

January 16, 2018

Ani Hulse
1990 Kinnikinnick Dr
Erie, CO 80516

Dear Ms. Hulse,

The Colorado Oil and Gas Conservation Commission (COGCC) received your complaint regarding noise from an oil and gas operation in the vicinity of your residence on 9/15/2017. Your complaint is documented in the COGCC database as COGCC document number **200443917**, which can be found via the "Complaints" link, on our website (<http://cogcc.state.co.us/>).

The response to citizen complaints relating to the Waste Connections and Pratt locations during the completions phase included the following:

- On 09/15/2017 a COGCC Field Inspector conducted an inspection of the Waste Connections location, operated by Crestone Peak Resources Operating LLC, and the neighborhoods south of the pad (documented in Field Inspection Report [FIR] #674200216). At the time of inspection, Liberty Services was performing hydraulic fracturing (frac) operations. The Inspector reviewed location records, which did not show any abnormal frac operations at the time of the complaints. The Inspector also reviewed the 3rd party sound data and the town of Erie's sound data, which did not show any exceedance of the Maximum Permissible Sound Levels established in COGCC Rule 802. The Inspector also performed a sound study in the early morning hours on 09/15/2017, which also did not show any exceedance of the permissible sound levels. The Inspector did not note any odor on or off of the location;
- On 09/18/2017 a COGCC Inspector performed a complete site inspection of the Waste Connection location and the neighborhoods south of the frac pad (documented in FIR #674200224). At the time of inspection frac operations were ongoing and location records did not show any abnormal frac operations at the time of the complaints. The Inspector also reviewed the 3rd party sound data and the town of Erie's sound data which did not show any exceedance of the permissible sound levels. The Inspector did not note any odor on or off of the location;
- On 09/20/2017 a COGCC Inspector conducted a complete site inspection of the Waste Connection location and the neighborhoods south of the location (documented in FIR #674200225). Operations on the location were consistent with the previous inspection. The Inspector also reviewed the 3rd party sound data and the town of Erie's sound data which did not show any noise levels out of compliance with COGCC rules. The Inspector did not note any odor on or off of the location;
- On 09/21/2017 a COGCC Inspector conducted an inspection of the Waste Connection location and the neighborhoods south of the frac pad (documented in FIR #674200228). At the time of inspection, frac operations were ongoing and the Inspector reviewed location records, which did



not show any abnormal frac operations at the time of the complaints. The Inspector also reviewed the 3rd party and the town of Erie's sound data which did not measure any noise levels exceeding COGCC rules. The Inspector did not note any odor on or off of the location;

- On 09/26/2017 a COGCC Inspector conducted an inspection of the Waste Connection location and the neighborhoods south of the frac pad (documented in FIR #674200233). Operations on the location were consistent with the previous inspection, and the Inspector reviewed location records, which did not show any abnormal frac operations at the time of the complaints. The Inspector also reviewed the 3rd party and the town of Erie's sound data which did not measure any noise levels exceeding COGCC rules. The Inspector did not note any odor on or off of the location;
- On 09/27/2017 a COGCC Inspector conducted an inspection of the Waste Connection location and the neighborhoods south of the frac pad (documented in FIR # 674200235). At the time of inspection, frac operations were ongoing and the Inspector reviewed location records, which did not show any abnormal frac operations at the time of the complaints. The Inspector also reviewed the 3rd party and the town of Erie's sound data which did not measure any noise levels exceeding COGCC rules. The Inspector did not note any odor on or off of the location;
- On 10/02/2017 a COGCC Inspector conducted an inspection of the Waste Connection location and the neighborhoods south of the frac pad (documented in FIR # 674200246). Operations on the location were consistent with the previous inspection. The Inspector reviewed location records, which did not show any abnormal frac operations. The Inspector also reviewed the 3rd party sound data and the town of Erie's sound data which did not show any exceedance of permitted noise levels. The only odors detected on location were exhaust fumes from equipment on location. No other odors were detected off location at the time of the inspection;
- On 10/04/2017 a COGCC Inspector conducted an inspection of the Waste Connection location and the neighborhoods south of the frac pad (documented in FIR # 674200245). At the time of inspection, frac operations were ongoing at the location. The Inspector reviewed location records, which did not show any abnormal frac operations at the time of the complaints. The Inspector also reviewed the 3rd party sound data and the town of Erie's sound data which did not show any exceedance of permitted noise levels. No odors, other than exhaust fumes, were detected off location at the time of the inspection;
- On 10/06/2017 a COGCC Inspector conducted an inspection of the Waste Connection location and the neighborhoods south of the frac pad (documented in FIR # 674200244). At the time of inspection, frac operations were ongoing at the location. The Inspector reviewed location records, which did not show any abnormal frac operations at the time of the complaints. The Inspector also reviewed the 3rd party sound data and the town of Erie's sound data which did not show any exceedance of permitted noise levels. The only odors detected on location were exhaust fumes from equipment on location. No other odors were detected off location at the time of the inspection;
- On 10/09/2017 a COGCC Inspector conducted an inspection of the Waste Connection location and the neighborhoods south of the frac pad (documented in FIR # 674200305). Operations on the location were consistent with the most recent inspection. The Inspector reviewed location records, which did not show any abnormal frac operations at the time of the complaints. The Inspector also reviewed the 3rd party sound data and the town of Erie's sound data which did not show any exceedance of permitted noise levels. The only odors detected on location were exhaust fumes from equipment on location. No other odors were detected off location at the time of the inspection;
- On 10/11/2017 a COGCC Inspector performed a complete site inspection of the Waste Connection and Pratt locations and the neighborhoods south of the frac pad (documented in FIR #674200301). At the time of inspection frac operations were ongoing. The Inspector

reviewed location records, which did not show any abnormal frac operations. The Inspector also reviewed the 3rd party sound data and the town of Erie's sound data, which did not show any exceedance of permitted noise levels. The only odors detected on locations at the time of the inspection were exhaust fumes from equipment on locations. No odors other than exhaust fumes were detected off locations at the time of the inspection. All lighting on location appeared to be pointed toward the ground and center of location, in compliance with Rule 803. COGCC Inspectors also performed sound studies approximately 25' from the residence of two of the complaints. Both sound surveys demonstrated compliance with permissible noise levels;

- On 10/13/2017 a COGCC Inspector conducted an inspection of the Waste Connection location and the neighborhoods south of the frac pad (documented in FIR # 674200306). At the time of inspection, frac operations were ongoing at the location. The Inspector reviewed location records, which did not show any abnormal frac operations at the time of the complaints. The Inspector also reviewed the 3rd party sound data and the town of Erie's sound data which did not show any exceedance of permitted noise levels. The only odors detected on location were exhaust fumes from equipment on location. No other odors were detected off location at the time of the inspection;
- On 10/16/2017 COGCC Inspectors conducted inspections of the Waste Connections and Pratt locations (documented in FIR #s 684904610, 674200297, and 674200299). At the time of inspection, frac operations were ongoing at the locations. A sound study was conducted at the Pratt location from 1950 to 2050 Hrs. The sound study resulted in an average sound level of 64.5 dB, which is in compliance with COGCC Rule 802. The Inspector reviewed location records, which did not show any abnormal frac operations. The Inspector also reviewed the 3rd party sound data and the town of Erie's sound data which did not show any exceedance of permitted noise levels. The only odors detected on location were exhaust fumes from equipment on location. No odors were detected off location at the time of the inspection. An Inspector performed a sound study approximately 25 feet from the residence of a complainant in Erie, which demonstrated compliance with COGCC Rule 802;
- On 10/17/2017 COGCC Inspectors conducted inspections of the Pratt location (documented in FIR #s 684904613 and 674200298). At the time of the inspections Crestone personnel indicated they had been shut down due to equipment issues which had occurred at approximately 1430 hrs;
- On 10/19/2017 a COGCC Inspector conducted inspections of the Pratt and Waste Connections locations (documented in FIR # 684904618). The locations were shut down for maintenance with no frac operations occurring;
- On 10/20/2017 at approx 0500 hrs, a COGCC Inspector performed inspections of the Waste Connection and Pratt locations and the neighborhoods south of the frac pad (documented in FIR # 674200307). At the time of inspection, frac operations were ongoing. An Inspector reviewed location records, which did not show any abnormal frac operations. The Inspector also reviewed the 3rd party sound data and the town of Erie's sound data which did not show any exceedance of permissible noise levels. The only odors detected on location at the time of the inspection were exhaust fumes from equipment on location. No odors other than exhaust fumes were detected off location at the time of the inspection. At the time of the inspection all lighting on location appeared to be pointed toward the ground and center of location. An Inspector performed a sound study approx 25' from a complainant's residence in Erie and another sound study in the 1300 block of Catapla PI in Erie. Both studies demonstrated compliance with COGCC Rule 802. Also on 10/20/2017 a COGCC Inspector conducted an inspection of the Pratt location (documented in FIR #s 684904625 and 684904628). The inspections included two additional sound surveys, which demonstrated compliance with COGCC Rule 802;

- On 10/30/2017 at approx 1200 hrs a COGCC Inspector performed inspections of the Waste Connection and Pratt locations and the neighborhoods south of the locations (documented in FIR#s 674200309 and 674200313). At the time of inspections, one work over rig was performing drill out operations on the Waste Connection location and one coil tubing unit was performing drill out operations on the Pratt location. The Inspector reviewed location records, which did not show any abnormal flow back operations at the time of the complaints. The Inspector also reviewed the 3rd party sound data and the town of Erie's sound data which did not show any exceedance of permitted noise levels. At the time of the inspection, closed tanks were being used for the flow back process and a flare was being used to flare off any VOCS at both locations, in compliance with COGCC rules. At the time of the inspection all lighting on location appeared to be pointed toward the ground and center of location. As part of the inspection the Inspector checked the area of the complaints for odors did not detect any odors off the locations;
- On 11/06/2017 a COGCC Inspector conducted an inspection of the Pratt location (documented in FIR #684904682). The Inspector observed that location was currently undergoing flow-back. Based on ambient sound data, the location was within compliance with rule 802. No odor was detected off site;
- On 11/08/2017 a COGCC Inspector conducted an inspection of the Pratt location (documented in FIR #684904683). The Inspector observed that the location is currently rigging down the drill-out rig. Based on ambient sound data, the location was within compliance with rule 802. The Inspector did not detect any odor off the location;
- On 11/13/2017 a COGCC Inspector performed inspections of the Waste Connection and Pratt locations and the neighborhoods south of the locations (documented in FIR#s 674200326 and 674200327). The Inspector observed one work over rig performing drill out operations on the Waste Connection location and one coil tubing unit performing drill out operations on the Pratt location. The Inspector reviewed location records, which did not show any abnormal operations. The Inspector also reviewed the 3rd party sound data and the town of Erie's sound data, which did not show any exceedance of permissible noise levels. At the time of the inspection the Inspector observed closed tanks being used for the flow back process and a field flare being used to flare off any VOCS at both locations. At the time of the inspection all lighting on location appeared to be pointed toward the ground and center of location, in compliance with COGCC Rule 803. The Inspector checked the area of the complaints for odors and at the time of the inspection did not detect any odors off of the locations. Upon reviewing operation records, Crestone had begun daylight operations at location on 11/12/2017 (which are 0700 hrs to 1900 Hrs);
- On 11/15/2017 a COGCC Inspector performed complete site inspections of the Waste Connection and Pratt location and the neighborhoods south of the locations (documented in FIR#s 674200328 and 674200329). The Inspector observed the same operations and equipment as the most recent inspections. The Inspector reviewed location records, which did not show any abnormal operations. The Inspector also reviewed the 3rd party sound data and the town of Erie's sound data, which did not show any exceedance of permissible noise levels. At the time of the inspection all lighting on location appeared to be pointed toward the ground and center of location, in compliance with COGCC Rule 803. The Inspector checked the area of the complaints for odors and at the time of the inspection did not detect any odors off of the locations; and
- On 12/14/2017 a COGCC Inspector performed complete site inspections of the Waste Connection and Pratt locations and the neighborhoods south of the locations (documented in FIR#s 674200358 and 674200359). The Inspector observed both locations were in the process of completing flow-back operations. The Inspector spoke with Crestone staff who indicated they

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had been only working day light hours for the past 2 weeks. The Inspector reviewed location records, which did not show any abnormal flow-back operations.

COGCC FIRs are available on the COGCC website by via the "Data" link, then selecting "Inspection/ Incident" search link, and entering the above referenced FIR number into the "document number" search field.

Based on the above described investigations and review by COCGG technical and legal staff, the COGCC has determined that no violations of COGCC rules occurred related to your complaint that would lead to the issuance of a notice of alleged violation (NOAV). Accordingly, the COGCC has closed the complaint and will not issue a NOAV related to this complaint.

If you have questions regarding this complaint or the investigation, please contact me.

Sincerely,

A handwritten signature in blue ink that reads "Megan J Adamczyk". The signature is written in a cursive, flowing style.

Megan Adamczyk, Complaint Specialist
Email: dnr_cogcc.complaints@state.co.us