

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0137
Expires: November 30, 2000

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. Type of Well ☒ Oil Well ☐ Gas Well ☐ Dry ☐ Other										5. Lease Serial No. NMM 19623	
b. Type of Completion: ☒ New Well ☐ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Resvr., Other										6. If Indian, Allottee or Tribe Name	
2. Name of Operator EOG Resources Inc.										7. Unit or CA Agreement Name and No.	
3. Address P.O. Box 2267 Midland TX 79702										8. Lease Name and Well No. Vaca 13 Federal No. 8H	
3a. Phone No. (include area code) 915 686 3689										9. API Well No. 30-025-35846	
4. Location of Well (Report location clearly and in accordance with Federal requirements)* At surface 2310 FSL & 2310 FEL, U/L J At top prod. interval reported below At total depth 3216 & 4929 E 330 FEL & 330 FEL, U/L M										10. Field and Pool, or Exploratory Red Hills; Bone Spring	
11. Sec., T., R., M., or Block and Survey or Area Sec 13, T-25-S, R-33-E										12. County or Parish Lea	
13. State NM										17. Elevations (DF, RKB, RT, GL)* 3355 GL	
14. Date Spudded 8/30/02		15. Date T.D. Reached 10/10/02		16. Date Completed ☐ D & A ☒ Ready to Prod. 10/29/02		20. Depth Bridge Plug Set: MD TVD		22. Was well cored? ☒ No ☐ Yes (Submit analysis) Was DST run ☒ No ☐ Yes (Submit report) Directional Survey? ☐ No ☒ Yes (Submit copy)			
18. Total Depth: MD 15580 TVD 12253										19. Plug Back T.D.: MD TVD	
21. Type Electric & Other Mechanical Logs Run (Submit copy of each)											
23. Casing and Liner Record (Report all strings set in well)											
Hole Size	Size/Grade	Wt.(#ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No.of Sks. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled		
17 1/2	13 3/8	48		675		500 Prem		Surface			
12 1/4	9 5/8	40		5040		1100 C		Surface			
						250 Prem. +					
8 3/4	7	26		12475		760 Prem		4900 Calc			
						250 POZ					
6 1/8	4 1/2	11.60	11513	15550		260 Prem					
24. Tubing Record											
Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)			
2 7/8	11505	11487									
25. Producing Intervals											
Formation		Top		Bottom		Perforated Interval		Size		No. Holes	
A) Third Bone Spring		11923				12620-15350				47	
B)										Producing	
C)											
D)											
27. Acid, Fracture, Treatment, Cement Squeeze, Etc.											
Depth Interval		Amount and Type of Material									
12620-15350		Pmp'd 500 gal Xylene, 1500 gal 15% HCL, Pmp'd 1500 gal 2% KCL, 1500 gal MSA acid Frac w/ 3883 gal 15% HCL Spearhead acid, 10501 gal 7 1/2% HCL Spearhead acid, 20082 gal 10# WaterFrac G prepad, 280780 ppg 30# 18/40 Versaprop									
28. Production - Interval A											
Date First Produced 10/29/02	Test Date 10/30/02	Hours Tested 24	Test Production →	Oil BBL 131	Gas MCF 87	Water BBL 66	Oil Gravity	Gas Gravity	Production Method		
Choke Size open	Tbg. Press. Flwg. SI 150	Csg. Press.	24 Hr. →	Oil BBL 131	Gas MCF 87	Water BBL 66	Gas: Oil Ratio 664	Well Status POW	ACCEPTED FOR RECORD Flowing NOV 13 2002 GARY GOURLEY PETROLEUM ENGINEER		
28a. Production-Interval B											
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity	Gas Gravity	Production Method		
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr.	Oil BBL	Gas MCF	Water BBL	Gas: Oil Ratio	Well Status			

28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity	Gas Gravity	Production Method
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. →	Oil BBL	Gas MCF	Water BBL	Gas: Oil Ratio	Well Status	

28c. Production-Interval D

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity	Gas Gravity	Production Method
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. →	Oil BBL	Gas MCF	Water BBL	Gas: Oil Ratio	Well Status	

29. Disposition of Gas (Sold, used for fuel, vented, etc.)

SOLD

30. Summary of Porous Zones (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries

31. Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top
					Meas. Depth
Delaware	5168				
Bone Spring	9242				
3rd Bone Spr	11923				

32. Additional remarks (include plugging procedure):

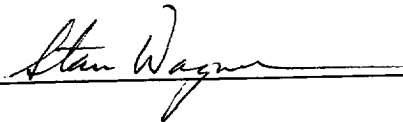
33. Circle enclosed attachments:

1. Electrical/Mechanical Logs (1 full set req'd) 2. Geologic Report 3. DST Report 4. Directional Survey
 5. Sundry Notice for plugging and cement verification 6. Core Analysis 7. Other

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions)*

Name (please print) Stan WagnerTitle Regulatory Analyst

Signature

Date 11/4/02

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.

RECEIVED
 NOV 13 11:11 AM '02



Vaca 13 Fed No. 8H

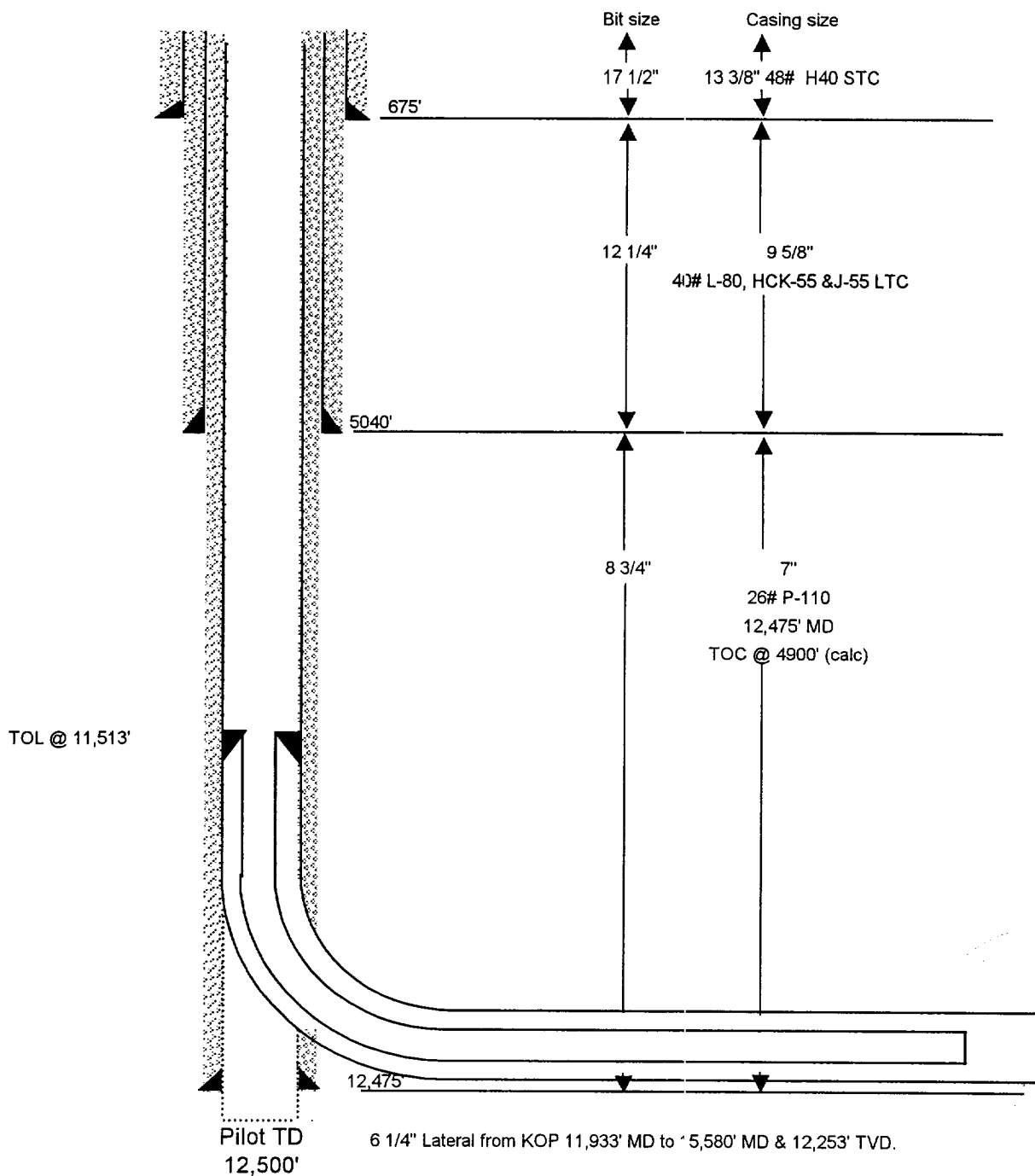
2310' FSL 2310' FEL

Sec. 13-25S-33E

Lea County, New Mexico

API 30-025-35846

AFE 102398



10/30/2002



McVAY DRILLING COMPANY

Post Office Box 5
Hobbs, New Mexico 88241
(505) 397-3311
FAX: 39-DRILL

SCANNED

Well Name and Number: Vaca "13" Fed # 8H

Location: Sec. 13, T25S, R33E, Lea County, NM

Operator: EOG Resources, Inc.

Drilling Contractor: McVay Drilling Company

The undersigned certifies that he is an authorized representative of the drilling contractor who drilled the above described well and that he has conducted deviation tests and obtained the following results:

Degrees @ Depth		Degrees @ Depth		Degrees @ Depth	
¾	265	1 ¾	8050	90	12475
1 ¼	675	2	8430	87 ¼	12462
¾	1141	2	8904	91	12555
1 ¼	1641	2	9312	92 ½	12620
¾	2155	1 ½	10403	90 ¼	13330
¾	2663	1 ½	10690	87.9	13507
1	3614	1 ½	11106	88 ¾	13539
2 ¼	3867	1 ½	11589	89 ½	13822
2 ¾	4120	¾	12103	90 ¼	14173
2 ½	4405	½	11913	90 ½	14263
2 ¾	4882	3 ½	11945	89 ¼	14555
3	5040	8	11977	89 ½	14618
2 ½	5516	28 ½	12105	91 ¼	14842
2 ¼	6022	39	12169	92	14906
2	6528	49 ½	12233	92 ¾	14939
1 ¾	7033	65 ½	12330	89 ½	15101
1 ½	7543	81 ¼	12427	90 ¾	15288

Drilling Contractor: McVay Drilling Company

By: John H. Hays

Subscribed and sworn to before me this 15th day of October, 2002

Lina F. Hays
Notary Public

My Commission Expires: 8-16-05

Lea County, New Mexico

GYROSCOPIC DIRECTIONAL SURVEY BY MINIMUM CURVATURE

 * EOC RESOURCES INC. *

GYRO REFERENCE BEARING:

 ***** DEPTH MEASURED IN FEET *****

COMMENTS: DECL. 8.1392 DEGREES
 EAST TO GRID
 RIG: McVAY DRLG CO. #10

***** THIS DIRECTIONAL SURVEY REPORT IS *****
 ** CORRECT TO THE BEST OF MY KNOWLEDGE **
 * AND IS SUPPORTED BY ACTUAL FIELD DATA! *

Mike V. Ross

 ** COMPANY REPRESENTATIVE **

MULTISHOT, INC.
CORPUS CHRISTI, TEXAS

JOB NUMBER: 0217505858

WELL NAME: VACA 13 FEDERAL #8

INRUN SURVEY
BY MINIMUM CURVATURE

MEAS. DEPTH	VERT. DEPTH	VERT. SECT.	L/R PROP.	INCL	BEARING AZIMUTH	COORDINATES LATITUDE DEPARTURE	D-LBG /100	D-LBG /CL	STATION DISP.	DISPLACEMENT DIRECTION
200.0	199.99	-1.24	-0.430	00.75	199.16	1.24 S 0.43 W	0.30	0.75	1.31	AT 199.16
400.0	399.97	-4.20	-1.077	01.00	187.17	4.20 S 1.08 W	0.15	0.31	4.34	AT 194.37
600.0	599.94	-7.62	-0.848	01.00	165.18	7.62 S 0.85 W	0.19	0.38	7.67	AT 186.35
800.0	799.92	-9.85	0.284	00.50	128.19	9.85 S 0.28 E	0.34	0.67	9.85	AT 178.35
1000.0	999.91	-11.44	2.368	01.00	127.20	11.44 S 2.36 E	0.25	0.50	11.69	AT 160.35
1200.0	1199.88	-13.53	5.158	01.00	126.21	13.53 S 5.16 E	0.01	0.02	14.48	AT 159.13
1400.0	1399.86	-14.83	6.914	00.25	127.21	14.83 S 6.91 E	0.30	0.75	16.36	AT 155.00
1600.0	1599.85	-16.17	8.632	01.00	128.23	16.17 S 8.63 E	0.30	0.75	18.33	AT 151.90
1800.0	1799.83	-18.08	11.017	00.75	129.23	18.08 S 11.02 E	0.13	0.25	21.17	AT 148.64
2000.0	1999.82	-19.21	12.344	00.25	134.25	19.21 S 12.34 E	0.25	0.50	22.83	AT 147.20
2200.0	2199.82	-19.59	13.886	00.25	100.26	19.59 S 13.09 E	0.07	0.15	23.56	AT 146.26
2400.0	2399.81	-19.84	13.919	00.25	112.27	19.84 S 13.92 E	0.03	0.05	24.23	AT 144.94
2600.0	2599.81	-19.69	15.139	00.50	069.27	19.69 S 15.14 E	0.18	0.36	24.84	AT 142.45
2800.0	2799.79	-18.34	17.354	01.00	053.28	18.34 S 17.35 E	0.27	0.54	25.25	AT 136.58
3000.0	2999.75	-16.46	21.232	01.50	071.28	16.46 S 21.23 E	0.31	0.63	26.86	AT 127.78
3200.0	3199.65	-14.97	27.141	02.00	079.34	14.97 S 27.14 E	0.28	0.56	31.00	AT 118.88
3400.0	3399.50	-13.37	34.827	02.50	077.35	13.37 S 34.83 E	0.25	0.51	37.30	AT 111.00
3600.0	3599.27	-11.63	41.257	03.00	081.36	11.63 S 41.26 E	0.27	0.54	45.76	AT 104.72
3800.0	3798.99	-9.61	54.517	03.00	076.36	9.61 S 54.52 E	0.13	0.26	55.36	AT 099.99
4000.0	3998.67	-7.46	65.639	03.50	081.37	7.46 S 65.64 E	0.29	0.57	66.06	AT 096.40
4200.0	4198.33	-7.17	77.309	03.25	096.40	7.17 S 77.31 E	0.46	0.92	77.84	AT 095.30
4400.0	4397.98	-8.27	89.030	03.50	094.41	8.27 S 89.03 E	0.14	0.28	89.41	AT 095.31
4600.0	4597.64	-10.82	100.394	03.25	111.44	10.82 S 100.39 E	0.51	1.03	100.97	AT 096.15
4800.0	4797.24	-15.78	112.020	04.00	114.47	15.78 S 112.02 E	0.39	0.77	113.13	AT 090.02
5000.0	4996.81	-21.00	124.011	03.50	112.46	21.00 S 124.01 E	0.26	0.52	125.78	AT 099.61
5200.0	5196.49	-26.37	133.915	03.00	125.47	26.37 S 133.92 E	0.44	0.89	136.49	AT 101.14
5400.0	5396.26	-31.14	142.179	02.50	113.46	31.14 S 142.18 E	0.38	0.76	145.55	AT 102.35
5600.0	5596.09	-34.57	149.725	01.25	115.47	34.57 S 149.72 E	0.13	0.26	153.66	AT 103.00
5800.0	5795.92	-38.60	156.949	02.50	122.48	38.60 S 156.95 E	0.19	0.38	161.63	AT 103.82
6000.0	5995.73	-43.35	164.267	02.50	123.49	43.35 S 164.27 E	0.02	0.04	169.89	AT 104.78
6200.0	6195.52	-47.75	172.268	02.75	114.57	47.75 S 172.27 E	0.24	0.48	178.76	AT 105.49
6400.0	6395.31	-51.42	180.659	02.50	112.57	51.42 S 180.66 E	0.13	0.27	187.83	AT 105.89
6600.0	6595.15	-54.49	187.886	02.00	113.57	54.49 S 187.89 E	0.25	0.50	195.63	AT 106.17
6800.0	6795.00	-58.23	194.760	02.50	122.59	58.23 S 194.76 E	0.31	0.61	203.28	AT 106.65
7000.0	6994.81	-62.26	202.462	02.50	112.60	62.26 S 202.48 E	0.22	0.44	211.82	AT 107.09
7200.0	7194.64	-65.51	210.086	01.25	113.60	65.51 S 210.09 E	0.13	0.25	220.06	AT 107.32

MULTISHOT, INC.
CORPUS CHRISTI, TEXAS

JOB NUMBER: 0217505858

WELL NAME: VACA 13 FEDERAL #1

INRUN SURVEY
BY MINIMUM CURVATURE

MEAS. DEPTH	VERT. DEPTH	VERT. SECT.	L/R PROP.	INCL	BEARING AZIMUTH	COORDINATES LATITUDE	DEPARTURE	D-LEG /100	D-LBG /CL	STATION DISP.	DISPLACEMENT DIRECTION
7400.0	7394.50	-68.86	216.688	03.80	120.61	68.86 S	216.69 E	0.18	0.36	227.36	AT 107.63
7600.0	7594.36	-72.69	223.033	02.25	121.65	72.69 S	223.03 E	0.13	0.25	234.58	AT 100.05
7800.0	7794.21	-76.39	229.942	02.25	114.70	76.39 S	229.94 E	0.14	0.27	242.30	AT 108.38
8000.0	7994.04	-80.64	237.003	02.50	126.77	80.64 S	237.00 E	0.28	0.56	250.35	AT 108.79
8200.0	8193.08	-85.40	243.754	02.00	127.82	85.40 S	243.75 E	0.25	0.50	257.81	AT 109.34
8400.0	8393.75	-89.89	249.152	02.25	126.88	89.89 S	249.15 E	0.13	0.25	264.87	AT 109.84
8600.0	8593.61	-94.71	254.762	02.00	134.94	94.71 S	254.76 E	0.19	0.39	271.80	AT 110.39
8800.0	8793.49	-99.73	259.613	02.00	137.00	99.73 S	259.61 E	0.04	0.07	278.11	AT 111.01
9000.0	8993.38	-104.55	264.834	01.75	130.85	104.55 S	264.83 E	0.13	0.25	283.98	AT 111.60
9200.0	9193.27	-109.69	268.072	02.00	145.11	109.69 S	268.07 E	0.17	0.34	289.64	AT 112.25
9400.0	9393.15	-115.50	271.942	02.00	147.52	115.50 S	271.94 E	0.04	0.08	295.45	AT 113.01
9600.0	9593.87	-120.50	274.542	01.25	160.57	120.50 S	274.54 E	0.42	0.83	299.82	AT 113.70
9800.0	9793.01	-125.10	275.873	01.50	166.63	125.10 S	275.87 E	0.14	0.29	302.91	AT 114.39
10000.0	9992.94	-130.21	276.992	01.50	168.68	130.21 S	276.99 E	0.03	0.05	306.07	AT 115.18
10200.0	10192.89	-134.89	276.951	01.25	194.74	134.89 S	276.95 E	0.33	0.67	308.05	AT 115.97
10400.0	10392.84	-139.12	275.876	01.25	193.79	139.12 S	275.88 E	0.01	0.02	308.97	AT 116.76
10600.0	10592.79	-143.25	274.510	01.25	202.83	143.25 S	274.51 E	0.10	0.20	309.64	AT 117.56
10800.0	10792.75	-147.44	273.700	01.25	178.84	147.44 S	273.71 E	0.26	0.52	310.89	AT 118.31
11000.0	10992.71	-151.27	274.324	01.00	160.85	151.27 S	274.32 E	0.21	0.43	313.27	AT 118.87
11200.0	11192.65	-155.07	277.061	01.75	134.87	155.07 S	277.06 E	0.48	0.96	317.51	AT 119.24
11400.0	11392.54	-158.91	282.281	02.00	118.88	158.91 S	282.28 E	0.29	0.58	323.94	AT 119.38
11600.0	11592.46	-162.91	286.571	01.50	151.88	162.91 S	286.57 E	0.55	1.10	329.64	AT 119.62
11800.0	11792.41	-166.81	288.518	01.00	155.89	166.81 S	288.52 E	0.25	0.51	333.27	AT 120.03
12000.0	11992.40	-168.83	289.133	00.25	192.89	168.83 S	289.13 E	0.41	0.81	334.81	AT 120.28
12200.0	12192.39	-169.65	289.214	00.25	155.95	169.65 S	289.21 E	0.08	0.16	335.30	AT 120.40
12400.0	12392.38	-171.77	289.666	01.00	170.97	171.77 S	289.67 E	0.38	0.76	336.77	AT 120.67
12450.0	12442.36	-173.88	289.780	02.00	176.99	173.88 S	289.78 E	2.02	1.01	337.53	AT 120.85

 * THE HORIZONTAL DISPLACEMENT AT THE DEPTH OF *
 * ***** *
 * 12450.0 FEET EQUALS 337.53 FEET AT 120.85 *
 * ***** *
 * ***** *

Computalog Drilling Services

Client : EOG Resources
Well : Vaca 13 Federal #8
Location : Lea County, NM
License :
Comment : Grid North

Page: 1
Date : 10/3/2002
File : 50-530

UWI #:

Vertical Section Calculated Along Azimuth 232.81°

KB Elevation = 0.00ft

	MD ft	Inc deg	Azi deg	TVD ft	North ft	East ft	V'Sect ft	D'Leg °/100	Build °/100	Turn °/100
0	11800.00	1.00	155.89	11792.41	-166.81	288.52	-129.02	0.00	0.00	0.00
1	11881.00	0.80	190.30	11873.40	-168.01	288.71	-128.44	0.70	-0.25	42.48
2	11913.00	0.60	220.10	11905.40	-168.36	288.56	-128.11	1.28	-0.63	93.12
3	11945.00	3.40	222.90	11937.38	-169.18	287.81	-127.01	8.75	8.75	8.75
4	11977.00	8.10	223.00	11969.21	-171.53	285.62	-123.85	14.69	14.69	0.31
5	12009.00	12.90	219.60	12000.66	-175.93	281.80	-118.15	15.12	15.00	-10.62
6	12041.00	18.20	217.90	12031.48	-182.63	276.45	-109.84	16.62	16.56	-5.31
7	12073.00	23.20	219.60	12061.40	-191.44	269.36	-98.87	15.74	15.62	5.31
8	12105.00	28.50	220.60	12090.19	-202.10	260.37	-85.26	16.62	16.56	3.13
9	12137.00	34.00	220.80	12117.54	-214.68	249.55	-69.03	17.19	17.19	0.62
10	12169.00	38.90	220.70	12143.27	-229.08	237.14	-50.45	15.31	15.31	-0.31
11	12201.00	44.40	221.20	12167.17	-245.13	223.20	-29.64	17.22	17.19	1.56
12	12233.00	49.40	220.80	12189.03	-262.76	207.88	-6.78	15.65	15.63	-1.25
13	12266.00	54.90	221.50	12209.27	-282.37	190.74	18.73	16.75	16.67	2.12
14	12298.00	60.30	222.00	12228.41	-302.52	172.75	45.24	16.93	16.88	1.56
15	12330.00	65.50	222.60	12240.98	-323.58	153.58	73.24	16.34	16.25	1.87
16	12362.00	70.70	223.00	12252.92	-345.35	133.42	102.47	16.29	16.25	1.25
17	12394.00	76.10	223.40	12262.05	-367.70	112.43	132.69	16.92	16.88	1.25
18	12427.00	81.80	223.70	12268.38	-391.16	90.12	164.65	17.30	17.27	0.91
19	12493.00	91.10	224.60	12272.46	-438.37	44.29	229.70	14.16	14.09	1.36
20	12555.00	91.60	227.80	12271.00	-481.27	-0.44	291.26	5.22	0.81	5.16
21	12588.00	90.70	229.00	12270.34	-503.17	-25.11	324.15	4.54	-2.73	3.64
22	12620.00	92.40	230.40	12269.47	-523.86	-49.51	356.09	6.88	5.31	4.38
23	12651.00	92.20	232.30	12268.23	-543.21	-73.70	387.06	6.16	-0.65	6.13
24	12683.00	91.90	233.90	12267.08	-562.41	-99.27	419.03	5.08	-0.94	5.00
25	12713.00	91.20	235.20	12266.27	-579.80	-123.70	449.01	4.92	-2.33	4.33
26	12744.00	90.30	237.30	12265.86	-597.02	-149.47	479.95	7.37	-2.90	6.77
27	12775.00	89.20	236.80	12266.00	-613.88	-175.48	510.86	3.90	-3.55	-1.61
28	12807.00	89.70	237.10	12266.31	-631.33	-202.30	542.78	1.82	1.56	0.94
29	12839.00	88.70	237.60	12266.75	-648.59	-229.24	574.67	3.49	-3.12	1.56
30	12870.00	89.60	238.90	12267.21	-664.90	-255.60	605.53	5.10	2.90	4.19
31	12903.00	89.70	239.60	12267.41	-681.78	-283.96	638.32	2.14	0.30	2.12
32	12934.00	89.40	240.50	12267.66	-697.25	-310.82	669.07	3.06	-0.97	2.90
33	12966.00	89.10	238.80	12268.08	-713.42	-338.43	700.84	5.39	-0.94	-5.31

Computalog Drilling Services

Client : EOG Resources
Well : Vaca 13 Federal #8
Location : Lea County, NM
License :
Comment : Grid North

UWI #:

Page: 2
Date : 10/5/2002
File : 50-530

Vertical Section Calculated Along Azimuth 232.81°

KB Elevation = 0.00ft

	MD ft	Inc deg	Azi deg	TVD ft	North ft	East ft	V'Sect ft	D'Leg °/100	Build °/100	Turn °/100
34	12998.00	89.40	238.80	12268.50	-729.89	-365.80	732.68	0.84	0.94	0.00
35	13030.00	90.20	239.90	12268.61	-746.31	-393.33	784.45	4.25	2.50	3.44
36	13062.00	91.20	241.40	12268.22	-761.99	-421.22	796.15	5.63	3.12	4.69
37	13093.00	92.00	240.90	12267.35	-776.94	-448.36	826.81	3.04	2.58	-1.61
38	13124.00	91.80	240.50	12266.32	-792.11	-475.38	857.50	1.44	-0.65	-1.29
39	13158.00	89.40	239.00	12265.99	-808.22	-503.02	889.26	8.84	-7.50	-4.69
40	13188.00	90.40	238.90	12266.04	-824.73	-530.43	921.08	3.14	3.12	-0.31
41	13219.00	90.30	237.80	12265.85	-841.04	-556.79	951.94	4.21	-0.32	-4.19
42	13251.00	90.20	239.50	12265.71	-857.74	-584.09	983.77	5.95	-0.31	5.94
43	13283.00	89.30	238.00	12265.85	-874.34	-611.45	1015.60	5.47	-2.81	-4.69
44	13316.00	89.20	237.80	12266.29	-891.87	-638.40	1048.47	0.68	-0.30	-0.61
45	13347.00	90.40	238.70	12266.39	-908.13	-665.76	1079.33	4.84	3.87	2.90
46	13379.00	90.60	240.00	12266.12	-924.49	-693.29	1111.12	4.11	0.62	4.06
47	13411.00	91.10	238.90	12265.84	-940.78	-720.84	1142.90	3.78	1.58	-3.44
48	13443.00	90.80	238.00	12265.11	-957.50	-748.11	1174.74	2.96	-0.94	-2.81
49	13475.00	89.40	238.90	12265.05	-974.24	-775.38	1206.58	5.20	-4.38	2.81
50	13507.00	87.90	239.80	12265.81	-990.55	-802.90	1238.38	5.47	-4.69	2.81
51	13539.00	88.70	242.40	12266.76	-1006.01	-830.90	1270.01	8.50	2.50	8.12
52	13570.00	90.00	242.80	12267.11	-1020.27	-858.42	1300.56	4.39	4.19	1.29
53	13602.00	90.40	243.40	12267.00	-1034.75	-886.95	1332.04	2.25	1.25	1.87
54	13633.00	90.10	243.50	12268.88	-1048.61	-914.68	1362.51	1.02	-0.97	0.32
55	13664.00	89.80	243.30	12268.94	-1062.49	-942.40	1392.98	1.74	-1.61	-0.65
56	13696.00	89.20	243.10	12267.28	-1076.91	-970.96	1424.46	1.40	-1.25	-0.62
57	13727.00	88.90	243.00	12267.79	-1090.98	-998.59	1454.96	1.02	-0.97	-0.32
58	13759.00	88.90	242.90	12268.41	-1105.51	-1027.09	1486.45	0.31	0.00	-0.31

Bottom Hole Closure 1508.99ft Along Azimuth 222.89°

Computalog Drilling Services

Client : EOG Resources
Well : Vaca 13 Federal #8
Location : Lea County, NM
License :
Comment : Grid North

Page: 1
Date: 10/7/2002
File : 50-530

UWI #:

Vertical Section Calculated Along Azimuth 232.81°

KB Elevation = 0.00ft

	MD ft	Inc deg	Azi deg	TVD ft	North ft	East ft	V'Sect ft	D'Leg °/100	Build °/100	Turn °/100
60	13822.00	89.40	242.40	12269.10	-1134.57	-1082.98	1548.54	0.00	0.00	0.00
61	13854.00	89.90	241.90	12269.29	-1149.52	-1111.27	1580.12	2.21	1.58	-1.58
62	13886.00	90.70	241.40	12289.12	-1164.72	-1139.43	1611.74	2.95	2.50	-1.56
63	13918.00	90.60	241.20	12268.76	-1180.08	-1167.50	1643.39	0.70	-0.31	-0.63
64	13950.00	90.20	240.90	12268.54	-1195.57	-1195.50	1675.05	1.56	-1.25	-0.94
65	13982.00	89.80	240.80	12268.54	-1211.21	-1223.42	1706.75	1.56	-1.25	-0.94
66	14014.00	90.10	240.30	12268.57	-1226.99	-1251.26	1738.48	1.33	0.94	-0.94
67	14046.00	90.70	240.20	12268.34	-1242.87	-1279.04	1770.19	1.90	1.88	-0.31
68	14077.00	90.60	239.50	12267.99	-1258.44	-1305.84	1800.96	2.28	-0.32	-2.28
69	14109.00	90.20	239.30	12267.77	-1274.73	-1333.39	1832.74	1.40	-1.25	-0.62
70	14141.00	90.40	239.30	12267.80	-1291.08	-1360.90	1864.54	0.62	0.62	0.00
71	14173.00	90.30	239.00	12267.40	-1307.47	-1388.37	1896.34	0.99	-0.31	-0.94
72	14204.00	91.40	239.60	12268.94	-1323.30	-1415.03	1927.14	4.04	3.55	1.94
73	14236.00	91.40	240.10	12266.16	-1339.36	-1442.69	1958.89	1.56	0.00	1.56
74	14267.00	91.20	239.50	12265.46	-1354.95	-1469.47	1989.65	2.04	-0.65	-1.94
75	14300.00	90.70	240.20	12264.91	-1371.53	-1498.01	2022.40	2.81	-1.52	2.12
76	14332.00	90.10	240.40	12264.69	-1387.38	-1525.80	2054.12	1.98	-1.88	0.63
77	14364.00	88.70	241.00	12265.02	-1403.04	-1553.70	2085.82	4.76	-4.38	1.87
78	14396.00	89.60	241.20	12265.50	-1418.50	-1581.72	2117.48	2.88	2.81	0.63
79	14428.00	89.60	240.90	12265.72	-1433.99	-1609.72	2149.15	0.94	0.00	-0.94
80	14459.00	89.50	240.30	12265.97	-1449.21	-1638.72	2179.86	1.98	-0.32	-1.94
81	14491.00	89.80	240.10	12266.16	-1465.11	-1664.49	2211.59	1.13	0.94	-0.63
82	14523.00	89.40	240.30	12266.38	-1481.01	-1692.26	2243.33	1.40	-1.25	0.63
83	14555.00	89.30	240.40	12266.75	-1496.84	-1720.07	2275.05	0.44	-0.31	0.31

Bottom Hole Closure 2280.17ft Along Azimuth 228.97°

11-12-02

Computalog Drilling Services

Client : EOG Resources
Well : Vaca 13 Federal #8
Location : Lea County, NM
License :
Comment : Grid North

UWI #:

Page: 1
Date: 10/8/2002
File: 50-530

Vertical Section Calculated Along Azimuth 232.81° KB Elevation = 0.00ft

	MD ft	Inc deg	Azi deg	TVD ft	North ft	East ft	V'Sect ft	D'Leg °/100	Build °/100	Turn °/100
80	14459.00	89.50	240.30	12265.97	-1449.21	-1636.72	2179.86	0.00	0.00	0.00
81	14491.00	89.80	240.10	12268.16	-1485.11	-1684.49	2211.59	1.13	0.94	-0.63
82	14523.00	89.40	240.30	12268.38	-1481.01	-1692.28	2243.33	1.40	-1.25	0.63
83	14555.00	89.30	240.40	12268.75	-1496.84	-1720.07	2275.05	0.44	-0.31	0.31
84	14587.00	89.60	239.90	12267.05	-1512.77	-1747.82	2308.79	1.82	0.94	-1.56
85	14618.00	89.60	240.40	12267.27	-1528.20	-1774.71	2337.53	1.61	0.00	1.61
86	14650.00	89.90	240.20	12267.41	-1544.05	-1802.50	2369.28	1.13	0.94	-0.63
87	14682.00	89.40	239.80	12267.61	-1560.05	-1830.21	2401.00	2.00	-1.58	-1.25
88	14714.00	89.30	240.50	12267.97	-1575.98	-1857.97	2432.74	2.21	-0.31	2.19
89	14745.00	90.30	241.20	12268.08	-1591.08	-1885.04	2463.43	3.94	3.23	2.26
90	14778.00	91.30	242.10	12267.62	-1606.75	-1914.08	2496.04	4.08	3.03	2.73
91	14809.00	91.70	242.10	12266.80	-1621.25	-1941.47	2526.62	1.29	1.29	0.00

Bottom Hole Closure 2529.38ft Along Azimuth 230.14°

Computalog Drilling Services

Client : EOG Resources
 Well : Vaca 13 Federal #8
 Location : Lea County, NM
 License :
 Comment : Grid North

Page: 1
 Date : 10/9/2002
 File : 50-530

UWI #:

Vertical Section Calculated Along Azimuth 232.81°

KB Elevation = 0.00ft

	MD ft	Inc deg	Azi deg	TVD ft	North ft	East ft	V'Sect ft	D'Leg °/100	Build °/100	Turn °/100
85	14618.00	89.60	240.40	12267.27	-1528.20	-1774.71	2337.53	0.00	0.00	0.00
86	14650.00	89.90	240.20	12267.41	-1544.05	-1802.50	2369.26	1.13	0.94	-0.63
87	14682.00	89.40	239.80	12267.61	-1560.05	-1830.21	2401.00	2.00	-1.56	-1.25
88	14714.00	89.30	240.50	12267.97	-1575.98	-1857.97	2432.74	2.21	-0.31	2.19
89	14745.00	90.30	241.20	12268.08	-1591.08	-1885.04	2463.43	3.94	3.23	2.26
90	14778.00	91.30	242.10	12267.62	-1606.75	-1914.08	2498.04	4.08	3.03	2.73
91	14809.00	91.70	242.10	12266.80	-1621.25	-1941.47	2526.62	1.29	1.29	0.00
92	14841.00	91.20	241.30	12265.99	-1636.42	-1969.63	2558.23	2.95	-1.56	-2.50
93	14873.00	91.60	241.10	12265.21	-1651.33	-1997.67	2589.67	1.40	1.25	-0.63
94	14906.00	91.90	240.30	12264.21	-1667.97	-2026.43	2622.55	2.59	0.91	-2.42

Bottom Hole Closure 2624.60ft Along Azimuth 230.64°

Computalog Drilling Services

Client : EOG Resources
Well : Vaca 13 Federal #8
Location : Lea County, NM
License :
Comment : Grid North

UWI #:

Page: 1
Date: 10/10/2002
File: 50-530

Vertical Section Calculated Along Azimuth 232.81° KB Elevation = 0.00ft

	MD ft	Inc deg	Azi deg	TVD ft	North ft	East ft	V'Sect ft	D'Leg °/100	Build °/100	Turn °/100
96	14971.00	94.10	241.40	12260.93	-1699.62	-2083.11	2686.83	0.00	0.00	0.00
97	15003.00	93.10	241.90	12258.92	-1714.78	-2111.21	2718.38	3.49	-3.12	1.58
98	15035.00	91.70	242.40	12257.58	-1729.72	-2139.48	2749.93	4.65	-4.38	1.56
99	15067.00	90.10	242.80	12257.07	-1744.44	-2167.88	2781.46	5.15	-5.00	1.25
100	15099.00	89.60	242.40	12257.16	-1759.17	-2196.29	2812.99	2.00	-1.56	-1.25
101	15131.00	89.20	242.30	12257.49	-1774.02	-2224.64	2844.55	1.29	-1.25	-0.31
102	15162.00	88.90	241.80	12258.01	-1788.54	-2252.02	2875.14	1.88	-0.97	-1.61
103	15194.00	88.30	241.50	12258.79	-1803.74	-2280.17	2906.75	2.10	-1.88	-0.94
104	15225.00	89.80	242.10	12259.30	-1818.38	-2307.49	2937.37	5.21	4.84	1.94
105	15256.00	90.00	242.40	12259.36	-1832.82	-2334.92	2967.95	1.16	0.65	0.97
106	15288.00	89.70	241.80	12259.44	-1847.79	-2363.20	2999.53	2.10	-0.94	-1.87

Bottom Hole Closure 2999.84ft Along Azimuth 231.98°

Computalog Drilling Services

Client : EOG Resources
 Well : Vaca 13 Federal #8
 Location : Lea County, NM
 License :
 Comment : Grid North

Page: 4
 Date: 10/10/2002
 File : 50-530

UWI #:

Vertical Section Calculated Along Azimuth 232.81° KB Elevation = 0.00ft

	MD ft	Inc deg	Azi deg	TVD ft	North ft	East ft	V'Sect ft	D'Leg °/100	Build °/100	Turn °/100
100	15099.00	89.60	242.40	12257.16	-1759.17	-2196.29	2812.99	2.00	-1.56	-1.25
101	15131.00	89.20	242.30	12257.49	-1774.02	-2224.64	2844.55	1.29	-1.25	-0.31
102	15162.00	88.90	241.80	12258.01	-1788.54	-2252.02	2875.14	1.88	-0.97	-1.61
103	15194.00	88.30	241.50	12258.79	-1803.74	-2280.17	2906.75	2.10	-1.88	-0.94
104	15225.00	89.80	242.10	12259.30	-1818.38	-2307.49	2937.37	5.21	4.84	1.94
105	15256.00	90.00	242.40	12259.36	-1832.82	-2334.92	2967.95	1.16	0.65	0.97
106	15288.00	89.70	241.80	12259.44	-1847.79	-2363.20	2999.53	2.10	-0.94	-1.87
107	15320.00	89.30	241.30	12259.72	-1863.03	-2391.34	3031.15	2.00	-1.25	-1.56
108	15353.00	89.70	241.00	12260.01	-1878.96	-2420.24	3063.80	1.52	1.21	-0.91
109	15385.00	91.20	241.20	12259.76	-1894.42	-2448.25	3095.47	4.73	4.69	0.63
110	15417.00	91.50	241.30	12259.00	-1909.81	-2476.30	3127.11	0.99	0.94	0.31
111	15448.00	91.60	241.10	12258.16	-1924.74	-2503.46	3157.77	0.72	0.32	-0.65
112	15481.00	92.10	240.90	12257.10	-1940.73	-2532.30	3190.41	1.63	1.52	-0.61
113	15512.00	91.40	240.80	12256.15	-1955.82	-2559.36	3221.09	2.28	-2.26	-0.32
114	15541.00	92.20	240.80	12255.24	-1969.96	-2584.67	3249.80	2.76	2.76	0.00
EXT	15580.00	93.28	240.80	12253.38	-1988.96	-2618.67	3288.38	2.76	2.76	0.00

Bottom Hole Closure 3288.38ft Along Azimuth 232.78°