



AUTHORIZATION FOR EXPENDITURE

COMPANY ENTITY Cimarex Energy Co.				DATE PREPARED March 8, 2007	
REGION Permian	WELL NAME Pyramid	WELL NO 1	PROSPECT OR FIELD NAME Star-Denton	PROPERTY NUMBER	DRILLING AFE NO.
LOCATION SHL 2210' FSL & 430' FWL BHL 330' FSL & 430' FWL Sec 31, T14S, R38E			COUNTY Lea	STATE New Mexico	TYPE WELL OIL <input checked="" type="checkbox"/> EXPL <input checked="" type="checkbox"/> GAS <input type="checkbox"/> PROD <input type="checkbox"/>
ORIGINAL ESTIMATE X		EST. START DATE	EST. COMP. DATE	FORMATION	EST. TD 9800 TVD 11600' MD
REVISED ESTIMATE					
SUPPLEMENTAL ESTIMATE					

PROJECT DESCRIPTION:
Drill and complete a horizontal wolfcamp well.

INTANGIBLES	DRY HOLE COST	AFTER CASING POINT	COMPLETED WELL COST
Intangible Drilling Costs	\$2,463,180		\$2,463,180
Intangible Completion Costs		712,750	712,750
TOTAL INTANGIBLE COSTS	2,463,180	712,750	3,175,930
TANGIBLES			
Well Equipment	132,000	474,000	606,000
Lease Equipment		84,000	84,000
TOTAL TANGIBLE WELL COST	132,000	558,000	690,000
PLUG AND ABANDON COST	60,000	(60,000)	
TOTAL WELL COST:	\$2,655,180	\$1,210,750	\$3,865,930

Comments on Well Costs:
1. All tubulars, well or lease equipment is priced by COPAS and CEPS guidelines using the Historic Price Multiplier.

WELL CONTROL INSURANCE:

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 so long as Operator conducts operations hereunder and to pay your prorated share of the premiums therefore. If you elect to purchase your own well control insurance, you must provide a 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 commencement 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.

Oil Conservation Division
Case No. 4
Exhibit No. 4

☐ 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 redrilling and clean-up/pollution expense covering drilling (through completion) with a \$1,000,000 (100% W.I.) deductible.

Comments on AFE

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.

#VALUE!

CIMAREX ENERGY CO. APPROVAL		
PREPARED BY Mark Audas, Sr. Drilling/Completion Engineer Permian Basin	DRILLING AND COMPLETION MANAGER Doug Park, Mgr Drilling/Completion Operations Offshore and Permian Regions	REGIONAL MANAGER Roger Alexander, Regional Manager Permian Basin

JOINT INTEREST APPROVAL		
COMPANY	BY	DATE



PROJECT COST ESTIMATE

LEASE NAME: Pyramid

WELL NO.: 1

INTANGIBLES				Codes	DRY HOLE COST	Codes	AFTER CASING POINT	COMPLETED WELL COST
ROADS & LOCATION PREPARATION / RESTORATION				DIDC.100	\$100,000	DICC.100	\$8,000	\$108,000
DAMAGES				DIDC.105	\$4,000	DICC.105	\$1,000	\$5,000
MUD/FLUIDS DISPOSAL CHARGES				DIDC.255	\$20,000	DICC.235	\$20,000	\$40,000
DAY RATE 46 DH DAYS 5 ACP DAYS @ 17430 PER DAY				DIDC.115	\$801,780	DICC.120	\$87,150	\$888,930
MISC PREPARATION COST (mouse hole, rat hole, pads, pile clusters, misc.)				DIDC.120	\$8,000			\$8,000
BITS				DIDC.125	\$100,000	DICC.125	\$1,000	\$101,000
FUEL \$2.20 PER GALLON				DIDC.135	\$111,000	DICC.130	\$11,000	\$122,000
WATER / COMPLETION FLUIDS				DIDC.140	\$32,200	DICC.135	\$25,000	\$57,200
MUD & ADDITIVES				DIDC.145	\$64,400			\$64,400
SURFACE RENTALS				DIDC.150	\$69,000	DICC.140	\$45,000	\$114,000
DOWNHOLE RENTALS				DIDC.155	\$144,000	DICC.145	\$10,000	\$154,000
FORMATION EVALUATION (DST, Coring including evaluation, G&G SERVICES)				DIDC.160				
MUD LOGGING 37 DAYS @ \$900 PER DAY				DIDC.170	\$47,000			\$47,000
OPEN HOLE LOGGING				DIDC.180	\$65,000			\$65,000
CEMENTING & FLOAT EQUIPMENT				DIDC.185	\$50,000	DICC.155	\$40,000	\$90,000
TUBULAR INSPECTIONS				DIDC.190	\$5,000	DICC.160	\$2,500	\$7,500
CASING CREWS				DIDC.195	\$12,000	DICC.165	\$15,000	\$27,000
EXTRA LABOR, WELDING, ETC.				DIDC.200	\$27,600	DICC.170	\$5,000	\$32,600
LAND TRANSPORTATION (Trucking)				DIDC.205	\$32,200	DICC.175	\$7,000	\$39,200
SUPERVISION				DIDC.210	\$51,000	DICC.180	\$18,000	\$69,000
TRAILER HOUSE/CAMP/CATERING				DIDC.280	\$17,000	DICC.255	\$2,500	\$19,500
OTHER MISC EXPENSES				DIDC.220	\$5,000	DICC.190	\$5,000	\$10,000
OVERHEAD				DIDC.225	\$14,000	DICC.195	\$4,200	\$18,200
REMEDIAL CEMENTING				DIDC.231		DICC.215		
MOB/DEMOB				DIDC.240	\$150,000			\$150,000
DIRECTIONAL DRILLING SERVICES 22 DAYS @ 9500 PER DAY				DIDC.245	\$209,000			\$209,000
DOCK, DISPATCHER, CRANE				DIDC.250		DICC.230		
MARINE & AIR TRANSPORTATION				DIDC.275		DICC.250		
SOLIDS CONTROL				DIDC.260	\$166,000			\$166,000
WELL CONTROL EQUIP (Snubbing services)				DIDC.265	\$28,000	DICC.240	\$16,800	\$44,800
FISHING & SIDETRACK OPERATIONS				DIDC.270		DICC.245		
COMPLETION RIG 14 DAYS @ 4400 PER DAY						DICC.115	\$61,600	\$61,600
COIL TUBING DAYS @ PER DAY						DICC.260		
COMPLETION LOGGING, PERFORATING, WL UNITS, WL SURVEYS						DICC.200	\$35,000	\$35,000
STIMULATION						DICC.210	\$220,000	\$220,000
LEGAL/REGULATORY/CURATIVE				DIDC.300	\$10,000	DICC.280		\$10,000
WELL CONTROL INSURANCE \$0.35 PER FOOT				DIDC.285	\$3,000			\$3,000
CONTINGENCY 5% OF DRILLING INTANGIBLES				DIDC.435	\$117,000	DICC.220	\$32,000	\$149,000
CONSTRUCTION FOR WELL EQUIPMENT						DWEA.110	\$1,000	\$1,000
CONSTRUCTION FOR LEASE EQUIPMENT						DLEQ.110	\$39,000	\$39,000
CONSTRUCTION FOR SALES P/L						DICC.265		
TOTAL INTANGIBLE COST					\$2,463,180		\$712,750	\$3,175,930
TANGIBLE - WELL EQUIPMENT								
CASING	SIZE	FEET	\$/FOOT					
DRIVE PIPE	20"	40	100.00	DWEB.150	4,000			\$4,000
CONDUCTOR PIPE				DWEB.130				
WATER STRING				DWEB.135				
SURFACE CASING	13-3/8"	250	42.00	DWEB.140	11,000			\$11,000
INTERMEDIATE CASING	8-5/8"	4,500	23.40	DWEB.145	105,000			\$105,000
DRILLING LINER	7"			DWEB.145				
DRILLING LINER				DWEB.145				
PRODUCTION CASING OR LINER	5 1/2"	9,800	15.90			DWEA.100	156,000	\$156,000
PRODUCTION TIE-BACK						DWEA.100		
TUBING	2 7/8"	12,000	6.50			DWEA.105	78,000	\$78,000
N/C WELL EQUIPMENT						DWEA.115	\$9,000	\$9,000
WELLHEAD, TREE, CHOKES				DWEB.115	12,000	DWEA.120	\$28,000	\$40,000
LINER HANGER, ISOLATION PACKER				DWEB.100		DWEA.125		
PACKER, NIPPLES						DWEA.130	\$110,000	\$110,000
PUMPING UNIT, ENGINE						DLEQ.100	\$78,000	\$78,000
LIFT EQUIPMENT (BHP, Rods, Anchors)						DLEQ.105	\$15,000	\$15,000
TANGIBLE - LEASE EQUIPMENT								
N/C LEASE EQUIPMENT						DLEQ.115	\$44,000	\$44,000
TANKS, TANKS STEPS, STAIRS						DLEQ.120	\$21,000	\$21,000
BATTERY (Heater Treater, Separator, Gas Treating Equipment)						DLEQ.125	\$18,000	\$18,000
FLOW LINES (Line Pipe from wellhead to central facility)						DLEQ.130	\$1,000	\$1,000
OFFSHORE PRODUCTION STRUCTURE FOR FACILITIES						DWEA.135		
PIPELINES TO SALES						DWEA.140		
TOTAL TANGIBLES					\$132,000		\$558,000	\$690,000
P&A COSTS				DIDC.295	60,000	DICC.275	(60,000)	
TOTAL COST					\$2,655,180		\$1,210,750	\$3,865,930