

DATE IN 3.22.12	SUSPENSE	ENGINEER TW	LOGGED IN 3.22.12	TYPE WFX	APP NO. 1208240780
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ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

1220 South St. Francis Drive, Santa Fe, NM 87505



CHI

4 wells

ADMINISTRATIVE APPLICATION CHECKLIST

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

Application Acronyms:

[NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]
 [DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
 [PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
 [WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
 [SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
 [EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

Benson Delaware Unit

3W

10

15

20

[1] TYPE OF APPLICATION - Check Those Which Apply for [A]

[A] Location - Spacing Unit - Simultaneous Dedication
☐ NSL ☐ NSP ☐ SD

Check One Only for [B] or [C]

[B] Commingling - Storage - Measurement
☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery
☒ WFX ☐ PMX ☐ SWD ☐ IPI ☐ EOR ☐ PPR

[D] Other: Specify _____

WFX
 Nm126412X
 Order R-123262

[2] NOTIFICATION REQUIRED TO: - Check Those Which Apply, or Does Not Apply

[A] ☐ Working, Royalty or Overriding Royalty Interest Owners
 [B] ☒ Offset Operators, Leaseholders or Surface Owner
 [C] ☒ Application is One Which Requires Published Legal Notice
 [D] ☒ Notification and/or Concurrent Approval by BLM or SLO
 U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office
 [E] ☒ For all of the above, Proof of Notification or Publication is Attached, and/or,
 [F] ☐ Waivers are Attached

[3] SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.

[4] CERTIFICATION: I hereby certify that the information submitted with this application for administrative approval is accurate and complete to the best of my knowledge. I also understand that no action will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

Pam Corbett
 Print or Type Name

Pam Corbett
 Signature

(432) 685 5001

Regulatory
 Title

pamc@chienergyinc.com
 e-mail Address

2/7/12
 Date

APPLICATION FOR AUTHORIZATION TO INJECT

- I. PURPOSE: X Secondary Recovery Pressure Maintenance X Disposal Storage
Application qualifies for administrative approval? Yes No
- II. OPERATOR: CHI Operating, Inc.
ADDRESS: P.O. Box 1799 Midland, TX 79701
CONTACT PARTY: _____ PHONE: _____
- III. WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection.
Additional sheets may be attached if necessary.
- IV. Is this an expansion of an existing project? X Yes No
If yes, give the Division order number authorizing the project: NM126412X Order R-123262
- V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.
- VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.
- VII. Attach data on the proposed operation, including:
1. Proposed average and maximum daily rate and volume of fluids to be injected;
 2. Whether the system is open or closed;
 3. Proposed average and maximum injection pressure;
 4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,
 5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).
- *VIII. Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.
- IX. Describe the proposed stimulation program, if any.
- *X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted)
- *XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.
- XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.
- XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.
- XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.
- NAME: PAM CORBETT TITLE: REGULATORY CLERK
SIGNATURE: [Signature] DATE: 1/17/12
E-MAIL ADDRESS: pamc@chienergyinc.com
- * If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal:

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate District Office

III. WELL DATA

- A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

- (1) Lease name; Well No.; Location by Section, Township and Range; and footage location within the section.
- (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.
- (3) A description of the tubing to be used including its size, lining material, and setting depth.
- (4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District Offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

- B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

- (1) The name of the injection formation and, if applicable, the field or pool name.
- (2) The injection interval and whether it is perforated or open-hole.
- (3) State if the well was drilled for injection or, if not, the original purpose of the well.
- (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
- (5) Give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

- (1) The name, address, phone number, and contact party for the applicant;
- (2) The intended purpose of the injection well; with the exact location of single wells or the Section, Township, and Range location of multiple wells;
- (3) The formation name and depth with expected maximum injection rates and pressures; and,
- (4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

INJECTION WELL DATA SHEET

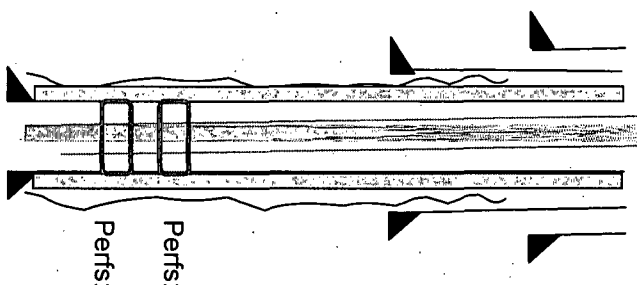
OPERATOR: CHI Operating, Inc.WELL NAME & NUMBER: Benson Delaware Unit #3 WWELL LOCATION: 1980' FSL & 2310' FEL UNIT LETTER 1 SECTION 19S TOWNSHIP 30E RANGEWELLBORE SCHEMATICWELL CONSTRUCTION DATA
Surface CasingHole Size: 12 1/4" Casing Size: 9 5/8" 36# J-55
Cemented with: 475 sx. or ft³
Top of Cement: SURF Method Determined: CircIntermediate CasingHole Size: Casing Size: ft³
Cemented with: sx. ft³
Top of Cement: Method Determined: Production CasingHole Size: 7 7/8" Casing Size: 5 1/2" 17# J55 ft³
Cemented with: 1100 sx. or ft³
Top of Cement: Surf Method Determined: CircTotal Depth: Injection Interval
4962 feet to 5142

(Perforated or Open Hole; indicate which)

Other Type of Tubing/Casing Seal (if applicable): NA

Wolfcamp 8615'-Top; Morrow 10,865'-Top

Benson Delaware No. 3W
 (current wellbore)
 API # 30-015-32210
 1980' FSL & 2310' FEL
 Section 1, T19S R30E



2-7/8 6.5# lined injection tubing

9 5/8" 36# J55 @ 480'

475sx C, Circ 160sx, cmt at surface

5-1/2" 17# J55 @ 5500"

1stg 300sx C; 2stg 800sx C, Circ 81sx, cmt to surface

TOC @ 3800'

DV Tool @ 3965'

4962-68; 4969-88; 5050-54; 5062-74' (2sp)

5100-104'; 5118-124'; 5138-142' (4sp)

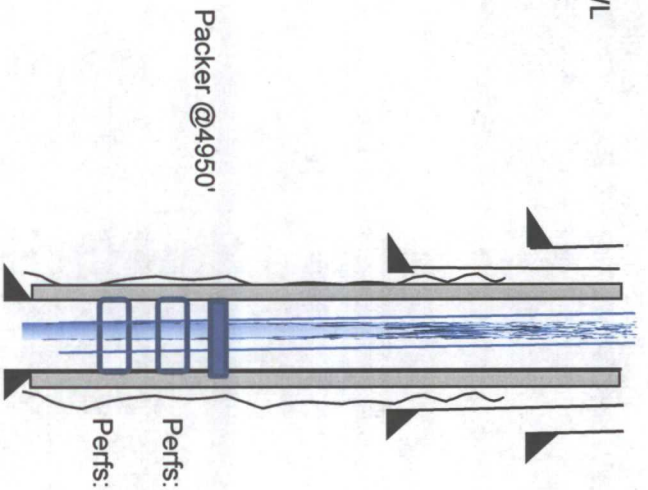
Benson Delaware Unit No. 3W

Injection Proposed

API # 30-015-32210

1980' FSL & 2310' FWL

Section 1, T19S R30E



Packer @4950'

Perfs:

4962-68; 4969-88; 5050-54; 5062-74' (2spf)

Perfs:

5100-104'; 5118-124'; 5138-142' (4spf)

2-7/8 6.5# lined injection tubing

9 5/8" 36# J55 @ 480'

475sx C, Circ 160sx, cmt at surface

5-1/2" 17# J55 @ 5500"

1stg 300sx C; 2stg 800sx C, Circ 81sx, cmt to surface

TOC @ 3800'

DV Tool @ 3965'

Notice of Application for Fluid Injection Well Permit

Chi Operating, Inc., c/o Gary Womack 432-685-5001, P.O. Box 1799, Midland, TX 79702 is applying to the NMOCD for a permit for a Water Injection Well into a formation which is productive of oil and gas. The applicant proposes to drill a water Injection well into the Delaware. The proposed injection well is located in Section 1, T 19S, R 30E in, Eddy Co., NM. Fluid will be injected into strata in the subsurface depth interval from 4962 - 5142'

Interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.

Chi Operating, Inc. is the leaseholder of AOR

Notices were sent to:

Intrepid Potash Inc.
707 17th Street
Ste. 4200
Denver, Co. 88202
Attn: Katie Keller
Cert # 7003 1680 0006 6222 3840

BLM
620 E. Greene
Carlsbad, NM 88220
Attn: Wesley Ingram
Cert # 7003 1680 0006 6222 3857

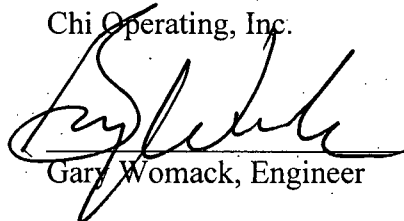
C108 Application
CHI Operating, Inc.
Benson Delaware Unit #3W
API # 30-015-32210 1980' FSL & 2310' FEL
Section 1, T-19S-30E, Eddy County, New Mexico

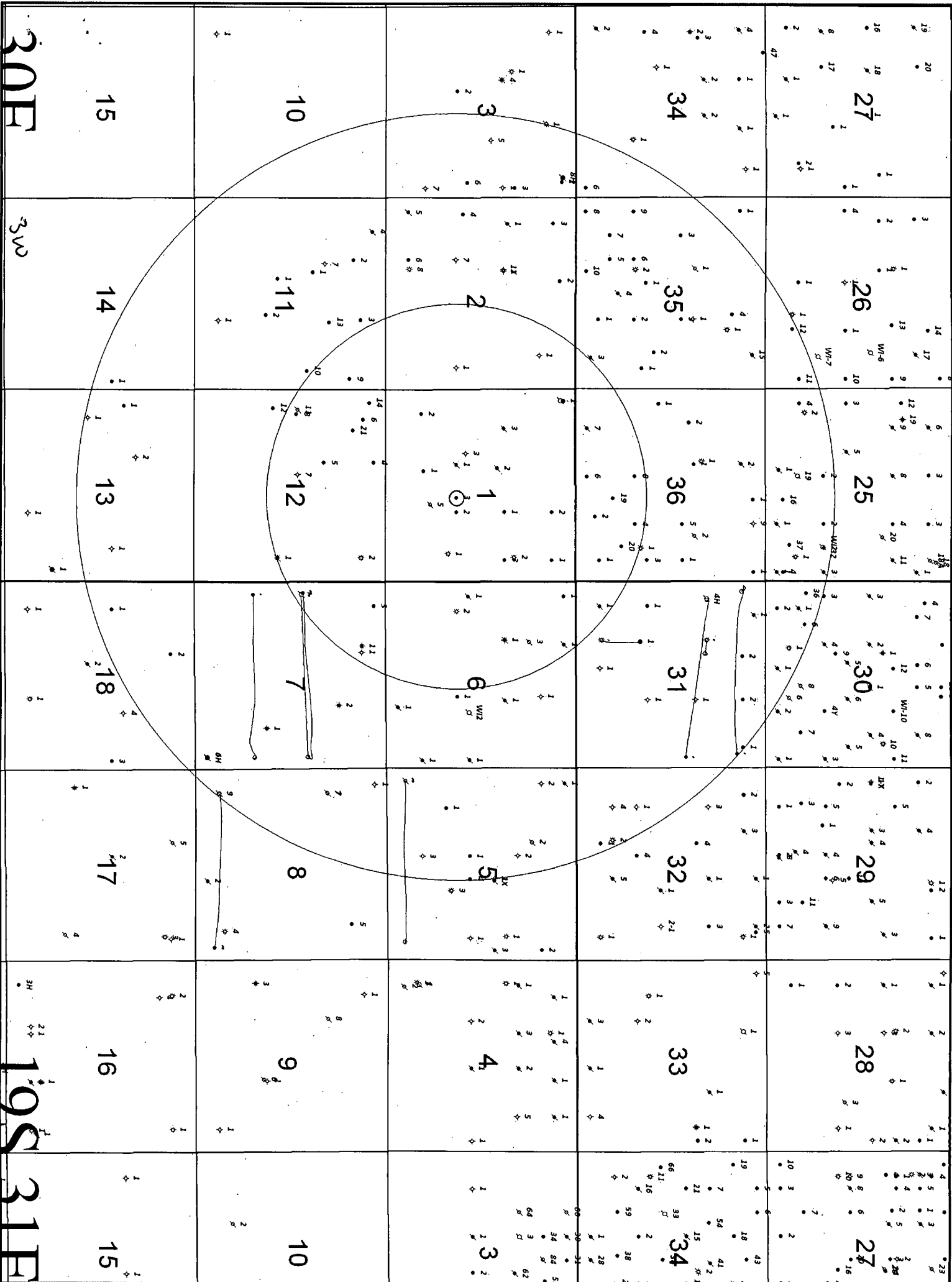
- I. The purpose of the application is to request approval to convert the Benson Delaware Unit #3W to a produced water injection well in the Delaware formation.
- II. CHI Operating, Inc.
c/o P.O. Box 1799
Midland, Texas 79702
Contact: Gary Womack, Engineer
- III. Injection well data sheet is attached. In addition, wellbore schematic diagrams are attached showing the current and proposed wellbore configurations.
- IV. This is an expansion of an existing project.
- V. A map showing all wells/leases within a 2-mile radius of the Benson Delaware Unit #3W is attached. Also attached is a map showing all wells within a ½ mile radius of the Benson Delaware Unit #3W.
- VI. Area of review well data is attached. Shown on the Table are existing wells within the AOR, that penetrated the proposed injection zone and all are operated by CHI Operating, Inc. These wells are adequately cased and cemented so as to preclude the migration of injected fluid from the proposed injection interval.

- VII. 1. The average injection rate is anticipated to be approx. 400 BWPD.
2. This will be a closed system.
3. The proposed average and maximum injection pressure will be 900#.
4. Produced water from the Delaware formation originating from wells that CHI Operating, Inc. operates in this area will be injected into the subject well.
5. N/A
- VIII. Geological Data
1. Lithologic Detail; Sandstone
2. Geological Name; Benson Delaware
3. Thickness; 800'
4. Depth; 4962 - 5142
- IX. The proposed stimulation program will be 5000gal Acid, 30,000# Sand.
- X. Logs
- XI. There are no fresh water wells within 1 mile of the injection well.
- XII. We have examined the available geologic and engineering data and find no evidence of open faults or any other hydraulic connection between the disposal zone and any underground source of drinking water.
- XIII. Proof of notice is attached.

Date: 1-17-12

Chi Operating, Inc.


Gary Womack, Engineer



Well ID	Well Name	Well Number
300150458800	STATE 2	1 P&A 2590-2608-2866, 3080-90, 3185-3192
300150459600	HALE-USG	1 P&A
300153071500	Benson Delaware Unit	1 9/58 H55.36# @ 494 Cmt d w/275sx C, T-100sx C, Circ 170sx to surf 5 1/2 J55/15.5 @ 6707, Cmt d 1st stage 500sx C, 2 stg 500sx C, T-200 sx C
300153177800	Benson Delaware Unit	2 9 5/8 36# @ 483', cmt with 325 sx, T100sx, circ 180 sx @ 3182' 5 1/2 17# @ 5350' cmt 1stg 250sx, 2stg 157sx
300153179600	Benson Delaware Unit	3 D&A if this was every perfed in the zone, need a well bore
300153338000	Benson Delaware Unit	4 This info must be on another Table
300153372500	Benson Delaware Unit	5 9 5/8 J55/36# @ 525', cmt d 300sx C, circ 108sx to surf 5 1/2 J55/15.5 @ 5400', cmt d 1stg 200sx C, 2stg 750sx C, circ 199sx
300153388100	Benson Delaware Unit	6 9 5/8 J55/36# @ 510', Cmt d with 400 sx C, circ 20 sx to surf 5 1/2 17# J55 @ 5400', cmt d 1stg 375 sx C, Circ 20sx 730sx C, circ. 125sx
300153393300	Benson Delaware Unit	7 9 5/8 36# cmt with 200 sx, T100sx, T400sx, circ 60sx 5 1/2 15.5# @ 5366' cmt 1stg 450sx, circ 80sx, 2stg 500sx, T50sx, circ 10sx
300153429300	Benson Delaware Unit	9 9 5/8 J55/36# @ 497', cmt d w/275 sx C, T-100sx C, circ 1710sx to surf 5 1/2 J55/17# @ 5233', cmt d 1stg 400 sx C, circ 90sx; 2stg 1050sx C, T50sx, did not circ
300153481600	Benson Delaware Unit	8 9 5/8 J55/36# @ 519', cmt 200sx H, 300sx C 5 1/2 J55/17# @ 4078' 5 1/2 J55 15.5# @ 5258', cmt 1675sx C, circ to surf
300153508500	Benson Delaware Unit	10 13 5/8 J55/48# @ 511', cmt 500sx C, circ 60sx to surf 8 5/8 J55/24# @ 1910', cmt 505sx C, circ 65sx to surf 5 1/2 J55 15.5# @ 5351', cmt 1stg 300sx C, 2stg 1100sx C, Circ 187sx to surf
300153579100	Benson Delaware Unit	12 13 3/8 J55/48# @ 511', cmt 300 sx H, 200sx C T-100sx, circ 10sx to pit 8 5/8 J55/24# @ 2050', cmt 425sx C T200sx C, circ 165 to pit 5 1/2 J55/15.5# @ 5415', cmt 300sx C 325sx C/50C circ 30sx to pit
300153642500	Benson Delaware Unit	13 13 5/8 J55/18# @ 495", cmt 585sx C, (1"300sx) 8 5/8 J55/32# @ 3151', cmt 1628sx, circ 273sx to surf 5 1/2 P110/17# @ 8907', @ 3698' cmt 975sx, circ 60sx
300153733300	Benson Delaware Unit	14 13 5/8 J55/54.5# @ 494.49', cmt 500sx C, circ 225sx to surf 8 5/8 J55/32# @ 2045.20', cmt 800sx C, circ 98sx to surf 5 1/2 J55 15.5# @ 5230, cmt 1stg 300sx C, 2stg 400sx C, Circ 18sx to surf

300153798700 Benson Delaware Unit	21 13 5/8 J55/48# @505.63', cmt 500sxc, circ 225sx 8 5/8 J55/32# @2068.70', cmt 800sxc 5 1/2 J55 15.5# @ 5230, cmt @ 3698' 1stg 300sxc, @ 5263.40' 2stg 500sxc
300153221000 Benson Delaware Unit 3W	9 5/8 36# @ 480', cmt d w/475sx, T-100sxc, circ 160sx 5 1/2 17# @ 5500', cmt d 1stg 300 sx, 2stg 800sx, circ 81sx
300150458700 State	1 P&A
300150458800 State	1 P&A
300150575600 Rubye	1 P&A
300152408100 Hale Fed	1 P&A
300152408200 Hale Fed	2 P&A
300152437500 Hale Fed	3 P&A
300153765200 Crescent Hale "1" F	1 INJ 13.375 H40 48# @ btm @ 553' cmt 520sx 9.625 K55 40# @ 3304' cmt 1515 sx 5.500 17# @ 13127 8671-9369, 9599-10297, 10526-11221, 11450-12145
300153190300 Land Rush 12 Fed	2 13 3/8 48# @475' cmt 300sx, T200sx, circ 164sx 8 5/8 32# @ 3210', cmt 1415sx plg dwn, did not circ 5 1/2 20/17# 1" w/400sx, circ. 8sx, 1450sx, circ. 54sx

Munchkin Federal #3
Benson Delaware Unit 3

Sec. 1-19S-30E
2230' FSL & 1750' FWL

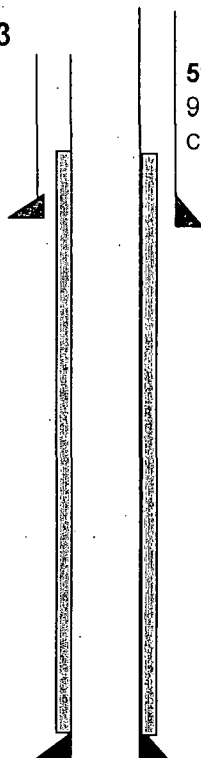
4th plug: 550-450'

3rd plug: 2078-1978'

2nd plug: 4105-4005'
45sks

1st plug: 6393-6293'
50sks

5th plug: 60-0'
9 5/8" 36# J55 @ 500'
Cmtd w/500sks & circ 100sks



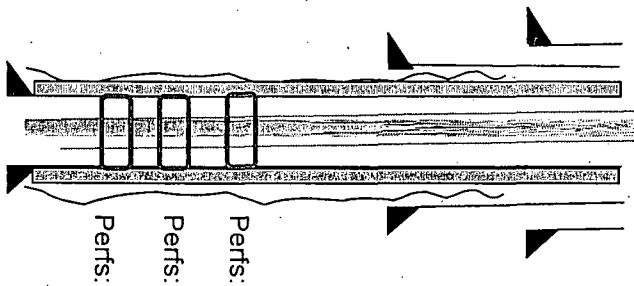
Benson Delaware Unit Federal No. 1

(current wellbore)

API # 30-015-30715

1060' FSL & 2210' FWL

Section 1, T19S R30E



2-7/8 6.5# lined injection tubing

9 5/8" 36# J55 @ 494'

Lead 275sx C, Tail 100sx C, circ 170sx, cmt at surface

5-1/2" 15.5# J55 @ 6707"

1stlg 500sx C(TOC 4170); 2stlg Lead-500sx C, Tail-200sx C(TOC 330)

DV Tool @ 3479'

Perfs: 4725-4740 (2spf)

Perfs: 4922-41; 4954-74' (2spf)

Perfs: 5086-5122' (2 spf) 72 holes

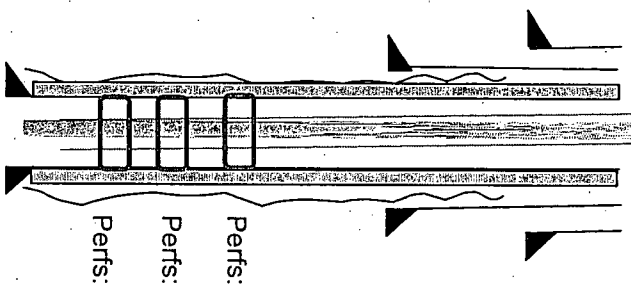
Benson Delaware Unit Federal No. 4

(current wellbore)

API # 30-015-31779

330' FNL & 1980' FWL

Section 12, T19S R30E



2-7/8 6.5# lined injection tubing

9 5/8" 36/48# J55 @ 506'

450sx C, circ 300sx to surface

5-1/2" 17# J55 @ 5526"

1stlg 400sx C, circ 63sx; 2stlg 650sx C, circ 53sx to surface

TOC @ surface

DV Tool @ 3921'

4806-10'; 4818-30'; 4831-56' (2sp)

4940-45'; 4952-62' (2sp)

5030-45'; 5010-16' (2 sp)

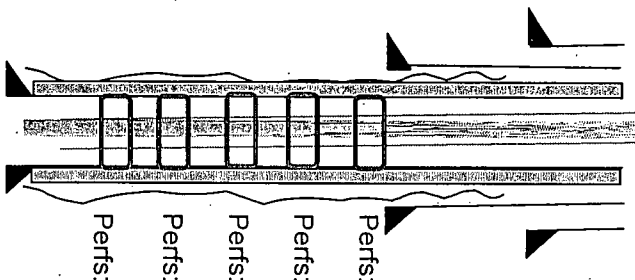
Benson Delaware Unit Federal No. 5

(current wellbore)

API # 30-015-33725

1700' FNL & 1980' FWL

Section 12, T19S R30E



2-7/8 6.5# lined injection tubing

9 5/8" 36# J55 @ 525'

300sx C, circ 108sx, cmt at surface

5-1/2" 15.5# J55 @ 5400'

1stg 200sx C, 2stg 750sx C; circ 199x

TOC @ 1450'

DV Tool @ 4242'

4605-10; 4618-21' (2spf)

4653-58' (1spf)

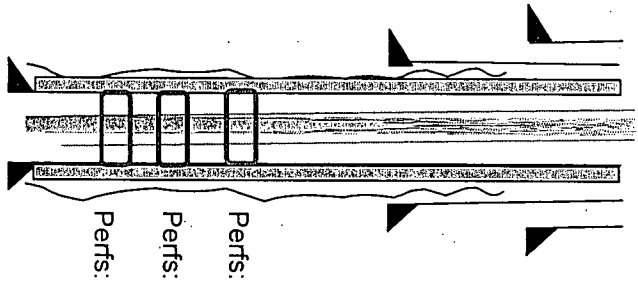
4844-39; 4835-33; 4821-20; 4802-01; 4797-94' (1spf)

4955-60'; 4965-72'; 5006-08'; 5012-15' (2spf)

5053-58'; 5036-44' (2 spf)

Benson Delaware Unit No. 6
(current wellbore)

API # 30-015-33881
660' FNL & 810' FWL
Section 12, T19S R30E



2-7/8 6.5# lined injection tubing

9 5/8" 36# J55 @ 510'

400sx C, circ 20sx, cnt at surface

5-1/2" 17# J55 @ 5400"

1stg 375sx C, circ 20sx; 2stg 730sx C; circ 125sx

TOC @ 3686'

DV Tool @ 3458'

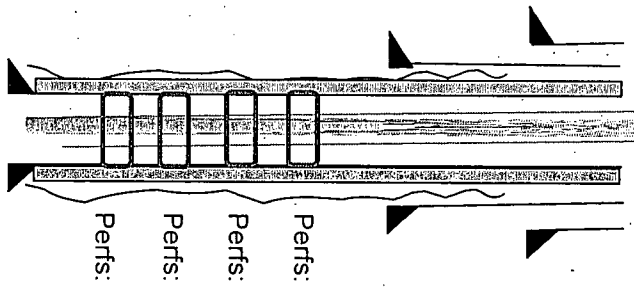
Perfs: 4542-80' (2sp)

Perfs: 4776-80'; 4818-24'; 4839-44'; 4874-79'; 4892-95' (2sp)

Perfs: 5008-10'; 5028-40'; 5055-60' (2 sp)

Benson Delaware Unit No. 8 **(current wellbore)**

API # 30-015-34816
 SHL: 2500' FNL & 660' FWL
 BHL: 1980' FNL & 660' FWL
 Section 121, T19S R30E



2-7/8 6.5# lined injection tubing

9 5/8" 36# J55 @ 519'
 200sx H, 300sx C, didn't circ

5-1/2" 17# J55 @ 4078", 15.5# J55 @ 5258'
 1stg 300sx C, 2stg 1100sx C, circ 187sx, to surface
 TOC @ surface
 DV Tool @ 3688'

Perfs: 4600-4606; 4618-25' (4spf)
 Perfs: 4700, 4795, 4797, 4803, 4804, 4814' (2spf)
 Perfs: 4825, 4831, 4832, 4836, 4838, 4846, 4847, 4851, 4852' (2spf)
 Perfs: 5002-5035' (2 spf)

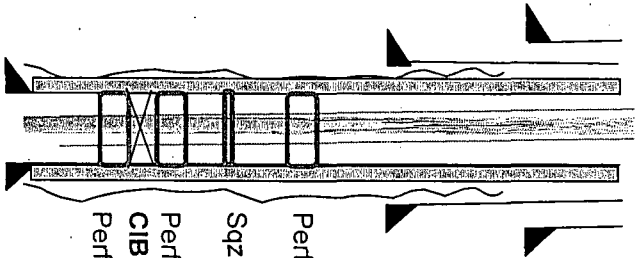
Benson Delaware Unit No. 9

(current wellbore)

API # 30-015-34293

990' FNL & 300' FEL

Section 11, T19S R30E



2-7/8 6.5# lined injection tubing

9 5/8" 36# J55 @ 497'

375sx C, circ 129sx, cmt at surface

5-1/2" 17# J55 @ 5233"

1stg 400sx C, circ 90sx; 2stg Lead 1050sx C, Tail 50sx; didn't circ.

TOC @ 600'

DV Tool @ 3675'

Perfs: 4488-4510' (2spf)

Sqzd Perfs: 4567-88'

Perfs: 4826-38'; 4850-60 (2spf)

CIBP: 5000'

Perfs: 5092,5091,5075,5074,5073,5072,5065,5064,5060,5059,5043,5035' (2 spf)

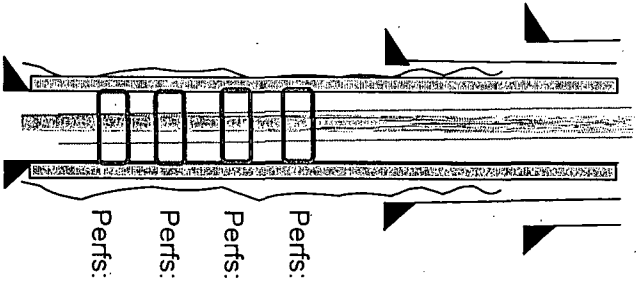
Benson Delaware Unit No. 10

(current wellbore)

API # 30-015-35085

2200' FNL & 330' FEL

Section 11, T19S R30E



2-7/8 6.5# lined injection tubing

9 5/8" 36# J55 @ 519'

200sx H, 300sx C, didn't circ

5-1/2" 17# J55 @ 4078", 15.5# J55 @ 5258'

1stg 300sx C, 2stg 1100sx C; circ 187sx, to surface

TOC @ surface

DV Tool @ 3711'

4600-4606; 4618-25' (4spf)

4700, 4795, 4797, 4803, 4804, 4814' (2spf)

4825, 4831, 4832, 4836, 4838, 4846, 4847, 4851, 4852' (2spf)

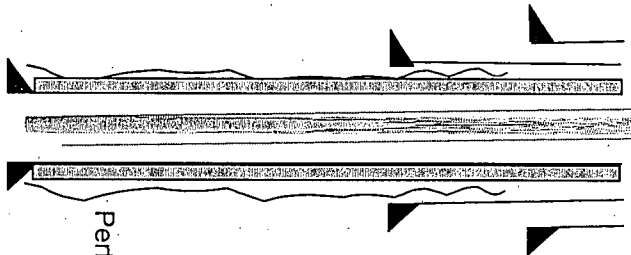
5002-5035' (2 spf)

Benson Delaware Unit 12
(existing wellbore)

API # 30-015-35791
2547' FNL & 519 FVL
Section 12, T19S R30E

DV tool @ 3700'

5-1/2" 15.5# J55 @ 5,415'
Cmt to Surface



Perfs:

4870-88' (2 sfp), 4590-4604', 4613-4615' (2 spf)
4494-4515 (2 spf)

13-3/8" 48# J55 @ 511'
cmt at surface (circ)

8-5/8" 24# J55 @ 2051'
cmt at surface (circ)

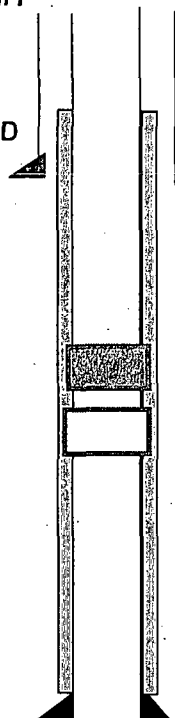
Benson Delaware Unit #7

Sec. 12-19S-30E

SHL: 2475' FNL & 2310' FWL

BHL: 1980' FSL & 1980' FWL

TEMPORARILY ABANDONED



12 1/4" csg @ 526' w/600sx H&C

RBP @ 4900'

PERFS: 4993-5000

5 1/2" csg @ 5366' MD & 5228' TVD W/1000sx C

PBTD: 5434'

Affidavit of Publication

NO. 22002

STATE OF NEW MEXICO

County of Eddy:

Danny Scott

being duly sworn, says that he is the Publisher

of the Artesia Daily Press, a daily newspaper of general circulation, published in English at Artesia, said county and state, and that the hereto attached

Legal Notice

was published in a regular and entire issue of the said Artesia Daily Press, a daily newspaper duly qualified for that purpose within the meaning of Chapter 167 of the 1937 Session Laws of the state of New Mexico for

1 Consecutive weeks/days on the same day as follows:

First Publication February 1, 2012

Second Publication _____

Third Publication _____

Fourth Publication _____

Fifth Publication _____

Subscribed and sworn to before me this

1st day of February 2012



OFFICIAL SEAL
Latisha Romine
NOTARY PUBLIC-STATE OF NEW MEXICO

My commission expires: 5/12/2015

Latisha Romine

Latisha Romine
Notary Public, Eddy County, New Mexico

Copy of Publication:

LEGAL NOTICE

Notice of Application for Fluid Injection Well Permit

Chl Operating, Inc. c/o Gary Womack 432-885-5001, P.O. Box 1799, Midland, TX 79702 is applying a permit for a Water Injection Well into a formation which is productive of oil and gas. The applicant proposes to drill a water injection well into the Detaware. The proposed injection well is located in Section 1, T 19S, R 30E1n, Eddy Co., NM. Fluid will be injected into strata in the subsurface depth interval from 4962-5142'. Interested parties must file objections or requests for hearing with the oil Conservation Division, 1220 South St, Francis Dr., Santa Fe, New Mexico 87505, within 15 days. Published in the Artesia Daily Press, Artesia, N.M., Feb. 1, 2012. Legal No 22002.

APPLICATION FOR AUTHORIZATION TO INJECT

- I. PURPOSE: ☒ X Secondary Recovery _____ Pressure Maintenance ☒ X Disposal _____ Storage
Application qualifies for administrative approval? _____ Yes _____ No
- II. OPERATOR: CHI Operating, Inc.
- ADDRESS: P.O. Box 1799 Midland, TX 79701
- CONTACT PARTY: _____ PHONE: _____
- III. WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection.
Additional sheets may be attached if necessary.
- IV. Is this an expansion of an existing project? ☒ X Yes _____ No
If yes, give the Division order number authorizing the project: NM126412X Order R-123262
- V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.
- VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.
- VII. Attach data on the proposed operation, including:
1. Proposed average and maximum daily rate and volume of fluids to be injected;
 2. Whether the system is open or closed;
 3. Proposed average and maximum injection pressure;
 4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,
 5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).
- *VIII. Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.
- IX. Describe the proposed stimulation program, if any.
- *X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).
- *XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.
- XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.
- XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.
- XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.
- NAME: PAM CORBETT 432 6855001 TITLE: REGULATORY CLERK
- SIGNATURE: [Signature] DATE: 11/17/12
- E-MAIL ADDRESS: pamc@chienergyinc.com
- * If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal:

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate District Office

III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

- (1) Lease name; Well No.; Location by Section, Township and Range; and footage location within the section.
- (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.
- (3) A description of the tubing to be used including its size, lining material, and setting depth.
- (4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District Offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

- (1) The name of the injection formation and, if applicable, the field or pool name.
- (2) The injection interval and whether it is perforated or open-hole.
- (3) State if the well was drilled for injection or, if not, the original purpose of the well.
- (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
- (5) Give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

- (1) The name, address, phone number, and contact party for the applicant;
- (2) The intended purpose of the injection well; with the exact location of single wells or the Section, Township, and Range location of multiple wells;
- (3) The formation name and depth with expected maximum injection rates and pressures; and,
- (4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

INJECTION WELL DATA SHEET

OPERATOR: _____ CHI Operating, Inc. _____

WELL NAME & NUMBER: _____ Benson Delaware Unit #10 _____

WELL LOCATION: _____ 2200' FNL & 330' FEL _____
FOOTAGE LOCATION _____ UNIT LETTER _____ SECTION _____ TOWNSHIP _____ RANGE _____WELLBORE SCHEMATICWELL CONSTRUCTION DATA
Surface CasingHole Size: _____ 12 1/4" _____ Casing Size: 9 5/8" 36# J-55
Cemented with: _____ 500 _____ sx. *or* _____ ft³
Top of Cement: _____ SURF _____ Method Determined: _____Intermediate CasingHole Size: _____ 8 3/4" _____ Casing Size: _____ 5 1/2 "17# J-55
Cemented with: _____ 300 _____ sx. *or* _____ ft³
Top of Cement: _____ Surf _____ Method Determined: _____Production CasingHole Size: _____ 7 7/8" _____ Casing Size: _____ 5 1/2" _____
Cemented with: _____ 1100 _____ sx. *or* _____ ft³
Top of Cement: _____ Surf _____ Method Determined: _____ Circ

Total Depth: _____

Injection Interval

_____ 4500' _____ feet to _____ 5100' _____

(Perforated or Open Hole; indicate which)

INJECTION WELL DATA SHEETTubing Size: 2 7/8 Lining Material: Internal Plastic Coated

Type of Packer: _____

Packer Setting Depth: 4618'Other Type of Tubing/Casing Seal (if applicable): NAAdditional Data

1. Is this a new well drilled for injection? X Yes No

If no, for what purpose was the well originally drilled? _____

2. Name of the Injection Formation: Delaware

3. Name of Field or Pool (if applicable): Benson Delaware Unit

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. NO

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: Queen 2956'-Lower; Bone Spring 7985'-Top

Wolfcamp 8615'-Top; Morrow 10,865'-Top

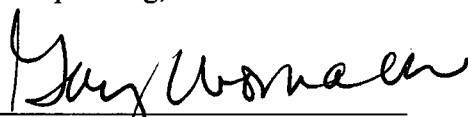
C108 Application
CHI Operating, Inc.
Benson Delaware Unit #10
API # 30-015-35085 2200' FNL & 330' FEL
Section 11, T-19S-30E, Eddy County, New Mexico

- I. The purpose of the application is to request approval to convert the Benson Delaware Unit #10 to a produced water injection well in the Delaware formation.
- II. CHI Operating, Inc.
c/o P.O. Box 1799
Midland, Texas 79702
Contact: Gary Womack, Engineer
- III. Injection well data sheet is attached. In addition, wellbore schematic diagrams are attached showing the current and proposed wellbore configurations.
- IV. This is an expansion of an existing project.
- V. A map showing all wells/leases within a 2-mile radius of the Benson Delaware Unit #10 is attached. Also attached is a map showing all wells within a ½ mile radius of the Benson Delaware Unit #10.
- VI. Area of review well data is attached. Shown on the Table are existing wells within the AOR, that penetrated the proposed injection zone and all are operated by CHI Operating, Inc. These wells are adequately cased and cemented so as to preclude the migration of injected fluid from the proposed injection interval.

- VII. 1. The average injection rate is anticipated to be approx. 400 BWPD.
2. This will be a closed system.
3. The proposed average and maximum injection pressure will be 900#.
4. Produced water from the Delaware formation originating from wells that CHI Operating, Inc. operates in this area will be injected into the subject well.
5. N/A
- VIII. Geological Data
1. Lithologic Detail; Sandstone
2. Geological Name; Benson Delaware
3. Thickness; 800'
4. Depth; *4500 - 5100'*
- IX. The proposed stimulation program will be 5000gal Acid, 30,000# Sand.
- X. Logs
- XI. There are no fresh water wells within 1 mile of the injection well.
- XII. We have examined the available geologic and engineering data and find no evidence of open faults or any other hydraulic connection between the disposal zone and any underground source of drinking water.
- XIII. Proof of notice is attached.

Date: 12/24/11

Chi Operating, Inc.



Gary Womack, Engineer

Benson Delaware No. 10

(current wellbore)

API # 30-015-35085

2200' FNL & 330' FEL

Section 11, T19S R30E

2-7/8 6.5# lined injection tubing

9 5/8" 36# J55 @ 519'

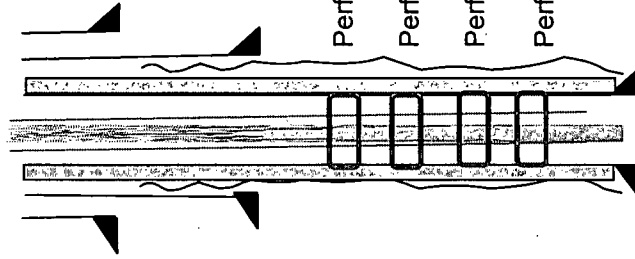
200sx H, 300sx C, didn't circ

5-1/2" 17# J55 @ 4078", 15.5# J55 @ 5258'

1stg 300sx C, 2stg 1100sx C; circ 187sx, to surface

TOC @ surface

DV Tool @ 3711'



4600-4606; 4618-25' (4spf)

4700, 4795, 4797, 4803, 4804, 4814' (2spf)

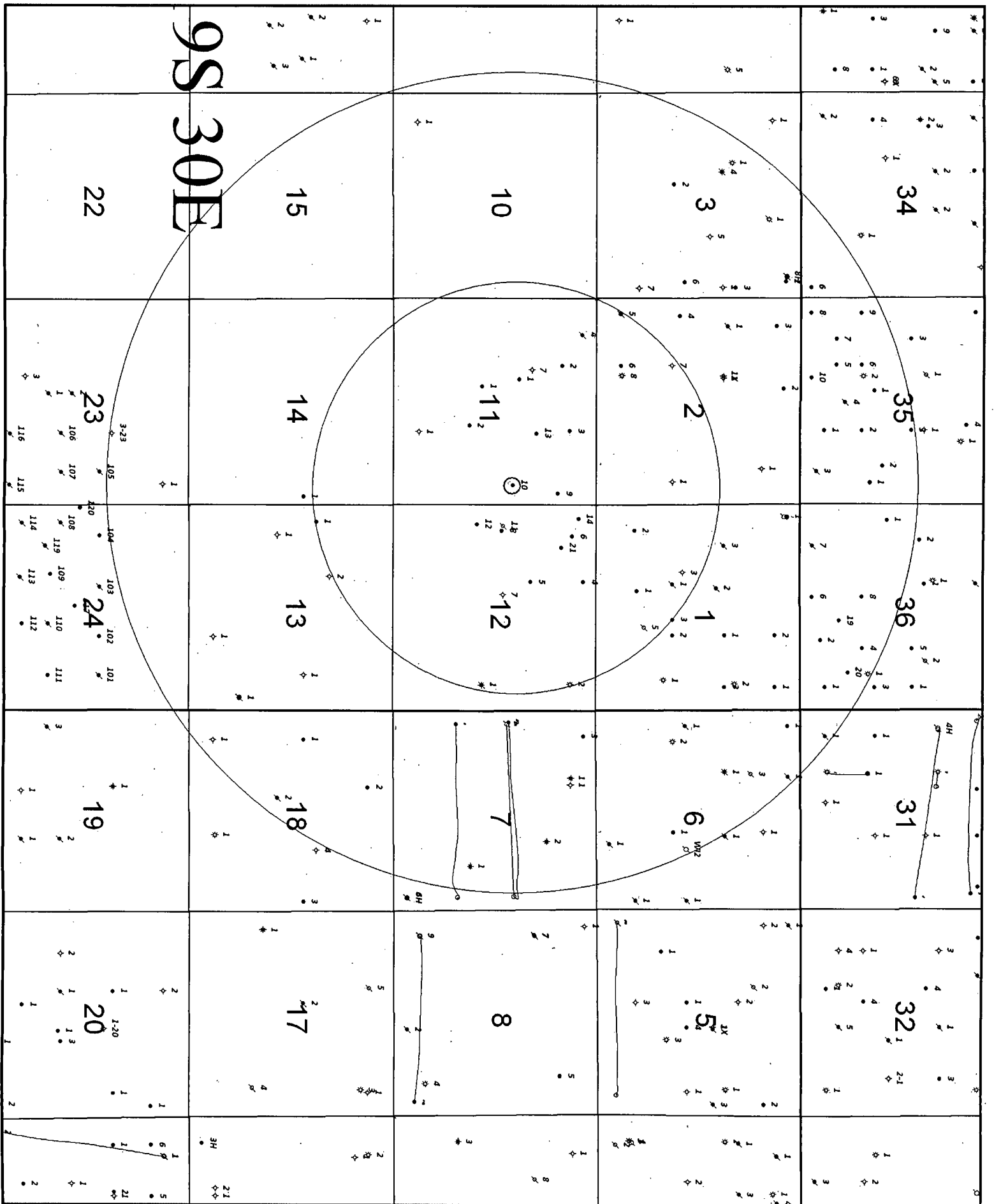
4825, 4831, 4832, 4836, 4838, 4846, 4847, 4851, 4852' (2spf)

5002-5035' (2 spf)

Notice of Application for Fluid Injection Well Permit

Chi Operating, Inc., c/o Gary Womack 432-685-5001, P.O. Box 1799, Midland, TX 79702 is applying to the NMOCD for a permit for a Water Injection Well into a formation which is productive of oil and gas. The applicant proposes to drill a water Injection well into the Delaware. The proposed injection well is located in Section 1, T 19S, R 30 E in, Eddy Co., NM. Fluid will be injected into strata in the subsurface depth interval from *4500-5100'*

Interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.



9S 30E

Well ID	Well Name	Well Number
300150458800	STATE 2	1 P&A 2590-2608-2866, 3080-90, 3185-3192
300150459600	HALE-USG	1 P&A
300153071500	Benson Delaware Unit	1 9/58 H55.36# @ 494 Cmtd w/275sx C, T-100sx C, Circ 170sx to surf 5 1/2 J55/15.5 @ 6707, Cmtd 1st stage 500sx C, 2 stg 500sx C, T-200 sx C
300153177800	Benson Delaware Unit	2 9 5/8 36# @ 483', cmt with 325 sx, T100sx, circ 180 sx @ 3182' 5 1/2 17# @ 5350' cmt 1stg 250sx, 2stg 157sx
300153179600	Benson Delaware Unit	3 D&A if this was every perfed in the zone, need a well bore
300153338000	Benson Delaware Unit	4 This info must be on another Table
300153372500	Benson Delaware Unit	5 9 5/8 J55/36# @ 525', cmtd 300sx C, circ 108sx to surf 5 1/2 J55/15.5 @ 5400', cmtd 1stg 200sx C, 2stg 750sx C, circ 199sx
300153388100	Benson Delaware Unit	6 9 5/8 J55/36# @ 510', Cmtd with 400 sx C, circ 20 sx to surf 5 1/2 17# J55 @ 5400', cmtd 1stg 375 sx C, Circ 20sx 730sx C, circ. 125sx
300153393300	Benson Delaware Unit	7 9 5/8 36# cmt with 200 sx, T100sx, T400sx, circ 60sx 5 1/2 15.5# @ 5366' cmt 1stg 450sx, circ 80sx, 2stg 500sx, T50sx, circ 10sx
300153429300	Benson Delaware Unit	9 9 5/8 J55/36# @ 497', cmtd w/275 sx C, T-100sx C, circ 1710sx to surf 5 1/2 J55/17# @ 5233', cmtd 1stg 400 sx C, circ 90sx, 2stg 1050sx C, T50sx, did not circ
300153481600	Benson Delaware Unit	8 9 5/8 J55/36# @ 519', cmt 200sxH, 300sx C 5 1/2 J55/17# @ 4078' 5 1/2 J55 15.5# @ 5258', cmt 1675sx C, circ to surf
300153508500	Benson Delaware Unit	10 13 5/8 J55/48# @ 511', cmt 500sx C, circ 60sx to surf 8 5/8 J55/24# @ 1910', cmt 505sx C, circ 65sx to surf 5 1/2 J55 15.5# @ 5351', cmt 1stg 300sx C, 2stg 1100sx C, Circ 187sx to surf
300153579100	Benson Delaware Unit	12 13 3/8 J55/48# @ 511', cmt 300 sxH, 200sx C T-100sx, circ 10sx to pit 8 5/8 J55/24# @ 2050', cmt 425sx C T200sx C, circ 165 to pit 5 1/2 J55/15.5# @ 5415', cmt 300sx C 325sx C/50C circ 30sx to pit
300153642500	Benson Delaware Unit	13 13 5/8 J55/18# @ 495", cmt 585sx C, (1"300sx) 8 5/8 J55/32# @ 3151', cmt 1628sx, circ 273sx to surf 5 1/2 P110/17# @ 8907', @ 3698' cmt 975sx, circ 60sx
300153733300	Benson Delaware Unit	14 13 5/8 J55/54.5# @ 494.49', cmt 500sx C, circ 225sx to surf 8 5/8 J55/32# @ 2045.20', cmt 800sx C, circ 98sx to surf 5 1/2 J55 15.5# @ 5230, cmt 1stg 300sx C, 2stg 400sx C, Circ 18sx to surf

300153798700 Benson Delaware Unit	21 13 5/8 J55/48# @505.63', cmt 500sxc, circ 225sx 8 5/8 J55/32# @2068.70', cmt 800sxc 5 1/2 J55 15.5# @ 5230, cmt @ 3698' 1stg 300sxc, @ 5263.40' 2stg 500sxc
300153221000 Benson Delaware Unit 3W	9 5/8 36# @ 480', cmt d w/475sx, T-100sxc, circ 160sx 5 1/2 17# @ 5500', cmt d 1stg 300 sx, 2stg 800sx, circ 81sx
300150458700 State	1 P&A
300150458800 State	1 P&A
300150575600 Rubye	1 P&A
300152408100 Hale Fed	1 P&A
300152408200 Hale Fed	2 P&A
300152437500 Hale Fed	3 P&A
300153765200 Crescent Hale "1" F	1 INJ 13.375 H40 48# @ bttm @ 553' cmt 520sx 9.625 K55 40# @ 3304' cmt 1515 sx 5.500 17# @ 13127 8671-9369, 9599-10297, 10526-11221, 11450-12145
300153190300 Land Rush 12 Fed	2 13 3/8 48# @475' cmt 300sx, T200sx, circ 164sx 8 5/8 32# @ 3210', cmt 1415sx plg dwn, did not circ 5 1/2 20/17# 1" w/400sx, circ. 8sx, 1450sx, circ. 54sx

Munchkin Federal #3
Benson Delaware Unit 3

Sec. 1-19S-30E
2230' FSL & 1750' FWL

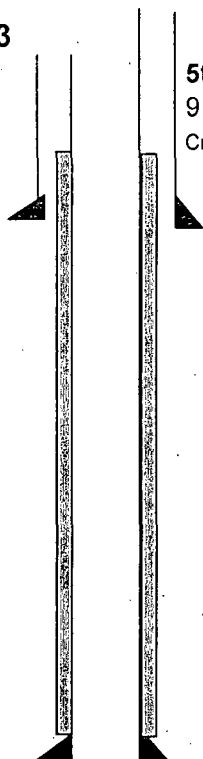
4th plug: 550-450'

3rd plug: 2078-1978'

2nd plug: 4105-4005'
45sks

1st plug: 6393-6293'
50sks

5th plug: 60-0'
9 5/8" 36# J55 @ 500'
Cmtd w/500sks & circ 100sks



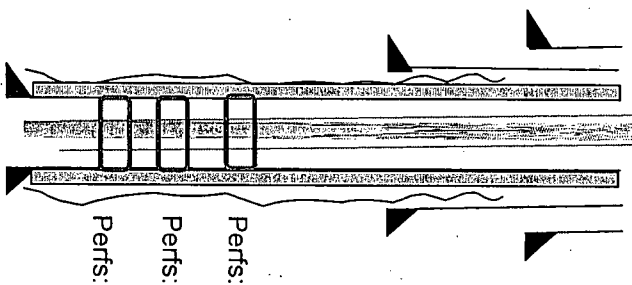
Benson Delaware Unit Federal No. 1

(current wellbore)

API # 30-015-30715

1060' FSL & 2210' FWL

Section 1, T19S R30E



2-7/8 6.5# lined injection tubing

9 5/8" 36# J55 @ 494'

Lead 275sx C, Tail 100sx C, circ 170sx, cmt at surface

5-1/2" 15.5# J55 @ 6707"

1stlg 500sx C(TOC 4170); 2stlg Lead-500sx C, Tail-200sx C(TOC 330)

DV Tool @ 3479'

4725-4740 (2spf)

4922-41; 4954-74' (2spf)

5086-5122' (2 spf) 72 holes

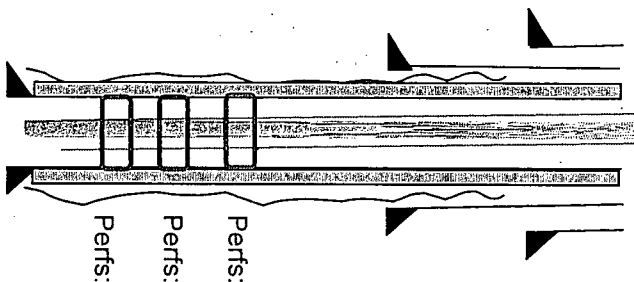
Benson Delaware Unit Federal No. 4

(current wellbore)

API # 30-015-31779

330' FNL & 1980' FWL

Section 12, T19S R30E



2-7/8 6.5# lined injection tubing

9 5/8" 36/48# J55 @ 506'

450sx C, circ 300sx to surface

5-1/2" 17# J55 @ 5526"

1stg 400sx C, circ 63sx; 2stg 650sx C, circ 53sx to surface

TOC @ surface

DV Tool @ 3921'

Perfs: 4806-10'; 4818-30'; 4831-56' (2spf)

Perfs: 4940-45'; 4952-62' (2spf)

Perfs: 5030-45'; 5010-16' (2 spf)

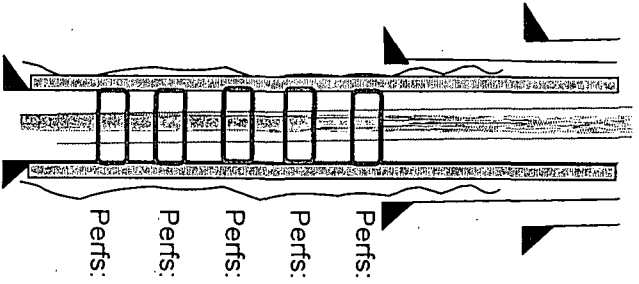
Benson Delaware Unit Federal No. 5

(current wellbore)

API # 30-015-33725

1700' FNL & 1980' FWL

Section 12, T19S R30E



2-7/8 6.5# lined injection tubing

9 5/8" 36# J55 @ 525'

300sx C, circ 108sx, cnt at surface

5-1/2" 15.5# J55 @ 5400"

1stg 200sx C, 2stg 750sx C; circ 199x

TOC @ 1450'

DV Tool @ 4242'

4605-10; 4618-21' (2sp)

4653-58' (1sp)

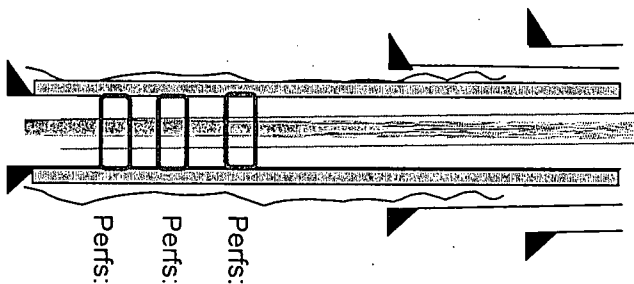
4844-39; 4835-33; 4821-20; 4802-01; 4797-94' (1sp)

4955-60'; 4965-72'; 5006-08'; 5012-15' (2sp)

5053-58'; 5036-44' (2sp)

Benson Delaware Unit No. 6
(current wellbore)

API # 30-015-33881
660' FNL & 810' FWL
Section 12, T19S R30E



2-7/8 6.5# lined injection tubing

9 5/8" 36# J55 @ 510'

400sx C, circ 20sx, cmt at surface

5-1/2" 17# J55 @ 5400"

1stlg 375sx C, circ 20sx; 2stlg 730sx C; circ 125sx.

TOC @ 3686'

DV Tool @ 3458'

Perfs:
4542-80' (2sp)

Perfs:
4776-80'; 4818-24'; 4839-44'; 4874-79'; 4892-95' (2sp)

Perfs:
5008-10'; 5028-40'; 5055-60' (2 sp)

Benson Delaware Unit No. 8

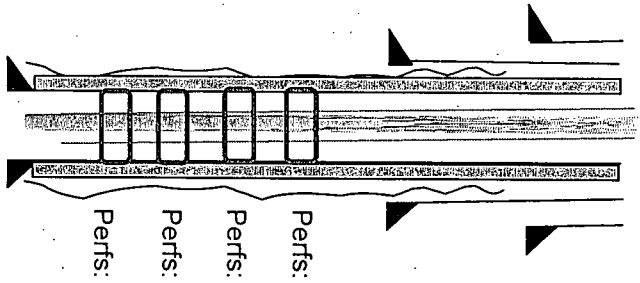
(current wellbore)

API # 30-015-34816

SHL: 2500' FNL & 660' FWL

BHL: 1980' FNL & 660' FWL

Section 121, T19S R30E



2-7/8 6.5# lined injection tubing

9 5/8" 36# J55 @ 519'

200sx H, 300sx C, didn't circ

5-1/2" 17# J55 @ 4078", 15.5# J55 @ 5258'

1stg 300sx C, 2stg 1100sx C, circ 187sx, to surface

TOC @ surface

DV Tool @ 3688'

4600-4606; 4618-25' (4sp)

4700, 4795, 4797, 4803, 4804, 4814' (2sp)

4825, 4831, 4832, 4836, 4838, 4846, 4847, 4851, 4852' (2sp)

5002-5035' (2 sp)

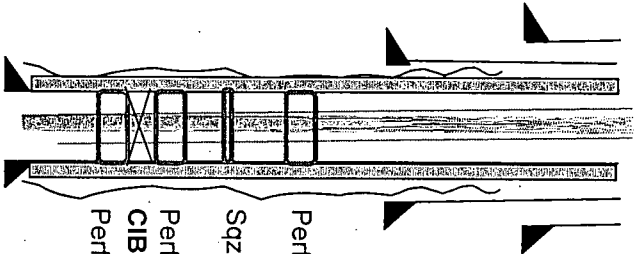
Benson Delaware Unit No. 9

(current wellbore)

API # 30-015-34293

990' FNL & 300' FEL

Section 11, T19S R30E



2-7/8 6.5# lined injection tubing

9 5/8" 36# J55 @ 497'

375sx C, circ 129sx, cmt at surface

5-1/2" 17# J55 @ 5233"

1stg 400sx C, circ 90sx; 2stg Lead 1050sx C, Tail 50sx; didn't circ.

TOC @ 600'

DV Tool @ 3675'

Perfs: 4488-4510' (2spf)

Sqzd Perfs: 4567-88'

Perfs: 4826-38'; 4850-60 (2spf)

CIBP: 5000'

Perfs: 5092,5091,5075,5074,5073,5072,5065,5064,5060,5059,5043,5035' (2 spf)

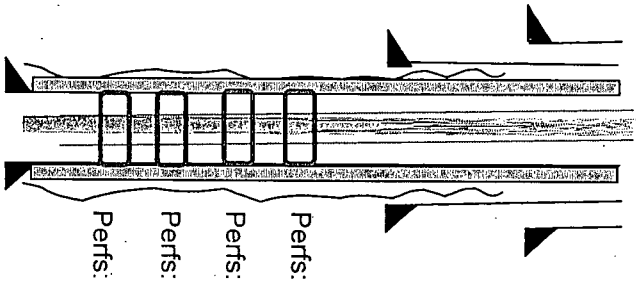
Benson Delaware Unit No. 10

(current wellbore)

API # 30-015-35085

2200' FNL & 330' FEL

Section 11; T19S R30E



2-7/8 6.5# lined injection tubing

9 5/8" 36# J55 @ 519'

200sx H, 300sx C, didn't circ

5-1/2" 17# J55 @ 4078', 15.5# J55 @ 5258'

1stg 300sx C, 2stg 1100sx C; circ 187sx, to surface

TOC @ surface

DV Tool @ 3711'

4600-4606; 4618-25' (4sp)

4700, 4795, 4797, 4803, 4804, 4814' (2sp)

4825, 4831, 4832, 4836, 4838, 4846, 4847, 4851, 4852' (2sp)

5002-5035' (2 sp)

Benson Delaware Unit 12
(existing wellbore)

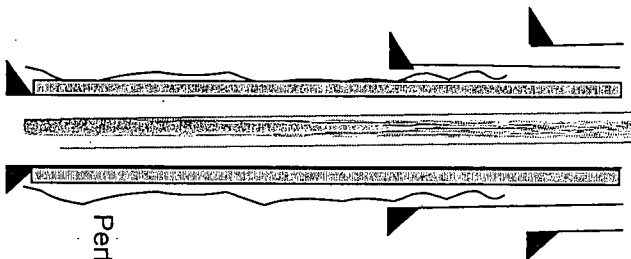
API # 30-015-35791

2547' FNL & 519 FVL

Section 12, T19S R30E

DV tool @ 3700'

5-1/2" 15.5# J55 @ 5,415'
Cmt to Surface



Perfs:

13-3/8" 48# J55 @ 511'
cmt at surface (circ)

8-5/8" 24# J55 @ 2051'
cmt at surface (circ)

4870-88' (2 sfp), 4590-4604', 4613-4615' (2 sfp)
4494-4515 (2 sfp)

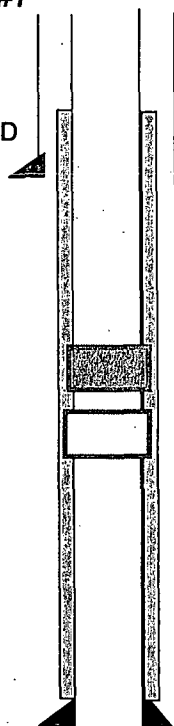
Benson Delaware Unit #7

Sec. 12-19S-30E

SHL: 2475' FNL & 2310' FWL

BHL: 1980' FSL & 1980' FWL

TEMPORARILY ABANDONED



12 1/4" csg @ 526' w/600sx H&C

RBP @ 4900'

PERFS: 4993-5000

5 1/2" csg @ 5366' MD & 5228' TVD W/1000sx C

PBTD: 5434'

APPLICATION FOR AUTHORIZATION TO INJECT

- I. PURPOSE: ☒ Secondary Recovery ☐ Pressure Maintenance ☒ Disposal ☐ Storage
Application qualifies for administrative approval? ☐ Yes ☐ No
- II. OPERATOR: CHI Operating, Inc.
ADDRESS: P.O. Box 1799, Midland, TX 79702
CONTACT PARTY: Gary Womack PHONE: 432-685-5001
- III. WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection.
Additional sheets may be attached if necessary. # 15
- IV. Is this an expansion of an existing project? ☒ Yes ☒ No
If yes, give the Division order number authorizing the project: Order R-13262 NM126412X
- V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.
- VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.
- VII. Attach data on the proposed operation, including:
1. Proposed average and maximum daily rate and volume of fluids to be injected;
 2. Whether the system is open or closed;
 3. Proposed average and maximum injection pressure;
 4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,
 5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).
- *VIII. Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.
- IX. Describe the proposed stimulation program, if any.
- *X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).
- *XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.
- XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.
- XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.
- XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.
- NAME: PAM CORBETT TITLE: Regulatory Clerk
SIGNATURE: Pam Corbett DATE: 1/17/12
E-MAIL ADDRESS: pamc@chienergyinc.com
- * If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal: _____

III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

- (1) Lease name; Well No.; Location by Section, Township and Range; and footage location within the section.
- (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.
- (3) A description of the tubing to be used including its size, lining material, and setting depth.
- (4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District Offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

- (1) The name of the injection formation and, if applicable, the field or pool name.
- (2) The injection interval and whether it is perforated or open-hole.
- (3) State if the well was drilled for injection or, if not, the original purpose of the well.
- (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
- (5) Give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

- (1) The name, address, phone number, and contact party for the applicant;
- (2) The intended purpose of the injection well; with the exact location of single wells or the Section, Township, and Range location of multiple wells;
- (3) The formation name and depth with expected maximum injection rates and pressures; and,
- (4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

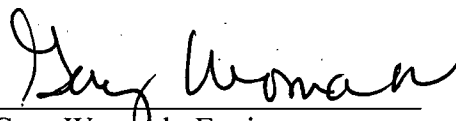
C108 Application
CHI Operating, Inc.
Benson Delaware Unit #15
API # 3001538298 150' FSL & 1550' FWL (Unit N)
Section 1, T-19S-30E, Eddy County, New Mexico

- I. The purpose of the application is to request approval to convert the Benson Delaware Unit #15 to a produced water injection well in the Delaware formation.
- II. CHI Operating, Inc.
c/o P.O. Box 1799
Midland, Texas 79702
Contact: Gary Womack, Engineer
- III. Injection well data sheet is attached. In addition, wellbore schematic diagrams are attached showing the current and proposed wellbore configurations.
- IV. This is not an expansion of an existing project.
- V. A map showing all wells/leases within a 2-mile radius of the Benson Delaware Unit #15 is attached. Also attached is a map showing all wells within a ½ mile radius of the Benson Delaware Unit #15.
- VI. Area of review well data is attached. Shown on the Table are existing wells within the AOR, that penetrated the proposed injection zone and all are operated by CHI Operating, Inc. These wells are adequately cased and cemented so as to preclude the migration of injected fluid from the proposed injection interval.

- VII. 1. The average injection rate is anticipated to be approx. 400 BWPD.
2. This will be a closed system.
3. The proposed average and maximum injection pressure will be 900#.
4. Produced water from the Delaware formation originating from wells that CHI Operating, Inc. operates in this area will be injected into the subject well.
5. N/A
- VIII. Geological Data
1. Lithologic Detail; Sandstone
2. Geological Name; Benson Delaware
3. Thickness; 800'
4. Depth; 4400-5200' ✓
- IX. The proposed stimulation program will be 5000gal Acid, 30,000# Sand.
- X. Logs
- XI. There are no fresh water wells within 1 mile of the injection well.
- XII. We have examined the available geologic and engineering data and find no evidence of open faults or any other hydraulic connection between the disposal zone and any underground source of drinking water.
- XIII. Proof of notice is attached.

Date: 12/22/11

Chi Operating, Inc.



Gary Womack, Engineer

INJECTION WELL DATA SHEET

OPERATOR: CHI Operating, Inc.WELL NAME & NUMBER: Benson Delaware Unit #15WELL LOCATION: 150' FSL & 1550' FWL N 1 19S 30E
FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGEWELLBORE SCHEMATICWELL CONSTRUCTION DATASurface CasingHole Size: 17 1/2" Casing Size: 13 3/8"Cemented with: 600 sx. or ft³Top of Cement: Surface Method Determined: Circ Intermediate CasingHole Size: Casing Size: 8 5/8Cemented with: 650 sx. or ft³Top of Cement: surf Method Determined: Circ Production CasingHole Size: Casing Size: 5 1/2"Cemented with: 665 sx. or ft³Top of Cement: surf Method Determined: Circ Total Depth: Injection Interval4400 feet to 5200

(Perforated or Open Hole; indicate which)

INJECTION WELL DATA SHEETTubing Size: 2.875 Lining Material: Internal plastic coatedType of Packer: 5.5 x 2.875 BakerPacker Setting Depth: 4500'

Other Type of Tubing/Casing Seal (if applicable): _____

Additional Data1. Is this a new well drilled for injection? Yes No

If no, for what purpose was the well originally drilled? _____

2. Name of the Injection Formation: _____

3. Name of Field or Pool (if applicable): Benson Delaware Unit4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. NO5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: Queen 2914' (Underlying)Bone Spring 7600', Wolfcamp 10,100', Morrow 11,200'



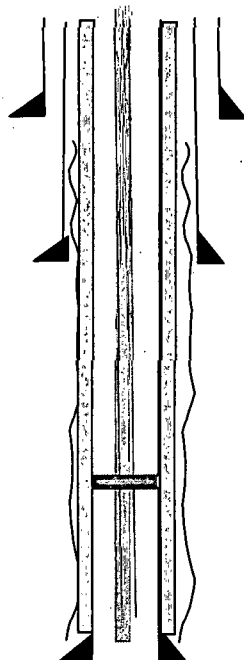
Benson Delaware Unit No. 15

(Set up for Injection) - *Proposed*

API#30-015-38298

150' FSL & 1550 FWL

Section 1, T19S R30E



13-3/8" 48# J55 @ 500'
cmt at surface (circ)

8-5/8" 32# J55 @ 2067'
cmt at surface (circ)

Injection packer @ 4500'

5-1/2" 15.5#K55 @ 5,198'

Cmt to Surface

Perfs:

Zone 1: - 5053-5068', 5034-5044', 5010-5018', 4986-4994', 4915-4925' (2 spf)

Zone 2: 4868-4882', 4816-4842', 4786-4796' (2 spf)

Zone 3: 4634-4664' (2 spf)

Wells in review area that penetrated injection zone

WELL NAME	WELL TYPE	CONSTRUCTION	DATE DRILLED	LOCATION	DEPTH	COMPLETION
Benson Delaware Unit #4	Active oil well	9 5/8" J55/36# @ 506' Cmtd w/450sx C, circ 300sx to surf 5 1/2" 17# J55 @ 5526' Cmtd 1stg 400sx C, circ 63sx, 2stg 650sx, circ 53sx to surf	1/21/2004	330' FNL & 1980' FWL 12-19S-30E	5526'	2/26/2004
Benson Delaware Unit #6	Active oil well	9 5/8" J55/36# @ 510' Cmtd w/400sx C, circ 20sx to surf 5 1/2" 17# J55 @ 5400' Cmtd 1stg 375sx C, circ 20sx, 2stg 730sx C, circ 125sx	1/1/2005	660' FNL & 8100' FWL 11-19S-30E	5400'	2/22/2005
Benson Delaware Unit #9	Active oil well	9 5/8" J55/36# @ 497' Cmtd w/375sx C, circ 129sx to surf 5 1/2" J55/17# & 5233' Cmtd 1stg 400sx C, circ 90sx, 2stg L-1050sx C, T-50sx didn't circ	5/4/2006	990' FNL & 300' FEL 1-19S-30E	5233'	8/18/2006
Benson Delaware Unit #1	Active oil well	9 5/8" J55/36# @ 494' Cmtd w/L-275sx C, T-100sx C, circ 170sx to surf 5 1/2" J55/15.5# @ 6707' Cmtd 1stg 500sx C, 2stg L-500sx C, T-200sx C	1/25/2001	1060' FSL & 2210' FWL 1-19S-30E	6707'	2/16/2000
Benson Delaware Unit #3W	Active oil well	9 5/8" J55/36# @ 480' Cmtd w/475sx C, circ to surf 5 1/2" J55/15.5# @ 5500' Cmtd 1stg 300sx C, 2stg 800sx, circ 81sx to surf	5/12/2001	1980' FSL & 2310' FEL	5500'	10/16/2002

Notice of Application for Fluid Injection Well Permit

Chi Operating, Inc., c/o Gary Womack 432-685-5001, P.O. Box 1799, Midland, TX 79702 is applying to the NMOCD for a permit for a Water Injection Well into a formation which is productive of oil and gas. The applicant proposes to drill a water Injection well into the Delaware. The proposed injection well is located in Section 1, T 19S, R 30E in, Eddy Co., NM. Fluid will be injected into strata in the subsurface depth interval from 4400 - 5200'.

Interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.

Chi Operating, Inc. is the leaseholder of AOR

Notices were sent to:

Intrepid Potash Inc.
707 17th Street
Ste. 4200
Denver, Co. 88202
Attn: Katie Keller
Cert # 7003 1680 0006 6222 3840

BLM
620 E. Greene
Carlsbad, NM 88220
Attn: Wesley Ingram
Cert # 7003 1680 0006 6222 3857

Well ID	Well Name	Well Number
300150458800	STATE 2	1 P&A 2590-2608-2866, 3080-90, 3185-3192
300150459600	HALE-USG	1 P&A
300153071500	Benson Delaware Unit	1 9/58 H55.36# @ 494 Cmtid w/275sx C, T-100sx C, Circ 170sx to surf 5 1/2 J55/15.5 @ 6707, Cmtid 1st stage 500sx C, 2 stg 500sx C, T-200 sx C
300153177800	Benson Delaware Unit	2 9/5/8 36# @ 483', cmt with 325 sx, T100sx, circ 180 sx @ 3182' 5 1/2 17# @ 5350' cmt 1stg 250sx, 2stg 157sx
300153179600	Benson Delaware Unit	3 D&A if this was every perfed in the zone, need a well bore
300153338000	Benson Delaware Unit	4 This info must be on another Table
300153372500	Benson Delaware Unit	5 9 5/8 J55/36# @ 525', cmtid 300sx C, circ 108sx to surf 5 1/2 J55/15.5 @ 5400', cmtid 1stg 200sx C, 2stg 750sx C, circ 199sx
300153388100	Benson Delaware Unit	6 9 5/8 J55/36# @ 510', Cmtid with 400 sx C, circ 20 sx to surf 5 1/2 17# J55 @ 5400', cmtid 1stg 375 sx C, Circ 20sx 730sx C, circ. 125sx
300153393300	Benson Delaware Unit	7 9 5/8 36# cmt with 200 sx, T100sx, T400sx, circ 60sx 5 1/2 15.5# @ 5366' cmt 1stg 450sx, circ 80sx, 2stg 500sx, T50sx, circ 10sx
300153429300	Benson Delaware Unit	9 9 5/8 J55/36# @ 497', cmtid w/275 sx C, T-100sx C, circ 1710sx to surf 5 1/2 J55/17# @ 5233', cmtid 1stg 400 sx C, circ 90sx; 2stg 1050sx C, T50sx, did not circ
300153481600	Benson Delaware Unit	8 9 5/8 J55/36# @ 519', cmt 200sx H, 300sx C 5 1/2 J55/17# @ 4078' 5 1/2 J55 15.5# @ 5258', cmt 1675sx C, circ to surf
300153508500	Benson Delaware Unit	10 13 5/8 J55/48# @ 511', cmt 500sx C, circ 60sx to surf 8 5/8 J55/24# @ 1910', cmt 505sx C, circ 65sx to surf 5 1/2 J55 15.5# @ 5351', cmt 1stg 300sx C, 2stg 1100sx C, Circ 187sx to surf
300153579100	Benson Delaware Unit	12 13 3/8 J55/48# @ 511', cmt 300 sx H, 200sx C T-100sx, circ 10sx to pit 8 5/8 J55/24# @ 2050', cmt 425sx C T200sx C, circ 165 to pit 5 1/2 J55/15.5# @ 5415', cmt 300sx C 325sx C/50C circ 30sx to pit
300153642500	Benson Delaware Unit	13 13 5/8 J55/18# @ 495", cmt 585sx C, (1"300sx) 8 5/8 J55/32# @ 3151', cmt 1628sx, circ 273sx to surf 5 1/2 P110/17# @ 8907', @ 3698' cmt 975sx, circ 60sx
300153733300	Benson Delaware Unit	14 13 5/8 J55/54.5# @ 494.49', cmt 500sx C, circ 225sx to surf 8 5/8 J55/32# @ 2045.20', cmt 800sx C, circ 98sx to surf 5 1/2 J55 15.5# @ 5230, cmt 1stg 300sx C, 2stg 400sx C, Circ 18sx to surf

300153798700 Benson Delaware Unit	21 13 5/8 J55/48# @505.63', cmt 500sx, circ 225sx 8 5/8 J55/32# @2068.70', cmt 800sx 5 1/2 J55 15.5# @ 5230, cmt @ 3698' 1stg 300sx, @ 5263.40' 2stg 500sx
300153221000 Benson Delaware Unit 3W	9 5/8 36# @ 480', cmt w/475sx, T-100sx, circ 160sx 5 1/2 17# @ 5500', cmt 1stg 300 sx, 2stg 800sx, circ 81sx
300150458700 State	1 P&A
300150458800 State	1 P&A
300150575600 Rubye	1 P&A
300152408100 Hale Fed	1 P&A
300152408200 Hale Fed	2 P&A
300152437500 Hale Fed	3 P&A
300153765200 Crescent Hale "1" F	1 INJ 13.375 H40 48# @ btm @ 553' cmt 520sx 9.625 K55 40# @ 3304' cmt 1515 sx 5.500 17# @ 13127 8671-9369, 9599-10297, 10526-11221, 11450-12145
300153190300 Land Rush 12 Fed	2 13 3/8 48# @475' cmt 300sx, T200sx, circ 164sx 8 5/8 32# @ 3210', cmt 1415sx plg dwn, did not circ 5 1/2 20/17# 1" w/400sx, circ. 8sx, 1450sx, circ. 54sx

Munchkin Federal #3
Benson Delaware Unit 3

Sec. 1-19S-30E
2230' FSL & 1750' FWL

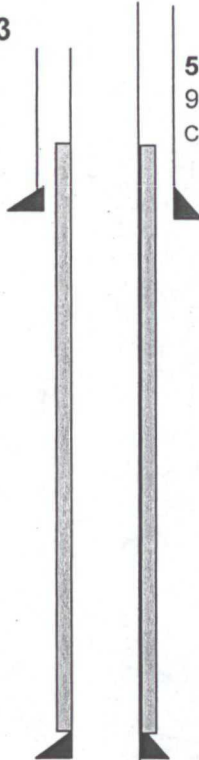
4th plug: 550-450'

3rd plug: 2078-1978'

2nd plug: 4105-4005'
45sks

1st plug: 6393-6293'
50sks

5th plug: 60-0'
9 5/8" 36# J55 @ 500'
Cmtd w/500sks & circ 100sks



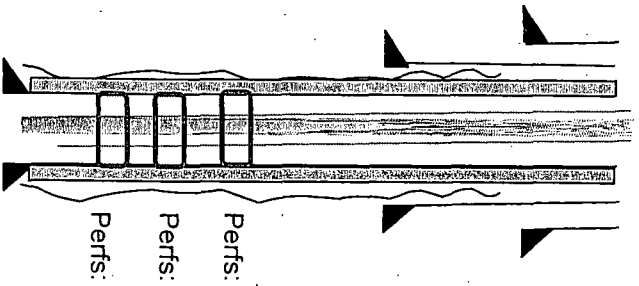
Benson Delaware Unit Federal No. 1

(current wellbore)

API # 30-015-30715

1060' FSL & 2210' FWL

Section 1, T19S R30E



2-7/8 6.5# lined injection tubing

9 5/8" 36# J55 @ 494'

Lead 275sx C, Tail 100sx C, circ 170sx, cmt at surface

5-1/2" 15.5# J55 @ 6707"

1stlg 500sx C(TTOC 4170); 2stlg Lead-500sx C, Tail-200sx C(TTOC 330')

DV Tool @ 3479'

4725-4740 (2sp)

4922-41; 4954-74' (2sp)

5086-5122' (2 sp) 72 holes

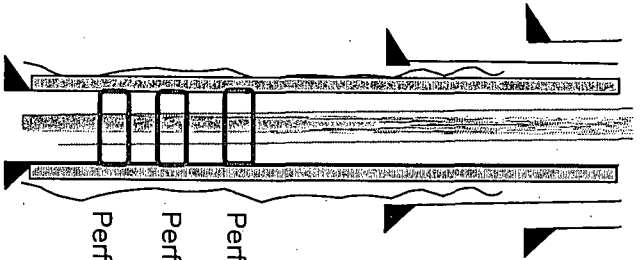
Benson Delaware Unit Federal No. 4

(current wellbore)

API # 30-015-31779

330' FNL & 1980' FWL

Section 12, T19S R30E



2-7/8 6.5# lined injection tubing

9 5/8" 36/48# J55 @ 506'

450sx C, circ 300sx to surface

5-1/2" 17# J55 @ 5526"

1stg 400sx C, circ 63sx; 2stg 650sx C, circ 53sx to surface

TOC @ surface

DV Tool @ 3921'

Perfs: 4806-10'; 4818-30'; 4831-56' (2sp)

Perfs: 4940-45'; 4952-62' (2sp)

Perfs: 5030-45'; 5010-16' (2 sp)

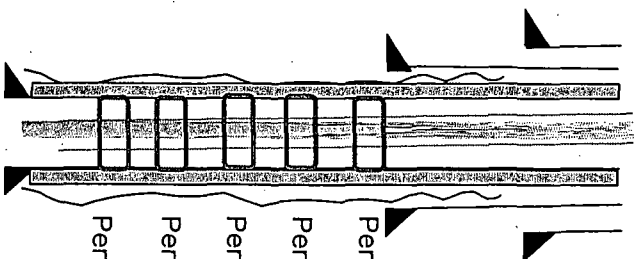
Benson Delaware Unit Federal No. 5

(current wellbore)

API # 30-015-33725

1700' FNL & 1980' FWL

Section 12, T19S R30E



2-7/8 6.5# lined injection tubing

9 5/8" 36# J55 @ 525'

300sx C, circ 108sx, cmt at surface

5-1/2" 15.5# J55 @ 5400"

1stg 200sx C, 2stg 750sx C; circ 199x

TOC @ 1450'

DV Tool @ 4242'

4605-10; 4618-21'(2sp)

Perfs: 4653-58' (1sp)

Perfs: 4844-39; 4835-33; 4821-20; 4802-01; 4797-94' (1sp)

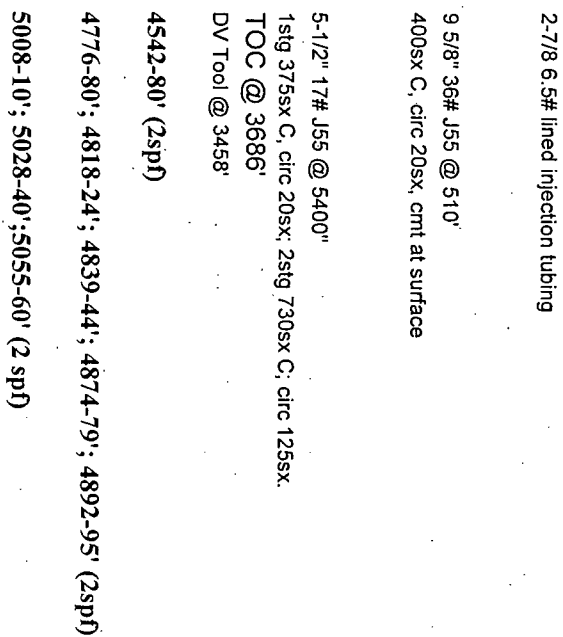
Perfs: 4955-60; 4965-72; 5006-08; 5012-15' (2sp)

Perfs: 5053-58; 5036-44' (2 sp)

(current wellbore)

660' FNL & 810' FWL

Section 12, T19S R30E



Benson Delaware Unit No. 8

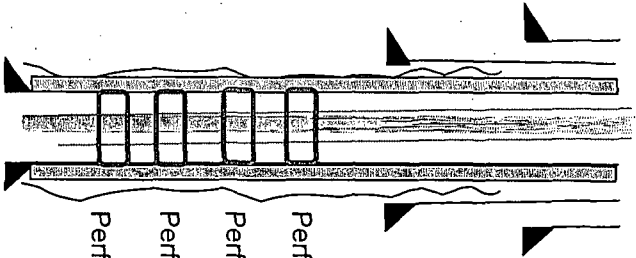
(current wellbore)

API # 30-015-34816

SHL: 2500' FNL & 660' FWL

BHL: 1980' FNL & 660' FWL

Section 121, T19S R30E



2-7/8 6.5# lined injection tubing

9 5/8" 36# J55 @ 519'

200sx H, 300sx C, didn't circ

5-1/2" 17# J55 @ 4078', 15.5# J55 @ 5258'

1stg 300sx C, 2stg 1100sx C; circ 187sx, to surface

TOC @ surface

DV Tool @ 3688'

Perfs: 4600-4606; 4618-25' (4spf)

Perfs: 4700, 4795, 4797, 4803, 4804, 4814' (2spf)

Perfs: 4825, 4831, 4832, 4836, 4838, 4846, 4847, 4851, 4852' (2spf)

Perfs: 5002-5035' (2 spf)

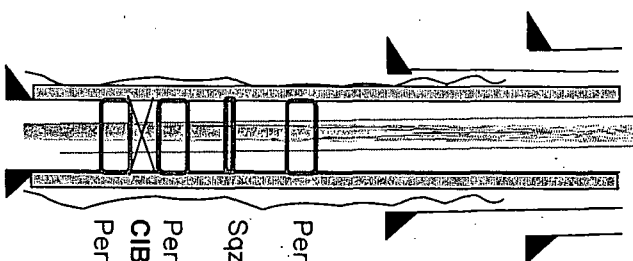
Benson Delaware Unit No. 9

(current wellbore)

API # 30-015-34293

990' FNL & 300' FEL

Section 11, T19S R30E



2-7/8 6.5# lined injection tubing

9 5/8" 36# J55 @ 49'

375sx C, circ 129sx, cmt at surface

5-1/2" 17# J55 @ 523"

1stg 400sx C, circ 90sx; 2stg Lead 1050sx C, Tail 50sx; didn't circ.

TOC @ 600'

DV Tool @ 3675'

Perfs: 4488-4510' (2spf)

Sqzd Perfs: 4567-88'

Perfs: 4826-38'; 4850-60 (2spf)

CIBP: 5000'

Perfs: 5092,5091,5075,5074,5073,5072,5065,5064,5060,5059,5043,5035' (2 spf)

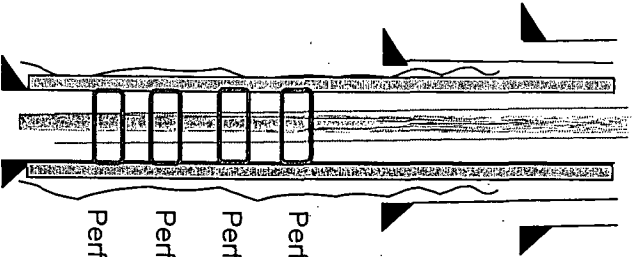
Benson Delaware Unit No. 10

(current wellbore)

API # 30-015-35085

2200' FNL & 330' FEL

Section 11, T19S R30E



2-7/8 6.5# lined injection tubing

9 5/8" 36# J55 @ 519'

200sx H, 300sx C, didn't circ

5-1/2" 17# J55 @ 4078", 15.5# J55 @ 5258'

1stg 300sx C, 2stg 1100sx C; circ 187sx, to surface

TOC @ surface

DV Tool @ 3711'

Perfs: 4600-4606; 4618-25' (4sp)

Perfs: 4700, 4795, 4797, 4803, 4804, 4814' (2sp)

Perfs: 4825, 4831, 4832, 4836, 4838, 4846, 4847, 4851, 4852' (2sp)

Perfs: 5002-5035' (2 sp)

Benson Delaware Unit 12
(existing wellbore)

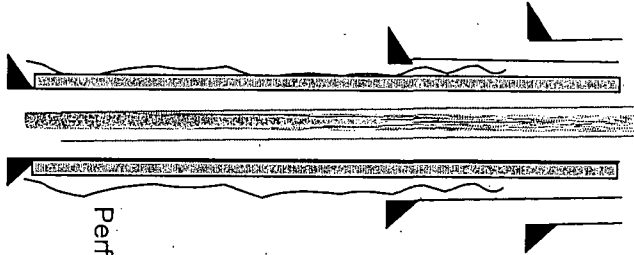
API # 30-015-35791

2547' FNL & 519 FWL

Section 12, T19S R30E

DV tool @ 3700'

5-1/2" 15.5# J55 @ 5,415'
Cmt to Surface



Perts:

13-3/8" 48# J55 @ 511'
cmt at surface (circ)

8-5/8" 24# J55 @ 2051'
cmt at surface (circ)

4870-88' (2 sfp), 4590-4604', 4613-4615' (2 spf)
4494-4515 (2 spf)

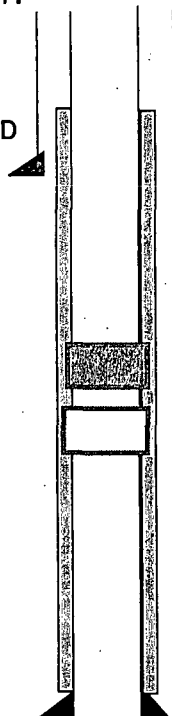
Benson Delaware Unit #7

Sec. 12-19S-30E

SHL: 2475' FNL & 2310' FWL

BHL: 1980' FSL & 1980' FWL

TEMPORARILY ABANDONED



12 1/4" csg @ 526' w/600sx H&C

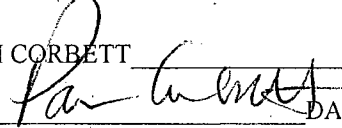
RBP @ 4900'

PERFS: 4993-5000

5 1/2" csg @ 5366' MD & 5228' TVD W/1000sx C

PBTD: 5434'

APPLICATION FOR AUTHORIZATION TO INJECT

- I. PURPOSE: ☒ Secondary Recovery ☐ Pressure Maintenance ☒ Disposal ☐ Storage
Application qualifies for administrative approval? ☐ Yes ☐ No
- II. OPERATOR: CHI Operating, Inc.
ADDRESS: P.O. Box 1799 Midland, TX 79701
CONTACT PARTY: _____ PHONE: _____
- III. WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection.
Additional sheets may be attached if necessary.
- IV. Is this an expansion of an existing project? ☒ Yes ☐ No
If yes, give the Division order number authorizing the project: NM126412X Order R-123262
- V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.
- VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.
- VII. Attach data on the proposed operation, including:
1. Proposed average and maximum daily rate and volume of fluids to be injected;
 2. Whether the system is open or closed;
 3. Proposed average and maximum injection pressure;
 4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,
 5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).
- *VIII. Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.
- IX. Describe the proposed stimulation program, if any.
- *X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).
- *XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.
- XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.
- XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.
- XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.
- NAME: PAM CORBETT TITLE: REGULATORY CLERK
SIGNATURE:  DATE: 1/17/12
E-MAIL ADDRESS: pamc@chienergyinc.com
- * If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal: _____

III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

- (1) Lease name; Well No.; Location by Section, Township and Range; and footage location within the section.
- (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.
- (3) A description of the tubing to be used including its size, lining material, and setting depth.
- (4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District Offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

- (1) The name of the injection formation and, if applicable, the field or pool name.
- (2) The injection interval and whether it is perforated or open-hole.
- (3) State if the well was drilled for injection or, if not, the original purpose of the well.
- (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
- (5) Give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

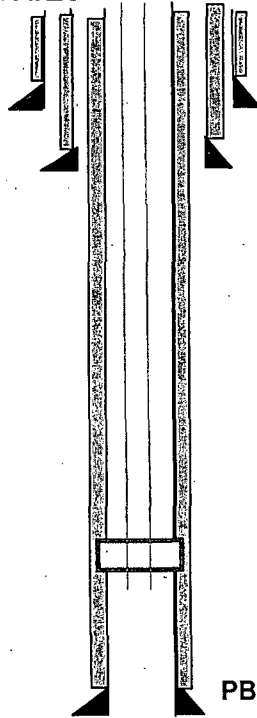
- (1) The name, address, phone number, and contact party for the applicant;
- (2) The intended purpose of the injection well; with the exact location of single wells or the Section, Township, and Range location of multiple wells;
- (3) The formation name and depth with expected maximum injection rates and pressures; and,
- (4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

Benson Delaware Unit #20

Sec. 12-19S-30E
1250' FNL & 350' FWL
Eddy County, NM
API# 30-015-38299



2.875 6.5# IPC @ 4450'

5.5 x 2.875 Inj Pkr @ 4450'
(Baker Retrieval D)

PBTD: 5168'

17-1/2" hole
13-3/8" 54.5# J55 STC csg @ 477' w/500 sx (circ)

12-1/4" hole
8-5/8" 36# STC csg @ 2065' w/785sx (circ)

Perfs:

Zone 1: 5064-5093', 5040-5052', 4992-5051' (2 spf)

Zone 2: 4884-4905', 4828-4872', 4784-4804' (2 spf)

Zone 3: 4501-4532', 4551-4560', 4580-4590', 4550-4560',
4580-4590', 4610-4622', 4652-4680'

7-7/8" hole
5 1/2" 15.5# LTC csg @ 5250" W/700sx (c

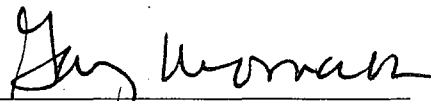
C108 Application
CHI Operating, Inc.
(Benson Delaware) Unit #20
API # 30-015-38299 1250' FNL & 350' FWL
Section 1, T-19S-30E, Eddy County, New Mexico

- I. The purpose of the application is to request approval to convert the Benson Delaware Unit #20 to a produced water injection well in the Delaware formation.
- II. CHI Operating, Inc.
c/o P.O. Box 1799
Midland, Texas 79702
Contact: Gary Womack, Engineer
- III. Injection well data sheet is attached. In addition, wellbore schematic diagrams are attached showing the current and proposed wellbore configurations.
- IV. This is an expansion of an existing project.
- V. A map showing all wells/leases within a 2-mile radius of the Benson Delaware Unit #20 is attached. Also attached is a map showing all wells within a ½ mile radius of the Benson Delaware Unit #20.
- VI. Area of review well data is attached. Shown on the Table are existing wells within the AOR, that penetrated the proposed injection zone and all are operated by CHI Operating, Inc. These wells are adequately cased and cemented so as to preclude the migration of injected fluid from the proposed injection interval.

- VII. 1. The average injection rate is anticipated to be approx. 400 BWPD.
2. This will be a closed system.
3. The proposed average and maximum injection pressure will be 900#.
4. Produced water from the Delaware formation originating from wells that CHI Operating, Inc. operates in this area will be injected into the subject well.
5. N/A
- VIII. Geological Data
1. Lithologic Detail; Sandstone
2. Geological Name; Benson Delaware
3. Thickness; 800'
4. Depth; 4500-5100' ✓
- IX. The proposed stimulation program will be 5000gal Acid, 30,000# Sand.
- X. Logs
- XI. There are no fresh water wells within 1 mile of the injection well.
- XII. We have examined the available geologic and engineering data and find no evidence of open faults or any other hydraulic connection between the disposal zone and any underground source of drinking water.
- XIII. Proof of notice is attached.

Chi Operating, Inc.

Date: 12/27/11


Gary Womack, Engineer

INJECTION WELL DATA SHEET

OPERATOR: _____ CHI Operating, Inc. _____

WELL NAME & NUMBER: _____ Benson Delaware Unit #20 _____

WELL LOCATION: _____ 1250' FNL & 350' FWL _____ UNIT LETTER _____ SECTION _____ TOWNSHIP _____ RANGE _____
FOOTAGE LOCATIONWELLBORE SCHEMATICWELL CONSTRUCTION DATASurface CasingHole Size: _____ 17 1/2" _____ Casing Size: _____ 13 3/8" 48# J-55
Cemented with: _____ 627 _____ sx. _____ or _____ ft³
Top of Cement: _____ SURF _____ Method Determined: _____ CIRC _____Intermediate CasingHole Size: _____ 11" _____ Casing Size: _____ 8 5/8 "32# K-55 _____
Cemented with: _____ 785 _____ sx. _____ or _____ ft³
Top of Cement: _____ Surf _____ Method Determined: _____ Circ _____Production CasingHole Size: _____ 7 7/8" _____ Casing Size: _____ 5 1/2" _____
Cemented with: _____ 610 _____ sx. _____ or _____ ft³
Top of Cement: _____ Surf _____ Method Determined: _____ Circ _____

Total Depth: _____

Injection Interval4500 ✓
_____ feet to 5100'

(Perforated or Open Hole; indicate which)

INJECTION WELL DATA SHEETTubing Size: 2 7/8 Lining Material: Internal Plastic CoatedType of Packer: Baker Retrieval DPacker Setting Depth: 4450'Other Type of Tubing/Casing Seal (if applicable): N/AAdditional Data1. Is this a new well drilled for injection? X Yes NoIf no, for what purpose was the well originally drilled? 2. Name of the Injection Formation: Delaware3. Name of Field or Pool (if applicable): Benson Delaware Unit 4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. NO5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: Queen 2956' - LowerBone Spring 7829' - TopWolfcamp 9850' - TopMorrow 10,995 - Top

Notice of Application for Fluid Injection Well Permit

Chi Operating, Inc., c/o Gary Womack 432-685-5001, P.O. Box 1799, Midland, TX 79702 is applying to the NMOCD for a permit for a Water Injection Well into a formation which is productive of oil and gas. The applicant proposes to drill a water Injection well into the Delaware. The proposed injection well is located in Section 12, T19S, R30E in, Eddy Co., NM. Fluid will be injected into strata in the subsurface depth interval from 4500'-5100'.

Interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.

Chi Operating, Inc. is the leaseholder of AOR

Notices were sent to:

Intrepid Potash Inc.
707 17th Street
Ste. 4200
Denver, Co. 88202
Attn: Katie Keller
Cert # 7003 1680 0006 6222 3840

BLM
620 E. Greene
Carlsbad, NM 88220
Attn: Wesley Ingram
Cert # 7003 1680 0006 6222 3857

Well ID	Well Name	Well Number
300150458800	STATE 2	1 P&A 2590-2608-2866, 3080-90, 3185-3192
300150459600	HALE-USG	1 P&A
300153071500	Benson Delaware Unit	1 9/58 H55.36# @ 494 Cmtd w/275sx C, T-100sx C, Circ 170sx to surf 5 1/2 J55/15.5 @6707', Cmtd 1st stage 500sx C, 2 stg 500sx C, T-200 sx C
300153177800	Benson Delaware Unit	2 9/5/8 36# @483', cmt with 325 sx, T100sx, circ 180 sx @ 3182' 5 1/2 17# @ 5350' cmt 1stg 250sx, 2stg 157sx
300153179600	Benson Delaware Unit	3 D&A if this was every perfed in the zone, need a well bore
300153338000	Benson Delaware Unit	4 This info must be on another Table
300153372500	Benson Delaware Unit	5 9/5/8 J55/36# @525', cmtd 300sx C, circ 108sx to surf 5 1/2 J55/15.5 @ 5400', cmtd 1stg 200sx C, 2stg 750sx C, circ 199sx
300153388100	Benson Delaware Unit	6 9/5/8 J55/36# @ 510', Cmtd with 400 sx C, circ 20 sx to surf 5 1/2 17# J55 @ 5400', cmtd 1stg 375 sx C, Circ 20sx 730sx C, circ. 125sx
300153393300	Benson Delaware Unit	7 9/5/8 36# cmt with 200 sx, T100sx, T400sx, circ 60sx 5 1/2 15.5# @ 5366' cmt 1stg 450sx, circ 80sx, 2stg 500sx, T50sx, circ 10sx
300153429300	Benson Delaware Unit	9 9/5/8 J55/36# @ 497', cmtd w/275 sx C, T-100sx C, circ 1710sx to surf 5 1/2 J55/17# @ 5233', cmtd 1stg 400 sx C, circ 90sx; 2stg 1050sx C, T50sx, did not circ
300153481600	Benson Delaware Unit	8 9/5/8 J55/36# @519', cmt 200sx H, 300sx C 5 1/2 J55/17# @4078' 5 1/2 J55 15.5# @ 5258', cmt 1675sx C, circ to surf
300153508500	Benson Delaware Unit	10 13/5/8 J55/48# @511', cmt 500sx C, circ 60sx to surf 8 5/8 J55/24# @1910', cmt 505sx C, circ 65sx to surf 5 1/2 J55 15.5# @ 5351', cmt 1stg 300sx C, 2stg 1100sx C, Circ 187sx to surf
300153579100	Benson Delaware Unit	12 13/3/8 J55/48# @ 511', cmt 300 sx H, 200sx C T-100sx, circ 10sx to pit 8 5/8 J55/24# @ 2050', cmt 425sx C T200sx C, circ 165 to pit 5 1/2 J55/15.5# @ 5415', cmt 300sx C 325sx C/50C circ 30sx to pit
300153642500	Benson Delaware Unit	13 13/5/8 J55/18# @495', cmt 585sx C, (1"300sx) 8 5/8 J55/32# @3151', cmt 1628sx, circ 273sx to surf 5 1/2 P110/17# @ 8907', @ 3698' cmt 975sx, circ 60sx
300153733300	Benson Delaware Unit	14 13/5/8 J55/54.5# @494.49', cmt 500sx C, circ 225sx to surf 8 5/8 J55/32# @2045.20', cmt 800sx C, circ 98sx to surf 5 1/2 J55 15.5# @ 5230, cmt 1stg 300sx C, 2stg 400sx C, Circ 18sx to surf

300153798700 Benson Delaware Unit	21 13 5/8 J55/48# @505.63', cmt 500sxc, circ 225sx 8 5/8 J55/32# @2068.70', cmt 800sxc 5 1/2 J55 15.5# @ 5230, cmt @ 3698' 1stg 300sxc, @ 5263.40' 2stg 500sxc
300153221000 Benson Delaware Unit 3W	9 5/8 36# @ 480', cmt d w/475sx, T-100sxc, circ 160sx 5 1/2 17# @ 5500', cmt d 1stg 300 sx, 2stg 800sx, circ 81sx
300150458700 State	1 P&A
300150458800 State	1 P&A
300150575600 Rubye	1 P&A
300152408100 Hale Fed	1 P&A
300152408200 Hale Fed	2 P&A
300152437500 Hale Fed	3 P&A
300153765200 Crescent Hale "1" F	1 INJ 13.375 H40 48# @ btm @ 553' cmt 520sx 9.625 K55 40# @ 3304' cmt 1515 sx 5.500 17# @ 13127 8671-9369, 9599-10297, 10526-11221, 11450-12145
300153190300 Land Rush 12 Fed	2 13 3/8 48# @475' cmt 300sx, T200sx, circ 164sx 8 5/8 32# @ 3210', cmt 1415sx plg dwn, did not circ 5 1/2 20/17# 1" w/400sx, circ. 8sx, 1450sx, circ. 54sx

Munchkin Federal #3
Benson Delaware Unit 3

Sec. 1-19S-30E
2230' FSL & 1750' FWL

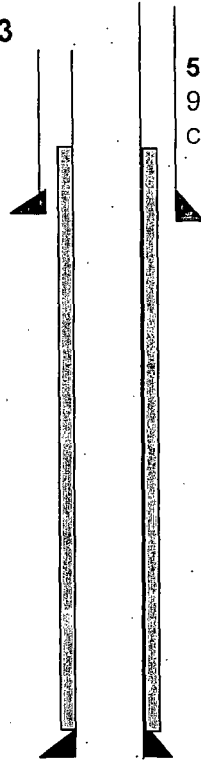
4th plug: 550-450'

3rd plug: 2078-1978'

2nd plug: 4105-4005'
45sks

1st plug: 6393-6293'
50sks

5th plug: 60-0'
9 5/8" 36# J55 @ 500'
Cmtd w/500sks & circ 100sks



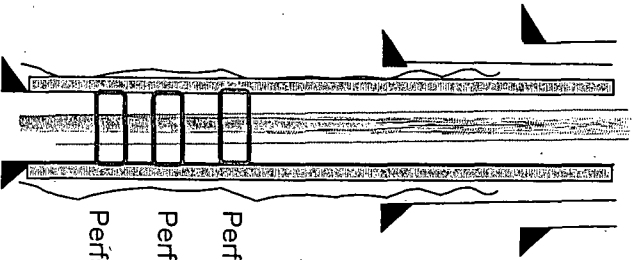
Benson Delaware Unit Federal No. 1

(current wellbore)

API # 30-015-30715

1060' FSL & 2210' FWL

Section 1, T19S R30E



2-7/8 6.5# lined injection tubing

9 5/8" 36# J55 @ 494'

Lead 275sx C, Tail 100sx C, circ 170sx, cnt at surface

5-1/2" 15.5# J55 @ 6707"

1stlg 500sx C(TOC 4170); 2stlg Lead-500sx C, Tail-200sx C(TOC 330')

DV Tool @ 3479'

Perfs: 4725-4740 (2sp)

Perfs: 4922-41; 4954-74' (2sp)

Perfs: 5086-5122' (2 sp) 72 holes

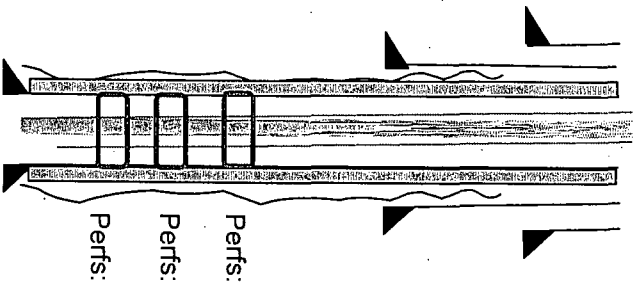
Benson Delaware Unit Federal No. 4

(current wellbore)

API # 30-015-31779

330' FNL & 1980' FWL

Section 12, T19S R30E



2-7/8 6.5# lined injection tubing

9 5/8" 36/48# J55 @ 506'

450sx C, circ 300sx to surface

5-1/2" 17# J55 @ 5526"

1stlg 400sx C, circ 63sx; 2stlg 650sx C, circ 53sx to surface

TOC @ surface

DV Tool @ 3921'

4806-10'; 4818-30'; 4831-56' (2spf)

4940-45'; 4952-62' (2spf)

5030-45'; 5010-16' (2 spf)

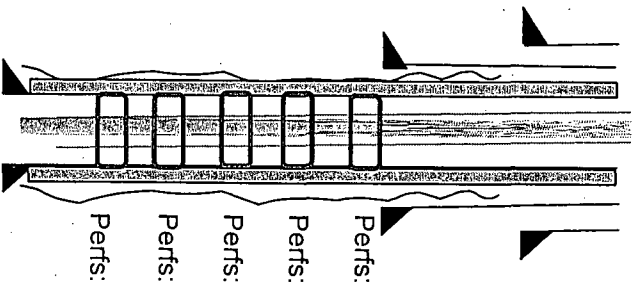
Benson Delaware Unit Federal No. 5

(current wellbore)

API # 30-015-33725

1700' FNL & 1980' FWL

Section 12, T19S R30E



2-7/8 6.5# lined injection tubing

9 5/8" 36# J55 @ 525'

300sx C, circ 108sx, cmt at surface

5-1/2" 15.5# J55 @ 5400"

1stg 200sx C, 2stg 750sx C; circ 199x

TOC @ 1450'

DV Tool @ 4242'

4605-10; 4618-21' (2sp)

4653-58' (1sp)

4844-39; 4835-33; 4821-20; 4802-01; 4797-94' (1sp)

4955-60'; 4965-72'; 5006-08'; 5012-15' (2sp)

5053-58'; 5036-44' (2 sp)

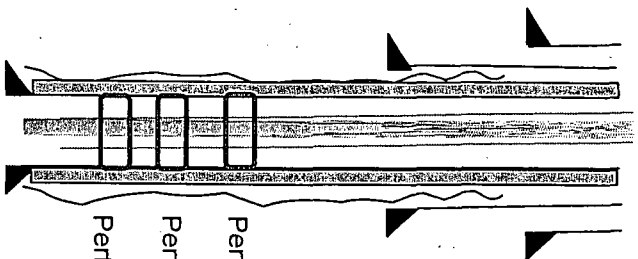
Benson Delaware Unit No. 6

(current wellbore)

API # 30-015-33881

660' FNL & 810' FWL

Section 12, T19S R30E



2-7/8 6.5# lined injection tubing

9 5/8" 36# J55 @ 510'

400sx C, circ 20sx, cmt at surface

5-1/2" 17# J55 @ 5400"

1stg 375sx C, circ 20sx; 2stg 730sx C, circ 125sx.

TOC @ 3686'

DV Tool @ 3458'

Perfs: 4542-80' (2sp)

Perfs: 4776-80'; 4818-24'; 4839-44'; 4874-79'; 4892-95' (2sp)

Perfs: 5008-10'; 5028-40'; 5055-60' (2 sp)

Benson Delaware Unit No. 8

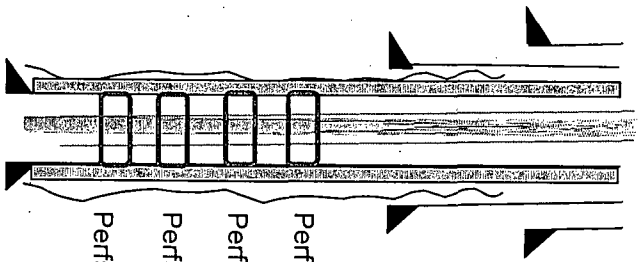
(current wellbore)

API # 30-015-34816

SHL: 2500' FNL & 660' FWL

BHL: 1980' FNL & 660' FWL

Section 121, T19S R30E



2-7/8 6.5# lined injection tubing

9 5/8" 36# J55 @ 519'

200sx H, 300sx C, didn't circ

5-1/2" 17# J55 @ 4078', 15.5# J55 @ 5258'

1stg 300sx C, 2stg 1100sx C; circ 187sx, to surface

TOC @ surface

DV Tool @ 3688'

Perfs: 4600-4606; 4618-25' (4spf)

Perfs: 4700, 4795, 4797, 4803, 4804, 4814' (2spf)

Perfs: 4825, 4831, 4832, 4836, 4838, 4846, 4847, 4851, 4852' (2spf)

Perfs: 5002-5035' (2 spf)

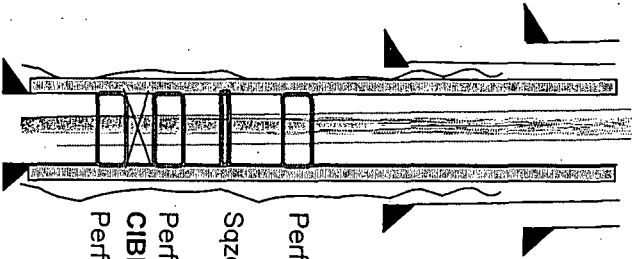
Benson Delaware Unit No. 9

(current wellbore)

API # 30-015-34293

990' FNL & 300' FEL

Section 11, T19S R30E



2-7/8 6.5# lined injection tubing

9 5/8" 36# J55 @ 497'

375sx C, circ 129sx, cmt at surface

5-1/2" 17# J55 @ 5233"

1stg 400sx C, circ 90sx; 2stg Lead 1050sx C, Tail 50sx; didn't circ.

TOC @ 600'

DV Tool @ 3675'

Perfs: 4488-4510' (2sp)

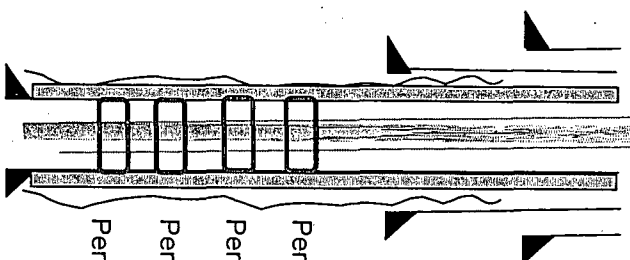
Sqzd Perfs: 4567-88'

Perfs: 4826-38'; 4850-60 (2sp)

CIBP: 5000'

Perfs: 5092,5091,5075,5074,5073,5072,5065,5064,5060,5059,5043,5035' (2 sp)

Benson Delaware Unit No. 10
 (current wellbore)
 API # 30-015-35085
 2200' FNL & 330' FEL
 Section 11, T19S R30E



2-7/8 6.5# lined injection tubing

9 5/8" 36# J55 @ 519'
 200sx H, 300sx C, didn't circ

5-1/2" 17# J55 @ 4078", 15.5# J55 @ 5258'
 1sig 300sx C, 2sig 1100sx C; circ 187sx, to surface
 TOC @ surface
 DV Tool @ 3711'

Perfs: 4600-4606; 4618-25' (4sp)

Perfs: 4700, 4795, 4797, 4803, 4804, 4814' (2sp)

Perfs: 4825, 4831, 4832, 4836, 4838, 4846, 4847, 4851, 4852' (2sp)

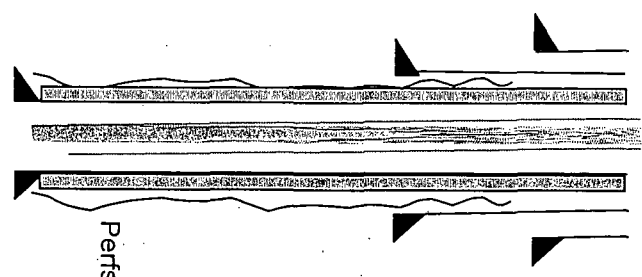
Perfs: 5002-5035' (2 sp)

Benson Delaware Unit 12
(existing wellbore)

API # 30-015-35791
2547' FNL & 519 FWL
Section 12, T19S R30E

DV tool @ 3700'

5-1/2" 15.5# J55 @ 5,415'
Cmt to Surface



13-3/8" 48# J55 @ 511'
cmt at surface (circ)

8-5/8" 24# J55 @ 2051'
cmt at surface (circ)

Perfs:
4870-88' (2 spf), 4590-4604', 4613-4615' (2 spf)
4494-4515 (2 spf)

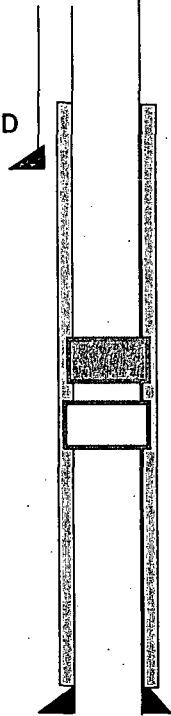
Benson Delaware Unit #7

Sec. 12-19S-30E

SHL: 2475' FNL & 2310' FWL

BHL: 1980' FSL & 1980' FWL

TEMPORARILY ABANDONED



12 1/4" csg @ 526' w/600sx H&C

RBP @ 4900'

PERFS: 4993-5000

5 1/2" csg @ 5366' MD & 5228' TVD W/1000sx C

PBTD: 5434'