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Filed Date: 12/09/2024
State Corporation Commission
of Kansas

BEFORE THE STATE CORPORATION COMMISSION
OF THE STATE OF KANSAS

In the matter of whether Somerset Energy, Inc.'s injection authority at eight wells subject to permit E-31,866 should be revoked.	)	Docket No.: 25-CONS-3193-CUIC
	)	CONSERVATION DIVISION
	)	License Nos.: 6143

MOTION FOR THE DESIGNATION OF A PRESIDING OFFICER AND THE SCHEDULING OF A PREHEARING CONFERENCE

Staff of the Kansas Corporation Commission (Staff and Commission, respectively) moves the Commission for the designation of a presiding officer and the scheduling of a prehearing conference in this matter. In support of its motion, Staff states as follows:

I. JURISDICTION & LEGAL STANDARD

1. The Commission has jurisdiction to regulate oil and gas production in Kansas under Chapter 55 of the Kansas Statutes Annotated and the General Rules and Regulations for the Conservation of Crude Oil and Natural Gas, K.A.R. 82-3-100 *et seq.*

2. Pursuant to K.A.R. 82-3-403(a)(5) when a permit authorizing injection is issued, the following factors shall be considered by the Conservation Division: (1) maximum injection rate; (2) maximum surface pressure, formation pressure, pressure at the formation face, or all of the above; (3) the type of injection fluid and the rock characteristics of the injection zone and the overlying strata; (4) the adequacy and thickness of the confining zone or zones between the injection interval and the base of the lowest fresh and usable water; and (5) the construction of all oil and gas wells within a ¼-mile radius of the proposed injection well, including all abandoned, plugged, producing, and other injection wells to ensure that fluids introduced into the proposed injection zone will be confined to that zone. If deemed necessary by the Conservation Division to ensure the protection of fresh and usable water, this radius may be determined

pursuant to 40 C.F.R. 146.6(a)(2), as published July 1, 2000, which is hereby adopted as reference.

3. Pursuant to K.A.R. 82-3-408, permits authorizing injection into wells shall remain valid for the life of the well, unless revoked by the Commission for just cause.

4. On July 26, 2002, the Commission issued a Declaratory Order concerning the authorization of injection wells. The Order found that, "The amendments to the injection well regulations were intended to allow the Conservation Division to take all actions with regard to injection wells without a Commission order, except for contested matters."[1] That Order also found that "orders authorizing injection issued prior to April 5, 2002, will be considered permits under amended regulations 82-3-400 *et. seq*. and can be amended and cancelled for good cause by the Conservation Division as provided by the amended regulations."[2]

II. STAFF'S ALLEGATION OF FACTS

5. In October 2023, Commission Staff received a complaint of an abandoned oil well in a field located in Section 17, Township 16 South, Range 24 East, Miami County, Kansas. At the time, Staff was unable to locate an intent to drill for the abandoned well and believed the well to be drilled before 1980 based upon its construction. In November 2023, Staff created a new well record and assigned an API number to the Nevius #OW-6 well, API #15-121-02901.

6. Upon further investigation, Staff learned that the abandoned well was located within a quarter mile of eight injection wells belonging to Somerset Energy, Inc. (Operator).[3] Each of the eight wells were permitted on or after March 14, 2014. Generally, Staff will review

[1] Docket 02-CONS-294-CREG, *Declaratory Order*, ¶6 (July 23, 2002).
[2] *Id*. at ¶7.
[3] The eight injection wells within a quarter mile are the Barkis #AI-40, API #15-121-31020; Barkis #CW-2, API #15-121-29608; Barkis #BW-2, API #15-121-27397; Barkis #AW-2, API #15-121-27398; Barkis #AW-4, API #15-121-26389; Nevius #AW 3, API #15-121-26388; Nevius #AI-12, API #15-121-31011; and Nevius #AI-14, API #15-121-31005.

any available records when an abandoned well is located within the area of review of an injection well to determine if the abandoned well presents an issue to nearby injection wells. If no records are available, then Staff will err on the side of caution that the well is an issue. In the present matter, Staff did not locate any records regarding the Nevius #OW-6 well at the time of permitting or after the well was located, so the well is now an issue that needs to be addressed by Operator.

7. On October 2, 2024, Commission Staff sent a letter to Operator stating that Staff had obtained evidence that one or more unplugged, abandoned wells exist within the quarter mile area of review of injection wells listed on Operator's license. The letter provided the list of wells and requested that Operator shut-in and cease injection operations at each of the injection wells within 15 days from the date of the letter.

8. On October 22, 2024, Staff received a response from Operator's Counsel. The response stated that Operator would not voluntarily cease injection at the eight wells referenced in Staff's letter, and that Operator would not accept responsibility for the Nevius #OW-6 well.

9. Following the response, Staff conducted a geologic review to determine whether the Nevius #OW-6 well has penetrated current producing intervals. The geologic report is attached to this motion as Exhibit A. Upon reviewing the records available for other wells in Section 17, Township 16 South, Range 24 East, Staff concluded that the producing interval of the Nevius #OW-6 well likely occurs around 650 feet based upon the stratigraphy and lack of economical production from alternate intervals. Had Staff been aware of the existence of the Nevius #OW-6 well, then it would have impacted the permitting factors identified under K.A.R. 82-3-403(a)(5). Operator would have been required to address the Nevius #OW-6 well prior to obtaining injection authority for any wells within a quarter mile of the Nevius #OW-6 well.

10. On December 2, 2024, Staff responded to Operator's Counsel. Staff's response indicated that it was acting within the authority of the injection permits to temporarily reduce the rate and pressure of the eight injection wells within a quarter mile of the Nevius #OW-6 well. The injection rate and pressure allowed for the eight injection wells is temporarily reduced to 0 barrels per day and 0 psi while this matter is pending. Staff also stated it would file a motion to open a docket regarding this matter.

WHEREFORE, Staff respectfully requests the Commission designate a presiding officer and set a prehearing conference in anticipation of a hearing to determine if Operator's injection authority for eight wells subject to permit E-31,866 should be revoked, and for such other relief as the Commission deems just and equitable.

Respectfully submitted,

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Area of Review for Sec. 17-T16S-R24E

11/1/2024

Kansas Corporation Commission, Conservation Central Division

Ryan W. Cox, P.G.

Table of Contents

1. Introduction

This report is to determine producing intervals in wells in Sec. 17-T16S-R24E (Fig. 1) and to determine the likely depth of the well, Nevius OW-6 (API# 15-121-02901), and whether it has penetrated current producing intervals.

The review does not extend past the section lines of Sec. 17-T16S-R24E and includes the Barkis, Morrow, Nevius, and Stahl leases.

Some minor exploratory work occurred in the section as far back as 1979, but early drilling indicated minimal finds. The SW/4 saw some interest in 1981 and 1983 after filing several C-1 Notice of Intention to Drill but operators never penetrated the ground. A large pick up in well drilling and installation began in 2013 and continued to 2018 to install wells ~650-900' in depth which targeted the Bartlesville formation with completions in the discovered Squirrel Sand interval of the Pennsylvanian aged Cherokee Group.

2. Methodology

Field staff routinely inspects leases for a various number of reasons. Data acquired from these field visits is updated in our Risk Based Data Management System (RBDMS).

The data is collected from several sources. RBDMS acts as a central database to all our information and can easily be queried through scripts or searched for specific data. New and old data is constantly being added as it is found or received.

Kansas Geological Survey (KGS) Interactive Web Mapper is an ArcGIS based mapping tool and map viewer which allows for searching oil wells, creating distance buffers, visualizing spatial data, and many other functions.

Kansas Online Automated Reporting (KOLAR) is maintained be the KGS but is the source of most of the paperwork that is received by the KCC to allow easier access for operators to submit oil & gas paperwork.

Robert F. Walters Digital Geological Library (WDL) is maintained by the Kansas Geological Society and is another easy-to-use searchable database similar in function to the mapping tool and RBDMS.

Kansas Corporation Commission maintains paper files and scanned electronic files from older Eastern Kansas wells in Opentext Eastern Kansas Documents.

Stratigraphic Correlation was done by comparing gamma and neutron logs to determine areal extent and thickness of the targeted Squirrel Sand intervals.

3. Geologic Setting

Miami County is part of the Central Lowlands Osage Plains. The Pennsylvanian Kansas City Group covers much of Miami County as surficial bedrock with some areas of weathering and Alluvial sediments. Sec. 17 in particular contains moderate relief with drainage features running largely N-S. The presence of the Squirrel Sand member of the Pennsylvanian aged Cherokee Group indicates a past stable shoreline.

4. Results

Sec 17 has known records on 100 API #'s. Table 1 contains these data. The NW/4 of the section shows the sand facies (Squirrel) become increasingly saw-toothed and elevated in gamma response. Logs to the South and East indicate a thickening sand facies. All logs from producing wells indicate production from the same stratigraphic interval (Fig. 2). Logs from Injection wells indicate that reintroduction of fluids occurs into the same interval (Fig. 3). The presence of the sand facies appears to arc from the middle of the West section line to the SE corner of the section. The Squirrel formation in the NW Quarter is structurally higher than to the south and east.

Lance Town plugged four (4) "gas" wells using the KCC Fee Fund in late 2021. Operator then called into District 3 to verify the work. Nevius OW-2, Nevius OW-3, and Nevius OW-4 tagged assumed bottom at 250-300' TD. Nevius OW-5 encountered cement at 20' indicating the well had already been plugged. All three of these wells penetrated ground in the E/2 SW/4 of Sec. 17-T16S-R24E.

The commission has no records of Nevius OW-6. District Field Staff located this well in SW/4 NW/4 of Sec. 17-T16S-R24E.

5. Discussion

Squirrel loses most thickness moving to the NW and indicates a rapidly changing transgressive/regressive sequence to the NW that prevented any significant sand thickness from accumulating. The formation appears to extend west out from the section in the S/2 and extends through the section to continue a SE trend. All leases targeted the Bartlesville or Squirrel and completions indicate the presence of Squirrel Sand facies. Well logs indicate a positive correlation for production and injection stratigraphy.

6. Conclusions

With a small number of exceptions, all wells of economic value appear to have completions in the same stratigraphic interval of the Squirrel. Discoveries of minor amounts of non-economical appear in logs around 250' near the center of the section. The plugged gas wells in the SE/4 appear to have no operational connection to the Nevius OW-6. Without entering the well, depth determination of OW-6 proves impossible. Given the stratigraphy and lack of economical production from alternate intervals, the producing interval on the Nevius OW-6 likely occurs around 650' TD (~397' MSL).

7. Figures and Tables

Fig. 1 Overview of S17-T16S-R24E.

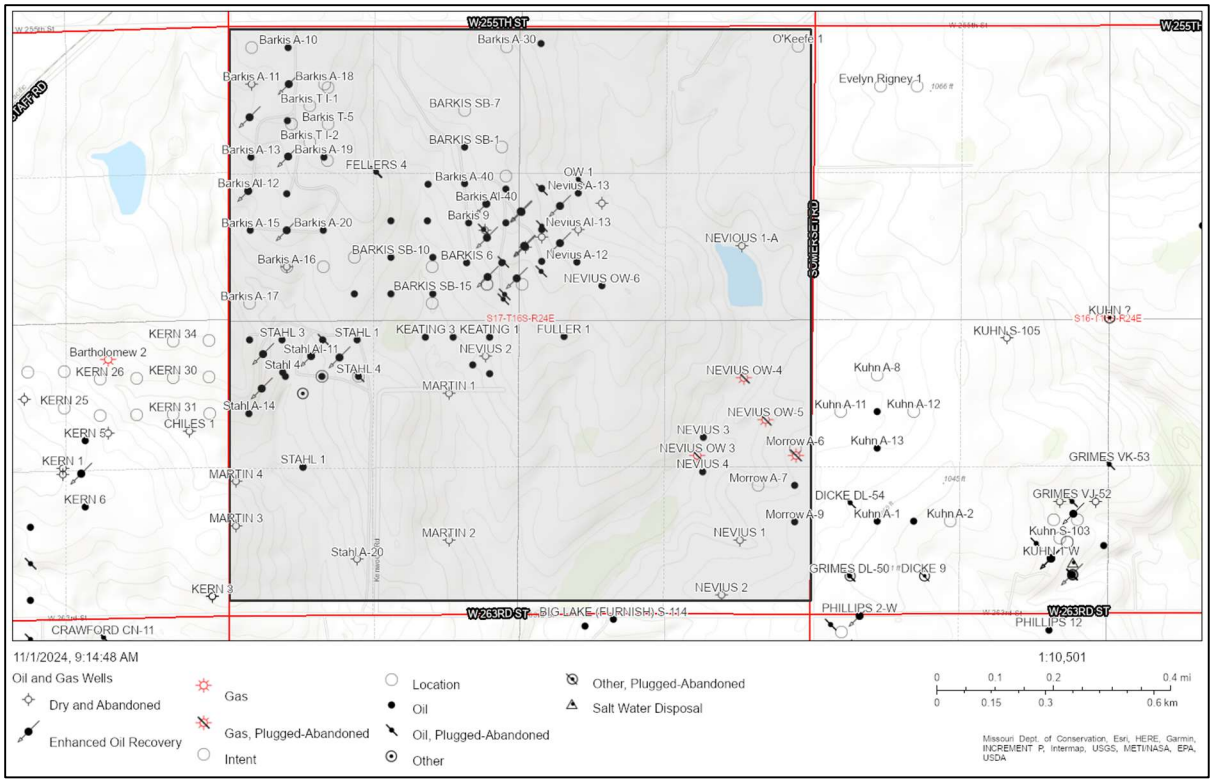

Fig. 2 Producing well correlation. Data is displayed generally from northeast (left) to southeast (right).

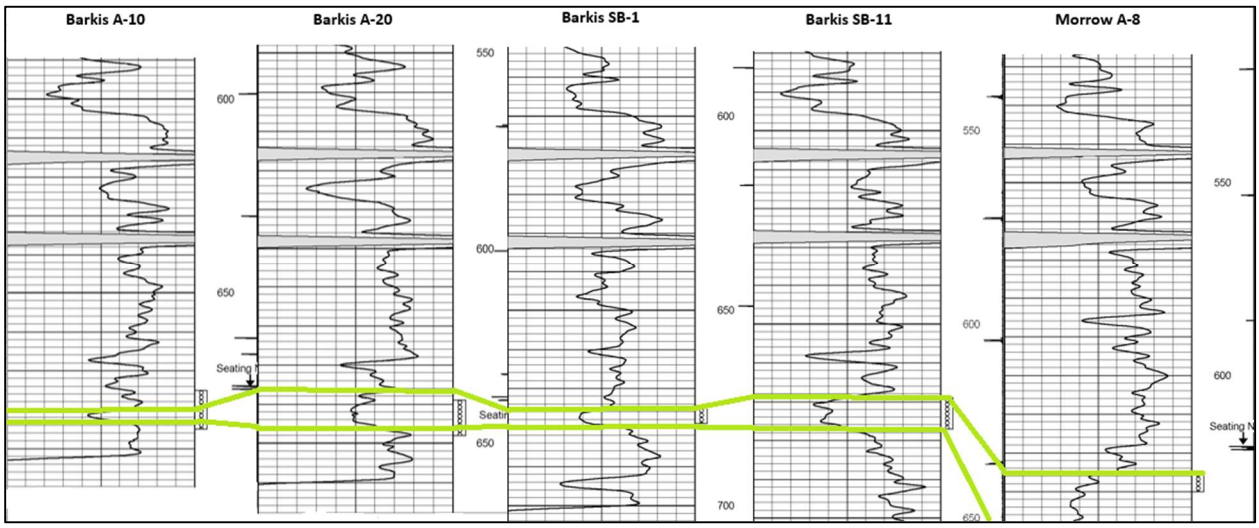

Fig. 3 Injection well correlation. Data is displayed from northeast (left) to southeast (right).

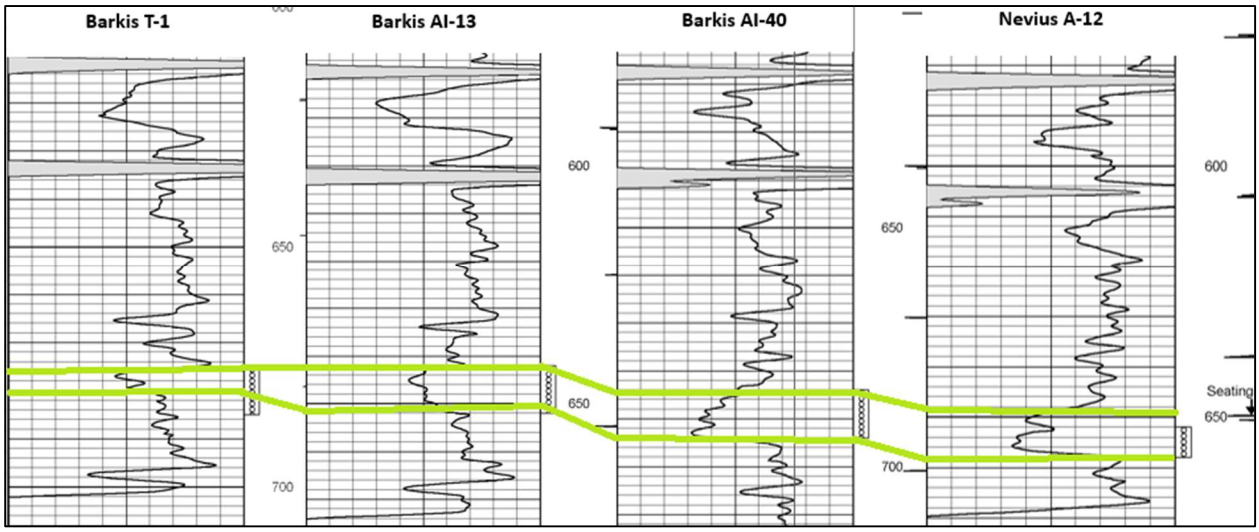

Fig. 4. Correlation between Producing and Injection wells to indicate same interval despite differing depths.

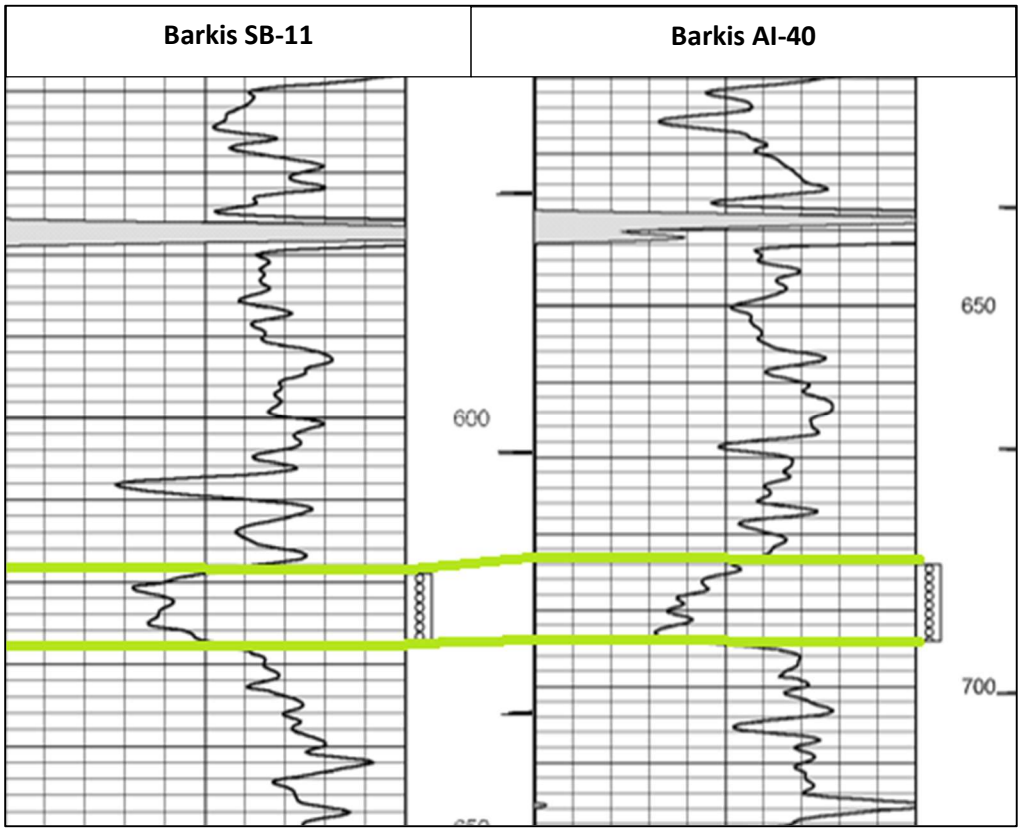

Table 1 Wells, Status, and known depths of Oil & Gas wells

API	Well Label	Well Status (KCC)	Total Depth (ft)	Well Type
15-121-19943	BARKIS 2	Producing	695	Oil
15-121-25429	BARKIS 4	Plugged and Abandoned	697	Oil, Plugged-Abandoned
15-121-25446	BARKIS 5	Plugged and Abandoned	690	Oil, Plugged-Abandoned
15-121-02581	Barkis 5	Plugged and Abandoned	630	Oil, Plugged-Abandoned
15-121-25447	BARKIS 6	Producing	662	Oil
15-121-26405	BARKIS 7	Expired Intent to Drill (C-1)		Location
15-121-29609	Barkis 9	Producing	720	Oil
15-121-28352	BARKIS 'A' 4	Producing	722	Oil
15-121-30982	Barkis A-10	Producing	760	Oil
15-121-30983	Barkis A-11	Plugged and Abandoned	683	Dry and Abandoned
15-121-30985	Barkis A-13	Producing	740	Oil
15-121-30986	Barkis A-14	Producing	740	Oil
15-121-30989	Barkis A-15	Producing	720	Oil
15-121-30987	Barkis A-16	Expired Intent to Drill (C-1)		Location
15-121-30988	Barkis A-17	Expired Intent to Drill (C-1)		Location
15-121-31003	Barkis A-19	Producing	780	Oil
15-121-31004	Barkis A-20	Producing	720	Oil
15-121-30996	Barkis A-30	Expired Intent to Drill (C-1)		Location
15-121-31019	Barkis A-40	Producing	740	Oil
15-121-30992	Barkis AI-10	Expired Intent to Drill (C-1)		Location
15-121-30993	Barkis AI-11	Authorized Injection Well	780	Enhanced Oil Recovery
15-121-30994	Barkis AI-12	Authorized Injection Well	740	Enhanced Oil Recovery
15-121-31014	Barkis AI-13	Authorized Injection Well	720	Enhanced Oil Recovery

15-121-31020	Barkis AI-40	Authorized Injection Well	780	Enhanced Oil Recovery
15-121-27380	BARKIS AW-2	Expired Intent to Drill (C-1)	750	Location
15-121-27398	BARKIS AW-2	Authorized Injection Well	750	Enhanced Oil Recovery
15-121-26389	BARKIS AW-4	Injection Well Split to Another Dkt	750	Enhanced Oil Recovery
15-121-27369	BARKIS BW-2	Expired Intent to Drill (C-1)	750	Location
15-121-27385	BARKIS BW-2	Expired Intent to Drill (C-1)	750	Location
15-121-27397	BARKIS BW-2	Authorized Injection Well	750	Enhanced Oil Recovery
15-121-29608	Barkis CW-2	Authorized Injection Well	740	Enhanced Oil Recovery
15-121-02582	Barkis OW-1	Plugged and Abandoned	650	Oil, Plugged-Abandoned
15-121-31568	BARKIS SB-10	Producing	718	Oil
15-121-31571	BARKIS SB-13	Producing	719	Oil
15-121-31572	BARKIS SB-14	Producing	712	Oil
15-121-31573	BARKIS SB-15	Producing	696	Oil
15-121-31502	BARKIS SB-3	Producing	711	Oil
15-121-31503	BARKIS SB-4	Plugged and Abandoned	647	Dry and Abandoned
15-121-31505	BARKIS SB-7	Expired Intent to Drill (C-1)		Location
15-121-30968	Barkis T I-1	Expired Intent to Drill (C-1)		Location
15-121-30969	Barkis T I-2	Expired Intent to Drill (C-1)		Location
15-121-30961	Barkis T-2	Authorized Injection Well	760	Enhanced Oil Recovery
15-121-30970	Barkis T-3	Expired Intent to Drill (C-1)		Location
15-121-30971	Barkis T-4	Expired Intent to Drill (C-1)		Location
15-121-71000	FELLERS 2	Plugged and Abandoned	684	Oil, Plugged-Abandoned
15-121-71001	FELLERS 3	Plugged and Abandoned	694	Oil, Plugged-Abandoned
15-121-71002	FELLERS 4	Plugged and Abandoned	662	Oil, Plugged-Abandoned
15-121-25586	FULLER 1	Approved Intent to Drill		Oil

15-121-25648	KEATING 1	Approved Intent to Drill		Oil
15-121-25651	KEATING 2	Approved Intent to Drill		Oil
15-121-25660	KEATING 3	Approved Intent to Drill		Oil
15-121-25661	KEATING 4	Approved Intent to Drill		Oil
15-121-25668	KEATING 5	Approved Intent to Drill		Oil
15-121-21489	MARTIN 1	Plugged and Abandoned	275	Dry and Abandoned
15-121-21490	MARTIN 2	Plugged and Abandoned	900	Dry and Abandoned
15-121-21491	MARTIN 3	Plugged and Abandoned	700	Dry and Abandoned
15-121-21492	MARTIN 4	Plugged and Abandoned	682	Dry and Abandoned
15-121-31064	Morrow A-6	Cancelled API Number		Location
15-121-31065	Morrow A-7	Cancelled API Number		Location
15-121-31059	Morrow A-8	Inactive Well	700	Oil
15-121-31071	Morrow A-9	Inactive Well	740	Oil
15-121-19947	NEVIUS 2	Plugged and Abandoned	615	Dry and Abandoned
15-121-20907	NEVIUS 2	Plugged and Abandoned	895	Dry and Abandoned
15-121-22847	NEVIUS 3	Approved Intent to Drill		Oil
15-121-26388-0001	Nevius 3-AW	Injection Well Split to Another Dkt	660	Enhanced Oil Recovery
15-121-23133	NEVIUS 4	Approved Intent to Drill		Oil
15-121-26123	NEVIUS 45	Plugged and Abandoned	675	Dry and Abandoned
15-121-26114	NEVIUS 47	Plugged and Abandoned	730	Dry and Abandoned
15-121-31006	Nevius A-11	Producing	740	Oil
15-121-31008	Nevius A-13	Producing	700	Oil
15-121-31009	Nevius AI-10	Producing	740	Oil
15-121-31010	Nevius AI-11	Producing	740	Oil
15-121-31011	Nevius AI-12	Authorized Injection Well	760	Enhanced Oil Recovery
15-121-31012	Nevius AI-13	Plugged and Abandoned	651	Dry and Abandoned
15-121-31005	Nevius AI-14	Authorized Injection Well	740	Enhanced Oil Recovery

15-121-26388-0002	NEVIUS AW 3	Authorized Inj Well Split From Prior Dkt	660	Enhanced Oil Recovery
15-121-02785	NEVIUS OW 2	KCC Fee Fund Plugging	300	Gas, Plugged-Abandoned
15-121-02786	NEVIUS OW 3	KCC Fee Fund Plugging	250	Gas, Plugged-Abandoned
15-121-02788	NEVIUS OW-4	KCC Fee Fund Plugging	250	Gas, Plugged-Abandoned
15-121-02811	NEVIUS OW-5	KCC Fee Fund Plugging	20	Gas, Plugged-Abandoned
15-121-02901	NEVIUS OW-6	Inactive Well		Oil
15-121-25371	NEVIUS S-105	Plugged and Abandoned	700	Oil, Plugged-Abandoned
15-121-25433	NEVIUS S-106	Plugged and Abandoned	710	Oil, Plugged-Abandoned
15-121-25448	NEVIUS S-107	Plugged and Abandoned	710	Oil, Plugged-Abandoned
15-121-02597	OW 1	Plugged and Abandoned	630	Oil, Plugged-Abandoned
15-121-25434	STAHL 1	Producing	670	Oil
15-121-22756	STAHL 1	Approved Intent to Drill	675	Oil
15-121-22757	STAHL 2	Approved Intent to Drill		Oil
15-121-25435	STAHL 2	Plugged and Abandoned	626	Oil, Plugged-Abandoned
15-121-25570	STAHL 3	Producing	650	Oil
15-121-29610	Stahl 4	Producing	700	Oil
15-121-30997	Stahl A-10	Producing	680	Oil
15-121-31022	Stahl A-11	Producing	700	Oil
15-121-31023	Stahl A-12	Producing	720	Oil
15-121-31024	Stahl A-13	Producing	700	Oil
15-121-31025	Stahl A-14	Producing	700	Oil
15-121-31001	Stahl A-20	Plugged and Abandoned	860	Dry and Abandoned
15-121-30995	Stahl AI-10	Authorized Injection Well	720	Enhanced Oil Recovery
15-121-30999	Stahl AI-12	Authorized Injection Well	740	Enhanced Oil Recovery
15-121-31000	Stahl AI-13	Authorized Injection Well	720	Enhanced Oil Recovery

CERTIFICATE OF SERVICE

25-CONS-3193-CUIC

I, the undersigned, certify that a true and correct copy of the attached Motion for the Designation of a Presiding Officer and the Scheduling of a Prehearing Conference has been served to the following by means of first class mail and electronic service on December 9, 2024.

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