



Authorization For Expenditure

Company Entity		CMAEX ENERGY CO		Date Prepared		July 15, 2016	
Region		SEWELL 3H-1312X		County		Blaine	
Area		SEWELL 3H-1312X		Section		Sections 13-16N-12W and 13-16N-13W, Blaine County, OK	
Well Name		SEWELL 3H-1312X		Well Type		OK	
Well Status		Blaine		Formation		Mississippi	
Original Estimate		X		Revised Estimate		20,920'	
Supplemental Estimate				Vertical Depth		10,000'	

Description			
Drilling Costs	Dry Hole Cost	After Casing Point	Completed Well Cost
Drilling Costs	\$4,074,000	\$5,415,300	\$4,074,000
Completion Costs			\$5,415,300
Total Drilling Costs	\$4,074,000	\$5,415,300	\$9,489,300
Plug and Abandonment Costs	\$551,000	\$504,800	\$855,800
Well Equipment		\$123,700	\$123,700
Lease Equipment	\$351,000	\$428,500	\$1,179,500
Total Plug and Abandonment Costs	\$50	\$50	\$50
Total Well Cost	\$4,425,000	\$5,943,800	\$10,668,800

I, All tubulars, well or lease equipment is priced by COPS and CDS guidelines using the Historic Price Multiplier.

Unless otherwise indicated below, you, as a non-operating working interest owner, agree to be covered by Operator's well control insurance procured by Operator as long as operator indicated operator's well control insurance is in effect and you have agreed to pay your pro-rata share of the premiums therefor. If you elect to purchase your own well control insurance, you must provide certificate of such insurance acceptable to Operator, as to form and limits, at the time this AFE is returned. If available, but in no event later than completion of drilling operations. You agree that failure to provide the certificate of insurance, as provided herein, will result in your being covered by insurance procured by Operator.

☐ I elect to purchase my own well control insurance policy.

Well control insurance procured by Operator provides, among other terms, for \$20,000,000 (100% W.I.) of Combined Single Limit coverage for well control and related reilling and clean-up/pollution expense covering drilling (through completion) with a \$1,000,000 (100% W.I.) deductible.

Chenex will, its gas under firm's length contracts with third party purchasers. Such contracts may include fees. In addition, penalties may be incurred for insufficient volumes delivered over time. Should you choose to market your share of gas with Chenex, you will be subject to all of the terms of such contracts. Upon written request to Chenex's Marketing Department, we will share with you the terms and conditions pursuant to which gas will be sold. Failure to make an election below shall be deemed an election to market your gas with Chenex under the terms and conditions set forth above.

☐ I elect to take my gas in kind.

☐ I elect to market my gas with Chenex pursuant to the terms and conditions of its contract.

The above costs are estimates only and anticipate trouble free operations without any foreseeable change in plans. The actual costs may exceed the estimated costs without affecting the authorization for expenditure herein granted. By approval of this AFE, the working interest owner agrees to pay its proportionate share of actual legal, curative, regulatory and well costs under term of the joint operating agreement, regulatory order or other applicable agreement covering this well.

CMAEX Energy Co. Approval	
Approved	Signature
Joint Interest Approval	
Approved	Signature





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Lease Name:

Materials	Completion / Simulation	Production / Construction	Post Completion
Roads & Location Preparation / Restoration	\$11,000	CON 100	\$1,000
Damages	\$60,000	CON 101	\$0
Mud / Fluids Disposal Charges	\$0	CON 102	\$84,500
Day Rate	\$3,000	CON 103	\$0
400' Day @	\$30,000	CON 104	\$0
Mud Preparation Cost (mud hole, not hole, pits, pile chatters, misc.)	\$0	CON 105	\$0
Water for Drilling Rig / Completion Fluids (Not For Water)	\$75,000	CON 106	\$0
Water per Gallon	\$1.05	CON 107	\$0
3,700,000 Gallons Per Day	\$3,915,000	CON 108	\$0
Mud & Additives	\$208,000	CON 109	\$0
Surface Rentals	\$89,000	CON 110	\$0
Formation Evaluation (DST, Logging including evaluation, G&G Services)	\$0	CON 111	\$0
Mud Logging	\$1,000	CON 112	\$0
Open Hole Logging	\$1,000	CON 113	\$0
Cementing & Flot Equipment	\$0	CON 114	\$0
Tabular Inspection	\$0	CON 115	\$0
Coring Crews	\$0	CON 116	\$0
Extra Labor, Welding, Etc.	\$0	CON 117	\$0
Land Transportation (Trucking for sampling)	\$5,000	CON 118	\$0
Supervision	\$105,000	CON 119	\$0
Trailer House / Camp / Catering	\$10,000	CON 120	\$0
Other Misc. Expenses	\$22,000	CON 121	\$0
Overhead	\$0	CON 122	\$0
Remedial Cementing	\$0	CON 123	\$0
MCO/DEMCO	\$0	CON 124	\$0
Directional Drilling Services	\$0	CON 125	\$0
Cone for Construction	\$0	CON 126	\$0
Log Control (Equip Shimming Svc.)	\$19,000	CON 127	\$0
Fishing & Sidekick Operations	\$0	CON 128	\$0
Completion Rig	\$0	CON 129	\$0
Completion Logging, Perforating, WK Units, WK Surveys	\$159,000	CON 130	\$0
Composite Plug	\$116,000	CON 131	\$0
Simulation Pumping Charges, Chemicals, Additives, Sand	\$50,000	CON 132	\$0
Simulation Water / Water Transfer / Water Storage	\$3,100,000	CON 133	\$0
Crusher Owned Trac / Rental Equipment	\$317,000	CON 134	\$0
Legal / Respiratory / Airline	\$55,000	CON 135	\$0
Well Control Insurance	\$0	CON 136	\$0
Contingency	\$715,000	CON 137	\$0
Construction for Flow Lines	\$0	CON 138	\$0
Construction for Sites 7/1	\$0	CON 139	\$0
Total Intangible Cost	\$4,515,000	CON 140	\$474,700

Production Well Equipment			
	Size	Feet	\$ / Foot
Drive Pipe	0	0.00	\$0.00
Conductor Pipe	0	0.00	\$0.00
Water String	0	0.00	\$0.00
Surface Casing	13,375	15,000.00	\$58.60
Intermediate Casing 1	9,635	96,400.00	\$28.00
Intermediate Casing 2	0	0.00	\$0.00
Drilling Liner	0	0.00	\$0.00
Production Casing or Liner	5.5	21,700.00	\$17.80
Production Tr-Block	0	0.00	\$0.00
Tubing	2,375	111,600.00	\$4.00
Wellhead, Tree, Chokes			\$0
Liner Hanger, Isolation Packer			\$0
Process, Nipples			\$0
Pumping Unit, Engine			\$0
Complete Lift Equipment (Burr, Rods, Anchors, ESP, GWS, PC Pump)			\$0
UIC Lease Equipment			
Tanks, Tank Steps, Skids	CON 140	\$55,000	
Battery (Heater Treater, Separator, Gas Treating Equipment)	CON 141	\$108,000	
Secondory Contaiments	CON 142	\$8,000	
Overhead Power Distribution (electric line to facility)	CON 143	\$31,200	
Facility Electrical & Automation	CON 144	\$50,000	
S&WD Connection	CON 145	\$23,200	
Flow Lines (Line Pipe from wellhead to central facility)	CON 146	\$23,200	
Pipeline to Sales	CON 147	\$0	
Heaters and Metering Equipment	CON 148	\$29,000	
Total Trenches		\$45,000	
		\$5,000	
		\$33,700	
		\$40,800	
		\$1,800	
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LEASE NAME:

Item	Unit	Rate	Quantity	Total Unit Cost
<b>MOBILIZATION</b>				
Roads & Location Preparation / Restoration				\$160,000
Comenges				\$25,000
Mud / Fluids Disposal Charges				\$344,500
Day Rate	\$100	3445 Days @		\$344,500
Wells Preparation Cost (mud hole, pit hole, pit hole, pit hole, etc.)				\$151,000
Day Rate	\$100	1510 Days @		\$151,000
Wells Preparation Cost (mud hole, pit hole, pit hole, pit hole, etc.)				\$205,000
Day Rate	\$100	2050 Days @		\$205,000
Water for Drilling Rig / Completion Rig (incl. Frac. Water)				\$54,000
Mud & Additives				\$534,000
Surface Rentals				\$582,000
Drumhouse Rentals				\$134,000
Formation Evaluation (FOT) Core (including evaluation, C&S services)				\$51,000
Mud Logging				\$51,000
Core Analysis				\$175,000
Core Analysis & Tools Equipment				\$28,700
Tubular Inspection				\$32,000
Grading Charges				\$70,000
Crane Labor / Working Etc.				\$47,800
Land Transportation (Trucking for materials)				\$356,500
Supervision				\$38,000
Trailer Hauler / Camp / Catering				\$26,000
Other Misc. Expenses				\$76,000
Overhead				\$0
Remedial Cementing				\$188,000
MUD/CEMENT				\$415,000
Directional Drilling Services				\$4,000
Core for Construction				\$17,000
Scale Control				\$89,000
Well Control Equip (Drilling Sock)				\$0
Fishing & Sidekick Operations				\$14,000
Completion Rig				\$159,000
Coil Tubing				\$116,000
Completion Logging, Performing, Wt. Units, Wt. Surveys				\$50,000
Composite Plugs				\$53,101,000
Simulation Pumping Charges, Chemicals, Additives, Sand				\$217,000
Simulation Water / Water Transfer / Water Storage				\$20,000
Chemicals Owned / Frac / Rental Equipment				\$11,000
Legal / Regulatory / Curative				\$474,500
Well Control Insurance				\$0
Contingency				\$0
Construction for Flow Lines				\$0
Construction for Sites P/L				\$0
<b>Total Intangible Cost</b>				<b>\$9,489,300</b>
<b>Temple - Well Equipment</b>				
Casing	Size	Feet	\$ / Foot	
Drive Pipe	0	0.00	\$0.00	\$0
Conductor Pipe	0	0.00	\$0.00	\$0
Wire String	0	0.00	\$0.00	\$0
Surface Casing	13.375	1500.00	\$36.00	\$54,000
Intermediate Casing 1	9.625	9640.00	\$28.00	\$270,000
Intermediate Casing 2	0	0.00	\$0.00	\$0
Drilling Liner	0	0.00	\$0.00	\$0
Production Casing or Liner	5.5	21700.00	\$17.00	\$369,000
Production Tie-Back	0	0.00	\$0.00	\$0
Tubing	2.375	11160.00	\$4.00	\$59,000
Wellhead, Tree, Chokes				\$102,000
Liner Hanger, Isolation Packer				\$0
Packer, Wiggins				\$1,800
Pumping Unit, Engine				\$0
Downhole Lift Equipment (BHP, Rods, Anchors, ESP, GVs, PC Pump)				\$0
Temple - Lease Equipment				\$0
WCC Lease Equipment				\$46,000
Trucks, Tanks, Steps, Stairs				\$56,300
Battery (Heater, Treater, Separator, Gas Treating Equipment)				\$108,000
Secondary Containment				\$8,000
Overhead Power Distribution (electric line to facility)				\$3,000
Facility Electrical & Automation				\$31,200
SWD Connection				\$0
Flow Lines (Line Pipe from wellhead to central facility)				\$22,200
Pipeline to Siles				\$0
Meters and Metering Equipment				\$29,000
<b>Total Temple</b>				<b>\$1,179,500</b>
P&A Costs				\$0
<b>Total Cost</b>				<b>\$10,668,800</b>