



RAILROAD COMMISSION OF TEXAS

HEARINGS DIVISION

OIL AND GAS DOCKET NO. 7B-0285713

THE APPLICATION OF DJM BEASLEY WELL SERVICE FOR COMMERCIAL DISPOSAL AUTHORITY PURSUANT TO STATEWIDE RULE 46, FOR THE BEASLEY NO. 1 WELL, JONES COUNTY REGULAR FIELD, JONES COUNTY, TEXAS

HEARD BY: Paul Dubois – Technical Examiner
Marshall Enquist – Hearings Examiner

APPEARANCES:

APPLICANT:

George Neale
Rick Johnston
Jed Beasley

REPRESENTING:

DJM Beasley Well Service

PROTESTANTS:

James M. Decker

Mitchell L. Heidenheimer, Thelma Heidenheimer, J. M. Heidenheimer Residuary Trust, Joe Jackson, Shirley Jackson, Richard Newman, Judy Newman, Danny Jackson, K. A. Goza, Mavalyn Goza, and Patrice Watts.

PROCEDURAL HISTORY

Application Filed:	May 15, 2013
Protest Received:	June 4, 2013
Request for Hearing:	October 29, 2013
Notice of Hearing:	December 6, 2013
Date of Hearing:	March 17, 2014
Transcript Received:	March 26, 2014
Proposal For Decision Issued:	July 10, 2014

EXAMINERS' REPORT AND PROPOSAL FOR DECISION**STATEMENT OF THE CASE**

This is the Application of DJM Beasley Well Service (Beasley)(Operator No. 221732) for Commercial Disposal Authority Pursuant to Statewide Rule 46, for the Beasley No. 1 Well, Jones County Regular Field, Jones County, Texas. Beasley proposes to convert an existing well that was plugged and abandoned to injection service.

Notice of the application was published in the *Western Observer*, a newspaper of general circulation in Jones County, on April 25, 2013. Notice of the application was mailed on May 15, 2013 to the Jones County Clerk and to the surface owners of the disposal tract and each tract adjoining the disposal tract. There are no offset operators within a one-half mile area of review around the proposed injection well.

The application was protested by all of the adjacent landowners, including Mitchell L. Heidenheimer, Thelma Heidenheimer, J. M. Heidenheimer Residuary Trust, Joe Jackson, Shirley Jackson, Richard Newman, Judy Newman, Danny Jackson, K. A. Goza, Mavalyn Goza, and Patrice Watts.

Mr. James Decker, counsel for the Protestants, stated that Mitchell Heidenheimer—as an individual or as trustee of the J. M. Heidenheimer Residuary Trust—did not receive notice of the application as required by Rule 46. The examiners take official notice of the application file in Docket No. 7B-0285713. Mitchell Heidenheimer did not appear to be noticed of the original application with the other adjacent landowners on May 15, 2013. His mother, Thelma Heidenheimer, who jointly owns the property with him was noticed. On June 3, 2013, the Commission received individual notices of protest from Mitchell Heidenheimer and the other protestants. All protests indicated the parties' representation by Mr. Decker. Mr. Decker represented Mr. Heidenheimer and the other protestants at the hearing. The examiners find the failure to notice Mitchell Heidenheimer on the original application to be moot as he clearly received notice of the application, secured representation, protested, and was represented at the hearing.

At the hearing on March 17, 2014, Beasley stated that it had received a compliance notice for its Threadgill No. "B" well, which had a Rule 14(b) extension. On December 27, 2013, the Commission's P-5 Unit issued an extension letter to expire on April 2, 2014. Beasley was required to either plug the well, or file Form W-3X (Application for an Extension of Deadline for Plugging an Inactive Well) and pay a \$2,034.70 fee to remain in compliance with H.B. 2259. Beasley indicated it would be paying the fee with the intent to return the well to production. On April 4, 2014, the Commission's P-5 Unit issued a certified letter to Beasley re-stating the compliance issue. Beasley filed Form W-3X and attempted to pay the fee with a personal or company check, which was returned on or about April 16, 2014. On May 28, 2014 the Commission received appropriate payment in

the form of a cashier's check. On May 29, 2014, the Commission's online query system indicates that DJM Beasley Well Service has an active P-5 and is compliant with H. B. 2259.

DISCUSSION OF THE EVIDENCE

Applicant's Evidence

The Applicant's direct case included testimony from Jed Beasley, owner of JLM Beasley Well Service, and Rick Johnston, P. E. Mr. Beasley also is the surface owner and mineral owner of the subject tract. Beasley proposes to convert the existing Beasley No. 1 well to injection service as a commercial disposal well. The Beasley No. 1 well (API No. 253-32325) was drilled in 1982 by Interior Energy, Inc. The well was permitted for the Wildcat Field and then completed in the Jones County Regular Field. The well is completed with 130 feet of 8 5/8-inch surface casing cemented to the surface. The 4 1/2-inch production casing is set at 4,717 feet (total depth) with about 915 feet of cement above the bottom of the casing. The producing interval is 4,632 feet to 4,646 feet in the Strawn Formation. On initial potential testing the well produced 96 BO, 80 MCFG and 12 BW. Accumulative primary production from the well was about 10,000 BO according to Beasley. The Beasley No. 1 well was plugged by Aspen Exploration, Inc., on August 13, 1996. Prior to plugging, the 4 1/2-inch production casing was cut and 1,175 feet of it was removed from the wellbore. Four plugs were placed in the wellbore covering the following depth intervals: 4,600 to 4,350 feet, 800 to 640 feet, 180 to 30 feet, and 15 to 3 feet.

The Commission's Groundwater Advisory Unit (GAU) issued a groundwater protection determination (a.k.a. 'Surface casing letter') for the well on May 13, 2013. The GAU indicated the land surface to a depth of 150 feet must be protected (base of usable quality water, or BUQW). Additionally, the letter estimated the base of underground sources of drinking water (USDW) to occur at a depth of 250 feet.

The Beasley No. 1 well is completed with 130 feet of cemented surface casing; the GAU determined that the well must be cased to 150 feet. Because of this shortcoming, the well as currently constructed cannot be used for injection. To correct the casing coverage issue, Beasley has proposed a revised casing program, as follows:

- Existing surface casing (8-5/8-inch) originally set to 130 feet and cemented to the surface (no change);
- BUQW requiring protection is at 150 feet;
- Intermediate casing (7-inch) will be set to 200 feet and cemented to the surface (surrogate surface casing to cover the BUQW);

- Production casing (4 1/2-inch) will be reconnected to the cut casing stub at a depth of about 1,175 feet.
- Injection tubing (2 3/8-inch) will be set with a packer to a depth of 4,550 feet, which is within 100-feet of the top of the proposed injection interval.

Operationally, Beasley is applying for a permit to inject a maximum of 10,000 BPD of produced saltwater and RCRA¹-exempt wastes at a maximum surface injection pressure of 2,316 psig. Beasley anticipates the estimated average daily injection volume to be about 5,000 BPD.

A well log for the Beasley No. 1 was not available. A geologic cross section was drawn from two logs: the Hoke Propst No. 1 (API No. 253-02194) is three-eighths of a mile to the west and the Rainwater No. 1 (API No. 253-01295) is one-half mile to the east. Five marker horizons in the interval from about 4,270 feet to 4,700 feet are interpreted across the section, with the proposed injection (former producing) zone in the Beasley No. 1 well situated between marker nos. 4 and 5. Significant and mostly continuous shale strata are above the injection interval for at least about 1,000 feet, as indicated on the gamma ray logs. Significant shale confinement is indicated below the injection interval as well.

One well bore and one cancelled drilling permit were identified on the Commission's GIS system within a one-quarter mile area of review. The dry hole (API 253-32405) is located about 1,000 feet southeast of the Beasley No. 1 well. The dry hole was drilled in December 1982 and plugged in February 1983. Commission plugging records indicate that four plugs were placed in the well, including a plug from 4,450 feet to 4,311 feet and a plug from 160 feet to 21 feet. This information suggests that the wellbore contains plugs sufficient to isolate the proposed disposal interval from the BUQW.

Beasley examined records for boreholes within a one-half mile radius of the proposed well to identify other potential conduits for migration of injected fluids. During this review it identified two dry holes that were not plugged in a manner to isolate the BUQW from the injection interval. In addition, Beasley identified a third borehole—which does not appear on Commission maps—450 feet northwest of the Beasley No. 1 well, that also was not plugged in a protective manner. The three wellbores are listed below, and all of them (1) penetrate the injection interval, (2) have surface casing and surface plugs that do not isolate the BUQW, and (3) are filled with heavy mud:

- Hoke Propst No. 1 (API No. 253-02194) is three-eighths of a mile west of the

¹ Resource Conservation and Recovery Act: Examples of RCRA exempt oil and gas waste includes produced water, drilling fluids, frac flowback fluids, rigwash and workover wastes.

Beasley No. 1, and was drilled and plugged in 1954².

- Rainwater No. 1 (API No. 253-01295) is one-half mile east of the Beasley No. 1, and was drilled and plugged in 1954.
- Delia O’Gill No. 1 (API No. 253-01226) is 450 feet northwest of the proposed location, was drilled in 1952 to a depth of 4,754 feet, produced for a short period of time, then plugged in 1955.

At the hearing Beasley agreed to return these wellbores to production or to plug them in accordance with current standards as a condition of the commercial injection permit it seeks³. Beasley has identified the well surface locations and owns the mineral rights for the Rainwater and O’Gill locations. For the Hoke location, Beasley does not own the mineral rights but does agree to ensure that the wellbore is properly plugged if an agreement to operate the well is not secured. Baring other alternatives, Beasley offered to cover the State’s cost to re-plug the wellbore.

Beasley identified two active commercial disposal wells within a ten-mile radius of the proposed injection well. The Sojourner Drilling Huffmyer No. 1 well is located about two miles east. It is permitted to inject 10,000 BPD into the Canyon sand at a depth of 3,068 to 3,500 feet. The Joe T. Smith Holland No. 6 well is located about eight miles southeast. It is permitted to inject 1,000 BPD into the Hope, Flippen & Tannehill formations at a depth of 2,190 to 2,500 feet. Beasley identified a total of 11 commercial disposal facilities in all of Jones County. These include its proposed Beasley No. 1, as well as one well not yet drilled and one that has been temporarily abandoned.

Jones and adjacent counties are beginning to see active development of the Cline Shale play. Beasley recited a figure of up to 1,500 Cline Shale wells will be drilled in Fisher and Nolan Counties, which are directly west and southwest of Jones County, respectively. Haskell County to the north of Jones County has also seen high levels of drilling activity. Beasley indicated that its hauling business, which usually uses the Sojourner Huffmyer No. 1 commercial disposal well, has experienced longer and longer wait times for disposal. Waits of up to three hours were experienced as recently as the week of the hearing. Beasley also stated that its trucks had been denied service at a facility in Nolan County because that well was at capacity. Delays, wait times, and extended drive time for disposal increase costs to well operators.

² Well logs from the Hoke and Rainwater dry holes were used for the cross-section, Applicant’s exhibit no. 7.

³ Beasley used the phrase “return to production;” The examiners note that two of the wellbores, the Hoke and Rainwater, were dry holes and were never produced.

Beasley has an active Form P-5 and has a \$50,000 cash deposit on file with the Commission. The company has been in oil field related business for three generations, including oil and gas production and waste hauling. The company operates heavy machinery for various oil field related construction projects. Beasley also operates four non-commercial injection wells on its leases. As owner of the surface tract also, Beasley indicated it had flexibility in siting the surface facility to where it could be closer to FM 2746 to the north of the site or along FM 3116 to the west. Jed Beasley indicated his desire to place the surface facility as close to the well as possible, but he is willing to be flexible to limit its line-of-sight exposure to his neighbors.

Mr. Beasley estimates that the 10,000 bbl cumulative primary production from the Beasley No. 1 well, from 1982 to 1996, represents about 20 percent of the recoverable oil. He further stated that the location of the Delia O’Gill No. 1 (API No. 253-01226, 450 feet northwest of the Beasley No. 1 proposed injection well) would be a prime location for a waterflood for secondary recovery project that would recover the remaining 80 percent of recoverable oil (transcript, pp 70 - 71). He also expressed his belief that the two other well locations (actually, dry holes) in the area (the Hoke Propst No. 1 and the Rainwater No. 1) could also produce significant amounts of oil.

Protestant’s Evidence

The Protestants did not put on a direct case against the proposed well. Mr. Decker cross examined both of the Applicant’s witnesses. The line of questioning was focused on whether there was need for additional disposal capacity in Jones County and whether the existing location in Jones County was suitable to meet the demand. Mr. Decker also raised concerns that Mitchell Heidenheimer was not notified of the application. The Protestants’ cross examination left the Applicant’s testimony intact.

EXAMINERS’ OPINION

The Railroad Commission may grant an application for a permit under Chapter 27 of the Texas Water Code, Subchapter C, in whole or part and may issue a permit if it finds:

1. The use or installation of the injection well is in the public interest;
2. The use or installation of the injection well will not endanger or injure any oil, gas, or other mineral formation;
3. With proper safeguards, both ground and surface fresh water can be adequately protected from pollution; and

4. The applicant has made a satisfactory showing of financial responsibility if required by Section 27.073.

The Applicant has met the requirements of the Texas Water Code and Statewide Rule 46—contingent upon the Applicant's demonstration that the three nearby boreholes described herein be brought into compliance with Commission Rules either by (1) returning them to production, or (2) re-plugging. It is the examiners' recommendation that the application be approved.

To meet its obligation to protect fresh groundwater resources, Beasley has developed a plan and expressed its intention to address casing and plugging issues in four wells, including the Beasley No. 1 proposed disposal well. The remedial casing and cementing plan for the Beasley No. 1 will isolate the BUQW by the placement of 200 feet of 7-inch intermediate casing and cementing it to the surface. This will meet the surface casing requirements in Rule 13.

There are three boreholes within a one-half mile radius of the proposed well that were not plugged in a manner sufficient to ensure protection of groundwater resources. These three wellbores (1) penetrate the injection interval, (2) have surface casing and surface plugs that do not isolate the BUQW, and (3) are filled with heavy mud. The examiners recommend that conditions be placed on the permit requiring these wells to be replugged or returned to production prior to commencing disposal activities in the Beasley No. 1 well. Returning these wells to production will require remedial measures to address the surface casing and cementing shortcomings in order to protect the BUQW.

Therefore, given these additional permit requirements, the examiners conclude that the surface and subsurface freshwater will be adequately protected from pollution. The special requirements placed on permits for commercial disposal wells are, in large part, intended to provide for the containment, recovery, and protection from surface releases of waste fluids.

The examiners find that the proposed well will prevent injected waste fluids from leaving the disposal interval and potentially harming freshwater or other mineral resources. Significant and mostly continuous shale strata are above the injection interval for at least about 1,000 feet. Significant shale confinement is indicated below the injection interval as well.

The examiners conclude that the use or installation of the injection well will not endanger or injure any oil, gas, or other mineral formation. The Beasley No. 1 well has produced from the Strawn Formation, into which disposal authority is now requested. The adjacent Delia O'Gill No. 1 also briefly produced from this interval before being plugged and abandoned. Mr. Beasley testified to his belief that there are additional produceable reserves underlying the tract, and he suggested that the proposed disposal well could

assist with production of those reserves by waterflooding. The examiners take note of Statewide Rule 47, which states in part:

“...an operator may make application to use the well for dual-purpose waterflood and saltwater disposal if injection is into an oil productive zone, and it is shown that the water injection will not injure the reservoir but will probably be of benefit to the reservoir as a secondary recovery program even though the beneficial effect of the water injection cannot be readily determined.”

Thus the examiners conclude that this existing rule anticipates that a well may have dual functions of both disposal and waterflooding, and the operator appears to be granted some discretion in justifying dual use. The examiners note that Jed Beasley is the owner of the surface and mineral estates on the subject tract.

The examiners find that Beasley has made a satisfactory showing of financial responsibility, as required under State statutes and Commission regulatory requirements. Beasley has an active Form P-5 and has a \$50,000 cash deposit on file with the Commission.

The examiners find that the proposed well is in the public interest, as the term is applied to matters under the jurisdiction of the Railroad Commission. This is an application to convert an existing, plugged and abandoned wellbore into service as a commercial disposal well into a formation productive of oil or gas. The purpose of the well is to serve an existing and anticipated future industry need for the disposal of saltwater and RCRA-exempt oil and gas waste generated by nearby exploration and production activity, in particular the increasing activity in the Cline Shale in Jones and neighboring counties. The Protestant questions whether such need exists, and, if it does, whether the proposed is an appropriate location to expand capacity. The evidence established that need for such disposal facilities exist.

Based on the evidence presented, the examiners conclude that the proposed well is in the public interest and Beasley's application should be approved.

FINDINGS OF FACT

1. Notice of the application was published in the *Western Observer*, a newspaper of general circulation in Jones County, on April 25, 2013. Notice of the application was mailed on May 15, 2013 to the Jones County Clerk and to the surface owners of the disposal tract and each tract adjoining the disposal tract, with the exception of Mitchell L. Heidenheimer, individually and as agent for the J. M. Heidenheimer Residuary Trust. There are no offset operators within a one-half mile area of review around the proposed injection well.

2. The application was protested by all of the adjacent landowners, including Mitchell L. Heidenheimer, Thelma Heidenheimer, J. M. Heidenheimer Residuary Trust, Joe Jackson, Shirley Jackson, Richard Newman, Judy Newman, Danny Jackson, K. A. Goza, Mavalyn Goza, and Patrice Watts.
3. The examiners find the failure to notice Mitchell Heidenheimer on the application to be moot as he clearly received notice of the application, secured representation, protested, and was represented at the hearing.
4. Beasley proposes to convert the existing Beasley No. 1 well (API No. 253-32325) to injection service as a commercial disposal well.
 - a. The well is completed with 130 feet of 8 5/8-inch surface casing cemented to the surface.
 - b. The 4 1/2-inch production casing is set at 4,717 feet (total depth) with about 915 feet of cement above the bottom of the casing.
 - c. The producing interval was 4,632 feet to 4,646 feet in the Strawn Formation.
 - d. On initial potential testing the well produced 96 BO, 80 MCFG and 12 BW. Accumulative primary production from the well was about 10,000 BO.
 - e. The Beasley No. 1 well was plugged by Aspen Exploration, Inc., on August 13, 1996. Prior to plugging, the 4 1/2-inch production casing was cut and 1,175 feet of it was removed from the wellbore. Four plugs were placed in the wellbore covering the following depth intervals: 4,600 to 4,350 feet, 800 to 640 feet, 180 to 30 feet, and 15 to 3 feet.
5. The Commission's Groundwater Advisory Unit (GAU) issued a groundwater protection determination (a.k.a. 'Surface casing letter') on for the well May 13, 2013. The GAU indicated the land surface to a depth of 150 feet must be protected (base of usable quality water, or BUQW).
6. The wellbore is not currently cased and cemented in such a manner to be protective of usable-quality ground water.
7. DJM Beasley Well Service proposes to recomplete the wellbore as follows:
 - a. Set 7-inch intermediate casing to 200 feet and cemented to the surface;
 - b. Reconnect new 4 1/2-inch production casing to the cut casing stub at a depth

of about 1,175 feet.

- c. Injection tubing (2 3/8-inch) will be set with a packer to a depth of 4,550 feet, which is within 100-feet of the top of the proposed injection interval.
 - d. The injection interval will be 4,632 feet to 4,646 feet in the Strawn Formation.
 - e. Maximum daily injection volume of 10,000 BPD of saltwater and RCRA-exempt oil and gas waste, with an estimated average daily injection volume of 5,000 BPD.
 - f. Maximum surface injection pressure of 2,316 psig.
8. The remedial intermediate casing and cementing plan will protect the usable-quality groundwater to a depth of 150 feet below ground surface, which corresponds to the BUQW.
 9. Special permit conditions to provide for the containment, recovery, and protection from surface releases of waste fluids will protect fresh groundwater and surface water.
 10. The Strawn Formation injection interval is overlain by 1,000 feet of shale, and shale also underlies the interval; injected fluids will be contained within the Strawn Formation.
 11. There are three plugged and abandoned wellbores—two dry holes and one briefly producing well—within a one-half mile radius of the proposed location that were not cased, cemented, plugged and abandoned in a manner that would ensure protectiveness of groundwater resources.
 12. DJM Beasley Well Service agreed to bring these three wellbores into compliant production or to re-plug them, as a condition to the requested injection permit.
 13. The well is in the public interest as there is an existing and anticipated future industry need for the disposal of saltwater and RCRA-exempt oil and gas waste generated by nearby exploration and production activity, in particular the increasing activity in the Cline Shale in Jones and neighboring counties.
 14. DJM Beasley Well Service has an active P-5 on file with the Commission, and \$50,000 letter of credit as financial assurance.

CONCLUSIONS OF LAW

1. Proper notice was issued in accordance with the applicable statutory and regulatory requirements.
2. All things have occurred to give the Railroad Commission jurisdiction to consider this matter.
3. The use or installation of the proposed injection well is in the public interest.
4. The use or installation of the proposed injection well will not endanger or injure any oil, gas, or other mineral formation.
5. With proper safeguards, as provided by terms and conditions in the attached final order, which are incorporated herein by reference, both ground and surface fresh water can be adequately protected from pollution.
6. DJM Beasley Well Service has made a satisfactory showing of financial responsibility to the extent required by Section 27.073 of the Texas Water Code.
7. DJM Beasley Well Service has met its burden of proof and satisfied the requirements of Chapter 27 of the Texas Water Code and the Railroad Commission's Statewide Rule 9.

EXAMINERS' RECOMMENDATION

Based on the above findings and conclusions, the examiners recommend that the application be approved as set out in the attached Final Order.

Respectfully submitted,



Paul Dubois
Technical Examiner



Marshall Enquist
Hearings Examiner

Beasley # 1
(API # 42-253-32325)
DJM Beasley Well Service
Jones County, Texas

Proposed Injection Configuration

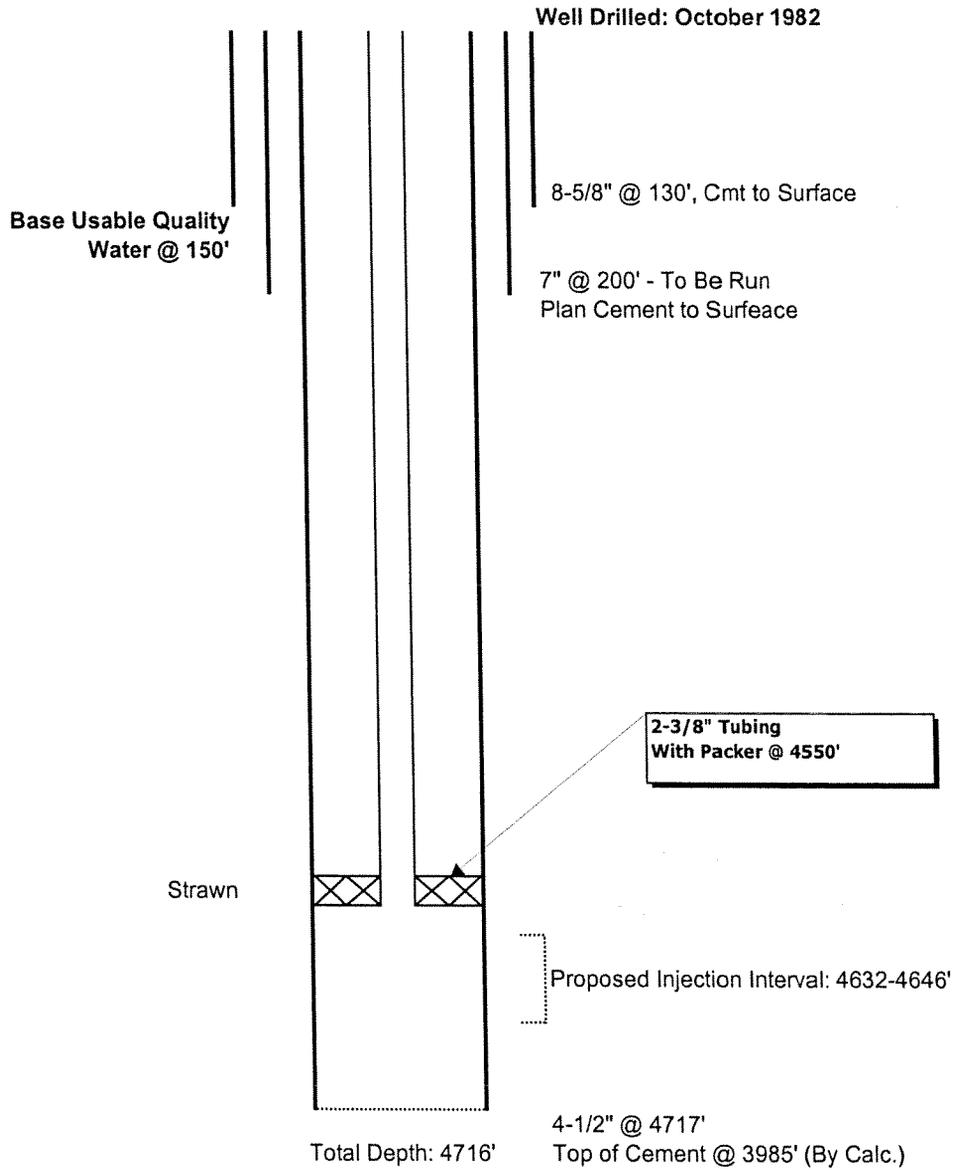


Exhibit No. 4
O & G Docket No. 7B-0285713
Date: January 24, 2014
DJM Beasley Well Service