Form 3160-5
(August 2007)

OCD Artesia

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0135
Expires: July 31, 2010

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on reverse side.

5. Lease Serial No.
NMNM0560353

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.
NMNM126412X

1. Type of Well
☒ Oil Well ☐ Gas Well ☐ Other

8. Well Name and No.
BENSON DELAWARE UNIT 10

2. Name of Operator
CHI OPERATING INCORPORATED
Contact: PAM CORBETT
E-Mail: pamc@chienergyinc.com

9. API Well No.
30-015-35085-00-S1

3a. Address
MIDLAND, TX 79702

3b. Phone No. (include area code)
Ph: 432-685-5001
Fx: 432-687-2662

10. Field and Pool, or Exploratory
BENSON-DELAWARE

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
Sec 11 T19S R30E SENE 2200FNL 330FEL

11. County or Parish, and State
EDDY COUNTY, NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☒ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

CHI Operating, Inc. intends to convert the Benson Delaware Unit #10 to an injection well.

Procedure is attached.

NM OIL CONSERVATION
ARTESIA DISTRICT
OCT 19 2015
RECEIVED

10/20/15
Accepted for record
NMOCD

SEE ATTACHED FOR CONDITIONS OF APPROVAL

14. I hereby certify that the foregoing is true and correct.

Electronic Submission #281346 verified by the BLM Well Information System
For CHI OPERATING INCORPORATED, sent to the Carlsbad
Committed to AFMSS for processing by CATHY QUEEN on 06/22/2015 (15CQ0400SE)

Name *(Printed/Typed)* CLIF MANN — Title FIELD SUPERVISOR

Signature (Electronic Submission) — Date 11/24/2014

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By CHARLES NIMMER — Title PETROLEUM ENGINEER — Date 10/12/2015

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon. — Office Carlsbad

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ****

Benson Delaware Unit #10

API # 30-015-35085
Eddy Co., NM

Convert To Water Injection

Project Engineer: Cord Painter **Cell: (325) 792-7255**

Recommended Procedure

Note: Deliver 6 Jts 2 7/8" tbg to location to supplement prod tbg for cleanout.

1. MIRU pulling unit. POOH laying down with rods and pump. ND WH. NU BOP.
2. PU tbg as needed and RIH with tbg to tag fill (PBTD is 5187', EOT is ~5027', Btm Pf is 5,035').
3. Estimate and record fill depth.
4. Determine if cleanout is necessary.

If cleanout IS necessary:

5. POOH standing back with tbg, laying down pumping BHA.
6. PU & RIH with sand bailer on tbg. CO well to PBTD (5187'). POOH laying down sand bailer and tbg.

If cleanout IS NOT necessary:

7. POOH laying down tbg and pumping BHA.
8. RIH w/ 5 ½" x 2 7/8" Arrowset 1X Big Bore packer on 2-7/8" 6.5# J-55 IPC tubing setting packer +/- 100' above top perf. Load backside w/ packer fluid.
9. Pressure test backside as per BLM requirements.
10. Connect injection system to well. Begin water injection.

Benson Delaware Unit #10

API # 30-015-35085
Eddy Co., NM

Convert To Water Injection

MECHANICAL DATA

Type Tubular	OD in	ID in	Drift in	Wt. #/ft	Grd	Conn.	Depth ft	Burst psi	Tensile Mlbs.	TOC ft	Cap. bbl/Ft
Surface Casing	9 5/8	8.921	8.765	36	J-55*	STC*	519	3520	394.0	Surf	.07731
Intermediate Casing											
Production Casing	5 1/2	4.95	4.825	15.5	J-55	STC*	5255	4810	202.0	Surf	.0238
Production Tubing	2 7/8"	2.441	2.347	6.5	J-55	8 RD EUE		7260	99.66		.00579
Inj Tbg	2 7/8" IPC										
2 7/8" x 5 1/2" annulus											

* - Assumed

GL = 3421'
KB = 3438'
PBTD = 5187'

TUBING HEAD: 11" 5k X 7 1/16" 5k

Benson Delaware Unit #10

API # 30-015-35085
Eddy Co., NM

Convert To Water Injection

Directions: From intersection of Hwy 360 & Co. Rd. 222, take Co. Rd 222 approx. 12 miles. Turn left/west on Co.Rd 250/blacktop. Go approx 2.5 miles, go through cattle guard in backtop. Turn left (south) on lease rd. Go approx.. .8 mile, turn right just past injection station. Go approx .2 mile, turn left at fork for approx. .6 mile. Turn right approx .2 mile, left approx .2 mile, right approx .2 mile, left approx .4 mile to Munchkin Fed #4 location, continue south by the Munchkin #5, to the Munchkin #8, northwest to location.

History/Pertinent Info

Elevation: GL: 3421' KB: 3438'

Completed: 11/17/06

Tbg Head:

Casing:	9 5/8"	36 # J-55	set @ 519' Circ cement
	5 ½"	**15.5 # J-55**	**set @ 5255' Circ cement**

TD: 5258'

PBTD: 5187'

DV Tool: 3711'

Perfs: 4600'-4606', 4618'-4625'
4700', 4795', 4797', 4803', 4804', 4814'
4825', 4831', 4832', 4836', 4838', 4846', 4847', 4851', 4852'
5002', 5005', 5006', 5026', 5028', 5034', 5035'

Remarks:

CURRENT WELLBORE SCHEMATIC

DATE: 3/3/2012

LEASE: [redacted] Benson Delaware Unit [redacted] WELL NO. [redacted] 10

OPER: Chi Energy API 30-015-35085

LOCATION: 2200 FNL 330 FEL SEC 11 19S 30E EDDY CO., NM

TD	5,258'	PBD	5,187'	KB	3,438'	DF	3,437'
COD		DOD		GL	3,421'		

CASING/TBG:	DEPTH	CMT	ID	DRIFT	BURST	TENS
INTER. 9 5/8" 36 #J-55 STC	519'	CIRC	8.921	8.765	3,520	394.0
PROD. 5 1/2" 15.5# J-55 LTC	5,255'	CIRC	4.95	4.825	4,810	217.0
LINER						
TBG 2 7/8" J-55			2.441	2.347	7,260	99.66

PERFS:

4600-4606,18-25	4 SPF	10/8/2008
4700,95,97, 4803,04,14	2 SPF	11/7/2006
4825,31,32,36,38,46,47,51,52		10/24/2006
5002,05,06,26,28,34,35	2 SPF	10/17/2006

TUBING BREAKDOWN

Tbg Hd	7 1/16" 5k B-1
136 JTS 2 7/8"	
TAC	
14 JTS 2 7/8"	
SN	
4' PS	
MA	
BP	
SN @ 5,040'	

ROD BREAKDOWN

6' & 8' SUBS
71- 7/8" STL RODS
117- 3/4" STL RODS
10- 7/8" STL RODS
2' SUB
2" X 25' RWTC 12-3-0 PUMP

PUMP SET @ ~4,965'

AS OF 3/3/12

ART. LIFT

UNIT	Lufkin C320-213?-120	SPM	6.5	RT	100%
MOTOR	Baldor 40 hp 364T 1130 rpm	SL	102	Cond	OK

Available SL's: ??, ??, 85, 102, 120 (5 holes)

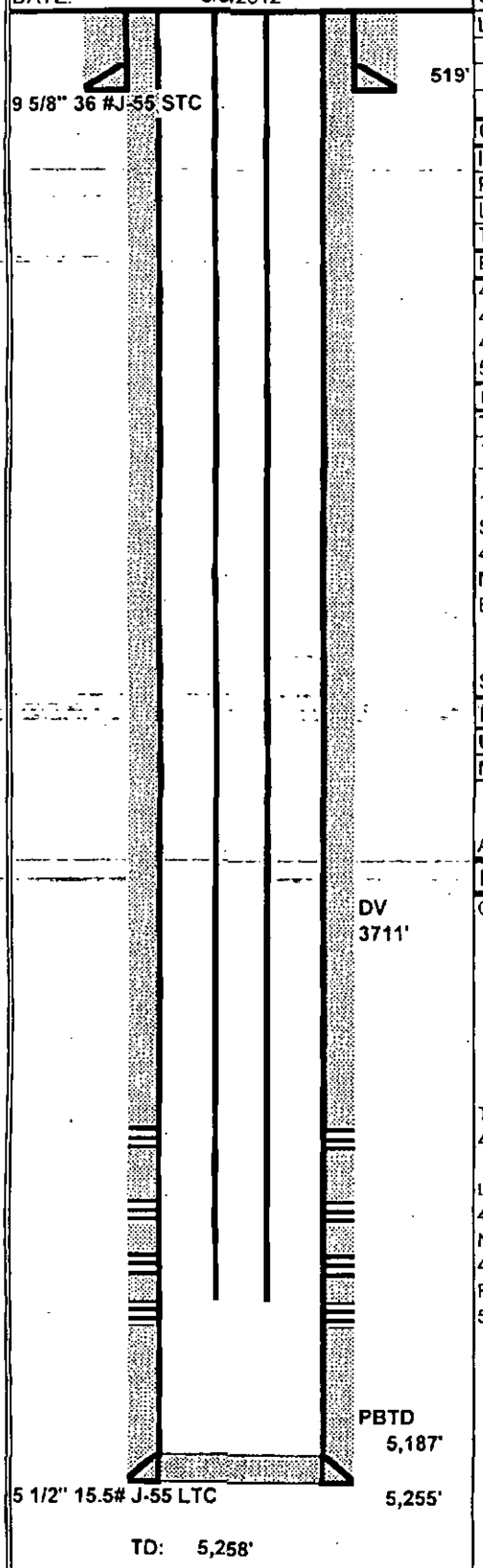
NOTES

Chem: CAT301P (Paraffin Disp) injected into FL

Cores in all zones except Oscar

TINMAN & LIMA
4600-4606,18-25 4 SPF 10/8/2008

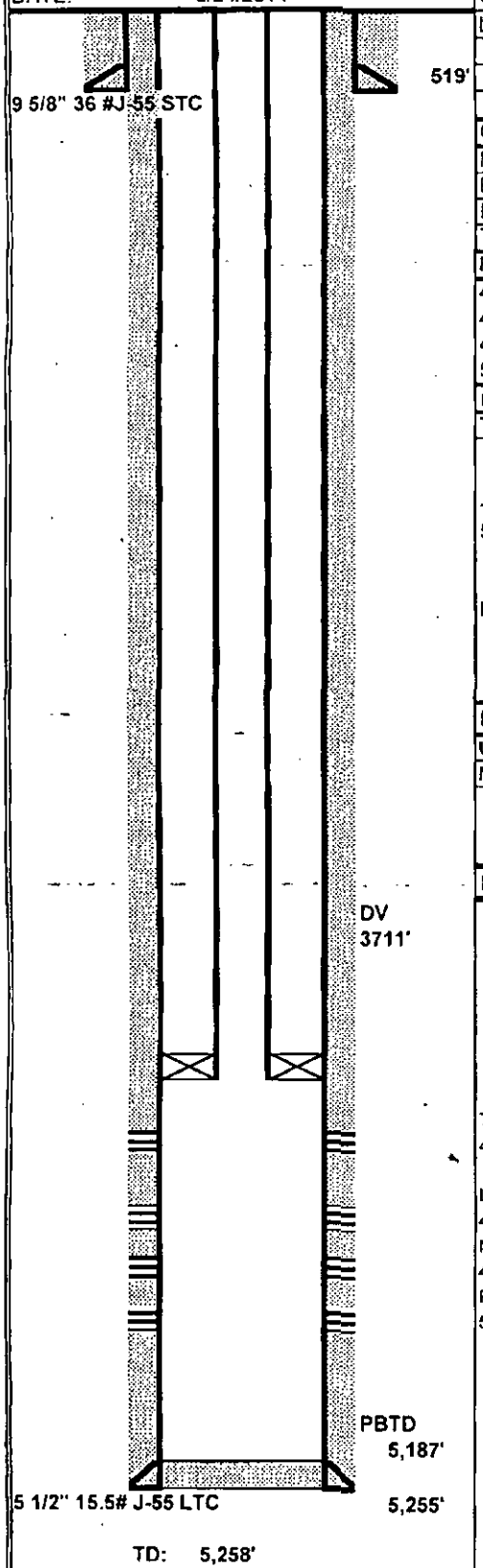
LIMA & MIKE
4700,95,97, 4803,04,14 2 SPF 11/7/2006
NOVEMBER
4825,31,32,36,38,46,47,51,52 10/24/2006
PAPA
5002,05,06,26,28,34,35 2 SPF 10/17/2006



BY: LC PAINTER

PROPOSED WELLBORE SCHEMATIC

DATE: 8/24/2014



LEASE: [redacted] Benson Delaware Unit [redacted] WELL NO. [redacted] 10 [redacted]

OPER: Chi Energy API 30-015-35085

LOCATION: 2200 FNL 330 FEL SEC 11 19S 30E EDDY CO., NM

TD	5,258'	PBD	5,187'	KB	3,438'	DF	3,437'
COD		DOD		GL	3,421'		

CASING/TBG: [redacted]	DEPTH	CMT	ID	DRIFT	BURST	TENS
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PERFS: [redacted]

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4825,31,32,36,38,46,47,51,52 10/24/2006
5002,05,06,26,28,34,35 2 SPF 10/17/2006

[redacted] TUBING BREAKDOWN [redacted]

Tbg Hd	7 1/16" 5k B-1

~144 jts 2 7/8" J-55 IPC
5 ½" x 2 7/8" Arrowset 1X Big Bore packer

PKR SET @ ~4,550'

[redacted] ROD BREAKDOWN [redacted]

[redacted] ART. LIFT [redacted]

UNIT		SPM		RT	
MOTOR		SL		Cond	

[redacted] NOTES [redacted]

Cores in all zones except Oscar

TINMAN LIMA
4600-4606,18-25 4 SPF 10/8/2008

LIMA, MIKE
4700,95,97, 4803,04,14 2 SPF 11/7/2006
NOVEMBER
4825,31,32,36,38,46,47,51,52 10/24/2006
PAPA
5002,05,06,26,28,34,35 2 SPF 10/17/2006

Conditions of Approval

Chi Operating Incorporated
Benson Delaware Unit - 10, API 3001535085
T19S-R30E, Sec 11, 2200FNL & 330FEL
October 12, 2015

1. Subject to like approval by the New Mexico Oil Conservation Division.
2. Before casing or a liner is added, replaced, or repaired prior BLM approval of the design is required. Use notice of intent Form 3160-5.
3. Surface disturbance beyond the existing pad shall have prior approval.
4. A closed loop system is required. The operator shall properly dispose of drilling/circulating contents at an authorized disposal site. Tanks are required for all operations, no excavated pits.
5. Functional H_2S monitoring equipment shall be on location.
6. 2000 (2M) Blow Out Prevention Equipment to be used. All BOPE and workover procedures shall establish fail safe well control. Blind ram(s) and pipe ram(s) designed to close on all workstring diameters used is required equipment. A manual BOP closure system (hand wheels) shall be available for use regardless of BOP design. Function test the installed BOPE to 500 psig when well conditions allow. Related equipment, (choke manifolds, kill trucks, gas vent or flare lines, etc.) shall be employed when needed for reasonable well control requirements.
7. All waste (i.e. trash, salts, chemicals, sewage, gray water, etc.) created as a result of work over operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area. Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.
8. **Perform a charted casing integrity test** of 1000 psig. Document the pressure test on a one hour full rotation calibrated (within 6 months) recorder chart registering within 25 to 85 per cent of its full range. Verify all annular casing vents are plumbed to the surface and open during this pressure test. **Call BLM 575-200-7902 and arrange for a BLM witness of that pressure test.** Include a copy of the chart in the subsequent sundry for this workover.
9. **Provide BLM with an electronic copy (Adobe Acrobat Document) cement bond log record from 4500' taken with 0 psig casing pressure. The CBL may be attached to a pswartz@blm.gov email.**
10. Submit a (BLM Form 3160-5 subsequent report (daily reports) via BLM's Well Information System; https://www.blm.gov/wispermits/wis/SP (email pswartz@blm.gov for instructions) describing all wellbore activity and Mechanical Integrity Test. Include the date(s) of the well work, and the setting depths of installed equipment: internally corrosive protected tubing, tubing on/off equipment just above the packer, and an in line tubing check valve below the

packer or between the on/off tool and packer. The setting depths and descriptions of each are to be included in the subsequent sundry. File intermediate Form 3160-5 within 30 days of any interrupted workover procedures and a complete workover subsequent sundry.

11. Submit the BLM Form 3160-4 **Recompletion Report** within 30 days of the date all BLM approved procedures are complete.
12. Workover approval is good for 90 days (completion to be within 90 days of approval). A legitimate request is necessary for extension of that date.

Well with a Packer - Operations

1) Conduct a Mechanical Integrity Test of the tubing/casing annulus after a tubing, packer or casing seal is established.
2) The minimum test pressure should be 500 psig for 30 minutes or 300 psig for 60 minutes, with a minimum 200 psig differential between tubing and casing pressure (at test time) but no more than 70% of casing burst pressure as described by Onshore Order 2.III.B.1.h. (The tubing or reservoir pressure may need to be reduced). Verify all annular casing vents are plumbed to surface and those valves open to the surface during this pressure test. An alternate method for a BLM approved MIT is to have the fluid filled system open to atmospheric pressure and have a loss of less than five barrels in 30 days witnessed by a BLM authorized officer.
3) Document the pressure test on a one hour full rotation chart recorder (calibrated within the last 6 months) registering within 25 to 85 percent of its full range. Greater than 10% pressure leak-off will be viewed as a failed MIT. Less than 10% pressure leak-off will be evaluated site specifically and may restrict injection approval.
4) Make arrangements 24 hours before the test for BLM to witness. In Eddy County email Paul R. Swartz pswartz@blm.gov or phone 575-200-7902, if there is no response, 575-361-2822. If no answer, leave a voice mail or email with the API#, workover purpose, and a call back phone number
5) Use of tubing internal protection, tubing on/off equipment just above the packer, a profile nipple, and an in line tubing check valve below the packer or between the on/off tool and packer is a "Best Management Practice". The setting depths and descriptions of each are to be included in the subsequent sundry.
6) **Submit the original subsequent sundry with three copies to BLM Carlsbad.**
7) Compliance with a NMOCD Administrative Order is required, submit documentation of that authorization.
   a) Approved injection pressure compliance is required.
   b) If injection pressure exceeds the approved pressure you are required to reduce that pressure and notify the BLM within 24 hours.
   c) When injection pressure is within 50 psig of the maximum pressure, install automation equipment that will prevent exceeding that maximum. Submit a subsequent report (Sundry Form 3160-5) describing the installed automation equipment within 30 days.

8) Unexplained significant variations of rate or pressure to be reported within 5 days of notice.
9) The casing/tubing annulus is required to be monitored for communication with injection fluid or loss of casing integrity. A BLM inspector may request verification of a full annular fluid level at any time.
10) Maintain the annulus full of packer fluid at atmospheric pressure. **Installation of equipment that will display continuous open to the air packer fluid level above the casing vent is required.**
11) Notify the BLM's authorized officer ("Paul R. Swartz" <pswartz@blm.gov>, cell phone 575-200-7902) before injection begins to arrange for approval of the annular monitoring system.
12) Loss of packer fluid above five barrels per month indicates a developing problem. Notify BLM Carlsbad Field Office, Petroleum Engineering within 5 days.
13) A suggested format for monthly records documenting that the casing annulus is fluid filled is available from the BLM Carlsbad Field Office.
14) Gain of annular fluid pressure requires notification within 24 hours. Cease injection and maintain a production casing pressure of 0psia. Notify the BLM's authorized officer ("Paul R. Swartz" <pswartz@blm.gov>, cell phone 575-200-7902). If there is no response phone 575-361-2822.
15) Submit a (BLM Form 3160-5 subsequent report (daily reports) via BLM's Well Information System; https://www.blm.gov/wispermits/wis/SP (email pswartz@blm.gov for operator setup instructions) describing all wellbore activity and Mechanical Integrity Test as per item 1) above. Include the date(s) of the well work, and the setting depths of installed equipment: internally corrosive protected tubing, tubing on/off equipment just above the packer. The setting depths and descriptions of each are to be included in the subsequent sundry.
16) A request for increased wellhead pressures is to be accompanied by a step rate test. PRIOR to a Step Rate Test BLM – CFO is requiring a Notice of Intent.

Access information for **use of Form 3160-5** "Sundry Notices and Reports on Wells"

NM Fed Regs & Forms - http://www.blm.gov/nm/st/en/prog/energy/oil_and_gas.html

§ 43 CFR 3162.3-2 Subsequent Well Operations.

§ 43 CFR 3160.0-9 (c)(1) Information collection.

§ 3162.4-1 (c) Well records and reports.