

AIMOCD

SJOET Well Work Procedure

Moore GC 1

Version: #1
Date: October 9, 1996
Budget: Expense/Well Repair
Repair Type: Cleanout

Objectives:

1. TOOH with existing 4 1/2" tubing and LD.
 2. TIH with work string to cleanout well to TD.
 3. Stabilize open hole, slightly surging the well if necessary, and flowtest.
 4. TOOH with work string and TIH with 2 7/8" tubing and flowback.
 5. Change tubing head and casing valves to full opening.
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Pertinent Information:

Location:	790' FSL x 1770' FWL; 09-T30N, R08W	Horizon:	FT
County:	San Juan	API #:	30-045-27591
State:	New Mexico	Engr:	R. DeHerrera
Lease:	SF-078580	Phone:	H-(303)439-7893
Well Flac:	703274		W-(303)830-4946

Economic Information:

APC WI:	50%	Prod. Before Repair:	2000 MCFD
Estimated Cost:	\$75,000	Anticipated Prod.:	2700 MCFD
Payout:	5 Months	Prod. Before Repair	
Max Cost -12 Mo. P.O.	\$198,995	Anticipated Prod.:	
PV15:			
Max Cost PV15:			

Note: Economics will be run on all projects that have a payout exceeding ONE year.

Formation Tops: (Estimated formation tops)

Nacimiento:		MesaVerde:	
Ojo Alamo:		Point Lookout:	
Kirtland Shale:		Mancos Shale:	
Fruitland:	2420'	Gallup:	
Pictured Cliffs:	2691'	Graneros:	
Lewis Shale:		Dakota:	
Cliff House		Morrison:	

Bradenhead Test Information:

Test Date:	Tubing:	Casing:	BH:
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Time	BH	CSG	INT	CSG
5 min				
10 min				
15 min				

Comments:

HIGH VOLUME WELL--DO NOT PROCEED UNTIL YOU ARE CERTAIN THAT ALL PRECAUTIONS HAVE BEEN TAKEN. CALL ME AT NUMBERS LISTED BELOW IF IN DOUBT.

1. MIRURT complete with 3.500" drill pipe, 4.750" drill collars and air package.
2. ND tree, rig up BOP's w/cavitation capability complete with venturis on blooie lines. Test BOE. Set pump-through plug in 2.75" "F" nipple at 2374'. With additional joints of 4 1/2" tubing, tag fill depth. TOOHH with 4 1/2" tubing, laying it down. NOTE: SHOULD IT BECOME APPARENT THAT YOU CAN NOT SAFELY PULL THE TUBING WITHOUT ASSISTANCE FROM A SNUBBING UNIT; CALL ONE OUT AND RIG UP. Change pipe rams to permit running the 3.500" drill pipe.
3. Pick up a 6.250" mill tooth bit, 3.500" drill pipe, and 4.750" drill collars and clean out fill to total depth (2688') using air and foam. Rotate and reciprocate on bottom until hole is clean. POOH with drill pipe so bottom of tubing is above 7" casing shoe at 2410'.
4. Flow test well up both tubing and casing for 1 hour through 3/4" choke and record pressures every 10 minutes. Shut well in and wait for 4 hours, record pressures every 10 minutes for first hour then every hour following.
5. TIH with tubing and check to determine amount of fill and how difficult it is to clean up. Repeat clean out, flow test, and shut in if necessary and stabilize hole as quickly as possible to allow running tubing. Once hole is stabilized, proceed to next step. Slight surging of the well may be necessary to stabilize open hole.
6. Lay down drill string, change pipe rams as necessary to run the 2 7/8" tubing string. Pick up a 2 7/8" Closed End Half Mule shoe, 10' perforated sub, profile nipple and 2 7/8" tubing. Install profile nipple with retrievable plug in place and run in with the 2 7/8" tubing. Land tubing at 2640'. Profile nipple needs to be at the bottom of the tubing just above the perforated sub assembly.
7. ND BOE, NU tree and RDMORT. Tie well back into surface equipment, retrieve plug and bring well on line slowly in an attempt to minimize any cavitation effect. Turn over to production.

Dependent on speed of hole stabilization, I estimate this procedure to require approximately 5 days and to cost approximately \$75,000.

Tubing Head Replacement

This can be completed any time during the workover. Many of the high rate fruitland coal wells are produced through the tubing string and the tubing/casing annulus. The 7 1/16" 3000# x 11" 3000# tubing heads on the wells were outfitted with flanged 2 1/8" casing valves. The threaded outlet in the head is 1 1/2" in diameter. We need an additional head with the outlets full opening and the ability to accomodate full opening casing valves. FMC is aware of our plans and is scrambling to accomodate this request.

If problems are encountered, please contact:

***Robert DeHerrera
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(H) (303)439-7893***