

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., 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 Dr., 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 Dr.
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 30-029-43269	² Pool Code 97955	³ Pool Name WC025606S263319P; BONE SPRING
⁴ Property Code 316250	⁵ Property Name SD EA 29 FED COM P8	⁶ Well Number 10H
⁷ OGRID No. 4323	⁸ Operator Name CHEVRON U.S.A. INC.	⁹ Elevation 3250'

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
B	29	26 SOUTH	33 EAST, N.M.P.M.		136'	NORTH	1657'	EAST	LEA

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
G	32	26 SOUTH	33 EAST, N.M.P.M.	2	180'	SOUTH	1651'	EAST	LEA

¹² Dedicated Acres 240	¹³ Joint or Infill 32.41	¹⁴ Consolidation Code	¹⁵ Order No.
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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.

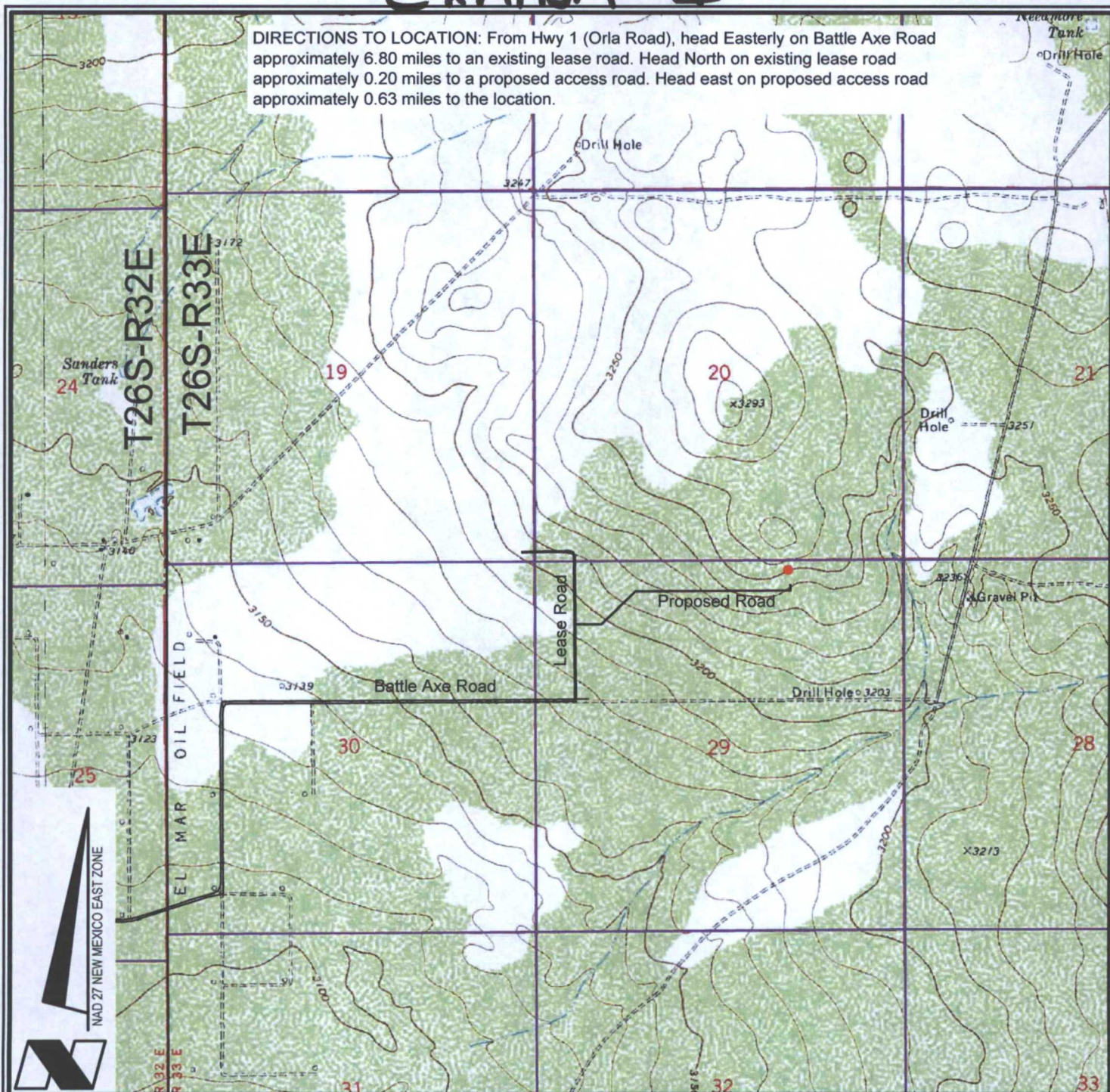
SD EA 29 FED COM P8 NO. 10H WELL X= 730,185 NAD 27 Y= 372,252 LAT. 32.021261 LONG. 103.590625 X= 771,373 NAD83 Y= 372,309 LAT. 32.021386 LONG. 103.591091 ELEVATION +3250' NAVD 88		¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge 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. Cindy Herrera-Murillo 11515 Signature Date Cindy Herrera-Murillo Printed Name Cherreramurillo@chevron.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. 3-30-15 Date of Survey Signature and Seal of Registered Professional Surveyor WM. J. DANIEL III NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR 15078 Certificate Number #15078
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CORNER COORDINATES TABLE (NAD 27)

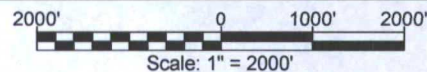
A - Y=372382.09, X=729197.59
B - Y=372390.91, X=730519.68
C - Y=371062.70, X=729207.78
D - Y=371072.13, X=730529.72
E - Y=364553.99, X=729259.12
F - Y=364563.17, X=730579.96

Exhibit 1

DIRECTIONS TO LOCATION: From Hwy 1 (Orla Road), head Easterly on Battle Axe Road approximately 6.80 miles to an existing lease road. Head North on existing lease road approximately 0.20 miles to a proposed access road. Head east on proposed access road approximately 0.63 miles to the location.



VICINITY MAP



CHEVRON U.S.A. INC.

SD EA 29 FED COM P8 NO. 10H WELL
 LOCATED 136' FNL AND 3631' FWL
 SECTION 29, T26S-R33E
 LEA COUNTY, NEW MEXICO



Lafayette New Orleans Houston
 135 Regency Sq. Lafayette, LA 70508
 Ph. 337-237-2200 Fax. 337-232-3299
www.fenstermaker.com

DRAWN BY: BMO

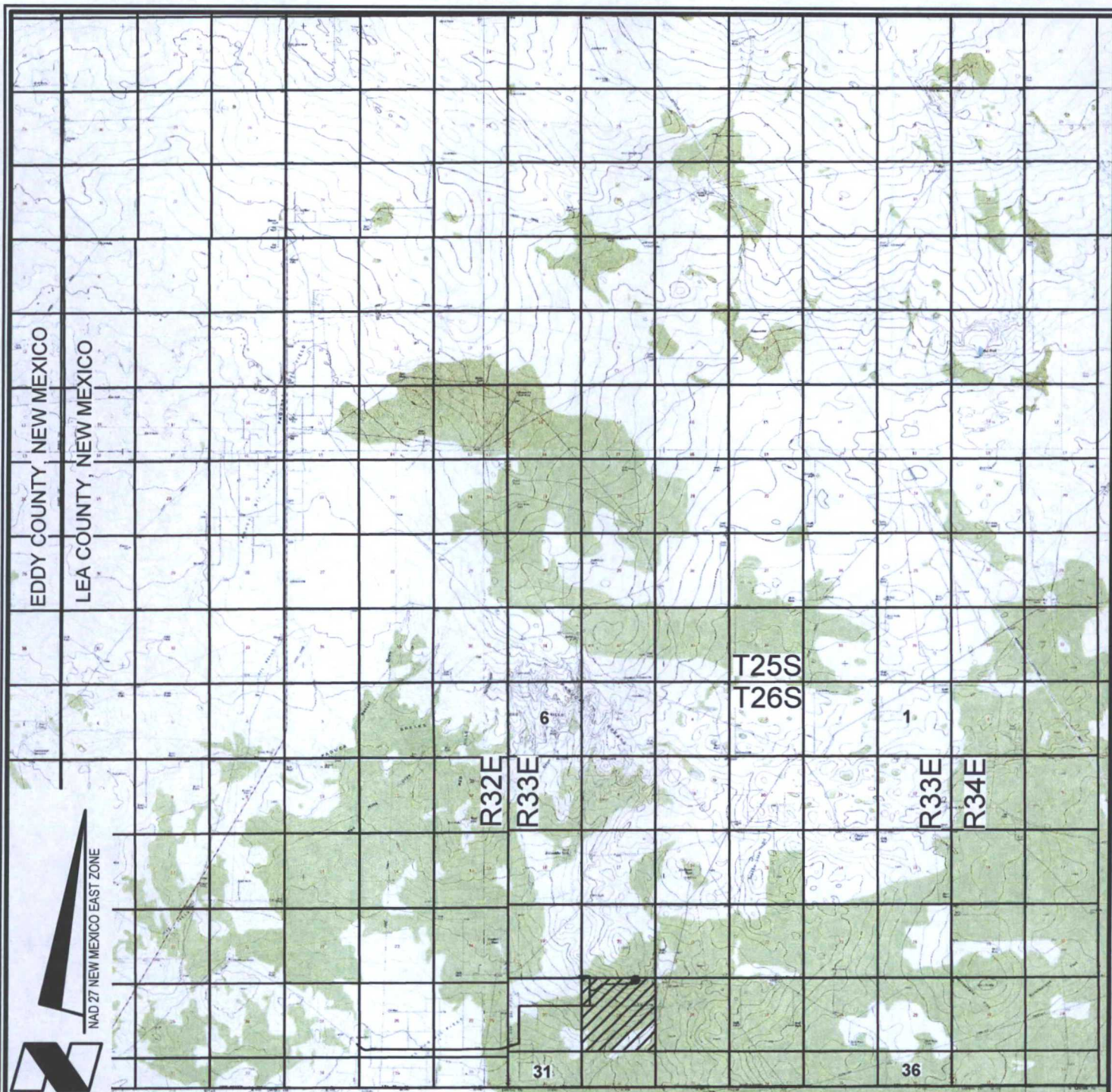
REVISED:

DATE: NOVEMBER 25, 2014

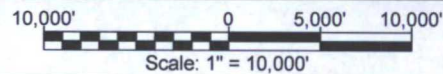
PROJ. MGR.: VHV

SHEET 1 OF 3 SHEETS

FILENAME: T:\2014\2149585\DWG\SD EA 29 Fed Com P8 10H_APD.dwg



VICINITY MAP



CHEVRON U.S.A. INC.
 SD EA 29 FED COM P8 NO. 10H WELL
 LOCATED 136' FNL AND 3631' FWL
 SECTION 29, T26S-R33E
 LEA COUNTY, NEW MEXICO



Lafayette New Orleans Houston
 135 Regency Sq. Lafayette, LA 70508
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REVISED:

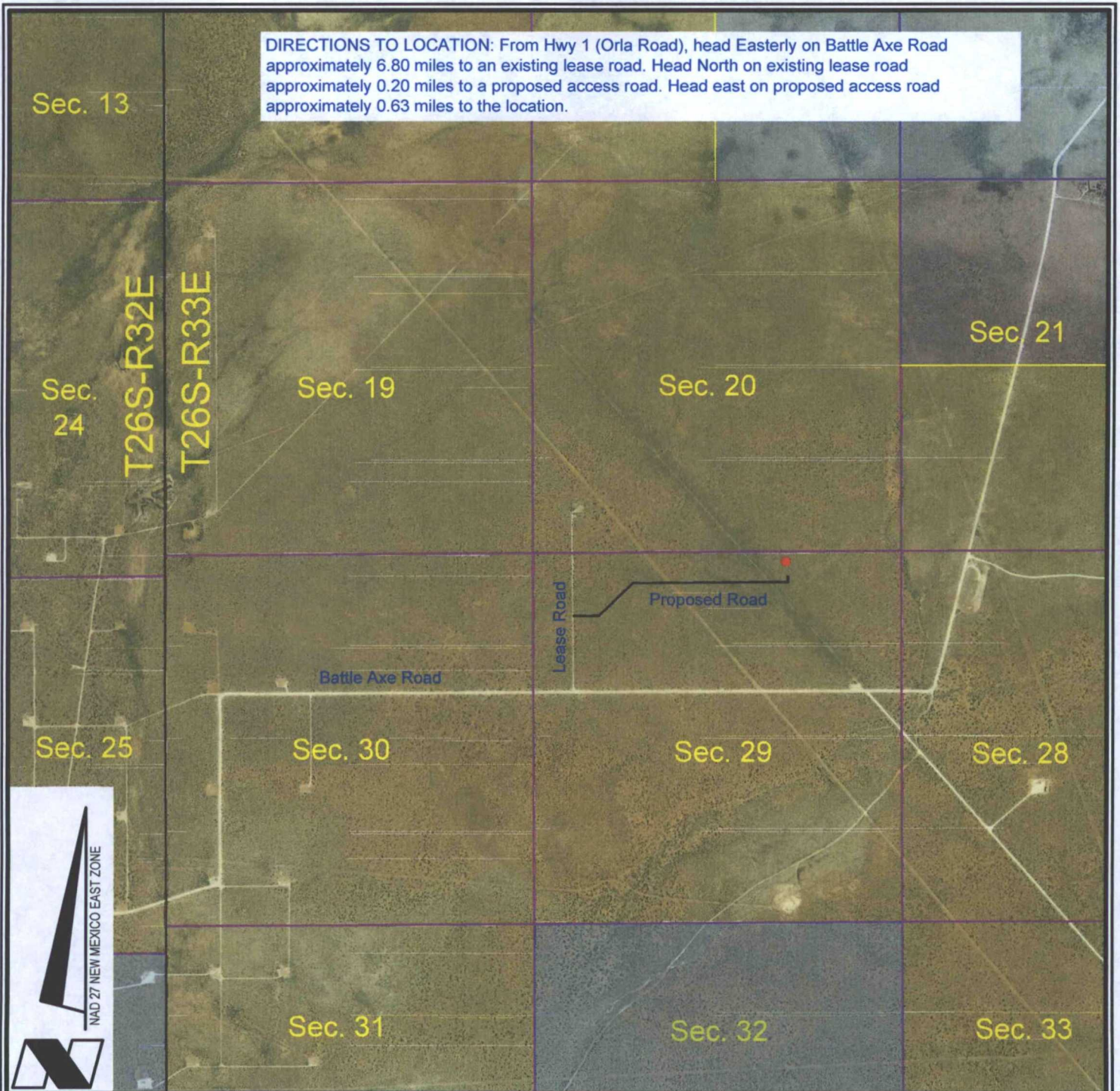
DATE: NOVEMBER 25, 2014

PROJ. MGR.: VHV

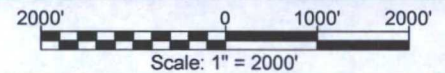
SHEET 2 OF 3 SHEETS

FILENAME: T:\2014\2149585\DWG\SD EA 29 Fed Com P8 10H_APD.dwg

DIRECTIONS TO LOCATION: From Hwy 1 (Orla Road), head Easterly on Battle Axe Road approximately 6.80 miles to an existing lease road. Head North on existing lease road approximately 0.20 miles to a proposed access road. Head east on proposed access road approximately 0.63 miles to the location.



VICINITY MAP



-  = FEDERAL LAND
-  = FEE LAND
-  = STATE LAND

CHEVRON U.S.A. INC.
 SD EA 29 FED COM P8 NO. 10H WELL
 LOCATED 136' FNL AND 3631' FWL
 SECTION 29, T26S-R33E
 LEA COUNTY, NEW MEXICO



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 135 Regency Sq. Lafayette, LA 70508
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DRAWN BY: BMO

REVISED:

DATE: NOVEMBER 25, 2014

PROJ. MGR.: VHV

SHEET 3 OF 3 SHEETS

FILENAME: T:\2014\2149585\DWG\SD EA 29 Fed Com P8 10H_APD.dwg

Exhibit 2

R33E

NW ARCH. AREA CORNER	NE ARCH. AREA CORNER	SE ARCH. AREA CORNER	SW ARCH. AREA CORNER
X= 729.859 NAD 27 Y= 372.550	X= 730.533 NAD 27 Y= 372.555	X= 730.538 NAD 27 Y= 371.954	X= 729.862 NAD 27 Y= 371.950
ELEVATION +3267 NAVD 88	ELEVATION +3258 NAVD 88	ELEVATION +3237 NAVD 88	ELEVATION +3243 NAVD 88
NW PAD CORNER & SE TOP SOIL AREA CORNER	NE PAD CORNER	SE PAD CORNER	SW PAD CORNER
X= 729.862 NAD 27 Y= 372.046	X= 730.380 NAD 27 Y= 372.378	X= 730.382 NAD 27 Y= 372.048	X= 729.862 NAD 27 Y= 372.048
ELEVATION +3256 NAVD 88	ELEVATION +3254 NAVD 88	ELEVATION +3238 NAVD 88	ELEVATION +3238 NAVD 88
SW PAD CORNER & SE TOP SOIL AREA CORNER	NW TOP SOIL AREA CORNER	SE TOP SOIL AREA CORNER	SW TOP SOIL AREA CORNER
X= 729.862 NAD 27 Y= 372.046	X= 729.850 NAD 27 Y= 372.378	X= 729.852 NAD 27 Y= 372.048	X= 729.852 NAD 27 Y= 372.048
ELEVATION +3244 NAVD 88	ELEVATION +3255 NAVD 88	ELEVATION +3244 NAVD 88	ELEVATION +3244 NAVD 88
SD EA 29 FED COM P8 10H	SD EA 29 FED COM P8 10H	SD EA 29 FED COM P8 10H	SD EA 29 FED COM P8 10H
X= 730.185 NAD 27 Y= 372.262	X= 730.185 NAD 27 Y= 372.262	X= 730.185 NAD 27 Y= 372.262	X= 730.185 NAD 27 Y= 372.262
LAT. 32.021061	LAT. 32.021061	LAT. 32.021061	LAT. 32.021061
LONG. 103.590625	LONG. 103.590625	LONG. 103.590625	LONG. 103.590625
X= 771.313 NAD83	X= 771.313 NAD83	X= 771.313 NAD83	X= 771.313 NAD83
Y= 372.309	Y= 372.309	Y= 372.309	Y= 372.309
LAT. 32.021386	LAT. 32.021386	LAT. 32.021386	LAT. 32.021386
LONG. 103.591081	LONG. 103.591081	LONG. 103.591081	LONG. 103.591081
ELEVATION +3250 NAVD 88	ELEVATION +3250 NAVD 88	ELEVATION +3250 NAVD 88	ELEVATION +3250 NAVD 88

PROPOSED PAD
22.80 Acres

PROPOSED TOP
SOIL AREA
20.30 Acres

PROPOSED
ARCHAEOLOGICAL
AREA
25.50 Acres

Sec. 29

Bureau of Land Management

Proposed
Salado Draw
29 26 33 Fed Com
5H-8H Access Road

Proposed
Salado Draw
29 26 33 Fed Com
5H-8H Drilling (Pad 3)

Existing Easement Line

Existing Pipeline

LEGEND
Section Line
Existing Pipeline
Proposed Pipeline
Proposed Pipeline

SURFACE USE PLAT

CHEVRON U.S.A. INC.

PROPOSED PAD
SD EA 29 FED COM P8 NO. 10H WELL
SECTION 29, T26S-R33E
LEA COUNTY, NEW MEXICO

REVISIONS
DRAWN BY: BOR
PROJ. MGR.: VHV
DATE: 11/25/2014
REVISOR BY: []
DATE: []
FILENAME: T:\2014\214956\SDWG\SD EA 29 Fed Com P8 10H_SUP.dwg

135 Regency Sq. Lafayette, LA 70508
Ph. 337-237-2200 Fax. 337-232-3299
www.fenstermaker.com



NOTE:
Please be advised, that while reasonable efforts are made to locate and verify pipelines and anomalies using our standard pipeline locating equipment, it is impossible to be 100% effective. As such, we advise using caution when performing work as there is a possibility that pipelines and other hazards, such as fiber optic cables, PVC pipelines, etc. may exist undetected on site.

NOTE:
Many states maintain information centers that establish links between those who dig (excavators) and those who own and operate underground facilities (operators). It is advisable and in most states, law, for the contractor to contact the center for assistance in locating and marking underground utilities.
For guidance: New Mexico One Call - www.nmocall.org

DISCLAIMER: At this time, C.H. Fenstermaker & Associates, LLC has not performed nor was asked to perform any type of engineering, hydrological modeling, flood plain, or "No Rise" certification analysis, including but not limited to determining whether the project will impact flood hazards in connection with federal, state, and/or local laws, ordinances and regulations. Accordingly, Fenstermaker makes no warranty or representation of any kind as to the foregoing issues, and persons or entities using this information shall do so at their own risk.

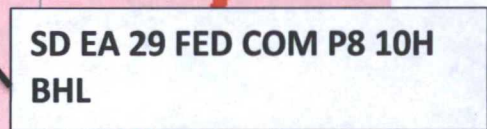
FOR THE EXCLUSIVE USE OF
CHEVRON U.S.A. INC.
I, WM. J. DANIEL III, Registered Professional
Land Surveyor, do hereby state this plat is true
and correct to the best of my knowledge.



WM. J. DANIEL III
Registration No. 15078

Scale: 1"=100'
0 50' 100'







Project: Lea County, NM (NAD27 NME)
Site: SD EA
Well: 29 Fed Com P8 10H
Wellbore: OH / Job #1513821
Design: Plan 1 06-22-15
Rig: Pace X30



Geometric Model: HDGM
Sample Date: 22-Jun-15
Magnetic Declination: 6.66°
Dip Angle from Horizontal: 59.77°
Magnetic Field Strength: 48065
To convert a Magnetic Direction to a True Direction, Add 6.66°
To convert a True Direction to a Grid Direction, Subtract 0.39°



WELL DETAILS

Ground Level: 3250.00
Easting: 730165.00
Northing: 372252.00
Latitude: 32° 1' 16.53668 N
Longitude: 103° 38' 26.25350 W

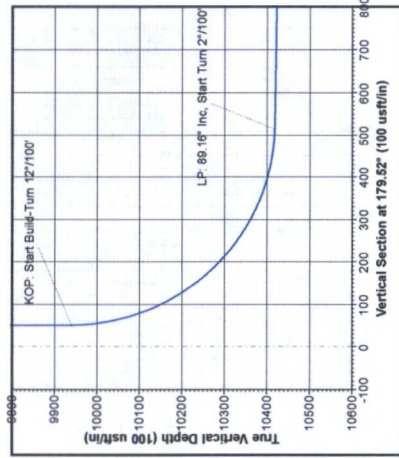
SECTION DETAILS

Sec	MD	Inc	Azi	TVD	-NLS	-E/W	Diag	TFace	Vsect	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	1500.00	0.00	0.00	1500.00	0.00	0.00	0.00	0.00	0.00	0.00
3	1875.00	3.75	245.00	1874.73	-5.18	-11.12	1.00	245.00	5.09	5.09
4	3375.00	3.75	245.00	3371.52	-46.65	-100.03	0.00	0.00	45.80	45.80
5	3750.00	0.00	0.00	3750.00	0.00	0.00	0.00	0.00	0.00	0.00
6	5944.00	0.00	0.00	5944.00	-51.63	-111.15	0.00	0.00	50.90	50.90
7	10697.00	89.16	175.35	10417.67	-515.64	-32.29	12.00	170.35	515.35	515.35
8	11145.42	89.16	175.52	10424.39	-971.73	8.14	2.00	90.05	971.76	971.76
9	17865.62	89.16	175.52	10520.00	-7511.00	63.00	0.00	0.00	7511.26	7511.26

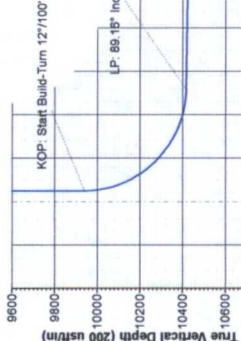
DESIGN TARGET DETAILS

Name	TVD	-NLS	-E/W	Northing	Easting	Latitude	Longitude	Shape
BHL SD EA 29 10H	10520.00	-7511.00	63.00	364741.00	730248.00	32° 0' 2.20439 N	103° 35' 26.1268 W	Point
- Plain hole target center								

True Vertical Depth (500 usft/in)



Vertical Section at 175.52° (500 usft/in)



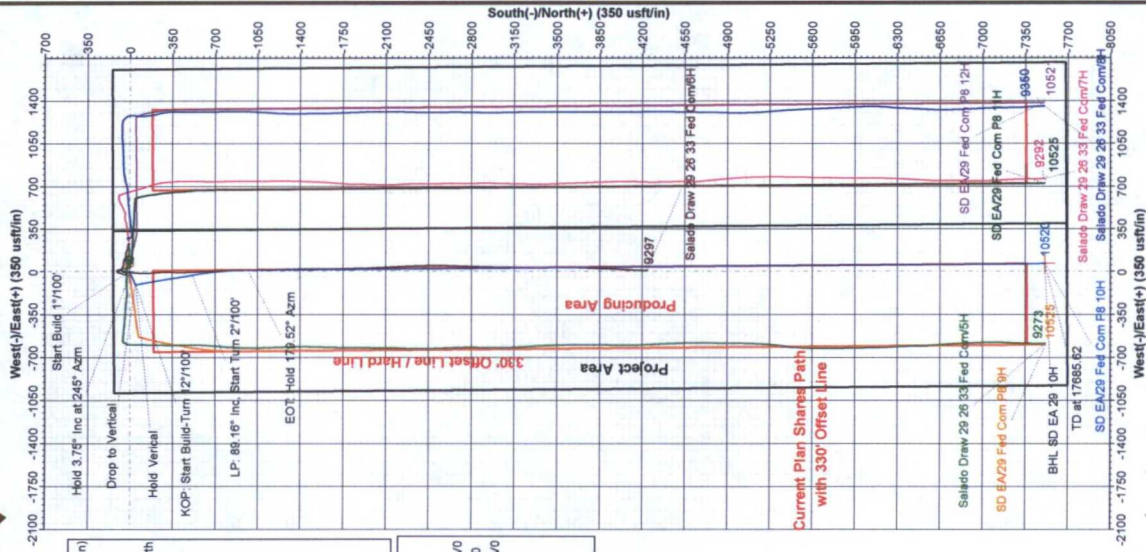
Map System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone Name: New Mexico East 3001
Local Origin: Well 29 Fed Com P8 10H, Grid North
Latitude: 32° 1' 16.53668 N
Longitude: 103° 35' 26.25350 W
Grid East: 730165.00
Grid North: 372252.00
Scale Factor: 1.000

Geometric Model: HDGM
Sample Date: 22-Jun-15
Magnetic Declination: 6.66°
Dip Angle from Horizontal: 59.77°
Magnetic Field Strength: 48065

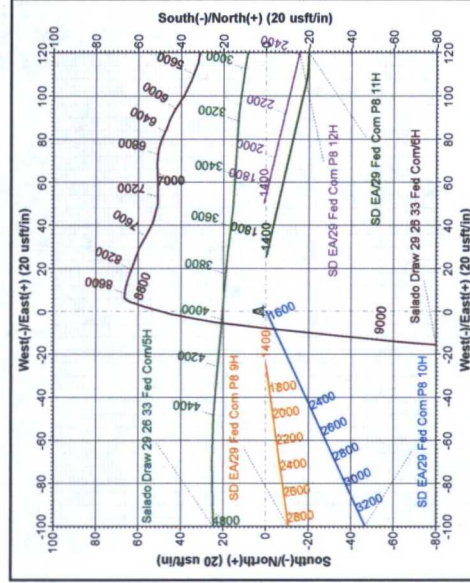
To convert a Magnetic Direction to a Grid Direction, Add 6.66°
To convert a True Direction to a Grid Direction, Subtract 0.39°

LEGEND

- 29 Fed Com P8 12H, OH / Job #1513823, Plan 1 06-22-15 VO
- 29 Fed Com P8 9H, OH / Job #1513820, Plan 1 06-22-15 VO
- 29 Fed Com P8 11H, OH / Job #1513822, Plan 1 06-22-15 VO
- 8H Wellbore #1, Job #1513166, Surveys (Pace X30) VO
- 5H Wellbore #2, Job #1513132, Surveys (Pace X30) VO
- 7H Wellbore #1, Job #1513167, Surveys (Pace X30) VO
- 8H Wellbore #1, Job #1513168, Surveys (Pace X30) VO
- Plan 1 06-22-15



West(-)/East(+) (350 usft/in)



Vertical Section at 175.52° (200 usft/in)



Chevron

Lea County, NM (NAD27 NME)

SD EA

29 Fed Com P8 10H

OH / Job #1513821

Plan: Plan 1 06-22-15

Standard Planning Report

30 June, 2015





Planning Report



Database:	Compass 5000 GCR	Local Co-ordinate Reference:	Well 29 Fed Com P8 10H
Company:	Chevron	TVD Reference:	RKB @ 3283.00usft (Pace X30)
Project:	Lea County, NM (NAD27 NME)	MD Reference:	RKB @ 3283.00usft (Pace X30)
Site:	SD EA	North Reference:	Grid
Well:	29 Fed Com P8 10H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH / Job #1513821		
Design:	Plan 1 06-22-15		

Project	Lea County, NM (NAD27 NME)		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site	SD EA					
Site Position:		Northing:	377,363.00 usft	Latitude:	32° 2' 7.48080 N	
From:	Map	Easting:	724,737.00 usft	Longitude:	103° 36' 29.13299 W	
Position Uncertainty:		0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.38

Well	29 Fed Com P8 10H					
Well Position	+N/-S	-5,111.00 usft	Northing:	372,252.00 usft	Latitude:	32° 1' 16.53668 N
	+E/-W	5,448.00 usft	Easting:	730,185.00 usft	Longitude:	103° 35' 26.25390 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	3,250.00 usft

Wellbore	OH / Job #1513821				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	6/22/2015	7.05	59.77	48,065

Design	Plan 1 06-22-15			
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	179.52

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,875.00	3.75	245.00	1,874.73	-5.18	-11.12	1.00	1.00	0.00	245.00	
3,375.00	3.75	245.00	3,371.52	-46.65	-100.03	0.00	0.00	0.00	0.00	
3,750.00	0.00	0.00	3,746.25	-51.83	-111.15	1.00	-1.00	0.00	180.00	
9,944.00	0.00	0.00	9,940.25	-51.83	-111.15	0.00	0.00	0.00	0.00	
10,687.00	89.16	170.35	10,417.67	-515.64	-32.29	12.00	12.00	0.00	170.35	
11,145.42	89.16	179.52	10,424.39	-971.73	8.14	2.00	0.00	2.00	90.05	
17,685.62	89.16	179.52	10,520.00	-7,511.00	63.00	0.00	0.00	0.00	0.00	BHL SD EA 29 10H



Planning Report



Database:	Compass 5000 GCR	Local Co-ordinate Reference:	Well 29 Fed Com P8 10H
Company:	Chevron	TVD Reference:	RKB @ 3283.00usft (Pace X30)
Project:	Lea County, NM (NAD27 NME)	MD Reference:	RKB @ 3283.00usft (Pace X30)
Site:	SD EA	North Reference:	Grid
Well:	29 Fed Com P8 10H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH / Job #1513821		
Design:	Plan 1 06-22-15		

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 1°/100'									
1,600.00	1.00	245.00	1,599.99	-0.37	-0.79	0.36	1.00	1.00	0.00
1,700.00	2.00	245.00	1,699.96	-1.48	-3.16	1.45	1.00	1.00	0.00
1,800.00	3.00	245.00	1,799.86	-3.32	-7.12	3.26	1.00	1.00	0.00
1,875.00	3.75	245.00	1,874.73	-5.18	-11.12	5.09	1.00	1.00	0.00
Hold 3.75° Inc at 245° Azm									
1,900.00	3.75	245.00	1,899.68	-5.88	-12.60	5.77	0.00	0.00	0.00
2,000.00	3.75	245.00	1,999.46	-8.64	-18.53	8.48	0.00	0.00	0.00
2,100.00	3.75	245.00	2,099.25	-11.40	-24.46	11.20	0.00	0.00	0.00
2,200.00	3.75	245.00	2,199.04	-14.17	-30.38	13.91	0.00	0.00	0.00
2,300.00	3.75	245.00	2,298.82	-16.93	-36.31	16.63	0.00	0.00	0.00
2,400.00	3.75	245.00	2,398.61	-19.70	-42.24	19.34	0.00	0.00	0.00
2,500.00	3.75	245.00	2,498.39	-22.46	-48.17	22.06	0.00	0.00	0.00
2,600.00	3.75	245.00	2,598.18	-25.22	-54.09	24.77	0.00	0.00	0.00
2,700.00	3.75	245.00	2,697.97	-27.99	-60.02	27.48	0.00	0.00	0.00
2,800.00	3.75	245.00	2,797.75	-30.75	-65.95	30.20	0.00	0.00	0.00
2,900.00	3.75	245.00	2,897.54	-33.52	-71.88	32.91	0.00	0.00	0.00
3,000.00	3.75	245.00	2,997.32	-36.28	-77.80	35.63	0.00	0.00	0.00
3,100.00	3.75	245.00	3,097.11	-39.04	-83.73	38.34	0.00	0.00	0.00
3,200.00	3.75	245.00	3,196.90	-41.81	-89.66	41.05	0.00	0.00	0.00
3,300.00	3.75	245.00	3,296.68	-44.57	-95.59	43.77	0.00	0.00	0.00
3,375.00	3.75	245.00	3,371.52	-46.65	-100.03	45.80	0.00	0.00	0.00
Drop to Vertical									
3,400.00	3.50	245.00	3,396.47	-47.31	-101.46	46.46	1.00	-1.00	0.00
3,500.00	2.50	245.00	3,496.33	-49.53	-106.21	48.63	1.00	-1.00	0.00
3,600.00	1.50	245.00	3,596.27	-51.00	-109.37	50.08	1.00	-1.00	0.00
3,700.00	0.50	245.00	3,696.25	-51.74	-110.95	50.81	1.00	-1.00	0.00
3,750.00	0.00	0.00	3,746.25	-51.83	-111.15	50.90	1.00	-1.00	0.00
Hold Vertical									
3,800.00	0.00	0.00	3,796.25	-51.83	-111.15	50.90	0.00	0.00	0.00
3,900.00	0.00	0.00	3,896.25	-51.83	-111.15	50.90	0.00	0.00	0.00
4,000.00	0.00	0.00	3,996.25	-51.83	-111.15	50.90	0.00	0.00	0.00
4,100.00	0.00	0.00	4,096.25	-51.83	-111.15	50.90	0.00	0.00	0.00
4,200.00	0.00	0.00	4,196.25	-51.83	-111.15	50.90	0.00	0.00	0.00
4,300.00	0.00	0.00	4,296.25	-51.83	-111.15	50.90	0.00	0.00	0.00
4,400.00	0.00	0.00	4,396.25	-51.83	-111.15	50.90	0.00	0.00	0.00
4,500.00	0.00	0.00	4,496.25	-51.83	-111.15	50.90	0.00	0.00	0.00
4,600.00	0.00	0.00	4,596.25	-51.83	-111.15	50.90	0.00	0.00	0.00



Planning Report



Database:	Compass 5000 GCR	Local Co-ordinate Reference:	Well 29 Fed Com P8 10H
Company:	Chevron	TVD Reference:	RKB @ 3283.00usft (Pace X30)
Project:	Lea County, NM (NAD27 NME)	MD Reference:	RKB @ 3283.00usft (Pace X30)
Site:	SD EA	North Reference:	Grid
Well:	29 Fed Com P8 10H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH / Job #1513821		
Design:	Plan 1 06-22-15		

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)
4,700.00	0.00	0.00	4,696.25	-51.83	-111.15	50.90	0.00	0.00	0.00
4,800.00	0.00	0.00	4,796.25	-51.83	-111.15	50.90	0.00	0.00	0.00
4,900.00	0.00	0.00	4,896.25	-51.83	-111.15	50.90	0.00	0.00	0.00
5,000.00	0.00	0.00	4,996.25	-51.83	-111.15	50.90	0.00	0.00	0.00
5,100.00	0.00	0.00	5,096.25	-51.83	-111.15	50.90	0.00	0.00	0.00
5,200.00	0.00	0.00	5,196.25	-51.83	-111.15	50.90	0.00	0.00	0.00
5,300.00	0.00	0.00	5,296.25	-51.83	-111.15	50.90	0.00	0.00	0.00
5,400.00	0.00	0.00	5,396.25	-51.83	-111.15	50.90	0.00	0.00	0.00
5,500.00	0.00	0.00	5,496.25	-51.83	-111.15	50.90	0.00	0.00	0.00
5,600.00	0.00	0.00	5,596.25	-51.83	-111.15	50.90	0.00	0.00	0.00
5,700.00	0.00	0.00	5,696.25	-51.83	-111.15	50.90	0.00	0.00	0.00
5,800.00	0.00	0.00	5,796.25	-51.83	-111.15	50.90	0.00	0.00	0.00
5,900.00	0.00	0.00	5,896.25	-51.83	-111.15	50.90	0.00	0.00	0.00
6,000.00	0.00	0.00	5,996.25	-51.83	-111.15	50.90	0.00	0.00	0.00
6,100.00	0.00	0.00	6,096.25	-51.83	-111.15	50.90	0.00	0.00	0.00
6,200.00	0.00	0.00	6,196.25	-51.83	-111.15	50.90	0.00	0.00	0.00
6,300.00	0.00	0.00	6,296.25	-51.83	-111.15	50.90	0.00	0.00	0.00
6,400.00	0.00	0.00	6,396.25	-51.83	-111.15	50.90	0.00	0.00	0.00
6,500.00	0.00	0.00	6,496.25	-51.83	-111.15	50.90	0.00	0.00	0.00
6,600.00	0.00	0.00	6,596.25	-51.83	-111.15	50.90	0.00	0.00	0.00
6,700.00	0.00	0.00	6,696.25	-51.83	-111.15	50.90	0.00	0.00	0.00
6,800.00	0.00	0.00	6,796.25	-51.83	-111.15	50.90	0.00	0.00	0.00
6,900.00	0.00	0.00	6,896.25	-51.83	-111.15	50.90	0.00	0.00	0.00
7,000.00	0.00	0.00	6,996.25	-51.83	-111.15	50.90	0.00	0.00	0.00
7,100.00	0.00	0.00	7,096.25	-51.83	-111.15	50.90	0.00	0.00	0.00
7,200.00	0.00	0.00	7,196.25	-51.83	-111.15	50.90	0.00	0.00	0.00
7,300.00	0.00	0.00	7,296.25	-51.83	-111.15	50.90	0.00	0.00	0.00
7,400.00	0.00	0.00	7,396.25	-51.83	-111.15	50.90	0.00	0.00	0.00
7,500.00	0.00	0.00	7,496.25	-51.83	-111.15	50.90	0.00	0.00	0.00
7,600.00	0.00	0.00	7,596.25	-51.83	-111.15	50.90	0.00	0.00	0.00
7,700.00	0.00	0.00	7,696.25	-51.83	-111.15	50.90	0.00	0.00	0.00
7,800.00	0.00	0.00	7,796.25	-51.83	-111.15	50.90	0.00	0.00	0.00
7,900.00	0.00	0.00	7,896.25	-51.83	-111.15	50.90	0.00	0.00	0.00
8,000.00	0.00	0.00	7,996.25	-51.83	-111.15	50.90	0.00	0.00	0.00
8,100.00	0.00	0.00	8,096.25	-51.83	-111.15	50.90	0.00	0.00	0.00
8,200.00	0.00	0.00	8,196.25	-51.83	-111.15	50.90	0.00	0.00	0.00
8,300.00	0.00	0.00	8,296.25	-51.83	-111.15	50.90	0.00	0.00	0.00
8,400.00	0.00	0.00	8,396.25	-51.83	-111.15	50.90	0.00	0.00	0.00
8,500.00	0.00	0.00	8,496.25	-51.83	-111.15	50.90	0.00	0.00	0.00
8,600.00	0.00	0.00	8,596.25	-51.83	-111.15	50.90	0.00	0.00	0.00
8,700.00	0.00	0.00	8,696.25	-51.83	-111.15	50.90	0.00	0.00	0.00
8,800.00	0.00	0.00	8,796.25	-51.83	-111.15	50.90	0.00	0.00	0.00
8,900.00	0.00	0.00	8,896.25	-51.83	-111.15	50.90	0.00	0.00	0.00
9,000.00	0.00	0.00	8,996.25	-51.83	-111.15	50.90	0.00	0.00	0.00
9,100.00	0.00	0.00	9,096.25	-51.83	-111.15	50.90	0.00	0.00	0.00
9,200.00	0.00	0.00	9,196.25	-51.83	-111.15	50.90	0.00	0.00	0.00
9,300.00	0.00	0.00	9,296.25	-51.83	-111.15	50.90	0.00	0.00	0.00
9,400.00	0.00	0.00	9,396.25	-51.83	-111.15	50.90	0.00	0.00	0.00
9,500.00	0.00	0.00	9,496.25	-51.83	-111.15	50.90	0.00	0.00	0.00
9,600.00	0.00	0.00	9,596.25	-51.83	-111.15	50.90	0.00	0.00	0.00
9,700.00	0.00	0.00	9,696.25	-51.83	-111.15	50.90	0.00	0.00	0.00
9,800.00	0.00	0.00	9,796.25	-51.83	-111.15	50.90	0.00	0.00	0.00
9,900.00	0.00	0.00	9,896.25	-51.83	-111.15	50.90	0.00	0.00	0.00
9,944.00	0.00	0.00	9,940.25	-51.83	-111.15	50.90	0.00	0.00	0.00



Planning Report



Database:	Compass 5000 GCR	Local Co-ordinate Reference:	Well 29 Fed Com P8 10H
Company:	Chevron	TVD Reference:	RKB @ 3283.00usft (Pace X30)
Project:	Lea County, NM (NAD27 NME)	MD Reference:	RKB @ 3283.00usft (Pace X30)
Site:	SD EA	North Reference:	Grid
Well:	29 Fed Com P8 10H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH / Job #1513821		
Design:	Plan 1 06-22-15		

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)
KOP: Start Build-Turn 12°/100'									
9,950.00	0.72	170.35	9,946.25	-51.87	-111.14	50.93	12.00	12.00	0.00
9,975.00	3.72	170.35	9,971.23	-52.82	-110.98	51.89	12.00	12.00	0.00
10,000.00	6.72	170.35	9,996.12	-55.06	-110.60	54.13	12.00	12.00	0.00
10,025.00	9.72	170.35	10,020.87	-58.59	-110.00	57.66	12.00	12.00	0.00
10,050.00	12.72	170.35	10,045.38	-63.38	-109.18	62.46	12.00	12.00	0.00
10,075.00	15.72	170.35	10,069.62	-69.44	-108.16	68.53	12.00	12.00	0.00
10,100.00	18.72	170.35	10,093.49	-76.73	-106.92	75.83	12.00	12.00	0.00
10,125.00	21.72	170.35	10,116.95	-85.25	-105.47	84.36	12.00	12.00	0.00
10,150.00	24.72	170.35	10,139.92	-94.96	-103.81	94.09	12.00	12.00	0.00
10,175.00	27.72	170.35	10,162.35	-105.85	-101.96	104.99	12.00	12.00	0.00
10,200.00	30.72	170.35	10,184.16	-117.88	-99.92	117.04	12.00	12.00	0.00
10,225.00	33.72	170.35	10,205.31	-131.02	-97.68	130.20	12.00	12.00	0.00
10,250.00	36.72	170.35	10,225.73	-145.23	-95.27	144.43	12.00	12.00	0.00
10,275.00	39.72	170.35	10,245.37	-160.48	-92.67	159.70	12.00	12.00	0.00
10,300.00	42.72	170.35	10,264.17	-176.72	-89.91	175.96	12.00	12.00	0.00
10,325.00	45.72	170.35	10,282.09	-193.91	-86.99	193.17	12.00	12.00	0.00
10,350.00	48.72	170.35	10,299.07	-211.99	-83.92	211.28	12.00	12.00	0.00
10,375.00	51.72	170.35	10,315.06	-230.93	-80.70	230.25	12.00	12.00	0.00
10,400.00	54.72	170.35	10,330.03	-250.67	-77.34	250.01	12.00	12.00	0.00
10,425.00	57.72	170.35	10,343.93	-271.15	-73.86	270.52	12.00	12.00	0.00
10,450.00	60.72	170.35	10,356.72	-292.33	-70.26	291.73	12.00	12.00	0.00
10,475.00	63.72	170.35	10,368.37	-314.13	-66.55	313.56	12.00	12.00	0.00
10,500.00	66.72	170.35	10,378.85	-336.50	-62.74	335.96	12.00	12.00	0.00
10,525.00	69.72	170.35	10,388.12	-359.39	-58.85	358.88	12.00	12.00	0.00
10,550.00	72.72	170.35	10,396.17	-382.72	-54.89	382.24	12.00	12.00	0.00
10,575.00	75.72	170.35	10,402.97	-406.43	-50.85	405.99	12.00	12.00	0.00
10,600.00	78.72	170.35	10,408.49	-430.47	-46.77	430.06	12.00	12.00	0.00
10,625.00	81.72	170.35	10,412.74	-454.75	-42.64	454.38	12.00	12.00	0.00
10,650.00	84.72	170.35	10,415.69	-479.22	-38.48	478.88	12.00	12.00	0.00
10,675.00	87.72	170.35	10,417.34	-503.81	-34.30	503.51	12.00	12.00	0.00
10,687.00	89.16	170.35	10,417.67	-515.64	-32.29	515.35	12.00	12.00	0.00
LP: 89.16° Inc, Start Turn 2°/100'									
10,700.00	89.16	170.61	10,417.86	-528.46	-30.14	528.19	2.00	0.00	2.00
10,800.00	89.16	172.61	10,419.33	-627.37	-15.55	627.22	2.00	0.00	2.00
10,900.00	89.16	174.61	10,420.79	-726.73	-4.42	726.67	2.00	0.00	2.00
11,000.00	89.16	176.61	10,422.26	-826.43	3.23	826.42	2.00	0.00	2.00
11,100.00	89.16	178.61	10,423.73	-926.32	7.40	926.35	2.00	0.00	2.00
11,145.42	89.16	179.52	10,424.39	-971.73	8.14	971.77	2.00	0.00	2.00
EOT: Hold 179.52° Azm									
11,200.00	89.16	179.52	10,425.19	-1,026.30	8.60	1,026.34	0.00	0.00	0.00
11,300.00	89.16	179.52	10,426.65	-1,126.29	9.44	1,126.33	0.00	0.00	0.00
11,400.00	89.16	179.52	10,428.11	-1,226.28	10.28	1,226.32	0.00	0.00	0.00
11,500.00	89.16	179.52	10,429.58	-1,326.26	11.12	1,326.31	0.00	0.00	0.00
11,600.00	89.16	179.52	10,431.04	-1,426.25	11.95	1,426.30	0.00	0.00	0.00
11,700.00	89.16	179.52	10,432.50	-1,526.23	12.79	1,526.29	0.00	0.00	0.00
11,800.00	89.16	179.52	10,433.96	-1,626.22	13.63	1,626.28	0.00	0.00	0.00
11,900.00	89.16	179.52	10,435.42	-1,726.20	14.47	1,726.26	0.00	0.00	0.00
12,000.00	89.16	179.52	10,436.88	-1,826.19	15.31	1,826.25	0.00	0.00	0.00
12,100.00	89.16	179.52	10,438.35	-1,926.18	16.15	1,926.24	0.00	0.00	0.00
12,200.00	89.16	179.52	10,439.81	-2,026.16	16.99	2,026.23	0.00	0.00	0.00
12,300.00	89.16	179.52	10,441.27	-2,126.15	17.83	2,126.22	0.00	0.00	0.00
12,400.00	89.16	179.52	10,442.73	-2,226.13	18.66	2,226.21	0.00	0.00	0.00



Planning Report



Database:	Compass 5000 GCR	Local Co-ordinate Reference:	Well 29 Fed Com P8 10H
Company:	Chevron	TVD Reference:	RKB @ 3283.00usft (Pace X30)
Project:	Lea County, NM (NAD27 NME)	MD Reference:	RKB @ 3283.00usft (Pace X30)
Site:	SD EA	North Reference:	Grid
Well:	29 Fed Com P8 10H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH / Job #1513821		
Design:	Plan 1 06-22-15		

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)
12,500.00	89.16	179.52	10,444.19	-2,326.12	19.50	2,326.20	0.00	0.00	0.00
12,600.00	89.16	179.52	10,445.66	-2,426.10	20.34	2,426.19	0.00	0.00	0.00
12,700.00	89.16	179.52	10,447.12	-2,526.09	21.18	2,526.18	0.00	0.00	0.00
12,800.00	89.16	179.52	10,448.58	-2,626.08	22.02	2,626.17	0.00	0.00	0.00
12,900.00	89.16	179.52	10,450.04	-2,726.06	22.86	2,726.16	0.00	0.00	0.00
13,000.00	89.16	179.52	10,451.50	-2,826.05	23.70	2,826.15	0.00	0.00	0.00
13,100.00	89.16	179.52	10,452.97	-2,926.03	24.54	2,926.14	0.00	0.00	0.00
13,200.00	89.16	179.52	10,454.43	-3,026.02	25.37	3,026.13	0.00	0.00	0.00
13,300.00	89.16	179.52	10,455.89	-3,126.01	26.21	3,126.12	0.00	0.00	0.00
13,400.00	89.16	179.52	10,457.35	-3,225.99	27.05	3,226.10	0.00	0.00	0.00
13,500.00	89.16	179.52	10,458.81	-3,325.98	27.89	3,326.09	0.00	0.00	0.00
13,600.00	89.16	179.52	10,460.27	-3,425.96	28.73	3,426.08	0.00	0.00	0.00
13,700.00	89.16	179.52	10,461.74	-3,525.95	29.57	3,526.07	0.00	0.00	0.00
13,800.00	89.16	179.52	10,463.20	-3,625.93	30.41	3,626.06	0.00	0.00	0.00
13,900.00	89.16	179.52	10,464.66	-3,725.92	31.25	3,726.05	0.00	0.00	0.00
14,000.00	89.16	179.52	10,466.12	-3,825.91	32.09	3,826.04	0.00	0.00	0.00
14,100.00	89.16	179.52	10,467.58	-3,925.89	32.92	3,926.03	0.00	0.00	0.00
14,200.00	89.16	179.52	10,469.05	-4,025.88	33.76	4,026.02	0.00	0.00	0.00
14,300.00	89.16	179.52	10,470.51	-4,125.86	34.60	4,126.01	0.00	0.00	0.00
14,400.00	89.16	179.52	10,471.97	-4,225.85	35.44	4,226.00	0.00	0.00	0.00
14,500.00	89.16	179.52	10,473.43	-4,325.83	36.28	4,325.99	0.00	0.00	0.00
14,600.00	89.16	179.52	10,474.89	-4,425.82	37.12	4,425.98	0.00	0.00	0.00
14,700.00	89.16	179.52	10,476.35	-4,525.81	37.96	4,525.97	0.00	0.00	0.00
14,800.00	89.16	179.52	10,477.82	-4,625.79	38.80	4,625.95	0.00	0.00	0.00
14,900.00	89.16	179.52	10,479.28	-4,725.78	39.63	4,725.94	0.00	0.00	0.00
15,000.00	89.16	179.52	10,480.74	-4,825.76	40.47	4,825.93	0.00	0.00	0.00
15,100.00	89.16	179.52	10,482.20	-4,925.75	41.31	4,925.92	0.00	0.00	0.00
15,200.00	89.16	179.52	10,483.66	-5,025.74	42.15	5,025.91	0.00	0.00	0.00
15,300.00	89.16	179.52	10,485.13	-5,125.72	42.99	5,125.90	0.00	0.00	0.00
15,400.00	89.16	179.52	10,486.59	-5,225.71	43.83	5,225.89	0.00	0.00	0.00
15,500.00	89.16	179.52	10,488.05	-5,325.69	44.67	5,325.88	0.00	0.00	0.00
15,600.00	89.16	179.52	10,489.51	-5,425.68	45.51	5,425.87	0.00	0.00	0.00
15,700.00	89.16	179.52	10,490.97	-5,525.66	46.34	5,525.86	0.00	0.00	0.00
15,800.00	89.16	179.52	10,492.44	-5,625.65	47.18	5,625.85	0.00	0.00	0.00
15,900.00	89.16	179.52	10,493.90	-5,725.64	48.02	5,725.84	0.00	0.00	0.00
16,000.00	89.16	179.52	10,495.36	-5,825.62	48.86	5,825.83	0.00	0.00	0.00
16,100.00	89.16	179.52	10,496.82	-5,925.61	49.70	5,925.82	0.00	0.00	0.00
16,200.00	89.16	179.52	10,498.28	-6,025.59	50.54	6,025.81	0.00	0.00	0.00
16,300.00	89.16	179.52	10,499.74	-6,125.58	51.38	6,125.79	0.00	0.00	0.00
16,400.00	89.16	179.52	10,501.21	-6,225.57	52.22	6,225.78	0.00	0.00	0.00
16,500.00	89.16	179.52	10,502.67	-6,325.55	53.06	6,325.77	0.00	0.00	0.00
16,600.00	89.16	179.52	10,504.13	-6,425.54	53.89	6,425.76	0.00	0.00	0.00
16,700.00	89.16	179.52	10,505.59	-6,525.52	54.73	6,525.75	0.00	0.00	0.00
16,800.00	89.16	179.52	10,507.05	-6,625.51	55.57	6,625.74	0.00	0.00	0.00
16,900.00	89.16	179.52	10,508.52	-6,725.49	56.41	6,725.73	0.00	0.00	0.00
17,000.00	89.16	179.52	10,509.98	-6,825.48	57.25	6,825.72	0.00	0.00	0.00
17,100.00	89.16	179.52	10,511.44	-6,925.47	58.09	6,925.71	0.00	0.00	0.00
17,200.00	89.16	179.52	10,512.90	-7,025.45	58.93	7,025.70	0.00	0.00	0.00
17,300.00	89.16	179.52	10,514.36	-7,125.44	59.77	7,125.69	0.00	0.00	0.00
17,400.00	89.16	179.52	10,515.82	-7,225.42	60.60	7,225.68	0.00	0.00	0.00
17,500.00	89.16	179.52	10,517.29	-7,325.41	61.44	7,325.67	0.00	0.00	0.00
17,600.00	89.16	179.52	10,518.75	-7,425.39	62.28	7,425.66	0.00	0.00	0.00
17,685.62	89.16	179.52	10,520.00	-7,511.00	63.00	7,511.26	0.00	0.00	0.00



Planning Report



Database:	Compass 5000 GCR	Local Co-ordinate Reference:	Well 29 Fed Com P8 10H
Company:	Chevron	TVD Reference:	RKB @ 3283.00usft (Pace X30)
Project:	Lea County, NM (NAD27 NME)	MD Reference:	RKB @ 3283.00usft (Pace X30)
Site:	SD EA	North Reference:	Grid
Well:	29 Fed Com P8 10H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH / Job #1513821		
Design:	Plan 1 06-22-15		

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)
TD at 17685.62									

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
BHL SD EA 29 10H - plan hits target center - Point	0.00	0.00	10,520.00	-7,511.00	63.00	364,741.00	730,248.00	32° 0' 2.20439 N	103° 35' 26.12168 W

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,500.00	1,500.00	0.00	0.00	Start Build 1°/100'
1,875.00	1,874.73	-5.18	-11.12	Hold 3.75° Inc at 245° Azm
3,375.00	3,371.52	-46.65	-100.03	Drop to Vertical
3,750.00	3,746.25	-51.83	-111.15	Hold Vertical
9,944.00	9,940.25	-51.83	-111.15	KOP: Start Build-Turn 12°/100'
10,687.00	10,417.67	-515.64	-32.29	LP: 89.16° Inc, Start Turn 2°/100'
11,145.42	10,424.39	-971.73	8.14	EOT: Hold 179.52° Azm
17,685.62	10,520.00	-7,511.00	63.00	TD at 17685.62

BLOWOUT PREVENTOR SCHEMATIC

Minimum Requirements

OPERATION : Intermediate and Production Hole Sections

Minimum System
Pressure Rating : **5,000 psi**

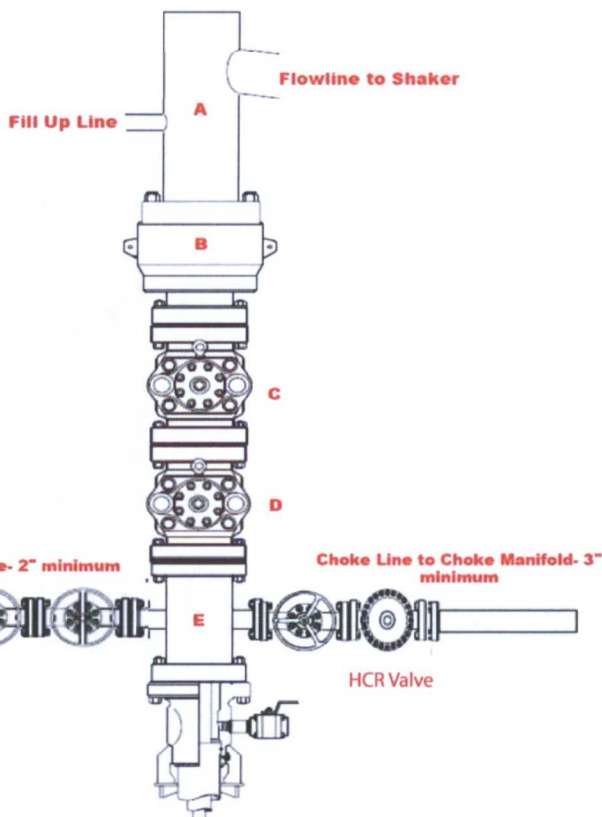
SIZE	PRESSURE	DESCRIPTION
A	N/A	Bell Nipple
B	13 5/8"	5,000 psi Annular
C	13 5/8"	5,000 psi Pipe Ram
D	13 5/8"	5,000 psi Blind Ram
E	13 5/8"	5,000 psi Mud Cross
F		
DSA	As required for each hole size	
C-Sec		
B-Sec	13-5/8" 5K x 11" 5K	
A-Sec	13-3/8" SOW x 13-5/8" 5K	

Kill Line

SIZE	PRESSURE	DESCRIPTION
2"	5,000 psi	Gate Valve
2"	5,000 psi	Gate Valve
2"	5,000 psi	Check Valve

Choke Line

SIZE	PRESSURE	DESCRIPTION
3"	5,000 psi	Gate Valve
3"	5,000 psi	HCR Valve



Installation Checklist

The following item must be verified and checked off prior to pressure testing of BOP equipment.

- ☐ The installed BOP equipment meets at least the minimum requirements (rating, type, size, configuration) as shown on this schematic. Components may be substituted for equivalent equipment rated to higher pressures. Additional components may be put into place as long as they meet or exceed the minimum pressure rating of the system.
- ☐ All valves on the kill line and choke line will be full opening and will allow straight through flow.
- ☐ The kill line and choke line will be straight unless turns use tee blocks or are targeted with running tress, and will be anchored to prevent whip and reduce vibration.
- ☐ Manual (hand wheels) or automatic locking devices will be installed on all ram preventers. Hand wheels will also be installed on all manual valves on the choke line and kill line.
- ☐ A valve will be installed in the closing line as close as possible to the annular preventer to act as a locking device. This valve will remain open unless accumulator is inoperative.
- ☐ Upper kelly cock valve with handle will be available on rig floor along with safety valve and subs to fit all drill string connections in use.

After Installation Checklist is complete, fill out the information below and email to Superintendent and Drilling Engineer

Wellname: _____

Representative: _____

Date: _____

CHOKE MANIFOLD SCHEMATIC

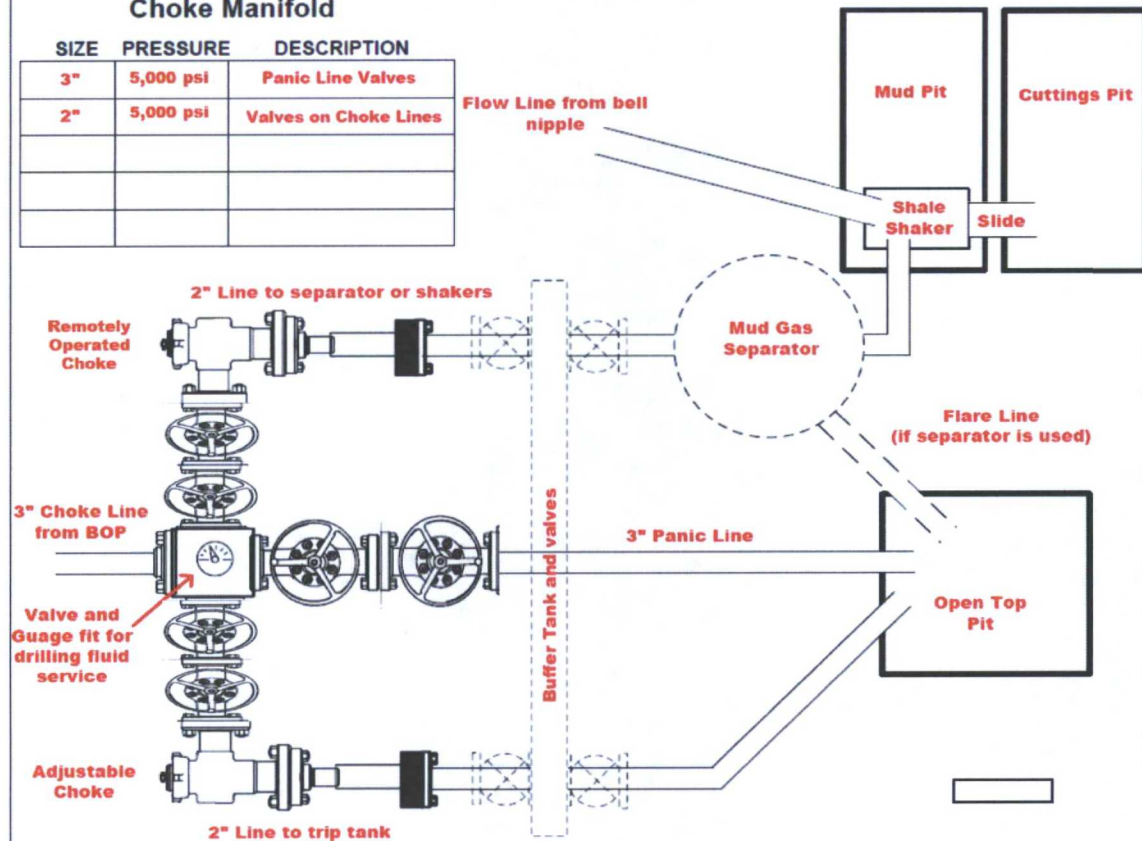
Minimum Requirements

OPERATION : Intermediate and Production Hole Sections

Minimum System Pressure Rating : **5,000 psi**

Choke Manifold

SIZE	PRESSURE	DESCRIPTION
3"	5,000 psi	Panic Line Valves
2"	5,000 psi	Valves on Choke Lines



Installation Checklist

The following item must be verified and checked off prior to pressure testing of BOP equipment.

- ☐ The installed BOP equipment meets at least the minimum requirements (rating, type, size, configuration) as shown on this schematic. Components may be substituted for equivalent equipment rated to higher pressures. Additional components may be put into place as long as they meet or exceed the minimum pressure rating of the system.
- ☐ Adjustable Chokes may be Remotely Operated but will have backup hand pump for hydraulic actuation in case of loss of rig air pressure or power.
- ☐ Flare and Panic lines will terminate a minimum of 150' from the wellhead. These lines will terminate at a location as per approved APD.
- ☐ The choke line, kill line, and choke manifold lines will be straight unless turns use tee blocks or are targeted with running tress, and will be anchored to prevent whip and reduce vibration. This excludes the line between mud gas separator and shale shaker.
- ☐ All valves (except chokes) on choke line, kill line, and choke manifold will be full opening and will allow straight through flow. This excludes any valves between mud gas separator and shale shakers.
- ☐ All manual valves will have hand wheels installed.
- ☐ If used, flare system will have effective method for ignition
- ☐ All connections will be flanged, welded, or clamped (no threaded connections like hammer unions)
- ☐ If buffer tank is used, a valve will be used on all lines at any entry or exit point to or from the buffer tank.

After Installation Checklist is complete, fill out the information below and email to Superintendent and Drilling Engineer

Wellname: _____

Representative: _____

Date: _____

BOPE Testing

Minimum Requirements

Closing Unit and Accumulator Checklist

The following item must be performed, verified, and checked off at least once per well prior to low/high pressure testing of BOP equipment. This must be repeated after 6 months on the same well.

- ☐ Precharge pressure for each accumulator bottle must fall within the range below. Bottles may be further charged with nitrogen gas only. **Tested precharge pressures must be recorded for each individual bottle and kept on location through the end of the well. Test will be conducted prior to connecting unit to BOP stack.**

Check one that applies	Accumulator working pressure rating	Minimum acceptable operating pressure	Desired precharge pressure	Maximum acceptable precharge pressure	Minimum acceptable precharge pressure
☐	1500 psi	1500 psi	750 psi	800 psi	700 psi
☐	2000 psi	2000 psi	1000 psi	1100 psi	900 psi
☐	3000 psi	3000 psi	1000 psi	1100 psi	900 psi

- ☐ Accumulator will have sufficient capacity to open the hydraulically-controlled choke line valve (if used), close all rams, close the annular preventer, and retain a minimum of 200 psi above the maximum acceptable precharge pressure (see table above) on the closing manifold without the use of the closing pumps. **This test will be performed with test pressure recorded and kept on location through the end of the well**
- ☐ Accumulator fluid reservoir will be double the usable fluid volume of the accumulator system capacity. Fluid level will be maintained at manufacturer's recommendations. **Usable fluid volume will be recorded. Reservoir capacity will be recorded. Reservoir fluid level will be recorded along with manufacturer's recommendation. All will be kept on location through the end of the well.**
- ☐ Closing unit system will have two independent power sources (not counting accumulator bottles) to close the preventers.
- ☐ Power for the closing unit pumps will be available to the unit at all times so that the pumps will automatically start when the closing valve manifold pressure decreases to the pre-set level. **It is recommended to check that air line to accumulator pump is "ON" during each tour change.**
- ☐ With accumulator bottles isolated, closing unit will be capable of opening the hydraulically-operated choke line valve (if used) plus close the annular preventer on the smallest size drill pipe within 2 minutes and obtain a minimum of 200 psi above maximum acceptable precharge pressure (see table above) on the closing manifold. **Test pressure and closing time will be recorded and kept on location through the end of the well.**
- ☐ Master controls for the BOPE system will be located at the accumulator and will be capable of opening and closing all preventer and the choke line valve (if used)
- ☐ Remote controls for the BOPE system will be readily accessible (clear path) to the driller and located on the rig floor (not in the dog house). Remote controls will be capable of closing all preventers.
- ☐ Record accumulator tests in drilling reports and IADC sheet

BOPE Test Checklist

The following item must be checked off prior to beginning test

- ☐ BLM will be given at least 4 hour notice prior to beginning BOPE testing
- ☐ Valve on casing head below test plug will be open
- ☐ Test will be performed using clear water.

The following item must be performed during the BOPE testing and then checked off

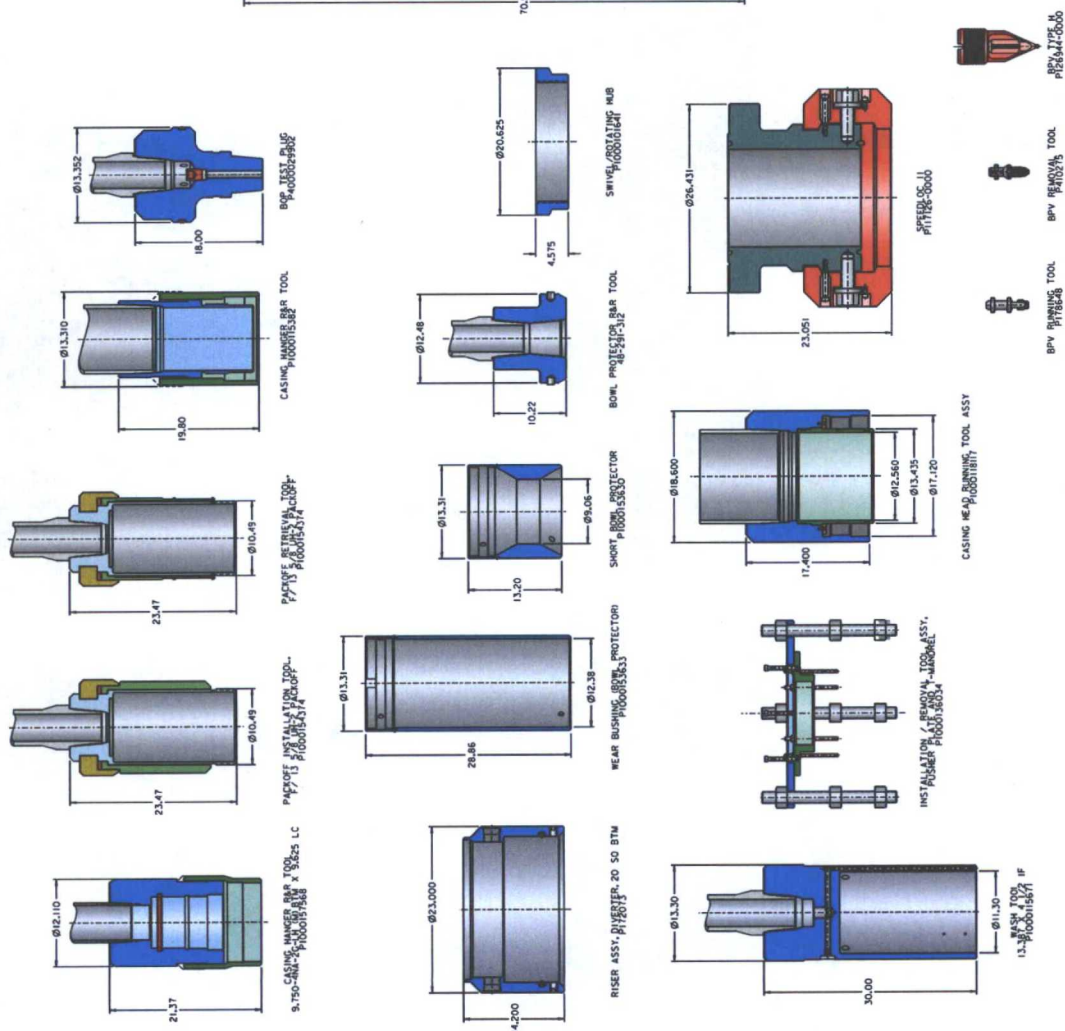
- ☐ BOPE will be pressure tested when initially installed, whenever any seal subject to test pressure is broken, following related repairs, and at a minimum of 30 days intervals. **Test pressure and times will be recorded by a 3rd party on a test chart and kept on location through the end of the well.**
- ☐ Test plug will be used
- ☐ Ram type preventer and all related well control equipment will be tested to 250 psi (low) and 5,000 psi (high).
- ☐ Annular type preventer will be tested to 250 psi (low) and 3,500 psi (high).
- ☐ Valves will be tested from the working pressure side with all down stream valves open. The check valve will be held open to test the kill line valve(s)
- ☐ Each pressure test will be held for 10 minutes with no allowable leak off.
- ☐ Master controls and remote controls to the closing unit (accumulator) must be function tested as part of the BOP testing
- ☐ Record BOP tests and pressures in drilling reports and IADC sheet

After Installation Checklist is complete, fill out the information below and email to Superintendent and Drilling Engineer along with any/all BOP and accumulator test charts and reports from 3rd parties.

Wellname: _____

Representative: _____

Date: _____



20 X 13 3/8 X 9 5/8 X 5 1/2

FMC Technologies

**We put you first.
And keep you ahead.**

UH-2 Unihead

Odessa

13" Single Piece