

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'

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	35,000
Drilling / Completion Overhead	206	2,500	306	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	29,800
Water	212	14,000	312	46,000
Bits	213	24,000	313	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
Cement Squeeze	220		320	0
Float Equipment & Centralizers	221	2,500	321	4,500
Casing Crews & Equipment	222	4,000	322	9,500
Fishing Tools & Service	223		323	0
Geologic/Engineering	224		324	0
Contract Labor	225	3,000	325	13,000
Company Supervision	226		326	0
Contract Supervision	227	12,000	327	17,000
Testing Casing/Tubing	228	1,800	328	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
Stimulation/Treating (4 fracs)			332	369,000
Completion Unit			333	20,000
Swabbing Unit			334	0
Rentals-Surface	235	5,000	335	41,000
Rentals-Subsurface	236	26,000	336	36,000
Trucking/Forklift/Rig Mobilization	237	40,000	337	48,000
Welding Services	238	2,000	338	3,000
Water Disposal	239	500	339	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	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
Tubing			504	49,000
Wellhead Equipment	405	6,000	505	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		514	900
Couplings/Fittings/Valves	415		515	7,000
Gas Compressors/Meters			516	0
Dehydrator			517	0
Injection Plant/CO2 Equipment			518	0
Miscellaneous	419	500	519	1,000
Contingency 5%	420	5,700	520	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	5,000	35,000
Drilling / Completion Overhead	206	2,500	2,000	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	1,000	29,800
Water	212	14,000	32,000	46,000
Bits	213	24,000	500	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			30,000	30,000
Cement Squeeze	220			0
Float Equipment & Centralizers	221	2,500	2,000	4,500
Casing Crews & Equipment	222	4,000	5,500	9,500
Fishing Tools & Service	223			0
Geologic/Engineering	224			0
Contract Labor	225	3,000	10,000	13,000
Company Supervision	226			0
Contract Supervision	227	12,000	5,000	17,000
Testing Casing/Tubing	228	1,800	2,200	4,000
Mud Logging Unit	229	6,000		6,000
Logging	230	15,000		15,000
Perforating/Wireline Services	231		24,000	24,000
Stimulation/Treating (4 fracs)			369,000	369,000
Completion Unit			20,000	20,000
Swabbing Unit				0
Rentals-Surface	235	5,000	36,000	41,000
Rentals-Subsurface	236	26,000	10,000	36,000
Trucking/Forklift/Rig Mobilization	237	40,000	8,000	48,000
Welding Services	238	2,000	1,000	3,000
Water Disposal	239	500	3,000	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	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			154,000	154,000
Tubing			49,000	49,000
Wellhead Equipment	405	6,000	3,000	9,000
Pumping Unit			87,500	87,500
Prime Mover				0
Rods			21,376	21,376
Pumps			4,500	4,500
Tanks			3,000	3,000
Flowlines			5,000	5,000
Heater Treater/Separator			3,000	3,000
Electrical System			10,000	10,000
Packers/Anchors/Hangers	414		900	900
Couplings/Fittings/Valves	415		7,000	7,000
Gas Compressors/Meters				0
Dehydrator				0
Injection Plant/CO2 Equipment				0
Miscellaneous	419	500	500	1,000
Contingency 5%	420	5,700	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
AUTHORITY FOR EXPENDITURE
DRILLING**

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	35,000
Drilling / Completion Overhead	206	2,500	306	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	29,800
Water	212	14,000	312	46,000
Bits	213	24,000	313	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
Cement Squeeze	220		320	0
Float Equipment & Centralizers	221	2,500	321	4,500
Casing Crews & Equipment	222	4,000	322	9,500
Fishing Tools & Service	223		323	0
Geologic/Engineering	224		324	0
Contract Labor	225	3,000	325	13,000
Company Supervision	226		326	0
Contract Supervision	227	12,000	327	17,000
Testing Casing/Tubing	228	1,800	328	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
Stimulation/Treating (4 fracs)			332	369,000
Completion Unit			333	20,000
Swabbing Unit			334	0
Rentals-Surface	235	5,000	335	41,000
Rentals-Subsurface	236	26,000	336	36,000
Trucking/Forklift/Rig Mobilization	237	40,000	337	48,000
Welding Services	238	2,000	338	3,000
Water Disposal	239	500	339	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	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
Tubing			504	49,000
Wellhead Equipment	405	6,000	505	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		514	900
Couplings/Fittings/Valves	415		515	7,000
Gas Compressors/Meters			516	0
Dehydrator			517	0
Injection Plant/CO2 Equipment			518	0
Miscellaneous	419	500	519	1,000
Contingency 5%	420	5,700	520	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
AUTHORITY FOR EXPENDITURE
DRILLING

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	35,000
Drilling / Completion Overhead	206	2,500	306	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	29,800
Water	212	14,000	312	46,000
Bits	213	24,000	313	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
Cement Squeeze	220		320	0
Float Equipment & Centralizers	221	2,500	321	4,500
Casing Crews & Equipment	222	4,000	322	9,500
Fishing Tools & Service	223		323	0
Geologic/Engineering	224		324	0
Contract Labor	225	3,000	325	13,000
Company Supervision	226		326	0
Contract Supervision	227	12,000	327	17,000
Testing Casing/Tubing	228	1,800	328	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
Stimulation/Treating (4 fracs)			332	369,000
Completion Unit			333	20,000
Swabbing Unit			334	0
Rentals-Surface	235	5,000	335	41,000
Rentals-Subsurface	236	26,000	336	36,000
Trucking/Forklift/Rig Mobilization	237	40,000	337	48,000
Welding Services	238	2,000	338	3,000
Water Disposal	239	500	339	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	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
Tubing			504	49,000
Wellhead Equipment	405	6,000	505	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		514	900
Couplings/Fittings/Valves	415		515	7,000
Gas Compressors/Meters			516	0
Dehydrator			517	0
Injection Plant/CO2 Equipment			518	0
Miscellaneous	419	500	519	1,000
Contingency 5%	420	5,700	520	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: