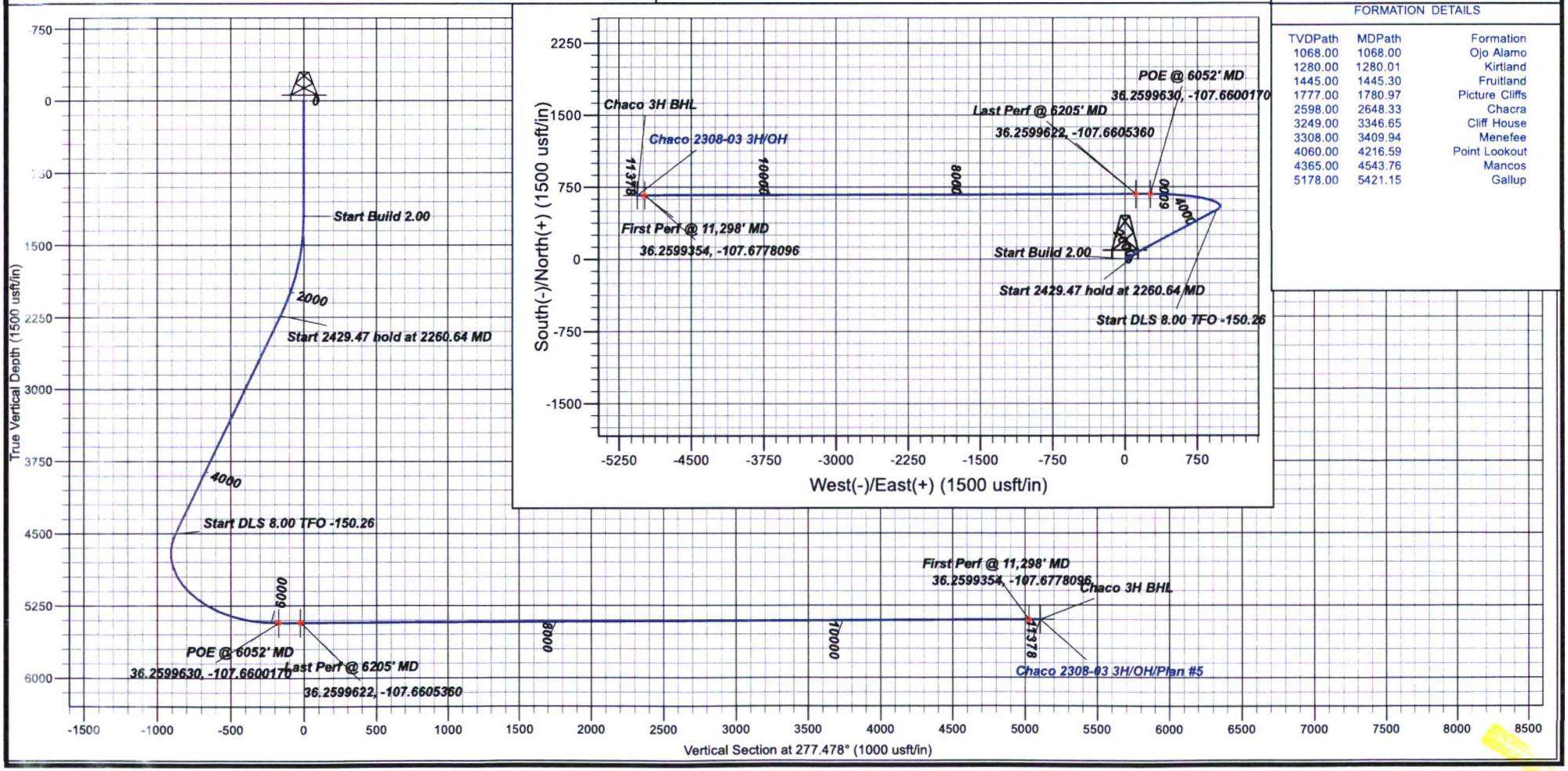
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	
1200.00	0.00	0.000	1200.00	0.00	0.00	0.00	0.00	0.00	
2260.64	21.21	61.924	2236.57	91.35	171.27	2.00	61.92	-157.92	
4690.10	21.21	61.924	4501.42	505.07	946.88	0.00	0.00	-873.10	
6052.43	90.36	269.895	5431.00	674.17	263.56	8.00	-150.26	-173.58	Chaco 3H POE
11378.06	90.36	269.895	5398.00	664.43	-5061.96	0.00	0.00	5105.38	Chaco 3H BHL

CASING DETAILS

No casing data is available

FORMATION DETAILS

TVDPath	MDPath	Formation
1068.00	1068.00	Ojo Alamo
1280.00	1280.01	Kirtland
1445.00	1445.30	Fruitland
1777.00	1780.97	Picture Cliffs
2598.00	2648.33	Chacra
3249.00	3346.65	Cliff House
3308.00	3409.94	Menefee
4060.00	4216.59	Point Lookout
4365.00	4543.76	Mancos
5178.00	5421.15	Gallup



LOGOS RESOURCES II, LLC

Logos Operating LLC

San Juan, NM NAD83
Chaco 2308-03 Pad
Chaco 2308-03 3H

OH

Plan: Plan #5

Standard Planning Report

21 January, 2020

Scientific Drilling

www.scientificdrilling.com

Database:	Grand Junction	**Local Co-ordinate Reference:**	Well Chaco 2308-03 3H
Company:	Logos Operating LLC	**TVD Reference:**	GL 6908' & RKB 25' @ 6933.00usft (Aztec 1000)
Project:	San Juan, NM NAD83	**MD Reference:**	GL 6908' & RKB 25' @ 6933.00usft (Aztec 1000)
Site:	Chaco 2308-03 Pad	**North Reference:**	True
Well:	Chaco 2308-03 3H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #5		

Project	San Juan, NM NAD83		
Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Western Zone		

Site	Chaco 2308-03 Pad				
Site Position:		**Northing:**	1,913,296.34 usft	**Latitude:**	36.2581110
From:	Lat/Long	**Easting:**	2,773,925.33 usft	**Longitude:**	-107.6609110
Position Uncertainty:	0.00 usft	**Slot Radius:**	13.20 in	**Grid Convergence:**	0.10 °

Well	Chaco 2308-03 3H				
Well Position	**+N/-S**	0.00 usft	**Northing:**	1,913,296.34 usft	**Latitude:**	36.2581110
	+E/-W	0.00 usft	**Easting:**	2,773,925.33 usft	**Longitude:**	-107.6609110
Position Uncertainty		0.00 usft	**Wellhead Elevation:**	0.00 usft	**Ground Level:**	6,908.00 usft

Wellbore	OH			
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	User Defined	5/3/2019	0.00	0.00	0.00000000

Design	Plan #5			
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	277.478

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	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,200.00	0.00	0.000	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,260.64	21.21	61.924	2,236.57	91.35	171.27	2.00	2.00	0.00	61.92	
4,690.10	21.21	61.924	4,501.42	505.07	946.88	0.00	0.00	0.00	0.00	
6,052.43	90.36	269.895	5,431.00	674.17	263.56	8.00	5.08	-11.16	-150.26	Chaco 3H POE
11,378.07	90.36	269.895	5,398.00	664.43	-5,061.96	0.00	0.00	0.00	0.00	Chaco 3H BHL

Database:	Grand Junction	**Local Co-ordinate Reference:**	Well Chaco 2308-03 3H
Company:	Logos Operating LLC	**TVD Reference:**	GL 6908' & RKB 25' @ 6933.00usft (Aztec 1000)
Project:	San Juan, NM NAD83	**MD Reference:**	GL 6908' & RKB 25' @ 6933.00usft (Aztec 1000)
Site:	Chaco 2308-03 Pad	**North Reference:**	True
Well:	Chaco 2308-03 3H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #5		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.000	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.000	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.000	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.000	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.000	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.000	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.000	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.000	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.000	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.000	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.000	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.000	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	2.00	61.924	1,299.98	0.82	1.54	-1.42	2.00	2.00	0.00
1,400.00	4.00	61.924	1,399.84	3.28	6.16	-5.68	2.00	2.00	0.00
1,500.00	6.00	61.924	1,499.45	7.39	13.85	-12.77	2.00	2.00	0.00
1,600.00	8.00	61.924	1,598.70	13.12	24.60	-22.68	2.00	2.00	0.00
1,700.00	10.00	61.924	1,697.47	20.48	38.40	-35.41	2.00	2.00	0.00
1,800.00	12.00	61.924	1,795.62	29.46	55.24	-50.93	2.00	2.00	0.00
1,900.00	14.00	61.924	1,893.06	40.05	75.08	-69.23	2.00	2.00	0.00
2,000.00	16.00	61.924	1,989.64	52.23	97.92	-90.29	2.00	2.00	0.00
2,100.00	18.00	61.924	2,085.27	65.99	123.71	-114.07	2.00	2.00	0.00
2,200.00	20.00	61.924	2,179.82	81.31	152.44	-140.56	2.00	2.00	0.00
2,260.64	21.21	61.924	2,236.57	91.35	171.27	-157.92	2.00	2.00	0.00
2,300.00	21.21	61.924	2,273.27	98.06	183.83	-169.51	0.00	0.00	0.00
2,400.00	21.21	61.924	2,366.49	115.09	215.76	-198.95	0.00	0.00	0.00
2,500.00	21.21	61.924	2,459.72	132.12	247.68	-228.38	0.00	0.00	0.00
2,600.00	21.21	61.924	2,552.94	149.15	279.61	-257.82	0.00	0.00	0.00
2,700.00	21.21	61.924	2,646.17	166.17	311.54	-287.26	0.00	0.00	0.00
2,800.00	21.21	61.924	2,739.39	183.20	343.46	-316.70	0.00	0.00	0.00
2,900.00	21.21	61.924	2,832.61	200.23	375.39	-346.13	0.00	0.00	0.00
3,000.00	21.21	61.924	2,925.84	217.26	407.31	-375.57	0.00	0.00	0.00
3,100.00	21.21	61.924	3,019.06	234.29	439.24	-405.01	0.00	0.00	0.00
3,200.00	21.21	61.924	3,112.29	251.32	471.16	-434.45	0.00	0.00	0.00
3,300.00	21.21	61.924	3,205.51	268.35	503.09	-463.89	0.00	0.00	0.00
3,400.00	21.21	61.924	3,298.74	285.38	535.01	-493.32	0.00	0.00	0.00
3,500.00	21.21	61.924	3,391.96	302.41	566.94	-522.76	0.00	0.00	0.00
3,600.00	21.21	61.924	3,485.18	319.44	598.86	-552.20	0.00	0.00	0.00
3,700.00	21.21	61.924	3,578.41	336.47	630.79	-581.64	0.00	0.00	0.00
3,800.00	21.21	61.924	3,671.63	353.49	662.71	-611.07	0.00	0.00	0.00
3,900.00	21.21	61.924	3,764.86	370.52	694.64	-640.51	0.00	0.00	0.00
4,000.00	21.21	61.924	3,858.08	387.55	726.57	-669.95	0.00	0.00	0.00
4,100.00	21.21	61.924	3,951.31	404.58	758.49	-699.39	0.00	0.00	0.00
4,200.00	21.21	61.924	4,044.53	421.61	790.42	-728.82	0.00	0.00	0.00
4,300.00	21.21	61.924	4,137.75	438.64	822.34	-758.26	0.00	0.00	0.00
4,400.00	21.21	61.924	4,230.98	455.67	854.27	-787.70	0.00	0.00	0.00
4,500.00	21.21	61.924	4,324.20	472.70	886.19	-817.14	0.00	0.00	0.00
4,600.00	21.21	61.924	4,417.43	489.73	918.12	-846.57	0.00	0.00	0.00
4,690.10	21.21	61.924	4,501.42	505.07	946.88	-873.10	0.00	0.00	0.00
4,700.00	20.53	60.804	4,510.67	506.76	949.98	-875.95	8.00	-6.91	-11.32
4,800.00	14.23	43.963	4,606.12	524.19	973.86	-897.35	8.00	-6.30	-16.84
4,900.00	10.50	10.072	4,703.91	542.04	984.00	-905.09	8.00	-3.73	-33.89

Database:	Grand Junction	**Local Co-ordinate Reference:**	Well Chaco 2308-03 3H
Company:	Logos Operating LLC	**TVD Reference:**	GL 6908' & RKB 25' @ 6933.00usft (Aztec 1000)
Project:	San Juan, NM NAD83	**MD Reference:**	GL 6908' & RKB 25' @ 6933.00usft (Aztec 1000)
Site:	Chaco 2308-03 Pad	**North Reference:**	True
Well:	Chaco 2308-03 3H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #5		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,000.00	12.02	328.910	4,802.13	559.95	980.21	-899.00	8.00	1.52	-41.16
5,100.00	17.48	305.372	4,898.89	577.59	962.56	-879.20	8.00	5.45	-23.54
5,200.00	24.35	293.733	4,992.28	594.61	931.39	-846.09	8.00	6.87	-11.64
5,300.00	31.73	287.119	5,080.50	610.67	887.32	-800.30	8.00	7.38	-6.61
5,400.00	39.34	282.822	5,161.84	625.47	831.19	-742.72	8.00	7.60	-4.30
5,500.00	47.05	279.736	5,234.69	638.71	764.11	-674.49	8.00	7.72	-3.09
5,600.00	54.84	277.344	5,297.66	650.15	687.37	-596.92	8.00	7.78	-2.39
5,700.00	62.66	275.373	5,349.50	659.54	602.48	-511.52	8.00	7.82	-1.97
5,800.00	70.50	273.663	5,389.22	666.73	511.07	-419.96	8.00	7.85	-1.71
5,900.00	78.36	272.113	5,416.04	671.55	414.94	-324.02	8.00	7.86	-1.55
6,000.00	86.23	270.649	5,429.44	673.93	315.95	-225.56	8.00	7.87	-1.46
6,052.43	90.36	269.895	5,431.00	674.17	263.56	-173.58	8.00	7.87	-1.44
6,100.00	90.36	269.895	5,430.71	674.09	215.99	-126.43	0.00	0.00	0.00
6,200.00	90.36	269.895	5,430.09	673.90	115.99	-27.30	0.00	0.00	0.00
6,300.00	90.36	269.895	5,429.47	673.72	15.99	71.82	0.00	0.00	0.00
6,400.00	90.36	269.895	5,428.85	673.54	-84.00	170.94	0.00	0.00	0.00
6,500.00	90.36	269.895	5,428.23	673.36	-184.00	270.07	0.00	0.00	0.00
6,600.00	90.36	269.895	5,427.61	673.17	-284.00	369.19	0.00	0.00	0.00
6,700.00	90.36	269.895	5,426.99	672.99	-384.00	468.32	0.00	0.00	0.00
6,800.00	90.36	269.895	5,426.37	672.81	-483.99	567.44	0.00	0.00	0.00
6,900.00	90.36	269.895	5,425.75	672.62	-583.99	666.56	0.00	0.00	0.00
7,000.00	90.36	269.895	5,425.13	672.44	-683.99	765.69	0.00	0.00	0.00
7,100.00	90.36	269.895	5,424.51	672.26	-783.99	864.81	0.00	0.00	0.00
7,200.00	90.36	269.895	5,423.89	672.07	-883.99	963.93	0.00	0.00	0.00
7,300.00	90.36	269.895	5,423.27	671.89	-983.98	1,063.06	0.00	0.00	0.00
7,400.00	90.36	269.895	5,422.65	671.71	-1,083.98	1,162.18	0.00	0.00	0.00
7,500.00	90.36	269.895	5,422.03	671.53	-1,183.98	1,261.30	0.00	0.00	0.00
7,600.00	90.36	269.895	5,421.41	671.34	-1,283.98	1,360.43	0.00	0.00	0.00
7,700.00	90.36	269.895	5,420.79	671.16	-1,383.98	1,459.55	0.00	0.00	0.00
7,800.00	90.36	269.895	5,420.17	670.98	-1,483.97	1,558.68	0.00	0.00	0.00
7,900.00	90.36	269.895	5,419.55	670.79	-1,583.97	1,657.80	0.00	0.00	0.00
8,000.00	90.36	269.895	5,418.93	670.61	-1,683.97	1,756.92	0.00	0.00	0.00
8,100.00	90.36	269.895	5,418.31	670.43	-1,783.97	1,856.05	0.00	0.00	0.00
8,200.00	90.36	269.895	5,417.69	670.24	-1,883.97	1,955.17	0.00	0.00	0.00
8,300.00	90.36	269.895	5,417.07	670.06	-1,983.96	2,054.29	0.00	0.00	0.00
8,400.00	90.36	269.895	5,416.45	669.88	-2,083.96	2,153.42	0.00	0.00	0.00
8,500.00	90.36	269.895	5,415.83	669.70	-2,183.96	2,252.54	0.00	0.00	0.00
8,600.00	90.36	269.895	5,415.21	669.51	-2,283.96	2,351.66	0.00	0.00	0.00
8,700.00	90.36	269.895	5,414.59	669.33	-2,383.96	2,450.79	0.00	0.00	0.00
8,800.00	90.36	269.895	5,413.97	669.15	-2,483.95	2,549.91	0.00	0.00	0.00
8,900.00	90.36	269.895	5,413.36	668.96	-2,583.95	2,649.04	0.00	0.00	0.00
9,000.00	90.36	269.895	5,412.74	668.78	-2,683.95	2,748.16	0.00	0.00	0.00
9,100.00	90.36	269.895	5,412.12	668.60	-2,783.95	2,847.28	0.00	0.00	0.00
9,200.00	90.36	269.895	5,411.50	668.42	-2,883.94	2,946.41	0.00	0.00	0.00
9,300.00	90.36	269.895	5,410.88	668.23	-2,983.94	3,045.53	0.00	0.00	0.00
9,400.00	90.36	269.895	5,410.26	668.05	-3,083.94	3,144.65	0.00	0.00	0.00
9,500.00	90.36	269.895	5,409.64	667.87	-3,183.94	3,243.78	0.00	0.00	0.00
9,600.00	90.36	269.895	5,409.02	667.68	-3,283.94	3,342.90	0.00	0.00	0.00
9,700.00	90.36	269.895	5,408.40	667.50	-3,383.93	3,442.03	0.00	0.00	0.00
9,800.00	90.36	269.895	5,407.78	667.32	-3,483.93	3,541.15	0.00	0.00	0.00
9,900.00	90.36	269.895	5,407.16	667.13	-3,583.93	3,640.27	0.00	0.00	0.00
10,000.00	90.36	269.895	5,406.54	666.95	-3,683.93	3,739.40	0.00	0.00	0.00

Database:	Grand Junction	**Local Co-ordinate Reference:**	Well Chaco 2308-03 3H
Company:	Logos Operating LLC	**TVD Reference:**	GL 6908' & RKB 25' @ 6933.00usft (Aztec 1000)
Project:	San Juan, NM NAD83	**MD Reference:**	GL 6908' & RKB 25' @ 6933.00usft (Aztec 1000)
Site:	Chaco 2308-03 Pad	**North Reference:**	True
Well:	Chaco 2308-03 3H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #5		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,100.00	90.36	269.895	5,405.92	666.77	-3,783.93	3,838.52	0.00	0.00	0.00
10,200.00	90.36	269.895	5,405.30	666.59	-3,883.92	3,937.64	0.00	0.00	0.00
10,300.00	90.36	269.895	5,404.68	666.40	-3,983.92	4,036.77	0.00	0.00	0.00
10,400.00	90.36	269.895	5,404.06	666.22	-4,083.92	4,135.89	0.00	0.00	0.00
10,500.00	90.36	269.895	5,403.44	666.04	-4,183.92	4,235.01	0.00	0.00	0.00
10,600.00	90.36	269.895	5,402.82	665.85	-4,283.92	4,334.14	0.00	0.00	0.00
10,700.00	90.36	269.895	5,402.20	665.67	-4,383.91	4,433.26	0.00	0.00	0.00
10,800.00	90.36	269.895	5,401.58	665.49	-4,483.91	4,532.39	0.00	0.00	0.00
10,900.00	90.36	269.895	5,400.96	665.30	-4,583.91	4,631.51	0.00	0.00	0.00
11,000.00	90.36	269.895	5,400.34	665.12	-4,683.91	4,730.63	0.00	0.00	0.00
11,100.00	90.36	269.895	5,399.72	664.94	-4,783.90	4,829.76	0.00	0.00	0.00
11,200.00	90.36	269.895	5,399.10	664.76	-4,883.90	4,928.88	0.00	0.00	0.00
11,300.00	90.36	269.895	5,398.48	664.57	-4,983.90	5,028.00	0.00	0.00	0.00
11,378.07	90.36	269.895	5,398.00	664.43	-5,061.96	5,105.38	0.00	0.00	0.00

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Chaco 3H FPerf	0.00	0.000	5,398.00	664.42	-4,982.07	1,913,951.89	2,768,942.09	36.2599350	-107.6778100
- plan misses target center by 0.52usft at 11298.17usft MD (5398.50 TVD, 664.58 N, -4982.07 E)									
- Point									
Chaco 3H BHL	0.00	0.000	5,398.00	664.43	-5,061.96	1,913,951.76	2,768,862.19	36.2599350	-107.6780810
- plan hits target center									
- Point									
Chaco 3H LPerf	0.00	0.000	5,431.00	673.81	113.80	1,913,970.35	2,774,037.93	36.2599620	-107.6605250
- plan misses target center by 0.93usft at 6202.19usft MD (5430.07 TVD, 673.90 N, 113.80 E)									
- Point									
Chaco 3H POE	0.00	0.000	5,431.00	674.17	263.56	1,913,970.99	2,774,187.70	36.2599630	-107.6600170
- plan hits target center									
- Point									

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,068.00	1,068.00	Ojo Alamo		0.00	0.000
1,280.01	1,280.00	Kirtland		0.00	0.000
1,445.30	1,445.00	Fruitland		0.00	0.000
1,780.97	1,777.00	Picture Cliffs		0.00	0.000
2,648.33	2,598.00	Chacra		0.00	0.000
3,346.65	3,249.00	Cliff House		0.00	0.000
3,409.94	3,308.00	Menefee		0.00	0.000
4,216.59	4,060.00	Point Lookout		0.00	0.000
4,543.76	4,365.00	Mancos		0.00	0.000
5,421.15	5,178.00	Gallup		0.00	0.000

Database:	Grand Junction	**Local Co-ordinate Reference:**	Well Chaco 2308-03 3H
Company:	Logos Operating LLC	**TVD Reference:**	GL 6908' & RKB 25' @ 6933.00usft (Aztec 1000)
Project:	San Juan, NM NAD83	**MD Reference:**	GL 6908' & RKB 25' @ 6933.00usft (Aztec 1000)
Site:	Chaco 2308-03 Pad	**North Reference:**	True
Well:	Chaco 2308-03 3H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #5		

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
1,200.00	1,200.00	0.00	0.00	Start Build 2.00
2,260.64	2,236.57	91.35	171.27	Start 2429.47 hold at 2260.64 MD
4,690.10	4,501.42	505.07	946.88	Start DLS 8.00 TFO -150.26
6,052.43	5,431.00	674.17	263.56	POE @ 6052' MD
6,052.43	5,431.00	674.17	263.56	36.2599630, -107.6600170
6,205.43	5,430.05	673.89	110.56	Last Perf @ 6205' MD
6,205.43	5,430.05	673.89	110.56	36.2599622, -107.6605360
11,298.06	5,398.50	664.58	-4,981.96	First Perf @ 11,298' MD
11,298.06	5,398.50	664.58	-4,981.96	36.2599354, -107.6778096
11,378.06	5,398.00	664.43	-5,061.96	TD at 11378.06

LOGOS RESOURCES II, LLC

Logos Operating LLC

San Juan, NM NAD83
Chaco 2308-03 Pad
Chaco 2308-03 3H

OH
Plan #5

Anticollision Report

21 January, 2020

Scientific Drilling

www.scientificdrilling.com

Company:	Logos Operating LLC	**Local Co-ordinate Reference:**	Well Chaco 2308-03 3H
Project:	San Juan, NM NAD83	**TVD Reference:**	GL 6908' & RKB 25' @ 6933.00usft (Aztec 1000)
Reference Site:	Chaco 2308-03 Pad	**MD Reference:**	GL 6908' & RKB 25' @ 6933.00usft (Aztec 1000)
Site Error:	0.00 usft	**North Reference:**	True
Reference Well:	Chaco 2308-03 3H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	Grand Junction
Reference Design:	Plan #5	**Offset TVD Reference:**	Offset Datum

Reference	Plan #5		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100.00usft	**Error Model:**	ISCWSA
Depth Range:	Unlimited	**Scan Method:**	Closest Approach 3D
Results Limited by:	Maximum ellipse separation of 1,000.00 usft	**Error Surface:**	Pedal Curve
Warning Levels Evaluated at:	2.00 **Sigma**	**Casing Method:**	Not applied

Survey Tool Program **Date** 1/21/2020

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	11,378.07	Plan #5 (OH)	MWD+HDGM	OWSG MWD + HDGM

Summary

Site Name / Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Chaco 2308-03 Pad						
Chaco 2308-03E 403H - OH - OH	11,378.07	5,486.79	162.84	-226.08	0.419	Level 1, CC, ES, SF
Chaco 23-08-3 #1H - OH - OH	775.54	770.89	43.86	39.99	11.344	CC
Chaco 23-08-3 #1H - OH - OH	800.00	795.17	43.96	39.94	10.931	ES
Chaco 23-08-3 #1H - OH - OH	11,200.00	10,768.00	912.21	327.10	1.559	SF
Chaco 23-08-3 #1H - OH - Plan #2	930.26	925.83	41.19	36.09	8.081	CC, ES
Chaco 23-08-3 #1H - OH - Plan #2	11,300.00	10,738.96	949.42	349.97	1.584	SF
Chaco 23-08-3 #2H - OH - OH	100.00	95.78	84.98	84.74	357.879	CC
Chaco 23-08-3 #2H - OH - OH	500.00	494.54	85.37	83.18	38.912	ES
Chaco 23-08-3 #2H - OH - OH	11,200.00	10,310.00	948.29	394.86	1.713	SF
Chaco 23-08-3 #2H - OH - Plan #2	100.00	95.78	84.98	84.74	357.879	CC
Chaco 23-08-3 #2H - OH - Plan #2	500.00	494.54	85.37	83.18	38.912	ES
Chaco 23-08-3 #2H - OH - Plan #2	11,200.00	10,319.71	940.55	376.82	1.668	SF
Omega 2308-03 5H - OH - Plan #3	1,310.30	1,310.07	21.84	12.90	2.445	CC, ES, SF
Zeus 2308-03 4H - OH - Plan #3	1,200.00	1,200.00	44.07	35.92	5.404	CC, ES
Zeus 2308-03 4H - OH - Plan #3	6,700.00	5,505.52	528.74	402.19	4.178	SF

Offset Design Chaco 2308-03 Pad - Chaco 2308-03E 403H - OH - OH

Offset Site Error: 0.00 usft
Offset Well Error: 0.00 usft

Survey Program: 64-MWD+HDGM

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	-88.91	80.77	-4,252.49	4,253.34				
100.00	100.00	71.89	71.89	0.13	0.12	-88.91	80.76	-4,252.50	4,253.26	4,253.01	0.25	N/A	
200.00	200.00	155.54	155.54	0.49	0.42	-88.91	80.54	-4,252.64	4,253.43	4,252.52	0.91	4,665.948	
300.00	300.00	264.00	264.00	0.85	0.81	-88.92	80.13	-4,252.98	4,253.74	4,252.08	1.66	2,566.811	
400.00	400.00	349.90	349.89	1.21	1.11	-88.93	79.70	-4,253.41	4,254.22	4,251.90	2.32	1,830.958	
500.00	500.00	429.87	429.86	1.57	1.40	-88.93	79.29	-4,253.98	4,254.93	4,251.96	2.97	1,432.947	
600.00	600.00	516.63	516.61	1.93	1.71	-88.94	78.78	-4,255.06	4,256.16	4,252.53	3.64	1,169.710	
700.00	700.00	596.62	596.59	2.29	1.99	-88.93	79.65	-4,256.28	4,257.72	4,253.44	4.28	995.631	
800.00	800.00	672.85	672.71	2.64	2.25	-88.88	83.17	-4,257.76	4,259.75	4,254.86	4.90	869.982	
900.00	900.00	732.00	731.69	3.00	2.46	-88.82	87.52	-4,259.29	4,262.53	4,257.07	5.46	780.254	
1,000.00	1,000.00	773.00	772.49	3.36	2.60	-88.77	91.20	-4,260.78	4,266.47	4,260.50	5.97	714.389	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

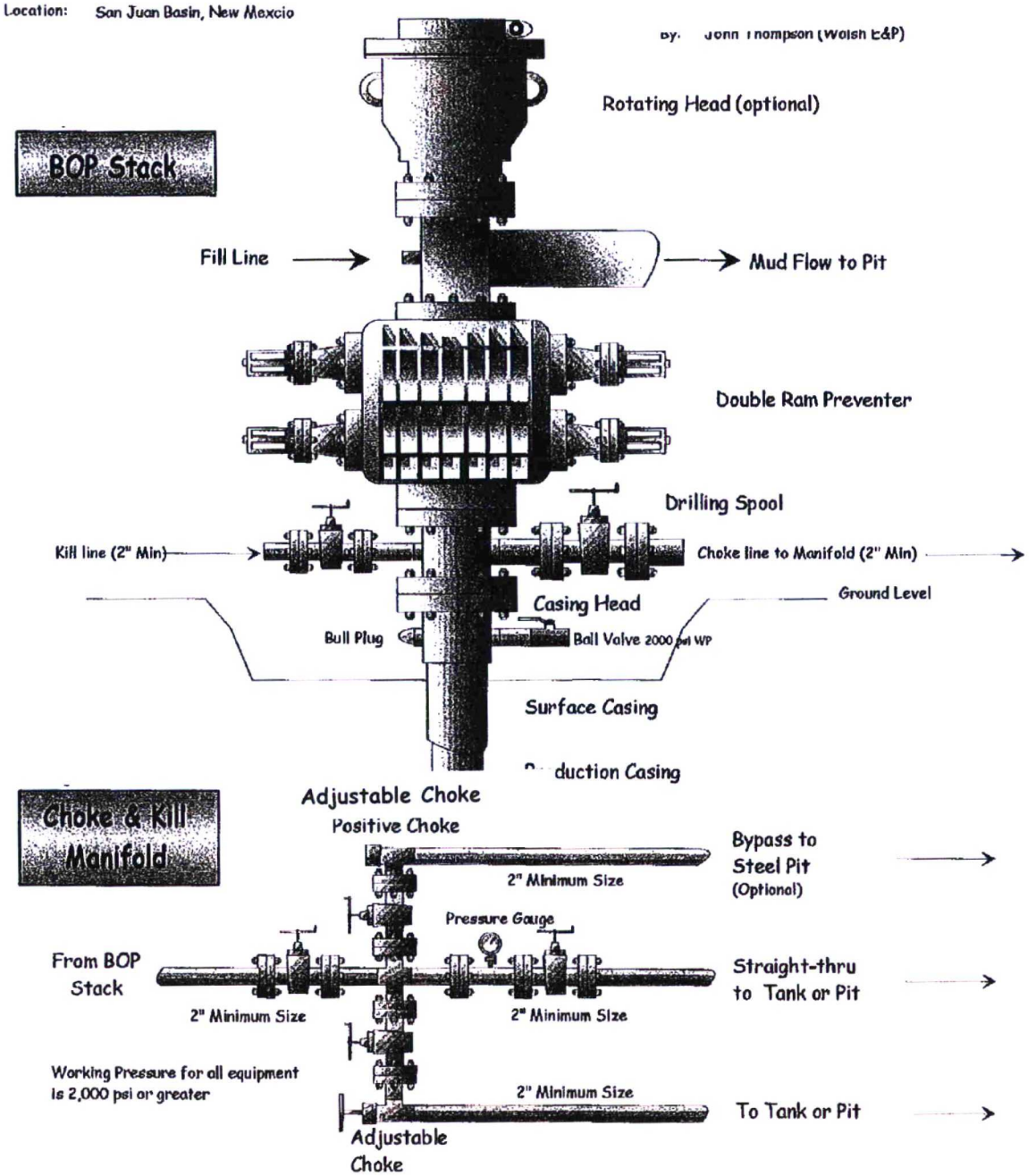
Well Control Equipment Schematic for 2M Service

Attachment to Drilling Technical Program

Exhibit #1
Typical BOP setup

Location: San Juan Basin, New Mexcio

By: John Thompson (Walsh E&P)



Directions from the Intersection of US Hwy 550 & US Hwy 64

in Bloomfield, NM to Logos Operating, LLC Chaco 23-08-3 #3H

1982' FNL & 223' FEL, Section 3, T23N, R8W, N.M.P.M., San Juan County, NM

Latitude: 36.258111°N Longitude: 107.660911°W Datum: NAD1983

From the intersection of US Hwy 550 & US Hwy 64 in Bloomfield, NM, travel Southerly on US Hwy 550 for 41.1 miles to Mile Marker 110.6;

Go Left (Northerly) on existing roadway for 0.2 miles to fork in roadway;

Go Right (Easterly) on existing roadway for 0.4 miles to fork in roadway;

Go Left (Easterly) which is straight for 0.4 miles to existing Logos Chaco 23-08-3 #1H & #2H wellpad, on which is staked Logos Chaco 23-08-3 #3H location.