THE STATE CORPORATION COMMISSION OF THE STATE OF KANSAS

Before Commissioners: Pat Apple, Chairman

Shari Feist Albrecht Jay Scott Emler

In the matter of the application of Charles E. See dba See Oil ("Operator") to amend injection permit E-11,453 by adding repressuring wells S-101, S-104, and S-105 at the Burge Lease, Section 2, Township 28, Range 23 East, Crawford County, Kansas.

Docket No.: 17-CONS-3461-CUIC CONSERVATION DIVISION

CONSERVATION DIVISION

License No.: 32723

PRE-FILED TESTIMONY

OF

RENE STUCKY

- 1 Q. What is your name and business address?
- 2 A. Rene Stucky, 266 North Main Suite 220, Wichita, Kansas 67202.
- 3 Q. By whom are you employed and in what capacity?
- 4 A. I'm employed by the Conservation Division of the Kansas Corporation Commission, as
- 5 Supervisor of the Underground Injection Control ("UIC") Department and the Production
- 6 Department.
- 7 Q. How long have you been employed by the KCC?
- 8 A. About 11 years. Before becoming Supervisor, I was an Environmental Scientist in the
- 9 UIC Department, where I reviewed and processed injection applications.
- 10 Q. What is your educational background?
- 11 A. I have a Bachelor's degree in Geology from Wichita State University and worked as a
- Petroleum Geologist in the industry for over 20 years.
- 13 Q. Have you previously testified before this Commission?
- 14 A. Yes.
- 15 Q. What does your position with the Conservation Division involve?
- 16 A. I supervise everyone in the Conservation Division's UIC and Production Departments.
- 17 Q. Are you familiar with this docket, 17-CONS-3461-CUIC?
- 18 A. Yes.
- 19 Q. How are you familiar with this docket?
- 20 A. I have fully reviewed Operator's application.
- 21 Q. What has Operator applied for?
- A. They have applied to inject saltwater into the Burge #S-101, API #15-037-21732; Burge
- 23 #S-104, API #15-037-21735; and Burge #S-105, API #15-037-21736 (collectively "the
- subject wells") at up to 50 barrels per day per well and 180 pounds per square inch
- pressure per well, into the Peru formation, in Section 2, Township 28 South, Range 23
- East, Crawford County. The subject wells were drilled in 2005.
- Q. I have noticed that the application, specifically the U-8 Form which is page 1 of the
- application filed in this docket, was received by the Commission on January 25, 2013.
- However, no protest was filed in this matter until December 29, 2016. Could you explain
- the delay in this matter proceeding?

- A. Yes. Operator originally filed its application in 2013, but Operator did not pursue its application regarding the subject wells until late 2016. Typically, Staff administratively dismisses applications that have been stale for so long. When Operator again approached Staff about obtaining injection authority in late 2016, however, Staff realized that it had not administratively dismissed the application. Staff required Operator to again provide notice to the appropriate parties and to again publish notice in the appropriate newspapers. On December 29, 2016 a protest was filed.
- 8 Q. Does Operator's application comply with Commission regulations?

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- 9 A. Yes. The application as it pertains to each well complies with Commission regulations.
- 10 Q. How did you go about determining it complies with Commission regulations?
- 11 A. First, I reviewed the surface casing depth for the subject wells. In Crawford County, the 12 minimum surface casing requirement (Table 1) specifies that all wells shall be completed 13 under Alternate II rules, specifically those of Appendix B, Area 1 of the Commission's 14 Eastern Surface Casing Order in Commission Docket #133,891-C. Under Table 1, 15 surface casing must be set through all unconsolidated material plus 20 feet into the 16 underlying formation. Under Appendix B, Area 1, a minimum of 20 feet of steel surface 17 pipe must be set, or it must be set to the depth of the first solid formation capable of 18 supporting the surface pipe plus five feet, whichever is greater.

Regarding the Table 1 surface casing requirement, there is essentially no unconsolidated material deeper than surface in the area of the subject wells, and 20 feet of surface casing is standard in the area. Regarding the Appendix B requirement, the depth of the first solid formation, plus five feet, is less than 20 feet, and so 20 feet of steel surface pipe must be set. The subject wells have steel surface pipe set to a depth of 20 feet, meeting both the Table 1 and Appendix B casing depth rules.

Second, I reviewed the proposed zone of injection for the subject wells. The injection zone is the Peru Sand at a depth of approximately 180 feet to 200 feet. I have identified four shale layers between the top of the Peru Sand and the base of the fresh water zone at 20 feet. These are the Bandara Shale at 148 to 174 feet, the Lake Neosho Shale from 123 to 126 feet, the Memorial Shale from 73 to 82 feet, and the Lost Branch Shale from 26 to 46 feet. These shales are adequate confining barriers above the Peru Sand that will

prevent the upward movement of saltwater from the Peru Sand into fresh water formations.

Third, I reviewed the completion documentation for the subject wells. The wells have 20 feet of 8.625-inch surface casing set with 20 bags of cement, and 209 feet of 4.5-inch casing set with 38 bags of cement. The subject wells are cemented from bottom to top pursuant to Appendix B, Area 1 of the Commission's Eastern Surface Casing Order, and the borehole and casing diameters are also sufficient pursuant to Appendix B. The completion of the subject wells meets all Commission requirements.

Fourth, I reviewed whether a mechanical integrity test has been performed on each of the subject wells to establish that the wells have structural integrity. Each of the subject wells has recently passed a mechanical integrity test at the standard 300 pounds per square inch of pressure.

Fifth, I reviewed the requested maximum injection rate and pressure. Many enhanced oil recovery wells have already been safely permitted into the Peru formation in this area. Operator's requested rate and pressure, which are relatively minimal, do not raise any unusual environmental concerns.

Sixth, I conducted what is called an Area of Review ("AOR") to check for possible environmental concerns due to nearby wells. Of special interest in the AOR process are plugged wells located within a ¼-mile radius of the applicant wells. Depending upon a well's vintage, it may not have been properly plugged, meaning that water and/or oil might be able migrate up into the local source of water. The AOR identifies those problems. If they exist, problem wells may need to be addressed prior to the permit or amendment being issued. During the AOR, I plotted the subject wells on a map of the general vicinity along with all known water wells, producing wells, and plugged wells.

There are 34 producing wells within the ¼-mile radius. The production casing in all of them is cemented from total depth to surface with cement. There are also 12 permitted enhanced recovery wells, which are constructed according to Commission standards, There are also 9 plugged wells, which are all plugged according to Commission standards. The nearest domestic water well is located nearly 2 miles southeast of the subject wells, was constructed in 1985, is 20 feet deep, and produces 8 gallons per minute. The AOR did not reveal any concerns with Operator's application.

Finally, I reviewed the application to determine whether proper notice of the application and proper notice of this hearing has been given. Operator's original application attested to publication of notice of the application in the appropriate county newspaper in January 2013. Operator also published notice of the application in the appropriate county newspaper on December 13, 2016 and again on April 6, 2017. The December 2016 notice of application incorrectly indicated a 15-day protest period, although according to K.A.R. 82-3-135a(e) there is a 30-day protest period. The April 2017 notice of application was silent regarding protests. Commission regulations do not explicitly require a publication of notice to discuss protest deadlines. The December 2016 publication was potentially problematic because of the inaccurately stated protest period, but Staff believes the April 6, 2017, notice, which did not give inaccurate information, cured whatever notice problem the December 2016 publication may have created, especially since Operator has now published notice on three occasions, and the protest in this matter included a petition with dozens of names.

Operator also appears to have given notice of the application by mailing it or delivering it to the appropriate parties within one-half mile radius of the subject acreage, although Staff would like Operator to confirm that is true in its rebuttal testimony. If confirmed, Staff believes notice of the application has been properly made. Operator published notice of the hearing in the appropriate county newspaper on April 6, 2017, but we do not yet have evidence of publication in the Wichita Eagle. If publication in the Wichita Eagle has occurred, then notice of the hearing has been properly made.

- Q. Do you have a recommendation regarding whether to approve the application?
- A. Yes. Operator's application meets all Commission requirements. Before making a final recommendation, however, I would like to review Ms. Ross's pre-filed testimony and have confirmation from Operator that 1) notice of the application was delivered to the appropriate parties within one-half mile radius and 2) notice of the hearing was published in the Wichita Eagle.
- Q. Does this conclude your testimony as of this date, May 5, 2017?
- 29 A. Yes.

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S	Pat Apple, Chair Shari Feist Albre Jay Scott Emler		
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CERTIFICATE OF SERVICE			
I, Paula Murray, certify that on			
Timothy E. McKee Amy Fellows Cline Triplett, Woolf & Garretson, LLC 2959 N. Rock Road, Suite 300 Wichita, Kansas 67226 Attorneys for Charles E. See, dba		P. Cl	Cark T. Lair O. Box 511 hanute, Kansas 66720 ttorney for Charles E. See, dba See Oil
Lastacia Ross P.O. Box 1444 Pittsburg, Kansas 66762			
And delivered by email to:			
Dustin L. Kirk, KCC Deputy General Counsel/Prehearing Officer			

Paula Murray Legal Assistant

Kansas Corporation Commission