District I
1625 N French Dr , Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S St Francis Dr , Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

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NMOCD ARTESIA

Form C-101
June 16, 2008

Submit to appropriate District Office

AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

[1] Operator Name and Address	[2] OGRID Number
Chesapeake Operating, Inc P O Box 18496 Oklahoma City, OK 73154-0496	147179
	[3] API Number 30 – 015-32862

[3] Property Code	[5] Property Name	[6] Well No
301463	State 2	8

[9] Proposed Pool 1	[10] Proposed Pool 2
Undes Benson, Bone Spring Oil	

[7] Surface Location

UL or lot no	Section	Township	Range	Lot Idn	Feet from the	North/South	Feet from the	East/West line	County
N	2	19S	30E		660'	South	1980'	West	Eddy

[8] Proposed Bottom Hole Location If Different From Surface

UL or lot no	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

Additional Well Information

[11] Work Type Code	[12] Well Type Code	[13] Cable/Rotary	[14] Lease Type Code	[15] Ground Level Elevation
R	O	R	S	3428'
[16] Multiple	**[17] Proposed Depth**	**[18] Formation**	**[19] Contractor**	**[20] Spud Date**
No	12,234'/PBTD-11,548'	Bone Spring	TBD	ASAP

[21] Actual Casing and Cement of Wellbore

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
17 ½"	13 3/8"	48#	673'	700 sxs	0'
11"	8 5/8"	32#	3228'	925 sxs	0'
7 7/8"	5 ½"	17#	12,234'	1350 sxs	4820'

[22] Describe the proposed program If this application is to DEEPEN or PLUG BACK, give the data on the present productive zone and proposed new productive zone Describe the blowout prevention program, if any Use additional sheets if necessary

Please find the proposed re-completion procedure to the 2nd Bone Spring Sand, an actual and proposed well-bore diagram, an amended NMOCD C-102 land plat and NMOCD C-144(CLEZ) pit permit.

[23] I hereby certify that the information given above is true and complete to the best of my knowledge and belief

Signature: Bryan Arrant

Printed name: Bryan Arrant

Title: Senior Regulatory Compliance Specialist

E-mail Address: bryan arrant@chk com

Date: 3/17/2010 Phone: 405-935-3782

OIL CONSERVATION DIVISION

Approved by: Jacque Reeves

Title: Geologist

Approval Date: 3/29/2010 Expiration Date:

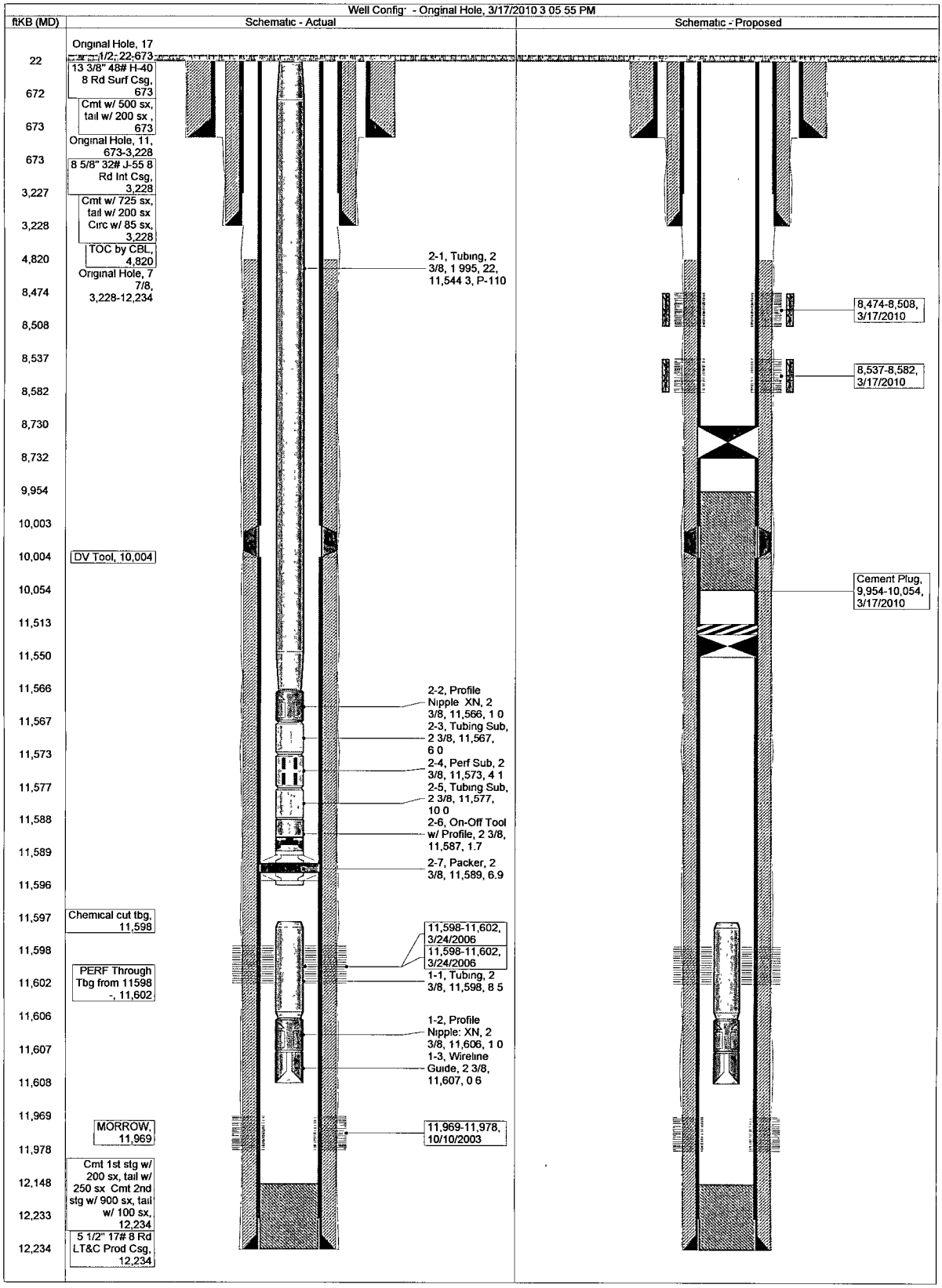
Conditions of Approval Attached ☐

Proposal - Workover

STATE 2 8

Field: Undesignated Hickberg Morrow North
County: EDDY
State: NEW MEXICO
Location: SEC 2, 19S-30E, 660 FSL & 1980 FWL
Elevation: GL 3,427.00 KB 3,449.00
KB Height: 22.00

Spud Date: 8/10/2003
Initial Compl. Date:
API #: 3001532862
CHK Propterty #: 891348
1st Prod Date: 10/1/2003
PBTD: Original Hole - 12148.0
TD: 12,234.0



Report Printed: 3/17/2010

Chesapeake ENERGY

State #2-8
2nd Bone Springs Sand Recompletion
Eddy County, NM

Current Wellbore Information

TD: 12,234' **PBTD:** 12,148'

Casing Data

Casing	OD	Weight	Grade	Depth Set	TOC
Surface	13-3/8"	48#	H-40	673'	Surface
Intermediate	8-5/8"	32#	J-55	3,228'	Surface
Production	5-1/2"	17#	NA	11,800'	8,422'

Pressure and Dimensional Data

Size	Weight	Grade	Drift	Collapse	Burst	80% Burst
13-3/8"	48#	H-40	12.559	770	1,730	1,384
8-5/8"	32#	J-55	7.796	2,530	3,930	3,144
5-1/2"	17#	NA	4 767	4,910	5,320	4,256

Existing Perforations

Perfs	Top Perf	Bottom Perf	Status	Total Holes
Morrow	11,598'	11,602'	Open	16
Morrow	11,969'	11,978'	Open	18

GL: 3,427' **KB:** 22' **KB Height:** 3,449'

Procedure

Hold PJSA prior to beginning work each morning and as required for specific operations.

1. Prep location. Check anchors and clean area for workover.
2. Rack and tally Oil Dog work string consisting of 294 joints of 2-7/8, 6.5#, J-55 tubing.
3. NU 7-1/16", 5K, Full Opening, Manual Frac Valve. Run test plug. Test to 4,200# (5,320 psi * 80% = 4,256 psi). Retrieve test plug.
4. MIRU workover rig. ND WH. NU 5K BOPs and test. Release on/off tool and POH w/ production tubing (laying down) and 5-1/2" Arrowset Packer @ 11,594'.
5. RIH w/ 4-3/4" bit, 6 – 3-1/2" DCs and scraper to 11,560'. Clean out and circulate the 5-1/2" casing with the following fluid. Pump sweeps as necessary to clean hole. POOH w/ 4-3/8" bit and 2-7/8" Oil Dog workstring (standing back).

   Fluid should contain per 1,000 gallons (**Fresh Water Base):**

Additive	Function
1 Gallon L64	2% KCL
1 Gallon F105	Surfactant

6. RIH w/ 5-1/2" CIBP and set @ +/-11,548'. Spot a 35' cement plug on top of the CIBP @ +/-11,548'. WOC and tag plug. POH. The existing Morrow perforations are going to be abandoned (11,598' – 11,602' and 11,969' – 11,978').

7. RIH w/ tubing to 10,054' and spot a 100' (25 sxs minimum) cement plug. (DV Tool @ 10,004')

8. RIH w/ 5-1/2" CIBP and set @ +/- 8,730' and test casing to 4,200# (5,320 psi * 80% = 4,256 psi) for 15 minutes to test casing integrity. This CIBP is to prepare the well for future plug and abandonment and to reduce the remaining rat hole to +/- 150'.

9. NU 7-1/16", 5K, Full Opening, Hydraulic Frac Valve. NU 7-1/16", 5K, Cross with 2-9/16", 5K, Wing Valves. Run test plug. Test to 4,200#. Retrieve test plug.

10. Install lubricator. MU 4" HSC Perforating Guns loaded 2 spf w/ 120 degree phasing (23 g minimum charges) and RIH. Correlate to the attached log and perforate the 2nd Bone Springs as follows:

Stage 1

Formation	Interval	SPF	Total Shots
2nd Bone Springs	8,570' – 8,582'	2 spf	24
2nd Bone Springs	8,550' – 8,562'	2 spf	24
2nd Bone Springs	8,537' – 8,548'	2 spf	22
Total	45'		70

POOH w/ tubing and perforating guns and verify all shots fired. RDMO Wireline.

11. RD Lubricator. RU Cudd and pump a total of 5,000 gallons of 15% NEFE acid dropping 105 perf balls throughout the job. Flush acid to bottom perf w/ 2% KCL. SI and wait 1 hour. See attached acid procedure.

12. RIH w/ 4-3/4" bit, 6 – 3-1/2" DCs and scraper to CIBP @ 8,730' to clear perfs.

13. RU Cudd and frac 2nd Bone Springs perfs 8,537' – 8,582' (70 holes). Frac Stage 1 per attached procedure. (5-1/2" 17# S-95, J55 & N80 Internal Yield = 5,320 psi) Record ISIP-5-10-15 min pressures. RDMO frac equipment.

14. RU lubricator. RU wireline and RIH and set CBP @ +/-8,528'. POH.

15. MU Select Fire Perforating Guns loaded w/ shots @ 3 spf w/ 120 degree phasing (23 g minimum charges) and RIH. Correlate to the attached log perforate the 2nd Bone Springs (Stage 2) as follows:

Stage 2

Formation	Interval	SPF	Total Shots
2nd Bone Springs	8,502' – 8,508'	3 spf	18
2nd Bone Springs	8,474' – 8,478'	3 spf	12
Total	34'		30

POOH w/ tubing and perforating guns and verify all shots fired. RDMO Wireline.

16. RD Lubricator. RU Cudd and pump a total of 4,000 gallons of 15% NEFE acid dropping 45 perf balls throughout the job. Flush acid to bottom perf w/ 2% KCL. SI and wait 1 hour. See attached acid procedure.

17. RIH w/ 4-3/4" bit, 6 – 3-1/2" DCs and scraper to CBP @ 8,528' to clear perfs.

18. RU Cudd and frac 2nd Bone Springs perfs 8,474' – 8,508' (30 holes). Frac Stage 2 per attached procedure. (5-1/2" 17# S-95, J55 & N80 Internal Yield = 5,320 psi) Record ISIP-5-10-15 min pressures. RDMO frac equipment

19. PU 4-3/4" bit, 6 – 3-1/2" DCs and work string and TIH to DO CBP set @ 8,528' and clean out to CIBP @ 8,730'. Circulate hole clean with 2% KCL water. POH.

20. TIH with 2-3/8", 4.7#, P-110 production tubing and SN. Set seat nipple (below perfs).

21. ND BOP. NU WH. TIH with pump and rods. Fill tubing and space out pump accordingly. Verify pump action. Place well on test.

22. RDMO workover rig. Clean location.

Contacts

Production Foreman
Ralph Skinner
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Cell: 575-441-4921

Asset Manager
Kim Henderson
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Cell: 405-312-1840