

**COG OPERATING LLC
AUTHORITY FOR EXPENDITURE
DRILLING**

WELL NAME: Taylor D #2	PROSPECT NAME: Maljamar (Lowe) Prospect
LOCATION: Section 9-T17S-R32E, NMPM	COUNTY & STATE: Lea County, NM
FOOTAGE: 1650' FSL & 1650' FEL	OBJECTIVE: Yeso test (4 Fracs) 7000'

<u>INTANGIBLE COSTS</u>	<u>BCP</u>	<u>ACP</u>	<u>TOTAL</u>
Title/Curative/Permit	201 4,000		4,000
Insurance	202 3,800	302	3,800
Damages/Right of Way	203	303	0
Survey/Stake Location	204 2,500	304	2,500
Location/Pits/Road Expense	205 30,000	305 5,000	35,000
Drilling / Completion Overhead	206 2,500	306 2,000	4,500
Turnkey Contract	207	307	0
Footage Contract	208	308	0
Daywork Contract	209 175,000	309	175,000
Directional Drilling Services	210	310	0
Fuel & Power	211 28,800	311 1,000	29,800
Water	212 14,000	312 32,000	46,000
Bits	213 24,000	313 500	24,500
Mud & Chemicals	214 7,000	314	7,000
Drill Stem Test	215	315	0
Coring & Analysis	216		0
Cement Surface	217 15,500		15,500
Cement Intermediate #1	218 16,400		16,400
Cement Intermediate #2			0
Cement Production		319 30,000	30,000
Cement Squeeze	220	320	0
Float Equipment & Centralizers	221 2,500	321 2,000	4,500
Casing Crews & Equipment	222 4,000	322 5,500	9,500
Fishing Tools & Service	223		0
Geologic/Engineering	224		0
Contract Labor	225 3,000	325 10,000	13,000
Company Supervision	226	326	0
Contract Supervision	227 12,000	327 5,000	17,000
Testing Casing/Tubing	228 1,800	328 2,200	4,000
Mud Logging Unit	229 6,000	329	6,000
Logging	230 15,000	330	15,000
Perforating/Wireline Services	231	331 24,000	24,000
Stimulation/Treating (4 fracs)		332 369,000	369,000
Completion Unit		333 20,000	20,000
Swabbing Unit		334	0
Rentals-Surface	235 5,000	335 36,000	41,000
Rentals-Subsurface	236 26,000	336 10,000	36,000
Trucking/Forklift/Rig Mobilization	237 40,000	337 8,000	48,000
Welding Services	238 2,000	338 1,000	3,000
Water Disposal	239 500	339 3,000	3,500
Plug to Abandon	240	340	0
Seismic Analysis	241	341	0
Closed Loop & Environmental	244 100,000	344	100,000
Miscellaneous	242	342	0
Contingency 5%	243 27,065	343 28,310	55,375
TOTAL INTANGIBLES	569,000	595,000	1,163,000
<u>TANGIBLE COSTS</u>			
Surface Casing	401 31,200		31,200
Intermediate Casing #1	402 75,300		75,300
Intermediate Casing #2			0
Production Casing/Liner		503 154,000	154,000
Tubing		504 49,000	49,000
Wellhead Equipment	405 6,000	505 3,000	9,000
Pumping Unit		506 87,500	87,500
Prime Mover		507	0
Rods		508 21,376	21,376
Pumps		509 4,500	4,500
Tanks		510 3,000	3,000
Flowlines		511 5,000	5,000
Heater Treater/Separator		512 3,000	3,000
Electrical System		513 10,000	10,000
Packers/Anchors/Hangers	414	514 900	900
Couplings/Fittings/Valves	415	515 7,000	7,000
Gas Compressors/Meters		516	0
Dehydrator		517	0
Injection Plant/CO2 Equipment		518	0
Miscellaneous	419 500	519 500	1,000
Contingency 5%	420 5,700	520 18,600	24,300
TOTAL TANGIBLES	118,700	367,376	486,076
TOTAL WELL COSTS	688,000	963,000	1,650,000

COG Operating LLC
By: Erick W. Nelson

Date Prepared: 5/7/10

We approve:

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

Company: _____

By: _____

Printed Name: _____

Title: _____

Date: _____

COG Operating LLC
Cases 14490, 14491, 14492 and
14493

Ex. 9

**COG OPERATING LLC
AUTHORITY FOR EXPENDITURE
DRILLING**

WELL NAME: Taylor D #3	PROSPECT NAME: Maljamar (Lowe) Prospect
LOCATION: Section 9-T17S-R32E, NMPM	COUNTY & STATE: Lea County, NM
FOOTAGE: 2210' FNL & 1650' FEL	OBJECTIVE: Yeso test (4 Fracs) 7000'

INTANGIBLE COSTS	BCP	ACP	TOTAL
Title/Curative/Permit	201	4,000	4,000
Insurance	202	3,800	3,800
Damages/Right of Way	203		0
Survey/Stake Location	204	2,500	2,500
Location/Pits/Road Expense	205	30,000	35,000
Drilling / Completion Overhead	206	2,500	4,500
Turnkey Contract	207		0
Footage Contract	208		0
Daywork Contract	209	175,000	175,000
Directional Drilling Services	210		0
Fuel & Power	211	28,800	29,800
Water	212	14,000	46,000
Bits	213	24,000	24,500
Mud & Chemicals	214	7,000	7,000
Drill Stem Test	215		0
Coring & Analysis	216		0
Cement Surface	217	15,500	15,500
Cement Intermediate #1	218	16,400	16,400
Cement Intermediate #2			0
Cement Production		319	30,000
Cement Squeeze	220		0
Float Equipment & Centralizers	221	2,500	4,500
Casing Crews & Equipment	222	4,000	9,500
Fishing Tools & Service	223		0
Geologic/Engineering	224		0
Contract Labor	225	3,000	13,000
Company Supervision	226		0
Contract Supervision	227	12,000	17,000
Testing Casing/Tubing	228	1,800	4,000
Mud Logging Unit	229	6,000	6,000
Logging	230	15,000	15,000
Perforating/Wireline Services	231		24,000
Stimulation/Treating (4 fracs)		332	369,000
Completion Unit		333	20,000
Swabbing Unit		334	0
Rentals-Surface	235	5,000	41,000
Rentals-Subsurface	236	26,000	36,000
Trucking/Forklift/Rig Mobilization	237	40,000	48,000
Welding Services	238	2,000	3,000
Water Disposal	239	500	3,500
Plug to Abandon	240		0
Seismic Analysis	241		0
Closed Loop & Environmental	244	100,000	100,000
Miscellaneous	242		0
Contingency 5%	243	27,065	55,375
TOTAL INTANGIBLES		569,000	1,163,000

TANGIBLE COSTS	BCP	ACP	TOTAL
Surface Casing	401	31,200	31,200
Intermediate Casing #1	402	75,300	75,300
Intermediate Casing #2			0
Production Casing/Liner		503	154,000
Tubing		504	49,000
Wellhead Equipment	405	6,000	9,000
Pumping Unit		506	87,500
Prime Mover		507	0
Rods		508	21,376
Pumps		509	4,500
Tanks		510	3,000
Flowlines		511	5,000
Heater Treater/Separator		512	3,000
Electrical System		513	10,000
Packers/Anchors/Hangers	414		900
Couplings/Fittings/Valves	415		7,000
Gas Compressors/Meters		516	0
Dehydrator		517	0
Injection Plant/CO2 Equipment		518	0
Miscellaneous	419	500	1,000
Contingency 5%	420	5,700	24,300
TOTAL TANGIBLES		118,700	486,076
TOTAL WELL COSTS		688,000	1,650,000

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WELL NAME: Taylor D #4	PROSPECT NAME: Maljamar (Lowe) Prospect
LOCATION: Section 9-T17S-R32E, NMPM	COUNTY & STATE: Lea County, NM
FOOTAGE: 2120' FNL & 475' FEL	OBJECTIVE: Yeso test (4 Fracs) 7000'

INTANGIBLE COSTS	BCP	ACP	TOTAL
Title/Curative/Permit	201 4,000		4,000
Insurance	202 3,800	302	3,800
Damages/Right of Way	203	303	0
Survey/Stake Location	204 2,500	304	2,500
Location/Pits/Road Expense	205 30,000	305 5,000	35,000
Drilling / Completion Overhead	206 2,500	306 2,000	4,500
Turnkey Contract	207	307	0
Footage Contract	208	308	0
Daywork Contract	209 175,000	309	175,000
Directional Drilling Services	210	310	0
Fuel & Power	211 28,800	311 1,000	29,800
Water	212 14,000	312 32,000	46,000
Bits	213 24,000	313 500	24,500
Mud & Chemicals	214 7,000	314	7,000
Drill Stem Test	215	315	0
Coring & Analysis	216		0
Cement Surface	217 15,500		15,500
Cement Intermediate #1	218 16,400		16,400
Cement Intermediate #2			0
Cement Production		319 30,000	30,000
Cement Squeeze	220	320	0
Float Equipment & Centralizers	221 2,500	321 2,000	4,500
Casing Crews & Equipment	222 4,000	322 5,500	9,500
Fishing Tools & Service	223	323	0
Geologic/Engineering	224	324	0
Contract Labor	225 3,000	325 10,000	13,000
Company Supervision	226	326	0
Contract Supervision	227 12,000	327 5,000	17,000
Testing Casing/Tubing	228 1,800	328 2,200	4,000
Mud Logging Unit	229 6,000	329	6,000
Logging	230 15,000	330	15,000
Perforating/Wireline Services	231	331 24,000	24,000
Stimulation/Treating (4 fracs)		332 369,000	369,000
Completion Unit		333 20,000	20,000
Swabbing Unit		334	0
Rentals-Surface	235 5,000	335 36,000	41,000
Rentals-Subsurface	236 26,000	336 10,000	36,000
Trucking/Forklift/Rig Mobilization	237 40,000	337 8,000	48,000
Welding Services	238 2,000	338 1,000	3,000
Water Disposal	239 500	339 3,000	3,500
Plug to Abandon	240	340	0
Seismic Analysis	241	341	0
Closed Loop & Environmental	244 100,000	344	100,000
Miscellaneous	242	342	0
Contingency 5%	243 27,065	343 28,310	55,375
TOTAL INTANGIBLES	569,000	595,000	1,163,000
TANGIBLE COSTS			
Surface Casing	401 31,200		31,200
Intermediate Casing #1	402 75,300		75,300
Intermediate Casing #2			0
Production Casing/Liner		503 154,000	154,000
Tubing		504 49,000	49,000
Wellhead Equipment	405 6,000	505 3,000	9,000
Pumping Unit		506 87,500	87,500
Prime Mover		507	0
Rods		508 21,376	21,376
Pumps		509 4,500	4,500
Tanks		510 3,000	3,000
Flowlines		511 5,000	5,000
Heater Treater/Separator		512 3,000	3,000
Electrical System		513 10,000	10,000
Packers/Anchors/Hangers	414	514 900	900
Couplings/Fittings/Valves	415	515 7,000	7,000
Gas Compressors/Meters		516	0
Dehydrator		517	0
Injection Plant/CO2 Equipment		518	0
Miscellaneous	419 500	519 500	1,000
Contingency 5%	420 5,700	520 18,600	24,300
TOTAL TANGIBLES	118,700	367,376	486,076
TOTAL WELL COSTS	688,000	963,000	1,650,000

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WELL NAME: Taylor D #5	PROSPECT NAME: Maljamar (Lowe) Prospect
LOCATION: Section 9-T17S-R32E, NMPM	COUNTY & STATE: Lea County, NM
FOOTAGE: 1650' FSL & 330' FEL	OBJECTIVE: Yeso test (4 Fracs) 7100'

<u>INTANGIBLE COSTS</u>	<u>BCP</u>	<u>ACP</u>	<u>TOTAL</u>
Title/Curative/Permit	201 4,000		4,000
Insurance	202 3,800	302	3,800
Damages/Right of Way	203	303	0
Survey/Stake Location	204 2,500	304	2,500
Location/Pits/Road Expense	205 30,000	305 5,000	35,000
Drilling / Completion Overhead	206 2,500	306 2,000	4,500
Turnkey Contract	207	307	0
Footage Contract	208	308	0
Daywork Contract	209 175,000	309	175,000
Directional Drilling Services	210	310	0
Fuel & Power	211 28,800	311 1,000	29,800
Water	212 14,000	312 32,000	46,000
Bits	213 24,000	313 500	24,500
Mud & Chemicals	214 7,000	314	7,000
Drill Stem Test	215	315	0
Coring & Analysis	216		0
Cement Surface	217 15,500		15,500
Cement Intermediate #1	218 16,400		16,400
Cement Intermediate #2			0
Cement Production		319 30,000	30,000
Cement Squeeze	220	320	0
Float Equipment & Centralizers	221 2,500	321 2,000	4,500
Casing Crews & Equipment	222 4,000	322 5,500	9,500
Fishing Tools & Service	223	323	0
Geologic/Engineering	224	324	0
Contract Labor	225 3,000	325 10,000	13,000
Company Supervision	226	326	0
Contract Supervision	227 12,000	327 5,000	17,000
Testing Casing/Tubing	228 1,800	328 2,200	4,000
Mud Logging Unit	229 6,000	329	6,000
Logging	230 15,000	330	15,000
Perforating/Wireline Services	231	331 24,000	24,000
Stimulation/Treating (4 fracs)		332 369,000	369,000
Completion Unit		333 20,000	20,000
Swabbing Unit		334	0
Rentals-Surface	235 5,000	335 36,000	41,000
Rentals-Subsurface	236 26,000	336 10,000	36,000
Trucking/Forklift/Rig Mobilization	237 40,000	337 8,000	48,000
Welding Services	238 2,000	338 1,000	3,000
Water Disposal	239 500	339 3,000	3,500
Plug to Abandon	240	340	0
Seismic Analysis	241	341	0
Closed Loop & Environmental	244 100,000	344	100,000
Miscellaneous	242	342	0
Contingency 5%	243 27,065	343 28,310	55,375
TOTAL INTANGIBLES	569,000	595,000	1,163,000
<u>TANGIBLE COSTS</u>			
Surface Casing	401 31,200		31,200
Intermediate Casing #1	402 75,300		75,300
Intermediate Casing #2			0
Production Casing/Liner		503 154,000	154,000
Tubing		504 49,000	49,000
Wellhead Equipment	405 6,000	505 3,000	9,000
Pumping Unit		506 87,500	87,500
Prime Mover		507	0
Rods		508 21,376	21,376
Pumps		509 4,500	4,500
Tanks		510 3,000	3,000
Flowlines		511 5,000	5,000
Heater Treater/Separator		512 3,000	3,000
Electrical System		513 10,000	10,000
Packers/Anchors/Hangers	414	514 900	900
Couplings/Fittings/Valves	415	515 7,000	7,000
Gas Compressors/Meters		516	0
Dehydrator		517	0
Injection Plant/CO2 Equipment		518	0
Miscellaneous	419 500	519 500	1,000
Contingency 5%	420 5,700	520 18,600	24,300
TOTAL TANGIBLES	118,700	367,376	486,076
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