

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

Form C-101
May 27, 2004

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

Submit to appropriate District Office

JAN 23 2008

☐ AMENDED REPORT

OCD-ARTESIA

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

¹ Operator Name and Address Marbob Energy Corporation PO Box 227 Artesia, NM 88211-0227		² OGRID Number 14049
		³ API Number 30 - 015-34278
⁴ Property Code 35630	⁵ Property Name FPR State Com	⁶ Well No. 1
⁹ Proposed Pool 1 Parkway Bone Spring 49622		¹⁰ Proposed Pool 2

⁷ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	36	19S	29E		660	South	660	East	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 P	¹² Well Type Code Oil	¹³ Cable/Rotary R	¹⁴ Lease Type Code S	¹⁵ Ground Level Elevation 3326'
¹⁶ Multiple N	¹⁷ Proposed Depth 12190'	¹⁸ Formation Morrow	¹⁹ Contractor	²⁰ Spud Date 11/4/05
Depth to Groundwater		Distance from nearest fresh water well		Distance from nearest surface water
Pit: Liner: Synthetic <input type="checkbox"/> _____ mils thick Clay <input type="checkbox"/> Pit Volume: _____ bbls Drilling Method: _____				
Closed-Loop System <input type="checkbox"/> Fresh Water <input type="checkbox"/> Brine <input type="checkbox"/> Diesel/Oil-based <input type="checkbox"/> Gas/Air <input type="checkbox"/>				

²¹ Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
26"	20"	94#	261'	550 sx	0
17 1/2"	13 3/8"	54#	1562'	1100 sx	0
12 1/4"	8 5/8"	32#	3514'	1450 sx	0
7 7/8"	5 1/2"	17#	12189'	1700 sx	600'

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.

Marbob Energy Corporation proposes to perforate, acidize, test & possibly frac the Bone Spring zone as follows:

Set CIBP + 35' cmt @ 10600'.

3rd Bone Spring Sand 9314' - 9476' (15 shots)

2000 gal NE Fe 7 1/2% HCl

Set CIBP + 35' cmt @ 9610'.

1st Bone Spring Sand 7374' - 7584' (15 shots)

2000 gal NE Ge 7 1/2% HCl

Set CIBP @ 7325'.

Upper Bone Spring 6216' - 6226' (22 shots)

1500 gal NE Fe 15% HCl

(See attached procedure & wellbore schematics)

²³ I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify that the drilling pit will be constructed according to NMOCD guidelines ☐, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.

Signature: _____

Printed name: Diana J. Briggs

Title: Production Analyst

E-mail Address: production@marbob.com

Date: 1/21/08

Phone: (575) 748-3303

OIL CONSERVATION DIVISION

Approved by:

BRYAN G. ARRANT
DISTRICT II GEOLOGIST

Title:

Approval Date: FEB 14 2008

Expiration Date: FEB 14 2010

Conditions of Approval Attached ☐

FPR St 1
P-36-19S-29E
Eddy Co., NM
Recompletion Procedure 2
2 Jan 07

Basic Data:

20" @ 262' Circ. Cmt.
13-3/8" @ 1562' Circ. Cmt.
8-5/8" @ 3512' Circ. Cmt.
5-1/2" @ 12189' DV @ 8981' TOC 600' TS
5.5"/17ppf/M95-110/LTC Burst=10640 psi, 8512 psi at 80% Nom. ID=4.892" Drift ID=4.767"
2.375"/4.7ppf/L80/EUE Burst=11200 psi, 8960 psi at 80% Nom ID=1.995" Drift ID=1.901"
Collapse=11780 psi, 9424 at 80%
Tensile=104,300 lb with no safety factor

Objective: Test Bone Spring zones.

Procedure:

1. When ready to move up hole, POOH laying down tubing to leave 9600' in derrick. Note: If any BS zone is to be put on pump, will lay down rest of 2-3/8" tubing and pick up 2-7/8"/6.5ppf/J55/EUE when PWOP.
 2. RU lubricator, run gauge ring if necessary and set CIBP + 35' cement at 10600'.
 3. RU lubricator and perf 3rd Bone Spring Sand with 1 spf at any phasing as shown below using a 4" casing gun.

3rd BS Sand: 9314', 9316', 9319', 9322', 9442', 9444', 9446', 9452', 9454', 9456',
9464', 9466', 9472', 9474', 9476' (15) OH Log
3rd BS Sand: 9312', 9314', 9317', 9320', 9440', 9442', 9444', 9450', 9452', 9454',
9462', 9464', 9470', 9472', 9474' (15) GR/CCL
 4. RIH with packer, set packer, open bypass, pump acid close to packer, close bypass (another option is to use pump out plug and run tubing empty) then acidize with 2000 gals. NE Fe 7.5% HCl at 3-5 bpm while limiting surface pressure to 5500 psi and holding 1000 psi on annulus. Decision might be made to spot 150 gals acid at 9450', pull up to 9250', reverse 5 bbls down annulus, set packer and acidize with remaining 1850 gals acid (with tubing volume ahead)—let's discuss. Drop 45 ballsealers through job. Swab test until notified to do otherwise.
 5. If decision made to frac, install frac valve with BOP on top, unseat packer/on-off tool, POOH with packer and tubing and frac down casing at 45-50 bpm using low gel XL carrying 200,000 lbs 1630 white sand (last 75,000 lbs expedite coated, 4 ppg max).
 6. Will PWOP and test this zone if fraced.
-

7. When ready to move up hole, RU lubricator, run gauge ring if necessary and set CIBP + 35' cement at 9610' (top of Wolfcamp). Set a CIBP at 9275'. RU lubricator and perf 1st Bone Spring Sand with 1 spf at any phasing as shown below using a 4" casing gun (inclusive).

1st BS Sand: 7374-81', 7578-84' (15) OH Log

1st BS Sand: 7370-77', 7574-80' (15) GR/CCL

8. RIH with packer, set packer, open bypass, pump acid close to packer, close bypass (another option, assuming 3rd BS Sand was permanently abandoned, is to use pump out plug and run tubing empty) then acidize with 2000 gals. NE Fe 7.5% HCl at 3-5 bpm while limiting surface pressure to 5500 psi and holding 1000 psi on annulus. Decision might be made to spot 200 gals acid at 7575', pull up to 7300', reverse 5 bbls down annulus, set packer and acidize with remaining 1800 gals acid (with tubing volume ahead)—let's discuss. Drop 45 ballsealers through job. Swab test until notified to do otherwise.
9. If decision made to frac, install frac valve with BOP on top, unseat packer/on-off tool, POOH with packer and tubing and frac down casing at 45-50 bpm using low gel XL carrying 250,000 lbs 1630 white sand (last 80,000 lbs expedite coated, 4 ppg max).
10. Will PWOP and test this zone if fraced.
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11. **Decision might be made not to test this zone—let's discuss.** When ready to move up hole, RU lubricator, run gauge ring if necessary and set CIBP at 7325'. RU lubricator and perf Upper Bone Spring with 2 spf at 180° phasing as shown below using a 4" casing gun (inclusive).

Upper BS: 6216-26' (22) OH Log

Upper BS: 6211-21' (22) GR/CCL

12. RIH with packer, set packer, open bypass, pump acid close to packer, close bypass (another option, assuming 1st BS Sand was permanently abandoned, is to use pump out plug and run tubing empty) then acidize with 1500 gals. NE Fe 15% HCl at 3-5 bpm while limiting surface pressure to 5500 psi and holding 1000 psi on annulus. Drop 45 ballsealers through job. Swab test until notified to do otherwise.
13. Procedure for additional stimulation will be issued if needed.

Kbc/fpr 1 bs

Well: FPR St. 1

Zero: 17' AGL

Location: 660' FSL, 660' FEL

KB: 3343'

GL: 3326'

P-36-193-27e

Eddy NM

30-015-34278

Casing Program:

Size	Wt.	Grade	Conn.	Depth
20"	94	H40?	BTC	262'
13 3/8"	54.5	H40?	STC	1562'
8 5/8"	32	J55	BTC	3512'
5 1/2"	17	M25-H10	LTC	12189'

26
TDC 600' TS
12 1/2"
1779'

12 1/4"
Brand

7 7/8"

20" @ 262'
300 HLC + 250 "C" (circ 1425x)

13 3/8" @ 1562'
800 HLC + 300 "C" (circ 1425x)

DV/ECP 1522'

8 5/8" @ 3512'

1st: 100 thix + 550 HLC + 300 "C" (circ 1765x)

2nd: 400 HLC + 100 "C" (circ 845x)

DV 8981'

9314-9476' (15) 3rd BSSd

10661-10841' (29) Strawn

11086-11519' (18) Atoka

11722-11841' (112) U. Morrow

11756-11759' (30) L. Morrow

5 1/2" @ 12189'

12190'

CIBP 35' cut 10600'

From plug 11050'

CIBP 35' cut

11700'

CIBP 11926'

FC 12145'

AFTER

1st: 550 Super H (circ 1175x)

2nd: 1050 HLC + 100 "C"

- Sketch Not To Scale -

KPR:lline/

Well: FPR St. 1

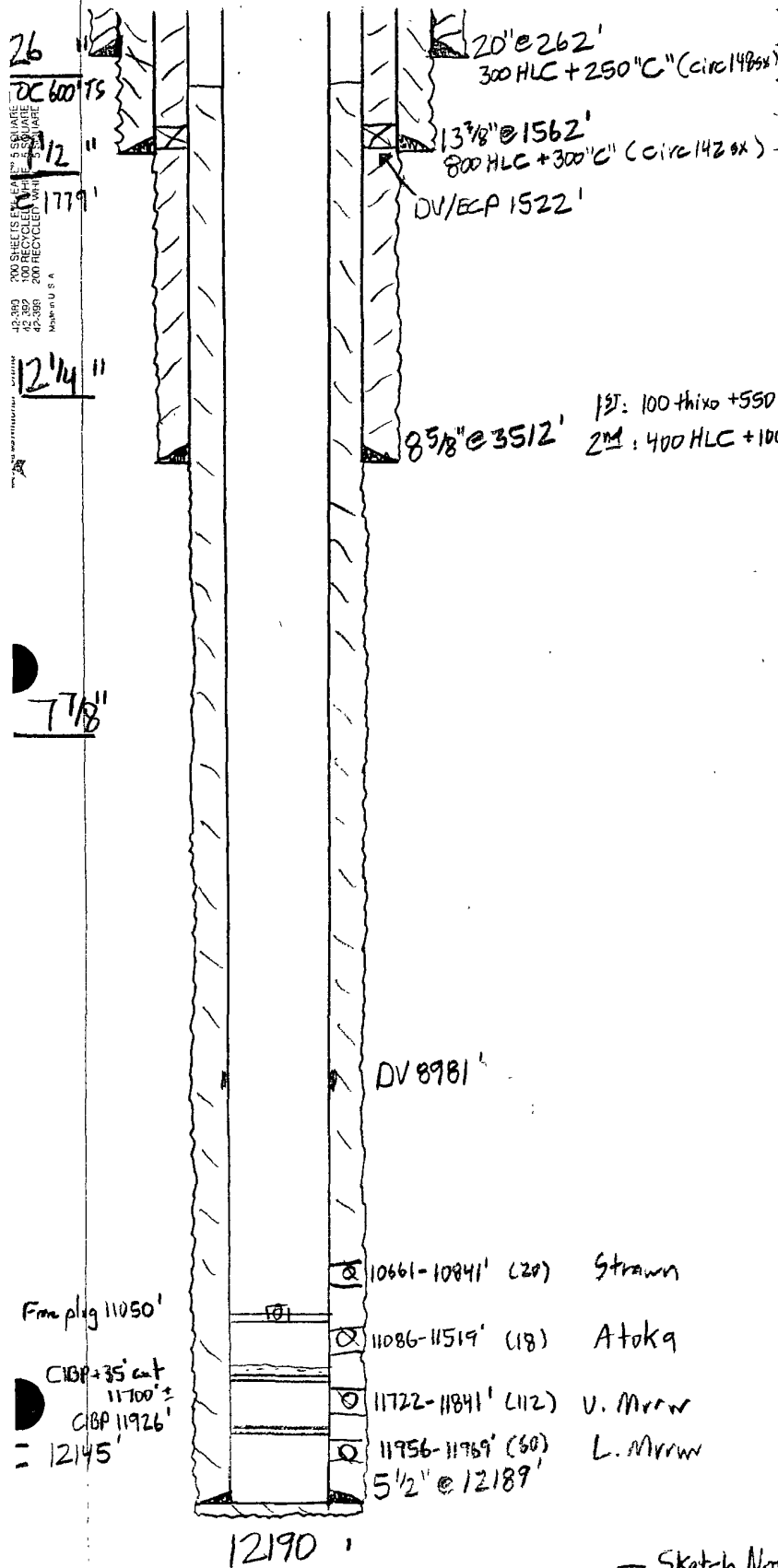
Zero: 17' AGL

Location: 660' FSL, 660' FEL
P-36-193-29e
Eddy NM
30-015-34278

KB: 3343'
 GL: 3326'

Casing Program:

Size	Wt.	Grade	Conn.	Depth
20"	94	H40?	BTC	262'
13 7/8"	54.5	H40?	SK	1562'
8 5/8"	32	J55	BTC	3512'
5 1/2"	17	MPS-110	LTC	12189'



BEFORE

1st: 550 Super H (circ 117sx)
 2nd: 1050 HLC + 100" C"

- Sketch Not To Scale -

KBCollins/

District I

1625 N. French Dr., Hobbs, NM 88240

District II

1301 W. Grand Avenue, Artesia, NM 88210

District III

1000 Rio Brazos Rd., Aztec, NM 87410

District IV

1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico

Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.

Santa Fe, NM 87505

Form C-102

Revised October 12, 2005

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-015-34278		² Pool Code		³ Pool Name Bone Spring	
⁴ Property Code 35630		⁵ Property Name FPR State Com			⁶ Well Number 1
⁷ OGRID No. 14049		⁸ Operator Name Marbob Energy Corporation			⁹ Elevation 3326' GL

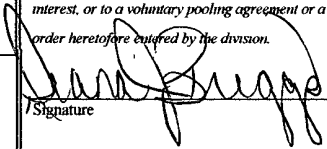
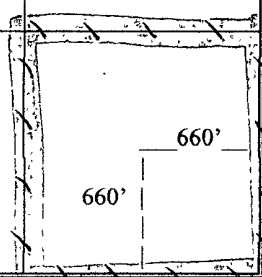
¹⁰ Surface Location

UL or lot no. P	Section 36	Township 19S	Range 29E	Lot Idn	Feet from the 660	North/South line South	Feet from the 660	East/West line East	County Eddy
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¹¹ 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
¹² Dedicated Acres 40	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.						

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

16					¹⁷ OPERATOR CERTIFICATION <i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore ordered by the division.</i>  Date 1/21/08 Signature Date Diana J. Briggs Production Analyst Printed Name
					¹⁸ SURVEYOR CERTIFICATION <i>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</i> Date of Survey Signature and Seal of Professional Surveyor:  Certificate Number