ROCA PRODUCTION, INC.
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February 13, 1996

RECOMMENDATION FOR FRAC TREATMENT
H.E. ESMOND A #2
1980' FNL & 990' FEL
Sec. 33, T22S, R36E
LEA COUNTY, NEW MEXICO

This well was drilled in 1953 by Albert Gackle as an oil well in the Yates sand. Gackle had previously drilled the H.E. Esmond A #1 in 1949, a 40 acre offset to the north. The A #1 well came in for 3,500 mcf/day + 10 bopd after being shot with nitro-glycerin in the Yates sand. Conoco had a Yates sand well in the 40 acres to the south of the A #2 location which was making predominantly oil. Gackle felt he would make an oil well like the Conoco well when he proposed drilling the A #2 well in 1953. However, in fact Gackle made a gas well after drilling the A #2 well. Cumulative production has been 1.6 BCF + 5,333 BO. The well is shut-in at present.

Top of the Yates sand was encountered at 3200' on the A #2 well. In order to delineate the Yates oil producing zone, Gackle cored the entire Yates interval from 3165'-3386'. After reaming out the core hole from 3165'-3248', 5 1/2" production casing was set at 3248'. The well was originally completed in the 4 3/4" open hole Yates interval from 3248'-3386' (138'). Two intervals were isolated with open hole packers and hydraulically fractured with crude oil containing no sand. Many Yates wells in this area were completed natural or were treated with small acid jobs. This open hole Yates interval must be relatively tight or there would have been no need for hydraulically fracturing treatments. Completion operations were finalized 2/18/53. Although I cannot find an initial potential on this well in the well file, I did find a GOR test run on 6/29/53 where the well was flowing 0.58 BO + 0 BW + 311 MCF per day. Obviously the well was fairly tight as compared to other Yates wells capable of flowing several million cubic feet per day.

On 2/3/54 the open hole interval was cleaned out and the 5 1/2" casing was perforated from 3230'-40' with 4 shots per foot. This resulted in a gas increase to 1,280 MCF/day. The allowable after this work was reported as 22,748 MCF for the 4th month of 1954.

No further work has been recorded in the well file since 1954. There is no record of a pump jack ever being on this well.

Based on work Arco has been doing on Yates zones in this area, there may be significant gas reserves that can be recovered by frac treating the Yates sand in this well. The attached map shows three wells that Arco has frac treated recently (1993 & 1994). The wells are listed as follows:

J.L. Selby #5 - Made 1.8 BCF and was making 35 mcf/day prior to being frac treated on 8/22/94. After frac treatment the well would make no gas. Arco may have encountered mechanical problems on this well.

Shipley WN #1 - Made 2.9 BCF and was making 70 mcf/day prior to being frac treated on 12/29/93. After frac treatment the well was making 296 mcf/day as of 8/28/95.

Curran Jones #10 - Made 0.9 BCF and was making 30 mcf/day prior to being frac treated on 12/7/94. After frac treatment the well was making 300 mcf/day as of 8/28/95.

Typical frac jobs Arco has been doing are comprised of 250,000 pounds of 12/20 sand and 80,000 gallons 60 Quality CO2 foam. The cost of this job is $60,000. The purpose of the foam is to minimize the amount of water pumped into the formation. Bottom hole pressure is typically very low in the Yates since a large amount of gas has been extracted from the formation over approximately 50 years.

Cumulative production on the H.E. Esmond A #1 well is 23,774 BO + 0.85 BCF from 1949 to 1994. In 1956, the Yates sand in the A #1 was frac treated with 30,000 pounds of sand and 30,000 gallons lease oil. Still this well only recovered 0.85 BCF. Apparently the Yates sand is relatively tight in this well bore also. It would seem that both H.E. Esmond wells would respond to a larger frac treatment similar to the size Arco is performing, due to the apparent reduced permeability of the Yates sand in this vicinity.

I have prepared an AFE to clean out the open hole interval and frac treat the H.E. Esmond A #2 well in the Yates sand. Prior to commencing any work, the operator of the Seven Rivers Queen Unit well #54 will be contacted to determine if any interference will occur with their well by frac treating our well.

Please note that this frac job recommendation is for 135,000 pounds of 12/20 sand as compared to 250,000 pounds of 12/20 sand on the Arco jobs. The size of this job was discussed with Dowell, who is doing the Arco treatments and was deemed adequate for a good treatment. In talking to Arco, there was no definite criteria for the size of their frac treatments. I have had personal experience with two wells using 135,000 pounds of sand.

ROCA PRODUCTION, INC. H. E. ESMOND A #2
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AFE TO CLEAN OUT OPEN HOLE INTERVAL 3248'-3359', PERFORATE 5-1/2" CASING, AND FRAC TREAT YATES FORMATION 3200'-3359'.	
LOCATION AND ROAD REPAIRS	$6,000
SET ANCHORS	$500
PULLING UNIT: 10 DAYS AT $1800/DAY	$18,000
BAILER TO CLEAN OUT OPEN HOLE, 4-3/4" BIT	$5,000
RENTAL: 2-7/8" N80 TUBING (3400')	$8,000
RENTAL: FRAC TANKS, PACKER, BOP	$8,000
PERFORATING	$5,000
ACID JOB: 2000 GALS 7-1/2% HCL	$3,000
FRAC JOB: 25,000 GALS 60 QUALITY CO2 FOAM 135,000# 12/20 BROWN SAND	$50,000
CO2 COST	$12,000
TRUCKING	$3,000
SUPERVISION	$5,000
TANK BATTERY REPAIRS	$2,000
CONTINGENCIES 10%	$12,000
TOTAL COMPLETION COST	**$137,500**
IF PUMP JACK IS NEEDED FOR LOAD RECOVERY OR PRODUCTION AS WAS THE CASE FOR R. W. COWDEN C #9 WELL, CAN USE THAT PUMP JACK AS IT IS NO LONGER NEEDED ON THAT WELL.	
MOVE PUMP JACK AND BASE	$1,500
PULLING UNIT TO PULL RODS AND PUMP	$1,800
PUMP REPAIRS	$1,000
ELECTRICAL INSTALLATION	$3,000
ROUSTABOUTS AND TRUCKING	$2,000
	$9,300
TOTAL COST WITH PUMP JACK	**$146,800**

ROCA PRODUCTION, INC.

PREPARED BY: Steve Douglas
STEVE DOUGLAS
DATE: SEPTEMBER 23, 2002

WORKING INTEREST OWNER APPROVAL:

PRINTED NAME: Evelyn Clay O'HARA
Evelyn Clay O'HARA, TRUSTee
SIGNATURE: Evelyn Clay O'Hara, Evelyn Clay O'Hara, Trustee
DATE: 11-12-02

NOTE: STATUS CHANGED ON THIS WELL FROM SHUT-IN TO PRODUCING BECAUSE NMOCD REQUIRED THAT WELL EITHER BE PRODUCED OR PLUGGED. WELL HAD SHUT-IN PRESSURE OF 155 PSI, WHICH IS EVIDENCE OF GOOD REMAINING BOTTOM HOLE PRESSURE, AND PRODUCED AT APPROXIMATELY 30 MCFGPD FOR FOUR MONTHS. WELL WILL PROBABLY NOT SUSTAIN PRODUCTION WITHOUT STIMULATION.

(see back of page) (over)

Dear Jim 1-12-02

It was good to see you. As to how I propose paying my portion of this free job. Lets owes me approximately $19,000.00 for my purse as his agent on matters here. I will enclose my costs.

Also, after mathis death I asked Peggy for the ring that was bequeathed to me which had around a $20,000 appraisal (in the sixties, I believe) She has yet to send it.

I suppose there will be additional funds for me from the Carrier Lease. Lets spoke of the $13,000.00 he had put in some accounts, plus the $13,000.00 in uncashed checks he left at mathis, and for course the time since he left. I believe I should be receiving some monies back also and be owed my $51,372 approx. liability. Please let me know.

Thanks,
Lyn