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Form Approved.

Budget Bureau No. 42-R1424

Form	9-331
Dac	1973

UNITED STATES DEPARTMENT OF THE INTERIOR GEOLOGICAL SURVEY

5. LEASE NM 9520

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

VACIALLO	NOTICES	AND	REPORTS	ON	WELLS
	18111111.5.3	AILU	ILLI OILIO	V11	11

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use Form 9-331-C for such proposals.)

1.	oil well		gas well	×x	other		
2.	NAM D	E OF ugan	opera Prod	ror ucti	on Corp.		

3. ADDRESS OF OPERATOR

P O Box 208, Farmington, NM 87401 4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.) 910' FSL - 790' FEL AT SURFACE:

AT TOP PROD. INTERVAL: AT TOTAL DEPTH:

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

7. UNIT AGREEMENT NAME
8. FARM OR LEASE NAME
Elwood P. Dowd
9. WELL NO.
#2
10. FIELD OR WILDCAT NAME
Basin Dakota
11. SEC., T., R., M., OR BLK. AND SURVEY C
AREA
Sec 10 T24N R9W

12. COUNTY OR PARISH 13. STATE <u>San Juá</u>k NM

14. API NO.

15 ECEVATIONS (SHOW DF, KDB, AND WD)

REQUEST FOR APPROVAL TEST WATER SHUT-OFF FRACTURE TREAT SHOOT OR ACIDIZE	TO :
REPAIR WELL PULL OR ALTER CASING MULTIPLE COMPLETE CHANGE ZONES ABANDON*	
(other)	

SUBSEQUENT REPORT OF

(NOTE) Report lesults of multiple completion or zone had change on Form 9-330.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

See attached report for perf 4-25-81 & 4-30-81, acid 4-24-81 & 4-30-81, frac 4-25-81 & 4-30-81, tubing 5-5-81.



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Subsurface Safety Valve: Manu. and Type		Set @ F	Fŧ
18. I hereby certify that the foregoing is t	true and correct Agent DATE	5-12-81	_
Thomas A. Dugan	(This space for Federal or State office use)	ACCOPIEN FOR RECOR	0

Hooffier fail us

APPROVED BY CONDITIONS OF APPROVAL, IF ANY: DATE

NMOCC

EARMINGTON DISTRICT

MAY 18 1981

DUGAN PRODUCTION CORP. Elwood P. Dowd #2 Page 5



- 4-20-81 Swabbing (fluid level from 1300° to 4000°), well gassing before and during swab runs; shut well in for 30 mins. Fluid level rose 250'; swabbed fluid level down to 3900°.
- No press. on csg. Made 4 swab runs. Fluid level dropped from 900' to 1500', gassing slightly during runs. Picked up 1 joint of tubing and stung back into retainer while circulating. Rig up Cementers, Inc. for squeeze job, unable to break down formation and establish flow rate. Pressured up to 2500 psi. Stung out of retainer, tool pulled 18,000# drag weight. Circulated casing to free possible junk from tool and retainer. Stung into retainer while circulating. Pressured up to 3200 psi but still unable to establish pump rate. Rigged up swab tools and made 4 swab runs. Well made est. 17 bbls of water thru retainer Annulus still full, indicating no communication across retainer. Pressured up to 4500 psi several times until csg. began circulating. P.O.H. to check for damaged seals on tool.
- 4-22-81 P.O.H. w/ tool; no apparent damage. T.I.H. w/ Type "R" Baker Packer on tubing. Set packer at 6383' Begin swabbing to pressure test cement retainer. Made 5 runs. Fluid level still at 2000'. Retainer leaking.
- 4-23-81 P.O.H. w/ packer and tubing. Rig up Blue Jet Inc. Set bridge plug at 6390'. T.I.H. w/ packer. Set packer at 6321' RKB. Swabbing. Well gassing moderately during swab runs. Fluid level dropped from 0' to 5000' w/ 4 runs.
- 4-24-81 Rig up Cementers, Inc. Pumped 250 gals 15% HCL displaced w/ 27 bbls water. Pressure test casing to 3000 psi. Held OK. Swabbing. Fluid level dropped from 0' to 5600' in 8 runs. 2 runs brought no fluid.
- 4-25-81 Checked fluid level. Dakota zone shows no fluid entry with very slight show of gas. P.O.H. w/ tubing and model "R" packer. Rigged up Western Co. and S.W.F. fraced Dakota perfs 6356-64' as follows:

Pumped 5292 gal Mini-Max III-30 pad Pumped 12,810 gal Mini Max-III-30 w/ ½#/gal 20-40 sand Pumped 6,972 gal Mini-Max-III-30 w/ 1#/gal 20-40 sand Flushed w/ 294 gals slick wtr. flush

Job sanded off while pumping l#/gal sand concentration. Flowed back and attempted to flush - unable to pump into formation.

Materials used: $13,400 \, \# \, 20-40 \, \text{sand}$, $25,074 \, \text{gals Mini-Max III-30}$ fluid, 20 bbls crude for 2% Hydrocarbon phase.

Shut well in overnight.

DUGAN PRODUCTION CORP. Elwood P. Dowd #2 Page 6

- 4-26-81 Opened well to atmosphere to flow back at 9:30 a.m.
- 4-27-81 T.I.H. w/ tubing. Tagged sand at 5940'. Circulated sand out of hole.
- 4-28-81 Swabbing. Made 26 swab runs. Fluid level dropped from 0' to 4700'. Recovered approx. 150 bbls fluid; well gassing slightly before runs.
- 4-29-81 Fluid level 3500'. Well made 1200' of fluid overnite. Swabbing. Made 18 runs. Fluid level dropped from 3500' to 5600'. Well gassing very lightly. P.O.H.
- A-30-81 Rig up Jetronics Inc. Run CCL log and perforate Gallup Formation at 5392, 91, 90, 89, 88, 87, 86, 85, 84, 83, 51, 50, 49, 58, 47' using 3-1/8" hollow carrier dual-fire gun. Rig up Western Co. and break down at 1900 psi w/ 5 bbls slick water. Perforate Gallup Formation at 5340, 38, 36; 5268, 66, 64, (Run #2) 5238, 36, 34, 32, 30, 22, 20, 18 (Run #3) using 3-1/8" hollow carrier dual fire gun on both runs. Rig up Western Co. and pump 500 gals 15% HCL w/ 40 ball sealers. Flush with 73 bbls slick water. Balls sealed off w/ 3000 psi. Ran 3-3/8" junk basket to retrieve balls.

Nitrified slick water frac of the Gallup Formation using Western Co. as follows:

4536 gals slick water pad
19,992 gals slick water w/ l#/gal 20-40 sand
35,616 gals slick water w/ l.5#/gal 20-40 sand
2,310 gals slick water flush
All fluid contained 250 SCF/bbl N₂

Total materials: slick water - 1487 bbls water, 156 gals Aquaflow 156,135# FR-2, 1249# Aquaseal sand - 73,416# 20-40 mesh Nitrogen - 353,500 SCF N₂

ISDP 1000 psi. Shut in pressure 900 psi after 15 min. Min. Treating pressure 2100 psi; max treating pressure 2350 psi; ave. treating press. 2200 psi. Injection Rate 34 bbl/min.

Well opened to atmosphere at 5:15 p.m.

Well dead; T.I.H. w/ tubing. Tag sand at 6315'. Lay down 29 jts. Ran in order - bull plug, mud anchor, perforated nipple, seal nipple and 171 jts. 2-3/8" 4.7# J-55 8Rd EUE tubing. T.E. 5413.58' set at 5420' RKB. Remove B.O.P. and nipple up wellhead. Made 5 swab runs, recovered 8 bbls oil, 30 bbls water. Well was gassing strongly w/each run. Rig down and shut well in.