

COG OPERATING LLC
AUTHORITY FOR EXPENDITURE
DRILLING

WELL NAME: Tarpan 33 Fee #3H

PROSPECT NAME: Lakewood

Surf. 150' FSL, 1700' FWL, Section 33

STATE & COUNTY: New Mexico, Eddy

BHL. 380' FNL, 1700' FWL, Section 33

OBJECTIVE: 8415' MD, (4000' TVD) Yeso Test

T18S, R26E

INTANGIBLE COSTS

		BCP	ACP	TOTAL
Title/Curative/Permit	201	10,000	0	10,000
Insurance	202	22,000	0	22,000
Damages/Right of Way	203	15,000	0	15,000
Survey/Stake Location	204	3,000	0	3,000
Location/Pits/Road Expense	205	50,000	15,000	65,000
Drilling / Completion Overhead	206	5,000	1,000	6,000
Turnkey Contract	207	0	0	0
Footage Contract	208	0	0	0
Daywork Contract: 16 DAYS BCP / 3 DAYS ACP	209	224,000	42,000	266,000
Directional Drilling Services	210	175,000	0	175,000
Fuel & Power	211	48,000	9,000	57,000
Water	212	24,000	60,000	84,000
Bits	213	50,000	5,000	55,000
Mud & Chemicals	214	50,000	0	50,000
Drill Stem Test	215	0	0	0
Coring & Analysis	216	0	0	0
Cement Surface	217	20,000	0	20,000
Cement Intermediate	218	24,300	0	24,300
Cement Production 5-1/2"	218	0	319 21,135	21,135
Cement Squeeze & Other (Kickoff Plug)	220	0	320 0	0
Float Equipment & Centralizers	221	4,000	321 25,000	29,000
Casing Crews & Equipment	222	12,000	322 15,000	27,000
Fishing Tools & Service	223	0	323 0	0
Geologic/Engineering	224	10,000	324 1,000	11,000
Contract Labor	225	20,000	325 21,000	41,000
Company Supervision	226	2,000	326 2,000	4,000
Contract Supervision	227	25,600	327 4,800	30,400
Testing Casing/Tubing	228	5,000	328 12,000	17,000
Mud Logging Unit	229	20,000	329 0	20,000
Logging	230	25,000	330 0	25,000
Perforating/Wireline Services	231	3,500	331 0	3,500
Stimulation/Treating		0	332 1,300,000	1,300,000
Completion Unit		0	333 24,000	24,000
Swabbing Unit		0	334 0	0
Rentals-Surface	235	27,200	335 75,000	102,200
Rentals-Subsurface	236	41,600	336 10,000	51,600
Trucking/Forklift/Rig Mobilization	237	45,000	337 20,000	65,000
Welding Services	238	5,000	338 2,500	7,500
Water Disposal	239	0	339 15,000	15,000
Plug to Abandon	240	0	340 0	0
Selsmic Analysis	241	0	341 0	0
Closed Loop & Environmental	244	76,000	344 0	76,000
Miscellaneous	242	5,000	342 1,000	6,000
Contingency	243	105,800	343 169,565	275,365
TOTAL INTANGIBLES		1,153,000	1,851,000	3,004,000

TANGIBLE COSTS

Surface Casing	401	15,000	0	15,000
Intermediate Casing	402	25,000	503 0	25,000
Production Casing/Liner		0	503 178,000	178,000
Tubing		0	504 23,000	23,000
Wellhead Equipment	405	8,000	505 15,000	23,000
Pumping Unit		0	506 40,000	40,000
Prime Mover		0	507 20,000	20,000
Rods		0	508 16,000	16,000
Pumps		0	509 10,000	10,000
Tanks		0	510 21,000	21,000
Flowlines		0	511 8,000	8,000
Heater Treater/Separator		0	512 30,000	30,000
Electrical System		0	513 11,250	11,250
Packers/Anchors/Hangers	414	0	514 335,000	335,000
Couplings/Fittings/Valves	415	2,500	515 45,000	47,500
Gas Compressors/Meters		0	516 14,500	14,500
Dehydrator		0	517 0	0
Injection Plant/CO2 Equipment		0	518 0	0
Miscellaneous	419	1,000	519 20,000	21,000
Contingency	420	6,500	520 79,250	85,750
TOTAL TANGIBLES		58,000	866,000	924,000
TOTAL WELL COSTS		1,211,000	2,717,000	3,928,000

COG Operating LLC

By: Jennifer Johns

Date Prepared: 4/10/2012

We approve:
_____% Working Interest

Company:

By:

Printed Name:

Title:

Date:

This AFE is only an estimate. By signing you agree to pay your share of the actual costs incurred.

April 10, 2012

Oxy Y-1
P.O. Box 4294
Houston, TX 77210-4294
Attn: Katie Almeida

***U.S. Certified Mail
Return Receipt Requested***

RE: **New Well Proposal**
Tarpan "33" Fee #3H
SL: 150' FSL & 1700' FWL (Unit N) of Section 33, T18S, R26E
BHL: 380' FNL & 1700' FWL (Unit C) of Section 33, T18S, R26E
Eddy County, New Mexico

Dear Mr. Moran:

COG Operating LLC ("COG") proposes to drill the Tarpan "33" Fee #3H at the captioned location, or at an approved surface location within Unit Location N, with a landing point of the lateral at approximately 4,000' TVD, 8,415' MD, to test the Yeso Formation ("Operation"). The total cost of the Operation is estimated to be \$3,928,000 and a detailed description of such cost is set out in the enclosed Authority for Expenditure ("AFE"). These costs include the drilling of a pilot hole which may be determined at a later date to be unnecessary. The approximate spud date for the Tarpan 33 Fee #3H is August 22nd, 2012.

Also enclosed is COG's proposed form of Operating Agreement ("OA"). A completed version of the Exhibit "A" to be incorporated into the OA will follow under separate cover, accompanied by a fully executed set of signature pages.

If you elect to participate in the subject well, please sign and return a copy of the AFE to the below letterhead address.

If you desire to receive well information regarding the subject operations please return a Well Information Requirements list to COG. Technical questions should be directed to Chad Elliott at 432-818-2338 and land questions to the undersigned at 432-221-0465.

Yours truly,

COG Operating, LLC

Mike Wallace
Senior Landman

Enclosure (s)