

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; wpilot, 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	5,000		50,000
Drilling / Completion Overhead	206	5,000	306	1,000		6,000
Turnkey Contract	207		307			0
Footage Contract	208		308			0
Daywork Contract 29.4 @ \$10,000/day	209	290,000	309	40,000		330,000
Directional Drilling Services, With out LWD	210	160,000	310			160,000
Fuel & Power	211	48,000	311	6,000		54,000
Water	212	30,000	312	50,000		80,000
Bits	213	50,000	313	1,000		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		23,400
Cement Squeeze & Other (Kickoff Plug)	220	18,700	320			18,700
Float Equipment & Centralizers	221	5,000	321	2,000		7,000
Casing Crews & Equipment	222	15,000	322	10,000		25,000
Fishing Tools & Service	223		323			0
Geologic/Engineering	224	10,000	324	1,000		11,000
Contract Labor	225	10,000	325	30,000		40,000
Company Supervision	226	2,000	326	2,000		4,000
Contract Supervision	227	36,000	327	4,000		40,000
Testing Casing/Tubing	228	4,000	328	1,500		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	12,500		14,000
Stimulation/Treating			332	750,000		750,000
Completion Unit			333	18,000		18,000
Swabbing Unit			334			0
Rentals-Surface	235	90,000	335	45,000		135,000
Rentals-Subsurface	236	40,000	336	10,000		50,000
Trucking/Forklift/Rig Mobilization	237	80,000	337	15,000		95,000
Welding Services	238	3,000	338	1,500		4,500
Water Disposal	239		339	15,000		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	1,000		6,000
Contingency	243	138,600	343	105,100		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	145,000		204,000
Production Casing/Liner 4900' - 4.5"			503	59,000		59,000
Tubing 6000' 2 7/8"			504	34,000		34,000
Wellhead Equipment	405	10,000	505	8,000		18,000
Pumping Unit			506			0
Prime Mover			507			0
Rods			508			0
Pumps			509			0
Tanks			510	60,000		60,000
Flowlines			511	15,000		15,000
Heater Treater/Separator			512	25,000		25,000
Electrical System			513			0
Packers/Anchors/Hangers	414		514	200,000		200,000
Couplings/Fittings/Valves	415	2,000	515	50,000		52,000
Gas Compressors/Meters			516	4,000		4,000
Dehydrator			517			0
Injection Plant/CO2 Equipment			518			0
Miscellaneous	419	1,000	519	1,000		2,000
Contingency	420	9,000	520	61,000		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.