NMOCD
Hobbs

Form 3160-4
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires: July 31, 2010

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. Lease Serial No. NMNM14164

1a. Type of Well ☒ Oil Well ☐ Gas Well ☐ Dry ☐ Other
b. Type of Completion ☒ New Well ☐ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Resvr.
Other

6. If Indian, Allottee or Tribe Name

7. Unit or CA Agreement Name and No.

2. Name of Operator: COG OPERATING LLC
Contact: AMANDA AVERY
E-Mail: aavery@concho.com

8. Lease Name and Well No.: FASCINATOR FEDERAL COM 705H

3. Address: 2208 W MAIN STREET, ARTESIA, NM 88210

3a. Phone No. (include area code): Ph: 575-748-6940

9. API Well No.: 30-025-45115

4. Location of Well (Report location clearly and in accordance with Federal requirements)*
At surface: NWNW Lot 1 210FNL 919FWL 32.195171 N Lat, 103.412187 W Lon Sec 30 T24S R35E Mer NMP
At top prod interval reported below: NWNW Lot 1 210FNL 919FWL 32.195171 N Lat, 103.412187 W Lon Sec 30 T24S R35E Mer NMP
At total depth: SWSW Lot 4 199FSL 1130FWL 32.167828 N Lat, 103.412733 W Lon Sec 31 T24S R35E Mer NMP

10. Field and Pool, or Exploratory: WC-025 G-09 S243532M; WO

11. Sec., T., R., M., or Block and Survey or Area: Sec 30 T24S R35E Mer NMP

12. County or Parish: LEA

13. State: NM

14. Date Spudded: 11/11/2018

15. Date T.D. Reached: 02/26/2019

16. Date Completed: ☐ D & A ☒ Ready to Prod. 09/15/2019

17. Elevations (DF, KB, RT, GL)*

18. Total Depth: MD 22605 TVD 12804

19. Plug Back T.D.: MD 22522 TVD 12804

20. Depth Bridge Plug Set: MD 22522 TVD 12804

21. Type Electric & Other Mechanical Logs Run (Submit copy of each)

22. Was well cored? ☒ No ☐ Yes (Submit analysis)
Was DST run? ☒ No ☐ Yes (Submit analysis)
Directional Survey? ☐ No ☒ Yes (Submit analysis)

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
17.500	13.375 J55	54.5	0	1227		1000		0	
12.250	9.625 L80	47.0	0	11985	5471	3040		0	
8.500	5.500 P110	23.0	0	22585		4100		0	

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
2.875	11984	11974						

25. Producing Intervals / 26. Perforation Record

	Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A)	WOLFBONE	12819	22497	12819 TO 22497		1764	OPEN
B)							
C)							
D)							

27. Acid, Fracture, Treatment, Cement Squeeze, Etc.

Depth Interval	Amount and Type of Material
12819 TO 22497	SEE ATTACHED INFORMATION

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
09/15/2019	09/15/2019	24	→	336.0	374.0	852.0			GAS LIFT

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status
21/64	3300	325.0	→	336	374	852		POW

28a. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status
			→					

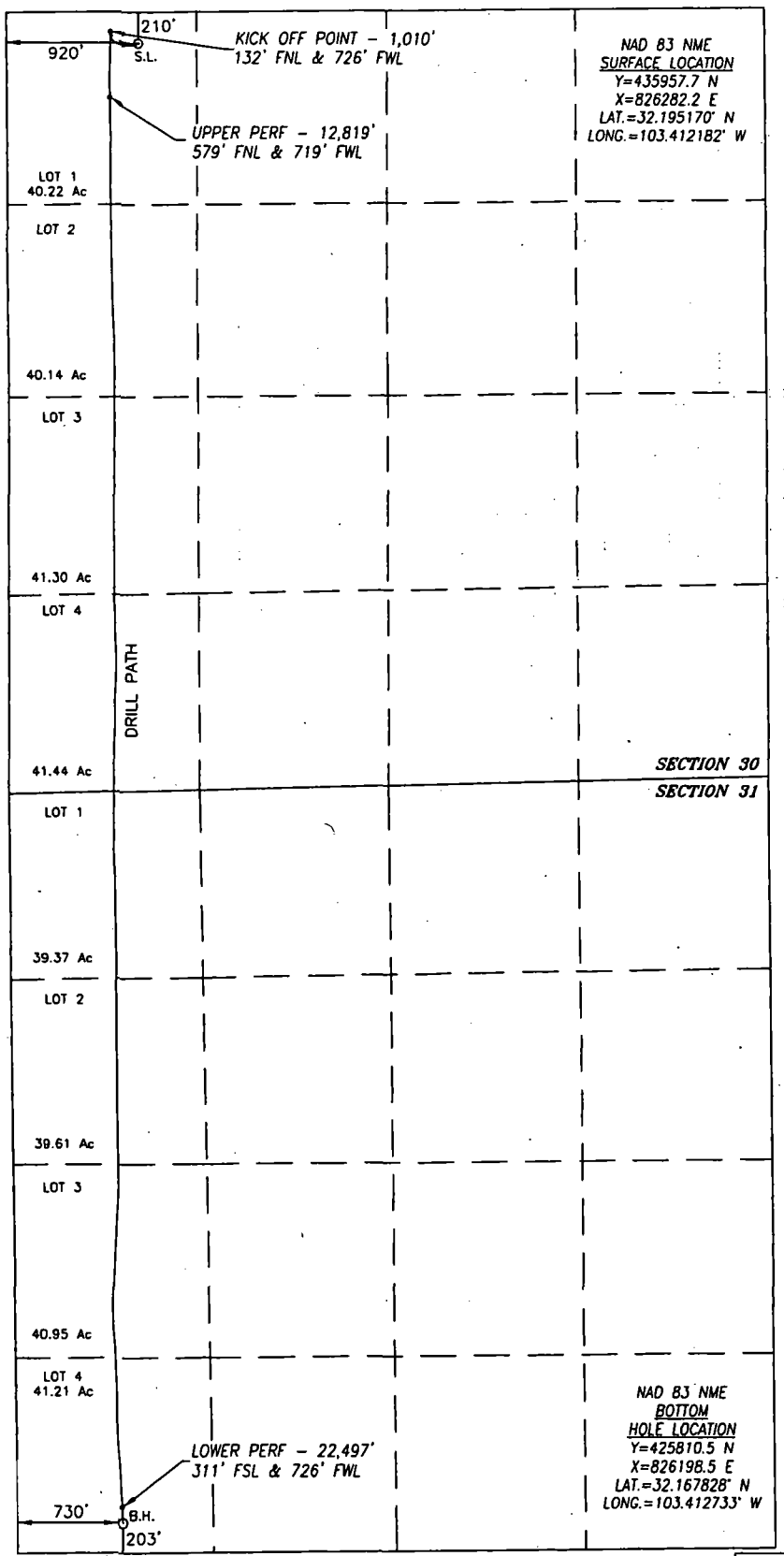
ACCEPTED FOR RECORD
DEC 03 2019
BUREAU OF LAND MANAGEMENT
ROSWELL FIELD OFFICE

(See Instructions and spaces for additional data on reverse side)

ELECTRONIC SUBMISSION #486120 VERIFIED BY THE BLM WELL INFORMATION SYSTEM
**** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ****

Reclamation due: 03/15/2020

Property Code	Property Name	Well Number
322259	FASCINATOR FEDERAL COM	705H
OGRID No.	**Operator Name**	**Elevation**
229137	COG OPERATING, LLC	3371'



BOREPATH SHOWN HEREON IS BASED ON DIRECTIONAL SURVEY REPORT PROVIDED BY COG OPERATING, LLC FOR THE FASCINATOR FEDERAL COM #705H SUPPLIED TO HARCROW SURVEYING, LLC ON AUGUST 15, 2019

1200 0 1200

SCALE: 1"=1200'

OPERATOR CERTIFICATION

I hereby certify that the information 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 mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

10/2/19

Signature **Date**

Amanda Avery

Printed Name

aavery@concho.com

E-mail Address

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.

OCT. 17, 2017/FEB. 27, 2019

Date of Survey/Date of Geographic Survey

Signature & Seal of Professional Surveyor

CHAD L. HARCROW NEW MEXICO 17777 LICENSED PROFESSIONAL SURVEYOR

Chad Harcrow 10/1/19

Certificate No. CHAD HARCROW 17777

W.O. #19-1511 DRAWN BY: WN

CONCHO

Survey Report

Company:	COG Operating L L C	**Local Co-ordinate Reference:**	Well Fascinator Fed Com 705H
Project:	Lea County, NM (NAD27 NME)	**TVD Reference:**	KB=29' @ 3400.00usft (Noram 23)
Site:	Sec. 30, T 24 S. , R 35 E	**MD Reference:**	KB=29' @ 3400.00usft (Noram 23)
Well:	Fascinator Fed Com 705H	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Wellbore #1	**Database:**	EDM 5000.1

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 Sec. 30, T 24 S. , R 35 E

Site Position:		**Northing:**	435,904.80 usft	**Latitude:**	32.19505
From:	Map	**Easting:**	785,685.20 usft	**Longitude:**	-103.40981
Position Uncertainty:	0.00 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.49 °

Well Fascinator Fed Com 705H, ACTIVE

Well Position	**+N/-S**	0.00 usft	**Northing:**	435,899.41 usft	**Latitude:**	32.19505
	+E/-W	0.00 usft	**Easting:**	785,095.40 usft	**Longitude:**	-103.41172
Position Uncertainty		0.00 usft	**Wellhead Elevation:**	0.00 usft	**Ground Level:**	3,371.00 usft

Wellbore Wellbore #1

Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	HDGM	10/23/2018	6.70	59.88	47,945

Design Wellbore #1

Audit Notes:

Version:	1.0	**Phase:**	ACTUAL	**Tie On Depth:**	0.00

Vertical Section:	**Depth From (TVD) (usft)**	**+N/-S (usft)**	**+E/-W (usft)**	**Direction (°)**
	0.00	0.00	0.00	180.58

Survey Program **Date** 2/27/2019

From (usft)	**To (usft)**	**Survey (Wellbore)**	**Tool Name**	**Description**
100.00	11,864.00	Gyros (Wellbore #1)	Keeper	Standard Wireline Keeper ver 1.0.2
12,001.00	22,605.00	MWD Surveys (Wellbore #1)	MWD	MWD - Standard

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	0.64	76.76	100.00	0.13	0.54	-0.13	0.64	0.64	0.00
125.00	0.88	102.15	125.00	0.12	0.87	-0.13	1.63	0.96	101.56
150.00	0.77	69.30	149.99	0.14	1.21	-0.15	1.91	-0.44	-131.40
175.00	0.81	57.58	174.99	0.29	1.52	-0.31	0.66	0.16	-46.88
200.00	0.77	53.62	199.99	0.49	1.80	-0.51	0.27	-0.16	-15.84
225.00	0.89	56.40	224.99	0.69	2.10	-0.72	0.51	0.48	11.12
250.00	0.89	54.70	249.98	0.91	2.42	-0.94	0.11	0.00	-6.80
275.00	0.98	57.99	274.98	1.14	2.76	-1.17	0.42	0.36	13.16
300.00	0.97	59.11	299.98	1.36	3.12	-1.39	0.09	-0.04	4.48

Company:	COG Operating L L C	**Local Co-ordinate Reference:**	Well Fascinator Fed Com 705H
Project:	Lea County, NM (NAD27 NME)	**TVD Reference:**	KB=29' @ 3400.00usft (Noram 23)
Site:	Sec. 30, T 24 S. , R 35 E	**MD Reference:**	KB=29' @ 3400.00usft (Noram 23)
Well:	Fascinator Fed Com 705H	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Wellbore #1	**Database:**	EDM 5000.1

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)
325.00	0.92	61.98	324.97	1.56	3.48	-1.60	0.28	-0.20	11.48
350.00	0.89	65.92	349.97	1.74	3.84	-1.78	0.28	-0.12	15.76
375.00	0.77	79.34	374.97	1.85	4.18	-1.89	0.91	-0.48	53.68
400.00	0.71	86.14	399.96	1.89	4.50	-1.94	0.43	-0.24	27.20
425.00	0.73	90.65	424.96	1.90	4.81	-1.95	0.24	0.08	18.04
450.00	0.70	75.89	449.96	1.93	5.12	-1.99	0.74	-0.12	-59.04
475.00	0.85	78.27	474.96	2.01	5.45	-2.06	0.61	0.60	9.52
500.00	0.82	86.83	499.96	2.06	5.81	-2.11	0.51	-0.12	34.24
525.00	0.80	91.41	524.95	2.06	6.16	-2.12	0.27	-0.08	18.32
550.00	0.90	93.91	549.95	2.04	6.53	-2.11	0.43	0.40	10.00
575.00	0.77	93.66	574.95	2.02	6.90	-2.09	0.52	-0.52	-1.00
600.00	0.68	96.66	599.95	1.99	7.21	-2.07	0.39	-0.36	12.00
625.00	0.72	88.47	624.94	1.98	7.52	-2.06	0.43	0.16	-32.76
650.00	0.86	99.06	649.94	1.95	7.86	-2.03	0.81	0.56	42.36
675.00	0.72	99.08	674.94	1.90	8.20	-1.98	0.56	-0.56	0.08
700.00	0.60	96.64	699.94	1.86	8.48	-1.95	0.49	-0.48	-9.76
725.00	0.63	94.13	724.94	1.83	8.75	-1.92	0.16	0.12	-10.04
750.00	0.74	88.58	749.93	1.83	9.05	-1.92	0.51	0.44	-22.20
775.00	0.64	86.82	774.93	1.84	9.35	-1.93	0.41	-0.40	-7.04
800.00	0.49	103.90	799.93	1.82	9.59	-1.92	0.90	-0.60	68.32
825.00	0.46	104.46	824.93	1.77	9.79	-1.87	0.12	-0.12	2.24
850.00	0.27	121.25	849.93	1.72	9.94	-1.82	0.86	-0.76	67.16
875.00	0.16	131.58	874.93	1.66	10.02	-1.76	0.46	-0.44	41.32
900.00	0.14	156.99	899.93	1.61	10.06	-1.71	0.28	-0.08	101.64
925.00	0.09	99.81	924.93	1.58	10.09	-1.68	0.47	-0.20	-228.72
950.00	0.16	88.37	949.93	1.58	10.14	-1.68	0.30	0.28	-45.76
975.00	0.29	116.90	974.93	1.55	10.23	-1.65	0.67	0.52	114.12
1,000.00	0.31	142.84	999.93	1.47	10.33	-1.57	0.54	0.08	103.76
1,025.00	0.12	182.78	1,024.93	1.39	10.37	-1.49	0.92	-0.76	159.76
1,050.00	0.26	154.49	1,049.93	1.31	10.39	-1.41	0.66	0.56	-113.16
1,075.00	0.24	119.88	1,074.93	1.23	10.46	-1.34	0.60	-0.08	-138.44
1,100.00	0.29	129.60	1,099.93	1.17	10.56	-1.27	0.27	0.20	38.88
1,125.00	0.29	131.00	1,124.93	1.08	10.65	-1.19	0.03	0.00	5.60
1,150.00	0.12	147.58	1,149.93	1.02	10.71	-1.13	0.71	-0.68	66.32
1,175.00	0.10	133.33	1,174.93	0.98	10.74	-1.09	0.13	-0.08	-57.00
1,200.00	0.24	117.71	1,199.93	0.94	10.81	-1.05	0.58	0.56	-62.48
1,225.00	0.37	137.50	1,224.93	0.86	10.91	-0.97	0.66	0.52	79.16
1,250.00	0.43	147.49	1,249.93	0.72	11.01	-0.83	0.37	0.24	39.96
1,275.00	0.36	141.31	1,274.93	0.58	11.11	-0.69	0.33	-0.28	-24.72
1,300.00	0.29	141.04	1,299.93	0.47	11.20	-0.58	0.28	-0.28	-1.08
1,325.00	0.41	128.21	1,324.93	0.37	11.31	-0.48	0.57	0.48	-51.32
1,350.00	0.44	142.49	1,349.92	0.23	11.44	-0.35	0.44	0.12	57.12
1,375.00	0.43	149.22	1,374.92	0.08	11.55	-0.20	0.21	-0.04	26.92

Company:	COG Operating L L C	**Local Co-ordinate Reference:**	Well Fascinator Fed Com 705H
Project:	Lea County, NM (NAD27 NME)	**TVD Reference:**	KB=29' @ 3400.00usft (Noram 23)
Site:	Sec. 30, T 24 S. , R 35 E	**MD Reference:**	KB=29' @ 3400.00usft (Noram 23)
Well:	Fascinator Fed Com 705H	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Wellbore #1	**Database:**	EDM 5000.1

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)
1,400.00	0.27	139.85	1,399.92	-0.05	11.63	-0.07	0.68	-0.64	-37.48
1,425.00	0.40	144.93	1,424.92	-0.16	11.72	0.05	0.53	0.52	20.32
1,450.00	0.46	133.38	1,449.92	-0.30	11.84	0.18	0.42	0.24	-46.20
1,475.00	0.47	157.31	1,474.92	-0.47	11.96	0.35	0.77	0.04	95.72
1,500.00	0.31	163.19	1,499.92	-0.63	12.01	0.51	0.66	-0.64	23.52
1,525.00	0.30	134.01	1,524.92	-0.74	12.08	0.61	0.62	-0.04	-116.72
1,550.00	0.34	143.86	1,549.92	-0.84	12.17	0.72	0.27	0.16	39.40
1,575.00	0.44	172.79	1,574.92	-1.00	12.23	0.87	0.87	0.40	115.72
1,600.00	0.42	231.01	1,599.92	-1.15	12.17	1.03	1.67	-0.08	232.88
1,625.00	0.57	273.45	1,624.92	-1.20	11.97	1.08	1.54	0.60	169.76
1,650.00	0.47	268.09	1,649.92	-1.20	11.75	1.08	0.44	-0.40	-21.44
1,675.00	0.57	243.70	1,674.92	-1.26	11.53	1.14	0.96	0.40	-97.56
1,700.00	0.65	251.85	1,699.91	-1.36	11.29	1.24	0.47	0.32	32.60
1,725.00	0.56	264.98	1,724.91	-1.41	11.03	1.30	0.66	-0.36	52.52
1,750.00	0.50	256.77	1,749.91	-1.45	10.80	1.34	0.39	-0.24	-32.84
1,775.00	0.55	244.35	1,774.91	-1.52	10.59	1.41	0.50	0.20	-49.68
1,800.00	0.65	256.79	1,799.91	-1.61	10.34	1.50	0.65	0.40	49.76
1,825.00	0.56	265.46	1,824.91	-1.65	10.08	1.55	0.51	-0.36	34.68
1,850.00	0.49	260.31	1,849.91	-1.68	9.85	1.58	0.34	-0.28	-20.60
1,875.00	0.63	251.54	1,874.91	-1.74	9.62	1.64	0.66	0.56	-35.08
1,900.00	0.67	263.19	1,899.90	-1.80	9.34	1.70	0.55	0.16	46.60
1,925.00	0.50	261.71	1,924.90	-1.83	9.09	1.74	0.68	-0.68	-5.92
1,950.00	0.55	248.02	1,949.90	-1.89	8.87	1.80	0.54	0.20	-54.76
1,975.00	0.62	252.16	1,974.90	-1.98	8.63	1.89	0.33	0.28	16.56
2,000.00	0.65	260.94	1,999.90	-2.04	8.36	1.96	0.41	0.12	35.12
2,025.00	0.52	258.79	2,024.90	-2.09	8.11	2.00	0.53	-0.52	-8.60
2,050.00	0.57	254.97	2,049.90	-2.14	7.88	2.06	0.25	0.20	-15.28
2,075.00	0.65	260.08	2,074.90	-2.20	7.62	2.12	0.39	0.32	20.44
2,100.00	0.63	267.68	2,099.89	-2.23	7.34	2.15	0.35	-0.08	30.40
2,125.00	0.54	257.50	2,124.89	-2.26	7.09	2.19	0.55	-0.36	-40.72
2,150.00	0.59	254.89	2,149.89	-2.32	6.85	2.25	0.22	0.20	-10.44
2,175.00	0.71	261.33	2,174.89	-2.38	6.57	2.31	0.56	0.48	25.76
2,200.00	0.70	268.43	2,199.89	-2.40	6.27	2.34	0.35	-0.04	28.40
2,225.00	0.73	277.70	2,224.89	-2.39	5.96	2.32	0.48	0.12	37.08
2,250.00	0.78	282.81	2,249.88	-2.33	5.63	2.27	0.34	0.20	20.44
2,275.00	0.84	273.77	2,274.88	-2.28	5.29	2.22	0.56	0.24	-36.16
2,300.00	0.92	282.14	2,299.88	-2.22	4.91	2.17	0.60	0.32	33.48
2,325.00	0.94	289.95	2,324.88	-2.11	4.52	2.06	0.51	0.08	31.24
2,350.00	0.84	295.03	2,349.87	-1.96	4.16	1.92	0.51	-0.40	20.32
2,375.00	0.85	286.19	2,374.87	-1.83	3.81	1.79	0.52	0.04	-35.36
2,400.00	0.99	289.45	2,399.87	-1.71	3.43	1.67	0.60	0.56	13.04
2,425.00	0.92	293.65	2,424.86	-1.56	3.05	1.53	0.40	-0.28	16.80
2,450.00	0.88	300.71	2,449.86	-1.38	2.70	1.35	0.47	-0.16	28.24

Company:	COG Operating L L C	**Local Co-ordinate Reference:**	Well Fascinator Fed Com 705H
Project:	Lea County, NM (NAD27 NME)	**TVD Reference:**	KB=29' @ 3400.00usft (Noram 23)
Site:	Sec. 30, T 24 S. , R 35 E	**MD Reference:**	KB=29' @ 3400.00usft (Noram 23)
Well:	Fascinator Fed Com 705H	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Wellbore #1	**Database:**	EDM 5000.1

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)
2,475.00	0.79	287.33	2,474.86	-1.23	2.37	1.21	0.86	-0.36	-53.52
2,500.00	0.95	292.14	2,499.85	-1.10	2.01	1.08	0.70	0.64	19.24
2,525.00	0.91	299.17	2,524.85	-0.93	1.64	0.91	0.48	-0.16	28.12
2,550.00	0.80	301.45	2,549.85	-0.74	1.32	0.72	0.46	-0.44	9.12
2,575.00	0.71	292.63	2,574.85	-0.59	1.03	0.58	0.59	-0.36	-35.28
2,600.00	0.82	295.09	2,599.84	-0.45	0.73	0.44	0.46	0.44	9.84
2,625.00	0.91	303.25	2,624.84	-0.27	0.40	0.26	0.61	0.36	32.64
2,650.00	0.95	308.30	2,649.84	-0.03	0.07	0.03	0.36	0.16	20.20
2,675.00	0.74	307.52	2,674.83	0.20	-0.22	-0.20	0.84	-0.84	-3.12
2,700.00	0.65	304.81	2,699.83	0.38	-0.47	-0.37	0.38	-0.36	-10.84
2,725.00	0.74	306.25	2,724.83	0.55	-0.71	-0.55	0.37	0.36	5.76
2,750.00	0.69	323.12	2,749.83	0.77	-0.93	-0.76	0.86	-0.20	67.48
2,775.00	0.64	327.57	2,774.83	1.01	-1.10	-1.00	0.29	-0.20	17.80
2,800.00	0.57	337.67	2,799.83	1.24	-1.22	-1.23	0.51	-0.28	40.40
2,825.00	0.56	338.21	2,824.83	1.47	-1.31	-1.46	0.05	-0.04	2.16
2,850.00	0.53	339.10	2,849.82	1.69	-1.40	-1.68	0.12	-0.12	3.56
2,875.00	0.51	353.35	2,874.82	1.91	-1.45	-1.89	0.52	-0.08	57.00
2,900.00	0.42	341.41	2,899.82	2.11	-1.50	-2.09	0.53	-0.36	-47.76
2,925.00	0.54	344.80	2,924.82	2.31	-1.56	-2.29	0.49	0.48	13.56
2,950.00	0.49	351.24	2,949.82	2.53	-1.60	-2.51	0.31	-0.20	25.76
2,975.00	0.39	353.02	2,974.82	2.72	-1.63	-2.70	0.40	-0.40	7.12
3,000.00	0.37	329.95	2,999.82	2.87	-1.68	-2.85	0.61	-0.08	-92.28
3,025.00	0.52	312.96	3,024.82	3.02	-1.80	-3.00	0.79	0.60	-67.96
3,050.00	0.41	324.83	3,049.82	3.17	-1.94	-3.15	0.58	-0.44	47.48
3,075.00	0.33	311.50	3,074.82	3.29	-2.04	-3.27	0.47	-0.32	-53.32
3,100.00	0.42	298.76	3,099.82	3.38	-2.18	-3.36	0.49	0.36	-50.96
3,125.00	0.51	314.88	3,124.82	3.50	-2.34	-3.48	0.63	0.36	64.48
3,150.00	0.25	336.64	3,149.81	3.63	-2.44	-3.61	1.17	-1.04	87.04
3,175.00	0.23	285.21	3,174.81	3.69	-2.51	-3.67	0.84	-0.08	-205.72
3,200.00	0.36	316.16	3,199.81	3.76	-2.61	-3.74	0.80	0.52	123.80
3,225.00	0.23	342.25	3,224.81	3.87	-2.68	-3.84	0.74	-0.52	104.36
3,250.00	0.03	12.42	3,249.81	3.92	-2.69	-3.90	0.82	-0.80	120.68
3,275.00	0.17	29.59	3,274.81	3.96	-2.67	-3.93	0.57	0.56	68.68
3,300.00	0.42	70.77	3,299.81	4.02	-2.57	-4.00	1.25	1.00	164.72
3,325.00	0.54	97.50	3,324.81	4.04	-2.37	-4.01	1.00	0.48	106.92
3,350.00	0.66	89.77	3,349.81	4.02	-2.11	-4.00	0.58	0.48	-30.92
3,375.00	0.93	94.60	3,374.81	4.01	-1.76	-3.99	1.11	1.08	19.32
3,400.00	1.12	106.46	3,399.81	3.92	-1.32	-3.91	1.14	0.76	47.44
3,425.00	1.17	104.65	3,424.80	3.79	-0.84	-3.78	0.25	0.20	-7.24
3,450.00	1.29	103.07	3,449.79	3.66	-0.32	-3.66	0.50	0.48	-6.32
3,475.00	1.40	105.93	3,474.79	3.51	0.25	-3.52	0.52	0.44	11.44
3,500.00	1.27	110.05	3,499.78	3.34	0.80	-3.34	0.65	-0.52	16.48
3,525.00	1.24	102.33	3,524.77	3.18	1.33	-3.20	0.69	-0.12	-30.88
3,550.00	1.26	101.72	3,549.77	3.07	1.86	-3.09	0.10	0.08	-2.44

Company:	COG Operating L L C	**Local Co-ordinate Reference:**	Well Fascinator Fed Com 705H
Project:	Lea County, NM (NAD27 NME)	**TVD Reference:**	KB=29' @ 3400.00usft (Noram 23)
Site:	Sec. 30, T 24 S. , R 35 E	**MD Reference:**	KB=29' @ 3400.00usft (Noram 23)
Well:	Fascinator Fed Com 705H	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Wellbore #1	**Database:**	EDM 5000.1

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)
3,575.00	0.84	99.37	3,574.76	2.98	2.31	-3.01	1.69	-1.68	-9.40
3,600.00	0.55	105.91	3,599.76	2.92	2.61	-2.95	1.20	-1.16	26.16
3,625.00	0.07	32.65	3,624.76	2.90	2.73	-2.93	2.14	-1.92	-293.04
3,650.00	0.59	300.57	3,649.76	2.98	2.63	-3.01	2.39	2.08	-368.32
3,675.00	1.28	287.36	3,674.76	3.13	2.25	-3.15	2.87	2.76	-52.84
3,700.00	1.31	291.09	3,699.75	3.31	1.72	-3.33	0.36	0.12	14.92
3,725.00	1.23	287.21	3,724.75	3.50	1.19	-3.51	0.47	-0.32	-15.52
3,750.00	1.38	283.08	3,749.74	3.64	0.64	-3.65	0.71	0.60	-16.52
3,775.00	1.31	285.16	3,774.73	3.79	0.07	-3.79	0.34	-0.28	8.32
3,800.00	0.88	280.36	3,799.73	3.90	-0.39	-3.89	1.76	-1.72	-19.20
3,825.00	0.79	266.04	3,824.73	3.92	-0.75	-3.91	0.91	-0.36	-57.28
3,850.00	0.83	276.57	3,849.72	3.93	-1.10	-3.92	0.62	0.16	42.12
3,875.00	0.67	274.39	3,874.72	3.96	-1.43	-3.94	0.65	-0.64	-8.72
3,900.00	0.75	263.77	3,899.72	3.95	-1.74	-3.93	0.61	0.32	-42.48
3,925.00	0.85	277.24	3,924.72	3.96	-2.08	-3.94	0.85	0.40	53.88
3,950.00	1.22	265.99	3,949.71	3.96	-2.53	-3.94	1.68	1.48	-45.00
3,975.00	1.45	258.93	3,974.71	3.88	-3.11	-3.85	1.13	0.92	-28.24
4,000.00	1.61	262.68	3,999.70	3.78	-3.77	-3.74	0.75	0.64	15.00
4,025.00	1.53	265.71	4,024.69	3.71	-4.45	-3.66	0.46	-0.32	12.12
4,050.00	1.54	261.71	4,049.68	3.63	-5.11	-3.58	0.43	0.04	-16.00
4,075.00	1.70	259.88	4,074.67	3.52	-5.81	-3.46	0.67	0.64	-7.32
4,100.00	1.64	263.03	4,099.66	3.41	-6.53	-3.35	0.44	-0.24	12.60
4,125.00	1.63	256.10	4,124.65	3.28	-7.23	-3.21	0.79	-0.04	-27.72
4,150.00	1.71	252.16	4,149.64	3.08	-7.93	-3.00	0.56	0.32	-15.76
4,175.00	1.75	252.48	4,174.63	2.85	-8.65	-2.77	0.16	0.16	1.28
4,200.00	1.74	245.40	4,199.61	2.58	-9.36	-2.49	0.86	-0.04	-28.32
4,225.00	1.87	241.05	4,224.60	2.23	-10.06	-2.12	0.76	0.52	-17.40
4,250.00	1.80	242.32	4,249.59	1.85	-10.77	-1.74	0.32	-0.28	5.08
4,275.00	1.75	244.59	4,274.58	1.50	-11.46	-1.38	0.35	-0.20	9.08
4,300.00	1.76	241.44	4,299.56	1.15	-12.14	-1.03	0.39	0.04	-12.60
4,325.00	1.85	239.99	4,324.55	0.77	-12.83	-0.64	0.40	0.36	-5.80
4,350.00	1.86	243.88	4,349.54	0.39	-13.54	-0.25	0.51	0.04	15.56
4,375.00	1.79	241.34	4,374.53	0.02	-14.25	0.12	0.43	-0.28	-10.16
4,400.00	1.81	236.04	4,399.51	-0.39	-14.92	0.54	0.67	0.08	-21.20
4,425.00	1.93	238.27	4,424.50	-0.83	-15.60	0.99	0.56	0.48	8.92
4,450.00	1.70	240.40	4,449.49	-1.23	-16.29	1.40	0.96	-0.92	8.52
4,475.00	1.54	234.11	4,474.48	-1.61	-16.88	1.78	0.96	-0.64	-25.16
4,500.00	1.48	223.48	4,499.47	-2.04	-17.37	2.22	1.14	-0.24	-42.52
4,525.00	1.13	212.87	4,524.46	-2.49	-17.73	2.67	1.70	-1.40	-42.44
4,550.00	0.91	195.11	4,549.46	-2.88	-17.92	3.07	1.53	-0.88	-71.04
4,575.00	0.96	173.37	4,574.46	-3.28	-17.94	3.47	1.42	0.20	-86.96
4,600.00	1.16	160.14	4,599.45	-3.73	-17.83	3.91	1.26	0.80	-52.92
4,625.00	1.31	144.62	4,624.45	-4.20	-17.58	4.38	1.46	0.60	-62.08

Company:	COG Operating L L C	**Local Co-ordinate Reference:**	Well Fascinator Fed Com 705H
Project:	Lea County, NM (NAD27 NME)	**TVD Reference:**	KB=29' @ 3400.00usft (Noram 23)
Site:	Sec. 30, T 24 S. , R 35 E	**MD Reference:**	KB=29' @ 3400.00usft (Noram 23)
Well:	Fascinator Fed Com 705H	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Wellbore #1	**Database:**	EDM 5000.1

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)
4,650.00	1.48	138.58	4,649.44	-4.68	-17.20	4.85	0.90	0.68	-24.16
4,675.00	1.57	137.12	4,674.43	-5.17	-16.76	5.34	0.39	0.36	-5.84
4,700.00	1.60	140.61	4,699.42	-5.69	-16.30	5.86	0.40	0.12	13.96
4,725.00	1.49	139.28	4,724.41	-6.21	-15.87	6.37	0.46	-0.44	-5.32
4,750.00	1.49	135.67	4,749.40	-6.68	-15.43	6.84	0.38	0.00	-14.44
4,775.00	1.61	137.10	4,774.39	-7.17	-14.96	7.33	0.50	0.48	5.72
4,800.00	1.60	140.70	4,799.38	-7.70	-14.50	7.85	0.41	-0.04	14.40
4,825.00	1.79	136.33	4,824.37	-8.25	-14.01	8.40	0.92	0.76	-17.48
4,850.00	1.92	127.60	4,849.36	-8.79	-13.41	8.93	1.24	0.52	-34.92
4,875.00	2.10	124.27	4,874.34	-9.31	-12.70	9.43	0.86	0.72	-13.32
4,900.00	2.28	130.54	4,899.33	-9.89	-11.94	10.01	1.20	0.72	25.08
4,925.00	2.39	128.60	4,924.31	-10.54	-11.16	10.65	0.54	0.44	-7.76
4,950.00	2.02	131.62	4,949.29	-11.15	-10.42	11.26	1.55	-1.48	12.08
4,975.00	1.75	138.95	4,974.27	-11.73	-9.84	11.83	1.45	-1.08	29.32
5,000.00	1.45	153.09	4,999.26	-12.30	-9.45	12.40	1.97	-1.20	56.56
5,025.00	1.02	161.11	5,024.26	-12.80	-9.23	12.89	1.85	-1.72	32.08
5,050.00	0.90	151.74	5,049.25	-13.18	-9.07	13.27	0.79	-0.48	-37.48
5,075.00	0.89	159.96	5,074.25	-13.54	-8.91	13.63	0.51	-0.04	32.88
5,100.00	0.77	197.07	5,099.25	-13.88	-8.89	13.97	2.16	-0.48	148.44
5,125.00	1.32	243.26	5,124.25	-14.17	-9.20	14.26	3.85	2.20	184.76
5,150.00	1.64	254.32	5,149.24	-14.39	-9.80	14.49	1.71	1.28	44.24
5,175.00	1.59	258.75	5,174.23	-14.56	-10.48	14.66	0.54	-0.20	17.72
5,200.00	1.63	251.30	5,199.22	-14.74	-11.16	14.85	0.85	0.16	-29.80
5,225.00	1.71	257.08	5,224.21	-14.94	-11.86	15.06	0.75	0.32	23.12
5,250.00	1.55	257.87	5,249.20	-15.09	-12.55	15.22	0.65	-0.64	3.16
5,275.00	1.48	250.31	5,274.19	-15.27	-13.19	15.41	0.85	-0.28	-30.24
5,300.00	1.49	254.25	5,299.18	-15.47	-13.81	15.61	0.41	0.04	15.76
5,325.00	1.62	259.72	5,324.17	-15.62	-14.47	15.77	0.79	0.52	21.88
5,350.00	1.54	258.31	5,349.16	-15.75	-15.14	15.90	0.36	-0.32	-5.64
5,375.00	2.02	266.92	5,374.15	-15.84	-15.91	16.00	2.19	1.92	34.44
5,400.00	2.66	276.07	5,399.13	-15.81	-16.93	15.98	2.96	2.56	36.60
5,425.00	2.66	277.96	5,424.10	-15.66	-18.08	15.85	0.35	0.00	7.56
5,450.00	2.76	273.64	5,449.07	-15.55	-19.26	15.74	0.91	0.40	-17.28
5,475.00	2.75	276.76	5,474.04	-15.44	-20.45	15.64	0.60	-0.04	12.48
5,500.00	2.69	276.46	5,499.02	-15.30	-21.63	15.52	0.25	-0.24	-1.20
5,525.00	2.80	276.70	5,523.99	-15.16	-22.82	15.39	0.44	0.44	0.96
5,550.00	2.76	275.69	5,548.96	-15.03	-24.03	15.28	0.25	-0.16	-4.04
5,575.00	2.65	273.35	5,573.93	-14.94	-25.20	15.19	0.62	-0.44	-9.36
5,600.00	2.80	274.37	5,598.90	-14.86	-26.39	15.13	0.63	0.60	4.08
5,625.00	2.87	276.17	5,623.87	-14.74	-27.62	15.02	0.45	0.28	7.20
5,650.00	2.85	276.86	5,648.84	-14.60	-28.86	14.90	0.16	-0.08	2.76
5,675.00	2.82	279.21	5,673.81	-14.43	-30.08	14.74	0.48	-0.12	9.40
5,700.00	2.75	279.57	5,698.78	-14.23	-31.28	14.55	0.29	-0.28	1.44

Company:	COG Operating L L C	**Local Co-ordinate Reference:**	Well Fascinator Fed Com 705H
Project:	Lea County, NM (NAD27 NME)	**TVD Reference:**	KB=29' @ 3400.00usft (Noram 23)
Site:	Sec. 30, T 24 S. , R 35 E	**MD Reference:**	KB=29' @ 3400.00usft (Noram 23)
Well:	Fascinator Fed Com 705H	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Wellbore #1	**Database:**	EDM 5000.1

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)
5,725.00	2.72	276.18	5,723.75	-14.07	-32.46	14.40	0.66	-0.12	-13.56
5,750.00	2.87	274.86	5,748.72	-13.95	-33.67	14.29	0.65	0.60	-5.28
5,775.00	2.89	277.01	5,773.69	-13.82	-34.92	14.18	0.44	0.08	8.60
5,800.00	2.92	276.23	5,798.66	-13.68	-36.18	14.04	0.20	0.12	-3.12
5,825.00	2.86	280.43	5,823.63	-13.49	-37.43	13.87	0.88	-0.24	16.80
5,850.00	2.81	275.72	5,848.60	-13.32	-38.65	13.71	0.95	-0.20	-18.84
5,875.00	2.77	277.09	5,873.57	-13.18	-39.86	13.59	0.31	-0.16	5.48
5,900.00	2.94	277.98	5,898.53	-13.02	-41.10	13.44	0.70	0.68	3.56
5,925.00	2.94	277.36	5,923.50	-12.85	-42.37	13.28	0.13	0.00	-2.48
5,950.00	3.03	278.88	5,948.47	-12.67	-43.65	13.11	0.48	0.36	6.08
5,975.00	2.87	278.59	5,973.43	-12.47	-44.93	12.93	0.64	-0.64	-1.16
6,000.00	2.91	274.30	5,998.40	-12.33	-46.18	12.80	0.88	0.16	-17.16
6,025.00	3.01	276.06	6,023.37	-12.21	-47.46	12.69	0.54	0.40	7.04
6,050.00	2.98	276.38	6,048.34	-12.07	-48.76	12.57	0.14	-0.12	1.28
6,075.00	2.82	276.08	6,073.30	-11.93	-50.02	12.44	0.64	-0.64	-1.20
6,100.00	2.89	274.11	6,098.27	-11.82	-51.26	12.34	0.48	0.28	-7.88
6,125.00	2.92	271.81	6,123.24	-11.76	-52.52	12.29	0.48	0.12	-9.20
6,150.00	2.93	274.42	6,148.21	-11.69	-53.80	12.23	0.53	0.04	10.44
6,175.00	2.84	272.62	6,173.18	-11.61	-55.05	12.17	0.51	-0.36	-7.20
6,200.00	3.01	271.36	6,198.14	-11.57	-56.33	12.14	0.73	0.68	-5.04
6,225.00	2.91	273.76	6,223.11	-11.51	-57.62	12.09	0.64	-0.40	9.60
6,250.00	2.96	271.71	6,248.08	-11.45	-58.90	12.05	0.47	0.20	-8.20
6,275.00	3.03	272.59	6,273.04	-11.40	-60.20	12.01	0.33	0.28	3.52
6,300.00	2.82	270.94	6,298.01	-11.36	-61.48	11.98	0.90	-0.84	-6.60
6,325.00	2.86	266.80	6,322.98	-11.38	-62.71	12.02	0.84	0.16	-16.56
6,350.00	2.88	269.09	6,347.95	-11.43	-63.96	12.08	0.47	0.08	9.16
6,375.00	2.77	268.94	6,372.92	-11.45	-65.20	12.11	0.44	-0.44	-0.60
6,400.00	2.81	266.35	6,397.89	-11.50	-66.41	12.18	0.53	0.16	-10.36
6,425.00	2.95	267.54	6,422.86	-11.57	-67.67	12.25	0.61	0.56	4.76
6,450.00	2.82	267.90	6,447.83	-11.62	-68.92	12.32	0.53	-0.52	1.44
6,475.00	2.62	264.48	6,472.80	-11.69	-70.11	12.41	1.03	-0.80	-13.68
6,500.00	2.81	264.67	6,497.77	-11.81	-71.29	12.53	0.76	0.76	0.76
6,525.00	2.70	263.62	6,522.74	-11.93	-72.48	12.67	0.48	-0.44	-4.20
6,550.00	2.77	262.22	6,547.71	-12.08	-73.67	12.82	0.39	0.28	-5.60
6,575.00	2.79	263.91	6,572.68	-12.22	-74.87	12.98	0.34	0.08	6.76
6,600.00	2.75	261.28	6,597.65	-12.38	-76.07	13.15	0.53	-0.16	-10.52
6,625.00	2.88	263.86	6,622.62	-12.54	-77.28	13.32	0.73	0.52	10.32
6,650.00	2.75	263.16	6,647.59	-12.67	-78.50	13.47	0.54	-0.52	-2.80
6,675.00	2.83	260.86	6,672.56	-12.84	-79.71	13.65	0.55	0.32	-9.20
6,700.00	2.98	262.63	6,697.53	-13.03	-80.96	13.85	0.70	0.60	7.08
6,725.00	2.83	262.51	6,722.50	-13.19	-82.22	14.02	0.60	-0.60	-0.48
6,750.00	2.93	259.92	6,747.47	-13.38	-83.46	14.23	0.66	0.40	-10.36
6,775.00	2.99	262.01	6,772.43	-13.58	-84.73	14.44	0.49	0.24	8.36
6,800.00	3.02	262.30	6,797.40	-13.76	-86.03	14.64	0.13	0.12	1.16

Company:	COG Operating L L C	**Local Co-ordinate Reference:**	Well Fascinator Fed Com 705H
Project:	Lea County, NM (NAD27 NME)	**TVD Reference:**	KB=29' @ 3400.00usft (Noram 23)
Site:	Sec. 30, T 24 S. , R 35 E	**MD Reference:**	KB=29' @ 3400.00usft (Noram 23)
Well:	Fascinator Fed Com 705H	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Wellbore #1	**Database:**	EDM 5000.1

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)
6,825.00	2.85	261.71	6,822.37	-13.94	-87.30	14.83	0.69	-0.68	-2.36
6,850.00	2.94	258.97	6,847.33	-14.15	-88.54	15.05	0.66	0.36	-10.96
6,875.00	3.06	259.27	6,872.30	-14.40	-89.83	15.31	0.48	0.48	1.20
6,900.00	3.10	260.22	6,897.26	-14.64	-91.15	15.56	0.26	0.16	3.80
6,925.00	3.09	261.06	6,922.23	-14.86	-92.48	15.80	0.19	-0.04	3.36
6,950.00	3.00	260.19	6,947.19	-15.07	-93.79	16.03	0.40	-0.36	-3.48
6,975.00	3.18	258.66	6,972.16	-15.32	-95.12	16.29	0.79	0.72	-6.12
7,000.00	3.19	261.50	6,997.12	-15.56	-96.49	16.54	0.63	0.04	11.36
7,025.00	3.02	260.18	7,022.08	-15.78	-97.82	16.77	0.74	-0.68	-5.28
7,050.00	3.17	260.21	7,047.04	-16.01	-99.15	17.01	0.60	0.60	0.12
7,075.00	3.22	261.47	7,072.01	-16.23	-100.53	17.25	0.34	0.20	5.04
7,100.00	3.09	263.20	7,096.97	-16.41	-101.89	17.45	0.64	-0.52	6.92
7,125.00	3.09	265.83	7,121.93	-16.54	-103.23	17.59	0.57	0.00	10.52
7,150.00	3.14	269.09	7,146.89	-16.60	-104.59	17.66	0.74	0.20	13.04
7,175.00	3.24	272.88	7,171.86	-16.58	-105.98	17.65	0.93	0.40	15.16
7,200.00	3.27	271.28	7,196.82	-16.52	-107.40	17.62	0.38	0.12	-6.40
7,225.00	3.25	272.99	7,221.77	-16.47	-108.82	17.58	0.40	-0.08	6.84
7,250.00	3.16	272.67	7,246.74	-16.40	-110.21	17.52	0.37	-0.36	-1.28
7,275.00	3.09	279.48	7,271.70	-16.26	-111.57	17.39	1.51	-0.28	27.24
7,300.00	2.89	280.69	7,296.66	-16.03	-112.85	17.18	0.84	-0.80	4.84
7,325.00	2.88	283.35	7,321.63	-15.77	-114.08	16.93	0.54	-0.04	10.64
7,350.00	2.65	285.58	7,346.60	-15.47	-115.25	16.64	1.02	-0.92	8.92
7,375.00	2.74	284.67	7,371.58	-15.16	-116.38	16.35	0.40	0.36	-3.64
7,400.00	2.55	287.04	7,396.55	-14.85	-117.49	16.04	0.88	-0.76	9.48
7,425.00	2.65	283.57	7,421.52	-14.55	-118.59	15.76	0.75	0.40	-13.88
7,450.00	2.61	286.82	7,446.50	-14.25	-119.69	15.47	0.62	-0.16	13.00
7,475.00	2.52	284.91	7,471.47	-13.94	-120.77	15.17	0.50	-0.36	-7.64
7,500.00	2.62	286.61	7,496.45	-13.64	-121.85	14.88	0.50	0.40	6.80
7,525.00	2.48	285.83	7,521.42	-13.33	-122.92	14.58	0.58	-0.56	-3.12
7,550.00	2.48	284.26	7,546.40	-13.05	-123.96	14.31	0.27	0.00	-6.28
7,575.00	2.37	286.47	7,571.38	-12.77	-124.98	14.04	0.58	-0.44	8.84
7,600.00	2.34	284.22	7,596.36	-12.50	-125.97	13.78	0.39	-0.12	-9.00
7,625.00	2.37	288.06	7,621.33	-12.21	-126.96	13.50	0.64	0.12	15.36
7,650.00	2.33	284.45	7,646.31	-11.92	-127.94	13.22	0.61	-0.16	-14.44
7,675.00	2.41	284.82	7,671.29	-11.66	-128.94	12.97	0.33	0.32	1.48
7,700.00	2.22	287.21	7,696.27	-11.38	-129.91	12.70	0.85	-0.76	9.56
7,725.00	2.20	288.00	7,721.25	-11.09	-130.83	12.42	0.15	-0.08	3.16
7,750.00	2.09	286.61	7,746.24	-10.81	-131.72	12.15	0.49	-0.44	-5.56
7,775.00	2.19	284.89	7,771.22	-10.56	-132.62	11.91	0.48	0.40	-6.88
7,800.00	2.27	286.45	7,796.20	-10.30	-133.56	11.66	0.40	0.32	6.24
7,825.00	2.18	289.84	7,821.18	-10.00	-134.48	11.36	0.64	-0.36	13.56
7,850.00	2.10	285.21	7,846.16	-9.71	-135.37	11.09	0.76	-0.32	-18.52
7,875.00	2.16	286.72	7,871.15	-9.46	-136.26	10.84	0.33	0.24	6.04

Company:	COG Operating L L C	**Local Co-ordinate Reference:**	Well Fascinator Fed Com 705H
Project:	Lea County, NM (NAD27 NME)	**TVD Reference:**	KB=29' @ 3400.00usft (Noram 23)
Site:	Sec. 30, T 24 S. , R 35 E	**MD Reference:**	KB=29' @ 3400.00usft (Noram 23)
Well:	Fascinator Fed Com 705H	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Wellbore #1	**Database:**	EDM 5000.1

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)
7,900.00	2.02	292.22	7,896.13	-9.16	-137.12	10.55	0.98	-0.56	22.00
7,925.00	2.07	286.21	7,921.11	-8.86	-137.96	10.27	0.88	0.20	-24.04
7,950.00	2.16	289.32	7,946.10	-8.58	-138.84	9.99	0.58	0.36	12.44
7,975.00	2.01	288.33	7,971.08	-8.29	-139.70	9.71	0.62	-0.60	-3.96
8,000.00	2.12	287.40	7,996.06	-8.01	-140.56	9.44	0.46	0.44	-3.72
8,025.00	1.94	290.97	8,021.05	-7.72	-141.40	9.16	0.88	-0.72	14.28
8,050.00	2.01	286.86	8,046.03	-7.44	-142.21	8.89	0.63	0.28	-16.44
8,075.00	2.06	292.96	8,071.02	-7.14	-143.05	8.60	0.89	0.20	24.40
8,100.00	1.86	291.08	8,096.00	-6.82	-143.84	8.28	0.84	-0.80	-7.52
8,125.00	1.98	289.74	8,120.99	-6.53	-144.62	8.00	0.51	0.48	-5.36
8,150.00	1.91	293.21	8,145.97	-6.22	-145.41	7.70	0.55	-0.28	13.88
8,175.00	1.84	290.99	8,170.96	-5.91	-146.17	7.40	0.40	-0.28	-8.88
8,200.00	1.90	290.91	8,195.95	-5.62	-146.93	7.11	0.24	0.24	-0.32
8,225.00	1.93	296.69	8,220.93	-5.28	-147.69	6.78	0.78	0.12	23.12
8,250.00	1.80	297.77	8,245.92	-4.91	-148.42	6.42	0.54	-0.52	4.32
8,275.00	1.79	295.79	8,270.91	-4.56	-149.12	6.07	0.25	-0.04	-7.92
8,300.00	1.80	293.08	8,295.90	-4.23	-149.83	5.76	0.34	0.04	-10.84
8,325.00	1.92	294.99	8,320.88	-3.90	-150.57	5.43	0.54	0.48	7.64
8,350.00	1.88	297.81	8,345.87	-3.53	-151.31	5.07	0.41	-0.16	11.28
8,375.00	1.79	297.17	8,370.86	-3.16	-152.02	4.71	0.37	-0.36	-2.56
8,400.00	1.82	293.98	8,395.84	-2.83	-152.73	4.38	0.42	0.12	-12.76
8,425.00	1.94	293.53	8,420.83	-2.49	-153.48	4.06	0.48	0.48	-1.80
8,450.00	1.91	295.40	8,445.82	-2.15	-154.25	3.72	0.28	-0.12	7.48
8,475.00	1.93	296.73	8,470.80	-1.78	-155.00	3.35	0.20	0.08	5.32
8,500.00	1.87	295.51	8,495.79	-1.41	-155.74	3.00	0.29	-0.24	-4.88
8,525.00	1.82	295.34	8,520.78	-1.07	-156.47	2.66	0.20	-0.20	-0.68
8,550.00	1.87	294.76	8,545.76	-0.73	-157.20	2.33	0.21	0.20	-2.32
8,575.00	1.94	295.08	8,570.75	-0.38	-157.95	1.98	0.28	0.28	1.28
8,600.00	1.99	298.25	8,595.73	0.01	-158.72	1.61	0.48	0.20	12.68
8,625.00	1.93	298.84	8,620.72	0.42	-159.47	1.21	0.25	-0.24	2.36
8,650.00	1.91	298.46	8,645.71	0.82	-160.21	0.81	0.09	-0.08	-1.52
8,675.00	1.93	300.61	8,670.69	1.23	-160.94	0.41	0.30	0.08	8.60
8,700.00	1.98	301.51	8,695.68	1.67	-161.67	-0.03	0.23	0.20	3.60
8,725.00	1.87	298.17	8,720.66	2.09	-162.39	-0.44	0.63	-0.44	-13.36
8,750.00	1.96	301.25	8,745.65	2.50	-163.12	-0.84	0.55	0.36	12.32
8,775.00	1.82	301.84	8,770.63	2.93	-163.82	-1.27	0.57	-0.56	2.36
8,800.00	1.98	299.65	8,795.62	3.36	-164.53	-1.68	0.70	0.64	-8.76
8,825.00	1.91	302.61	8,820.61	3.80	-165.26	-2.12	0.49	-0.28	11.84
8,850.00	1.85	300.93	8,845.59	4.23	-165.96	-2.54	0.33	-0.24	-6.72
8,875.00	1.90	304.89	8,870.58	4.67	-166.64	-2.98	0.56	0.20	15.84
8,900.00	1.82	307.63	8,895.57	5.15	-167.30	-3.45	0.48	-0.32	10.96
8,925.00	2.01	301.71	8,920.55	5.62	-167.98	-3.92	1.10	0.76	-23.68
8,950.00	1.89	310.80	8,945.54	6.12	-168.67	-4.41	1.33	-0.48	36.36

Company:	COG Operating L L C	**Local Co-ordinate Reference:**	Well Fascinator Fed Com 705H
Project:	Lea County, NM (NAD27 NME)	**TVD Reference:**	KB=29' @ 3400.00usft (Noram 23)
Site:	Sec. 30, T 24 S. , R 35 E	**MD Reference:**	KB=29' @ 3400.00usft (Noram 23)
Well:	Fascinator Fed Com 705H	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Wellbore #1	**Database:**	EDM 5000.1

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)
8,975.00	1.95	302.92	8,970.52	6.62	-169.34	-4.90	1.08	0.24	-31.52
9,000.00	1.87	309.65	8,995.51	7.12	-170.01	-5.39	0.95	-0.32	26.92
9,025.00	1.94	303.92	9,020.50	7.61	-170.68	-5.88	0.81	0.28	-22.92
9,050.00	1.93	308.19	9,045.48	8.11	-171.36	-6.37	0.58	-0.04	17.08
9,075.00	1.86	305.86	9,070.47	8.61	-172.02	-6.86	0.42	-0.28	-9.32
9,100.00	2.03	304.64	9,095.45	9.10	-172.71	-7.34	0.70	0.68	-4.88
9,125.00	1.97	306.33	9,120.44	9.60	-173.42	-7.84	0.34	-0.24	6.76
9,150.00	1.96	303.05	9,145.42	10.09	-174.13	-8.32	0.45	-0.04	-13.12
9,175.00	2.02	306.99	9,170.41	10.59	-174.84	-8.81	0.60	0.24	15.76
9,200.00	1.95	304.28	9,195.39	11.09	-175.54	-9.31	0.47	-0.28	-10.84
9,225.00	2.00	306.84	9,220.38	11.59	-176.24	-9.80	0.41	0.20	10.24
9,250.00	1.98	306.48	9,245.36	12.11	-176.94	-10.31	0.09	-0.08	-1.44
9,275.00	2.06	310.24	9,270.35	12.66	-177.63	-10.85	0.62	0.32	15.04
9,300.00	1.95	306.56	9,295.33	13.20	-178.31	-11.39	0.68	-0.44	-14.72
9,325.00	2.08	307.58	9,320.32	13.73	-179.01	-11.91	0.54	0.52	4.08
9,350.00	1.84	306.97	9,345.30	14.25	-179.69	-12.42	0.96	-0.96	-2.44
9,375.00	1.74	306.12	9,370.29	14.72	-180.32	-12.88	0.41	-0.40	-3.40
9,400.00	1.60	312.46	9,395.28	15.18	-180.88	-13.34	0.93	-0.56	25.36
9,425.00	1.39	307.37	9,420.27	15.60	-181.38	-13.75	0.99	-0.84	-20.36
9,450.00	1.37	317.45	9,445.27	16.00	-181.83	-14.15	0.97	-0.08	40.32
9,475.00	1.11	315.15	9,470.26	16.39	-182.20	-14.54	1.06	-1.04	-9.20
9,500.00	1.16	318.33	9,495.25	16.75	-182.54	-14.90	0.32	0.20	12.72
9,525.00	0.89	322.55	9,520.25	17.10	-182.82	-15.24	1.12	-1.08	16.88
9,550.00	0.87	325.04	9,545.25	17.41	-183.05	-15.54	0.17	-0.08	9.96
9,575.00	0.65	333.82	9,570.25	17.69	-183.22	-15.82	0.99	-0.88	35.12
9,600.00	0.78	329.04	9,595.24	17.96	-183.37	-16.10	0.57	0.52	-19.12
9,625.00	0.80	327.40	9,620.24	18.25	-183.55	-16.39	0.12	0.08	-6.56
9,650.00	0.63	336.07	9,645.24	18.53	-183.70	-16.66	0.80	-0.68	34.68
9,675.00	0.75	333.51	9,670.24	18.80	-183.83	-16.93	0.50	0.48	-10.24
9,700.00	0.64	348.28	9,695.24	19.08	-183.93	-17.21	0.84	-0.44	59.08
9,725.00	0.74	336.53	9,720.23	19.37	-184.03	-17.49	0.69	0.40	-47.00
9,750.00	0.66	344.12	9,745.23	19.65	-184.13	-17.78	0.49	-0.32	30.36
9,775.00	0.82	343.72	9,770.23	19.96	-184.22	-18.09	0.64	0.64	-1.60
9,800.00	0.76	341.33	9,795.23	20.29	-184.32	-18.42	0.27	-0.24	-9.56
9,825.00	0.88	345.55	9,820.22	20.64	-184.42	-18.76	0.54	0.48	16.88
9,850.00	0.78	346.34	9,845.22	20.99	-184.51	-19.11	0.40	-0.40	3.16
9,875.00	0.93	353.44	9,870.22	21.35	-184.57	-19.48	0.73	0.60	28.40
9,900.00	0.84	349.81	9,895.22	21.74	-184.63	-19.86	0.42	-0.36	-14.52
9,925.00	0.93	355.32	9,920.21	22.12	-184.68	-20.24	0.50	0.36	22.04
9,950.00	0.83	346.72	9,945.21	22.50	-184.74	-20.62	0.66	-0.40	-34.40
9,975.00	0.97	350.94	9,970.21	22.88	-184.81	-21.00	0.62	0.56	16.88
10,000.00	0.84	352.71	9,995.20	23.27	-184.87	-21.39	0.53	-0.52	7.08
10,025.00	1.04	352.87	10,020.20	23.68	-184.92	-21.80	0.80	0.80	0.64
10,050.00	0.92	358.52	10,045.20	24.10	-184.95	-22.22	0.62	-0.48	22.60

Company:	COG Operating L L C	**Local Co-ordinate Reference:**	Well Fascinator Fed Com 705H
Project:	Lea County, NM (NAD27 NME)	**TVD Reference:**	KB=29' @ 3400.00usft (Noram 23)
Site:	Sec. 30, T 24 S. , R 35 E	**MD Reference:**	KB=29' @ 3400.00usft (Noram 23)
Well:	Fascinator Fed Com 705H	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Wellbore #1	**Database:**	EDM 5000.1

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)
10,075.00	0.99	353.81	10,070.19	24.52	-184.98	-22.64	0.42	0.28	-18.84
10,100.00	1.10	3.57	10,095.19	24.97	-184.99	-23.09	0.84	0.44	39.04
10,125.00	0.99	0.78	10,120.19	25.43	-184.97	-23.55	0.48	-0.44	-11.16
10,150.00	1.08	352.69	10,145.18	25.88	-185.00	-24.00	0.69	0.36	-32.36
10,175.00	1.20	1.65	10,170.18	26.37	-185.02	-24.49	0.86	0.48	35.84
10,200.00	1.24	0.95	10,195.17	26.91	-185.01	-25.02	0.17	0.16	-2.80
10,225.00	1.43	1.54	10,220.16	27.49	-185.00	-25.61	0.76	0.76	2.36
10,250.00	1.57	6.63	10,245.16	28.14	-184.95	-26.26	0.77	0.56	20.36
10,275.00	1.76	8.93	10,270.14	28.86	-184.85	-26.98	0.81	0.76	9.20
10,300.00	1.77	10.84	10,295.13	29.62	-184.72	-27.74	0.24	0.04	7.64
10,325.00	1.82	11.93	10,320.12	30.39	-184.56	-28.51	0.24	0.20	4.36
10,350.00	1.96	13.77	10,345.11	31.19	-184.38	-29.31	0.61	0.56	7.36
10,375.00	2.15	12.98	10,370.09	32.06	-184.17	-30.19	0.77	0.76	-3.16
10,400.00	2.46	12.12	10,395.07	33.04	-183.95	-31.17	1.25	1.24	-3.44
10,425.00	2.53	11.34	10,420.05	34.11	-183.73	-32.24	0.31	0.28	-3.12
10,450.00	2.56	10.57	10,445.02	35.20	-183.52	-33.33	0.18	0.12	-3.08
10,475.00	2.59	10.22	10,470.00	36.30	-183.32	-34.44	0.14	0.12	-1.40
10,500.00	2.66	9.93	10,494.97	37.43	-183.12	-35.57	0.28	0.28	-1.16
10,525.00	2.70	10.01	10,519.94	38.58	-182.92	-36.72	0.16	0.16	0.32
10,550.00	2.75	9.28	10,544.92	39.75	-182.72	-37.90	0.24	0.20	-2.92
10,575.00	2.75	8.48	10,569.89	40.94	-182.53	-39.08	0.15	0.00	-3.20
10,600.00	2.81	5.90	10,594.86	42.14	-182.38	-40.29	0.56	0.24	-10.32
10,625.00	2.83	5.87	10,619.83	43.37	-182.26	-41.51	0.08	0.08	-0.12
10,650.00	2.73	0.55	10,644.80	44.58	-182.19	-42.72	1.11	-0.40	-21.28
10,675.00	2.48	345.59	10,669.77	45.69	-182.32	-43.84	2.89	-1.00	-59.84
10,700.00	2.50	341.08	10,694.75	46.73	-182.63	-44.88	0.79	0.08	-18.04
10,725.00	2.55	339.20	10,719.72	47.77	-183.00	-45.91	0.39	0.20	-7.52
10,750.00	2.44	328.46	10,744.70	48.74	-183.48	-46.88	1.92	-0.44	-42.96
10,775.00	2.41	317.36	10,769.68	49.58	-184.11	-47.71	1.88	-0.12	-44.40
10,800.00	2.32	314.01	10,794.66	50.32	-184.83	-48.44	0.66	-0.36	-13.40
10,825.00	2.24	317.10	10,819.64	51.03	-185.53	-49.14	0.59	-0.32	12.36
10,850.00	2.23	315.98	10,844.62	51.74	-186.20	-49.84	0.18	-0.04	-4.48
10,875.00	2.10	313.14	10,869.60	52.40	-186.87	-50.50	0.67	-0.52	-11.36
10,900.00	1.89	312.91	10,894.58	53.00	-187.51	-51.09	0.84	-0.84	-0.92
10,925.00	1.77	316.39	10,919.57	53.56	-188.07	-51.64	0.65	-0.48	13.92
10,950.00	1.90	313.60	10,944.56	54.12	-188.64	-52.20	0.63	0.52	-11.16
10,975.00	1.67	313.69	10,969.55	54.66	-189.20	-52.73	0.92	-0.92	0.36
11,000.00	1.72	320.25	10,994.54	55.20	-189.71	-53.27	0.80	0.20	26.24
11,025.00	1.70	316.53	11,019.53	55.76	-190.20	-53.82	0.45	-0.08	-14.88
11,050.00	1.60	321.73	11,044.51	56.30	-190.67	-54.36	0.72	-0.40	20.80
11,075.00	1.56	317.69	11,069.51	56.83	-191.12	-54.88	0.47	-0.16	-16.16
11,100.00	1.52	326.50	11,094.50	57.35	-191.53	-55.40	0.96	-0.16	35.24
11,125.00	1.35	325.74	11,119.49	57.87	-191.88	-55.92	0.68	-0.68	-3.04

Company:	COG Operating L L C	**Local Co-ordinate Reference:**	Well Fascinator Fed Com 705H
Project:	Lea County, NM (NAD27 NME)	**TVD Reference:**	KB=29' @ 3400.00usft (Noram 23)
Site:	Sec. 30, T 24 S. , R 35 E	**MD Reference:**	KB=29' @ 3400.00usft (Noram 23)
Well:	Fascinator Fed Com 705H	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Wellbore #1	**Database:**	EDM 5000.1

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)
11,150.00	1.39	327.54	11,144.48	58.37	-192.21	-56.42	0.23	0.16	7.20
11,175.00	1.31	334.30	11,169.47	58.89	-192.50	-56.93	0.71	-0.32	27.04
11,200.00	1.15	336.33	11,194.47	59.37	-192.72	-57.41	0.66	-0.64	8.12
11,225.00	1.25	336.94	11,219.46	59.85	-192.93	-57.89	0.40	0.40	2.44
11,250.00	1.26	338.39	11,244.46	60.36	-193.14	-58.39	0.13	0.04	5.80
11,275.00	1.28	344.30	11,269.45	60.88	-193.31	-58.92	0.53	0.08	23.64
11,300.00	1.19	343.57	11,294.45	61.40	-193.46	-59.43	0.37	-0.36	-2.92
11,325.00	1.12	345.56	11,319.44	61.89	-193.60	-59.92	0.32	-0.28	7.96
11,350.00	1.12	345.38	11,344.44	62.36	-193.72	-60.39	0.01	0.00	-0.72
11,375.00	1.06	350.59	11,369.43	62.83	-193.82	-60.85	0.46	-0.24	20.84
11,400.00	1.01	345.33	11,394.43	63.27	-193.91	-61.29	0.43	-0.20	-21.04
11,425.00	1.00	347.68	11,419.42	63.69	-194.01	-61.72	0.17	-0.04	9.40
11,450.00	1.01	352.30	11,444.42	64.12	-194.09	-62.15	0.33	0.04	18.48
11,475.00	0.96	3.51	11,469.42	64.55	-194.11	-62.58	0.79	-0.20	44.84
11,500.00	0.97	8.47	11,494.41	64.97	-194.06	-62.99	0.34	0.04	19.84
11,525.00	0.97	12.73	11,519.41	65.39	-193.99	-63.41	0.29	0.00	17.04
11,550.00	1.00	11.30	11,544.40	65.81	-193.90	-63.83	0.16	0.12	-5.72
11,575.00	1.06	8.90	11,569.40	66.25	-193.82	-64.27	0.30	0.24	-9.60
11,600.00	1.03	10.59	11,594.40	66.70	-193.74	-64.73	0.17	-0.12	6.76
11,625.00	1.07	5.91	11,619.39	67.15	-193.67	-65.18	0.38	0.16	-18.72
11,650.00	0.98	3.89	11,644.39	67.60	-193.64	-65.62	0.39	-0.36	-8.08
11,675.00	1.09	6.77	11,669.38	68.05	-193.59	-66.07	0.49	0.44	11.52
11,700.00	1.15	0.21	11,694.38	68.53	-193.56	-66.56	0.57	0.24	-26.24
11,725.00	1.23	1.83	11,719.37	69.05	-193.56	-67.08	0.35	0.32	6.48
11,750.00	1.27	0.14	11,744.37	69.60	-193.55	-67.63	0.22	0.16	-6.76
11,775.00	1.30	4.03	11,769.36	70.16	-193.53	-68.19	0.37	0.12	15.56
11,800.00	1.27	359.66	11,794.36	70.72	-193.51	-68.75	0.41	-0.12	-17.48
11,825.00	1.44	2.72	11,819.35	71.31	-193.49	-69.34	0.74	0.68	12.24
11,850.00	1.52	1.07	11,844.34	71.95	-193.47	-69.98	0.36	0.32	-6.60
11,864.00	1.31	358.51	11,858.34	72.30	-193.47	-70.33	1.57	-1.50	-18.29
12,001.00	1.01	0.05	11,995.31	75.07	-193.51	-73.10	0.22	-0.22	1.12
First MWD Survey @ 12001'MD									
12,032.00	0.97	0.66	12,026.30	75.61	-193.51	-73.64	0.13	-0.13	1.97
12,064.00	1.99	165.40	12,058.30	75.34	-193.37	-73.37	9.18	3.19	514.81
12,095.00	6.23	184.20	12,089.21	73.14	-193.35	-71.17	14.17	13.68	60.65
12,127.00	11.39	187.13	12,120.82	68.27	-193.87	-66.30	16.18	16.13	9.16
12,158.00	14.88	180.28	12,151.01	61.25	-194.27	-59.27	12.31	11.26	-22.10
12,190.00	18.09	178.56	12,181.69	52.17	-194.17	-50.20	10.15	10.03	-5.38
12,222.00	21.40	179.28	12,211.81	41.37	-193.97	-39.39	10.37	10.34	2.25
12,253.00	24.15	180.71	12,240.39	29.37	-193.98	-27.39	9.05	8.87	4.61
12,285.00	24.59	183.15	12,269.54	16.17	-194.42	-14.20	3.43	1.38	7.63
12,316.00	25.80	180.44	12,297.59	2.99	-194.83	-1.01	5.39	3.90	-8.74
12,347.00	29.40	177.40	12,325.06	-11.37	-194.54	13.34	12.47	11.61	-9.81

Company:	COG Operating L L C	**Local Co-ordinate Reference:**	Well Fascinator Fed Com 705H
Project:	Lea County, NM (NAD27 NME)	**TVD Reference:**	KB=29' @ 3400.00usft (Noram 23)
Site:	Sec. 30, T 24 S. , R 35 E	**MD Reference:**	KB=29' @ 3400.00usft (Noram 23)
Well:	Fascinator Fed Com 705H	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Wellbore #1	**Database:**	EDM 5000.1

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)
12,378.00	34.60	177.99	12,351.34	-27.77	-193.88	29.74	16.80	16.77	1.90
12,410.00	37.66	178.53	12,377.18	-46.63	-193.31	48.59	9.61	9.56	1.69
12,441.00	40.32	180.85	12,401.27	-66.13	-193.22	68.09	9.79	8.58	7.48
12,473.00	42.01	183.27	12,425.36	-87.18	-193.98	89.14	7.26	5.28	7.56
12,504.00	45.04	182.73	12,447.84	-108.49	-195.10	110.47	9.85	9.77	-1.74
12,522.67	46.80	182.75	12,460.83	-121.89	-195.74	123.87	9.41	9.41	0.10
North 330' Hardline Crossing @ 12522.67'MD									
12,536.00	48.05	182.76	12,469.85	-131.69	-196.21	133.68	9.41	9.41	0.09
12,567.00	50.85	183.18	12,490.00	-155.21	-197.43	157.21	9.09	9.03	1.35
12,599.00	51.56	181.78	12,510.05	-180.13	-198.51	182.14	4.07	2.22	-4.38
12,630.00	53.44	180.35	12,528.92	-204.72	-198.96	206.73	7.08	6.06	-4.61
12,662.00	55.78	179.93	12,547.45	-230.80	-199.03	232.81	7.39	7.31	-1.31
12,693.00	57.93	178.48	12,564.40	-256.75	-198.66	258.76	7.96	6.94	-4.68
12,725.00	61.05	177.75	12,580.64	-284.30	-197.75	286.30	9.95	9.75	-2.28
12,756.00	65.49	178.50	12,594.58	-311.97	-196.85	313.96	14.48	14.32	2.42
12,788.00	70.59	179.37	12,606.55	-341.63	-196.30	343.61	16.14	15.94	2.72
12,819.00	74.42	179.72	12,615.86	-371.19	-196.07	373.17	12.40	12.35	1.13
12,851.00	78.31	179.20	12,623.41	-402.28	-195.78	404.25	12.26	12.16	-1.63
12,882.00	83.54	179.45	12,628.29	-432.88	-195.42	434.85	16.89	16.87	0.81
12,983.00	88.49	178.73	12,635.31	-533.59	-193.81	535.54	4.95	4.90	-0.71
13,077.00	88.43	179.09	12,637.84	-627.54	-192.03	629.46	0.39	-0.06	0.38
13,172.00	88.63	179.74	12,640.27	-722.51	-191.06	724.41	0.72	0.21	0.68
13,266.00	87.45	179.62	12,643.49	-816.45	-190.53	818.34	1.26	-1.26	-0.13
13,361.00	88.49	179.55	12,646.85	-911.38	-189.84	913.27	1.10	1.09	-0.07
13,454.00	89.24	179.11	12,648.70	-1,004.36	-188.76	1,006.23	0.93	0.81	-0.47
13,550.00	89.22	178.93	12,649.99	-1,100.34	-187.12	1,102.18	0.19	-0.02	-0.19
13,644.00	88.35	178.58	12,651.98	-1,194.29	-185.07	1,196.11	1.00	-0.93	-0.37
13,739.00	88.85	178.22	12,654.30	-1,289.23	-182.42	1,291.01	0.65	0.53	-0.38
13,834.00	91.18	179.00	12,654.28	-1,384.19	-180.12	1,385.95	2.59	2.45	0.82
13,928.00	89.66	178.08	12,653.59	-1,478.15	-177.72	1,479.88	1.89	-1.62	-0.98
14,023.00	88.94	177.76	12,654.75	-1,573.08	-174.27	1,574.77	0.83	-0.76	-0.34
14,117.00	88.94	178.77	12,656.49	-1,667.02	-171.43	1,668.68	1.07	0.00	1.07
14,212.00	86.55	178.27	12,660.22	-1,761.91	-168.98	1,763.54	2.57	-2.52	-0.53
14,307.00	88.88	177.22	12,664.01	-1,856.75	-165.24	1,858.34	2.69	2.45	-1.11
14,401.00	90.81	178.73	12,664.27	-1,950.69	-161.92	1,952.23	2.61	2.05	1.61
14,496.00	90.95	179.27	12,662.81	-2,045.66	-160.26	2,047.18	0.59	0.15	0.57
14,591.00	89.78	180.15	12,662.20	-2,140.66	-159.78	2,142.17	1.54	-1.23	0.93
14,685.00	89.16	179.41	12,663.07	-2,234.65	-159.42	2,236.16	1.03	-0.66	-0.79
14,780.00	88.85	179.19	12,664.72	-2,329.63	-158.26	2,331.12	0.40	-0.33	-0.23
14,874.00	88.21	179.74	12,667.13	-2,423.59	-157.38	2,425.07	0.90	-0.68	0.59
14,969.00	88.52	180.20	12,669.84	-2,518.55	-157.33	2,520.02	0.58	0.33	0.48
15,064.00	87.59	180.34	12,673.07	-2,613.50	-157.78	2,614.97	0.99	-0.98	0.15
15,158.00	86.61	179.80	12,677.82	-2,707.37	-157.90	2,708.84	1.19	-1.04	-0.57
15,253.00	86.61	179.84	12,683.44	-2,802.21	-157.60	2,803.67	0.04	0.00	0.04

Company:	COG Operating L L C	**Local Co-ordinate Reference:**	Well Fascinator Fed Com 705H
Project:	Lea County, NM (NAD27 NME)	**TVD Reference:**	KB=29' @ 3400.00usft (Noram 23)
Site:	Sec. 30, T 24 S. , R 35 E	**MD Reference:**	KB=29' @ 3400.00usft (Noram 23)
Well:	Fascinator Fed Com 705H	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Wellbore #1	**Database:**	EDM 5000.1

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)
15,349.00	86.47	179.67	12,689.23	-2,898.03	-157.19	2,899.48	0.23	-0.15	-0.18
15,444.00	86.47	179.82	12,695.08	-2,992.85	-156.77	2,994.29	0.16	0.00	0.16
15,539.00	89.22	180.25	12,698.65	-3,087.77	-156.82	3,089.21	2.93	2.89	0.45
15,633.00	89.22	180.80	12,699.93	-3,181.76	-157.69	3,183.20	0.59	0.00	0.59
15,727.00	87.79	180.03	12,702.39	-3,275.72	-158.37	3,277.16	1.73	-1.52	-0.82
15,821.00	88.32	179.09	12,705.58	-3,369.67	-157.65	3,371.09	1.15	0.56	-1.00
15,916.00	87.48	177.93	12,709.06	-3,464.57	-155.18	3,465.97	1.51	-0.88	-1.22
16,010.00	89.75	179.99	12,711.33	-3,558.51	-153.47	3,559.89	3.26	2.41	2.19
16,105.00	89.66	179.80	12,711.82	-3,653.51	-153.30	3,654.88	0.22	-0.09	-0.20
16,200.00	89.66	180.08	12,712.38	-3,748.51	-153.20	3,749.87	0.29	0.00	0.29
16,294.00	88.29	179.78	12,714.06	-3,842.49	-153.08	3,843.85	1.49	-1.46	-0.32
16,389.00	87.59	178.59	12,717.48	-3,937.42	-151.73	3,938.76	1.45	-0.74	-1.25
16,484.00	88.66	178.18	12,720.59	-4,032.33	-149.06	4,033.64	1.21	1.13	-0.43
16,578.00	89.72	178.20	12,721.92	-4,126.27	-146.09	4,127.54	1.13	1.13	0.02
16,672.00	89.55	178.42	12,722.52	-4,220.23	-143.32	4,221.47	0.30	-0.18	0.23
16,767.00	91.18	182.02	12,721.91	-4,315.21	-143.68	4,316.44	4.16	1.72	3.79
16,862.00	90.08	181.48	12,720.87	-4,410.15	-146.58	4,411.42	1.29	-1.16	-0.57
16,956.00	90.28	181.39	12,720.57	-4,504.12	-148.94	4,505.41	0.23	0.21	-0.10
17,051.00	88.12	180.48	12,721.90	-4,599.10	-150.49	4,600.39	2.47	-2.27	-0.96
17,145.00	88.49	180.69	12,724.68	-4,693.05	-151.45	4,694.35	0.45	0.39	0.22
17,239.00	88.82	181.11	12,726.88	-4,787.01	-152.92	4,788.32	0.57	0.35	0.45
17,333.00	88.32	180.90	12,729.23	-4,880.97	-154.57	4,882.29	0.58	-0.53	-0.22
17,428.00	88.04	180.70	12,732.25	-4,975.91	-155.90	4,977.24	0.36	-0.29	-0.21
17,522.00	87.00	179.84	12,736.31	-5,069.82	-156.34	5,071.15	1.44	-1.11	-0.91
17,616.00	88.32	179.22	12,740.15	-5,163.74	-155.57	5,165.05	1.55	1.40	-0.66
17,711.00	89.47	180.43	12,741.98	-5,258.71	-155.28	5,260.02	1.76	1.21	1.27
17,805.00	88.52	179.83	12,743.63	-5,352.70	-155.49	5,354.00	1.20	-1.01	-0.64
17,900.00	89.47	179.30	12,745.30	-5,447.68	-154.77	5,448.97	1.15	1.00	-0.56
17,995.00	88.66	178.54	12,746.85	-5,542.65	-152.98	5,543.92	1.17	-0.85	-0.80
18,090.00	88.26	178.41	12,749.40	-5,637.58	-150.45	5,638.82	0.44	-0.42	-0.14
18,184.00	89.41	178.77	12,751.31	-5,731.53	-148.14	5,732.74	1.28	1.22	0.38
18,278.00	91.34	179.01	12,750.70	-5,825.51	-146.32	5,826.69	2.07	2.05	0.26
18,373.00	91.01	178.96	12,748.75	-5,920.47	-144.64	5,921.64	0.35	-0.35	-0.05
18,468.00	90.25	178.73	12,747.71	-6,015.44	-142.72	6,016.59	0.84	-0.80	-0.24
18,562.00	90.28	178.73	12,747.27	-6,109.42	-140.64	6,110.53	0.03	0.03	0.00
18,657.00	87.90	178.36	12,748.78	-6,204.37	-138.23	6,205.46	2.54	-2.51	-0.39
18,751.00	87.96	179.59	12,752.18	-6,298.29	-136.55	6,299.36	1.31	0.06	1.31
18,846.00	87.14	180.43	12,756.24	-6,393.20	-136.56	6,394.26	1.24	-0.86	0.88
18,940.00	89.89	180.40	12,758.67	-6,487.16	-137.24	6,488.22	2.93	2.93	-0.03
19,035.00	88.66	179.12	12,759.87	-6,582.15	-136.85	6,583.20	1.87	-1.29	-1.35
19,129.00	88.80	179.40	12,761.96	-6,676.12	-135.63	6,677.15	0.33	0.15	0.30
19,224.00	88.18	179.20	12,764.46	-6,771.08	-134.47	6,772.09	0.69	-0.65	-0.21
19,318.00	89.08	179.18	12,766.71	-6,865.04	-133.14	6,866.04	0.96	0.96	-0.02

Company:	COG Operating L L C	**Local Co-ordinate Reference:**	Well Fascinator Fed Com 705H
Project:	Lea County, NM (NAD27 NME)	**TVD Reference:**	KB=29' @ 3400.00usft (Noram 23)
Site:	Sec. 30, T 24 S. , R 35 E	**MD Reference:**	KB=29' @ 3400.00usft (Noram 23)
Well:	Fascinator Fed Com 705H	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Wellbore #1	**Database:**	EDM 5000.1

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)
19,413.00	89.47	179.58	12,767.91	-6,960.03	-132.12	6,961.01	0.59	0.41	0.42
19,508.00	88.80	179.34	12,769.34	-7,055.01	-131.22	7,055.98	0.75	-0.71	-0.25
19,602.00	89.33	179.47	12,770.88	-7,148.99	-130.24	7,149.95	0.58	0.56	0.14
19,697.00	91.06	179.78	12,770.56	-7,243.99	-129.62	7,244.93	1.85	1.82	0.33
19,792.00	92.16	179.87	12,767.89	-7,338.95	-129.33	7,339.88	1.16	1.16	0.09
19,887.00	91.46	179.04	12,764.89	-7,433.89	-128.43	7,434.82	1.14	-0.74	-0.87
19,981.00	90.20	177.80	12,763.52	-7,527.85	-125.84	7,528.74	1.88	-1.34	-1.32
20,076.00	89.97	177.22	12,763.38	-7,622.75	-121.71	7,623.60	0.66	-0.24	-0.61
20,171.00	89.64	179.41	12,763.71	-7,717.71	-118.92	7,718.52	2.33	-0.35	2.31
20,266.00	89.64	180.03	12,764.30	-7,812.70	-118.45	7,813.50	0.65	0.00	0.65
20,361.00	91.43	182.22	12,763.42	-7,907.67	-120.32	7,908.49	2.98	1.88	2.31
20,456.00	88.35	183.04	12,763.60	-8,002.56	-124.68	8,003.41	3.36	-3.24	0.86
20,550.00	90.73	183.34	12,764.35	-8,096.40	-129.91	8,097.31	2.55	2.53	0.32
20,645.00	90.06	183.45	12,763.70	-8,191.23	-135.53	8,192.19	0.71	-0.71	0.12
20,739.00	90.48	181.66	12,763.26	-8,285.14	-139.72	8,286.13	1.96	0.45	-1.90
20,834.00	89.69	181.40	12,763.11	-8,380.10	-142.26	8,381.11	0.88	-0.83	-0.27
20,929.00	92.18	182.59	12,761.56	-8,475.02	-145.56	8,476.06	2.90	2.62	1.25
21,023.00	90.50	182.81	12,759.37	-8,568.89	-149.99	8,569.97	1.80	-1.79	0.23
21,119.00	92.83	181.60	12,756.58	-8,664.77	-153.68	8,665.88	2.73	2.43	-1.26
21,167.00	91.46	178.89	12,754.78	-8,712.73	-153.89	8,713.84	6.32	-2.85	-5.65
21,214.00	89.33	176.27	12,754.46	-8,759.68	-151.90	8,760.77	7.18	-4.53	-5.57
21,261.00	89.38	176.67	12,754.98	-8,806.59	-149.01	8,807.65	0.86	0.11	0.85
21,309.00	89.22	176.40	12,755.57	-8,854.49	-146.11	8,855.52	0.65	-0.33	-0.56
21,404.00	84.93	176.59	12,760.42	-8,949.17	-140.31	8,950.14	4.52	-4.52	0.20
21,498.00	85.63	177.43	12,768.15	-9,042.72	-135.42	9,043.63	1.16	0.74	0.89
21,593.00	85.80	176.95	12,775.25	-9,137.34	-130.78	9,138.20	0.53	0.18	-0.51
21,688.00	87.31	178.25	12,780.96	-9,232.08	-126.81	9,232.90	2.10	1.59	1.37
21,782.00	87.73	178.39	12,785.03	-9,325.96	-124.06	9,326.74	0.47	0.45	0.15
21,877.00	87.81	178.86	12,788.72	-9,420.86	-121.78	9,421.61	0.50	0.08	0.49
21,971.00	89.24	177.55	12,791.14	-9,514.77	-118.84	9,515.49	2.06	1.52	-1.39
22,065.00	90.59	176.35	12,791.28	-9,608.64	-113.83	9,609.30	1.92	1.44	-1.28
22,160.00	90.98	175.98	12,789.98	-9,703.42	-107.48	9,704.01	0.57	0.41	-0.39
22,255.00	88.94	176.11	12,790.05	-9,798.18	-100.93	9,798.70	2.15	-2.15	0.14
22,349.00	88.43	176.31	12,792.20	-9,891.95	-94.72	9,892.41	0.58	-0.54	0.21
22,444.00	87.65	178.15	12,795.45	-9,986.78	-90.13	9,987.18	2.10	-0.82	1.94
22,477.51	87.35	177.77	12,796.91	-10,020.24	-88.94	10,020.63	1.44	-0.88	-1.14
South 330' Hardline Crossing @ 22477.51'MD									
22,539.00	86.81	177.07	12,800.05	-10,081.59	-86.17	10,081.94	1.44	-0.88	-1.14
22,549.00	86.36	177.05	12,800.64	-10,091.56	-85.66	10,091.90	4.50	-4.50	-0.20
Final MWD Survey @ 22549'MD									
22,605.00	86.36	177.05	12,804.20	-10,147.37	-82.78	10,147.69	0.00	0.00	0.00
Projection to TD @ 22605'MD									

Company:	COG Operating L L C	**Local Co-ordinate Reference:**	Well Fascinator Fed Com 705H
Project:	Lea County, NM (NAD27 NME)	**TVD Reference:**	KB=29' @ 3400.00usft (Noram 23)
Site:	Sec. 30, T 24 S. , R 35 E	**MD Reference:**	KB=29' @ 3400.00usft (Noram 23)
Well:	Fascinator Fed Com 705H	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Wellbore #1	**Database:**	EDM 5000.1

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
12,001.00	11,995.31	75.07	-193.51	First MWD Survey @ 12001'MD
12,522.67	12,460.83	-121.89	-195.74	North 330' Hardline Crossing @ 12522.67'MD
22,477.51	12,796.91	-10,020.24	-88.94	South 330' Hardline Crossing @ 22477.51'MD
22,549.00	12,800.64	-10,091.56	-85.66	Final MWD Survey @ 22549'MD
22,605.00	12,804.20	-10,147.37	-82.78	Projection to TD @ 22605'MD

Checked By: _____ Approved By: _____ Date: _____

From Bottom to Top		Distance Between Perfs	Shots		Distance Between Perfs	Shots		Distance Between Perfs	Shots		Distance Between Perfs	Shots		Distance Between Perfs	Shots
	22,497	25	4	22,260	64	4	22,101	25	4	21,903	25	4	21,705	25	4
	22,472	25	4	22,250	10	4	22,076	25	4	21,878	25	4	21,680	25	4
	22,447	24	4	22,240	15	4	22,051	24	4	21,853	24	4	21,655	24	4
	22,423	25	4	22,225	25	4	22,027	25	4	21,829	25	4	21,631	25	4
	22,398	25	5	22,200	25	5	22,002		5	21,804	25	5	21,606	25	5
	22,373	25	5	22,175	25	5	21,977	25	5	21,779	21	5	21,581	25	5
	22,348	24	5	22,150	24	5	21,952	24	5	21,758	28	5	21,556	19	5
	22,324		5	22,126		5	21,928		5	21,730		5	21,537		5
	Plug to Plu	99	36	Plug to Plu	49	36	Plug to Plu	86	36	Plug to Plu	86	36	Plug to Plu	86	36
	Frac Plug	22,522	Total Shots	Frac Plug	22,274	Total Shots	Frac Plug	22,113	Total Shots	Frac Plug	21,915	Total Shots	Frac Plug	21,717	Total Shots

From Bottom to Top		Distance Between Perfs	Shots		Distance Between Perfs	Shots		Distance Between Perfs	Shots		Distance Between Perfs	Shots		Distance Between Perfs	Shots
	21,507	30	4	21,309	25	4	21,111	25	4	20,913	25	4	20,715	25	4
	21,482	25	4	21,284	25	4	21,086	25	4	20,888	25	4	20,687	22	4
	21,457	24	4	21,259	24	4	21,061	24	4	20,863	24	4	20,665	24	4
	21,433	25	4	21,235	25	4	21,037	25	4	20,839	25	4	20,641	25	4
	21,408	25	5	21,210	25	5	21,012	25	5	20,814	25	5	20,616	25	5
	21,383	25	5	21,185	25	5	20,987	25	5	20,789	25	5	20,591	25	5
	21,358	24	5	21,160	24	5	20,962	24	5	20,764	24	5	20,566	24	5
	21,334		5	21,136		5	20,938		5	20,740		5	20,542		5
	Plug to Plu	86	36	Plug to Plu	86	36	Plug to Plu	86	36	Plug to Plu	86	36	Plug to Plu	86	36
	Frac Plug	21,519	Total Shots	Frac Plug	21,321	Total Shots	Frac Plug	21,123	Total Shots	Frac Plug	20,925	Total Shots	Frac Plug	20,727	Total Shots

From Bottom to Top		Distance Between Perfs	Shots		Distance Between Perfs	Shots		Distance Between Perfs	Shots		Distance Between Perfs	Shots		Distance Between Perfs	Shots
	20,514	28	4	20,298	46	4	20,118	28	4	19,877	74	4	19,723	27	4
	20,492	25	4	20,280	11	4	20,096	25	4	19,859	18	4	19,700	25	4
	20,467	24	4	20,269	24	4	20,071	24	4	19,841	18	4	19,675	24	4
	20,443	25	4	20,245	25	4	20,047	25	4	19,823	18	4	19,651	25	4
	20,418	25	5	20,220	25	5	20,022	25	5	19,805	18	5	19,626	25	5
	20,393	25	5	20,195	25	5	19,997	25	5	19,787	18	5	19,601	25	5
	20,368	24	5	20,170	24	5	19,972	21	5	19,769	19	5	19,576	21	5
	20,344		5	20,146		5	19,951		5	19,750		5	19,555		5
	Plug to Plu	86	36	Plug to Plu	64	36	Plug to Plu	86	36	Plug to Plu	72	36	Plug to Plu	86	36
	Frac Plug	20,529	Total Shots	Frac Plug	20,309	Total Shots	Frac Plug	20,133	Total Shots	Frac Plug	19,895	Total Shots	Frac Plug	19,737	Total Shots

From Bottom to Top		Distance Between Perfs	Shots		Distance Between Perfs	Shots		Distance Between Perfs	Shots		Distance Between Perfs	Shots		Distance Between Perfs	Shots
	19,527	28	4	19,326	27	4	19,131	24	4	18,924	33	4	18,713	46	4
	19,502	25	4	19,304	25	4	19,106	25	4	18,908	25	4	18,690	23	4
	19,477	24	4	19,279	25	4	19,081	25	4	18,883	25	4	18,667	23	4
	19,453	25	4	19,254	24	4	19,056	24	4	18,858	24	4	18,644	22	4
	19,428	25	5	19,230	27	5	19,032	25	5	18,834	24	5	18,622	22	5
	19,403	23	5	19,203	23	5	19,007	27	5	18,810	26	5	18,600	23	5
	19,380	27	5	19,180	25	5	18,980	23	5	18,784	25	5	18,577	23	5
	19,353		5	19,155		5	18,957		5	18,759		5	18,554		5
	Plug to Plu	86	36	Plug to Plu	87	36	Plug to Plu	87	36	Plug to Plu	74	36	Plug to Plu	75	36
	Frac Plug	19,539	Total Shots	Frac Plug	19,341	Total Shots	Frac Plug	19,143	Total Shots	Frac Plug	18,932	Total Shots	Frac Plug	18,719	Total Shots

From Bottom to Top		Distance Between Perfs	Shots		Distance Between Perfs	Shots		Distance Between Perfs	Shots		Distance Between Perfs	Shots		Distance Between Perfs	Shots
	18,530	24	4	18,339	24	4	18,134	31	4	17,938	29	4	17,745	24	4
	18,512	25	4	18,314	20	4	18,116	25	4	17,918	25	4	17,720	25	4
	18,487	25	4	18,294	30	4	18,091	31	4	17,893	25	4	17,695	25	4
	18,462	24	4	18,264	26	4	18,060	18	4	17,868	24	4	17,670	20	4
	18,438	25	5	18,238	23	5	18,042	25	5	17,844	25	5	17,650	29	5
	18,413	25	5	18,215	25	5	18,017	25	5	17,819	25	5	17,621	25	5
	18,388	25	5	18,190	25	5	17,992	25	5	17,794	25	5	17,596	25	5
	18,363		5	18,165		5	17,967		5	17,769		5	17,571		5
	Plug to Plu	79	36	Plug to Plu	87	36	Plug to Plu	86	36	Plug to Plu	87	36	Plug to Plu	87	36
	Frac Plug	18,541	Total Shots	Frac Plug	18,351	Total Shots	Frac Plug	18,146	Total Shots	Frac Plug	17,955	Total Shots	Frac Plug	17,757	Total Shots

From Bottom to Top		Distance Between Perfs	Shots		Distance Between Perfs	Shots		Distance Between Perfs	Shots		Distance Between Perfs	Shots		Distance Between Perfs	Shots
	17,547	24	4	17,349	24	4	17,145	30	4	16,948	29	4	16,752	27	4
	17,522	25	4	17,324	22	4	17,126	25	4	16,928	25	4	16,726	21	4
	17,497	25	4	17,302	28	4	17,101	29	4	16,903	25	4	16,705	25	4
	17,472	24	4	17,274	25	4	17,072	20	4	16,878	24	4	16,680	24	4
	17,448	25	5	17,249	24	5	17,052	25	5	16,854	25	5	16,656	25	5
	17,423	25	5	17,225	25	5	17,027	25	5	16,829	25	5	16,631	25	5
	17,398	25	5	17,200	25	5	17,002	25	5	16,804	25	5	16,606	25	5
	17,373		5	17,175		5	16,977		5	16,779		5	16,581		5
	Plug to Plu	87	36	Plug to Plu	87	36	Plug to Plu	85	36	Plug to Plu	87	36	Plug to Plu	84	36
	Frac Plug	17,559	Total Shots	Frac Plug	17,361	Total Shots	Frac Plug	17,157	Total Shots	Frac Plug	16,965	Total Shots	Frac Plug	16,764	Total Shots

		Distance Between Perfs	Shots		Distance Between Perfs	Shots		Distance Between Perfs	Shots		Distance Between Perfs	Shots		Distance Between Perfs	Shots
From Bottom to Top	16,554	27	4	16,356	27	4	16,160	25	4	15,956	31	4	15,764	25	4
	16,532	25	4	16,336	27	4	16,136	23	4	15,938	25	4	15,740	25	4
	16,507	25	4	16,309	25	4	16,113	27	4	15,913	23	4	15,715	25	4
	16,482	24	4	16,284	25	4	16,086	26	4	15,890	27	4	15,690	29	4
	16,458	25	5	16,259	24	5	16,060	23	5	15,863	25	5	15,661	20	5
	16,433	25	5	16,235	25	5	16,037	25	5	15,838	24	5	15,641	25	5
	16,408	25	5	16,210	25	5	16,012	25	5	15,814	25	5	15,616	25	5
	16,383		5	16,185		5	15,987		5	15,789		5	15,591		5
	Plug to Plu	87	36	Plug to Plu	84	36	Plug to Plu	87	36	Plug to Plu	79	36	Plug to Plu	87	36
	Frac Plug	16,569	Total Shots	Frac Plug	16,368	Total Shots	Frac Plug	16,173	Total Shots	Frac Plug	15,969	Total Shots	Frac Plug	15,777	Total Shots

		Distance Between Perfs	Shots		Distance Between Perfs	Shots		Distance Between Perfs	Shots		Distance Between Perfs	Shots		Distance Between Perfs	Shots
From Bottom to Top	15,556	35	4	15,368	24	4	15,167	28	4	14,932	66	4	14,740	59	4
	15,542	25	4	15,344	25	4	15,146	25	4	14,908	24	4	14,716	19	4
	15,517	25	4	15,319	25	4	15,121	25	4	14,884	26	4	14,697	19	4
	15,492	25	4	15,294	25	4	15,096	25	4	14,858	18	4	14,678	19	4
	15,467	22	5	15,269	24	5	15,071	24	5	14,840	10	5	14,659	19	5
	15,445	27	5	15,245	25	5	15,047	25	5	14,830	20	5	14,640	19	5
	15,418	26	5	15,220	25	5	15,022	24	5	14,810	11	5	14,621	18	5
	15,392		5	15,195		5	14,998		5	14,799		5	14,603		5
	Plug to Plu	76	36	Plug to Plu	87	36	Plug to Plu	87	36	Plug to Plu	82	36	Plug to Plu	76	36
	Frac Plug	15,568	Total Shots	Frac Plug	15,381	Total Shots	Frac Plug	15,183	Total Shots	Frac Plug	14,940	Total Shots	Frac Plug	14,754	Total Shots

		Distance Between Perfs	Shots		Distance Between Perfs	Shots		Distance Between Perfs	Shots		Distance Between Perfs	Shots		Distance Between Perfs	Shots
From Bottom to Top	14,576	27	4	14,378	25	4	14,177	28	4	13,982	27	4	13,784	25	4
	14,552	24	4	14,354	25	4	14,156	25	4	13,956	23	4	13,760	25	4
	14,528	26	4	14,329	25	4	14,131	25	4	13,933	25	4	13,735	25	4
	14,502	25	4	14,304	25	4	14,106	25	4	13,908	25	4	13,710	25	4
	14,477	24	5	14,279	24	5	14,081	24	5	13,883	24	5	13,685	24	5
	14,453	25	5	14,255	21	5	14,057	25	5	13,859	30	5	13,661	25	5
	14,428	25	5	14,234	29	5	14,032	23	5	13,829	20	5	13,636	24	5
	14,403		5	14,205		5	14,009		5	13,809		5	13,612		5
	Plug to Plu	87	36	Plug to Plu	86	36	Plug to Plu	87	36	Plug to Plu	87	36	Plug to Plu	87	36
	Frac Plug	14,589	Total Shots	Frac Plug	14,390	Total Shots	Frac Plug	14,193	Total Shots	Frac Plug	13,995	Total Shots	Frac Plug	13,797	Total Shots

		Distance Between Perfs	Shots		Distance Between Perfs	Shots		Distance Between Perfs	Shots		Distance Between Perfs	Shots	Stage 50	Distance Between Perfs	Shots
From Bottom to Top	13,586	26	4	13,384	29	4	13,190	30	4	12,987	30	4		12819	
	13,588	51	4	13,364	25	4	13,165	24	4	12,967	26	4			
	13,537	25	4	13,339	25	4	13,141	25	4	12,941	23	4			
	13,512	25	4	13,314	25	4	13,116	25	4	12,918	25	4			
	13,487	24	5	13,289	24	5	13,091	25	5	12,893	25	5			
	13,463	25	5	13,265	25	5	13,066	24	5	12,868	24	5			
	13,438	25	5	13,240	20	5	13,042	25	5	12,844	25	5			
	13,413		5	13,220		5	13,017		5	12,819		5			
	Plug to Plu	87	36	Plug to Plu	87	36	Plug to Plu	87	36	Plug to Plu	87	36	Plug to Plu	0	0
	Frac Plug	13,599	Total Shots	Frac Plug	13,401	Total Shots	Frac Plug	13,203	Total Shots	Frac Plug	13,005	Total Shots	Frac Plug		Total Shots

Fascinator Federal Com #705H

Perfs	7 1/2% Acid (Gal)	Sand (#)	Fluid (Gal)
1	1512	409085	385476
2	1512	407460	345240
3	1512	402322	358554
4	1512	395393	352842
5	1512	409434	373632
6	1512	400079	347256
7	1512	398872	427938
8	1512	400458	380100
9	1512	397329	351540
10	1512	400848	340242
11	1512	399794	339318
12	1512	404350	375354
13	1512	399157	349146
14	1512	385785	343812
15	1512	404954	339444
16	1512	405471	354312
17	1512	421429	346878
18	1512	399976	333228
19	1512	399499	341712
20	1512	417751	355404
21	1512	405510	353850
22	1512	393295	347298
23	1512	399176	347550
24	1512	395049	343728
25	1512	400128	342426
26	1512	389333	343098
27	1512	404244	354984
28	1512	400279	348390
29	1512	404186	346122
30	1512	400543	347970
31	1512	402806	357294
32	1512	403163	359940
33	1512	408550	383334
34	1512	404666	339318
35	1512	413174	346374
36	1512	408509	341418
37	1512	401707	342006
38	1512	392560	330582
39	1512	403817	344526
40	1512	411389	414120
41	1512	397665	394296
42	1512	399346	344736
43	1512	403801	351834
44	1512	409683	414708
45	1512	393971	335790
46	1512	402992	338604
47	1512	387813	356664
48	1512	391521	340494
49	1512	404864	332304
Totals	**71064**	**19,284,101**	**14,062,608**