

COG OPERATING LLC
AUTHORITY FOR EXPENDITURE
DRILLING

WELL NAME: Blackhawk "11" Fed Com #2	PROSPECT NAME: Crow Flats
Surf. Loc: 1590' FSL & 1800' FWL, Sec 11	COUNTY & STATE: Eddy,NM
B.H. Loc: 1650' FSL & 330' FEL, Sec 11	OBJECTIVE: 9,591' MD (6620' TVD) Lower Abo Test
T16S - R28E; w/pilot, wo/LWD	

INTANGIBLE COSTS		BCP	ACP	TOTAL
Title/Curative/Permit	201	5,500		5,500
Insurance	202	22,000	302	22,000
Damages/Right of Way	203	15,000	303	15,000
Survey/Stake Location	204	3,000	304	3,000
Location/Pits/Road Expense	205	45,000	305	50,000
Drilling / Completion Overhead	206	5,000	306	6,000
Turnkey Contract	207		307	0
Footage Contract	208		308	0
Daywork Contract 29:4 @ \$10,000/day	209	290,000	309	330,000
Directional Drilling Services, With out LWD	210	160,000	310	160,000
Fuel & Power	211	48,000	311	54,000
Water	212	30,000	312	80,000
Bits	213	50,000	313	51,000
Mud & Chemicals	214	60,000	314	60,000
Drill Stem Test	215		315	0
Coring & Analysis	216			0
Cement Surface	217	12,200		12,200
Cement Intermediate	218	15,000		15,000
Cement 2nd Intermediate 7"	218		319	23,400
Cement Squeeze & Other (Kickoff Plug)	220	18,700	320	18,700
Float Equipment & Centralizers	221	5,000	321	7,000
Casing Crews & Equipment	222	15,000	322	25,000
Fishing Tools & Service	223		323	0
Geologic/Engineering	224	10,000	324	11,000
Contract Labor	225	10,000	325	40,000
Company Supervision	226	2,000	326	4,000
Contract Supervision	227	36,000	327	40,000
Testing Casing/Tubing	228	4,000	328	5,500
Mud Logging Unit	229	19,500	329	19,500
Logging	230	60,000	330	60,000
Perforating/Wireline Services	231	1,500	331	14,000
Stimulation/Treating			332	750,000
Completion Unit			333	18,000
Swabbing Unit			334	0
Rentals-Surface	235	90,000	335	135,000
Rentals-Subsurface	236	40,000	336	50,000
Trucking/Forklift/Rig Mobilization	237	80,000	337	95,000
Welding Services	238	3,000	338	4,500
Water Disposal	239		339	15,000
Plug to Abandon	240		340	0
Seismic Analysis	241		341	0
Closed Loop & Environmental	244	210,000	344	210,000
Miscellaneous	242	5,000	342	6,000
Contingency	243	138,600	343	243,700
TOTAL INTANGIBLES		1,509,000	1,150,000	2,659,000

TANGIBLE COSTS				
Surface Casing 500' 13 3/8"	401	18,000		18,000
Intermediate Casing 2300' 9 5/8", 6000' - 7"	402	59,000	503	204,000
Production Casing/Liner 4900' - 4.5"			503	59,000
Tubing 6000' 2 7/8"			504	34,000
Wellhead Equipment	405	10,000	505	18,000
Pumping Unit			506	0
Prime Mover			507	0
Rods			508	0
Pumps			509	0
Tanks			510	60,000
Flowlines			511	15,000
Heater Treater/Separator			512	25,000
Electrical System			513	0
Packers/Anchors/Hangers	414		514	200,000
Couplings/Fittings/Valves	415	2,000	515	52,000
Gas Compressors/Meters			516	4,000
Dehydrator			517	0
Injection Plant/CO2 Equipment			518	0
Miscellaneous	419	1,000	519	2,000
Contingency	420	9,000	520	70,000
TOTAL TANGIBLES		99,000	662,000	761,000
TOTAL WELL COSTS		1,608,000	1,812,000	3,420,000

COG Operating LLC

By: J. Coffman / C. Bird

Date Prepared: 6/15/09

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.