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D. C. C.

HYDROSTATIC PRESSURE TEST - B.O.P.'s

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Gulf Oil Corporation - Lea "ED" State #1 April 26, 1976 16501+10 16-19-34

by

Yellow Jacket Tools and Services, Inc.

Carlsbad, New Mexico

CC: U. S. G. S.



April 29, 1976

Gulf Oil Corporation

Hobbs, New Mexico

Attn: Drilling Dept.

RE: BOP Test - Your Lea "ED" State #1

Gentlemen:

We made a hydrostatic pressure test to captioned blowout control equipment on April 26, 1976, and wish to advise the following:

At the conclusion of testing:

Items of the blowout control equipment from top of test plug landed in casing head up through Hydril were tested to 3500# with separate tests being made at the pressure of 5000# to blind rams, pipe rams, upper kelly cock, lower kelly cock, drill pipe safety valve, chokeline, choke-manifold, and to the valves and fittings off the bop stack proper. Approximately 10,975' of 7 5/8" casing was tested to 4000#.

There were no visible leak to items tested at the conclusion of testing.

No delay was observed to operation of blowout control equipment at the conclusion of testing. Closures were made using both closing unit pump and accumulators to the observed pressure of 2000# for test to ram type bops and 1200# for test to Hydril. Accumulators were pressured to 2000# at end of test. Control valves operated as indicated on closing unit manifold at end of test. Bop extentions were not hooked up - rig nippling up.

Please contact us if you have any question concerning the above or any phase of this test.

We appreciate your business and we will welcome your suggestions as to how we may better serve you in the future.

Sincerely yours,

YELLOW JACKET TOOLS AND SERVICES, INC.

Joy C. Stubbs

JES/jms

Attachments

CC: U. S. G. S.

Artesia, New Mexico

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Lea "EC tate #1

Test by Yellow Jacket Tools and Services, Inc. Contractor: Sharp Drlg. Rig 40



=====Transposition of the pressure recorder chart======

The above is a transposition of the pressure recorder charts covering test to the blowout control equipment in service on your well drilling in the Maljamar Area, Hobbs District, New Mexico. Test was made with test plug landed in casing head with the following test results: Arrived location - rig nippling up.

Waiting on rig.

TESTING: Blind Rams with value off tee closed off stack on lower kill line and inside value closed next to stack on lower chokeline - pressure applied thru test entry on lower kill line.

Test #1 Pressured to 4200# with <u>leak to flange at test entry</u> <u>off stack on lower kill line</u> and <u>leak to flange between</u> <u>stack and inside valve next to stack on lower chokeline</u>. Tightened.

Waiting on rig.

- Test #2 Repeated test. Pressured to 4600# with <u>leak to flange</u> <u>between stack and inside value next to stack on lower</u> kill line. Tightened.
- Test #3 Repeated test. Pressured to 4600# with <u>leak to flange</u> between blind rams bop and lower drilling spool and leak to flange between lower drilling spool and adaptor flange. Tightened.

Waiting on rig.

Test #4 Repeated test. Pressured to 5000# with <u>leak to door seal</u> of blind rams bop (doghouse side). Tightened.
Test #5 Repeated test. Pressured to 5000# with <u>same leak to</u> flange between blind rams bop and lower drilling spool and <u>same leak to flange between lower drilling spool</u> and adaptor flange. Tightened.

Waiting on rig.

Test #6 Repeated test. Pressured to 5000# with loss of approximately 100# during first fifteen minutes then leveling out for remaining one minute of test. NO VISIBLE LEAK. PRESSURE LEVELING OUT TOWARDS APPROXIMATELY 4900#. Waiting on rig.

TESTING: Pipe Rams with inside value closed next to stack on upper kill line, inside value closed next to stack on lower kill line, inside value closed next to stack on upper chokeline, and outside value closed off stack on lower chokeline - pressure applied down drill pipe.

Test #7 Pressured to 5000# with <u>leak to flange between</u> pipe rams bop and upper drilling spool. Tightened.

Waiting on rig.

- Test #8 Repeated test. Pressured to 5000# with <u>leak to door</u> seal of pipe rams bop (pump side). Tightened.
- Test #9 Repeated test. Pressured to 5000# with <u>leak to flange</u> <u>between stack and inside valve next to stack on upper</u> <u>chokeline</u>. Tightened.

Waiting on rig.

Test #10 Repeated test. Pressured to 5000# with loss of approximately 50# during first ten minutes then leveling out for remaining one minute of test. NO VISIBLE LEAK. PRESSURE STEADY AT APPROXIMATELY 5000#.

TESTING: Outside value off stack on upper kill line, middle value off stack on lower kill line, outside value off stack on upper chokeline, and outside value off stack on lower chokeline with pipe rams closed - pressure applied as before.

> Test #11 Pressured to 5000# with <u>leak to flange between</u> inside value and outside value off stack on upper chokeline.and <u>leak to stem packing of outside value</u> off stack on upper chokeline. Tightened.

- Test #12 Repeated test. Pressured to 5000# with <u>leak to</u> <u>door seal of pipe rams bop (pump side</u>). Tightened.
- Test #13 Repeated test. Pressured to 5000# with loss of approximately 50# during first eight minutes then leveling out for remaining one minute of test. NO VISIBLE LEAK. PRESSURE STEADY AT APPROXIMATELY 5000#.

Released pressure to 2000# and closed outside value and check value off tee off stack on lower kill line and opened middle value off stack on lower kill line; repressured to 4000# with <u>leak to flange between check</u> value off tee and value off tee off stack on lower kill line.

TESTING: Outside value off stack on upper kill line, outside value and check value off tee off stack on lower kill line, outside value off stack on upper chokeline, and outside value off stack on lower chokeline with pipe rams closed - pressure applied as before.

Test #14 Pressured to 5000# with <u>leak to cap of check valve</u>

off tee off stack on lower kill line; repressured

to 5000# with same leak. Tightened.

Waiting on rig.

START CHART #2

Test #15 Repeated test. Pressured to 5000# with loss of approximately 50# during first nine minutes then leveling out for remaining one minute of test.

NO VISIBLE LEAK. PRESSURE STEADY AT APPROXIMATELY 5000#.

TESTING: Hydril with outside valve closed off stack on upper kill line, outside valve and check valve off tee closed off stack on lower kill line, outside valve closed off stack on upper chokeline, and outside valve closed off stack on lower chokeline.

Test #16 Pressured to 3500# with loss of pressure; repressured to 3500# with loss of approximately 100# during first seven minutes then leveling out for remaining one minute of test.

NO VISIBLE LEAK. PRESSURE LEVELING OUT TOWARDS APPROXIMATELY 3400#.

TESTING: Chokeline-Manifold with inside value closed next to stack on upper chokeline, inside outlet value closed off choke-manifold cross, and inside wing values closed off manifold cross - pressure applied thru guage connection.

> Test #17 Pressured to 1400# with <u>leak to flange between upper</u> chokeline and choke-manifold cross. Tightened.

Waiting on rig.

Test #18 Repeated test. Pressured to 5000# with <u>leak to flange</u> <u>between outside value off stack and upper chokeline.</u> Tightened.

Test #19 Repeated test. Pressured to 5000# with loss of approximately 200# during first thirteen minutes then leveling out for remaining one minute of test. NO VISIBLE LEAK. PRESSURE LEVELING OUT TOWARDS APPROXIMATELY 4800#.

RETEST: Chokeline-Manifold same as before but with inside valve closed next to stack on upper chokeline, outside outlet valve closed off choke-manifold cross, and middle wing valves closed off manifold cross - pressure applied as before.

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Test #20 Pressured to 3000# with loss of pressure; adjusted values under pressure; repressured to 5000# with <u>leak</u> <u>to flange between inside wing value and middle wing</u> value off manifold cross (pipe rack side). Tightened.

Waiting on rig.

Test #21 Repeated test. Pressured to 5000# with loss of approximately 100# during first ten minutes then leveling out for remaining one minute of test. NO VISIBLE LEAK. PRESSURE LEVELING OUT TOWARDS APPROXIMATELY 4900#.

> Released pressure to 3900# and opened middle wing value off manifold cross (pipe rack side) with <u>leak to flange</u> <u>between middle wing value and first tee off manifold</u> cross (pipe rack side).

RETEST: Chokeline-Manifold same as before but with inside value closed next to stack on upper chokeline, outside outlet value closed off choke-manifold cross, and outside wing values and values off tees closed off manifold cross - pressure applied as before.

Test #22 Pressured to 5000# with loss of approximately 200# during first twelve minutes then leveling out for remaining one minute of test.

NO VISIBLE LEAK. PRESSURE LEVELING OUT TOWARDS APPROXIMATELY 4800#.

TESTING: Lower Kelly Cock with pressure applied at bottom of lower kelly cock. Test #23 Pressured to 5000# with loss of pressure; repressured to 5000# with loss of approximately 100# during first five minutes then leveling out for remaining one minute of test.

NO VISIBLE LEAK. PRESSURE LEVELING OUT TOWARDS APPROXIMATELY 4900#.

TESTING: Upper Kelly Cock with pressure applied at bottom of kelly. Test #24 Pressured to 5000# with loss of approximately 200# during first ten minutes then leveling out for remaining one minute of test. NO VISIBLE LEAK. PRESSURE LEVELING OUT TOWARDS APPROXIMATELY 4800#.

TESTING: Drill Pipe Safety Valve (Hydril) with pressure applied at bottom. Test #25 Pressured to 5000# with loss of approximately 100# during first eleven minutes then leveling out for remaining one minute of test. NO VISIBLE LEAK. PRESSURE LEVELING OUT TOWARDS APPROXIMATELY 4900#.

Waiting on rig.

TESTING: Approximately 10,975 ft. of 7 5/8" Casing with value off tee closed off stack on lower kill line, inside value closed next to stack on lower chokeline, values closed off casing spool, and blind rams closed - pressure applied thru test entry on lower kill line.

Test #26 Pressured to 2400# using rig pump with loss of pressure; repressured to 2800# using rig pump with loss of pressure; repressuring up to 3600# using rig pump with loss of pressure; ran out of gas; pressuring on up to 4000# with loss of pressure; repressured to 4000# with loss of pressure; repressured to 4000# with pressure steady and holding for the fifteen minutes of test.

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NO VISIBLE LEAK. PRESSURE STEADY AT APPROXIMATELY 4000#.

No delay was observed to operation of blowout control equipment at the conclusion of testing. Closures were made using both closing unit pump and accumulators to the observed pressure of 2000# for test to ram type bops and 1200# for test to Hydril. Accumulators were pressured to 2000# at end of test. Control valves operated as indicated on closing unit manifold at end of test. Bop extentions were not hooked up - rig nippling up.

VELLOW JACKET TOOLS AND SERVICES, INC. Test made by Earl Prosise Earl prosese CARLSBAD, NEW MEXICO