Region 6
1445 Ross Avenue
Dallas, Texas 75202-2733

UIC Permit No. 06S1261P6461
Well No.: Longfellow #10

AUTHORIZATION TO CONVERT A WELL TO AN INJECTION WELL UNDER THE UIC PROGRAM OSAGE MINERAL RESERVE

In compliance with the provisions of the Safe Drinking Water Act, (hereafter referred to as "the Act" or "SDWA") as amended (42 U.S.C. §300f et seq.),

Thomas D. Robbins Trust
3308 Preston Rd., Suite 350-245
Plano, Texas 75093

is authorized to construct a Class II salt water disposal injection well. This well is located at:

980 feet from the south line and 810 feet from the west line, Southwest Quarter, Section 11, Township 21N, Range 9E into the injection interval at a depth of 2197 feet to 2217 feet below land surface in the Bartlesville in accordance with the construction and operation requirements, injection pressure limits, reporting and monitoring requirements, and other conditions set forth in Parts I and II of this permit and the Osage Class II Underground Injection Control Program and Regulations.

Unless authorization to inject is granted, this permit shall remain in effect for one year from the effective date shown below. Authorization to inject fluids into the well shall be granted only upon compliance with permit conditions, I.A.1., I.A.2., I.A.3., and I.B.1. Authorization to inject fluids into the well may be verbally granted by the Chief, Ground Water/UIC Section or by written "Authorization to Inject" from the Director, Water Quality Protection Division (6WQ). Upon authorization to inject, this permit shall remain in effect until the well is plugged or the permit is terminated.

This permit shall become effective on MAY 09 2016

Prepared by

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Ground Water/UIC Section
(6WQ-SG)

Issued on MAY 09 2016

for William Honker, P.E.
Director
Water Division

Part I. SPECIAL PERMIT CONDITIONS

A. Construction Requirements

1. The surface casing shall be set at 190 feet below land surface and cemented to the surface with 50 sacks of cement, the long string shall be set at 2168 feet below land surface and cemented with 50 sacks of cement and the liner shall be set at 2197 feet below land surface and cemented to the surface with 140 sacks of cement.

2. The well shall be equipped with standard female fittings with cut-off valves connected to the tubing and the tubing/casing annulus so that the injection pressure and annulus pressure may be measured by an EPA representative by attaching a gauge having a standard male fitting.

3. Tubing and packer shall be installed. The packer shall be run on the tubing and set inside the casing between 2197 and 2217 feet of depth below the land surface.

B. Operating Requirements

1. Authorization to inject will not be granted until the permittee shows to the satisfaction of the Director, Water Quality Protection Division, pursuant to 40 CFR §147.2920(b)(1)(i) that the well has mechanical integrity. The well's mechanical integrity must be demonstrated prior to the start of injection and at least every five years thereafter. The permittee must notify the Osage UIC office at least five (5) days prior to mechanical integrity testing so that an EPA representative can witness the test.

2. Injection pressure at the wellhead shall not exceed 0 psig.

3. The permittee is authorized to inject salt water for disposal.

4. Injection volume shall be limited to 12,000 barrels per month.

Part II. CONDITIONS APPLICABLE TO ALL PERMITS - OSAGE

A. Confidentiality

Any information except the permittee's name and address and information concerning the existence, absence or level of contaminants in drinking water may be claimed as confidential. Any claim of confidentiality must be asserted at the time of submission. If no claim is made, EPA may make the information available to the public without further notice.

B. Duty to Comply

1. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action, for permit termination, revocation and reissuance, or modification.

   Compliance with the terms of this permit does not constitute a defense to any action brought under Section 1431 of the Safe Drinking Water Act (SDWA) of any other law for any imminent or substantial endangerment to human health of the environment or for any breach of any other applicable legal duty.

2. The permittee need not comply with the provisions of this permit to the extent and for the duration such noncompliance is authorized in a temporary emergency permit under 40 CFR §147.2906.

C. Duty to Halt or Reduce Activity

It shall not be a defense for a permittee, in an enforcement action, that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

D. Duty to Mitigate

The permittee shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this permit.

E. Proper Operation and Maintenance

1. All injections wells must have and maintain mechanical integrity consistent with 40 CFR §147.2920(b). Mechanical integrity must be demonstrated initially and also any time the tubing is removed from the well, the packer is reset, or a loss of mechanical integrity becomes evident during operation. Furthermore, the Regional Administrator (RA) may by written notice require the permittee to demonstrate mechanical integrity at anytime. The permittee shall notify the Osage UIC office of his intent to prove mechanical integrity at least 5 days prior to such demonstration. The permittee shall report the results of the mechanical integrity demonstration within 30 days after completion (unless the demonstration is witnessed by an EPA inspector, in which case the inspector will prepare the report).

2. If the permittee or the RA finds that the well fails to demonstrate mechanical integrity during a test, or a loss of mechanical integrity as defined by 40 CFR §147.2920(b), becomes evident during operation, the operation shall be halted immediately and shall not be resumed until the RA gives approval to recommence injection.

3. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes effective performance, adequate engineering capability available, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of the permit.

F. Permit Actions

1. This permit may be modified, revoked and reissued, or terminated for the following causes (see 40 CFR §147.2927 and 40 CFR §147.2928):

   a) There are substantial changes to the facility or activity which occurred after permit issuance that justify revised or additional permit conditions.

   a) The RA has received information (e.g., from monitoring reports, inspections) which warrants a modified permit.

   b) The regulations or standards on which the permit was based have changed.

   c) The RA has received notice of a proposed permit transfer.

   d) An interested person requests in writing that a permit be modified and the RA determines that cause for modification exists.

   e) Cause exists for termination under 40 CFR §147.2928, but the RA determines that permit modification is appropriate.

   The modifications procedure described in 40 CFR §2927(c) must be followed to accomplish the modifications described in item "a" through "f" of this section.

2. Minor modifications do not require that the procedure listed in 40 CFR §147.2927(c) be followed.

   Minor modifications consist of:

   a) Correcting typographical errors;

   b) Requiring more frequent monitoring or reporting;

   c) Changing ownership or operational control (see 40 CFR §147.2926, Permit Transfers); or

d) Changing quantities or types of injected fluids, provided:

(i) The facility can operate within conditions of the permit;

(ii) The facility classification would not change.

The filing of a request by the permittee for a permit modification, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

G. Property Rights

This permit does not convey any property rights of any sort, or any exclusive privilege.

H. Duty to Provide Information

The permittee shall furnish to the RA within a reasonable time any information which the RA requests to determine whether cause exists for modifying, revoking and reissuing or terminating this permit. The permittee shall also furnish to the RA, upon request, copies of records required to be kept by this permit.

I. Inspection and Entry

The permittee shall allow EPA representatives upon the presentation of credentials and other documentation to:

1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records required by this permit are kept;

2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

3. Inspect, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and

4. Sample or monitor, at reasonable times for the purposes of assuring permit compliance or as otherwise authorized by the SDWA, any substances or parameters at any location.

J. Monitoring and Records

1. Samples and measurements taken for the purpose of monitoring shall be representative of the injection activity. The operator shall monitor the injection pressure (psi) and rate (bbl/day) once a month. Reporting of monitoring results shall be in accordance with procedures and at intervals prescribed in condition II.L.4 of this permit.

2. The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings of continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the RA at any time.

   The permittee shall retain records concerning the nature and composition of all injected fluids until three (3) years after the completion of any plugging and abandonment procedures specified under 40 CFR §147.2905. The RA may require the owner or operator to deliver the records to the RA at the conclusion of the retention period.

3. Records of monitoring information shall include:

   a. The date, exact place, and time of sampling or measurements;

   b. The individuals who performed the sampling or measurements;

   c. The date(s) analyses were performed;

   d. The individual(s) who performed the analyses;

e. The analytical techniques or methods used including quality assurance techniques employed to insure the generation of reliable data; and

f. The results of such analyses.

4. The owner/operator shall retain all monitoring records for three (3) years, unless an enforcement action is pending, and then until three (3) years after the enforcement action has been resolved.

K. Signatory Requirements

All applications, reports, or information submitted to the RA shall be signed and certified (see 40 CFR §147.2925(j)) by the injection facility owner/operator or his duly authorized representative.

L. Reporting Requirements

1. The owner/operator shall notify the Osage UIC office within 30 days of the date on which injection commenced.

2. Planned changes - The permittee shall give advance notice to the RA of any planned changes which may result in noncompliance.

3. Transfers - This permit is not transferable to any person except after notice to the RA.

a) Permits may be transferred to another permittee:

(1) If the current permittee notifies the RA by certified mail at least 10 days before the proposed transfer date; and

(2) If the notice includes a written agreement between the existing and new permittees containing:

(i) A specific date for transfer of permit responsibility, coverage and liability; and

(ii) Assurance that the new permittee has a surety bond on file with BIA; and

(3) If the RA does not respond with a notice to the existing permittee that the permit will be modified.

b) If the conditions in paragraph (a) of this section are met, the transfer is effective on the date specified in paragraph (a) (2) (i).

4. Monitoring reports - Monitoring results shall be reported annually on the EPA Annual Disposal/Injection Well Monitoring Report form or an identical format. The report shall specify the types of methods used to generate the monitoring data.

5. Compliance schedules - Reports of compliance or noncompliance with, or any progress report on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 30 days following each interim date and the final date of compliance.

6. Twenty-four hour reporting - The permittee shall report to the Osage UIC office any noncompliance which may endanger an underground source of drinking water. The report shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within five (5) days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance including exact dates and times; if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

7. The following shall be reported within 30 days of occurrence:

   1) Any monitoring reports or other information required under paragraph 6 that is not available within five (5) days.

   2) Any malfunction of the injection system including any mechanical failure or downhole problem involving well integrity, well workovers, or any noncompliance (Ref. 40 CFR §147.2922).

8. Other noncompliance - The permittee shall report all instances of noncompliance not reported under paragraphs 6 and 7 of this section at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph L.6 of this section.

9. The permittee shall notify the Osage UIC office within 30 days of the date injection has terminated.

10. Other information - When the permittee becomes aware that he failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the RA, the permittee shall promptly submit such facts or information.

M. <u>Additional Conditions</u>

1. The operator of a well shall not allow the movement of fluid containing any contaminant into underground sources of drinking water if the presence of that contaminant may cause a violation of any primary drinking water regulation under 40 CFR Part 142 or may otherwise adversely affect human health.

2. The owner/operator shall notify the Osage UIC office within 30 days of the date injection has terminated. The well must be plugged within one year after termination of injection. The RA may extend the time to plug, but only if no fluid movement into a USDW will occur, and the operator has presented a viable plan for utilizing the well within a reasonable time.

1. The permittee shall notify the Osage UIC office by certified mail at least five (5) days prior to the commencement of plugging operations. The notice must include that information prescribed at 40 CFR §147.2905(c).

2. Plugging and Abandonment - The well shall be plugged in a manner which will not allow the movement of fluids either into or between underground sources of drinking water. Placement of cement plugs shall be accomplished by one of the methods described in 40 CFR §147.2905 or some other method approved by the RA.

   The well to be abandoned shall be in a state of static equilibrium with the mud weight equalized top to bottom, either by circulating the mud in the well at least once or by a comparable method prescribed by the RA, prior to the placement of the cement plug(s).

N. Financial Responsibility

The permittee must demonstrate and maintain financial responsibility and resources to close, plug, and abandon the underground injection well. This shall be demonstrated by the submission of a surety bond to the Osage Agency Bureau of Indian Affairs.

O. Civil and Criminal Liability

Nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance.

P. Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provisions to other circumstances, and the remainder of this permit, shall not be affected thereby.

Q. Explanation of Terms

Terms used in this permit are defined as follows:

"RA" - the EPA Regional Administrator

"UIC" - Underground Injection Control Program

"SDWA"/"the Act" - The Safe Drinking Water Act

"Osage UIC Office" - 625 Grandview Avenue, Osage Agency Campus, P. O. Box 1495, Pawhuska, OK 74056

Well Stimulation - means several processes used to clean the wellbore, enlarge channels, and increase pore space in the interval to be injected thus making it possible for wastewater to move more readily into the formation, and includes (1) surging, (2) jetting, (3) blasting, (4) acidizing, (5) hydraulic fracturing.

Other references to program - specific terms, acronyms and abbreviations shall mean those terms as defined by the UIC program regulations, 40 CFR 124, 144, 145, 146, 147 and the Safe Drinking Water Act.