



**COG OPERATING LLC  
AUTHORITY FOR EXPENDITURE  
DRILLING**

WELL NAME: SNEED 9 FEDERAL COM #1H	PROSPECT NAME: MALJAMAR 713083
SHL: 330' FNL & 150' FWL UL-D	STATE & COUNTY: New Mexico, Lea
BHL: 330' FNL & 330' FEL UL-A	OBJECTIVE: SH57 Yeso Horizontal
FORMATION: Glorieta Yeso	DEPTH: 11,330
LEGAL: SEC9 T17S-R32E	TVD: 6,700

<b>INTANGIBLE COSTS</b>	<b>BCP</b>	<b>ACP</b>	<b>TOTAL</b>
Title/Curative/Permit	201 10,000		10,000
Insurance	202 22,000	302 0	22,000
Damages/Right of Way	203 15,000	303 0	15,000
Survey/Stake Location	204 3,000	304 0	3,000
Location/Pits/Road Expense	205 60,000	305 25,000	85,000
Drilling / Completion Overhead	206 5,000	306 2,000	7,000
Turnkey Contract	207	307	0
Footage Contract	208	308	0
Daywork Contract (0 days f/spud-ris @ \$0)	209 341,000	309 47,000	388,000
Directional Drilling Services (0 dir days @ \$0)	210 150,000		150,000
Fuel & Power	211 83,000	311 12,000	95,000
Water	212 58,000	312 100,000	158,000
Bits	213 54,500	313 5,000	59,500
Mud & Chemicals	214 47,000	314 0	47,000
Drill Stem Test	215	315 0	0
Coring & Analysis	216		0
Cement Surface	217 38,000		38,000
Cement Intermediate	218 20,000		20,000
Cement 2nd Intermediate/Production	218 0	319 100,000	100,000
Cement Squeeze & Other (Kickoff Plug)	220	320 0	0
Float Equipment & Centralizers	221 2,000	321 30,000	32,000
Casing Crews & Equipment	222 5,000	322 12,000	17,000
Fishing Tools & Service	223	323	0
Geologic/Engineering	224 10,000	324	10,000
Contract Labor	225 20,000	325 21,000	41,000
Company Supervision	226 2,000	326 2,000	4,000
Contract Supervision	227 38,000	327 20,000	58,000
Testing Casing/Tubing	228 3,000	328 12,000	15,000
Mud Logging Unit (logging f/24 days)	229 21,000	329	21,000
Logging	230 25,000	330	25,000
Perforating/Wireline Services	231 3,500	331 50,000	53,500
Stimulation/Treating		332 1,400,000	1,400,000
Completion Unit		333 30,000	30,000
Swabbing Unit		334	0
Rentals-Surface	235 36,000	335 250,000	286,000
Rentals-Subsurface	236 64,000	336 75,000	139,000
Trucking/Forklift/Rig Mobilization	237 54,000	337 20,000	74,000
Welding Services	238 5,000	338 2,500	7,500
Water Disposal	239 0	339 40,000	40,000
Plug to Abandon	240 0	340 0	0
Seismic Analysis	241 0	341 0	0
Closed Loop & Environmental	244 143,000	344 0	143,000
Miscellaneous	242 0	342 0	0
Contingency 10%	243 134,000	343 226,500	360,500
<b>TOTAL INTANGIBLES</b>	<b>1,472,000</b>	<b>2,482,000</b>	<b>3,954,000</b>

<b>TANGIBLE COSTS</b>			
Surface Casing (13 3/8" 48# H40 STC)	401 33,000		33,000
Intermediate Casing(9 5/8" 40# J55 LTC)	402 64,000	503 0	64,000
Production Casing (7" 26# & 5 1/2" 17# L80)		503 217,000	217,000
Tubing		504 33,000	33,000
Wellhead Equipment	405 6,000	505 35,000	41,000
Pumping Unit		506 90,000	90,000
Prime Mover		507 20,000	20,000
Rods		508 20,000	20,000
Pumps		509 10,000	10,000
Tanks		510 21,000	21,000
Flowlines		511 11,000	11,000
Heater Treater/Separator		512 30,000	30,000
Electrical System		513 30,000	30,000
Packers/Anchors/Hangers	414 0	514 2,500	2,500
Couplings/Fittings/Valves	415 500	515 60,000	60,500
Gas Compressors/Meters		516 5,000	5,000
Dehydrator		517	0
Injection Plant/CO2 Equipment		518	0
Miscellaneous	419 500	519 500	1,000
Contingency	420 6,000	520 30,000	36,000
<b>TOTAL TANGIBLES</b>	<b>110,000</b>	<b>615,000</b>	<b>725,000</b>
<b>TOTAL WELL COSTS</b>	<b>1,582,000</b>	<b>3,097,000</b>	<b>4,679,000</b>

COG Operating LLC

By: Carl Bird

Date Prepared: 2/8/2013

JJ

COG Operating LLC

We approve:

\_\_\_\_\_% Working Interest

By: \_\_\_\_\_

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.