

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 6 1445 ROSS AVENUE, SUITE 1200 DALLAS, TEXAS 75202-2733

August 4, 2017

CERTIFIED MAIL-RETURN RECEIPT REQUESTED: 7005 1820 0003 7458 4257

Mr. Lanny Woods, Vice President Jireh Resources, LLC PO Box 701230 Tulsa, OK 74170

Re:

Notice of Proposed Administrative Order and Opportunity to Request a Hearing

Well Numbers: 9 (OS0922); 4W (OS0924); 18W (OS6320)

Docket Number: SDWA-06-2017-1110

Dear Mr. Woods:

Enclosed is a Proposed Administrative Order (Order) issued to Jireh Resources, LLC for violation of the Safe Drinking Water Act (SDWA). The violation is for violation of 40 CFR § 2912(c), failure to confine injected fluids to the authorized injection zone for Well Numbers 4W and 9 and violation of 40 CFR § 2920(d) for Well No. 18W. The enclosed Order does not assess a monetary penalty; however, it does require compliance with SDWA requirements. The enclosed Order requires that the referenced wells above be shut-in until the failure has been identified and corrected.

You have the right to request a hearing regarding the violations alleged in the Order pursuant to Section 1423(c)(3)(A) of the SDWA, 42 U.S.C. § 300h-2(c)(3)(A). Note that should you fail to request a hearing within thirty (30) days of your receipt of this Order, you will waive your right to such a hearing, and may be subject to the compliance terms without further proceedings. Whether or not you request a hearing, we invite you to confer with us informally. If you choose not to request a hearing, we will review any comments on the proposed Order received from you and the public and determine whether the Order will become final. In the event you fail to request a hearing within thirty (30) days of your receipt of this Order, and no public comments are received, the Order will become final. Should this occur, the Environmental Protection Agency (EPA) will send you a letter memorializing the finalization of the Order.

Also enclosed is an "Information Sheet" relating to the Small Business Regulatory Enforcement Fairness Act and a "Notice of Registrant's Duty to Disclose" relating to the disclosure of environmental legal proceedings to the Securities and Exchange Commission. The EPA is committed to ensuring compliance with the requirements of the Underground Injection Control program, and my staff will assist you in any way possible.

Questions regarding this Order should be addressed to Ms. Ellen Chang-Vaughan at (214) 665-7328.

Sincerely,

Cheryl T. Seager

Director

Compliance Assurance and Enforcement Division

Enclosures

cc: BIA, Minerals Branch

Osage Nation Environmental and Natural Resources Department

U.S. ENVIRONMENTAL PROTECTION AGENCY-REGION 6 PROPOSED ADMINISTRATIVE ORDER (NOT A FINAL ORDER)

In the Matter of Jirch Resources, LLC, Respondent 117 AUG -7 AM 10: 16

Docket No. SDWA-06-2017-1110

REGIONAL HEARING CLERK
EPA REGION VI

STATUTORY AUTHORITY

The following findings are made and Administrative Order ("Order") issued under the authority vested in the Administrator of the U.S. Environmental Protection Agency ("EPA") by Section 1423(c) of the Safe Drinking Water Act ("the Act"), 42 U.S.C. §§ 300h–2(c). The authority to issue this Order has been delegated by the Administrator to the Regional Administrator of EPA Region 6 who further delegated such authority to the Director of the Compliance Assurance and Enforcement Division. The EPA has primary enforcement responsibility for underground injection within the meaning of Section 1422(e) of the Act, 42 U.S.C. § 300h–1(e), to ensure that owners or operators of Class II injection wells within Osage County, Oklahoma, comply with the requirements of the Act.

FINDINGS

- 1. Jireh Resources, LLC ("Respondent") is a limited liability company doing business in the State of Oklahoma and, therefore, is a "person," within the meaning of Section 1401(12) of the Act, 42 U.S.C. § 300f(12).
- 2. At all times relevant to the violations alleged herein, Respondent operated injection wells which are Class II wells (collectively, "the wells") authorized to inject in the Mississippi Chat formation located in Osage County, Oklahoma, as described below:

Well	Inventory	Location				Hereinafter
No.	No.	Quarter	Section	Township	Range	Referred to as
9	OS0922	Northwest		27 North		"Well No. 9"
4W	OS0924	Southwest	01	27 North	7 East	"Well No. 4W"
18W	OS6320	Southwest	01	27 North	7 East	"Well No. 18W"

- 3. Respondent is subject to underground injection control ("UIC") program requirements set forth at 40 C.F.R. Part 147, Subpart GGG, which are authorized under Section 1421 of the Act, 42 U.S.C. § 300h.
- 4. Regulations at 40 C.F.R. § 147.2903(a) require that any underground injection is prohibited except as authorized by rule ("ABR") or authorized by a permit issued under the UIC program. The construction or operation of any well required to have a permit is prohibited until the permit has been issued. The term "permit" is defined at 40 C.F.R. § 147.2902.
- 5. Regulations at 40 C.F.R. § 147.2916 require the owner or operator of a new Class II injection well, or any other Class II well required to have a permit in the Osage Mineral Reserve, to comply with the requirements of 40 C.F.R. §§ 147.2903, 147.2907, and 147.2918 through 147.2928.

- 6. Regulations at 40 CFR § 147.2912(c), require that ABR injection wells or projects which have exhibited failure to confine injected fluids to the authorized injection zone or zones may be subject to restriction of injected volume and pressure or shut-down, until the failure has been identified and corrected.
- 7. Regulations at 40 CFR § 147.2920(d), require that permitted injection wells or projects which have exhibited failure to confine injected fluids to the authorized injection zone or zones may be subject to restriction of injected volume and pressure or shut-in, until the failure has been identified and corrected.
- 8. On April 12, 2012, EPA issued UIC permit number 06S1261P6320 ("permit") to Well No. 18W.
 - 9. Wells No. 9 and No. 4W are regulated as ABR wells.
- 10. On August 16, 2016, EPA initially observed contamination in a tributary of North Bird Creek ("tributary") and North Bird Creek. Water located in the tributary at Latitude 36.8322 N and Longitude -96.4984 W, measured over 80,000 parts-per-million (ppm) Total Dissolved Solids (TDS). Also residual oil was observed on the surface and along the banks of the creek. These observations are consistent with impacts associated with oil and gas operations. Since then, EPA has conducted at least 20 inspections and has observed continued contamination.
- 11. On October 5, 2016 and June 27 29, 2017, samples were collected for cation/anion analyses in order to help identify the source(s) of contamination. Grab samples were taken at certain locations including the following: several locations throughout the tributary and North Bird Creek; and Jireh Resources, LLC well 18W. Cation/anion analyses of the samples show a correlation between the tributary samples and produced fluids from this well. In addition, EPA noted elevated temperatures at the bottom of the water column of the tributary and North Bird Creek.
- 12. On May 25, 2017, in-stream fluid monitoring began in the tributary and North Bird Creek. In-stream monitors were placed in the tributary at ten different monitoring locations measuring the levels of TDS and temperature in the tributary and North Bird Creek.
- 13. Based on data from in-stream monitors, several stations continue to show elevated TDS and temperature levels. The patterns of TDS and temperature readings, the quick rebound of TDS and temperature levels to pre-event levels after precipitation events, and cyclical variations seen in the data indicate that the presence of these elevated TDS and elevated temperature are consistent with oil field related activities.

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- 14. From June 9 20, 2017, a coordinated "static shut-in" of the six closest injection wells in the area occurred which included Respondent's 9, 4W and 18W Wells. The following are the observations which resulted from the shut-in:
 - (a) Due to the measured static fluids being 500 750 feet below ground surface, the static fluids cannot migrate from depth to the surface without additional pressure buildup, which was provided by the injection operations.
 - (b) A correlation was seen between injection operations and in-stream water quality TDS before and after the coordinated shut-in event.
 - (c) Amplitude (degree of variability) of short term concentration fluctuations at some stations diminished during the shut-in period.
- 15. From EPA investigations including those discussed in paragraphs 10 through 14 of this Order, EPA has made the determination that injected fluids from Respondent's wells are no longer confined to the authorized injection zone.
- 16. Therefore, Respondent violated regulations at 40 C.F.R. §§ 147.2912(c) and 147.2920(d) by exhibiting failure to confine injected fluids to the authorized injection zone.

SECTION 1423(c) COMPLIANCE ORDER

17. Based on the foregoing findings, and pursuant to the authority of Section 1423(c) of the Act, 42 U.S.C. § 300h-2(c), EPA Region 6 hereby orders Respondent to:

Immediately shut-in and/or shut-down and disconnect injection pipelines from the wellhead for Well Nos. 9, 4W and 18W until the Respondent can prove that the injected fluids are being confined to the authorized injection zone.

NOTICE OF OPPORTUNITY TO REQUEST A HEARING ON THIS PROPOSED ORDER

- 18. Respondent may request a hearing to contest the issuance of this Section 1423(c) Proposed Order, pursuant to Section 1423(c)(3)(A) of the Act, 42 U.S.C. § 300h–2(c)(3)(A). A request for a hearing must be submitted to the Regional Hearing Clerk (6RC-D); U.S. EPA, Region 6; 1445 Ross Avenue, Suite 1200; Dallas, Texas 75202 within thirty (30) days of the date of receipt of this Proposed Order. Such hearing shall not be subject to Section 554 or 556 of the Administrative Procedure Act, 5 U.S.C. §§ 554 and 556, but shall provide a reasonable opportunity to be heard and to present evidence.
- 19. A Respondent who wishes to request a hearing should include the request in a timely response to this Proposed Order. Respondent must file a timely response in order to preserve the right to a hearing or to pursue other relief.
- 20. EPA has notified the public of the filing of this Proposed Order at www.epa.gov/publicnotices and has afforded the public thirty (30) days in which to comment on

the Proposed Order as required by Section 1423(c)(3)(B) of the Act, 42 U.S.C. § 300h-2(c)(3)(B). At the expiration of the notice period, EPA will consider any comments filed by the public.

21. Should a hearing be requested, members of the public who commented on the issuance of this Proposed Order during the public comment period would have a right to be heard and present evidence at a hearing under Section 1423(c)(3)(C) of the Act, 42 U.S.C. § 300h–2(c)(3)(C).

GENERAL PROVISIONS

- 22. This Order does not constitute a waiver, suspension, or modification of the requirements of 40 C.F.R. Parts 144, 146, and 147, Subpart III, which remain in full force and effect.
- 23. Issuance of this Order is not an election by EPA to forego any civil or criminal action otherwise authorized under the Act.
- 24. Violation of the terms of this Order after its effective date or date of final judgment as described in Section 1423(c)(6) of the Act, 42 U.S.C. § 300h-2(c)(6), may subject Respondent to further enforcement action, including a civil action for enforcement of this Order under Section 1423(b) of the Act, 42 U.S.C. § 300h-2(b), and civil and criminal penalties for violations of the compliance terms of this Order under Section 1423(b)(1) and (2) of the Act, 42 U.S.C. § 300h-2(b)(1) and (2).

SETTLEMENT OF THIS PROPOSED ORDER

- 25. EPA encourages all parties against whom an administrative order is proposed to pursue the possibility of settlement through informal meetings with EPA. Regardless of whether a formal hearing is requested, Respondent may confer informally with EPA about the alleged violations. Respondent may wish to appear at any informal conference or formal hearing personally, by counsel or other representative, or both. To request an informal conference on the matters described in this Proposed Order, please contact Ms. Ellen Chang-Vaughan at (214) 665-7328.
- 26. If this action is settled without a formal hearing, it will be concluded by issuance of a Final Order.

EFFECTIVE DATE

27. This Order becomes effective thirty (30) days after issuance unless an appeal is taken pursuant to Section 1423(c)(6) of the Act, 42 U.S.C. § 300h–2(c)(6).

Quest 4, 2017

Cheryl T. Seager

Director

Compliance Assurance and Enforcement Division

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CERTIFICATE OF SERVICE

I certify that the foregoing Proposed Administrative Order was sent to the following persons, in the manner specified, on the date below:

Original hand-delivered:

Regional Hearing Clerk (6RC-D)

U.S. EPA, Region 6

1445 Ross Avenue, Suite 1200

Dallas, TX 75202-2733

Copy by certified mail

return receipt requested:

Mr. Lanny Woods, Vice President

Jireh Resources, LLC PO Box 701230 Tulsa, OK 74170

Copy by email:

Jann Hayman, Director

Osage Nation Environmental and Natural Resources

jannhayman@osagenation-nsn.gov

Robin Phillips, Superintendent

Osage BIA

robin.phillips@bia.gov

Eddie Streater, Regional Director

BIA Eastern Oklahoma eddie.streater@bia.gov

Bill Lynn, Director

Osage Minerals Council

william.lynn@osagenation-nsn.gov

Charles Babst, Senior Attorney

U.S. Department of the Interior, Tulsa Field Solicitor's Office

charles.babst@sol.doi.gov

Kristen Kokinos, Attorney

U.S. Department of the Interior, DC Solicitor's Office

kristen.kokinos@sol.doi.gov

Dated: 8/7/7

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