

**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	3,800
Damages/Right of Way	203		0
Survey/Stake Location	204	2,500	2,500
Location/Pits/Road Expense	205	30,000	5,000
Drilling / Completion Overhead	206	2,500	2,000
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	1,000
Water	212	14,000	32,000
Bits	213	24,000	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	2,000
Casing Crews & Equipment	222	4,000	5,500
Fishing Tools & Service	223		0
Geologic/Engineering	224		0
Contract Labor	225	3,000	10,000
Company Supervision	226		0
Contract Supervision	227	12,000	5,000
Testing Casing/Tubing	228	1,800	2,200
Mud Logging Unit	229	6,000	6,000
Logging	230	15,000	15,000
Perforating/Wireline Services	231		331
Stimulation/Treating (4 fracs)			24,000
Completion Unit			332
Swabbing Unit			369,000
Rentals-Surface	235	5,000	333
Rentals-Subsurface	236	26,000	20,000
Trucking/Forklift/Rig Mobilization	237	40,000	334
Welding Services	238	2,000	335
Water Disposal	239	500	36,000
Plug to Abandon	240		10,000
Seismic Analysis	241		8,000
Closed Loop & Environmental	244	100,000	337
Miscellaneous	242		1,000
Contingency 5%	243	27,065	338
TOTAL INTANGIBLES		569,000	595,000
TOTAL INTANGIBLES			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
Tubing			154,000
Wellhead Equipment	405	6,000	504
Pumping Unit			49,000
Prime Mover			505
Rods			3,000
Pumps			506
Tanks			87,500
Flowlines			507
Heater Treater/Separator			0
Electrical System			508
Packers/Anchors/Hangers	414		21,376
Couplings/Fittings/Valves	415		4,500
Gas Compressors/Meters			509
Dehydrator			3,000
Injection Plant/CO2 Equipment			510
Miscellaneous	419	500	5,000
Contingency 5%	420	5,700	3,000
TOTAL TANGIBLES		118,700	10,000
TOTAL TANGIBLES			900
TOTAL WELL COSTS		688,000	7,000
TOTAL WELL COSTS			18,600
TOTAL WELL COSTS			486,076
TOTAL WELL COSTS			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	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

COG Operating LLC
By: Erick W. Nelson

Date Prepared: 5/7/10

We approve:

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By: _____
Printed Name: _____
Title: _____
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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'

<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
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'

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
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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
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Welding Services	238 2,000	338 1,000	3,000
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Miscellaneous	242	342	0
Contingency 5%	243 27,065	343 28,310	55,375
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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
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