COG OPERATING LLC
AUTHORITY FOR EXPENDITURE
DRILLING

WELL NAME:	GRAHAM NASH STATE COM #6H	PROSPECT NAME: ATLAS 2628 (717052)	
SHL:	SEC 33: 560 FSL & 2200 FEL	STATE & COUNTY: New Mexico, Eddy	
BHL:	SEC 28: 330 FNL & 1980 FEL	OBJECTIVE: DRILL & COMPLETE	
FORMATION:	SLBSS/2ND BSS	DEPTH: 14,300	PH-TD: 10,600
LEGAL:	33-26S-28E	TVD: 7,938	

INTANGIBLE COSTS		BCP		ACP	TOTAL
Title/Curative/Permit	201	11,000			11,000
Insurance	202	5,000	302		5,000
Damages/Right of Way	203	15,000	303		15,000
Survey/Stake Location	204	7,000	304		7,000
Location/Pits/Road Expense	205	100,000	305	25,000	125,000
Drilling / Completion Overhead	206	6,000	306		6,000
Turnkey Contract	207	0	307		0
Footage Contract	208	0	308		0
Daywork Contract	209	682,000	309		682,000
Directional Drilling Services	210	192,000	310		192,000
Fuel & Power	211	153,000	311	10,000	163,000
Water	212	70,000	312	373,000	443,000
Bits	213	94,000	313	9,000	103,000
Mud & Chemicals	214	125,000	314		125,000
Drill Stem Test	215	0	315		0
Coring & Analysis	216	0			0
Cement Surface	217	20,000			20,000
Cement Intermediate	218	40,000			40,000
Cement 2nd Intermediate/Production	218	0	319	130,000	130,000
Cement Squeeze & Other (Kickoff Plug)	220	40,000	320		40,000
Float Equipment & Centralizers	221	10,000	321	40,000	50,000
Casing Crews & Equipment	222	20,000	322	40,000	60,000
Fishing Tools & Service	223	0	323		0
Geologic/Engineering	224	0	324		0
Contract Labor	225	10,000	325	125,000	135,000
Company Supervision	226	0	326		0
Contract Supervision	227	41,000	327	50,000	91,000
Testing Casing/Tubing	228	9,000	328		9,000
Mud Logging Unit	229	31,500	329		31,500
Logging	230	100,000	330	10,000	110,000
Perforating/Wireline Services	231	15,000	331	240,000	255,000
Stimulation/Treating		0	332	3,300,000	3,300,000
Completion Unit		0	333	50,000	50,000
Swabbing Unit		0	334		0
Rentals-Surface	235	96,000	335	200,000	296,000
Rentals-Subsurface	236	120,000	336	25,000	145,000
Trucking/Forklift/Rig Mobilization	237	230,000	337	25,000	255,000
Welding Services	238	5,000	338	7,500	12,500
Water Disposal	239	0	339	350,000	350,000
Plug to Abandon	240	0	340		0
Seismic Analysis	241	0	341		0
Closed Loop & Environmental	244	150,000	344	10,000	160,000
Miscellaneous	242	10,000	342		10,000
Contingency	243	121,500	343	50,000	171,500
TOTAL INTANGIBLES		2,529,000		5,069,500	7,598,500

TANGIBLE COSTS		BCP		ACP	TOTAL
Surface Casing	401	12,000			12,000
Intermediate Casing	402	69,000	503		69,000
Production Casing		0	503	304,000	304,000
Tubing		0	504	44,000	44,000
Wellhead Equipment	405	20,000	505	35,000	55,000
Pumping Unit		0	506	115,000	115,000
Prime Mover		0	507	20,000	20,000
Rods		0	508	40,000	40,000
Pumps		0	509	37,000	37,000
Tanks		0	510	75,000	75,000
Flowlines		0	511	70,000	70,000
Heater Treater/Separator		0	512	65,000	65,000
Electrical System		0	513		0
Packers/Anchors/Hangers	414	0	514	10,000	10,000
Couplings/Fittings/Valves	415	0	515	170,000	170,000
Gas Compressors/Meters		0	516	8,100	8,100
Dehydrator		0	517		0
Injection Plant/CO2 Equipment		0	518		0
Miscellaneous	419	0	519		0
Contingency	420	6,000	520	50,900	56,900
TOTAL TANGIBLES		107,000		1,044,000	1,151,000
TOTAL WELL COSTS		2,636,000		6,113,500	8,749,500

COG Operating LLC

Date Prepared: 7/31/2014

COG Operating LLC

By: MARK ELLERBE AW

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.

OCD Case No. 15291
COG OPERATING
Exhibit # 4