

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 abandoned well. Use form 3160-3 (APD) for such proposals.

5. Lease Serial No.
NMNM15317

6. If Indian, Allottee or Tribe Name

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

8. Well Name and No.
VALIANT 24 FED COM 743H

9. API Well No.
30-025-46826-00-X1

10. Field and Pool or Exploratory Area
WC025G08S253235G-LWR BONE SPF

11. County or Parish, State
LEA COUNTY, NM

SUBMIT IN TRIPLICATE - Other instructions on page 2 FEB 13 2020

1. Type of Well
☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator
EOG RESOURCES INCORPORATED
Contact: EMILY FOLLIS
E-Mail: emily_follis@eogresources.com

3a. Address
PO BOX 2267
MIDLAND, TX 79702

3b. Phone No. (include area code)
Ph: 432-636-3600

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Sec 24 T25S R32E NESW 2147FSL 2346FWL
32.114689 N Lat, 103.629501 W Lon

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 Plans	☐ Plug and Abandon	☐ Temporarily Abandon	Change to Original A
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	PD

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 recompleat 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 recompleat 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.

EOG respectfully requests an amendment to our approved APD for this well to reflect the following changes:
Change well number from 603H to 743H
Change target formation from Third Bone Spring Sand to Wolfcamp
BHL change to T-25-S R-32-E Sec. 25 100 feet FSL 2590 feet FWL, Lea Co., NM

14. I hereby certify that the foregoing is true and correct.

Electronic Submission #502392 verified by the BLM Well Information System
For EOG RESOURCES INCORPORATED, sent to the Hobbs
Committed to AFMSS for processing by PRISCILLA PEREZ on 02/07/2020 (20PP1225SE)

Name (Printed/Typed) BEN HOCH

Title REGULATORY ASSOC.

Signature (Electronic Submission)

Date 02/07/2020

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By JEROMY PORTER

Title PETROLEUM ENGINEER

Date 02/10/2020

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 Hobbs

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 ****

Kz

Revised Permit Information 2/7/2020:

Well Name: Valiant 24 Fed Com #743H

Location:

SHL: 2147' FSL & 2346' FWL, Section 24, T-25-S, R-32-E, Lea Co., N.M.

BHL: 100' FSL & 2590' FWL, Section 25, T-25-S, R-32-E, Lea Co., N.M.

Design A**Casing Program:**

Hole Size	Interval	Csg OD	Weight	Grade	Conn	DF _{min} Collapse	DF _{min} Burst	DF _{min} Tension
12.25"	0' – 1,045'	9.625"	40#	J-55	LTC	1.125	1.25	1.60
8.75"	0' – 11,180'	7.625"	29.7#	HCP-110	FXL	1.125	1.25	1.60
6.75"	0' – 10,680'	5.5"	20#	P-110EC	DWC/C-IS MS	1.125	1.25	1.60
6.75"	10,680' – 11,180'	5.5"	20#	P-110EC	VAM SFC	1.125	1.25	1.60
6.75"	11,180' – 20,234'	5.5"	20#	P-110EC	DWC/C-IS MS	1.125	1.25	1.60

Variance is requested to wave the centralizer requirements for the 7-5/8" casing in the 8-3/4" hole size. An expansion additive will be utilized, in the cement slurry, for the entire length of the 8-3/4" hole interval to maximize cement bond and zonal isolation.

Variance is also requested to wave any centralizer requirements for the 5-1/2" casing in the 6-3/4" hole size. An expansion additive will be utilized, in the cement slurry, for the entire length of the 6-3/4" hole interval to maximize cement bond and zonal isolation.

EOG requests variance to allow deviation from the 0.422" annulus clearance requirement from Onshore Order #2 under the following conditions:

- Annular clearance to meet or exceed 0.422" between intermediate casing ID and production casing coupling only on the first 500' overlap between both casing strings.
- Annular clearance less than 0.422" is acceptable for the curve and lateral portions of the production open hole section.

EOG also requests to retain the option to utilize the previously permitted 4 string design, to be referred to as Design B.

Cement Program:

Depth	No. Sacks	Wt. ppg	Yld Ft ³ /sk	Slurry Description
1,045' 9-5/8"	960	13.5	1.73	Lead: Class C + 4.0% Bentonite Gel + 0.5% CaCl ₂ + 0.25 lb/sk Cello-Flake (TOC @ Surface)
	80	14.8	1.34	Tail: Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium Metasilicate (TOC @ 845')
11,180' 7-5/8"	430	14.2	1.11	1 st Stage (Tail): Class C + 0.6% Halad-9 + 0.45% HR-601 + 3% Microbond (TOC @ 7,500')
	1,000	12.7	2.30	2 nd Stage (Bradenhead squeeze): Class C + 3% Salt + 1% PreMag-M + 6% Bentonite Gel (TOC @ surface)
20,234' 5-1/2"	780	14.2	1.31	Lead: Class H + 0.4% Halad-344 + 0.35% HR-601 + 3% Microbond (TOC @ 10,680')

Additive	Purpose
Bentonite Gel	Lightweight/Lost circulation prevention
Calcium Chloride	Accelerator
Cello-flake	Lost circulation prevention
Sodium Metasilicate	Accelerator
MagOx	Expansive agent
Pre-Mag-M	Expansive agent
Sodium Chloride	Accelerator
FL-62	Fluid loss control
Halad-344	Fluid loss control
Halad-9	Fluid loss control
HR-601	Retarder
Microbond	Expansive Agent

EOG requests variance from minimum standards to pump a two stage cement job on the 7-5/8" intermediate casing string with the first stage being pumped conventionally with the calculated TOC at the Brushy Canyon and the second stage performed as a bradenhead squeeze with planned cement from the Brushy Canyon to surface. If necessary a top out consisting of 1,000 sacks of Class C cement + 3% Salt + 1% PreMag-M + 6% Bentonite Gel (2.30 yld, 12.91 ppg) will be executed as a contingency. Top of cement will be verified by Echo-meter.

EOG also requests variance for the option to perform this cement procedure on Design B in the 7-5/8" 2nd Intermediate casing string as a contingency plan.

EOG will include the final fluid top verified by Echo-meter and the volume of displacement fluid above the cement slurry in the annulus in all post-drill sundries on wells utilizing this cement program.

EOG will report to the BLM the volume of fluid (limited to 5 bbls) used to flush intermediate casing valves following backside cementing procedures.

Mud Program:

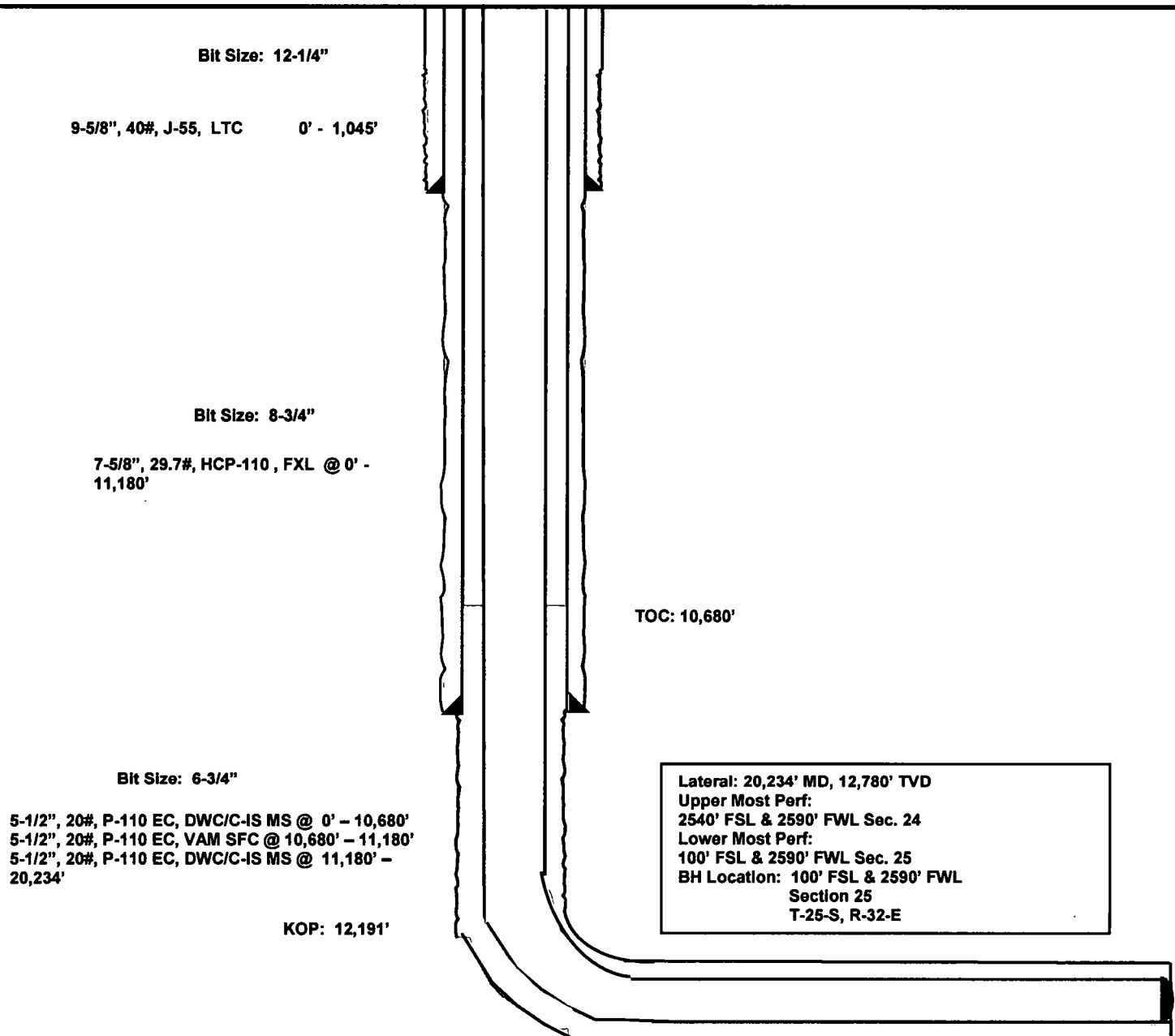
Depth	Type	Weight (ppg)	Viscosity	Water Loss
0 – 1,045'	Fresh - Gel	8.6-8.8	28-34	N/c
1,045' – 11,180'	Brine	10.0-10.2	28-34	N/c
11,180' – 12,191'	Oil Base	8.7-9.4	58-68	N/c - 6
12,191' – 20,234' Lateral	Oil Base	10.0-14.0	58-68	3 - 6

21547' FSL
2346' FWL
Section 24
T-25-S, R-32-E

Revised Wellbore
Design A

KB: 3,481'
GL: 3,446'

API: 30-025-46826





EOG Resources - Midland

Lea County, NM (NAD 83 NME)

Valiant 24 Fed Com

#743H

OH

Plan: Plan #0.1

Standard Planning Report

07 February, 2020



Planning Report

Database:	EDM	Local Co-ordinate Reference:	Well #743H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25 @ 3481.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25 @ 3481.0usft
Site:	Valiant 24 Fed Com	North Reference:	Grid
Well:	#743H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1		

Project	Lea County, NM (NAD 83 NME)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site		Valiant 24 Fed Com			
Site Position:		Northing:	406,151.00 usft	Latitude:	32° 6' 52.620 N
From:	Map	Easting:	760,107.00 usft	Longitude:	103° 37' 36.212 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.38 °

Well	#743H					
Well Position	+N/-S	20.0 usft	Northing:	406,171.00 usft	Latitude:	32° 6' 52.874 N
	+E/-W	-860.0 usft	Easting:	759,247.00 usft	Longitude:	103° 37' 46.210 W
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level:	3,456.0 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	1/22/2019	6.80	59.93	47,702.57620391

Design	Plan #0.1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	177.72

Plan Survey Tool Program	Date 2/7/2020			
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	20,234.4 Plan #0.1 (OH)	MWD	
			OWSG MWD - Standard	

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
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
3,160.9	3.22	28.38	3,160.8	4.0	2.1	2.00	2.00	0.00	28.38	
12,029.7	3.22	28.38	12,015.7	442.0	238.9	0.00	0.00	0.00	0.00	
12,190.7	0.00	0.01	12,176.5	446.0	241.0	2.00	-2.00	0.00	180.00	KOP(VAL 24 FC #743
12,940.7	90.00	179.62	12,654.0	-31.5	244.1	12.00	12.00	23.95	179.62	
20,234.4	90.00	179.62	12,654.0	-7,325.0	292.0	0.00	0.00	0.00	0.00	PBHL(VAL 24 FC #74



Planning Report

Database:	EDM	Local Co-ordinate Reference:	Well #743H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25 @ 3481.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25 @ 3481.0usft
Site:	Valiant 24 Fed Com	North Reference:	Grid
Well:	#743H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1		

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)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	2.00	28.38	3,100.0	1.5	0.8	-1.5	2.00	2.00	0.00
3,160.9	3.22	28.38	3,160.8	4.0	2.1	-3.9	2.00	2.00	0.00
3,200.0	3.22	28.38	3,199.9	5.9	3.2	-5.8	0.00	0.00	0.00
3,300.0	3.22	28.38	3,299.7	10.8	5.9	-10.6	0.00	0.00	0.00
3,400.0	3.22	28.38	3,399.5	15.8	8.5	-15.4	0.00	0.00	0.00
3,500.0	3.22	28.38	3,499.4	20.7	11.2	-20.3	0.00	0.00	0.00
3,600.0	3.22	28.38	3,599.2	25.7	13.9	-25.1	0.00	0.00	0.00
3,700.0	3.22	28.38	3,699.1	30.6	16.5	-29.9	0.00	0.00	0.00
3,800.0	3.22	28.38	3,798.9	35.5	19.2	-34.7	0.00	0.00	0.00
3,900.0	3.22	28.38	3,898.7	40.5	21.9	-39.6	0.00	0.00	0.00
4,000.0	3.22	28.38	3,998.6	45.4	24.5	-44.4	0.00	0.00	0.00
4,100.0	3.22	28.38	4,098.4	50.4	27.2	-49.2	0.00	0.00	0.00
4,200.0	3.22	28.38	4,198.3	55.3	29.9	-54.1	0.00	0.00	0.00
4,300.0	3.22	28.38	4,298.1	60.2	32.5	-58.9	0.00	0.00	0.00
4,400.0	3.22	28.38	4,398.0	65.2	35.2	-63.7	0.00	0.00	0.00
4,500.0	3.22	28.38	4,497.8	70.1	37.9	-68.6	0.00	0.00	0.00
4,600.0	3.22	28.38	4,597.6	75.1	40.6	-73.4	0.00	0.00	0.00
4,700.0	3.22	28.38	4,697.5	80.0	43.2	-78.2	0.00	0.00	0.00
4,800.0	3.22	28.38	4,797.3	84.9	45.9	-83.0	0.00	0.00	0.00
4,900.0	3.22	28.38	4,897.2	89.9	48.6	-87.9	0.00	0.00	0.00
5,000.0	3.22	28.38	4,997.0	94.8	51.2	-92.7	0.00	0.00	0.00
5,100.0	3.22	28.38	5,096.9	99.8	53.9	-97.5	0.00	0.00	0.00
5,200.0	3.22	28.38	5,196.7	104.7	56.6	-102.4	0.00	0.00	0.00



Planning Report

Database:	EDM	Local Co-ordinate Reference:	Well #743H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25 @ 3481.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25 @ 3481.0usft
Site:	Valiant 24 Fed Com	North Reference:	Grid
Well:	#743H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1		

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)
5,300.0	3.22	28.38	5,296.5	109.6	59.2	-107.2	0.00	0.00	0.00
5,400.0	3.22	28.38	5,396.4	114.6	61.9	-112.0	0.00	0.00	0.00
5,500.0	3.22	28.38	5,496.2	119.5	64.6	-116.8	0.00	0.00	0.00
5,600.0	3.22	28.38	5,596.1	124.4	67.2	-121.7	0.00	0.00	0.00
5,700.0	3.22	28.38	5,695.9	129.4	69.9	-126.5	0.00	0.00	0.00
5,800.0	3.22	28.38	5,795.8	134.3	72.6	-131.3	0.00	0.00	0.00
5,900.0	3.22	28.38	5,895.6	139.3	75.3	-136.2	0.00	0.00	0.00
6,000.0	3.22	28.38	5,995.4	144.2	77.9	-141.0	0.00	0.00	0.00
6,100.0	3.22	28.38	6,095.3	149.1	80.6	-145.8	0.00	0.00	0.00
6,200.0	3.22	28.38	6,195.1	154.1	83.3	-150.6	0.00	0.00	0.00
6,300.0	3.22	28.38	6,295.0	159.0	85.9	-155.5	0.00	0.00	0.00
6,400.0	3.22	28.38	6,394.8	164.0	88.6	-160.3	0.00	0.00	0.00
6,500.0	3.22	28.38	6,494.6	168.9	91.3	-165.1	0.00	0.00	0.00
6,600.0	3.22	28.38	6,594.5	173.8	93.9	-170.0	0.00	0.00	0.00
6,700.0	3.22	28.38	6,694.3	178.8	96.6	-174.8	0.00	0.00	0.00
6,800.0	3.22	28.38	6,794.2	183.7	99.3	-179.6	0.00	0.00	0.00
6,900.0	3.22	28.38	6,894.0	188.7	101.9	-184.4	0.00	0.00	0.00
7,000.0	3.22	28.38	6,993.9	193.6	104.6	-189.3	0.00	0.00	0.00
7,100.0	3.22	28.38	7,093.7	198.5	107.3	-194.1	0.00	0.00	0.00
7,200.0	3.22	28.38	7,193.5	203.5	109.9	-198.9	0.00	0.00	0.00
7,300.0	3.22	28.38	7,293.4	208.4	112.6	-203.8	0.00	0.00	0.00
7,400.0	3.22	28.38	7,393.2	213.4	115.3	-208.6	0.00	0.00	0.00
7,500.0	3.22	28.38	7,493.1	218.3	118.0	-213.4	0.00	0.00	0.00
7,600.0	3.22	28.38	7,592.9	223.2	120.6	-218.2	0.00	0.00	0.00
7,700.0	3.22	28.38	7,692.8	228.2	123.3	-223.1	0.00	0.00	0.00
7,800.0	3.22	28.38	7,792.6	233.1	126.0	-227.9	0.00	0.00	0.00
7,900.0	3.22	28.38	7,892.4	238.0	128.6	-232.7	0.00	0.00	0.00
8,000.0	3.22	28.38	7,992.3	243.0	131.3	-237.6	0.00	0.00	0.00
8,100.0	3.22	28.38	8,092.1	247.9	134.0	-242.4	0.00	0.00	0.00
8,200.0	3.22	28.38	8,192.0	252.9	136.6	-247.2	0.00	0.00	0.00
8,300.0	3.22	28.38	8,291.8	257.8	139.3	-252.1	0.00	0.00	0.00
8,400.0	3.22	28.38	8,391.7	262.7	142.0	-256.9	0.00	0.00	0.00
8,500.0	3.22	28.38	8,491.5	267.7	144.6	-261.7	0.00	0.00	0.00
8,600.0	3.22	28.38	8,591.3	272.6	147.3	-266.5	0.00	0.00	0.00
8,700.0	3.22	28.38	8,691.2	277.6	150.0	-271.4	0.00	0.00	0.00
8,800.0	3.22	28.38	8,791.0	282.5	152.7	-276.2	0.00	0.00	0.00
8,900.0	3.22	28.38	8,890.9	287.4	155.3	-281.0	0.00	0.00	0.00
9,000.0	3.22	28.38	8,990.7	292.4	158.0	-285.9	0.00	0.00	0.00
9,100.0	3.22	28.38	9,090.5	297.3	160.7	-290.7	0.00	0.00	0.00
9,200.0	3.22	28.38	9,190.4	302.3	163.3	-295.5	0.00	0.00	0.00
9,300.0	3.22	28.38	9,290.2	307.2	166.0	-300.3	0.00	0.00	0.00
9,400.0	3.22	28.38	9,390.1	312.1	168.7	-305.2	0.00	0.00	0.00
9,500.0	3.22	28.38	9,489.9	317.1	171.3	-310.0	0.00	0.00	0.00
9,600.0	3.22	28.38	9,589.8	322.0	174.0	-314.8	0.00	0.00	0.00
9,700.0	3.22	28.38	9,689.6	327.0	176.7	-319.7	0.00	0.00	0.00
9,800.0	3.22	28.38	9,789.4	331.9	179.3	-324.5	0.00	0.00	0.00
9,900.0	3.22	28.38	9,889.3	336.8	182.0	-329.3	0.00	0.00	0.00
10,000.0	3.22	28.38	9,989.1	341.8	184.7	-334.1	0.00	0.00	0.00
10,100.0	3.22	28.38	10,089.0	346.7	187.3	-339.0	0.00	0.00	0.00
10,200.0	3.22	28.38	10,188.8	351.7	190.0	-343.8	0.00	0.00	0.00
10,300.0	3.22	28.38	10,288.7	356.6	192.7	-348.6	0.00	0.00	0.00
10,400.0	3.22	28.38	10,388.5	361.5	195.4	-353.5	0.00	0.00	0.00
10,500.0	3.22	28.38	10,488.3	366.5	198.0	-358.3	0.00	0.00	0.00
10,600.0	3.22	28.38	10,588.2	371.4	200.7	-363.1	0.00	0.00	0.00



Planning Report

Database:	EDM	Local Co-ordinate Reference:	Well #743H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25 @ 3481.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25 @ 3481.0usft
Site:	Valiant 24 Fed Com	North Reference:	Grid
Well:	#743H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1		

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)
10,700.0	3.22	28.38	10,688.0	376.3	203.4	-367.9	0.00	0.00	0.00
10,800.0	3.22	28.38	10,787.9	381.3	206.0	-372.8	0.00	0.00	0.00
10,900.0	3.22	28.38	10,887.7	386.2	208.7	-377.6	0.00	0.00	0.00
11,000.0	3.22	28.38	10,987.6	391.2	211.4	-382.4	0.00	0.00	0.00
11,100.0	3.22	28.38	11,087.4	396.1	214.0	-387.3	0.00	0.00	0.00
11,200.0	3.22	28.38	11,187.2	401.0	216.7	-392.1	0.00	0.00	0.00
11,300.0	3.22	28.38	11,287.1	406.0	219.4	-396.9	0.00	0.00	0.00
11,400.0	3.22	28.38	11,386.9	410.9	222.0	-401.8	0.00	0.00	0.00
11,500.0	3.22	28.38	11,486.8	415.9	224.7	-406.6	0.00	0.00	0.00
11,600.0	3.22	28.38	11,586.6	420.8	227.4	-411.4	0.00	0.00	0.00
11,700.0	3.22	28.38	11,686.4	425.7	230.1	-416.2	0.00	0.00	0.00
11,800.0	3.22	28.38	11,786.3	430.7	232.7	-421.1	0.00	0.00	0.00
11,900.0	3.22	28.38	11,886.1	435.6	235.4	-425.9	0.00	0.00	0.00
12,000.0	3.22	28.38	11,986.0	440.6	238.1	-430.7	0.00	0.00	0.00
12,029.7	3.22	28.38	12,015.7	442.0	238.9	-432.2	0.00	0.00	0.00
12,100.0	1.81	28.38	12,085.9	444.7	240.3	-434.8	2.00	-2.00	0.00
12,190.7	0.00	0.01	12,176.5	446.0	241.0	-436.0	2.00	-2.00	0.00
12,200.0	1.12	179.62	12,185.8	445.9	241.0	-436.0	12.00	12.00	0.00
12,225.0	4.12	179.62	12,210.8	444.8	241.0	-434.8	12.00	12.00	0.00
12,250.0	7.12	179.62	12,235.7	442.3	241.0	-432.4	12.00	12.00	0.00
12,275.0	10.12	179.62	12,260.4	438.6	241.0	-428.6	12.00	12.00	0.00
12,300.0	13.12	179.62	12,284.9	433.5	241.1	-423.6	12.00	12.00	0.00
12,325.0	16.12	179.62	12,309.1	427.2	241.1	-417.3	12.00	12.00	0.00
12,350.0	19.12	179.62	12,332.9	419.7	241.2	-409.7	12.00	12.00	0.00
12,375.0	22.12	179.62	12,356.3	410.9	241.2	-400.9	12.00	12.00	0.00
12,400.0	25.12	179.62	12,379.2	400.8	241.3	-390.9	12.00	12.00	0.00
12,425.0	28.12	179.62	12,401.5	389.6	241.4	-379.7	12.00	12.00	0.00
12,450.0	31.12	179.62	12,423.3	377.3	241.5	-367.4	12.00	12.00	0.00
12,475.0	34.12	179.62	12,444.3	363.8	241.5	-353.9	12.00	12.00	0.00
12,500.0	37.12	179.62	12,464.7	349.2	241.6	-339.3	12.00	12.00	0.00
12,525.0	40.12	179.62	12,484.2	333.6	241.7	-323.8	12.00	12.00	0.00
12,550.0	43.12	179.62	12,502.9	317.0	241.8	-307.2	12.00	12.00	0.00
12,575.0	46.12	179.62	12,520.7	299.5	242.0	-289.6	12.00	12.00	0.00
12,600.0	49.12	179.62	12,537.5	281.0	242.1	-271.2	12.00	12.00	0.00
12,625.0	52.12	179.62	12,553.4	261.7	242.2	-251.8	12.00	12.00	0.00
12,650.0	55.12	179.62	12,568.2	241.6	242.3	-231.7	12.00	12.00	0.00
12,675.0	58.12	179.62	12,581.9	220.7	242.5	-210.9	12.00	12.00	0.00
12,700.0	61.12	179.62	12,594.6	199.1	242.6	-189.3	12.00	12.00	0.00
12,725.0	64.12	179.62	12,606.1	176.9	242.8	-167.1	12.00	12.00	0.00
12,750.0	67.12	179.62	12,616.4	154.2	242.9	-144.4	12.00	12.00	0.00
12,775.0	70.12	179.62	12,625.5	130.9	243.1	-121.1	12.00	12.00	0.00
12,800.0	73.12	179.62	12,633.4	107.2	243.2	-97.4	12.00	12.00	0.00
12,825.0	76.12	179.62	12,640.0	83.1	243.4	-73.3	12.00	12.00	0.00
12,850.0	79.12	179.62	12,645.4	58.7	243.5	-48.9	12.00	12.00	0.00
12,875.0	82.12	179.62	12,649.5	34.0	243.7	-24.3	12.00	12.00	0.00
12,900.0	85.12	179.62	12,652.2	9.2	243.9	0.6	12.00	12.00	0.00
12,925.0	88.12	179.62	12,653.7	-15.8	244.0	25.5	12.00	12.00	0.00
12,940.7	90.00	179.62	12,654.0	-31.5	244.1	41.2	12.00	12.00	0.00
13,000.0	90.00	179.62	12,654.0	-90.8	244.5	100.5	0.00	0.00	0.00
13,100.0	90.00	179.62	12,654.0	-190.8	245.2	200.4	0.00	0.00	0.00
13,200.0	90.00	179.62	12,654.0	-290.8	245.8	300.4	0.00	0.00	0.00
13,300.0	90.00	179.62	12,654.0	-390.8	246.5	400.3	0.00	0.00	0.00
13,400.0	90.00	179.62	12,654.0	-490.8	247.1	500.2	0.00	0.00	0.00
13,500.0	90.00	179.62	12,654.0	-590.8	247.8	600.2	0.00	0.00	0.00



Planning Report

Database: EDM
Company: EOG Resources - Midland
Project: Lea County, NM (NAD 83 NME)
Site: Valiant 24 Fed Com
Well: #743H
Wellbore: OH
Design: Plan #0.1

Local Co-ordinate Reference: Well #743H
TVD Reference: KB = 25 @ 3481.0usft
MD Reference: KB = 25 @ 3481.0usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

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)
13,600.0	90.00	179.62	12,654.0	-690.8	248.5	700.1	0.00	0.00	0.00
13,700.0	90.00	179.62	12,654.0	-790.8	249.1	800.1	0.00	0.00	0.00
13,800.0	90.00	179.62	12,654.0	-890.8	249.8	900.0	0.00	0.00	0.00
13,900.0	90.00	179.62	12,654.0	-990.8	250.4	1,000.0	0.00	0.00	0.00
14,000.0	90.00	179.62	12,654.0	-1,090.8	251.1	1,099.9	0.00	0.00	0.00
14,100.0	90.00	179.62	12,654.0	-1,190.8	251.7	1,199.9	0.00	0.00	0.00
14,200.0	90.00	179.62	12,654.0	-1,290.8	252.4	1,299.8	0.00	0.00	0.00
14,300.0	90.00	179.62	12,654.0	-1,390.8	253.1	1,399.7	0.00	0.00	0.00
14,400.0	90.00	179.62	12,654.0	-1,490.8	253.7	1,499.7	0.00	0.00	0.00
14,500.0	90.00	179.62	12,654.0	-1,590.8	254.4	1,599.6	0.00	0.00	0.00
14,600.0	90.00	179.62	12,654.0	-1,690.8	255.0	1,699.6	0.00	0.00	0.00
14,700.0	90.00	179.62	12,654.0	-1,790.8	255.7	1,799.5	0.00	0.00	0.00
14,800.0	90.00	179.62	12,654.0	-1,890.8	256.3	1,899.5	0.00	0.00	0.00
14,900.0	90.00	179.62	12,654.0	-1,990.8	257.0	1,999.4	0.00	0.00	0.00
15,000.0	90.00	179.62	12,654.0	-2,090.8	257.6	2,099.4	0.00	0.00	0.00
15,100.0	90.00	179.62	12,654.0	-2,190.8	258.3	2,199.3	0.00	0.00	0.00
15,200.0	90.00	179.62	12,654.0	-2,290.7	259.0	2,299.2	0.00	0.00	0.00
15,300.0	90.00	179.62	12,654.0	-2,390.7	259.6	2,399.2	0.00	0.00	0.00
15,400.0	90.00	179.62	12,654.0	-2,490.7	260.3	2,499.1	0.00	0.00	0.00
15,500.0	90.00	179.62	12,654.0	-2,590.7	260.9	2,599.1	0.00	0.00	0.00
15,600.0	90.00	179.62	12,654.0	-2,690.7	261.6	2,699.0	0.00	0.00	0.00
15,700.0	90.00	179.62	12,654.0	-2,790.7	262.2	2,799.0	0.00	0.00	0.00
15,800.0	90.00	179.62	12,654.0	-2,890.7	262.9	2,898.9	0.00	0.00	0.00
15,900.0	90.00	179.62	12,654.0	-2,990.7	263.6	2,998.9	0.00	0.00	0.00
16,000.0	90.00	179.62	12,654.0	-3,090.7	264.2	3,098.8	0.00	0.00	0.00
16,100.0	90.00	179.62	12,654.0	-3,190.7	264.9	3,198.7	0.00	0.00	0.00
16,200.0	90.00	179.62	12,654.0	-3,290.7	265.5	3,298.7	0.00	0.00	0.00
16,300.0	90.00	179.62	12,654.0	-3,390.7	266.2	3,398.6	0.00	0.00	0.00
16,400.0	90.00	179.62	12,654.0	-3,490.7	266.8	3,498.6	0.00	0.00	0.00
16,500.0	90.00	179.62	12,654.0	-3,590.7	267.5	3,598.5	0.00	0.00	0.00
16,600.0	90.00	179.62	12,654.0	-3,690.7	268.1	3,698.5	0.00	0.00	0.00
16,700.0	90.00	179.62	12,654.0	-3,790.7	268.8	3,798.4	0.00	0.00	0.00
16,800.0	90.00	179.62	12,654.0	-3,890.7	269.5	3,898.4	0.00	0.00	0.00
16,900.0	90.00	179.62	12,654.0	-3,990.7	270.1	3,998.3	0.00	0.00	0.00
17,000.0	90.00	179.62	12,654.0	-4,090.7	270.8	4,098.2	0.00	0.00	0.00
17,100.0	90.00	179.62	12,654.0	-4,190.7	271.4	4,198.2	0.00	0.00	0.00
17,200.0	90.00	179.62	12,654.0	-4,290.7	272.1	4,298.1	0.00	0.00	0.00
17,300.0	90.00	179.62	12,654.0	-4,390.7	272.7	4,398.1	0.00	0.00	0.00
17,400.0	90.00	179.62	12,654.0	-4,490.7	273.4	4,498.0	0.00	0.00	0.00
17,500.0	90.00	179.62	12,654.0	-4,590.7	274.1	4,598.0	0.00	0.00	0.00
17,600.0	90.00	179.62	12,654.0	-4,690.7	274.7	4,697.9	0.00	0.00	0.00
17,700.0	90.00	179.62	12,654.0	-4,790.7	275.4	4,797.9	0.00	0.00	0.00
17,800.0	90.00	179.62	12,654.0	-4,890.7	276.0	4,897.8	0.00	0.00	0.00
17,900.0	90.00	179.62	12,654.0	-4,990.7	276.7	4,997.8	0.00	0.00	0.00
18,000.0	90.00	179.62	12,654.0	-5,090.7	277.3	5,097.7	0.00	0.00	0.00
18,100.0	90.00	179.62	12,654.0	-5,190.7	278.0	5,197.6	0.00	0.00	0.00
18,200.0	90.00	179.62	12,654.0	-5,290.7	278.6	5,297.6	0.00	0.00	0.00
18,300.0	90.00	179.62	12,654.0	-5,390.7	279.3	5,397.5	0.00	0.00	0.00
18,400.0	90.00	179.62	12,654.0	-5,490.7	280.0	5,497.5	0.00	0.00	0.00
18,500.0	90.00	179.62	12,654.0	-5,590.7	280.6	5,597.4	0.00	0.00	0.00
18,600.0	90.00	179.62	12,654.0	-5,690.7	281.3	5,697.4	0.00	0.00	0.00
18,700.0	90.00	179.62	12,654.0	-5,790.7	281.9	5,797.3	0.00	0.00	0.00
18,800.0	90.00	179.62	12,654.0	-5,890.7	282.6	5,897.3	0.00	0.00	0.00
18,900.0	90.00	179.62	12,654.0	-5,990.7	283.2	5,997.2	0.00	0.00	0.00

Database:	EDM	Local Co-ordinate Reference:	Well #743H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25 @ 3481.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25 @ 3481.0usft
Site:	Valiant 24 Fed Com	North Reference:	Grid
Well:	#743H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1		

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)
19,000.0	90.00	179.62	12,654.0	-6,090.7	283.9	6,097.1	0.00	0.00	0.00
19,100.0	90.00	179.62	12,654.0	-6,190.7	284.6	6,197.1	0.00	0.00	0.00
19,200.0	90.00	179.62	12,654.0	-6,290.7	285.2	6,297.0	0.00	0.00	0.00
19,300.0	90.00	179.62	12,654.0	-6,390.7	285.9	6,397.0	0.00	0.00	0.00
19,400.0	90.00	179.62	12,654.0	-6,490.7	286.5	6,496.9	0.00	0.00	0.00
19,500.0	90.00	179.62	12,654.0	-6,590.7	287.2	6,596.9	0.00	0.00	0.00
19,600.0	90.00	179.62	12,654.0	-6,690.7	287.8	6,696.8	0.00	0.00	0.00
19,700.0	90.00	179.62	12,654.0	-6,790.7	288.5	6,796.8	0.00	0.00	0.00
19,800.0	90.00	179.62	12,654.0	-6,890.6	289.1	6,896.7	0.00	0.00	0.00
19,900.0	90.00	179.62	12,654.0	-6,990.6	289.8	6,996.6	0.00	0.00	0.00
20,000.0	90.00	179.62	12,654.0	-7,090.6	290.5	7,096.6	0.00	0.00	0.00
20,100.0	90.00	179.62	12,654.0	-7,190.6	291.1	7,196.5	0.00	0.00	0.00
20,200.0	90.00	179.62	12,654.0	-7,290.6	291.8	7,296.5	0.00	0.00	0.00
20,234.4	90.00	179.62	12,654.0	-7,325.0	292.0	7,330.8	0.00	0.00	0.00

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
KOP(VAL 24 FC #743H)	0.00	0.01	12,176.5	446.0	241.0	406,617.00	759,488.00	32° 6' 57.272 N	103° 37' 43.374 W
- plan hits target center									
- Point									
PBHL(VAL 24 FC #743H)	0.00	0.00	12,654.0	-7,325.0	292.0	398,846.00	759,539.00	32° 5' 40.371 N	103° 37' 43.371 W
- plan hits target center									
- Point									
FTP(VAL 24 FC #743H)	0.00	0.00	12,654.0	396.0	241.0	406,567.00	759,488.00	32° 6' 56.777 N	103° 37' 43.377 W
- plan misses target center by 163.4usft at 12593.6usft MD (12533.3 TVD, 285.8 N, 242.1 E)									
- Point									



Lea County, NM (NAD 83 NME)
Valiant 24 Fed Com #743H
Plan #0.1

PROJECT DETAILS: Lea County, NM (NAD 83 NME)

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



Azimuths to Grid North
True North: -0.37°
Magnetic North: 0.42°
Magnetic Field
Strength: 47702.8nT
Dip Angle: 66.63°
Date: 12/22/2018
Model: KRF2018

To convert a Magnetic Direction to a Grid Direction, Add 0.42°
To convert a Magnetic Direction to a True Direction, Add 0.07° East
To convert a True Direction to a Grid Direction, Subtract 0.37°

WELL DETAILS: #743H

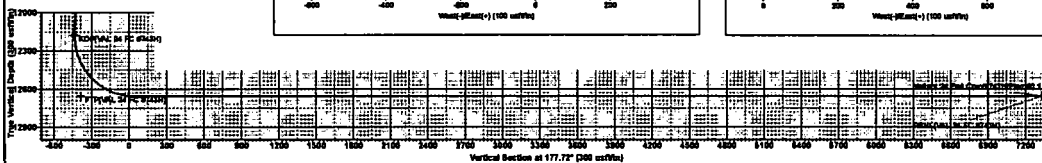
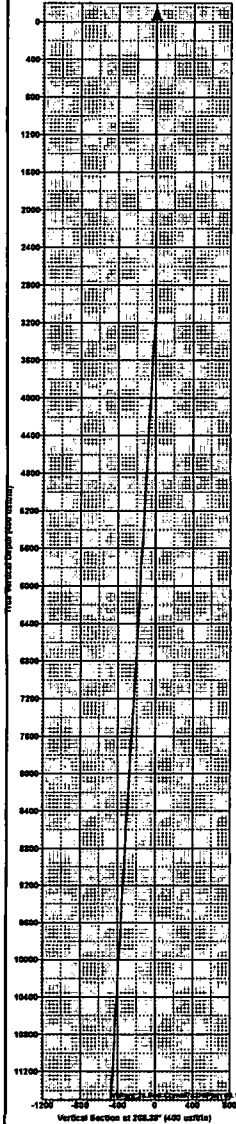
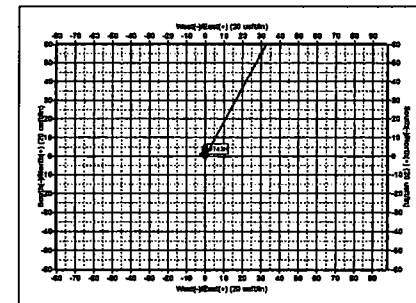
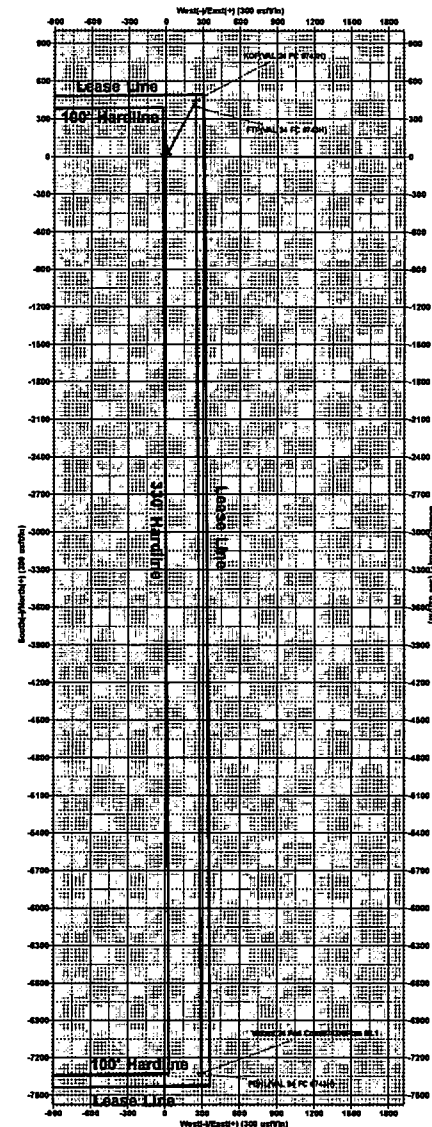
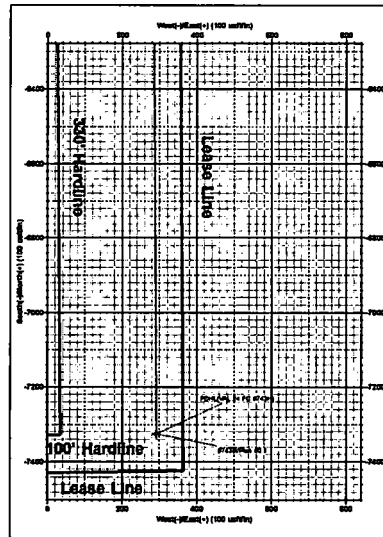
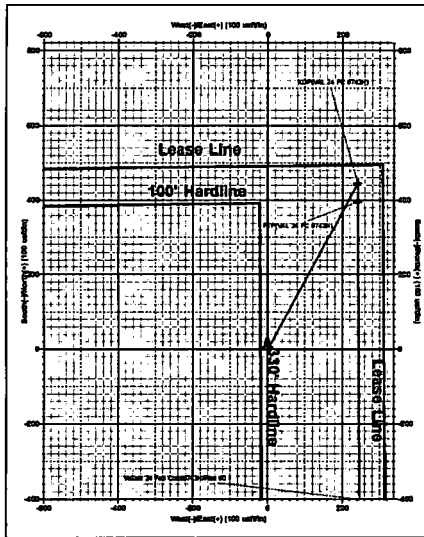
3458.0
KB = 25 @ 3481.0m
+N-S +E-W Northing Easting
0.0 0.0 408171.00 759247.00
32° 6' 52.874 N 103° 37' 49.210 W

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N-S	+E-W	Dleg	TFace	Vsect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	3000.0	0.00	0.00	3000.0	0.0	0.0	0.00	0.00	0.0	
3	3160.9	3.22	28.38	3160.8	4.0	2.1	2.00	28.38	-3.9	
4	12028.7	3.22	28.38	12015.7	442.0	238.9	0.00	0.00	-432.2	KOP(VAL 24 FC #743H)
5	12190.7	0.00	0.00	12176.5	448.0	241.0	2.00	180.00	-436.0	
6	12940.7	90.00	179.62	12854.0	-31.5	244.1	12.00	179.62	41.2	
7	20234.4	90.00	179.62	12654.0	-7325.0	292.0	0.00	0.00	7330.8	PBH(VAL 24 FC #743H)

WELLBORE TARGET DETAILS (MAP COORDINATES)

Name	TVD	+N-S	+E-W	Northing	Easting	Shape
KOP(VAL 24 FC #743H)	12176.5	448.0	241.0	408171.00	759482.00	Point
FTP(VAL 24 FC #743H)	12854.0	398.0	241.0	408567.00	759488.00	Point
PBH(VAL 24 FC #743H)	12654.0	-7325.0	292.0	398848.00	758539.00	Point



Lea County, NM (NAD 83 NME)
Valiant 24 Fed Com #743H
Plan #0.1

