Protested

SWD

Application

By Chap Exploration, LLC
and Amtex Energy, Inc
on 3/12/2020

Engineer, OCD, EMNRD

From: Engineer, OCD, EMNRD
Sent: Wednesday, March 18, 2020 3:51 PM
To: 'Chris Weyand'
Subject: Protested Application_ Prairie Sandreed Fee SWD No.1_Chap Exploration and Amtex Energy
Attachments: 3.12.2020_Prairie Sandreed FeeNo. 1, App protest_Chap, Amtex 2.pdf

RE: Prairie Sandreed Fee SWD No.1 (API 30-25-Pending; Admin. Appl. No pBL2005137467) Unit A S22 T19S R35E, NMPM, Lea County

Mr. Weyand,

On 3/12/2020, OCD received an objection to your application from Chap Exploration, LLC and Amtex Energy, Inc ("Objectors"). Because of the protest, OCD will schedule your application for a hearing. You may want to contact the Objectors to determine if the objection can be resolved.

Objector contact information:

Nate Graham, RPL
Landman
Amtex Energy, Inc.
Office: 817-720-5225
Mobile: 214-784-5392
ngraham@amtexenergy.com

Regards,

Dylan Rose-Coss

Engineer, OCD, EMNRD

From: Nate Graham <ngraham@amtexenergy.com>
Sent: Thursday, March 12, 2020 1:58 PM
To: Engineer, OCD, EMNRD
Cc: Bill Savage; Tate Savage; Riley T. Swanston
Subject: [EXT] C-108 Protest - Prairie Sandreed Fee SWD No. 1 - Chap Exploration, LLC-Amtex Energy, Inc
Attachments: Prairie Sandreed Fee SWD No. 1 Authorization to Inject 3.2.2020.pdf; Delivery Date - C-108 Application-Notice - Chap Exploration, LLC.pdf

Ladies and Gentlemen,

Amtex Energy, Inc. and Chap Exploration, LLC is in receipt of a notice of application of authorization to inject (C-108) by Longquist & Co, LLC as Agent for Blackbuck Resources, LLC for its Prairie Sandreed Fee SWD No. 1.

Due to geological factors of this area and the potential injection damaging our productive acreage, Amtex Energy, Inc. and Chap Exploration, LLC are hereby protesting and objects to the Prairie Sandreed Fee SWD No. 1 C-108 Application.

Please notify myself of any further documentation needed to follow through with this protest. A hardcopy letter will be sent as a follow up to this e-mail.

Thank you,

Nate Graham, RPL
Landman
Amtex Energy, Inc.
Office: 817-720-5225
Mobile: 214-784-5392
ngraham@amtexenergy.com

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FAQs >

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MIDLAND, TX 79701

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FAQs

Longuist & CO LLC
1001 McKinney Street
Ste 1650
Houston, TX 77002

9314 8699 0430 0068 5701 29

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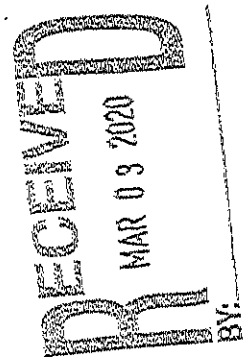


Total Postage: $6.85

CHAP EXPLORATION LLC
PO BOX 3445
SUITE 206
2158-PRAIRIE SANDREED FEE SWD #1
MIDLAND, TX 79702

Reference Number: 2158-PRAIRIE SANDREED FEE SWD #1

LONQUIST & CO. LLC

AUSTIN
HOUSTON

PETROLEUM ENGINEERS | ENERGY ADVISORS

WICHITA
CALGARY

www.lonquist.com

February 14, 2020

CHAP EXPLORATION LLC
P. O. BOX 3445
MIDLAND, TX 79702

Subject: **Prairie Sandreed Fee SWD No. 1 Authorization to Inject**

To Whom It May Concern:

Attached for your review is Form C-108, Application for Authorization to Inject, and its supplemental documents prepared for Blackbuck Resources LLC's Prairie Sandreed Fee SWD No. 1 well. Section XIV of Form C-108 requires that the surface land owner on which the well is located and each leasehold operator within a one-half mile radius of the proposed well location be furnished with the application. The notice of application has been extended to a one-mile radius.

According to the New Mexico Oil Conservation Division, surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date in which this application was mailed to them.

Any questions should be directed towards Blackbuck Resources LLC's agent, Lonquist & Co., LLC.

Regards,

Christopher B. Weyand
Staff Engineer
Lonquist & Co., LLC

(512) 600-1764
chris@lonquist.com

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

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

FORM C-108
Revised June 10, 2003

APPLICATION FOR AUTHORIZATION TO INJECT

I. PURPOSE: _____Secondary Recovery _____Pressure Maintenance ___X___Disposal _____Storage
Application qualifies for administrative approval? ___X___Yes _____No

II. OPERATOR: Blackbuck Resources, LLC

ADDRESS: 2601 Westheimer Rd, C210, Houston, TX, 77098

CONTACT PARTY: Barry Riley PHONE: 979-575-8802

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 ___X___No
If yes, give the Division order number authorizing the project: _____

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: Christopher Weyand TITLE: Consulting Engineer -- Agent for Blackbuck Resources

SIGNATURE: _____ DATE: 2/6/2020

E-MAIL ADDRESS: chris@lonquist.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

Side 2

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.

Side 1

INJECTION WELL DATA SHEET

OPERATOR: Blackbuck Resources, LLC

WELL NAME & NUMBER: Prairie Sandreed Fee SWD No. 1

WELL LOCATION: 1,000' FNL 200' FEL (FOOTAGE LOCATION) | A (UNIT LETTER) | 22 (SECTION) | 19S (TOWNSHIP) | 35E (RANGE)

WELLBORE SCHEMATIC

WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 26"

Cemented with: 3,884 sks

Top of Cement: surface

Casing Size: 20"

or _____ ft³

Method Determined: circulation

Intermediate Casing

Hole Size: 17-1/2"

Cemented with: 2,430 sks

Top of Cement: surface

Casing Size: 13-3/8"

or _____ ft³

Method Determined: circulation

Production Casing

Hole Size: 12-1/4"

Cemented with: 2,126 sks

Top of Cement: surface

Casing Size: 9-5/8"

or _____ ft³

Method Determined: circulation

Liner

Hole Size: 8-1/2"

Cemented with: 309 sks

Top of Cement: 9,613'

Total Depth: 15,388'

Casing Size: 7-5/8"

or _____ ft³

Method Determined: calculation

Injection Interval

13,588 feet to 15,388 feet

(Open Hole)

Side 2

INJECTION WELL DATA SHEET

Tubing Size: 5.5", 23 lb/ft, P-110, UFJ from 0'- 13,538'
Lining Material: Duoline

Type of Packer: 7-5/8" x 5-1/2" Permanent Packer with High Temp Elastomer and Full Inconel 925 trim
Packer Setting Depth: 13,538'

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

Additional 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: Devonian, Silurian, Fusselman

3. Name of Field or Pool (if applicable): SWD; Devonian-Silurian 97869

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, new drill.

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:

   Delaware Mountain Group: 5,696'
   Bone Spring: 7,557'
   Wolfcamp: 9,913'
   Strawn: 11,411'

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-101
Revised July 18, 2013

☐ AMENDED REPORT

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

1. Operator Name and Address	2. OGRID Number
BLACKBUCK RESOURCES, LLC 2601 WESTHEIMER RD, C210 HOUSTON, TX 77098	373619
	3. API Number 30-025-

4. Property Code	5. Property Name	6. Well No.
	PRAIRIE SANDREED FEE SWD	1

7. Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
A	22	19S	35E		1,000	N	200	E	LEA

8. Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
	-	-	-		-	-	-	-	-

9. Pool Information

Pool Name	Pool Code
SWD; DEVONIAN-SILURIAN	97869

Additional Well Information

11. Work Type	12. Well Type	13. Cable/Rotary	14. Lease Type	15. Ground Level Elevation
N	SWD	R	Private	3,768.5'
16. Multiple	**17. Proposed Depth**	**18. Formation**	**19. Contractor**	**20. Spud Date**
N	15,388'	Devonian-Silurian	TBD	ASAP

Depth to Ground water	Distance from nearest fresh water well	Distance to nearest surface water
22'	2,718'	> 1 mile

☒ We will be using a closed-loop system in lieu of lined pits

21. Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surface	26"	20"	94 lb/ft	1,670'	3,884	Surface
Intermediate	17-1/2"	13-3/8"	68 lb/ft	5,696'	2,430	Surface
Production	12-1/4"	9-5/8"	53.5 lb/ft	9,913'	2,126	Surface
Liner	8-1/2"	7-5/8"	39 lb/ft	9,613' – 13,588'	309	9,613'

Casing/Cement Program: Additional Comments

See attached schematic.

22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Double Hydraulic/Blinds, Pipe	8,000 psi	10,000 psi	TBD – Schaffer/Cameron

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify that I have complied with 19.15.14.9 (A) NMAC ☐ and/or 19.15.14.9 (B) NMAC ☒, if applicable. Signature:		OIL CONSERVATION DIVISION	
		Approved By:	
Printed name: Chris Weyand		Title:	
Title: Consulting Engineer		Approved Date:	Expiration Date:
E-mail Address: chris@lonquist.com			
Date: February 7, 2020	Phone: 512-600-1764	Conditions of Approval Attached	

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St Francis Dr., NM 87505
Phone: (505) 476-3460 Fax (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate District Office
☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
	97869	SWD; Silurian-Devonian

[4] Property Code	[5] Property Name	[6] Well Number
	PRAIRIE SANDREED FEE SWD	#1

[7] OGRID No.	[8] Operator Name	[9] Elevation
308339	BLACKBUCK RESOURCES	3768.5'

[10] Surface Location

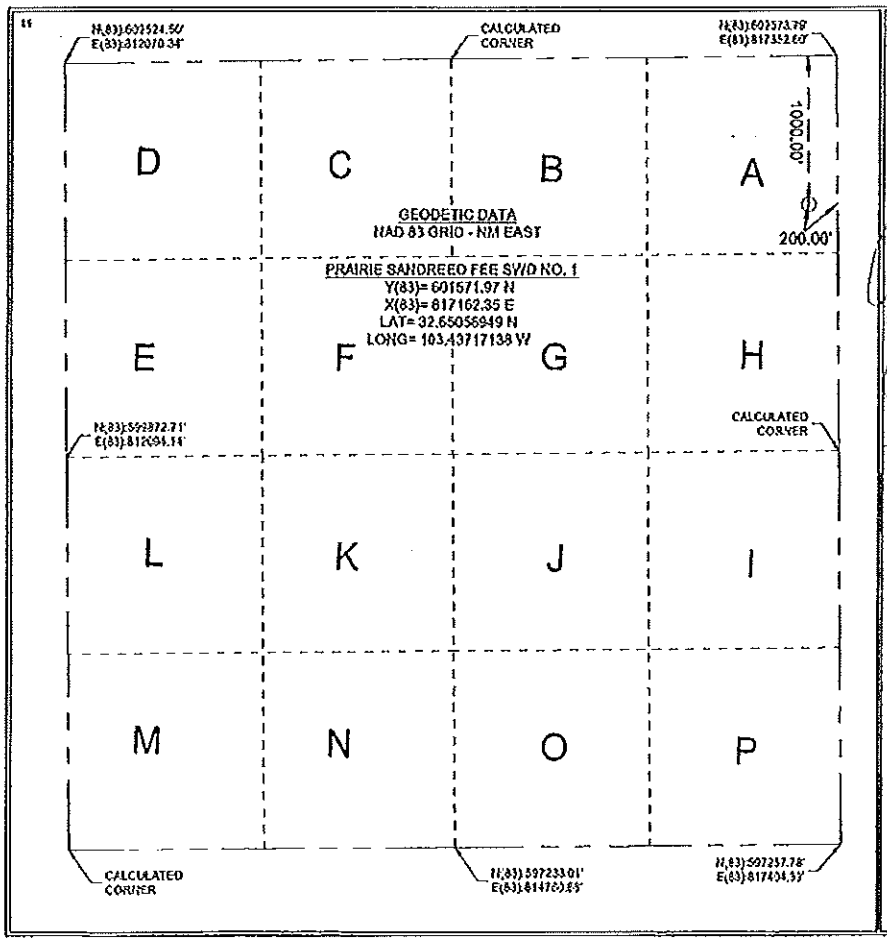
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	22	19 S	35 E		1000	NORTH	200	EAST	LEA

[11] Bottom Hole Location If Different From Surface

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

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.

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



[16] OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature — Date: 2/7/2020

Chris Wellard
Printed Name — Date

Chris@Longuist.com
Email Address — Date

[17] SURVEYOR CERTIFICATION

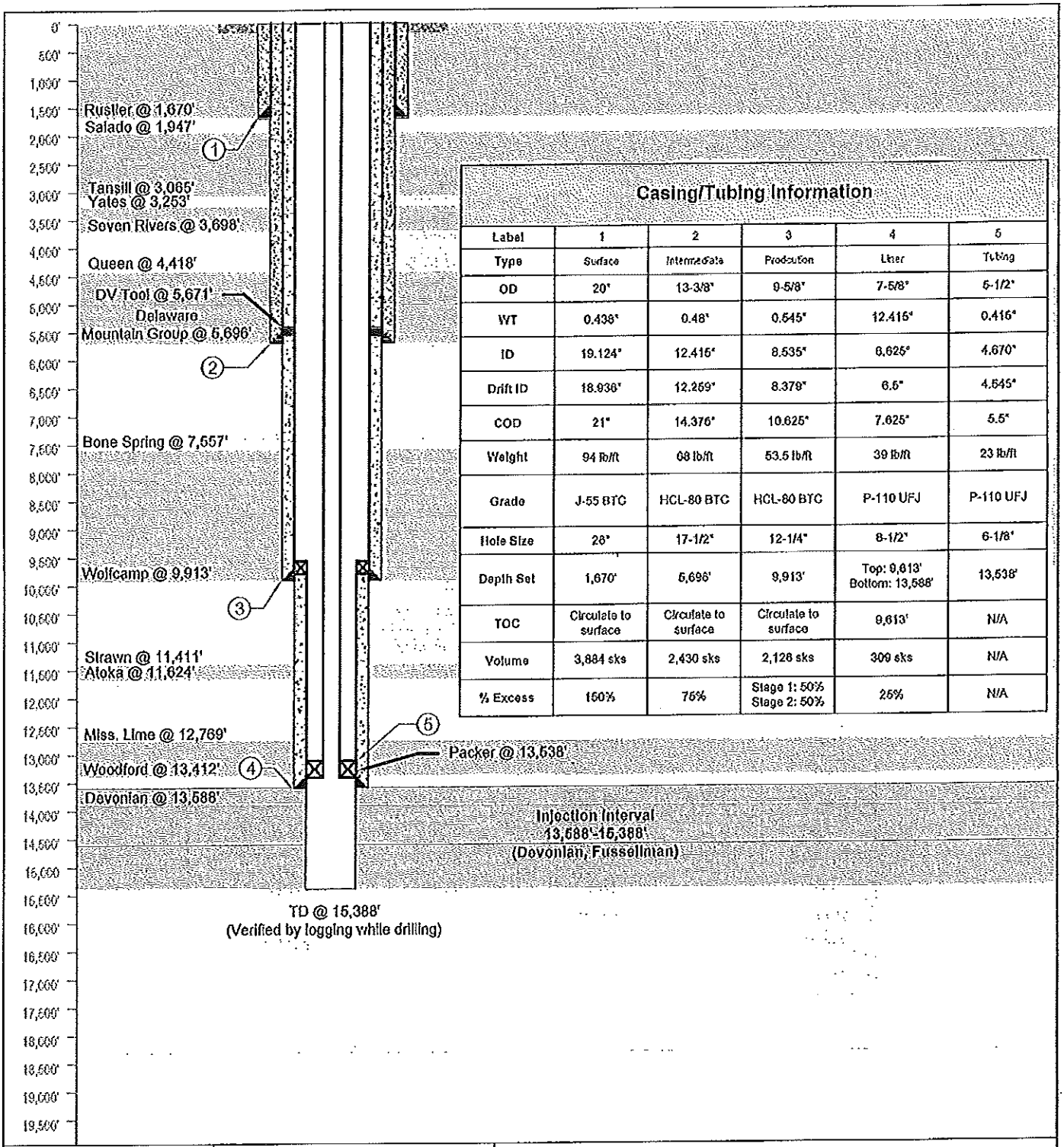
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

09/24/2019
Date of Survey — Date

Signature and Seal of Professional Surveyor:

GARRETT J SMELKER
NEW MEXICO
25036
01/13/2020
PROFESSIONAL SURVEYOR

Certificate Number



Casing/Tubing Information

Label	1	2	3	4	5
Type	Surface	Intermediate	Production	Liner	Tubing
OD	20"	13-3/8"	9-5/8"	7-5/8"	5-1/2"
WT	0.438"	0.48"	0.545"	12.415"	0.415"
ID	19.124"	12.415"	8.535"	6.625"	4.670"
Drift ID	18.936"	12.259"	8.379"	6.5"	4.545"
COD	21"	14.376"	10.625"	7.625"	5.5"
Weight	94 lb/ft	68 lb/ft	53.5 lb/ft	39 lb/ft	23 lb/ft
Grade	J-55 BTC	HCL-80 BTC	HCL-80 BTC	P-110 UFJ	P-110 UFJ
Hole Size	26"	17-1/2"	12-1/4"	8-1/2"	6-1/8"
Depth Set	1,670'	5,696'	9,913'	Top: 9,613' Bottom: 13,588'	13,538'
TOC	Circulate to surface	Circulate to surface	Circulate to surface	9,613'	N/A
Volume	3,884 sks	2,430 sks	2,126 sks	309 sks	N/A
% Excess	150%	75%	Stage 1: 50% Stage 2: 50%	25%	N/A

LONQUIST & CO. LLC
PETROLEUM ENGINEERS | ENERGY ADVISORS
HOUSTON | CALGARY
AUSTIN | WICHITA | DENVER

Texas License F-9147

12912 Hill Country Blvd. Ste F-200
Austin, Texas 78738
Tel: 512.732.9812
Fax: 512.732.9816

Blackbuck Resources, LLC		Prairie Sandreed Fee SWD No. 1	
Country: USA		State/Province: New Mexico	County/Parish: Lea
Location:		Site: 1,000' FNL & 200 FEL	Survey: S23-T19S-R35E
API No: N/A		Field: Devonian-Silurian	Well Type/Status: SWD
NMOCD District No: 1		Project No: 2158	Date: 1/22/2020
Drawn: TFM		Reviewed: CBW	Approved: CBW
Rev No: 1		Notes:	

Blackbuck Resources, LLC

Prairie Sandreed Fee SWD No. 1

FORM C-108 Supplemental Information

III. Well Data

A. Wellbore Information

1.

Well Information	
Lease Name	Prairie Sandreed Fee SWD
Well No.	1
Location	S-22 T-19S R-35E
Footage Location	1,000' FNL & 200' FEL

2.

a. Wellbore Description

Type	Surface	Intermediate	Production	Liner
OD	20"	13-3/8"	9-5/8"	7-5/8"
WT	0.438"	0.480"	0.545"	0.500"
ID	19.124"	12.415"	8.535"	6.625"
Drift ID	18.936"	12.259"	8.379"	6.5"
COD	21"	14.375"	10.625"	7.625"
Weight	94 lb/ft	68 lb/ft	53.5 lb/ft	39 lb/ft
Grade	J-55 BTC	HCL-80 BTC	HCL-80 BTC	P-110 UFJ
Hole Size	26"	17-1/2"	12-1/4"	8-1/2"
Depth Set	1,670'	5,696'	9,913'	9,613' – 13,588'

b. Cementing Program

Casing String	Surface	Intermediate	Production	Liner
Lead Cement	HalCem	NeoCem	Stage 1: NeoCem Stage 2: NeoCem	Versacem
Lead Cement Volume	2,847 sks	1,961 sks	Stage 1: 466 sks Stage 2: 1,008 sks	331 sks
Lead Cement Density	13.7 lbm/gal	11 lbm/gal	Stage 1: 11 lbm/gal Stage 2: 11 lbm/gal	14.5 lbm/gal
Tail Cement	HalCem	NeoCem	Stage 1: NeoCem Stage 2: HalCem	-
Tail Cement Volume	1,037 sks	468 sks	Stage 1: 577 sks Stage 2: 75 sks	-
Tail Cement Density	14.8 lbm/gal	13.2 lbm/gal	Stage 1: 14.5 lbm/gal Stage 2: 14.8 lbm/gal	-
Cement Excess	150%	75%	Stage 1: 50% Stage 2: 50%	25%
Total Sacks	3,884 sks	2,430 sks	2,126 sks	309 sks
TOC	Surface	Surface	Stage 1: DV Tool @ 5,671' Stage 2: Surface	9,613'
Method	Circulate	Circulate	Circulated	CBL

3. Tubing Description

Tubing Information	
OD	5-1/2"
WT	0.415"
ID	4.670"
Drift ID	4.545"
COD	5.5"
Weight	23 lb/ft
Grade	P-110 UFJ
Depth Set	13,538'

Tubing will be lined with Duoline.

4. Packer Description

7-5/8" x 5-1/2" Permanent Packer with High Temp Elastomer and Full Inconel 925 trim

B. Completion Information

1. Injection Formation: Devonian, Silurian, Fusselman
2. Gross Injection Interval: 13,588' – 15,388'

   Completion Type: Open Hole

3. Drilled for injection.

4. See the attached wellbore schematic.

5. Oil and Gas Bearing Zones within area of well:

Formation	Depth
Delaware Mountain Group	5,696'
Bone Spring	7,557'
Wolfcamp	9,913'
Strawn	11,411'

VI. Area of Review

No wells penetrate the injection zone

VII. Proposed Operation Data

1. Proposed Daily Rate of Fluids to be Injection:

   Average Volume: 20,000 BPD
   Maximum Volume: 25,000 BPD

2. Closed System

3. Anticipated Injection Pressure:

   Average Injection Pressure: 2,038 PSI (surface pressure)
   Maximum Injection Pressure: 2,718 PSI (surface pressure)

4. The injection fluid is to be locally produced water. It is expected that the source water will predominantly be from the Bone Spring and Wolfcamp formations. Attached are produced water sample analyses taken from the closest wells that feature samples from the Abo, Artesia, Bone Spring, Devonian, Grayburn/San Andreas, Pennsylvanian, Penrose, Queen, and Wolfcamp formations.

5. The disposal interval is non-productive. No water samples are available from the one-mile area of review. However, approximately 6-8 miles from the proposed well, five (5) wells producing water from the Devonian have sample data present. The results of these wells are in the Produced Water Sample list in this application.

VIII. Geological Data

Devonian Formation Lithology:

The Devonian formation is a dolomitic ramp carbonate that occurs below the Woodford shale and above the Fusselman formation. Strata found in the Devonian formation include two major groups, the Wristen Buildups and the Thirtyone Deepwater Chert, with the Wristen being more abundant. The Wristen Groups is composed of mixed limestone and dolomites with mudstone to grainstone and boundstone textures. Porosity in the Wristen group is a result of both primary and secondary development. Present are moldic, vugular, karstic (including collapse breccia) features that allow for higher porosities and permeabilities. The Thirtyone Formation contains two end-member reservoir facies, skeletal packstones/grainstones and spiculitic chert, with most of the porosity and permeability found in the coarsely crystalline cherty dolomite. These particular characteristics allow for this formation to be a tremendous Salt Water Disposal horizon.

Fusselman Formation Lithology:

The Silurian/Ordovician Fusselman Formation is stratigraphically below the Wristen Group and is above and separated from the Montoya Formation by the Sylvan Shale. The Sylvan Shale is the lower confining layer for the proposed well. Fusselman facies include a laminated skeletal wackestone in the upper part and a buildup complex in the lower part composed of oold and bryozoan grainstones. These grainstones can also be potentially prolific zones for disposal.

A. Injection Zone: Devonian-Silurian Formation

Formation	Depth
Rustler	1,670'
Salado	1,947'
Tansill	3,065'
Yates	3,253'
Seven Rivers	3,698'
Queen	4,418'
Delaware Mountain Group	5,696'
Bone Spring	7,557'
Wolfcamp	9,913'
Strawn	11,411'
Atoka	11,624'
Miss. Lime	12,769'
Woodford	13,412'
Devonian	13,588'

B. Underground Sources of Drinking Water

Eight (8) water wells exist within a one-mile radius of the proposed well. The water wells in the region are within the Lee County Basin of New Mexico. Water wells within the 1-mile area of review are drilled at an average depth of 63 feet and the average water depth is 23 feet in the surrounding region. The Rustler is known to exist in this general area and may also be another USDW and will be protected by setting the surface casing at the top of the Rustler formation and isolating the formation with intermediate casing set at the top of the Delaware Mountain group. The proposed well is located 5.5 miles NE of the Capitan Reef.

IX. Proposed Stimulation Program

No stimulation program planned at this time.

X. Logging and Test Data on the Well

There are no logs or test data on the well. During the process of drilling and completion resistivity, gamma ray, and density logs will be run.

XI. Chemical Analysis of Fresh Water Wells

A map of the freshwater wells within a one-mile radius of the proposed well has been sent to Cardinal Laboratories in Hobbs, New Mexico. Results of the samples will be provided to the Oil Conservation Division upon completion of the tests.

LONQUIST & CO. LLC
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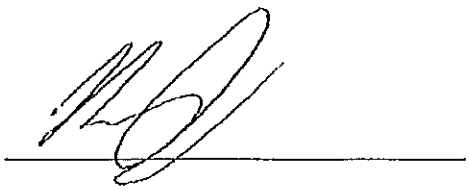
GEOLOGIC AFFIRMATION

I have examined available geologic and engineering data and have found no evidence of open faults or other hydrologic connection between the disposal interval and underground sources of drinking water.



Parker Jessee
Geologist

Project: Blackbuck Resources
Prairie Sandreed Fee SWD No. 1
February 4, 2020

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