## OCD-ARTESIA

Form 3160-3 (April 2004)			FORM APPR OMB No. 100- Expires March	4-0137
UNITED STATES DEPARTMENT OF THE I BUREAU OF LAND MAN	INTERIOR		5. Lease Serial No. NMLC-029419A	
APPLICATION FOR PERMIT TO	•		6. If Indian, Allotee or T	ribe Name
la. Type of work:	ER .		7 If Unit or CA Agreemer NMNM - 71030C	it, Name and No.
1b. Type of Well: Oil Well Gas Well Other	Single Zone Multip	ple Zone	8. Lease Name and Well I	~ ~ ~ / ^
2. Name of Operator COG Operating LLC	7137		9. API Well No. 30-015- 3 82	170
3a. Address 550 W. Texas Ave., Suite 1300 Midland, TX 79701	3b. Phone No. (include area code) 432-685-4385		10. Field and Pool, or Explo Fren; Glorieta-Ye	•
4. Location of Well (Report location clearly and in accordance with any	y State requirements.*)		11. Sec., T. R. M. or Bik. an	d Survey or Area
At surface SHL: 1220' FSL & 1250' FEL, Un  At proposed prod. zone BHL: 990' FSL & 990' FEL, Unit			Sec 22 T17S R31	E
14. Distance in miles and direction from nearest town or post office*  9 miles East of Loco Hills,	NM		12. County or Parish EDDY	13. State NM
15. Distance from proposed*	16. No. of acres in lease	17. Spacir	ng Unit dedicated to this well	
location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	720		40	
8. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.  600'	19. Proposed Depth 6900'	20. BLM/	BIA Bond No. on file  NMB000215	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3838' GL	22 Approximate date work will sta 12/31/2010	rt*	23. Estimated duration 15 days	The state of the s
	24. Attachments		1	
he following, completed in accordance with the requirements of Onshor	e Oil and Gas Order No. 1, shall be a	ttached to th	is form:	***************************************
<ol> <li>Well plat certified by a registered surveyor.</li> <li>A Drilling Plan.</li> <li>A Surface Use Plan (if the location is on National Forest System)</li> </ol>	Lands, the Item 20 above).  5. Operator certific	cation	ns unless covered by an existi	· ·
SUPO shall be filed with the appropriate Forest Service Office).	6. Such other site authorized office		ormation and/or plans as may	be required by the
25. Signature PC D	Name (Printed Typed) Robyn M. Odom		Date	09/01/2010
Title Regulatory Analyst				
Approved by (Signature) /s/ Don Peterson	Name (Printed Typed)		Date	NOV - 5 2010
FIELD MANAGER	Office CARLSE	BAD F	IELD OFFICE	•
Application approval does not warrant or certify that the applicant hold: conduct operations thereon. Conditions of approval, if any, are attached.	s legal or equitable title to those righ	ts in the sub	ject lease which would entitle PPROVAL FOR	the applicant to
Fitle 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a cr States any false, fictitious or fraudulent statements or representations as t	ime for any person knowingly and vo any matter within its jurisdiction.	willfully to m	nake to any department or age	ncy of the United

\*(Instructions on page 2)

Roswell Controlled Water Basin

RECEIVED
NOV 0 9 2010
NMOCD ARTESIA

SEE ATTACHED FOR CONDITIONS OF APPROVAL

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED DISTRICT I

State of New Mexico Energy, Minerals and Natural Resources Department

DISTRICT II 1301 W. GRAND AVENUE, ARTESIA, NM 88210

1625 N. FRENCH DR., HOBBS, NM 88240

## OIL CONSERVATION DIVISION

Form C-102 Revised October 12, 2005 Submit to Appropriate District Office State Lease - 4 Copies Fee Lease - 3 Copies

DISTRICT III 1000 RIO BRAZOS RD., AZTEC, NM 87410 11885 SOUTH ST. FRANCIS DR. Santa Fe, New Mexico 87505

DISTRICT IV 11885 S. ST. FRANCIS DR., SANTA FE, NM 87505	WELL LOCATION AND	ACREAGE DEDICAT	TON PLAT	☐ AMENDED REPORT
API Number	Pool Code		Pool Name	
30-015-38 <b>370</b>	26770	FREN;	GLORIETA-YES	0
Property Code	Pro	perty Name		Well Number
305607	SKE	ELLY UNIT		740
OGRID No.	Ор	erator Name		Elevation
229137	COG OP	ERATING, LLC		3838'

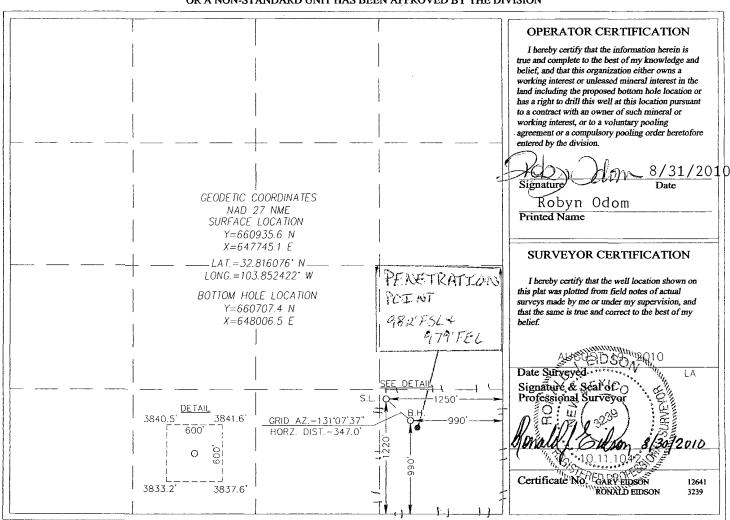
## Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Р	22	17-S	31-E		1220	SOUTH	1250	EAST	EDDY

## Bottom Hole Location If Different From Surface

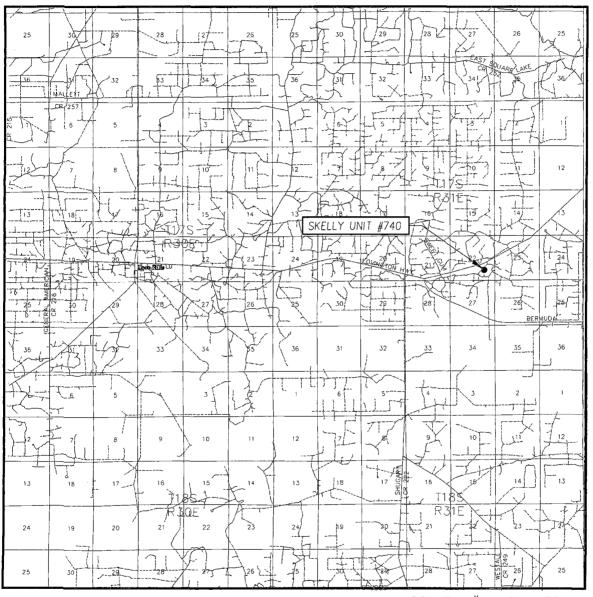
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Р	22	17-S	31-E		990	SOUTH	990	EAST	EDDY
Dedicated Acres	Joint or In	fill C	onsolidation Code	Or	der No.				
40									

## 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



## SECTION 22, TOWNSHIP 17 SOUTH, RANGE 31 EAST, N.M.P.M., NEW MEXICO EDDY COUNTY. 3840.5 3841.6' 150' NORTH OFFSET 3840.0 SKELLY UNIT #740 150' EAST 150' WEST 🗆 □ OFFSET $\odot$ **OFFSET** 3841.0' ELEV. 3837.8' 3837.5 LAT.=32.816076° N LONG.=103.852422° W 150' SOUTH OFFSET . 3837.6' 3833.2 600' DIRECTIONS TO LOCATION 200 Feet AT THE INTERSECTION OF U.S. HWY. #82 AND CO. RD. #223 (SWEET GUM RD.) GO SOUTH ON LEASE Scale: 1 "= 100" ROAD APPROX. 0.1 MILE. TURN LEFT AND GO EAST APPROX. 0.8 MILES. VEER LEFT AND GO NORTHEAST OPERATING, COGAPPROX. 0.2 MILES. THE LOCATION STAKE IS APPROX. 300 FET SOUTH LEASE ROAD. SKELLY UNIT #740 WELL LOCATED 1220 FEET FROM THE SOUTH LINE AND 1250 FEET FROM THE EAST LINE OF SECTION 22, TOWNSHIP 17 SOUTH, RANGE 31 EAST, N.M.P.M., PROVIDING SURVEYING SERVICES EDDY COUNTY, NEW MEXICO. SINCE 1946 JOHN WEST SURVEYING COMPANY Survey Date: 8/19/10 Sheet Sheets 412 N. DAL PASO HOBBS, N.M. 88240 W.O. Number: 10.11.1042 Rev 1:N/A Dr By: LA (575) 393-3117 Date: 8/27/.10 10111042 Scale: 1 "= 100

## **VICINITY MAP**



SCALE: 1" = 2 MILES

SEC. 22 TWP. 17-S RGE. 31-E

SURVEY N.M.P.M.

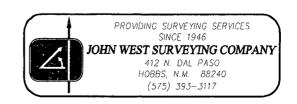
COUNTY EDDY STATE NEW MEXICO

DESCRIPTION 1220' FSL & 1250' FEL

ELEVATION 3838'

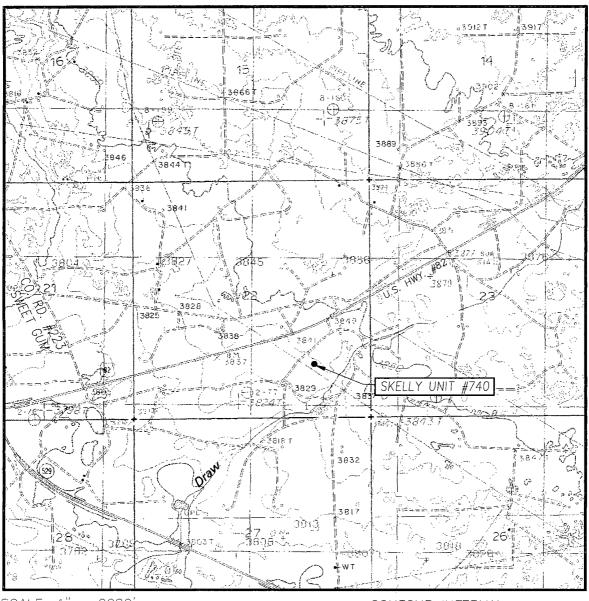
OPERATOR COG OPERATING, LLC

LEASE SKELLY UNIT





## LOCATION VERIFICATION MAP



SCALE: 1'' = 2000

CONTOUR INTERVAL: MALJAMAR, N.M. - 10'

SEC. 22 TWP. 17-S RGE. 31-E

SURVEY N.M.P.M.

COUNTY EDDY STATE NEW MEXICO

DESCRIPTION 1220' FSL & 1250' FEL

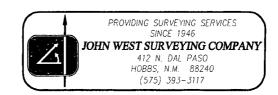
ELEVATION 3838'

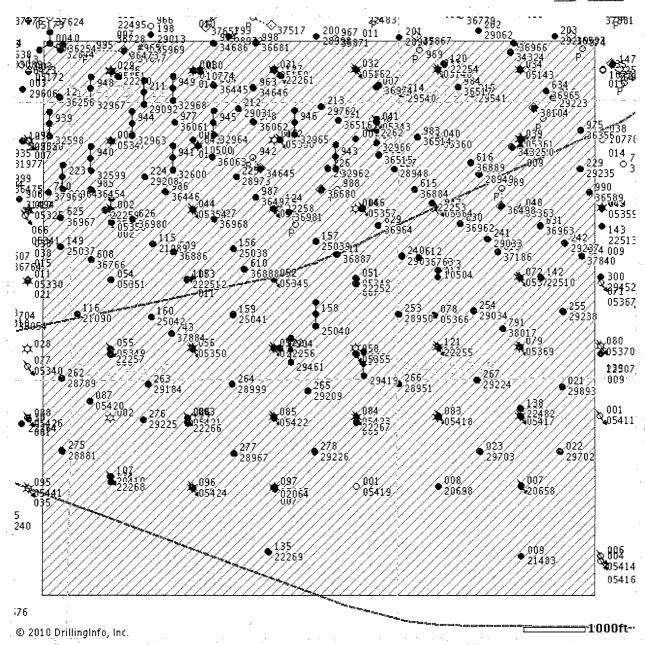
OPERATOR COG OPERATING, LLC

LEASE SKELLY UNIT

U.S.G.S. TOPOGRAPHIC MAP

MALJAMAR, N.M.





# 1 Mile Radius Around Skelly Unit 740

APPIPE         Operator         County Liggal         Loads         Weight         Leader         Leader <th< th=""><th></th><th>Communication of the communication of the communica</th><th>AND AND THE PROPERTY OF THE PR</th><th>and the transference of the second deposite o</th><th></th><th></th><th></th><th>Ł</th><th></th><th>***************************************</th><th></th><th>3~~</th><th>- H-141</th><th>CAMBRIDADA (CAMBRIDADA CONTRACTOR CAMBRIDADA CONTRACTOR CAMBRIDA CONTRACTOR CAMBRIDA CONTRACTOR CAMBRIDA CONTRACTOR CAMBRIDA CONTRACTOR CAMBRIDA CONTR</th><th>THE PARTY OF THE P</th></th<>		Communication of the communica	AND AND THE PROPERTY OF THE PR	and the transference of the second deposite o				Ł		***************************************		3~~	- H-141	CAMBRIDADA (CAMBRIDADA CONTRACTOR CAMBRIDADA CONTRACTOR CAMBRIDA CONTRACTOR CAMBRIDA CONTRACTOR CAMBRIDA CONTRACTOR CAMBRIDA CONTRACTOR CAMBRIDA CONTR	THE PARTY OF THE P
CONTRIPTION		Operator	County	Legal	Lease	Well#	Date Issued	E E	Ĺ		Doc	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Type	Well Status	Target Formation
OPERATING         EDDY         S.23, 1-178, R.31E         SKELLY bits         710         61682010         6.600         Yes         Ink         6,600         PO           COC         COC         COC         S.23, 1-178, R.31E         SKELLY bits         771         5202010         7,100         Yes         Ink         7,100         PO           LC         COC         OPERATING         EDDY         S.23, 1-178, R.31E         UNIT         771         5202010         7,100         Yes         Ink         7,100         PO           LC         COC         OPERATING         EDDY         S.23, 1-178, R.31E         UNIT         61         7,100         Yes         Ink         7,100         PO           LC         COC         OPERATING         EDDY         S.23, 1-178, R.31E         UNIT         61         7,100         Yes         Ink         6,610         Yes         Ink         6,611         O           LC         COC         OPERATING         EDDY         S.23, 1-178, R.31E         UNIT         633         2252000         6,600         Yes         Ink         6,611         O           COC         OPERATING         EDDY         S.23, 1-178, R.31E         UNIT         633		COG OPERATING LLC	EDDY	R:31E	SKELLY UNIT	791	7/15/2010	2,000		No	lir	7,000	2	Active	THE THE PARTY OF T
CONTROLLED   CON		COG OPERATING LLC	ЕООУ	R:31E	SKELLY	710	6/16/2010	009'9		Yes	ij	6,600	8	Active	
COORDING         EDDY         S.23. T-17S, R-31E         SKELLY DITTO         771         SZ2ZDO0         7400         Yes         link         7,100         PO           COOPERATING         EDDY         S.23. T-17S, R-31E         UNIT         613         724200         6,800         Yes         link         6,510         PO           COOPERATING         EDDY         S.23. T-17S, R-31E         UNIT         623         22722009         6,800         Yes         link         6,816         PO           COOPERATING         EDDY         S.22. T-17S, R-31E         UNIT         623         22752009         6,800         Yes         link         6,816         O           COOPERATING         EDDY         S.22. T-17S, R-31E         UNIT         623         22522009         6,800         Yes         link         6,816         O           COOPERATING         EDDY         S.23. T-17S, R-31E         UNIT         633         2252009         6,800         Yes         link         6,816         O           COO         COO         COO         COO         COO         COO         COO         COO         O         Yes         link         6,800         O           COO         COO		COG OPERATING LLC	ЕООУ	T:17S, R:31E	SKELLY UNIT	743	5/27/2010	050'2		Yes	Fiz	7,050	8	Active Permit	
DECATING         EDDY         S.23, T-17S, R-31E         SKELLY         613         7/24/20010         6,800         Yes         Ink         6,900         PO           COG         COG         COG         COG         N         S.23, T-17S, R-31E         UNIT         6.23         2/25/2009         6,800         Yes         Ink         6,910         PO           COG         COG         COG         COG         COG         COG         N         N         N         6,810         PO	30-015-38104	COG OPERATING LLC	EDDY	T:17S, R:31E	SKELLY UNIT	177	5/20/2010	7,100		Yes	liz	7,100	P	Active Permit	
OPERATING         EDDY         S.23, T;17S, R;31E         UNIT         613         7/24/2009         6,500         Yes         Ink         6,511         O           LLC         OPERATING         EDDY         S.22, T;17S, R;31E         UNIT         629         2/27/2009         6,800         Yes         Ink         6,516         O           OPERATING         EDDY         S:22, T;17S, R;31E         UNIT         629         2/25/2009         6,800         Yes         Ink         6,816         O           OPERATING         EDDY         S:22, T;17S, R;31E         UNIT         631         2/25/2009         6,800         Yes         Ink         6,816         O           OPERATING         EDDY         S:14, T;17S, R;31E         UNIT         633         2/25/2009         6,800         Yes         Ink         6,801         O           COG         OPERATING         EDDY         S:14, T;17S, R;31E         UNIT         629         2/25/2009         6,800         Yes         Ink         6,804         O           COG         OPERATING         EDDY         S:21, T;17S, R;31E         UNIT         629         2/25/2009         6,800         Yes         Ink         6,804         O		COG OPERATING LLC	EDDY	R:31E	SKELLY UNIT	614	4/23/2010			Yes	ᇎ	6,900	В	Active Permit	
COORDING         EDDY         S.22 T;17S,R31E         UNIT         6.2         2/27/2009         6,806         6,800         Yes         link         6,846         0           LIC         COORDING         EDDY         S.22 T;17S,R31E         UNIT         622         2/25/2009         6,800         Yes         link         6,816         0           OPERATING         EDDY         S.23 T;17S,R31E         UNIT         631         2/25/2009         6,800         Yes         link         6,801         O           COORDERATING         EDDY         S:14 T;17S,R31E         UNIT         633         2/25/2009         6,800         Yes         link         6,801         O           COO         OPERATING         EDDY         S:14 T;17S,R31E         UNIT         622         2/25/2009         6,800         Yes         link         6,801         O           COO         OPERATING         EDDY         S:14 T;17S,R31E         UNIT         622         2/25/2009         6,800         Yes         link         6,804         O           COO         OPERATING         EDDY         S:21 T;17S,R31E         UNIT         622         2/25/2009         6,800         Yes         link         6,804		COG OPERATING LLC	EDDY	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	SKELLY UNIT	613	7/24/2009	6,500		Yes	<u>F</u>	6,511	0	Active Permit	
CORPORATING         EDDY         S.22, T.17S, R.31E         SKELLY         631         225,2009         6,800         Yes         link         6,815         0           LLC         OPERATING         EDDY         S.23, T.17S, R.31E         UNIT         631         225,2009         6,800         Yes         link         6,801         0           OPERATING         EDDY         S.14, T.17S, R.31E         UNIT         633         225,2009         6,800         Yes         link         6,798         0           COG         OPERATING         EDDY         S.14, T.17S, R.31E         UNIT         633         225,2009         6,800         Yes         link         6,800         0           COG         OPERATING         EDDY         S.14, T.17S, R.31E         UNIT         623         225,2009         6,800         Yes         link         6,804         0           COG         OPERATING         EDDY         S.21, T.17S, R.31E         UNIT         623         225,2009         6,800         Yes         link         6,804         0           COG         OPERATING         EDDY         S.21, T.17S, R.31E         UNIT         623         222,2009         6,800         Yes         link         6,804 <td></td> <td>COG OPERATING LLC</td> <td>EDDY</td> <td></td> <td>SKELLY UNIT</td> <td>628</td> <td>2/27/2009</td> <td>908'9</td> <td></td> <td></td> <td></td> <td>6,846</td> <td>0</td> <td>Active Permit</td> <td></td>		COG OPERATING LLC	EDDY		SKELLY UNIT	628	2/27/2009	908'9				6,846	0	Active Permit	
COG ILC LC COG CHERATING         EDDY EDDY EDDY EDDY EDDY EDDY EDDY ENDY EDDY ENDY EDDY ENDY EDDY ENDY EDDY ENDY EN	***************************************	COG OPERATING LLC	EDDY		SKELLY UNIT	627	2/25/2009	008'9	W 1441 1881 1771 1471 147 147 147	Yes		6,815	0	Active Permit	
COG         COG <td>1</td> <td>COG OPERATING LLC</td> <td>ЕББҮ</td> <td></td> <td>SKELLY UNIT</td> <td>631</td> <td>2/25/2009</td> <td>9,800</td> <td>***************************************</td> <td>Yes</td> <td>link</td> <td>6,801</td> <td>0</td> <td>Active Permit</td> <td></td>	1	COG OPERATING LLC	ЕББҮ		SKELLY UNIT	631	2/25/2009	9,800	***************************************	Yes	link	6,801	0	Active Permit	
COG OPERATING         EDDY         S.14, T.17S, R.31E         UNIT         634         2/25/2009         6,800         Yes         link         6,820         O           COG OPERATING         EDDY         S.22, T.17S, R.31E         UNIT         629         2/25/2009         6,800         Yes         link         6,804         O           COG OPERATING         EDDY         S.21, T.17S, R.31E         UNIT         625         2/25/2009         6,800         Yes         link         6,804         O           COG OPERATING         EDDY         S.21, T.17S, R.31E         UNIT         632         2/24/2009         6,800         Yes         link         6,804         O           COG OPERATING         EDDY         S.22, T.17S, R.31E         UNIT         632         2/24/2009         6,800         Yes         link         6,816         O           COG OPERATING         EDDY         S.23, T.17S, R.31E         UNIT         630         12/12/2008         6,800         Yes         link         6,816         O           COG OPERATING         EDDY         S.23, T.17S, R.31E         UNIT         616         11/21/2008         6,800         Yes         link         6,810         O           COG OPERATING	30-015-36966	COG OPERATING LLC	EDDY	R:31E	SKELLY	633	2/25/2009	6,800		Yes	link	6,798	0	Active Permit	
COG OPERATING         EDDY         S:22, T:17S, R:31E         UNIT         629         2/25/2009         6,800         Yes         link         6,804         O           COG OPERATING         EDDY         S:21, T:17S, R:31E         UNIT         625         2/25/2009         6,800         Yes         link         6,804         O           COG OPERATING         EDDY         S:15, T:17S, R:31E         UNIT         626         2/24/2009         6,800         Yes         link         6,840         O           COG OPERATING         EDDY         S:22, T:17S, R:31E         UNIT         626         2/24/2009         6,800         Yes         link         6,840         O           COG OPERATING         EDDY         S:22, T:17S, R:31E         UNIT         626         2/24/2009         6,800         Yes         link         6,840         O           COG OPERATING         EDDY         S:23, T:17S, R:31E         UNIT         630         12/12/2008         6,500         Yes         link         6,810         O           COG OPERATING         EDDY         S:23, T:17S, R:31E         UNIT         61         11/14/2008         6,500         Yes         link         6,708         O           COG OPERATING	30-015-36965	COG OPERATING LLC	ЕООУ	, R:31E	SKELLY UNIT	634	2/25/2009	6,800		Yes	Ĭij	6,820	0	Active Permit	
COG OPERATING         EDDY         S:21, T:17S, R:31E         UNIT         625         2/25/2009         6,800         Yes         link         6,804           COG OPERATING         EDDY         S:15, T:17S, R:31E         UNIT         632         2/25/2009         6,800         Yes         link         6,825           COG OPERATING         EDDY         S:22, T:17S, R:31E         UNIT         626         2/24/2009         6,800         Yes         link         6,840           COG OPERATING         EDDY         S:22, T:17S, R:31E         UNIT         630         1/21/2008         6,800         Yes         link         6,840           COG OPERATING         EDDY         S:23, T:17S, R:31E         UNIT         610         1/1/21/2008         6,500         Yes         link         6,810           COG OPERATING         EDDY         S:23, T:17S, R:31E         UNIT         616         1/1/21/2008         6,500         Yes         link         6,700           COG OPERATING         EDDY         S:23, T:17S, R:31E         UNIT         612         1/1/4/2008         6,500         Yes         link         6,700	30-015-36964	COG OPERATING LLC	EDDY	T:17S, R:31E	SKELLY UNIT	629	2/25/2009	6,800		Yes	Ę	6,804	0	Active Permit	
COG         COG <td>30-015-36967</td> <td>COG OPERATING LLC</td> <td>ЕББУ</td> <td>R:31E</td> <td>SKELLY UNIT</td> <td>625</td> <td>2/25/2009</td> <td>6,800</td> <td>ar gere skaper i i sava i skap i sa</td> <td>Yes</td> <td>를</td> <td>6,804</td> <td>0</td> <td>Active Permit</td> <td></td>	30-015-36967	COG OPERATING LLC	ЕББУ	R:31E	SKELLY UNIT	625	2/25/2009	6,800	ar gere skaper i i sava i skap i sa	Yes	를	6,804	0	Active Permit	
COG OPERATING         EDDY         S:22, T:17S, R:31E         UNIT         626         2/24/2009         6,800         Yes         link         6,840           COG OPERATING         EDDY         S:23, T:17S, R:31E         UNIT         630         12/12/2008         6,800         Yes         link         6,818           COG OPERATING         EDDY         S:23, T:17S, R:31E         SKELLY UNIT         616         11/21/2008         6,500         Yes         link         6,810           COG OPERATING         EDDY         S:23, T:17S, R:31E         SKELLY         612         11/4/2008         6,500         Yes         link         6,708           LLC         COG OPERATING         EDDY         S:23, T:17S, R:31E         UNIT         612         11/4/2008         6,500         Yes         link         6,708	30-015-36974	COG OPERATING LLC	EDDY	T:17S, R:31E	SKELLY	632	2/25/2009	6,800	**************************************	Yes	캶	6,825	0	Active Permit	
COG         COG <td>30-015-36980</td> <td>COG OPERATING LLC</td> <td>EDDY</td> <td>R:31E</td> <td>SKELLY</td> <td>626</td> <td>2/24/2009</td> <td>008'9</td> <td>20000000000000000000000000000000000000</td> <td>Yes</td> <td>를</td> <td>6,840</td> <td>0</td> <td>Active Permit</td> <td></td>	30-015-36980	COG OPERATING LLC	EDDY	R:31E	SKELLY	626	2/24/2009	008'9	20000000000000000000000000000000000000	Yes	를	6,840	0	Active Permit	
COG         COG         COG         COG         Ves         link         6,810         LC           LLC         EDDY         S:23, T:17S, R:31E         UNIT         612         11/4/2008         6,500         Yes         link         6,708	30-015-36962	COG OPERATING LLC	EDDY	T:17S, R:31E	SKELLY UNIT	630	12/12/2008	6,800		Yes	link	6,818	0	Active Permit	
COG         COG           OPERATING         EDDY         S:23, T:17S, R:31E         UNIT         612         11/4/2008         6,500         Yes         link         6,708	30-015-36889	COG OPERATING LLC	EDDY	T:17S, R:31E	SKELLY UNIT		11/21/2008	6,500	d Additional Company	Yes	ii	6,810	0	Active Permit	
	30-015-36763	COG OPERATING LLC	ЕDDУ		SKELLY	612	11/4/2008	6,500		Yes	Fir.	6,708	0	Active Permit	

***************************************		And the state of t		The control of the co						-				
Active Permit	Active Permit	Active Permit	Active Permit	Active Permit	Active Permit	Active Permit	Active Permit	Active Permit	Active Permit	Active Permit	Active Permit	Active Permit	Active Permit	O Active Permit
0	0	0	0	0	٦	0	0	٦	0	0	8	0	0	0
6,723	6,802	6,890	6,935	068'9	6,720		6,720	6,830	6,505	6,518	6,450	6,593	6,716	0:230
link	řË	link	ii	lin	ink	Ei Fink	En K	Ë	Ē	in	를	Ę	툿	iink
Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
3				. en e eget a 1 terma (5 a atris etc)										
6,500	6,500	6,500	6,500	6,400	6,700	6,500	6,500	,	6,500	6,600	6,450	6,600	6,600	6,600
11/4/2008	11/4/2008	11/4/2008	11/4/2008	11/3/2008	8/19/2008	8/4/2008	8/4/2008	8/4/2008	8/4/2008	8/1/2008	7/31/2008	7/31/2008	7/31/2008	7/25/2008
809	609	611	610	. 615	066	983	984	982	981	686	995	866	988	982
SKELLY UNIT	SKELLY UNIT	SKELLY UNIT	SKELLY	SKELLY UNIT	SKELLY UNIT	SKELLY UINIT	SKELLY	SKELLY	SKELLY	SKELLY UNIT	SKELLY UNIT	SKELLY UNIT	SKELLY UNIT	SKELLY UNIT
S:22, T:17S, R:31E	S:22, T:17S, R:31E	S:22, T:17S, R:31E	S:22, T:17S, R:31E	S:23, T:17S, R:31E	S:23, T:17S, R:31E	S:23, T:17S, R:31E	S:14, T:17S, R:31E	S:22, T:178, R:31E	S:22, T:17S, R:31E	S:23, T:17S, R:31E	S:15, T:17S, R:31E	S:15, T:17S, R:31E	S:22, T:17S, R:31E	S:22, T:17S, R:31E
EDDY	EDDY	EDDY	EDDY	ЕББҮ	EDDY	ЕББУ	EDDY	ЕББОУ	ЕООУ	ЕББУ	ЕООУ	ЕООУ	ЕББҮ	ЕРРУ
COG OPERATING LLC	COG OPERATING LLC	COG OPERATING LLC	COG OPERATING LLC	COG OPERATING LLC	COG OPERATING L L C AGENT or COG OPERATING LLC	COG OPERATING LLC AGENT or COG OPERATING	COG OPERATING LLC AGENT or COG OPERATING	COG OPERATING LLC AGENT or COG OPERATING	COG OPERATING LLC AGENT or COG OPERATING LLC	COG OPERATING LLC	COG OPERATING LLC	COG OPERATING LLC	COG OPERATING LLC	COG OPERATING LLC
30-015-36766	30-015-36886	30-015-36887	;	30-015-36884	30-015-36589	30-015-36514	30-015-36517	30-015-36515	30-015-36516	30-015-36498	30-015-36473	30-015-36681	30-015-36680	30-015-36454

				GRAYBURG	GRAYBURG						FREN PADDOCK				PADDOCK	FREN PADDOCK 26770	FREN PADDOCK 26770	FREN PADDOCK 26770	
Active Permit	Active Permit	Active Permit	Active Permit	Active Permit	Active Permit	Active Permit	Active Permit	Active Permit	Active Permit	Active Permit	Active Permit	Active Permit	Active Permit	Active Permit	Active Permit	Active	Active	Active	Annual trade of the forest
0	8	0	0	0	0	0	PO	8	0	0	2	<u>Q</u>	0	РО	8	0	0	0	
6,625	6,600	6,512	6,747	4,030	4,075	6,510	6,500	6,500	6,500	5,370	5,410	5,500	5,495	5,470	5,325	5,410	5,430	5,430	
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Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	N <sub>o</sub>	Š	Š	8	Š	Š	8	N <sub>O</sub>	8	
***************************************								000 - 000 - 000 - 000 - 000 - 000 - 000 - 000 - 000 - 000 - 000 - 000 - 000 - 000 - 000 - 000 - 000 - 000 - 000											
9,900	009'9	6,450	6,600	4,100	4,100	6,500	6,500	. 6,500	5,500	3,849	5,500	5,500	5,500	5,500	6,400				
7/25/2008	7/24/2008	7/18/2008	5/29/2008	4/7/2008	4/7/2008	1/17/2008	1/17/2008	1/17/2008	2/22/2006	2/22/2006	2/22/2006	2/21/2006	9/2/2005	9/2/2005	6/3/2005	11/30/2004	11/30/2004	11/30/2004	
986	987	604	975	012	10	776	978	086	942	965	964	963	961	962	700	943	946	947	
SKELLY	SKELLY UNIT	SKELLY UNIT	SKELLY	FOC B STATE	FOC B STATE	SKELLY	SKELLY UNIT	SKELLY	SKELLY UNIT	SKELLY	SKELLY UNIT	SKELLY UNIT	SKELLY UNIT	SKELLY UNIT	WILLOW STATE	SKELLY UNIT	SKELLY UNIT	SKELLY	***************************************
S:22, T:17S, R:31E	S:22, T:17S, R:31E	S:15, T:17S, R:31E	S:23, T:17S, R:31E	S:16, T:17S, R:31E	S:16, T:17S, R:31E	S:22, T:17S, R:31E	S:22, T:17S, R:31E	S:22, T:17S, R:31E	S:22, T:17S, R:31E	S:15, T:17S, R:31E	S:15, T:17S, R:31E	S:15, T:17S, R:31E	S:14, T:17S, R:31E	S:23, T:17S, R:31E	S:15, T:17S, R:31E	S:22, T:17S, R:31E	S:22, T:17S, R:31E	S:22, T:17S, R:31E	
ЕББУ	ЕББҮ	ЕБВҮ	ЕООУ	EDDY	ЕООУ	ЕБВУ	ЕБВУ	ЕООУ	ЕООУ	ЕБВУ	ЕООУ	ЕООУ	ЕББҮ	ЕББУ	ЕРРҮ	ЕБОУ	EDDY	ЕББҮ	
COG OPERATING LLC	COG OPERATING LLC	COG . OPERATING LLC	CHEVRON U S A INC or CHEVRON USA INC	FOREST OIL CORPORATION	FOREST OIL CORPORATION	CHEVRON USA, INC. or CHEVRON USA INC	CHEVRON USA, INC. or CHEVRON USA INC	CHEVRON USA, INC. or CHEVRON USA INC	CHEVRON USA, INC.	CHEVRON USA, INC.	CHEVRON U S A INC	CHEVRON USA, INC.	CHEVRON USA, INC.	CHEVRON USA, INC.	MACK ENERGY CORPORATION or MACK ENERGY CORP	CHEVRON USA, INC. or CHEVRON U S A INC	CHEVRON USA, INC. or CHEVRON U S A INC	CHEVRON USA, INC. or CHEVRON U S A INC	CHEVRON USA, INC. or
30-015-36446	30-015-36497	30-015-36445	30-015-36356	30-015-36256	ļ	30-015-36061	30-015-36062	30-015-36063	30-015-34645	ļ	30-015-34686	30-015-34646	30-015-34324	30-015-34325	30-015-34143	30-015-32962	1	30-015-32966	

FREN PADDOCK	FREN PADDOCK 26770	FREN PADDOCK	FREN PADDOCK	FREN PADDOCK	FREN PADDOCK	FREN PADDOCK	FREN PADDOCK	FREN PADDOCK	FREN PADDOCK	FREN PADDOCK	Paddock	Paddock	FREN PADDOCK	FREN PADDOCK	FREN PADDOCK
Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	ş	Active	÷		decrees and the second
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5,350	5,350	5,410	5,450	5,483	5,430	5,430	5,350	5,350	5,450	5,483	5,405	5,405	5,360	5,427	5,478
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8	Š	Š	o N	o N	Š	S	S	S O	Š	Š	Š	oN N	No	No	8
	is discovere in increase and an addition				***************************************				***************************************	***************************************		93 888786. <b>1988</b> 88. ER			
THE REST OF THE PROPERTY OF TH		5,500	5,500	5,500	5,500	5,500	5,500	5,500			6,400		5,500	5,500	5,500
11/30/2004	11/30/2004	8/21/2003	8/21/2003	8/21/2003	8/21/2003	8/21/2003	8/21/2003	8/21/2003	7/31/2003	7/31/2003	6/15/2003	5/31/2003	1/16/2003	1/16/2003	1/16/2003
949	948	943	944	945	946	947	948	949	944	945	4	900	939	940	941
SKELLY	SKELLY UNIT	SKELLY UNIT	SKELLY	SKELLY UNIT	SKELLY UNIT	SKELLY	SKELLY	SKELLY UNIT	SKELLY UNIT	SKELLY	WILLOW STATE	WILLOW STATE	SKELLY	SKELLY	SKELLY UNIT
S:15, T:17S, R:31E	S:15, T:17S, R:31E	S:22, T:17S, R:31E	S:22, T:17S, R:31E	S:22, T:17S, R:31E	S:22, T:17S, R:31E	S:22, T:17S, R:31E	S:15, T:17S, R:31E	S:15, T:17S, R:31E	S:22, T:17S, R:31E	S:22, T:17S, R:31E	S:16, T:17S, R:31E	S:16, T:17S, R:31E	S:21, T:17S, R:31E	S:22, T:17S, R:31E	S:22, T:17S, R:31E
EDDY	ЕРРУ	ЕББҮ	EDDY	EDDY	ЕООУ	ЕООУ	ЕООУ	EDDY	ЕБОУ	EDDY	EDDY	ЕБВҮ	EDDY	ЕББҮ	EDDY
s n	or U S	CHEVRON USA, INC. or CHEVRON USA INC	CHEVRON USA, INC. or CHEVRON USA INC	or USA	CHEVRON USA, INC. or CHEVRON USA INC	CHEVRON USA, INC. or CHEVRON U S A INC	CHEVRON USA, INC. or CHEVRON U S A INC	MACK ENERGY CORPORATION or MACK ENERGY CORP	MACK ENERGY CORP	CHEVRON USA, INC. or CHEVRON USA INC		CHEVRON USA, INC. or CHEVRON USA INC			
30-015-32968	30-015-32967	30-015-32962	30-015-32963	30-015-32964	30-015-32965	30-015-32966	30-015-32967	30-015-32968	30-015-32963	30-015-32964	30-015-32844	30-015-32844	30-015-32598	30-015-32599	30-015-32600

FREN PADDOCK	FREN PADDOCK	FREN PADDOCK	ABO	ABO	ABO P&A 11-15-04	ABO P&A 110404	PADDOCK				SAN ANDRES	SAN ANDRES	SAN ANDRES		SAN ANDRES				SAN ANDRES	SAN ANDRES	
Active	Active	Active	Pumping	Shut-in	Pumping	£	Active	Injection Well		Injection Well		Shut-in	Pumping	Injection Well	ş	Injection Well	I Injection Well	Injection Well	{	O Pumping	I Injection Well
0	0	0	0	0	0	0	0		O		0	0	0		0		-		0	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
5,360	5,427	5,478	8,000	9,200	8,000	9,200	***	4,000	3,692	2,503	4,100	4,000	4,050	2,600	3,950	3,876	3,840	3,818	3,950	4,000	0
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MORROW				, , , , , , , , , , , , , , , , , , ,																,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
gran a sugardiga e e e del deletado (1,0) e de <sup>3</sup> (segundo	ggs-1884agh-1888ballanggi daist-saccasa						anadamana juga et indonenia et	0	0	0				0		0	0	0			0
12/31/2002	12/31/2002	12/31/2002	5/1/2002	5/1/2002	4/30/2002	4/30/2002	9/5/2001	1/13/1998	10/16/1997	10/16/1997	10/16/1997	9/1/1997	9/1/1997	8/22/1997	7/29/1997	7/24/1997	6/2/1997	4/24/1997	4/24/1997	4/24/1997	4/17/1997
939	940	941	903	904	903	904	900	007	001	127	021	022	023	121	213	082	033	041	214	215	083
SKELLY	SKELLY UNIT	SKELLY	SKELLY	SKELLY	SKELLY	SKELLY	WILLOW STATE	LEAD	SKELLY	SKELLY UNIT	LEAD	LEA D	LEAD	SKELLY UNIT	SKELLY	SKELLY UNIT	SKELLY UNIT	SKELLY UNIT	SKELLY UNIT	SKELLY UNIT	SKELLY
S:21, T:17S, R:31E	S:22, T:17S, R:31E	R:31E	S:22, T:17S, R:31E	S:22, T:17S, R:31E	S:22, T:17S, R:31E	S:22, T:17S, R:31E	S:16, T:17S, R:31E	R:31E	S:15, T:17S, R:31E	S:15, T:17S, R:31E	S:26, T:17S, R:31E	S:26, T:17S, R:31E	S:26, T:17S, R:31E	S:23, T:17S, R:31E	R:31E	S:26, T:17S, R:31E	S:14, T:17S, R:31E	S:22, T:17S, R:31E	S:14, T:17S, R:31E	S:14, T:17S, R:31E	S:26, T:17S, R:31E
EDDY	ЕБОУ	ЕООУ	EDDY	ЕDDY	ЕББҮ	EDDY	ЕООУ	ЕООУ	ЕББҮ	ЕББҮ	ЕБВҮ	ЕББР	ЕБВҮ	ЕБРУ	EDDY	EDDY	ЕББР	ЕББҮ	ЕБО	ЕБОУ	ЕDDY
CHEVRON USA, INC. or CHEVRON US A INC	CHEVRON USA, INC. or CHEVRON U S A INC	CHEVRON USA, INC. or CHEVRON U S A INC	CHEVRON USA, INC. or CHEVRON U S A INC	CHEVRON USA, INC. or CHEVRON U S A INC	CHEVRON USA, INC. or CHEVRON U S A INC	CHEVRON USA, INC. or CHEVRON U S A INC	MACK ENERGY CORP	WISER OIL CO (THE)	WISER OIL CO (THE)												
30-015-32598	30-015-32599	30-015-32600	·	30-015-29461	30-015-29419	30-015-29461	30-015-29568	30-015-20658	30-015-05152	30-015-22261	30-015-29893	30-015-29702	30-015-29703	30-015-22255	30-015-29762	30-015-05417	30-015-05140	30-015-05343	30-015-29540	30-015-29541	30-015-05418

														SAN ANDRES	SAN ANDRES	SAN ANDRES	SAN ANDRES	SAN ANDRES									
PI Injection Well	Active	Shut-in	Active	Injection Well	Injection Well	Injection Well	Injection Well	Active	Injection Well	Pumping	Temporarily Abandoned	Pumping	Pumping	Pumping	Pumping	Active	Shut-in	Active	Pumping	Pumping	Pumping	Pumping	Pumping				
ā	_	0	ပ	-	-	-	-	ပ	_	-	_	_		0	0	0	0	0	0	0	0	0	0	0	0	0	0
3,560	0	12,204	3,841	3,822	0	3,860	0	3,717	3,000	0	3,725	3,690	3,804	4,025	4,025	4,100	3,950	4,100	3,950	4,100	4,000	3,950	4,000	3,900	4,000	4,000	4,060
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No	S	Š	N <sub>O</sub>	S	S S	S	Š	S O	Š	2	Š	N <sub>O</sub>	ž	S	2	N <sub>o</sub>	Š	ž	8	g	ž	Š	Š	Š	S	Š	No
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4/14/1997	4/11/1997	4/10/1997	3/28/1997	3/28/1997	3/28/1997	3/27/1997	3/20/1997	3/19/1997	3/19/1997	3/8/1997	3/3/1997	2/19/1997	2/7/1997	10/23/1996	242 10/23/1996	10/23/1996	10/15/1996	10/11/1996	10/11/1996	10/11/1996	10/4/1996	10/4/1996	9/24/1996	9/24/1996	8/7/1996	7/31/1996	7/2/1996
780	043	051	039	047	980	107	084	029	072	057	101	055	045	229	242	255	267	216	276	278	224	265	226	263	211	211	212
SKELLY	SKELLY	SKELLY UNIT	SKELLY UNIT	SKELLY	SKELLY UNIT	SKELLY	SKELLY UNIT	SKELLY UNIT	SKELLY UNIT	SKELLY	SKELLY UNIT	SKELLY	SKELLY UNIT	SKELLY UNIT	SKELLY UNIT												
S:27, T:17S, R:31E	S:22, T:17S, R:31E	S:22, T:17S, R:31E	S:23, T:17S, R:31E	S:23, T:17S, R:31E	S:27, T:17S, R:31E	S:27, T:17S, R:31E	S:27, T:17S, R:31E	S:15, T:17S, R:31E	S:23, T:17S, R:31E	S:22, T:17S, R:31E	S:22, T:17S, R:31E	S:22, T:17S, R:31E	S:22, T:17S, R:31E	S:23, T:17S, R:31E	S:23, T:17S, R:31E	S:23, T:17S, R:31E	S:23, T:17S, R:31E	S:14, T:17S, R:31E	S:27, T:17S, R:31E	S:27, T:17S, R:31E	S:22, T:17S, R:31E	S:27, T:17S, R:31E	S:22, T:17S, R:31E	S:27, T:17S, R:31E	S:15, T:17S, R:31E	S:15, T:17S, R:31E	S:22, T:17S, R:31E
EDDY	EDDY	ЕDDY	ЕООУ	ЕБВҮ	ЕDDY	ЕБВУ	EDDY	EDDY	ЕООУ	ЕООУ	ЕООУ	ЕБВҮ	ЕББҮ	ЕООУ	EDDY	Еррү	Еррү	ЕООУ	ЕООУ	ЕРРУ	ЕООУ	ЕООУ	ЕООУ	ЕООУ	ЕББҮ	ЕББҮ	ЕООУ
WISER OIL CO (THE)	WISER OIL CO (THE)	WISER OIL CO (THE)	WISER OIL CO (THE)	WISER OIL CO (THE)																							
30-015-05420	30-015-10500	30-015-05348	30-015-05361	30-015-05364	30-015-05421	30-015-20410	30-015-05423	30-015-05151	30-015-05372	30-015-05353	30-015-05358	30-015-05349	30-015-05346	30-015-29235	30-015-29237	30-015-29238	30-015-29224	30-015-29223	30-015-29225	30-015-29226	30-015-29208	30-015-29209	30-015-29182	30-015-29184	30-015-29092	30-015-29092	30-015-29031

SAN ANDRES	. SAN ANDRES	SAN ANDRES	GRAYBURG JACKSON		GRAYBURG JACKSON	GRAYBURG-JACKSON	SAN ANDRES	SAN ANDRES	SAN ANDRES	SAN ANDRES	GRAYBURG-JACKSON	QUEEN	QUEEN					-									
O Active	O Pumping	O Pumping	O Shut-in	O Pumping	O Pumping	O Pumping	O Pumping	O Active	O Pumping	G Flowing	O Shut-in	I Injection Well	O Pumping	I Injection Well	O Active	I Injection Well	PI Injection Well	G Active	1 Shut-in	I Injection Well	I Injection Well	I Injection Well	G Flowing				
4,050	4,000	4,050	3,900	3,982	4,000	4,100	3,950	4,005	4,100	4,000	3,982	4,000	3,950	0	3,800	0	0	2,170	12,384	3,709	3,800	3,810	3,804	0	2,165	3,820	3,827
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2	.≡ S	<u>=</u>	- N - N	<u>=</u> 2	N S	<u>:=</u> 8	N S	S S	<u>=</u> 2	8 8	No E	No E	<u>=</u> 2	<u>≡</u> 8	S S	S 12	<u>=</u> 2	<u>=</u> 8	No Pi	S S	No E	S S	No FE	S S E	S S	<u>≅</u> 8	No
																	A ****										
<b>₩</b>				4,800										0	0	0	0	0	0	0	0	0	0	0		0	0
7/2/1996	7/2/1996	7/2/1996	6/5/1996	5/20/1996	5/9/1996	5/2/1996	4/24/1996	4/24/1996	4/24/1996	4/23/1996	3/31/1996	3/13/1996	1/17/1996	9/1/1995	9/1/1995	9/1/1995	9/1/1995	9/1/1995	9/1/1995	9/1/1995	9/1/1995	9/1/1995	9/1/1995	9/1/1995	9/1/1995	9/1/1995	9/1/1995
240	241	254	264	223	225	277	227	228	266	253	223	275	262	034	031	032	002	052	003	950	054	053	044	058	042	046	040
SKELLY	SKELLY UNIT	SKELLY UNIT	SKELLY UNIT	SKELLY UNIT	SKELLY UNIT	SKELLY UNIT	SKELLY	SKELLY UNIT	SKELLY	SKELLY UNIT																	
S:23, T:17S, R:31E	S:23, T:17S, R:31E	S:23, T:17S, R:31E	S:27, T:17S, R:31E	S:21, T:17S, R:31E	S:22, T:17S, R:31E	S:27, T:17S, R:31E	S:22, T:17S, R:31E	S:23, T:17S, R:31E	S:26, T:17S, R:31E	S:23, T:17S, R:31E	S:21, T:17S, R:31E	S:28, T:17S, R:31E	S:21, T:17S, R:31E	S:14, T:17S, R:31E	S:15, T:17S, R:31E	S:15, T:17S, R:31E	S:22, T:17S, R:31E	S:23, T:17S, R:31E									
ЕDDУ	ЕББҮ	EDDY	ЕБВУ	EDDY	ЕООУ	ЕББУ	ЕООҮ	ЕББР	ЕБВУ	EDDY	ЕDDY	ЕБВҮ	EDDY	ЕБВУ	ЕООУ	EDDY	ЕББҮ	ЕББҮ	ЕББҮ	ЕООҮ	ЕООУ	ЕБВУ	ЕБВУ	ЕООУ	ЕООУ	ЕООУ	ЕББУ
WISER OIL CO (THE)																											
30-015-29032	30-015-29033	30-015-29034	30-015-28999	30-015-28964	30-015-28973	30-015-28967	30-015-28948	30-015-28949	30-015-28951	30-015-28950	30-015-28964	30-015-28881	30-015-28789	30-015-05143	30-015-05150	30-015-05162	30-015-05344	30-015-05345	30-015-05347	30-015-05350	30-015-05351	30-015-05352	30-015-05354	30-015-05355	30-015-05356	30-015-05357	30-015-05360

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Pumping	Active	Injection Well	Injection Well	Injection Well	Shut-in	Active	Active	Temporarily Abandoned	Active	Pumping	Temporarily Abandoned	Temporarily Abandoned	Pumping	Pumping	Shut-in	Active	Active	Active	Active	Pumping	Pumping	Pumping	Pumping	Active	Pumping	Pumping	Active
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3,857	3,855	3,894	3,803	0	0	0	3,906	3,910	4,000	0	2,580		2,600	2,600	2,580	11,065	2,500	2,530	2,550	2,600	2,700	2,650	2,740	3,980	2,650	2,646	3,900
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9/1/1995	9/1/1995	9/1/1995	9/1/1995	9/1/1995	9/1/1995	9/1/1995	9/1/1995	9/1/1995	9/1/1995	9/1/1995	9/1/1995	9/1/1995	9/1/1995	9/1/1995	9/1/1995	9/1/1995	9/1/1995	9/1/1995	9/1/1995	9/1/1995	9/1/1995	9/1/1995	9/1/1995	9/1/1995	9/1/1995	9/1/1995	9/1/1995
048	8/0	620	085	960	260	073	030	115	116	117	118	119	120	122	123	124	125	126	128	132	133	<del>2</del> 51	135	138	142	146	149
SKELLY UNIT	SKELLY UNIT	SKELLY	SKELLY UNIT	SKELLY UNIT	SKELLY UNIT	SKELLY	SKELLY UNIT	SKELLY UNIT	SKELLY UNIT	SKELLY UNIT	SKELLY UNIT	SKELLY UNIT	SKELLY UNIT	SKELLY	SKELLY UNIT	SKELLY UNIT	SKELLY	SKELLY UNIT	SKELLY UNIT	SKELLY UNIT	SKELLY UNIT	SKELLY UNIT	SKELLY UNIT	SKELLY UNIT	SKELLY UNIT	SKELLY UNIT	SKELLY
S:23, T:17S, R:31E	S:23, T:17S, R:31E	S:23, T:17S, R:31E	S:27, T:17S, R:31E	S:27, T:17S, R:31E	S:27, T:17S, R:31E	S:23, T:17S, R:31E	S:15, T:17S, R:31E	S:22, T:17S, R:31E	S:22, T:17S, R:31E	S:22, T:17S, R:31E	S:22, T:17S, R:31E	S:23, T:17S, R:31E	}	S:22, T:17S, R:31E	S:22, T:17S, R:31E	S:22, T:17S, R:31E	S:22, T:17S, R:31E	S:15, T:17S, R:31E	S:22, T:17S, R:31E	S:27, T:17S, R:31E	S:27, T:17S, R:31E	S:27, T:17S, R:31E	S:27, T:17S, R:31E	S:26, T:17S, R:31E	S:23, T:17S, R:31E	S:23, T:17S, R:31E	S:21, T:17S, R:31E
EDDY	ЕООУ	ЕООУ	ЕООУ	ЕБВҮ	ЕООУ	ЕООУ	ЕООУ	ЕООУ	ЕООУ	ЕООУ	ЕООУ	ЕББҮ	EDDY	EDDY	EDDY	ЕООУ	ЕООУ	ЕББҮ	ЕББҮ	ЕББҮ	ЕООУ	ЕООУ	EDDY	EDDY	ЕООУ	EDDY	ЕББУ
WISER OIL CO (THE)	WISER OIL CO (THE)	WISER OIL CO (THE)	WISER OIL CO (THE)	WISER OIL CO (THE)	WISER OIL CO (THE)	WISER OIL CO (THE)	WISER OIL CO (THE)	WISER OIL CO (THE)	WISER OIL CO (THE)	WISER OIL CO (THE)	WISER OIL CO (THE)	WISER OIL CO (THE)	WISER OIL CO (THE)	WISER OIL CO (THE)	WISER OIL CO (THE)	WISER OIL CO (THE)	WISER OIL CO (THE)	WISER OIL CO (THE)									
30-015-05363	30-015-05366	30-015-05369	30-015-05422	30-015-05424	1	30-015-10504	30-015-10774	30-015-21089	30-015-21090	30-015-22251	30-015-22252	30-015-22253	30-015-22254	30-015-22256	30-015-22257	30-015-22258	30-015-22259	30-015-22260	30-015-22262	30-015-22266	30-015-22267	30-015-22268	30-015-22269	30-015-22482	30-015-22510	30-015-22520	30-015-25037

DI Search Results (Printable Table)

5 O Active	5 PO Active	2 PO Active	) PO Active	PO Temporarily Abandoned	PO Temporarily Abandoned 7 RIVERS, GRAYBURG	
3,685	3,705	3,962	3,900	4,049	4,049	
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Š	ž	2	2	£	2	
0					3,900	
9/1/1995	9/1/1995	9/1/1995	9/1/1995	8/31/1995	10/3/1984	
156	157	159	160	158	158	
SKELLY UNIT	SKELLY	SKELLY	SKELLY : UNIT	SKELLY	SKELLY	
S:22, T:17S, R:31E	S:22, T:17S, R:31E UNIT	S:22, T:17S, R:31E   UNIT	S:22, T:17S, R:31E UNIT	S:22, T:17S, R:31E UNIT	S:22, T:17S, R:31E UNIT	
EDDY	EDDY	EDDY	ЕООУ	ЕООУ	ЕООУ	
WISER OIL CO (THE)	WISER OIL CO (THE)	WISER OIL CO (THE)	WISER OIL CO (THE)	WISER OIL CO (THE)	WISER OIL CO (THE)	STEVENS
30-015-25038	30-015-25039	30-015-25041	30-015-25042	30-015-25040	30-015-25040	

## **Minimum Specifications for Pressure Control**

The blowout preventer equipment (BOP) shown in Exhibit #9 will consist of a double ram-type (2000 psi WP) preventer. This unit will be hydraulically operated and the ram type preventer will be equipped with blind rams on top of 4 1/2" drill pipe rams on the bottom. The BOP will be nippled up on the 13 3/8" surface casing with BOP equipment and tested together to 1000 psi by rig pump Set COA in one test. The BOP will then be nippled up on the 8 5/8" intermediate casing and tested by a third party to 2000 psi and used continuously until total depth is reached. All BOP's and accessory equipment will be tested to 2000 psi before drilling out of the intermediate casing. Pipe rams will be operationally checked each 24-hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment (Exhibit #10) will include a Kelly cock and floor safety valve, choke lines and a choke manifold (Exhibit #11) with a 2000 psi WP rating.

## 7. Types and Characteristics of the Proposed Mud System

The well will be drilled to TD with a combination of brine, cut brine and polymer mud system. The applicable depths and properties of this system are as follows:

DEPTH	TYPE	WEIGHT	VISCOSITY	WATERLOSS
0-450-580	Fresh Water	8.5	28	N.C.
.450-1800'	Brine	10	30	N.C.
1800'-TD	Cut Brine	8.7-9.1	29	N.C.

See COA

> Sufficient mud materials will be kept at the well site to maintain mud properties and meet minimum lost circulation and weight increase requirements at all times.

## 8. **Auxiliary Well Control and Monitoring Equipment**

- Kelly cock will be kept in the drill string at all times. A.
- В. A full opening drill pipe-stabbing valve with proper drill pipe connections will be on the rig floor at all times.

## 9. Logging, Testing and Coring Program

- See A. The electric logging program will consist of GR-Dual Laterolog, Spectral Density, Dual Spaced Neutron, CSNG Log and will be run from TD to 8 5/8" casing shoe.
  - B. Drill Stem test is not anticipated.
  - C. No conventional coring is anticipated.
  - D. Further testing procedures will be determined after the 5 ½" production casing has been cemented at TD, based on drill shows and log evaluation.

## 10. Abnormal Conditions, Pressure, Temperatures and Potential Hazards

No abnormal pressures or temperatures are anticipated. The estimated bottom hole at TD is 110 degrees and the estimated maximum bottom hold pressure is 2300 psig. Measurable gas volumes or Hydrogen Sulfide levels have not been encountered during drilling operations in this area, although a Hydrogen Sulfide Drilling Operation Plan is attached to this program. No major loss of circulation zones has been reported in offsetting wells.

## 11. Anticipated Starting Date and Duration of Operations

Road and location work will not begin until approval has been received from the BLM. As this is a Master Drilling plan, please refer to the Form 3160-3 for the anticipated start date. Once commenced, drilling operations should be finished in approximately 12 days. If the well is productive, an additional 30 days will be required for completion and testing before a decision is made to install permanent facilities.



## **COG Operating LLC**

Eddy County, NM (NAN27 NME) Skelly Unit #740 Skelly Unit #740

OH

Plan: Plan #1 - 7-7/8" Hole SHL = 1220' FSL & 1250' FEL BHL = 980' FSL & 980' FEL Top of Paddock = 980' FSL & 980' FEL @ 4900' TVD

## **Standard Planning Report**

09 September, 2010





## Scientific Drilling

## Planning Report



Database: Company: EDM-Julio

COG Operating LLC

Project:

Eddy County, NM (NAN27 NME)

Site: Well: Skelly Unit #740 Skelly Unit #740

Wellbore

ОН

Design:

Plan #1 - 7-7/8" Hole

Local Co-ordinate Reference: TVD Reference:

MD Reference:

North Reference: Survey Calculation Method: Site Skelly Unit #740

GL Elev @ 3838.00usft GL Elev @ 3838.00usft

Grid

Minimum Curvature

Project

Eddy County, NM (NAN27 NME)

Map System: Geo Datum:

US State Plane 1927 (Exact solution) NAD 1927 (NADCON CONUS)

New Mexico East 3001

System Datum:

Mean Sea Level

Map Zone: Site

Skelly Unit #740

Site Position:

Position Uncertainty:

Мар

0:00 usft

Northing: Easting: Slot Radius: 660,935.60 usft 647,745.10 usft 13-3/16

Latitude: Longitude: Grid Convergence:

32° 48' 57.874 N 103° 51' 8 721 W

0.26

3,838.00 usft

From:

Skelly Unit #740

+N/-S

+E/-W

0.00 usft 0.00 usft 0.00 usft

Northing: Easting:

2010/09/09

Wellhead Elevation:

660,935.60 usft 647,745.10 usft

Ground Level:

32° 48' 57.874 N Longitude: 103° 51' 8.721 W

Position Uncertainty

Well Position

Wellbore

Magnetics

**Model Name** 

Sample Date

Declination

7 91

Field Strength Dip Angle

60 72

49.055

Design

Plan #1 - 7-7/8" Hole

BGGM2010

**Audit Notes:** 

Version:

Phase: Depth From (TVD)

(usft)

0.00

+N/-S (usft) 0.00

Tie On Depth: (usft) 0.00

0.00 Direction (°)

131.27

Plan Sections Dogleg Measured Vertical Build Turn Depth Rate Depth Inclination Azimuth +N/-S +E/-W Rate Rate (usft) 1100usft) (°/100usft) (°/100usft) (°) (usft) (usft) (°) 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 1,950.00 0.00 0.00 1.950.00 0.00 0.00 0.00 0.00 0.00 0.00 2,353.68 8.07 131 27 2,352.35 -18 73 2.00 2 00 0.00 131 27 21.34 4,520.46 8.07 131.27 4,497.65 250.06 0.00 0.00 0.00 0.00 -219.47 4,924.15 0.00 4,900.00 2.00 -2.00 180.00 TG1-SU #740 0.00 -238.20 271.40 0.00 6,924.15 0.00 0.00 6,900.00 -238.20 271.40 0.00 0.00 0.00 0.00 PBHL-SU #740



## **Scientific Drilling**

Planning Report



Database:

EDM-Julio

Company: Project:

Eddy County, NM (NAN27 NME)

Site: Well:

Skelly Unit #740

Wellbore:

Skelly Unit #740 ОН

Design:

COG Operating LLC

TVD Reference: MD Reference:

North Reference:

Survey Calculation Method:

Local Co-ordinate Reference:

Site Skelly Unit #740

GL Elev @ 3838.00usft GL Elev @ 3838.00usft Grid

Minimum Curvature

sign:	Plan #1 - 7-7/8	лове	The state of the s	·	·	<u> </u>	and the state of t	Parantes a November	and the second s
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Measured			Vertical			Vertical	Dogleg	Build	Turn
Depth	Inclination	Azimuth	Depth	+N/-S	+E/-W	Section	Rate	Rate	Rate
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	J #740 - East HL-		4.050.00	2.22	2.22		0.00	0.00	0.00
1,850.00	0.00	0.00	1,850.00	0.00	0.00	0.00	0.00	0.00	0.00
8-5/8" Casing									
1,950.00	0.00	0.00	1,950.00	0.00	0.00	0.00	0.00	0.00	0.00
	uild 2.00°/100'								
2,000.00	1.00	131.27	2,000.00	-0.29	0.33	0.44	2.00	2.00	0.00
2,100.00	3.00	131.27	2,099.93	-2.59	2.95	3.93	2.00	2.00	0.00
2,200.00	5.00	131.27	2,199.68	-7.19	8.19	10.90	2.00	2.00	0.00
2,300.00	7.00	131.27	2,299.13	-14.09	16.05	21.35	2.00	2.00	0.00
2,353.68	8.07	131.27	2,352.35	-18.73	21.34	28.39	2.00	2.00	0.00
EOC hold 8.0	07°								
2,400.00	8.07	131.27	2,398.21	-23.02	26.23	34.90	0.00	0.00	0.00
2,500.00	8.07	131.27	2,497.22	-32.29	36.79	48.94	0.00	0.00	0.00
·									
2,600.00	8.07	131.27	2,596.22	-41.55	47.34	62.99	0.00	0.00	0.00
2,700.00	8.07	131.27	2,695.23	-50.81	57.90	77.03	0.00	0.00	0.00
2,800.00	8.07	131.27	2,794.24	-60.08	68.45	91.08	0.00	0.00	0.00
2,900.00 3,000.00	8.07 8.07	131.27 131.27	2,893.25	-69.34 -78.61	79.01 89.56	105.12 119.17	0.00 0.00	0.00 0.00	0.00 0.00
3,000.00	0.07	131.21	2,992.26	-70.01	, 69.36	119.17	0.00	0.00	0.00
3,100.00	8.07	131.27	3,091.27	-87.87	100.12	133.21	0.00	0.00	0.00
3,200.00	8.07	131.27	3,190.28	-97.14	110.68	147.26	0.00	0.00	0.00
3,300.00	8.07	131.27	3,289.29	-106.40	121.23	161.30	0.00	0.00	0.00
3,400.00	8.07	131.27	3,388.29	-115.67	131.79	175.35	0.00	0.00	0.00
3,500.00	8.07	131.27	3,487.30	-124.93	142.34	189.39	0.00	0.00	0.00
3,600.00	8.07	131.27	3,586.31	-134,19	152.90	203.44	0.00	0.00	0.00
3,700,00	8.07	131.27	3,685.32	-143.46	163.45	217.48	0.00	0.00	0.00
3,800.00	8.07	131.27	3,784.33	-152.72	174.01	231.52	0.00	0.00	0.00
3,900.00	8.07	131.27	3,883.34	-161.99	184.57	245.57	0.00	0.00	0.00
4,000.00	8.07	131.27	3,982.35	-171.25	195.12	259.61	0.00	0.00	0.00
4,100.00	8.07	131.27	4,081.36	-180.52	205.68	273.66	0.00	0.00	0.00
4,100.00	8.07	131.27	4,081.30	-180.32	216.23	287.70	0.00	0.00	0.00
4,300.00	8.07	131.27	4,279.37	-199.05	226.79	301.75	0.00	0.00	0.00
4,400.00	8.07	131.27	4,378.38	-208.31	237.34	315.79	0.00	0.00	0.00
4,500.00	8.07	131.27	4,477.39	-217.57	247.90	329.84	0.00	0.00	0.00
4,520.46	8.07	131.27	4.497.65	-219.47	250.06	332.71	0.00	0.00	0.00
		101.21	4,457.00	-213.71	200.00	552.71	0.00	0.00	0.00
Start DLS 2.0 4,600.00	6.48	131.27	4,576.55	-226.12	257.63	342.79	2.00	-2.00	0.00
4,700.00	4.48	131.27	4,576.55 4,676.08	-220.12 -232.42	257.63 264.81	342.79 352.34	2.00	-2.00 -2.00	0.00
4,700.00	2.48	131.27	4,775.89	-232.42 -236.43	269.38	358.42	2.00	-2.00	0.00
4,900.00	2.46 0.48	131.27	4,775.89 4,875.85	-236.43 -238.13	269.36 271.32	361.00	2.00	-2.00	0.00
4,924.15	0.00	0.00	4,900.00	-238.20	271.40	361.11	2.00	-2.00	-543.67

6,924.15

PBHL-SU #740

EOC hold 0.00° - Top of Paddock - TG1-SU #740

0.00

-238.20

271.40

361.11

0.00

0.00

6,900.00

0.00

0.00



## **Scientific Drilling**

Planning Report



Database:

- EDM-Julio

Company:

COG Operating LLC

Project:

Eddy County, NM (NAN27 NME)

Site: Well: Skelly Unit #740

Skelly Unit #740

Wellbore: Plan #1 - 7-7/8" Hole Design:

ОН

Local Co-ordinate Reference:

TVD Reference:

MD Reference: North Reference:

Survey Calculation Method:

Site Skelly Unit #740

GL Elev @ 3838.00usft GL Elev @ 3838.00usft

Grid

Minimum Curvature

Design Targets  Target Name hit/miss target Dip Shape	Anglé (°)	Dip Dir.	TVD (usft)	+Ñ/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Löngitude
South HL-SU #740 - plan misses target cente - Rectangle (sides W200.			0.00 Ousft MD (0.	-228.20 00 TVD, 0.00	261.40 N, 0.00 E)	660,707.40	648,006.50	32° 48′ 55.604 N	103° 51' 5.670 W
East HL-SU #740 - plan misses target cente - Rectangle (sides W0.00			0.00 Ousft MD (0.	-228.20 00 TVD, 0.00	261.40 N, 0.00 E)	660,707.40	648,006.50	32° 48′ 55.604 N	103° 51' 5.670 W
TG1-SU #740 - plan hits target center - Point	0.00	0.01	4,900.00	-238.20	271.40	660,697.40	648,016.50	32° 48' 55.505 N	103° 51' 5.553 W
PBHL-SU #740 - plan hits target center - Circle (radius 10.00)	0.00	0.00	6,900.00	-238.20	271.40	660,697.40	648,016.50	32° 48' 55.505 N	103° 51' 5.553 W

Casing Points		
Measured Vertical		Casing Hole
Depth Depth		Diameter Diameter
(usft) (usft)	Name	
1,850.00 1,850.00	8-5/8" Casing	8-5/8 12-1/4

Formations  Measured Vertical  Depth Depth  (usft) (usft) Name  4,924.15 4,900.00 Top of Paddock	Dip Dip Direction  (°)  0.00
--	------------------------------

Plan Annotations		. A. J. 180		and the second of the second o
Measured	Vertical	Local Coord	linatés	
Depth (usft)	Depth (usft)	+N/-S (usft)	+E/-W (usft)	Comment
1,950.00	1,950.00	0.00	0.00	KOP Start Build 2.00°/100'
2,353.68	2,352.35	-18.73	21.34	EOC hold 8.07°
4,520.46	4,497.65	-219.47	250.06	Start DLS 2.00°/100'
4,924.15	4,900.00	-238.20	271.40	EOC hold 0.00°



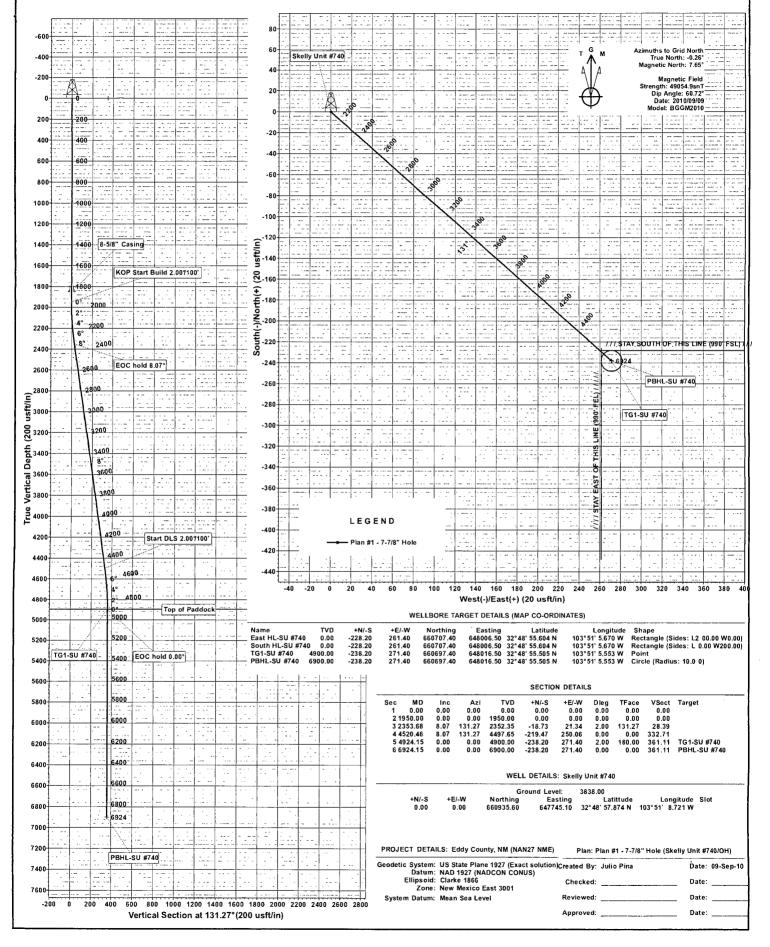
Scientific Drilling for COG Operating LLC Site: Eddy County, NM (NAN27 NME)

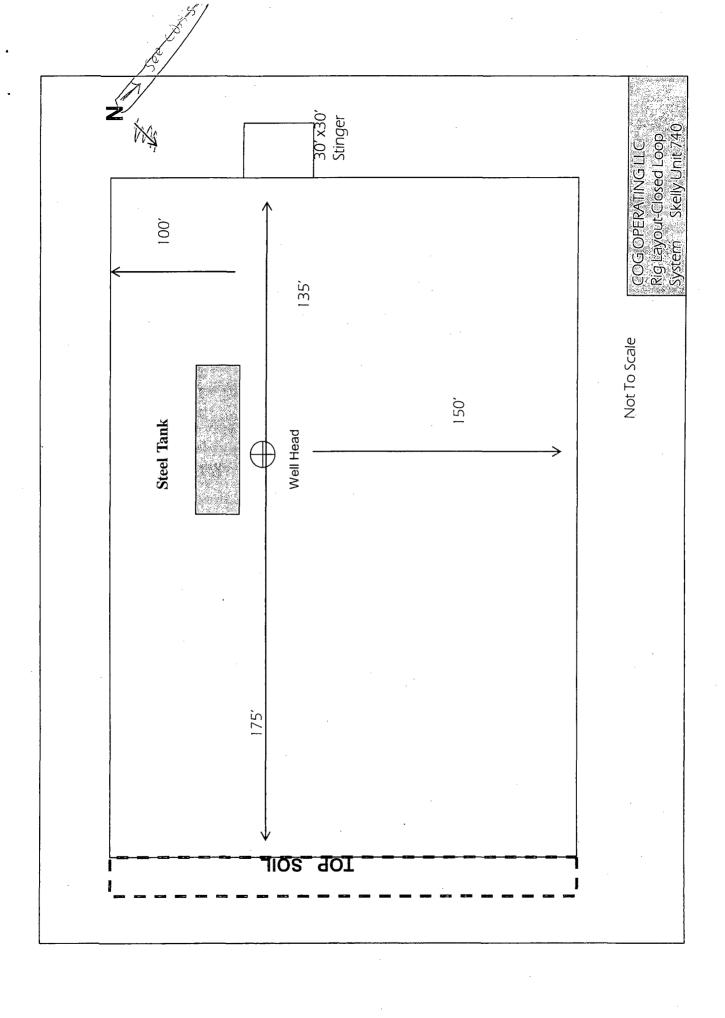
Well: Skelly Unit #740

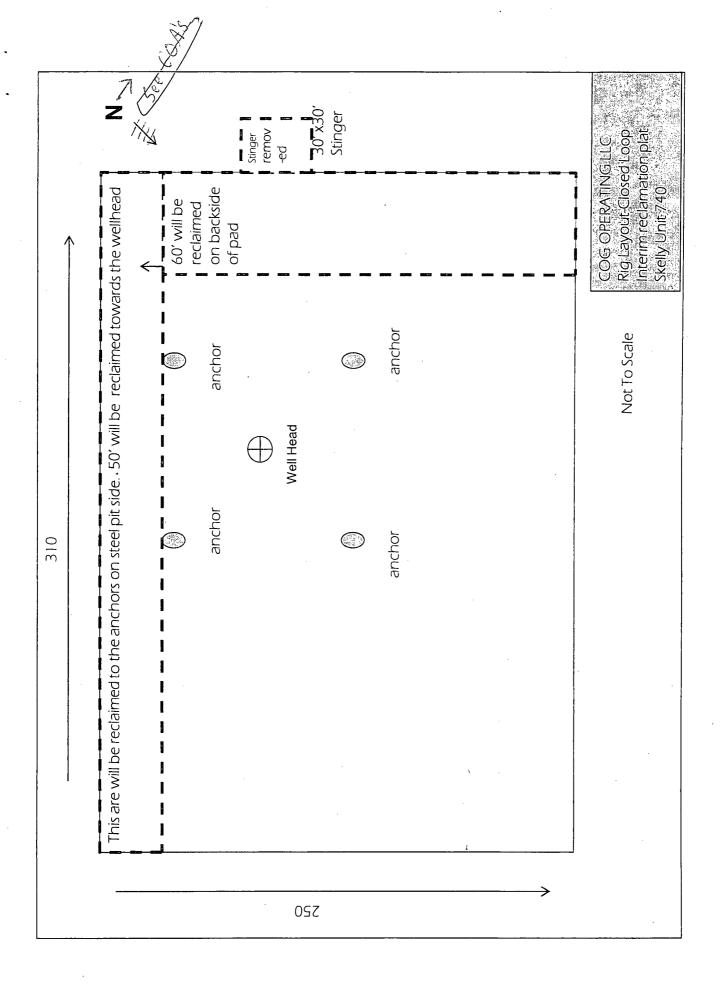
Wellbore: OH

Design: Plan #1 - 7-7/8" Hole



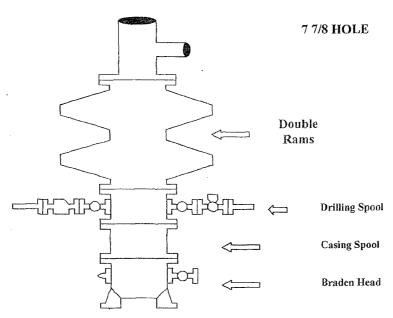






## **COG Operating LLC**

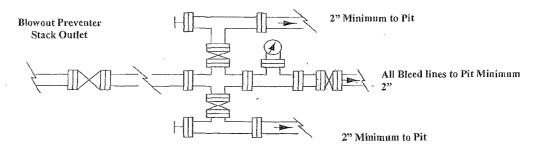
## **Exhibit #9 BOPE and Choke Schematic**



Minimum 4" Nominal choke and kill lines

## Choke Manifold Requirement (2000 psi WP) No Annular Required

## Adiustable Choke



Adjustable Choke (or Positive)

## NOTES REGARDING THE BLOWOUT PREVENTERS Master Drilling Plan Eddy County, New Mexico

- 1. Drilling nipple to be so constructed that it can be removed without use of a welder through rotary table opening, with minimum I.D. equal to preventer bore.
- 2. Wear ring to be properly installed in head.
- 3. Blow out preventer and all fittings must be in good condition, 2000 psi WP minimum.
- 4. All fittings to be flanged.
- 5. Safety valve must be available on rig floor at all times with proper connections, valve to be full 2000 psi WP minimum.
- 6. All choke and fill lines to be securely anchored especially ends of choke lines.
- 7. Equipment through which bit must pass shall be at least as large as the diameter of the casing being drilled through.
- 8. Kelly cock on Kelly.
- 9. Extension wrenches and hands wheels to be properly installed.
- 10. Blow out preventer control to be located as close to driller's position as feasible.
- 11. Blow out preventer closing equipment to include minimum 40-gallon accumulator, two independent sources of pump power on each closing unit installation all API specifications.

Blowout Preventers Page 2

## **COG Operating LLC**

## **Hydrogen Sulfide Drilling Operation Plan**

## I. HYDROGEN SULFIDE TRAINING

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing drilling operations on this well:

- 1. The hazards an characteristics of hydrogen sulfide (H2S)
- 2. The proper use and maintenance of personal protective equipment and life support systems.
- 3. The proper use of H2S detectors alarms warning systems, briefing areas, evacuation procedures, and prevailing winds.
- 4. The proper techniques for first aid and rescue procedures.

In addition, supervisory personnel will be trained in the following areas:

- 1. The effects of H2S on metal components. If high tensile tubular are to be used, personnel well be trained in their special maintenance requirements.
- 2. Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.
- 3. The contents and requirements of the H2S Drilling Operations Plan and Public Protection Plan.

There will be an initial training session just prior to encountering a known or probable H2S zone (within 3 days or 500 feet) and weekly H2S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H2S Drilling Operations Plan and the Public Protection Plan. The concentrations of H2S of wells in this area from surface to TD are low enough that a contingency plan is not required.

## II. H2S SAFETY EQUIPMENT AND SYSTEMS

Note: All H2S safety equipment and systems will be installed, tested, and operational when drilling reaches a depth of 500 feet above, or three days prior to penetrating the first zone containing or reasonable expected to contain H2S.

## 1. Well Control Equipment:

- A. Flare line.
- B. Choke manifold.
- C. Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit.
- Auxiliary equipment may include if applicable: annular preventer & rotating head.

## 2. Protective equipment for essential personnel:

A. Mark II Survive air 30-minute units located in the doghouse and at briefing areas, as indicated on well site diagram.

## 3. H2S detection and monitoring equipment:

A. 1 portable H2S monitors positioned on location for best coverage and response. These units have warning lights and audible sirens when H2S levels of 20 PPM are reached.

## 4. Visual warning systems:

- A. Wind direction indicators as shown on well site diagram (Exhibit #8).
- B. Caution/Danger signs (Exhibit #7) shall be posted on roads providing direct access to location. Signs will be painted a high visibility yellow with black lettering of sufficient size to be readable at a reasonable distance from the immediate location. Bilingual signs will be used, when appropriate. See example attached.

## 5. Mud program:

A. The mud program has been designed to minimize the volume of H2S circulated to surface. Proper mud weight, safe drilling practices, and the use of H2S scavengers will minimize hazards when penetrating H2S bearing zones.

## 6. 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.
- B. All elastomers used for packing and seals shall be H2S trim.

## 7. Communication:

- A. Radio communications in company vehicles including cellular telephone and 2-way radio.
- B. Land line (telephone) communication at Office.

## 8. Well testing:

- A. Drill stem testing will be performed with a minimum number of personnel in the immediate vicinity, which are necessary to safely and adequately conduct the test. The drill stem testing will be conducted during daylight hours and formation fluids will not be flowed to the surface. All drill-stem-testing operations conducted in an H2S environment will use the closed chamber method of testing.
- B. There will be no drill stem testing.

## EXHIBIT #7

## WARNING YOU ARE ENTERING AN H2S

## AUTHORIZED PERSONNEL ONLY

- 1. BEARDS OR CONTACT LENSES NOT ALLOWED
- 2. HARD HATS REQUIRED
- 3. SMOKING IN DESIGNATED AREAS ONLY
- 4. BE WIND CONSCIOUS AT ALL TIMES
- 5. CHECK WITH COG OPERATING FOREMAN AT

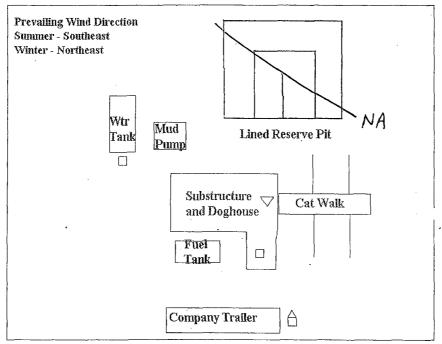
COG OPERATING LLC 1-432-683-7443 1-575-746-2010

**EDDY COUNTY EMERGENCY NUMBERS** 

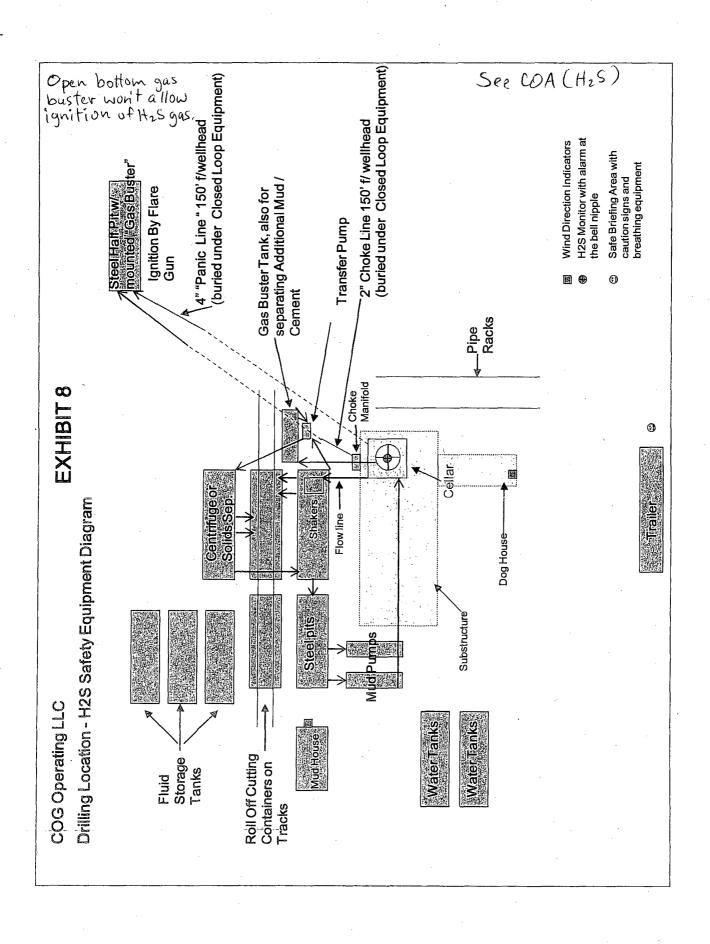
ARTESIA FIRE DEPT. 575-746-5050 ARTESIA POLICE DEPT. 575-746-5000 EDDY CO. SHERIFF DEPT. 575-746-9888 LEA COUNTY EMERGENCY NUMBERS

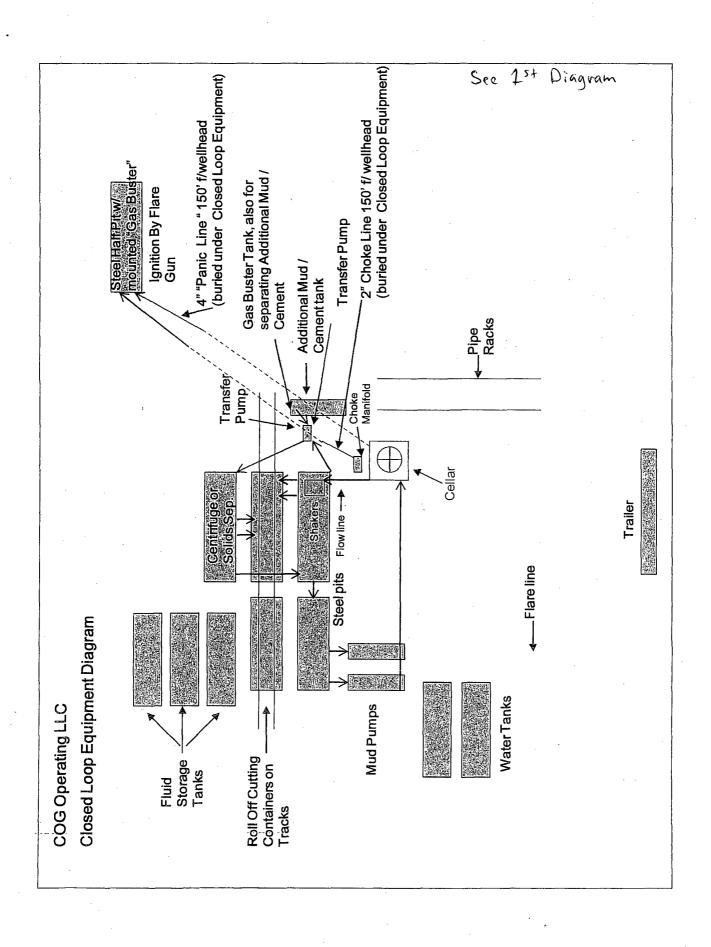
HOBBS FIRE DEPT. 575-397-9308 HOBBS POLICE DEPT. 575-397-9285 LEA CO. SHERIFF DEPT. 575-396-1196

## DRILLING LOCATION H2S SAFETY EQUIPMENT Exhibit # 8



- H2S Monitors with alarms at the bell nipple
  - Wind Direction Indicators
- Safe Briefing areas with caution signs and breathing equipment min 150 feet from





## Closed Loop Operation & Maintenance Procedure

All drilling fluid circulated over shaker(s) with cuttings discharged into roll off container.

Fluid and fines below shaker(s) are circulated with transfer pump through centrifuge(s) or solids separator with cuttings and fines discharged into roll off container.

Fluid is continuously re-circulated through equipment with polymer added to aid separation of cutting fines.

Roll off containers are lined and de-watered with fluids re-circulated into system.

Additional tank is used to capture unused drilling fluid or cement returns from casing jobs.

This equipment will be maintained 24 hrs./day by solids control personnel and or rig crews that stay on location.

Cuttings will be hauled to either:

CRI (permit number R9166) or GMI (permit number 711-019-001)

dependent upon which rig is available to drill this well.

Surface Use Plan
COG Operating, LLC
Skelly Unit 740
SHL 1220' FSL & 1250' FEL BHL 990' FSL & 990' FEL
Section 22, T-17-S, R-31-E, UL P
Eddy County, New Mexico

## SURFACE USE AND OPERATING PLAN

## 1. Existing & Proposed Access Roads

- A. The well site survey and elevation plat for the proposed well is shown in Exhibit #1. It was staked by John West Engineering, Hobbs, NM.
- B. All roads to the location are shown in the topographic map Exhibit #2. The existing lease roads are illustrated and are adequate for travel during drilling and production operations. Upgrading existing roads prior to drilling the well will be done where necessary.
- C. Directions to Location: From the intersection US Highway 82 and Co. Rd. 224 (Sweet Gum Road), Go South on lease road apprx 0.1 mile. Turn Left & Go East apprx 0.8 mile. Veer Left & GO Northeast apprx 02 mile. The location stake is apprx 300' South of Lease Road. See Vicinity Map, Exhibit #3.
- D. Routine grading and maintenance of existing roads will be conducted as necessary to maintain their condition as long as any operations continue on this lease. Roads will be maintained according to specifications in section 2A of this Surface Use and Operating Plan.

## 2. Proposed Access Road:

Exhibit #4 shows that 0' of new access road will be required for this location. If any road is required it will be constructed as follows:

- A. The maximum width of the running surface will be 14'. The road will be crowned, ditched and constructed of 6" rolled and compacted caliche. Ditches will be at 3:1 slope and 4 feet wide. Water will be diverted where necessary to avoid ponding, prevent erosion, maintain good drainage, and to be consistent with local drainage patterns.
- B. The average grade will be less than 1%.
- C. No turnouts are planned.
- D. No culverts, cattleguard, gates, low water crossings or fence cuts are necessary.

Surface Use Plan Page 1

Surface Use Plan
COG Operating, LLC
Skelly Unit 740
SHL 1220' FSL & 1250' FEL BHL 990' FSL & 990' FEL
Section 22, T-17-S, R-31-E, UL P
Eddy County, New Mexico

E. Surfacing material will consist of native caliche. Caliche will be obtained from the actual well site if available. If not available onsite, caliche will be hauled from the nearest BLM caliche pit.

## 3. Location of Existing Well:

Exhibit #5 shows all existing wells within a one-mile radius of this well.

As shown on this plat there are numerous wells producing from the San Andres and Yeso formations.

## 4. Location of Existing and/or Proposed Facilities:

- A. COG Operating LLC does operate a production facility on this lease.
- B. If the well is productive, contemplated facilities will be as follows:
  - 1) Production will be sent to the Skelly 942 Federal tank battery located well location @ 1210 FNL & 2195 FEL, Section 22, T17S, R31E, UL B. The facility location is shown in Exhibit #5.
  - 2) The tank battery and facilities including all flow lines and piping will be installed according to API specifications.
  - 3) Any additional caliche will be obtained from the actual well site. If caliche does not exist or is not plentiful from the well site, the caliche will be hauled from a BLM approved caliche pit. Any additional construction materials will be purchased from contractors.
  - 4) Proposed flow lines, will follow an archaeologically approved route to the Skelly 942 Federal tank battery located well location @ 1210 FNL & 2195 FEL, Section 22, T175, R31E, UL B. The flowline will be SDR 7 3" poly line laid on the surface and will be approximately 4930' miles in length with max pressure 100 psi. Flowlines will be no more than 11' from the paralleling road. The facility location is shown in Exhibit #5.
  - 5) It will be necessary to run electric power if this well is productive. Power will be provided by CVE and they will submit a separate plan and ROW for service to the well location.
  - 6) If the well is productive, rehabilitation plans will include the following:
    - a) The original topsoil from the well site will be returned to the location, and the site will be re-contoured as close as possible to the original site.

Surface Use Plan Page 2

#### 5. Location and Type of Water Supply:

The well will be drilled with combination brine and fresh water mud system as outlined in the drilling program. The water will be obtained from commercial water stations in the area and hauled to location by transport truck over the existing and proposed access roads shown in Exhibit #2. If a commercial fresh water source is nearby, fast line may be laid along existing road ROW's and fresh water pumped to the well. No water well will be drilled on the location.

### 6. Source of Construction Materials and Location "Turn-Over" Procedure:

Obtaining caliche: The primary way of obtaining caliche to build locations and roads will be by "turning over" the location. This means, caliche will be obtained from the actual well sight. A caliche permit will be obtained from BLM prior to pushing up any caliche. 2400 cu. Yards is max amount of caliche needed for pad and roads. Amount will vary for each pad. The procedure below has been approved by BLM personnel:

- A. The top 6 inches of topsoil is pushed off and stockpiled along the side of the location.
- B. An approximate 120' X 120' area is used within the proposed well site to remove caliche.
- C. Subsoil is removed and piled along side the 120' by 120' area within the pad site.
- D. When caliche is found, material will be stock piled within the pad site to build the location and road.
- E. Then subsoil is pushed back in the hole and caliche is spread accordingly across entire location and road.
- F. Once well is drilled, the stock piled top soil will be used for interim reclamation and spread along areas where caliche is picked up and the location size is reduced. Neither caliche or subsoil will be stock piled outside of the well pad. Topsoil will be stockpiled along the edge of the pad as depicted in attached plat.

In the event that no caliche is found onsite, caliche will be hauled in from a BLM approved caliche pit.

#### 7. Methods of Handling Water Disposal:

- A. The well will be drilled utilizing a closed loop mud system. Drill cuttings will be held in roll-off style mud boxes and taken to an NMOCD approved disposal site.
- B. Drilling fluids will be contained in steel mud pits.

- C. Water produced from the well during completion will be held temporarily in steel tanks and then taken to an NMOCD approved commercial disposal facility.
- D. Garbage and trash produced during drilling or completion operations will be collected in a trash bin and hauled to an approved landfill. No toxic waste or hazardous chemicals will be produced by this operation.
- E. After the rig is moved out and the well is either completed or abandoned, all waste materials will be cleaned up within 30 days. In the event of a dry hole only a dry hole marker will remain.

### 8. Ancillary Facilities:

No airstrip, campsite or other facilities will be built as a result of the operation on this well.

#### 9. Well Site Layout:

- A. The drill pad layout, with elevations staked by John West Engineering, is shown in Exhibit #4. Dimensions of the pad and pits are shown on Exhibit #6. V door direction is Southwest. Topsoil, if available, will be stockpiled per BLM specifications. Because the pad is almost level no major cuts will be required.
- B. Exhibit #6 also shows the proposed orientation of closed loop system and access road. No permanent living facilities are planned, but a temporary foreman/toolpusher's trailer will be on location during the drilling operations.

#### 10. Plans for Restoration of the Surface:

A. Interim Reclamation will take place after the well has been completed. The pad will be downsized by reclaiming the areas not needed for production operations. The portions of the pad that are not needed for production operations will be recontoured to its original state as much as possible. The caliche that is removed will be reused to either build another pad site or for road repairs within the lease. The stockpiled topsoil will then be spread out reclaimed area and reseeded with a BLM approved seed mixture. In the event that the well must be worked over or maintained, it may be necessary to drive, park, and/or operate machinery on reclaimed land. This area will be repaired or reclaimed after work is complete. Pad will be approx. 200'X250" when reclaimed.

B. Final Reclamation: Upon plugging and abandoning the well, All caliche for well pad and lease road will be removed and surface will be recountoured to reflect its surroundings as much as possible. Caliche will be recycled for road repair or reused for another well pad within the lease. If any topsoil remains, it will be spread out and the area will be reseded with a BLM approved mixture and revegitated as per BLM orders.

#### 11. Surface Ownership:

- A. The surface is owned by the U.S. Government and is administered by the Bureau of Land Management. The surface is multiple uses with the primary uses of the region for grazing of livestock and the production of oil and gas.
- B. The surface tenant for this site is Charles Martin, P.O. Box 706, Artesia NM 88211.
- C. The proposed road routes and surface location will be restored as directed by the BLM

#### 12. Other Information:

- A. The area around the well site is grassland and the topsoil is sandy. The vegetation is moderately sparse with native prairie grasses, some mesquite and shinnery oak. No wildlife was observed but it is likely that mule deer, rabbits, coyotes and rodents traverse the area.
- B. There is no permanent or live water in the immediate area.
- C. There are no dwellings within 2 miles of this location.
- D. If needed, a Cultural Resources Examination is being prepared by Southern New Mexico Archaeological Services, Inc. P.O. Box 1, Bent New Mexico, 88314, phone # 505-671-4797 and the results will be forwarded to your office in the near future. Otherwise, COG will be participating in the Permian Basin MOA Program.

#### 13. Bond Coverage:

Bond Coverage is Nationwide Bond # 000215

## 14. Lessee's and Operator's Representative:

The COG Operating LLC representative responsible for assuring compliance with the surface use plan is as follows:

John Coffman,

Erick Nelson.

**Drilling Superintendent** 

**Division Operations Manager** 

**COG Operating LLC** 

**COG Operating LLC** 

550 W. Texas, Suite 1300

550 W. Texas, Suite 1300

Midland, TX 79701

Midland, TX 79701

Phone (432) 683-7443 (office)

Phone (505) 746-2210 (office)

(432) 631-9762 (cell)

(432) 238-7591 (cell)

I hereby certify that I, or persons under my direct supervision, have inspected the drill site and access road proposed herein; that I am familiar with the conditions that presently exist; that I have full knowledge of State and Federal laws applicable to this operation; that the statements make in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or COG Operating, LLC, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements. Executed this 7th day of September, 2010.

Signed:

Printed Name: Carl Bird

Position: Drilling Engineer

Address: 550 W. Texas, Suite 1300, Midland, Texas 79701

Telephone: (432) 683-7443

Field Representative (if not above signatory): Same

E-mail: cbird@conchoresources.com

## **Exhibits:**

Exhibit #1	Wellsite and Elevation Plat		
	Form C-102 Well location and acreage dedication plat		
Exhibit #2	Topographic Map (West)		
Exhibit #3	Vicinity Map and area roads		
Exhibit #4	Elevation Plat (West)		
Exhibit #5	Topographic extract showing wells, roads and flowlines		
Exhibit #6	Pad Layout and orientation		
Exhibit #7	H2S Signage		
Exhibit #8	H2S Equipment location		
Exhibit #9	BOP and Choke diagrams		
Exhibit #10	Form C-144 NMOCD pit permit application		

# PECOS DISTRICT CONDITIONS OF APPROVAL

OPERATOR'S NAME:
LEASE NO.:
WELL NAME & NO.:
SURFACE HOLE FOOTAGE:
BOTTOM HOLE FOOTAGE
LOCATION:
COUNTY:
COUNTY:
COG OPERATING LLC
NMLC029419A
740-SKELLY UNIT
1220' FSL & 1250' FEL
0990' FSL & 0990' FEL
Section 22, T. 17 S., R. 31 E., NMPM
Eddy County, New Mexico

## **TABLE OF CONTENTS**

Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.

General Provisions
Permit Expiration
Archaeology, Paleontology, and Historical Sites
Noxious Weeds
Special Requirements
Lesser Prairie-Chicken Timing Stipulations
Ground-level Abandoned Well Marker
Plan of Development
Construction
Notification
Topsoil
Closed Loop System
Federal Mineral Material Pits
Well Pads
Roads
☐ Road Section Diagram
Drilling
Waste Material and Fluids
H2S – Onshore Order 6 requirements
Logging requirements
Production (Post Drilling)
Well Structures & Facilities
Pipelines
Electric Lines
Interim Reclamation
Final Abandonment & Reclamation

#### I. GENERAL PROVISIONS

The approval of the Application For Permit To Drill (APD) is in compliance with all applicable laws and regulations: 43 Code of Federal Regulations 3160, the lease terms, Onshore Oil and Gas Orders, Notices To Lessees, New Mexico Oil Conservation Division (NMOCD) Rules, National Historical Preservation Act As Amended, and instructions and orders of the Authorized Officer. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

## II. PERMIT EXPIRATION

If the permit terminates prior to drilling and drilling cannot be commenced within 60 days after expiration, an operator is required to submit Form 3160-5, Sundry Notices and Reports on Wells, requesting surface reclamation requirements for any surface disturbance. However, if the operator will be able to initiate drilling within 60 days after the expiration of the permit, the operator must have set the conductor pipe in order to allow for an extension of 60 days beyond the expiration date of the APD. (Filing of a Sundry Notice is required for this 60 day extension.)

## III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

Any cultural and/or paleontological resource discovered by the operator or by any person working on the operator's behalf shall immediately report such findings to the Authorized Officer. The operator is fully accountable for the actions of their contractors and subcontractors. The operator shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery shall be made by the Authorized Officer to determine the appropriate actions that shall be required to prevent the loss of significant cultural or scientific values of the discovery. The operator shall be held responsible for the cost of the proper mitigation measures that the Authorized Officer assesses after consultation with the operator on the evaluation and decisions of the discovery. Any unauthorized collection or disturbance of cultural or paleontological resources may result in a shutdown order by the Authorized Officer.

### IV. NOXIOUS WEEDS

The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

## V. SPECIAL REQUIREMENT(S)

Timing Limitation Stipulation / Condition of Approval for lesser prairie-chicken: Oil and gas activities including 3-D geophysical exploration, and drilling will not be allowed in lesser prairie-chicken habitat during the period from March 1st through June 15th annually. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, pipeline, road, and well pad construction, will be allowed except between 3:00 am and 9:00 am. The 3:00 am to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this period. Additionally, no new drilling will be allowed within up to 200 meters of leks known at the time of permitting. Normal vehicle use on existing roads will not be restricted. Exhaust noise from pump jack engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 feet from the source of the noise.

Ground-level Abandoned Well Marker to avoid raptor perching: Upon the plugging and subsequent abandonment of the well, the well marker will be installed at ground level on a plate containing the pertinent information for the plugged well. For more installation details, contact the Carlsbad Field Office at 575-234-5972.

### Plan of Development

Sub-operator is to submit a Unit Plan of Development (UPOD) annually to the Unit operator for submission to the BLM. Guidelines for UPOD are available upon request at the BLM Carlsbad Field Office.

### VI. CONSTRUCTION

#### A. NOTIFICATION

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Carlsbad Field Office at (575) 234-5972 at least 3 working days prior to commencing construction of the access road and/or well pad.

When construction operations are being conducted on this well, the operator shall have the approved APD and Conditions of Approval (COA) on the well site and they shall be made available upon request by the Authorized Officer.

#### B. TOPSOIL

The operator shall stockpile the topsoil in a low profile manner in order to prevent wind/water erosion of the topsoil. The topsoil to be stripped is approximately 6 inches in depth. The topsoil will be used for interim and final reclamation.

### C. CLOSED LOOP SYSTEM

V-door: Northwest

Tanks are required for drilling operations: No Pits.

The operator shall properly dispose of drilling contents at an authorized disposal site.

#### D. FEDERAL MINERAL MATERIALS PIT

Payment shall be made to the BLM prior to removal of any federal mineral materials. Call the Carlsbad Field Office at (575) 234-5972.

#### E. WELL PAD SURFACING

Surfacing of the well pad is not required.

If the operator elects to surface the well pad, the surfacing material may be required to be removed at the time of reclamation.

The well pad shall be constructed in a manner which creates the smallest possible surface disturbance, consistent with safety and operational needs.

#### F. ON LEASE ACCESS ROADS

#### Road Width

The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed fourteen (14) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed twenty (20) feet.

#### Surfacing

Surfacing material is not required on the new access road driving surface. If the operator elects to surface the new access road or pad, the surfacing material may be required to be removed at the time of reclamation.

Where possible, no improvements should be made on the unsurfaced access road other than to remove vegetation as necessary, road irregularities, safety issues, or to fill low areas that may sustain standing water.

The Authorized Officer reserves the right to require surfacing of any portion of the access road at any time deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future field development. The surfacing depth and type of material will be determined at the time of notification.

#### Crowning

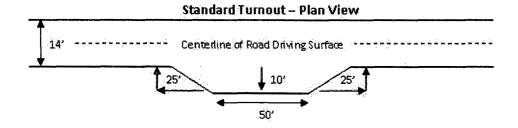
Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

#### Ditching

Ditching shall be required on both sides of the road.

#### Turnouts

Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall be constructed on all blind curves. Turnouts shall conform to the following diagram:

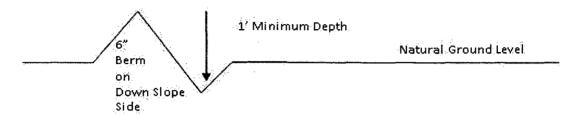


#### **Drainage**

Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outsloping and insloping, lead-off ditches, culvert installation, and low water crossings).

A typical lead-off ditch has a minimum depth of 1 foot below and a berm of 6 inches above natural ground level. The berm shall be on the down-slope side of the lead-off ditch.

## Cross Section of a Typical Lead-off Ditch



All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval are variable for lead-off ditches and shall be determined according to the formula for spacing intervals of lead-off ditches, but may be amended depending upon existing soil types and centerline road slope (in %);

#### Formula for Spacing Interval of Lead-off Ditches

Example - On a 4% road slope that is 400 feet long, the water flow shall drain water into a lead-off ditch. Spacing interval shall be determined by the following formula:

400 foot road with 4% road slope: 
$$\frac{400'}{4\%} + 100' = 200'$$
 lead-off ditch interval

#### **Culvert Installations**

Appropriately sized culvert(s) shall be installed at the deep waterway channel flow crossing.

#### Cattleguards

An appropriately sized cattleguard(s) sufficient to carry out the project shall be installed and maintained at fence crossing(s).

Any existing cattleguard(s) on the access road shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattleguard(s) that are in place and are utilized during lease operations.

A gate shall be constructed and fastened securely to H-braces.

## **Fence Requirement**

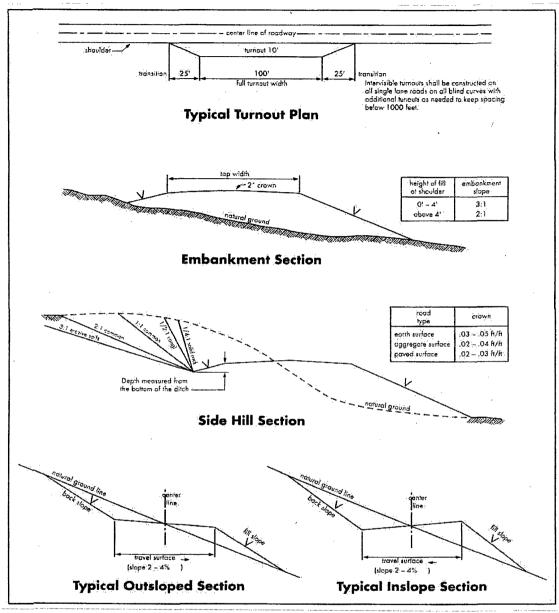
Where entry is required across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting.

The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fence(s).

### **Public Access**

Public access on this road shall not be restricted by the operator without specific written approval granted by the Authorized Officer.

Figure 1 – Cross Sections and Plans For Typical Road Sections



### VII. DRILLING

## A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified a minimum of 4 hours in advance for a representative to witness:

- a. Spudding well
- b. Setting and/or Cementing of all casing strings
- c. BOPE tests

## **Eddy County**

Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (575) 361-2822

- 1. A Hydrogen Sulfide (H2S) Drilling Plan should be activated 500 feet prior to drilling into the Grayburg formation. As a result, the Hydrogen Sulfide area must meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.
- 2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval. If the drilling rig is removed without approval an Incident of Non-Compliance will be written and will be a "Major" violation.
- 3. The record of the drilling rate along with the GR/N well log run from TD to surface will be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

#### B. CASING

Changes to the approved APD casing and cement program require submitting a sundry and receiving approval prior to work. Failure to obtain approval prior to work will result in an Incident of Non-Compliance being issued.

Centralizers required on surface casing per Onshore Order 2.III.B.1.f.

Wait on cement (WOC) time prior to drilling out for a primary cement job will be a minimum 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compressive strength, whichever is greater for all casing strings. DURING THIS WOC TIME, NO DRILL PIPE, ETC. SHALL BE RUN IN THE HOLE. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. See individual casing strings for details regarding lead cement slurry requirements.

No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

Possible water flows in the Salado and Artesia Groups.

Possible lost circulation in the Grayburg and San Andres formations.

- 1. The 13-3/8 inch surface casing shall be set at approximately 580 feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt) and cemented to the surface. If the salt is encountered set the casing 25 feet above the top of the salt. Freshwater mud to be used to setting depth.
  - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
  - b. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.
  - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
  - d. If cement falls back, remedial cementing will be done prior to drilling out that string.

2. The m	inimum required fill of cement behind the 8-5/8 inch intermediate casing is:
$\boxtimes$	Cement to surface. If cement does not circulate see B.1.a, c-d above. This casing is to be set within the Tansill formation.
-	V tool is to be set 50 feet below previous casing shoe. Operator is to ndry if DV tool depth varies by more than 100' from approved depth.
a.	First stage to DV tool, cement shall:
	Cement to circulate. If cement does not circulate, contact the appropriate BLM office before proceeding with second stage cement job.
b.	Second stage above DV tool, cement shall:
	Cement to surface. If cement does not circulate, contact the appropriate BLM office.
	ers required on directional leg, must be type for directional service and of one every other joint.
3. The m	inimum required fill of cement behind the 5-1/2 inch production casing is:
$\boxtimes$	Cement should tie-back at least <b>200</b> feet into previous casing string. Operator shall provide method of verification.
	V tool is to be set 50 feet below previous casing shoe. Operator is to ndry if DV tool depth varies by more than 100' from approved depth.
a.	First stage to DV tool, cement shall:
	Cement to circulate. If cement does not circulate, contact the appropriate BLM office before proceeding with second stage cement job. Additional cement may be required as the excess calculated 16%.
b.	Second stage above DV tool, cement shall:
	Cement should tie-back at least <b>200</b> feet into previous casing string. Operator shall provide method of verification.
metal : larger	Iband drill pipe is rotated inside casing, returns will be monitored for metal. If is found in samples, drill pipe will be pulled and rubber protectors which have a diameter than the tool joints of the drill pipe will be installed prior to uing drilling operations.

#### C. PRESSURE CONTROL

- 1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
- 2. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **2000 (2M)** psi.
  - a. For surface casing only: If the BOP/BOPE is to be tested against casing, the wait on cement (WOC) time for that casing is to be met (see WOC statement at start of casing section). Independent service company required.
- 3. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
  - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips or where the float does not hold, the minimum wait time before cut-off is eight hours after bumping the plug or when the cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. BOP/BOPE testing can begin after the above conditions are satisfied.
  - b. The tests shall be done by an independent service company utilizing a test plug **not** a **cup** or **J-packer**. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (18 hours) or potash (24 hours) prior to initiating the test.
  - c. The results of the test shall be reported to the appropriate BLM office.
  - d. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
  - e. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug.
  - f. Effective November 1, 2008, no variances will be granted on reduced pressure tests on the surface casing and BOP/BOPE. Onshore Order 2 requirements will be in effect.

#### D. DRILL STEM TEST

If drill stem tests are performed, Onshore Order 2.III.D shall be followed.

## E. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

#### **RGH 102510**

## VIII. PRODUCTION (POST DRILLING)

#### A. WELL STRUCTURES & FACILITIES

#### **Placement of Production Facilities**

Production facilities should be placed on the well pad to allow for maximum interim recontouring and revegetation of the well location.

#### **Containment Structures**

The containment structure shall be constructed to hold the capacity of the entire contents of the largest tank, plus 24 hour production, unless more stringent protective requirements are deemed necessary by the Authorized Officer.

### **Painting Requirement**

All above-ground structures including meter housing that are not subject to safety requirements shall be painted a flat non-reflective paint color Shale Green, Munsell Soil Color Chart # 5Y 4/2

#### B. PIPELINES

## STANDARD STIPULATIONS FOR SURFACE INSTALLED PIPELINES

A copy of the grant and attachments, including stipulations, survey plat and/or map, will be on location during construction. BLM personnel may request to you a copy of your permit during construction to ensure compliance with all stipulations.

Holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

1. The holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.

- 2. The holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 et seq. (1982) with regards to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR, Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.
- 3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et seq. or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, et seq.) on the Right-of-Way (unless the release or threatened release is wholly unrelated to activity of the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.
- 4. The holder shall be liable for damage or injury to the United States to the extent provided by 43 CFR Sec. 2883.1-4. The holder shall be held to a standard of strict liability for damage or injury to the United States resulting from pipe rupture, fire, or spills caused or substantially aggravated by any of the following within the right-of-way or permit area:
- a. Activities of the holder including, but not limited to construction, operation, maintenance, and termination of the facility.
- b. Activities of other parties including, but not limited to:
  - (1) Land clearing.
  - (2) Earth-disturbing and earth-moving work.
  - (3) Blasting.
  - (4) Vandalism and sabotage.
- c. Acts of God.

The maximum limitation for such strict liability damages shall not exceed one million dollars (\$1,000,000) for any one event, and any liability in excess of such amount shall be determined by the ordinary rules of negligence of the jurisdiction in which the damage or

injury occurred.

This section shall not impose strict liability for damage or injury resulting primarily from an act of war or from the negligent acts or omissions of the United States.

- 5. If, during any phase of the construction, operation, maintenance, or termination of the pipeline, any oil, salt water, or other pollutant should be discharged from the pipeline system, impacting Federal lands, the control and total removal, disposal, and cleaning up of such oil, salt water, or other pollutant, wherever found, shall be the responsibility of the holder, regardless of fault. Upon failure of the holder to control, dispose of, or clean up such discharge on or affecting Federal lands, or to repair all damages resulting therefrom, on the Federal lands, the Authorized Officer may take such measures as he deems necessary to control and clean up the discharge and restore the area, including, where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of the holder. Such action by the Authorized Officer shall not relieve the holder of any responsibility as provided herein.
- 6. All construction and maintenance activity will be confined to the authorized right-of-way width of \_\_\_\_\_\_\_ feet.
- 7. No blading or clearing of any vegetation will be allowed unless approved in writing by the Authorized Officer.
- 8. The holder shall install the pipeline on the surface in such a manner that will minimize suspension of the pipeline across low areas in the terrain. In hummocky of duney areas, the pipeline will be "snaked" around hummocks and dunes rather then suspended across these features.
- 9. The pipeline shall be buried with a minimum of <u>24</u> inches under all roads, "two-tracks," and trails. Burial of the pipe will continue for 20 feet on each side of each crossing. The condition of the road, upon completion of construction, shall be returned to at least its former state with no bumps or dips remaining in the road surface.
- 10. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence. No permanent gates will be allowed unless approved by the Authorized Officer.
- 11. In those areas where erosion control structures are required to stabilize soil conditions, the holder will install such structures as are suitable for the specific soil conditions being encountered and which are in accordance with sound resource management practices.

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- 12. Excluding the pipe, all above-ground structures not subject to safety requirement shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be a color which simulates "Standard Environmental Colors" **Shale Green**, Munsell Soil Color No. 5Y 4/2; designated by the Rocky Mountain Five State Interagency Committee.
- 13. The pipeline will be identified by signs at the point of origin and completion of the right-of-way and at all road crossings. At a minimum, signs will state the holder's name, BLM serial number, and the product being transported. Signs will be maintained in a legible condition for the life of the pipeline.
- 14. The holder shall not use the pipeline route as a road for purposes other than routine maintenance as determined necessary by the Authorized Officer in consultation with the holder. The holder will take whatever steps are necessary to ensure that the pipeline route is not used as a roadway.
- 15. Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on his behalf, on public or Federal land shall be immediately reported to the authorized officer. Holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the authorized officer. An evaluation of the discovery will be made by the authorized officer to determine appropriate cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the authorized officer after consulting with the holder.

### C. ELECTRIC LINES (not applied for in APD)

## IX. INTERIM RECLAMATION

During the life of the development, all disturbed areas not needed for active support of production operations should undergo interim reclamation in order to minimize the environmental impacts of development on other resources and uses.

Within six (6) months of well completion, operators should work with BLM surface management specialists (Jim Amos: 575-234-5909) to devise the best strategies to reduce the size of the location. Interim reclamation should allow for remedial well operations, as well as safe and efficient removal of oil and gas.

During reclamation, the removal of caliche is important to increasing the success of revegetating the site. Removed caliche that is free of contaminants may be used for road repairs, fire walls or for building other roads and locations. In order to operate the well or complete workover operations, it may be necessary to drive, park and operate on restored interim vegetation within the previously disturbed area. Disturbing revegetated areas for production or workover operations will be allowed. If there is significant disturbance and

loss of vegetation, the area will need to be revegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

All disturbed areas after they have been satisfactorily prepared need to be reseeded with the seed mixture provided below.

Upon completion of interim reclamation, the operator shall submit a Sundry Notices and Reports on Wells, Subsequent Report of Reclamation (Form 3160-5).

### X. FINAL ABANDONMENT & RECLAMATION

At final abandonment, well locations, production facilities, and access roads must undergo "final" reclamation so that the character and productivity of the land are restored.

Earthwork for final reclamation must be completed within six (6) months of well plugging. All pads, pits, facility locations and roads must be reclaimed to a satisfactory revegetated, safe, and stable condition, unless an agreement is made with the landowner or BLM to keep the road and/or pad intact.

After all disturbed areas have been satisfactorily prepared, these areas need to be revegetated with the seed mixture provided below. Seeding should be accomplished by drilling on the contour whenever practical or by other approved methods. Seeding may need to be repeated until revegetation is successful, as determined by the BLM.

Operators shall contact a BLM surface protection specialist prior to surface abandonment operations for site specific objectives (Jim Amos: 575-234-5909).

Ground-level Abandoned Well Marker to avoid raptor perching: Upon the plugging and subsequent abandonment of the well, the well marker will be installed at ground level on a plate containing the pertinent information for the plugged well.

## Seed Mixture for LPC Sand/Shinnery Sites

The holder shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)\* per acre. There shall be <u>no</u> primary or secondary noxious weeds in the seed mixture. Seed will be tested and the viability testing of seed will be done in accordance with State law(s) and within nine (9) months prior to purchase. Commercial seed will be either certified or registered seed. The seed container will be tagged in accordance with State law(s) and available for inspection by the authorized officer.

Seed will be planted using a drill equipped with a depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (smaller/heavier seeds have a tendency to drop the bottom of the drill and are planted first). The holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. The seeding will be repeated until a satisfactory stand is established as determined by the authorized officer. Evaluation of growth will not be made before completion of at least one full growing season after seeding.

Species to be planted in pounds of pure live seed\* per acre:

Species	<u>lb/acre</u>	
Plains Bristl	egrass	5lbs/A
Sand Blueste	em	5lbs/A
Little Bluest	em	3lbs/A
Big Bluester	n	6lbs/A
Plains Corec	psis	2lbs/A
Sand Dropse	eed	11bs/A
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<sup>\*\*</sup>Four-winged Saltbush 5lbs/A

Pounds of seed x percent purity x percent germination = pounds pure live seed

<sup>\*</sup> This can be used around well pads and other areas where caliche cannot be removed.

<sup>\*</sup>Pounds of pure live seed: