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District II
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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., Sante 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.
Sante Fe, NM 87505

HOBBS OCD

OCT 17 2013

RECEIVED

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 30-025-41459	² Pool Code 97900	³ Pool Name Red Hills; Upper Bone Spring Shale
⁴ Property Code 40175	⁵ Property Name TUMBLING DICE 2 STATE COM	
⁷ OGRID No. 7377	⁸ Operator Name EOG RESOURCES, INC.	⁶ Well Number #1H
		⁹ Elevation 3358'

¹⁰Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	2	25-S	34-E	-	220'	SOUTH	760'	WEST	LEA

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	2	25-S	34-E	-	230'	NORTH	380'	WEST	LEA

¹² Dedicated Acres 159.73	¹³ Joint or Infill	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.

	BOTTOM HOLE LOCATION NEW MEXICO EAST NAD 1927 X=774092 Y=425239 LAT.: N 32.1659976 LONG.: W 103.4475654			¹⁷OPERATOR 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. <i>Stan Wagner</i> 10/14/13 Signature Date Stan Wagner Printed Name E-mail Address
	LOWER MOST PERF. NEW MEXICO EAST NAD 1927 X=774093 Y=425139 LAT.: N 32.1657228 LONG.: W 103.4475665			
	UPPER MOST PERF. NEW MEXICO EAST NAD 1927 X=774117 Y=420529 LAT.: N 32.1530499 LONG.: W 103.4476106			
	SURFACE LOCATION NEW MEXICO EAST NAD 1927 X=774496 Y=420421 LAT.: N 32.1527444 LONG.: W 103.4463838			
			¹⁸SURVEYOR 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 to the best of my belief. 8/28/2013 Date of Survey Signature and Seal of Professional Surveyor <i>Michael B. Brown</i> MICHAEL B. BROWN 18329 PROFESSIONAL SURVEYOR Certificate Number	

OCT 22 2013

Permit Information:

Well Name: Tumbling Dice 2 State Com No. 1H

Location:

SHL: 220' FSL & 760' FWL, Section 2, T-25-S, R-34-E, Lea Co., N.M.

BHL: 230' FNL & 380' FWL, Section 2, T-25-S, R-34-E, Lea Co., N.M.

Casing Program:

Hole Size	Interval	Csg OD	Weight	Grade	Conn	DF _{min} Collapse	DF _{min} Burst	DF _{min} Tension
17.5"	0 – 980'	13.375"	54.5#	J55	STC	1.125	1.25	1.60
12.25"	0-4,000'	9.625"	40#	J55	LTC	1.125	1.25	1.60
12.25"	4,000' – 5,200'	9.625"	40#	HCK-55	LTC	1.125	1.25	1.60
8.75"	0'-14,075'	5.5"	17#	HCP-110	LTC	1.125	1.25	1.60

Cement Program:

Depth	No. Sacks	Wt. ppg	Yld Ft ³ /ft	Slurry Description
980'	400	13.5	1.73	Class C + 4.0% Bentonite + 0.6% CD-32 + 0.5% CaCl ₂ + 0.25 lb/sk Cello-Flake (TOC @ Surface)
	300	14.8	1.34	Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium Metasilicate
5,200'	1050	12.7	2.22	Class 'C' + 1.50% R-3 + 0.25 lb/sk Cello-Flake + 2.0% Sodium Metasilicate + 10% Salt + 0.005 lb/sk Static Free (TOC @ Surface)
	200	14.8	1.32	Tail: Class 'C' + 0.25 lb/sk Cello Flake + 0.005 lb/sk Static Free
14,075'	350	10.8	3.67	60:40:0 Class C + 15.0 pps BA-90 + 4% MPA-5 + 3.0% SMS + 5.0% A-10 + 1.0% BA-10A + 0.80% ASA-301 + 2.55% R-21 + 8.0 pps LCM-1 (TOC @ 4,560')
	400	11.9	2.38	50:50:10 Class H + 0.80% FL-52 + 0.30% ASA-301 + 0.40% SMS + 2.0% Salt + 0.30% R-21 + 3.0 pps LCM-1 + 0.25 pps Celloflake
	1350	14.2	1.28	50:50:2 Class H + 0.65% FL-52 + 0.45% CD-32 + 0.10% SMS + 2.0% Salt

Mud Program:

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0 – 980'	Fresh - Gel	8.6-8.8	28-34	N/c
980' – 5,200'	Brine	10.0-10.2	28-34	N/c
5,200' – 9,086'	Cut Brine	8.4-9.0	28-34	N/c
9,086' – 14,075' Lateral	Cut Brine	9.0-9.5	40-42	8-10

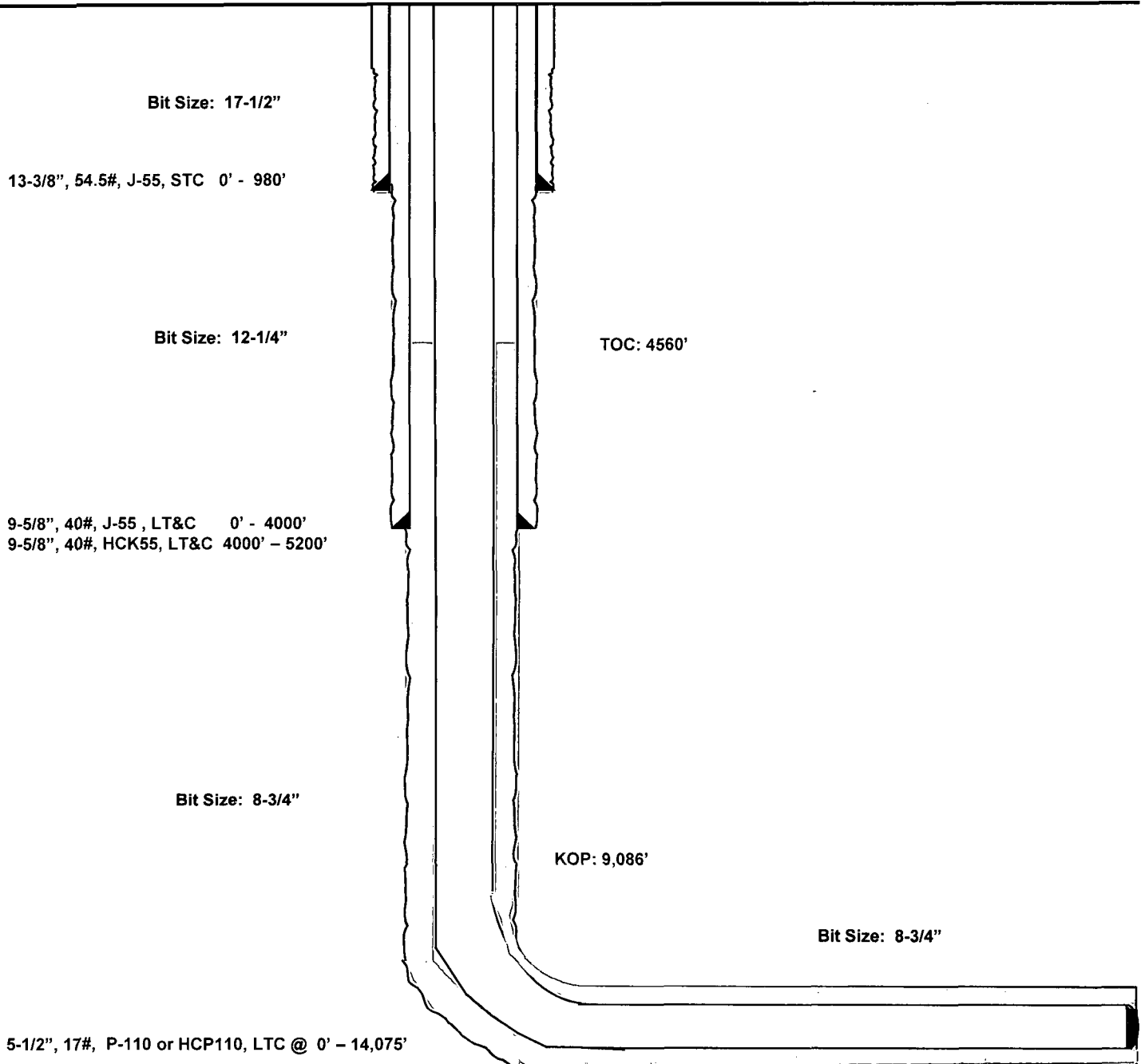
Tumbling Dice 2 State Com #1H
Lea County, New Mexico

220' FSL
760' FWL
Section 2
T-25-S, R-34-E

Proposed Wellbore

API: 30-025-

KB: 3,385'
GL: 3,358'



Lateral: 14,075' MD, 9,512' TVD

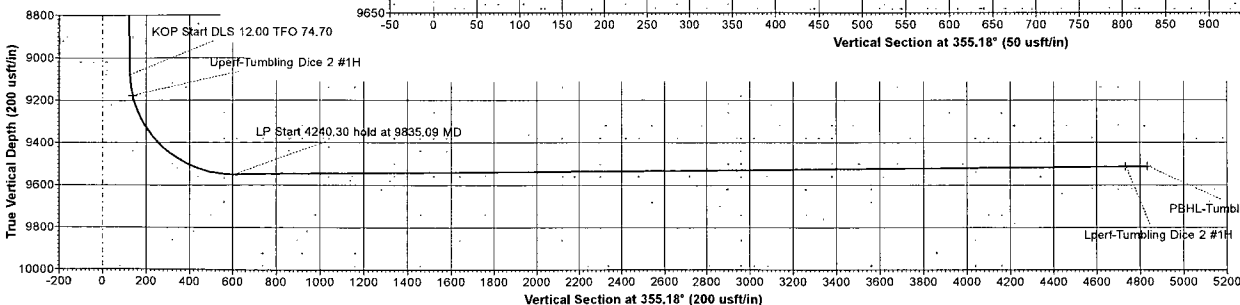
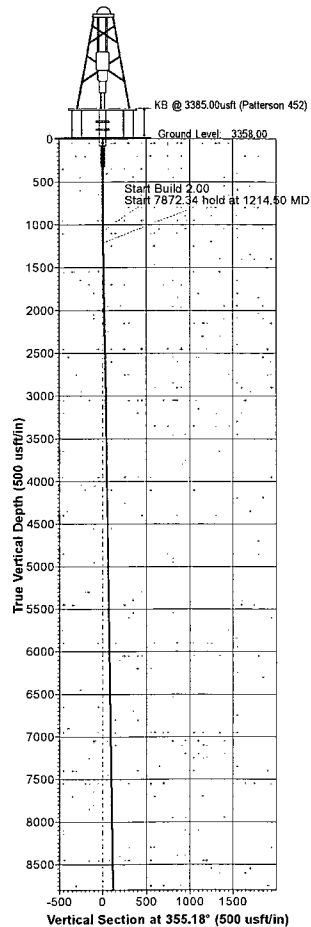
BH Location: 230' FNL & 380' FWL
Section 2
T-25-S, R-34-E



Project: Lea County, NM (NAD27 NME)
Site: Tumbling Dice 2 State Com
Well: #1H
Wellbore: WB1/Job #1311365
Design: Plan #1 10-11-13
Rig: Patterson 452



Azimuths to Grid North
True North: -0.47°
Magnetic North: 6.77°
Magnetic Field
Strength: 48354.75nT
Dip Angle: 60.08°
Date: 10/11/2013
Model: IGRF2010_14



WELL DETAILS											
+N/S		+E/W		Northing		Ground Level		3358.00		Latitude	
0.00		0.00		420421.00		Easting		774498.00		32° 9' 9.88457 N	
										103° 26' 46.97771 W	

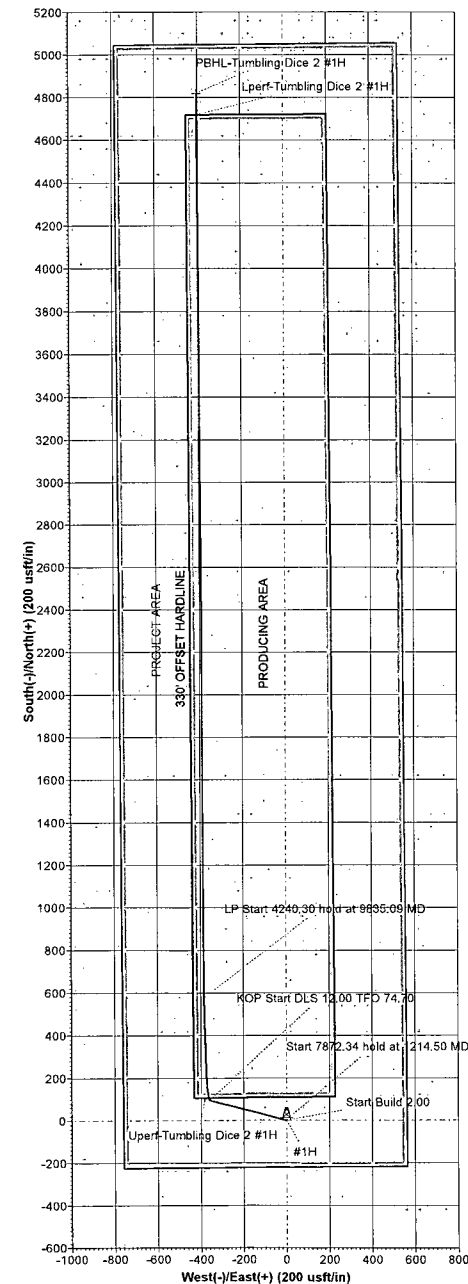
SECTION DETAILS											
Sec	MD	Inc	Azi	TVD	+N/S	+E/W	Dleg	TFace	VSeet	Target	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2	1080.00	0.00	0.00	1080.00	0.00	0.00	0.00	0.00	0.00		Start Build 2.00
3	1214.50	2.69	285.00	1214.45	0.82	-3.05	2.00	285.00	1.07		Start 7872.34 hold at 1214.50 MD
4	9088.84	2.69	285.00	9078.12	96.44	-359.93	0.00	0.00	126.32		KOP Start DLS 12.00 TFO 74.70
5	9835.09	90.50	359.70	9549.16	577.91	-383.96	12.00	74.70	608.11		LP Start 4240.30 hold at 9835.09 MD
6	14075.40	90.50	359.70	9512.16	4818.00	-406.00	0.00	0.00	4835.08	PBHL-Tumbling Dice 2 #1H	TD at 14075.40

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 #1H, Grid North
Latitude: 32° 9' 9.88457 N
Longitude: 103° 26' 46.97771 W
Grid East: 774498.00
Grid North: 420421.00
Scale Factor: 1.000
Geomagnetic Model: IGRF2010_14
Sample Date: 11-Oct-13
Magnetic Declination: 7.24°
Dip Angle from Horizontal: 60.08°
Magnetic Field Strength: 48355
To convert a Magnetic Direction to a Grid Direction, Add 6.76°
To convert a Magnetic Direction to a True Direction, Add 7.24° East
To convert a True Direction to a Grid Direction, Subtract 0.47°

DESIGN TARGET DETAILS									
Name	TVD	+N/S	+E/W	Northing	Easting	Latitude	Longitude	Shape	
Uperf-Tumbling Dice 2 #1H	9178.60	108.00	-381.00	420529.00	774117.00	32° 9' 10.98431 N	103° 26' 51.39880 W	Point	
- plan misses target center by 16.52usft at 9187.23usft MD (9177.53 TVD, 108.17 N, -384.50 E)									
PBHL-Tumbling Dice 2 #1H	9512.16	4818.00	-406.00	425238.00	774092.00	32° 9' 57.58320 N	103° 26' 51.23875 W	Point	
- plan hits target center									
Lperf-Tumbling Dice 2 #1H	9513.03	4718.00	-405.00	425138.00	774093.00	32° 9' 56.60359 N	103° 26' 51.23669 W	Point	
- plan misses target center by 0.48usft at 13975.39usft MD (9513.03 TVD, 4718.00 N, -405.48 E)									

LEGEND

— Plan #1 10-11-13





EOG Resources

Lea County, NM (NAD27 NME)
Tumbling Dice 2 State Com
#1H

WB1/Job #1311365

Plan: Plan #1 10-11-13

Standard Planning Report

11 October, 2013



OCT 22 2013

Database:	GCR DB	Local Co-ordinate Reference:	Well #1H
Company:	EOG Resources	TVD Reference:	KB @ 3385.00usft (Patterson 452)
Project:	Lea County, NM (NAD27 NME)	MD Reference:	KB @ 3385.00usft (Patterson 452)
Site:	Tumbling Dice 2 State Com	North Reference:	Grid
Well:	#1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	WB1/Job #1311365		
Design:	Plan #1 10-11-13		

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	Tumbling Dice 2 State Com		
Site Position:		Northing:	420,421.00 usft
From:	Map	Easting:	774,498.00 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 9' 9.88457 N
		Longitude:	103° 26' 46.97771 W
		Grid Convergence:	0.47 °

Well	#1H		
Well Position	+N/-S	0.00 usft	Northing: 420,421.00 usft
	+E/-W	0.00 usft	Easting: 774,498.00 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	Latitude: 32° 9' 9.88457 N
			Longitude: 103° 26' 46.97771 W
			Ground Level: 3,358.00 usft

Wellbore	WB1/Job #1311365				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010_14	10/11/13	7.24	60.08	48,355

Design	Plan #1 10-11-13			
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	355.18

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	
1,080.00	0.00	0.00	1,080.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,214.50	2.69	285.00	1,214.45	0.82	-3.05	2.00	2.00	0.00	285.00	
9,086.84	2.69	285.00	9,078.12	96.44	-359.93	0.00	0.00	0.00	0.00	
9,835.10	90.50	359.70	9,549.16	577.91	-383.96	12.00	11.74	9.98	74.70	
14,075.40	90.50	359.70	9,512.16	4,818.00	-406.00	0.00	0.00	0.00	0.00	PBHL-Tumbling Dice



Phoenix Technology Services
Planning Report



Database:	GCR DB	Local Co-ordinate Reference:	Well #1H
Company:	EOG Resources	TVD Reference:	KB @ 3385.00usft (Patterson 452)
Project:	Lea County, NM (NAD27 NME)	MD Reference:	KB @ 3385.00usft (Patterson 452)
Site:	Tumbling Dice 2 State Com	North Reference:	Grid
Well:	#1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	WB1/Job #1311365		
Design:	Plan #1 10-11-13		

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
1,080.00	0.00	0.00	1,080.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00									
1,100.00	0.40	285.00	1,100.00	0.02	-0.07	0.02	2.00	2.00	0.00
1,200.00	2.40	285.00	1,199.96	0.65	-2.43	0.85	2.00	2.00	0.00
1,214.50	2.69	285.00	1,214.45	0.82	-3.05	1.07	2.00	2.00	0.00
Start 7872.34 hold at 1214.50 MD									
1,300.00	2.69	285.00	1,299.86	1.86	-6.93	2.43	0.00	0.00	0.00
1,400.00	2.69	285.00	1,399.75	3.07	-11.46	4.02	0.00	0.00	0.00
1,500.00	2.69	285.00	1,499.64	4.28	-15.99	5.61	0.00	0.00	0.00
1,600.00	2.69	285.00	1,599.53	5.50	-20.53	7.20	0.00	0.00	0.00
1,700.00	2.69	285.00	1,699.42	6.71	-25.06	8.79	0.00	0.00	0.00
1,800.00	2.69	285.00	1,799.31	7.93	-29.59	10.39	0.00	0.00	0.00
1,900.00	2.69	285.00	1,899.20	9.14	-34.12	11.98	0.00	0.00	0.00
2,000.00	2.69	285.00	1,999.09	10.36	-38.66	13.57	0.00	0.00	0.00
2,100.00	2.69	285.00	2,098.97	11.57	-43.19	15.16	0.00	0.00	0.00
2,200.00	2.69	285.00	2,198.86	12.79	-47.72	16.75	0.00	0.00	0.00
2,300.00	2.69	285.00	2,298.75	14.00	-52.26	18.34	0.00	0.00	0.00
2,400.00	2.69	285.00	2,398.64	15.22	-56.79	19.93	0.00	0.00	0.00
2,500.00	2.69	285.00	2,498.53	16.43	-61.32	21.52	0.00	0.00	0.00
2,600.00	2.69	285.00	2,598.42	17.65	-65.86	23.11	0.00	0.00	0.00
2,700.00	2.69	285.00	2,698.31	18.86	-70.39	24.70	0.00	0.00	0.00
2,800.00	2.69	285.00	2,798.20	20.08	-74.92	26.30	0.00	0.00	0.00
2,900.00	2.69	285.00	2,898.09	21.29	-79.46	27.89	0.00	0.00	0.00
3,000.00	2.69	285.00	2,997.98	22.51	-83.99	29.48	0.00	0.00	0.00
3,100.00	2.69	285.00	3,097.87	23.72	-88.52	31.07	0.00	0.00	0.00
3,200.00	2.69	285.00	3,197.76	24.93	-93.06	32.66	0.00	0.00	0.00
3,300.00	2.69	285.00	3,297.65	26.15	-97.59	34.25	0.00	0.00	0.00
3,400.00	2.69	285.00	3,397.54	27.36	-102.12	35.84	0.00	0.00	0.00
3,500.00	2.69	285.00	3,497.43	28.58	-106.66	37.43	0.00	0.00	0.00
3,600.00	2.69	285.00	3,597.32	29.79	-111.19	39.02	0.00	0.00	0.00
3,700.00	2.69	285.00	3,697.21	31.01	-115.72	40.61	0.00	0.00	0.00
3,800.00	2.69	285.00	3,797.10	32.22	-120.26	42.21	0.00	0.00	0.00
3,900.00	2.69	285.00	3,896.99	33.44	-124.79	43.80	0.00	0.00	0.00
4,000.00	2.69	285.00	3,996.88	34.65	-129.32	45.39	0.00	0.00	0.00
4,100.00	2.69	285.00	4,096.77	35.87	-133.86	46.98	0.00	0.00	0.00
4,200.00	2.69	285.00	4,196.66	37.08	-138.39	48.57	0.00	0.00	0.00
4,300.00	2.69	285.00	4,296.55	38.30	-142.92	50.16	0.00	0.00	0.00
4,400.00	2.69	285.00	4,396.44	39.51	-147.46	51.75	0.00	0.00	0.00
4,500.00	2.69	285.00	4,496.33	40.73	-151.99	53.34	0.00	0.00	0.00
4,600.00	2.69	285.00	4,596.22	41.94	-156.52	54.93	0.00	0.00	0.00
4,700.00	2.69	285.00	4,696.11	43.16	-161.06	56.53	0.00	0.00	0.00
4,800.00	2.69	285.00	4,796.00	44.37	-165.59	58.12	0.00	0.00	0.00
4,900.00	2.69	285.00	4,895.89	45.58	-170.12	59.71	0.00	0.00	0.00
5,000.00	2.69	285.00	4,995.78	46.80	-174.66	61.30	0.00	0.00	0.00
5,100.00	2.69	285.00	5,095.67	48.01	-179.19	62.89	0.00	0.00	0.00
5,200.00	2.69	285.00	5,195.56	49.23	-183.72	64.48	0.00	0.00	0.00
5,300.00	2.69	285.00	5,295.45	50.44	-188.26	66.07	0.00	0.00	0.00
5,400.00	2.69	285.00	5,395.34	51.66	-192.79	67.66	0.00	0.00	0.00
5,500.00	2.69	285.00	5,495.23	52.87	-197.32	69.25	0.00	0.00	0.00
5,600.00	2.69	285.00	5,595.12	54.09	-201.86	70.84	0.00	0.00	0.00
5,700.00	2.69	285.00	5,695.01	55.30	-206.39	72.44	0.00	0.00	0.00
5,800.00	2.69	285.00	5,794.90	56.52	-210.92	74.03	0.00	0.00	0.00
5,900.00	2.69	285.00	5,894.79	57.73	-215.46	75.62	0.00	0.00	0.00

Database:	GCR DB	Local Co-ordinate Reference:	Well #1H
Company:	EOG Resources	TVD Reference:	KB @ 3385.00usft (Patterson 452)
Project:	Lea County, NM (NAD27 NME)	MD Reference:	KB @ 3385.00usft (Patterson 452)
Site:	Tumbling Dice 2 State Com	North Reference:	Grid
Well:	#1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	WB1/Job #1311365		
Design:	Plan #1 10-11-13		

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)
6,000.00	2.69	285.00	5,994.68	58.95	-219.99	77.21	0.00	0.00	0.00
6,100.00	2.69	285.00	6,094.57	60.16	-224.52	78.80	0.00	0.00	0.00
6,200.00	2.69	285.00	6,194.46	61.38	-229.06	80.39	0.00	0.00	0.00
6,300.00	2.69	285.00	6,294.35	62.59	-233.59	81.98	0.00	0.00	0.00
6,400.00	2.69	285.00	6,394.24	63.80	-238.12	83.57	0.00	0.00	0.00
6,500.00	2.69	285.00	6,494.13	65.02	-242.66	85.16	0.00	0.00	0.00
6,600.00	2.69	285.00	6,594.02	66.23	-247.19	86.75	0.00	0.00	0.00
6,700.00	2.69	285.00	6,693.91	67.45	-251.72	88.35	0.00	0.00	0.00
6,800.00	2.69	285.00	6,793.80	68.66	-256.26	89.94	0.00	0.00	0.00
6,900.00	2.69	285.00	6,893.69	69.88	-260.79	91.53	0.00	0.00	0.00
7,000.00	2.69	285.00	6,993.58	71.09	-265.32	93.12	0.00	0.00	0.00
7,100.00	2.69	285.00	7,093.47	72.31	-269.86	94.71	0.00	0.00	0.00
7,200.00	2.69	285.00	7,193.36	73.52	-274.39	96.30	0.00	0.00	0.00
7,300.00	2.69	285.00	7,293.25	74.74	-278.92	97.89	0.00	0.00	0.00
7,400.00	2.69	285.00	7,393.13	75.95	-283.46	99.48	0.00	0.00	0.00
7,500.00	2.69	285.00	7,493.02	77.17	-287.99	101.07	0.00	0.00	0.00
7,600.00	2.69	285.00	7,592.91	78.38	-292.52	102.66	0.00	0.00	0.00
7,700.00	2.69	285.00	7,692.80	79.60	-297.06	104.26	0.00	0.00	0.00
7,800.00	2.69	285.00	7,792.69	80.81	-301.59	105.85	0.00	0.00	0.00
7,900.00	2.69	285.00	7,892.58	82.03	-306.12	107.44	0.00	0.00	0.00
8,000.00	2.69	285.00	7,992.47	83.24	-310.66	109.03	0.00	0.00	0.00
8,100.00	2.69	285.00	8,092.36	84.45	-315.19	110.62	0.00	0.00	0.00
8,200.00	2.69	285.00	8,192.25	85.67	-319.72	112.21	0.00	0.00	0.00
8,300.00	2.69	285.00	8,292.14	86.88	-324.26	113.80	0.00	0.00	0.00
8,400.00	2.69	285.00	8,392.03	88.10	-328.79	115.39	0.00	0.00	0.00
8,500.00	2.69	285.00	8,491.92	89.31	-333.32	116.98	0.00	0.00	0.00
8,600.00	2.69	285.00	8,591.81	90.53	-337.86	118.57	0.00	0.00	0.00
8,700.00	2.69	285.00	8,691.70	91.74	-342.39	120.17	0.00	0.00	0.00
8,800.00	2.69	285.00	8,791.59	92.96	-346.92	121.76	0.00	0.00	0.00
8,900.00	2.69	285.00	8,891.48	94.17	-351.46	123.35	0.00	0.00	0.00
9,000.00	2.69	285.00	8,991.37	95.39	-355.99	124.94	0.00	0.00	0.00
9,086.84	2.69	285.00	9,078.12	96.44	-359.93	126.32	0.00	0.00	0.00
KOP Start DLS 12.00 TFO 74.70									
9,100.00	3.46	311.13	9,091.26	96.78	-360.52	126.71	12.00	5.85	198.60
9,187.27	13.02	348.38	9,177.57	108.17	-364.50	138.40	12.00	10.95	42.68
Uperf-Tumbling Dice 2 #1H									
9,200.00	14.52	349.60	9,189.93	111.15	-365.07	141.41	12.00	11.78	9.62
9,300.00	26.41	354.44	9,283.46	145.74	-369.51	176.25	12.00	11.89	4.84
9,400.00	38.36	356.40	9,367.75	199.04	-373.62	229.70	12.00	11.96	1.95
9,500.00	50.34	357.53	9,439.13	268.72	-377.25	299.44	12.00	11.97	1.13
9,600.00	62.32	358.32	9,494.48	351.73	-380.22	382.42	12.00	11.98	0.79
9,700.00	74.31	358.95	9,531.36	444.46	-382.41	475.00	12.00	11.99	0.63
9,800.00	86.29	359.51	9,548.18	542.84	-383.72	573.14	12.00	11.99	0.56
9,835.10	90.50	359.70	9,549.16	577.91	-383.96	608.11	12.00	11.99	0.54
LP Start 4240.30 hold at 9835.09 MD									
9,900.00	90.50	359.70	9,548.60	642.82	-384.30	672.81	0.00	0.00	0.00
10,000.00	90.50	359.70	9,547.72	742.81	-384.82	772.50	0.00	0.00	0.00
10,100.00	90.50	359.70	9,546.85	842.81	-385.34	872.18	0.00	0.00	0.00
10,200.00	90.50	359.70	9,545.98	942.80	-385.86	971.87	0.00	0.00	0.00
10,300.00	90.50	359.70	9,545.11	1,042.80	-386.38	1,071.55	0.00	0.00	0.00
10,400.00	90.50	359.70	9,544.23	1,142.79	-386.90	1,171.24	0.00	0.00	0.00
10,500.00	90.50	359.70	9,543.36	1,242.78	-387.42	1,270.92	0.00	0.00	0.00
10,600.00	90.50	359.70	9,542.49	1,342.78	-387.94	1,370.61	0.00	0.00	0.00



Phoenix Technology Services
Planning Report



Database:	GCR DB	Local Co-ordinate Reference:	Well #1H
Company:	EOG Resources	TVD Reference:	KB @ 3385.00usft (Patterson 452)
Project:	Lea County, NM (NAD27 NME)	MD Reference:	KB @ 3385.00usft (Patterson 452)
Site:	Tumbling Dice 2 State Com	North Reference:	Grid
Well:	#1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	WB1/Job #1311365		
Design:	Plan #1 10-11-13		

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)
10,700.00	90.50	359.70	9,541.62	1,442.77	-388.46	1,470.30	0.00	0.00	0.00
10,800.00	90.50	359.70	9,540.74	1,542.77	-388.98	1,569.98	0.00	0.00	0.00
10,900.00	90.50	359.70	9,539.87	1,642.76	-389.50	1,669.67	0.00	0.00	0.00
11,000.00	90.50	359.70	9,539.00	1,742.76	-390.02	1,769.35	0.00	0.00	0.00
11,100.00	90.50	359.70	9,538.13	1,842.75	-390.54	1,869.04	0.00	0.00	0.00
11,200.00	90.50	359.70	9,537.25	1,942.75	-391.06	1,968.72	0.00	0.00	0.00
11,300.00	90.50	359.70	9,536.38	2,042.74	-391.58	2,068.41	0.00	0.00	0.00
11,400.00	90.50	359.70	9,535.51	2,142.74	-392.10	2,168.09	0.00	0.00	0.00
11,500.00	90.50	359.70	9,534.63	2,242.73	-392.62	2,267.78	0.00	0.00	0.00
11,600.00	90.50	359.70	9,533.76	2,342.73	-393.14	2,367.46	0.00	0.00	0.00
11,700.00	90.50	359.70	9,532.89	2,442.72	-393.66	2,467.15	0.00	0.00	0.00
11,800.00	90.50	359.70	9,532.02	2,542.72	-394.18	2,566.83	0.00	0.00	0.00
11,900.00	90.50	359.70	9,531.14	2,642.71	-394.69	2,666.52	0.00	0.00	0.00
12,000.00	90.50	359.70	9,530.27	2,742.71	-395.21	2,766.21	0.00	0.00	0.00
12,100.00	90.50	359.70	9,529.40	2,842.70	-395.73	2,865.89	0.00	0.00	0.00
12,200.00	90.50	359.70	9,528.53	2,942.70	-396.25	2,965.58	0.00	0.00	0.00
12,300.00	90.50	359.70	9,527.65	3,042.69	-396.77	3,065.26	0.00	0.00	0.00
12,400.00	90.50	359.70	9,526.78	3,142.69	-397.29	3,164.95	0.00	0.00	0.00
12,500.00	90.50	359.70	9,525.91	3,242.68	-397.81	3,264.63	0.00	0.00	0.00
12,600.00	90.50	359.70	9,525.04	3,342.68	-398.33	3,364.32	0.00	0.00	0.00
12,700.00	90.50	359.70	9,524.16	3,442.67	-398.85	3,464.00	0.00	0.00	0.00
12,800.00	90.50	359.70	9,523.29	3,542.67	-399.37	3,563.69	0.00	0.00	0.00
12,900.00	90.50	359.70	9,522.42	3,642.66	-399.89	3,663.37	0.00	0.00	0.00
13,000.00	90.50	359.70	9,521.54	3,742.66	-400.41	3,763.06	0.00	0.00	0.00
13,100.00	90.50	359.70	9,520.67	3,842.65	-400.93	3,862.75	0.00	0.00	0.00
13,200.00	90.50	359.70	9,519.80	3,942.65	-401.45	3,962.43	0.00	0.00	0.00
13,300.00	90.50	359.70	9,518.93	4,042.64	-401.97	4,062.12	0.00	0.00	0.00
13,400.00	90.50	359.70	9,518.05	4,142.64	-402.49	4,161.80	0.00	0.00	0.00
13,500.00	90.50	359.70	9,517.18	4,242.63	-403.01	4,261.49	0.00	0.00	0.00
13,600.00	90.50	359.70	9,516.31	4,342.63	-403.53	4,361.17	0.00	0.00	0.00
13,700.00	90.50	359.70	9,515.44	4,442.62	-404.05	4,460.86	0.00	0.00	0.00
13,800.00	90.50	359.70	9,514.56	4,542.61	-404.57	4,560.54	0.00	0.00	0.00
13,900.00	90.50	359.70	9,513.69	4,642.61	-405.09	4,660.23	0.00	0.00	0.00
13,975.39	90.50	359.70	9,513.03	4,718.00	-405.48	4,735.38	0.00	0.00	0.00
Lperf-Tumbling Dice 2 #1H									
14,000.00	90.50	359.70	9,512.82	4,742.60	-405.61	4,759.91	0.00	0.00	0.00
14,075.40	90.50	359.70	9,512.16	4,818.00	-406.00	4,835.08	0.00	0.00	0.00
TD at 14075.40 - PBHL-Tumbling Dice 2 #1H									

Database:	GCR DB	Local Co-ordinate Reference:	Well #1H
Company:	EOG Resources	TVD Reference:	KB @ 3385.00usft (Patterson 452)
Project:	Lea County, NM (NAD27 NME)	MD Reference:	KB @ 3385.00usft (Patterson 452)
Site:	Tumbling Dice 2 State Com	North Reference:	Grid
Well:	#1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	WB1/Job #1311365		
Design:	Plan #1 10-11-13		

Design Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
Uperf-Tumbling Dice 2 #	0.00	0.00	9,176.80	108.00	-381.00	420,529.00	774,117.00	32° 9' 10.98431 N	103° 26' 51.39880 W
- plan misses target center by 16.52usft at 9187.24usft MD (9177.54 TVD, 108.17 N, -364.50 E)									
- Point									
PBHL-Tumbling Dice 2 #	0.00	0.00	9,512.16	4,818.00	-406.00	425,239.00	774,092.00	32° 9' 57.59320 N	103° 26' 51.23875 W
- plan hits target center									
- Point									
Lperf-Tumbling Dice 2 #	0.00	0.00	9,513.03	4,718.00	-405.00	425,139.00	774,093.00	32° 9' 56.60359 N	103° 26' 51.23669 W
- plan misses target center by 0.48usft at 13975.39usft MD (9513.03 TVD, 4718.00 N, -405.48 E)									
- Point									

Plan Annotations				
Measured Depth	Vertical Depth	Local Coordinates		Comment
(usft)	(usft)	+N/-S (usft)	+E/-W (usft)	
1,080.00	1,080.00	0.00	0.00	Start Build 2.00
1,214.50	1,214.45	0.82	-3.05	Start 7872.34 hold at 1214.50 MD
9,086.84	9,078.12	96.44	-359.93	KOP Start DLS 12.00 TFO 74.70
9,835.10	9,549.16	577.91	-383.96	LP Start 4240.30 hold at 9835.09 MD
14,075.40	9,512.16	4,818.00	-406.00	TD at 14075.40

EOG RESOURCES, INC.
TUMBLING DICE 2 STATE COM #1H

Hydrogen Sulfide Plan Summary

- A. All personnel shall receive proper H₂S training in accordance with Onshore Order III.C.3.a.
- B. Briefing Area: two perpendicular areas will be designated by signs and readily accessible.
- C. Required Emergency Equipment:
 - Well control equipment
 - a. Flare line 150' from wellhead to be ignited by flare gun.
 - b. Choke manifold with a remotely operated choke.
 - c. Mud/gas separator
 - Protective equipment for essential personnel.

Breathing apparatus:

- a. Rescue Packs (SCBA) — 1 unit shall be placed at each breathing area, 2 shall be stored in the safety trailer.
- b. Work/Escapes packs — 4 packs shall be stored on the rig floor th sufficient air hose not to restrict work activity.
- c. Emergency Escape Packs — 4 packs shall be stored in the doghouse for emergency evacuation.

Auxiliary Rescue Equipment:

- a. Stretcher
- b. Two OSHA full body harness
- c. 100 ft 5/8 inch OSHA approved rope
- d. 1-20# class ABC fire extinguisher

■ H₂S detection and monitoring equipment:

The stationary detector with three sensors will be placed in the upper dog house if equipped, set to visually alarm @ 10 ppm and audible @ 14 ppm. Calibrate a minimum of every 30 days or as needed. The sensors will be placed in the following places: Rig floor / Bell nipple / End of flow line or where well bore fluid is being discharged.

(Gas sample tubes will be stored in the safety trailer)

■ Visual warning systems.

- a. One color code condition sign will be placed at the entrance to the site reflecting the possible conditions at the site.
- b. A colored condition flag will be on display, reflecting the current condition at the site at the time.
- c. Two wind socks will be placed in strategic locations, visible from all angles.

EOG RESOURCES, INC.
TUMBLING DICE 2 STATE COM #1H

- **Mud program:**
The mud program has been designed to minimize the volume of H₂S circulated to surface. The operator will have the necessary mud products to minimize hazards while drilling in H₂S bearing zones.
- **Metallurgy:**
 - a. All drill strings, casings, tubing, wellhead, blowout preventer, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H₂S service.
- **Communication:**
Communication will be via cell phones and land lines where available.

**EOG RESOURCES, INC.
TUMBLING DICE 2 STATE COM #1H**

Emergency Assistance Telephone List

PUBLIC SAFETY: **911 or**

Lea County Sheriff's Department (575) 396-3611
Rod Coffman

Fire Department:

Carlsbad (575) 885-3125

Artesia (575) 746-5050

Hospitals:

Carlsbad (575) 887-4121

Artesia (575) 748-3333

Hobbs (575) 392-1979

Dept. of Public Safety/Carlsbad (575) 748-9718

Highway Department (575) 885-3281

New Mexico Oil Conservation (575) 476-3440

U.S. Dept. of Labor (575) 887-1174

EOG Resources, Inc.

EOG / Midland Office (432) 686-3600

Company Drilling Consultants:

Lonnie Byrd Mike Gallaher Jr. Cell (832) 531-7390

Drilling Engineer

Kirby Castille Office (432) 686-3657

Cell (432) 559-4987

Drilling Manager

Steve Munsell Office (432) 686-3609

Cell (432) 894-1256

Drilling Superintendent

Ron Welch Office (432) 686-3695

Cell (432) 386-0592

Patterson Drilling

Patterson Drilling Office (432) 682-9401

Tool Pusher:

Tee Post Cell (903) 477-3751

Patrick Ford Cell (903) 539-7889

Safety

Reggie Phillips (HSE Manager) Office (432) 686-3747

Cell (432) 250-7507