

THE BRITISH-AMERICAN OIL PRODUCING COMPANY

AUTHORITY FOR EXPENDITURE

DALLAS, TEXAS, DATE

A. F. E. NO.

DISTRICT

Northwestern

FIELD OR PROSPECT

Yenter

PROPERTY

Ziegler A-5

AUTHORITY IS REQUESTED TO

Reperforate the well with Schlumberger "crack jets" to increase fluid production from the well and increase ultimate recovery.

Location: Sec 2-BN-54W Logan County, Colorado

DETAILED ESTIMATE

ITEM AND DESCRIPTION	COND.	QUANTITY	PRICE	TOTAL COST	VALUE OF MATERIAL ON HAND
Pulling unit		15 hrs	26.50	400	
Perforating				900	
Pump repairs				100	
Company labor				30	
District Expense				5	
Miscellaneous & unforeseen				40	

Reasons: Increased fluid withdrawal from the subject well is necessary to prevent excessive drainage of oil by the offset Davis well. A Dynamometer card taken on the Ziegler A-5 indicates the well is "pumping off." The current AWT is 20 BOPD and 180 BOPD the Davis well is producing 160 BOPD and 320 BOPD but the casing has been ripped throughout the entire sand interval. Reperforating the entire sand interval in Ziegler A-5 using the Schlumberger "crack jet" method of perforating should yield sufficient additional fluid to increase production to 30 BOPD and 270 BOPD with the addition of a surplus 1 3/4" insert pump well provides the capacity provided the fluid will enter the well bore. Increased withdrawals will provide an additional 10,000 BOPD to be recovered that would otherwise be lost through drainage. The cost of the remedial work will be \$1475 and return an undepreciated profit of \$18,725 with an IRR of 502%. Payback will be in 2.4 months. Profitability Analysis by R.R. Penley, Inc. Eng.

Working Interest:

British-American  
J. Ray M. S. Darnold  
Victoria Johnson

50.00000 737  
33.33333 492  
16.66667 246

Budget: WO + CO

TOTAL ESTIMATED COST

\$1475

NET COST-B.A.

\$737

PROPOSED BY

RECOMMENDED BY

APPROVED BY:

*[Signature]*

THE BRITISH-AMERICAN OIL PRODUCING COMPANY

Date 8-10-64

Well Name Fraser A-5

Field Yenter

Location Sec 2 - BN - SW W

County Logan

State Colorado

PAYOUT AND PROFITABILITY ANALYSIS

A. Estimate of Recovery

	Oil Well	Gas Well
(1) Area Assigned to Well	Acres	Acres
(2) Net Pay Thickness	Feet	Feet
(3) Average Recovery Factor*	Bbls./A.F.	MMcf/A.F.
(a) Associated Gas or Condensate Yield	cf/Bbl.	Bbls./MMcf
(4) Estimated Ultimate Recovery <u>Increasing Ultimate Recovery 10,000</u>	Bbls.	MMcf
(a) Associated Gas or Condensate Recovery	MMcf Gas	Bbls. Cond.

B. Estimate of Operating Income

(5) Crude Price/Bbl. for <u>37°</u> API Gravity	\$ <u>285</u>	\$ <u>XXXXXXXXXXXX</u>
(a) Assoc. Gas Income/Bbl., <u>---</u> cf/Bbl. @ <u>---</u> c/Mcf	\$ <u>---</u>	\$ <u>XXXXXXXXXXXX</u>
(6) Gas Price/MMcf for <u>---</u> psia Pressure Base	\$ <u>XXXXXXXXXXXX</u>	\$ <u>---</u>
(a) Condensate Income/MMcf @ \$ <u>---</u> /Bbl.	\$ <u>XXXXXXXXXXXX</u>	\$ <u>---</u>
(7) Total Income (per Gross Bbl. and/or MMcf)	\$ <u>2.85</u>	\$ <u>---</u>
(8) Local Taxes <u>---</u> % Income or <u>18</u> c/Bbl. and <u>---</u> c/Mcf	\$ <u>.18</u>	\$ <u>---</u>
(1) Gross Income after Taxes	\$ <u>2.67</u>	\$ <u>---</u>
(10) Royalty and ORR @ <u>14.5</u> x (9)	\$ <u>.39</u>	\$ <u>---</u>
(11) Average Operating Expense (\$ <u>164</u> /Well-Zone/Month)	\$ <u>.26</u>	\$ <u>---</u>
(12) Operating Income/Gross Bbl. and/or MMcf (9)-(10)-(11)	\$ <u>2.02</u>	\$ <u>---</u>

C. Estimate of Total Operating Income

(13) Estimated Future Operating Income from Production (4) x (12) Oil + (4) x (12) Gas \$ 20200

D. Estimated Production Trend and Average Deferment Factor

Oil Well - It is assumed that the production rate will (remain constant at --- Bbls./month for --- years and thereafter) decline with 3 % per month from 2550 Bbls./month to its economic limit of 150 Bbls./month in 7 years with a ratio of initial and economic limit producing rates of ---.

Gas Well - It is assumed that the production rate will remain constant at --- MMcf/day for --- years.

(14) Weighted Average 5% Deferment Factor on Production .888



E. Profitability and Pay-Out

(15) Dry Hole Cost per AFE	\$ <u>---</u>	
(16) Additional Cost to Complete as Producer	\$ <u>---</u>	
(17) Future Investment	\$ <u>---</u>	
(18) Less: Discounted Value of Net Salvage***	(\$ <u>---</u> )	
(19) Grand Total Investment		\$ <u>1475</u>
	With Dry Hole Risk	Without Dry Hole Risk
(20) Estimated Risk Factor**	<u>---</u>	<u>XXXXXXXXXXXX</u>
(21) Share of Development Drilling Dry Hole Cost (20) x (15)	\$ <u>---</u>	\$ <u>XXXXXXXXXXXX</u>
(22) Total Development Investment (19) + (21)	\$ <u>---</u>	\$ <u>1475</u>
(23) Estimated Profit, (Undeferred) (13) - (22)	\$ <u>---</u>	\$ <u>18725</u>
(24) Average Annual Rate of Return $\frac{5 \times (14)}{1 - (14)} \times \frac{(23)}{(22)}$		<u>502</u>
(25) Minimum AARR Required (E. & E. Bulletin 1961-I)		<u>14</u> times
(26) Estimated Pay-Out Time	<u>---</u> Yrs.	<u>0.2</u> Yrs.

\* If basis for recovery estimate is other than volumetric, explanation of basis should be given on back side of form.

\*\* Number of Dry or Marginal Holes anticipated per producing well.

\*\*\* Estimated Value of Salvageable equipment at abandonment, less cost of salvage and abandonment.

PRESENT CONDITION	LOG	PROPOSED CONDITION	DEPTH
			220
9 5/8"  screw pipe @ 225' w/160 SX			240
			5100
			5110
			5120
Perfs 5128 5138		Perf 5126 5146 Per Item # 2	5130
			5140
Perf: 5146 5148			5150
	5156' PBD		5160
5 1/2" 15.5 Japan Co. @			

## THE BRITISH-AMERICAN OIL PRODUCING COMPANY

PROGNOSIS

A. F. E. NO. \_\_\_\_\_ DATE 8-10-64  
 STATE: Colorado COUNTY: Logan  
 DISTRICT: Northwestern  
 FIELD: Xenter  
 WELL: Ziegler A-5 990 EWL  
 LOCATION DESCRIPTION: 3300 ft @ 990 5/NL  
Sec 2 - 8N - 54W  
 ELEVATION: K.B. 4292

PROGRAM

All measurements from K.B.

1. MDRL. Pull rods and 2 1/2" log.
2. Pull and perforate interval 5126 to 5146 with Schlumberger "Crack jets" alternated w/ 27 gun standard jets. Shoot total of 4 holes per foot.
3. Run tubing
4. Run 1 3/4" insert pump and rods
5. Hang well on
6. T.D. M.D.

TRF/

## THE BRITISH-AMERICAN OIL PRODUCING COMPANY

**PROGNOSIS**W D  
A-F-E. NO. 845-NW

DATE August 12, 1964

STATE: Colorado  
DISTRICT: Northwestern  
FIELD: Yenter  
WELL: Ziegler A-5

COUNTY Logan

LOCATION DESCRIPTION:

~~330 w/EL & 990 S/NL~~  
Sec. 2-8N-54W990' E of W. line  
and 990' S. of N. line

ELEVATION: KB 4292

**PROGRAM**All measurements from KB

1. MIRU. Pull rods and 2-1/2" tubing.
2. RU and perforate interval 5126 to 5146 with Schlumberger "crack jets" alternated w/27 gram standard jets. Shoot total of 4 holes per foot.
3. Run tubing.
4. Run 1-3/4" insert pump and rods.
5. Hang well on.
6. TDMO.

PRESENT CONDITION	LOG	PROPOSED CONDITION	DEPTH
			220
9-5/8" csg. @ 225' w/160 SX			240
			5100
			5110
			5120
Perfs 5128 5138		Perf 5126 5146 Per Item #2	5130
			5140
Perf 5146 5148			5150
	5156' PBD		5160
5 1/2" 15.5 Japanese csg. @ 5169' w/ 250 sx		TD at 5170	5170