

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0135
Expires July 31, 2010

SUNDRY NOTICES AND REPORTS ON WELLS
Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on reverse side.

1. Type of Well ☒ Oil Well ☐ Gas Well ☐ Other		5. Lease Serial No. NMNM94594
2. Name of Operator COG OPERATING LLC		6. If Indian, Allottee or Tribe Name
3a. Address 550 WEST TEXAS SUITE 100 MIDLAND, TX 79701		7. If Unit or CA/Agreement, Name and/or No
3b. Phone No (include area code) Ph: 432-818-2319 Fx: 432-685-4396		8. Well Name and No DOGWOOD FEDERAL 2
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 25 T17S R27E 1991FNL 2310FWL 32.806763 N Lat, 104.232800 W Lon		9. API Well No 30-015-39132
		10. Field and Pool, or Exploratory RED LAKE;GLORIETA, YESO N
		11. County or Parish, and State EDDY COUNTY, NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION
☐ Notice of Intent	☐ Acidize
☒ Subsequent Report	☐ Deepen
☐ Final Abandonment Notice	☐ Alter Casing
	☐ Fracture Treat
	☐ Casing Repair
	☐ New Construction
	☐ Change Plans
	☐ Plug and Abandon
	☐ Convert to Injection
	☐ Plug Back
	☐ Production (Start/Resume)
	☐ Reclamation
	☐ Recomplete
	☐ Temporarily Abandon
	☐ Water Disposal
	☐ Water Shut-Off
	☐ Well Integrity
	☒ Other Drilling Operations

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

9/14/11 MIRU. Tested BOP to 3500# for 30 min. Good.
9/15/11 Perf Lower Blinbry @ 4295 - 4520 w/1 SPF, 26 holes.
9/16/11 Acidized w/3500 gals 15% HCL. Frac w/124,137 gals gel, 137,239# 16/30
White sand, 26,186# 16/30 SiberProp. Set CBP @ 4270.
Perf Middle Blinbry @ 4010 - 4235 w/1 SPF, 26 holes.
Acidized w/3500 gals 15% HCL. Frac w/124,369 gals
gel, 140394# 16/30 White sand, 29879# 16/30 SiberProp. Set CBP @ 3980.
Perf Upper Blinbry @ 3725 - 3950 w/1 SPF, 26 holes. Acidized
w/2500 gals 15% HCL. Frac w/128,108 gals gel, 142,657# 16/30 Ottawa
sand, 36,549# 16/30 SiberProp.
9/21/11 Drilled out plugs. Clean out to PBTD 4709.
9/22/11 RIH w/131 jts 2-7/8" J55 6.5# tbg, EOT @ 4455.

RECEIVED

DEC 14 2011

Accepted for record NMOC ARTESIA
NMOC 10/21/2011

14. I hereby certify that the foregoing is true and correct Electronic Submission #125475 verified by the BLM Well Information System For COG OPERATING LLC, sent to the Carlsbad	
Name (Printed/Typed) NETHA AARON	Title AUTHORIZED REPRESENTATIVE
Signature (Electronic Submission)	Date 12/13/2011

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By _____	Title _____	Date FEB 22 2012
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.		Office _____

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

**** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ****

30-015-39132

WELL NAME AND NUMBER Dogwood Federal No. 2LOCATION Section 25, T17S, R27E, Unit F, 1991 FNL, 2310 FWL, Eddy CountyOPERATOR COG Operating LLCDRILLING CONTRACTOR United Drilling, Inc.

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

Degrees @ Depth	Degrees @ Depth	Degrees @ Depth
.5° @ 83'	5.69° @ 2859'	
.6° @ 170'	5.20° @ 3649'	
.7° @ 261'	5.06° @ 3240'	
.7° @ 339'	5.37° @ 3335'	
.6° @ 510'	5.20° @ 3430'	
.2° @ 752'	5.24° @ 3525'	
.38° @ 1000'	5.12° @ 3715'	
.31° @ 1064'	5.06° @ 3810'	
.75° @ 1220'	5.08° @ 3905'	
2.26° @ 1337'	5.10° @ 4096'	
2.03° @ 1401'	5.05° @ 4192'	
6.76° @ 1782'	5.25° @ 4287'	
6.08° @ 2099'	5.29° @ 4382'	
5.86° @ 2284'	5.23° @ 4477'	
5.81° @ 2379'	5.21° @ 4572'	
5.85° @ 2479'		

Drilling Contractor- UNITED DRILLING, INC.By: Luisa Noriega
(Luisa Noriega)Title: Asst. Office ManagerSubscribed and sworn to before me this 6th day of September 2011.My Commission Expires: 10/8/12
Carlos Martin
 Notary Public
Chaves New Mexico
 County State



COG OPERATING LLC

Eddy County, NM (NAN27 NME)

Dogwood Federal #2

Dogwood Federal #2

OH - Job #32D0811822

30-045-39132

Survey: MWD Survey

SDI Standard Survey Report

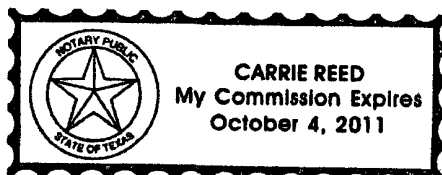
This survey is correct to the best of my knowledge and is supported by actual field data.

[Signature]

Notarized this date 27th of September, 2011.

[Signature]

Notary Signature
County of Midland
State of Texas





Scientific Drilling International, Inc.
SDI Standard Survey Report



Company:	COG OPERATING LLC	Local Co-ordinate Reference:	Well Dogwood Federal #2
Project:	Eddy County, NM (NAN27 NME)	TVD Reference:	KB Elev (14') @ 3570 0usft (UDI #40)
Site:	Dogwood Federal #2	MD Reference:	KB Elev (14') @ 3570 0usft (UDI #40)
Well:	Dogwood Federal #2	North Reference:	Grid
Wellbore:	OH - Job #32D0811822	Survey Calculation Method:	Minimum Curvature
Design:	Actual	Database:	EDM-Regulatory

Project	Eddy County, NM (NAN27 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	Dogwood Federal #2				
Site Position:		Northing:	657,226 20 usft	Latitude:	32° 48' 24 348 N
From:	Map	Easting:	530,888 90 usft	Longitude:	104° 13' 58 079 W
Position Uncertainty:	0 0 usft	Slot Radius:	13-3/16"	Grid Convergence:	0 05 °

Well	Dogwood Federal #2					
Well Position	+N/-S	0 0 usft	Northing:	657,226 20 usft	Latitude:	32° 48' 24 348 N
	+E/-W	0 0 usft	Easting:	530,888 90 usft	Longitude:	104° 13' 58 079 W
Position Uncertainty		0 0 usft	Wellhead Elevation:	usft	Ground Level:	3,556 0 usft

Wellbore	OH - Job #32D0811822				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	8/25/2011	7 91	60 61	48,873

Design	Actual			
Audit Notes:				
Version:	1 0	Phase:	ACTUAL	Tie On Depth: 0 0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0 0	0 0	0 0	351 34

Survey Program	Date 10/7/2011				
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
100 0	920 0	Gyro Survey (OH - Job #32D0811822)	Keeper	Standard Wireline Keeper ver 1 0 2	
1,020 0	4,757 0	MWD Survey (OH - Job #32D0811822)	MWD	MWD - Standard	

Survey							
Measured Depth (usft)	Inclination (°)	Azimuth (°)	True Vertical Depth	North/South (usft)	East/West (usft)	Closure Azimuth (°)	Closure Distance (usft)
0 0	0 00	0 00	0 0	0 0	0 0	0 00	0 0
100 0	0 64	214 07	100 0	-0 5	-0 3	214 07	0 6
200 0	0 86	245 37	200 0	-1 2	-1 3	226 57	1 8
300 0	0 89	265 41	300 0	-1 6	-2 8	239 74	3 2
400 0	1 02	277 65	400 0	-1 6	-4 4	250 60	4 7
500 0	0 73	290 22	500 0	-1 2	-5 9	258 34	6 0
600 0	0 60	284 54	599 9	-0 9	-7 0	262 95	7 1
700 0	0 39	286 76	699 9	-0 6	-7 8	265 36	7 9
800 0	0 34	265 67	799 9	-0 6	-8 5	266 21	8 5
900 0	0 19	271 26	899 9	-0 6	-8 9	266 28	8 9
920 0	0 17	249 52	919 9	-0 6	-9 0	266 25	9 0



Scientific Drilling International, Inc.

SDI Standard Survey Report



Company:	COG OPERATING LLC	Local Co-ordinate Reference:	Well Dogwood Federal #2
Project:	Eddy County, NM (NAN27 NME)	TVD Reference:	KB Elev (14') @ 3570 0usft (UDI #40)
Site:	Dogwood Federal #2	MD Reference:	KB Elev (14') @ 3570 0usft (UDI #40)
Well:	Dogwood Federal #2	North Reference:	Grid
Wellbore:	OH - Job #32D0811822	Survey Calculation Method:	Minimum Curvature
Design:	Actual	Database:	EDM-Regulatory

Project	Eddy County, NM (NAN27 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	Dogwood Federal #2		
Site Position:	Map	Northing:	657,226 20 usft
From:		Easting:	530,888 90 usft
Position Uncertainty:	0 0 usft	Slot Radius:	13-3/16"
		Latitude:	32° 48' 24 348 N
		Longitude:	104° 13' 58 079 W
		Grid Convergence:	0 05 °

Well	Dogwood Federal #2		
Well Position	+N/-S	0 0 usft	Northing:
	+E/-W	0 0 usft	Easting:
Position Uncertainty	0 0 usft	Wellhead Elevation:	usft
		Latitude:	32° 48' 24 348 N
		Longitude:	104° 13' 58 079 W
		Ground Level:	3,556 0 usft

Wellbore	OH - Job #32D0811822		
Magnetics	Model Name	Sample Date	Declination
			(°)
	IGRF2010	8/25/2011	7 91
			Dip Angle
			(°)
			60 61
			Field Strength
			(nT)
			48,873

Design	Actual		
Audit Notes:			
Version:	1 0	Phase:	ACTUAL
		Tie On Depth:	0 0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0 0	0 0	0 0
			Direction
			(°)
			351 34

Survey Program	Date 10/9/2011		
From	To	Survey (Wellbore)	Tool Name
(usft)	(usft)		
100 0	920 0	Gyro Survey (OH - Job #32D0811822)	Keeper
1,020 0	4,757 0	MWD Survey (OH - Job #32D0811822)	MWD
			Description
			Standard Wireline Keeper ver 1 0 2
			MWD - Standard

Survey			
Measured Depth	Inclination	Azimuth	True Vertical
(usft)	(°)	(°)	Depth
920 0	0 17	249 52	919 9
Gyro Tie-in			
1,020 0	0 38	237 54	1,019 9
1,084 0	0 31	47 43	1,083 9
1,147 0	0 75	33 68	1,146 9
1,211 0	0 88	352 13	1,210 9
1,274 0	1 61	341 16	1,273 9
1,337 0	2 26	349 66	1,336 9
1,401 0	2 93	349 52	1,400 8
1,464 0	3 82	349 72	1,463 7
1,528 0	4 52	352 51	1,527 5
			North/South
			(usft)
			-0 6
			East/West
			(usft)
			-9 0
			Closure Azimuth
			(°)
			266 25
			Closure Distance
			(usft)
			9 0
			9 4
			9 5
			9 1
			8 9
			9 5
			10 5
			12 3
			15 1
			19 0



Scientific Drilling International, Inc.
SDI Standard Survey Report



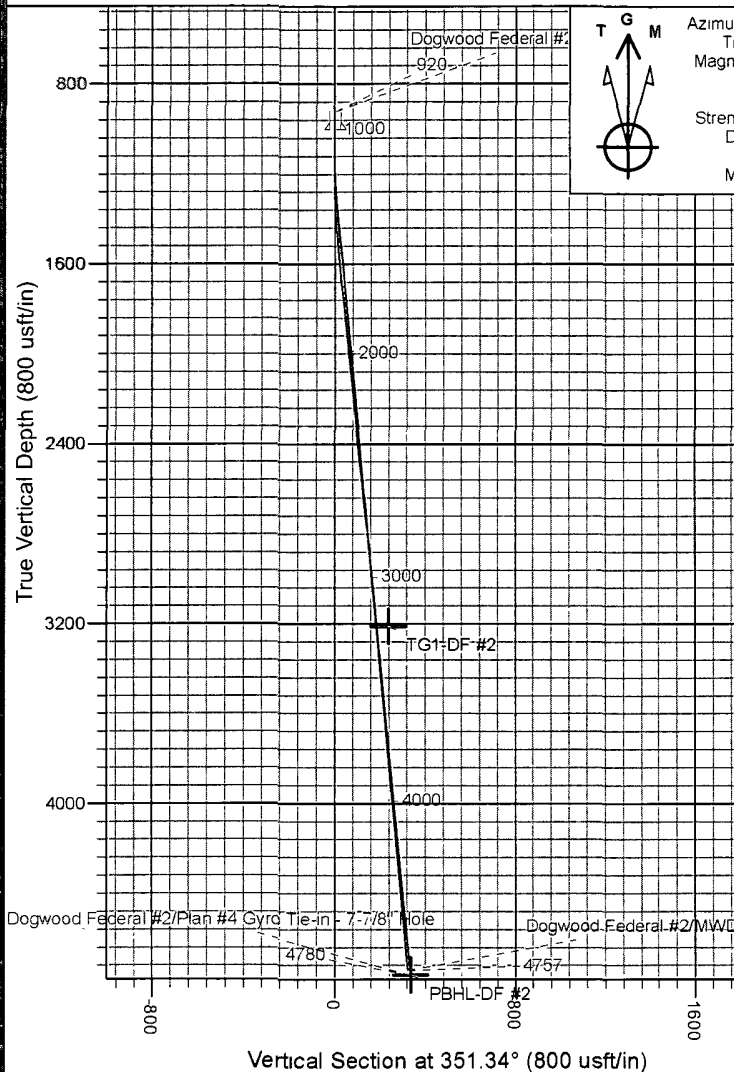
Company:	COG OPERATING LLC	Local Co-ordinate Reference:	Well Dogwood Federal #2
Project:	Eddy County, NM (NAN27 NME)	TVD Reference:	KB Elev (14') @ 3570 0usft (UDI #40)
Site:	Dogwood Federal #2	MD Reference:	KB Elev (14') @ 3570 0usft (UDI #40)
Well:	Dogwood Federal #2	North Reference:	Grid
Wellbore:	OH - Job #32D0811822	Survey Calculation Method:	Minimum Curvature
Design:	Actual	Database:	EDM-Regulatory

Survey							
Measured Depth (usft)	Inclination (°)	Azimuth (°)	True Vertical Depth	North/South (usft)	East/West (usft)	Closure Azimuth (°)	Closure Distance (usft)
1,591 0	5 46	352 31	1,590 3	20 4	-12 4	328 64	23 9
1,686 0	5 75	352 97	1,684 8	29 6	-13 6	335 30	32 6
1,782 0	5 76	355 22	1,780 4	39 2	-14 6	339 56	41 8
1,876 0	5 48	351 74	1,873 9	48 3	-15 6	342 06	50 8
2,003 0	5 99	352 12	2,000 3	60 9	-17 4	344 03	63 3
2,099 0	6 08	351 39	2,095 7	70 9	-18 9	345 09	73 3
2,194 0	5 94	351 81	2,190 2	80 7	-20 3	345 87	83 2
2,289 0	5 86	351 29	2,284 7	90 4	-21 8	346 47	92 9
2,384 0	5 81	350 39	2,379 2	99 9	-23 3	346 88	102 6
2,479 0	5 85	349 55	2,473 7	109 4	-25 0	347 14	112 2
2,574 0	5 83	351 03	2,568 2	118 9	-26 6	347 39	121 9
2,669 0	5 81	350 62	2,662 7	128 4	-28 1	347 64	131 5
2,764 0	5 71	350 63	2,757 3	137 8	-29 7	347 84	141 0
2,859 0	5 69	350 16	2,851 8	147 1	-31 3	348 00	150 4
2,954 0	5 82	350 77	2,946 3	156 5	-32 8	348 15	159 9
3,049 0	5 20	353 11	3,040 9	165 6	-34 1	348 35	169 0
3,145 0	5 19	353 42	3,136 5	174 2	-35 1	348 59	177 7
3,240 0	5 06	352 70	3,231 1	182 6	-36 2	348 80	186 2
3,335 0	5 37	355 41	3,325 7	191 2	-37 1	349 03	194 8
3,430 0	5 20	355 77	3,420 3	199 9	-37 7	349 31	203 5
3,525 0	5 24	355 74	3,514 9	208 5	-38 4	349 57	212 0
3,620 0	5 28	355 27	3,609 5	217 2	-39 1	349 81	220 7
3,715 0	5 12	356 51	3,704 1	225 8	-39 7	350 04	229 3
3,810 0	5 06	356 25	3,798 7	234 2	-40 2	350 26	237 7
3,905 0	5 08	357 44	3,893 4	242 6	-40 7	350 48	246 0
4,000 0	5 07	356 81	3,988 0	251 0	-41 1	350 70	254 3
4,096 0	5 10	357 36	4,083 6	259 5	-41 5	350 91	262 8
4,192 0	5 05	357 40	4,179 2	268 0	-41 9	351 11	271 2
4,287 0	5 25	358 61	4,273 9	276 5	-42 2	351 32	279 7
4,382 0	5 29	356 75	4,368 5	285 2	-42 6	351 51	288 4
4,477 0	5 23	358 66	4,463 1	293 9	-42 9	351 69	297 0
4,572 0	5 34	356 00	4,557 7	302 7	-43 3	351 85	305 7
4,707 0	5 03	358 67	4,692 1	314 8	-43 9	352 06	317 9
Last MWD Survey							
4,757 0	5 03	358 67	4,741 9	319 2	-44 0	352 15	322 2
Projection to Bit							

Survey Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
920 0	919 9	-0 6	-9 0	Gyro Tie-in
4,707 0	4,692 1	314 8	-43 9	Last MWD Survey
4,757 0	4,741 9	319 2	-44 0	Projection to Bit



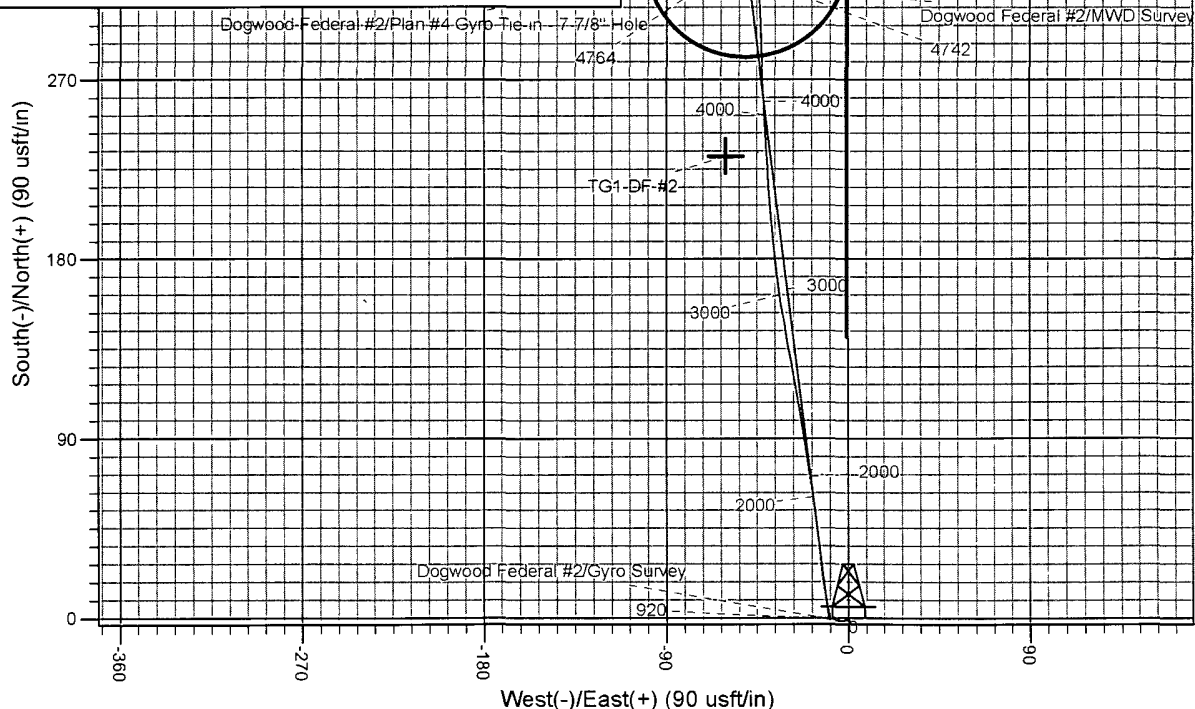
Project: Eddy County, NM (NAN27 NME)
 Site: Dogwood Federal #2
 Well: Dogwood Federal #2
 Wellbore: OH - Job #32D0811822
 Design: Plan #4 Gyro Tie-in - 7-7/8" Hole



Azimuths to Grid North
 True North -0 05°
 Magnetic North 7 86°
 Magnetic Field
 Strength 48872 6snT
 Dip Angle 60 61°
 Date 8/25/2011
 Model IGRF2010

WELL DETAILS: Dogwood Federal #2		KB Elev (14') @ 3570.0usft (UDI #40)		Ground Level: 3556.0		Latitude		Longitude		Slot
+N/-S	+E/-W	Northing	Easting							
0.0	0.0	657226.20	530888.90	32° 48' 24.348 N	104° 13' 58.079 W					

REFERENCE INFORMATION
 Co-ordinate (N/E) Reference Well Dogwood Federal #2, Grid North
 Vertical (TVD) Reference KB Elev (14') @ 3570 0usft (UDI #40)
 Section (VS) Reference Slot - (0.0N, 0.0E)
 Measured Depth Reference KB Elev (14') @ 3570 0usft (UDI #40)
 Calculation Method Minimum Curvature



COMPANY DETAILS COG OPERATING LLC
 223032
 Calculation Method: Minimum Curvature
 Error System: ISWISA
 Scan Method: Closest Approach 3D
 Error Surface Elliptical Conic
 Warning Method: Error Ratio

PROJECT DETAILS: Eddy County, NM (NAN27 NME)
 Geodetic System: NAD 1927 (Exact solution)
 Datum: NAD 1927 (NADCON CONUS)
 Ellipsoid: Clarke 1866
 Zone: New Mexico East 3001
 System Datum: Mean Sea Level

SITE DETAILS: Dogwood Federal #2
 Site Centre Latitude 32° 48' 24.348 N
 Longitude: 104° 13' 58.079 W
 Positional Uncertainty: 0.0
 Convergence 0.05
 Local North Grid