

Region 6 - Enforcement & Compliance Assurance Division
INSPECTION REPORT

Inspection Date(s):	01/09/2023	
Media Program:	Water	
Regulatory Program(s)	Clean Water Act-National Pollution Discharge Elimination System (Brine)	
Company Name:	Calgary Energy, LLC	
Facility Name:	Tidal Osage	
Facility Physical Location:	Latitude: 36.541029, Longitude: -96.418515	
(city, state, zip code)	Hominy, OK, 74035	
Mailing address:	4444 E. 146 th St. N	
(city, state, zip code)	Skiatook, OK, 74070	
County/Parish:	Tulsa	
Facility Phone Number	918-798-4510	
Facility Contact:	Blaine Haag	Co-Owner
	bhaag.calgaryenergyllc@gmail.com	
FRS Number:	n/a	
Identification/Permit Number:	OKU000893	
Media Identifier Number:	n/a	
NAICS:	211111	
SIC:	1311	
Personnel participating in inspection:		
Matthew Allen	EPA/Region 6 ECDW	Inspector
EPA Lead Inspector Signature/Date		
	Matthew Allen	Date
Supervisor Signature/Date		
	Jeanne Eckhart (<i>acting</i>)	Date

Section I – INTRODUCTION

PURPOSE OF THE INSPECTION

EPA Region 6 Inspector, Matthew Allen, arrived at the Calgary Energy, LLC / Tidal Osage Lease (EPA ID No. OKU000893) at 11:15 a.m. on 01/09/2023 for an unannounced inspection. There were no company representatives present during the inspection. This was an EPA inspection in response to a National Response Center Spill Report (NRC No. 1357149) which was received by EPA Region 6. The inspection was conducted by the authority of the Clean Water Act (CWA) to determine compliance with Environmental Protection Agency (EPA) regulations. There was no other federal, state, or local agency representative present at the time of the inspection.

FACILITY DESCRIPTION

EPA conducted an inspection at the Calgary Energy, LLC, Tidal Osage Lease where a 4-inch diameter steel/chrome injection line failed, releasing produced saltwater to the land, the spilled saltwater ultimately flowed South into a nearby unnamed tributary of Little Hominy Creek. The NRC Spill Report stated approximately 175 barrels of saltwater was released. The injection line was connected to two separate saltwater pumps in addition to multiple saltwater injection wells.

Section II - OBSERVATIONS

I observed the Release Point (GPS 36.541029, -96.418515) of the spill which can be seen in Appendix 1 (photo log) photo No. 1. The release point was a 4" steel/chrome injection line which had recently undergone maintenance, the line experienced a catastrophic failure near the weld allowing the full contents of the line to spill onto the land. At the time of the inspection, the line was not repaired, and a small amount of saltwater was dripping from the line causing an area approximately 2 feet by 6 feet to stay saturated with saltwater.

I observed the overland portion of the flowpath as it traveled south, downgrade, toward an unnamed tributary of Little Hominy Creek. The flowpath was braided and varied in width from 2 feet to approximately 30 feet. The spilled fluid traveled approximately 300 feet toward the south before entering the tributary.

I observed the Point of Entry (POE) (GPS 36.540266, -96.418786) into the unnamed tributary as well as an elevated TDS field reading of 55,460 mg/L at the POE, see photo No. 2. I observed the bed and bank features of the tributary near the POE with a view to the east/downgrade, see photo No. 3.

As spill impacts continued downstream, I observed an elevated TDS field reading of 100,376 mg/L which was the highest concentration observed during the inspection, see photo No. 4.

I observed a TDS field reading of 950 mg/L in an adjoining, unimpacted tributary (see photo No. 5), this measurement should be used in determining “background” TDS level for the area.

I observed 4 dead Green Sunfish, measuring 3”-4” in length. I observed an elevated TDS field reading of 80,375 mg/L at the same location, see photos No. 6, 7, 8.

I observed a temporary containment dam placed by the operator to prevent further downstream migration of elevated TDS waters. I observed a TDS field reading of 32,840 mg/L on the upstream/impacted side of the dam and a TDS field reading of 2,825 mg/L immediately behind/downstream from the dam. See photos No. 9, 10, 11.

I observed a TDS field reading of 1,319 mg/L approximately 50 feet downstream from the temporary containment dam.

I observed a TDS field reading of 1,466 mg/L along the impacted tributary just prior to its confluence with Little Hominy Creek, see photos No. 13 and 14.

I observed a TDS field reading of 1,094 mg/L in the main channel of Little Hominy Creek at its confluence with the impacted tributary, see photos No. 15, 16.

Based off TDS field readings taken along the impacted tributary, the adjoining/ unimpacted tributary and readings observed in Little Hominy Creek, I did not observe identifiable spill impacts into Little Hominy Creek at the time of the inspection.

Section III – AREAS OF CONCERN

EPA Region 6 inspector Matthew Allen conducted a follow-up phone call with Calgary Energy representative, Blaine Haag, at the conclusion of the inspection. The primary areas of concern were to repair the broken flowline to prevent additional fluids being released and to continue removing elevated TDS waters from the impacted tributary. Calgary Energy should ensure no further downstream migration of elevated TDS waters. The impacted tributary should be restored to background TDS levels. Additionally, Calgary Energy should remove the brine impacts from the flowpath between the release point and the point of entry into the unnamed tributary (clean the flowpath).

Section IV – FOLLOW UP

EPA inspector received multiple follow-up phone calls from Calgary Energy representatives Blaine Haag and Duane Easley, as well as update calls from BIA Field Inspector, Mike Perrier, in the week following the inspection. The follow-up calls detailed the men and equipment being employed in the cleanup effort as well as progress reports on volumes of elevated TDS waters which had been removed from the impacted area.

EPA Inspector scheduled a follow-up inspection for 1/13/2023.

Section V – LIST OF APPENDICES

Appendix 1 – Photo Log – 16 photos taken 01/09/2023

There are no additional appendices.

Appendix 1

Photograph Log 16 Photos



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 1

Location: 36.541029, -96.418515		
City: Hominy	County/Parish: Osage	State: Oklahoma



Photo File Name: R0010016

Orientation: S

Date of Photo: 01/09/2023

Time of Photo: 11:15 AM

Latitude: 36.541029

Longitude: -96.418515

Photographer: Matthew Allen

Description: This was the release point of the spill. The operator had recently replaced a section of the 3" steel/chrome saltwater injection line. The flowline failed near the weld. At the time of the inspection, saltwater was dripping from the flowline causing an area approximately 2 feet wide by 6 feet long to stay saturated with saltwater.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 2

Location: 36.541029, -96.418515		
City: Hominy	County/Parish: Osage	State: Oklahoma



Photo File Name: R0010018

Orientation: n/a

Date of Photo: 01/09/2023

Time of Photo: 11:24 AM

Latitude: 36.540266

Longitude: -96.418786

Photographer: Matthew Allen

Description: This was an elevated TDS field reading of 55,460 mg/L taken at the Point of Entry (POE) into the unnamed tributary of Little Hominy Creek.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 3

Location: 36.541029, -96.418515		
City: Hominy	County/Parish: Osage	State: Oklahoma



Photo File Name: R0010019

Orientation: E

Date of Photo: 01/09/2023

Time of Photo: 11:26 AM

Latitude: 36.540160

Longitude: -96.418612

Photographer: Matthew Allen

Description: This was a view of the bed and bank features along the upper section of the impacted tributary, this photo was taken approximately 50 yards downstream from the POE.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 4

Location: 36.541029, -96.418515		
City: Hominy	County/Parish: Osage	State: Oklahoma



Photo File Name: R0010020

Orientation: n/a

Date of Photo: 01/09/2023

Time of Photo: 11:33 AM

Latitude: 36.539235

Longitude: -96.417125

Photographer: Matthew Allen

Description: This was an elevated TDS field reading of 100,376 mg/L taken from a small pool along the main channel of the impacted tributary. This field reading was taken along the upper 1/3 of the impacted area.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 5

Location: 36.541029, -96.418515		
City: Hominy	County/Parish: Osage	State: Oklahoma



Photo File Name: R0010021

Orientation: n/a

Date of Photo: 01/09/2023

Time of Photo: 11:37

Latitude: 36.538278

Longitude: -96.416846

Photographer: Matthew Allen

Description: This was a TDS field reading of 950 mg/L taken from a small tributary which entered the impacted tributary from the South. This reading was taken in a pool of water which was not and could not be impacted by the spill. This measurement should be used to help establish "background" TDS levels in the area.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 6

Location: 36.541029, -96.418515		
City: Hominy	County/Parish: Osage	State: Oklahoma



Photo File Name: R0010022

Orientation: n/a

Date of Photo: 01/09/2023

Time of Photo: 11:46 AM

Latitude: 36.537504

Longitude: -96.414396

Photographer: Matthew Allen

Description: This was a photo of 1 of 4 small Green Sunfish which were observed dead in the impacted tributary. The other 3 Green Sunfish were also in the same pool of water. The fish were approximately 3" - 4" in length.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 7

Location: 36.541029, -96.418515		
City: Hominy	County/Parish: Osage	State: Oklahoma



Photo File Name: R0010023

Orientation: n/a

Date of Photo: 01/09/2023

Time of Photo: 11:49 AM

Latitude: 36.537504

Longitude: -96.414396

Photographer: Matthew Allen

Description: This was an elevated TDS field reading of 80,375 mg/L taken in the same pool of water where the small dead fish were observed.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 8

Location: 36.541029, -96.418515		
City: Hominy	County/Parish: Osage	State: Oklahoma



Photo File Name: R0010024

Orientation: SE

Date of Photo: 01/09/2023

Time of Photo: 11:50 AM

Latitude: 36.537504

Longitude: -96.414396

Photographer: Matthew Allen

Description: This was a view of the bed and bank features along the impacted tributary at the pool where the dead fish were located. I did not observe any additional impacted fish/wildlife/livestock during the inspection.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 9

Location: 36.541029, -96.418515		
City: Hominy	County/Parish: Osage	State: Oklahoma



Photo File Name: R0010025

Orientation: SE

Date of Photo: 01/09/2023

Time of Photo: 11:55 AM

Latitude: 36.537201

Longitude: -96.413111

Photographer: Matthew Allen

Description: This was a temporary containment dam placed by the operator to prevent the downstream migration of impacted waters. This dam was constructed in an acceptable location to prevent migration of waters with significantly elevated TDS. The upstream (impacted) side of the dam measured 32,840 mg/L TDS and the water immediately downstream from the dam (1 foot downstream/behind) the dam measured 2,825 mg/L.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 10

Location: 36.541029, -96.418515		
City: Hominy	County/Parish: Osage	State: Oklahoma



Photo File Name: R0010026

Orientation: n/a

Date of Photo: 01/09/2023

Time of Photo: 11:57 AM

Latitude: 36.537201

Longitude: -96.413111

Photographer: Matthew Allen

Description: This was an elevated TDS field reading of 32,840 mg/L taken in the pool located immediately upstream from the temporary containment dam.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 11

Location: 36.541029, -96.418515		
City: Hominy	County/Parish: Osage	State: Oklahoma



Photo File Name: R0010027

Orientation: n/a

Date of Photo: 01/09/2023

Time of Photo: 12:01 PM

Latitude: 36.537201

Longitude: -96.412803

Photographer: Matthew Allen

Description: This TDS field reading of 2,825 mg/L was taken immediately below/downstream the temporary containment dam.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 12

Location: 36.541029, -96.418515		
City: Hominy	County/Parish: Osage	State: Oklahoma



Photo File Name: R0010028

Orientation: n/a

Date of Photo: 01/09/2023

Time of Photo: 12:06 PM

Latitude: 36.536981

Longitude: -96.411583

Photographer: Matthew Allen

Description: This was a TDS field reading of 1,319 mg/L taken approximately 50 feet downstream from the temporary containment dam. This represented a TDS level near the background level observed in the area.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 13

Location: 36.541029, -96.418515		
City: Hominy	County/Parish: Osage	State: Oklahoma



Photo File Name: R0010029

Orientation: n/a

Date of Photo: 01/09/2023

Time of Photo: 12:56 PM

Latitude: 36.535656

Longitude: -96.402276

Photographer: Matthew Allen

Description: This was a TDS field reading of 1,466 mg/L taken in the main channel of the impacted tributary just before it flowed into the main channel of Little Hominy Creek.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 14

Location: 36.541029, -96.418515		
City: Hominy	County/Parish: Osage	State: Oklahoma



Photo File Name: R0010030

Orientation: S

Date of Photo: 01/09/2023

Time of Photo: 12:56 PM

Latitude: 36.535656

Longitude: -96.402276

Photographer: Matthew Allen

Description: This was a photo showing the impacted tributary as it flowed into Little Hominy Creek.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 15

Location: 36.541029, -96.418515		
City: Hominy	County/Parish: Osage	State: Oklahoma



Photo File Name: R0010031

Orientation: n/a

Date of Photo: 01/09/2023

Time of Photo: 12:59 PM

Latitude: 36.535378

Longitude: -96.402255

Photographer: Matthew Allen

Description: This was a TDS field reading of 1,094 mg/L taken in the main channel of Little Hominy Creek.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 16

Location: 36.541029, -96.418515		
City: Hominy	County/Parish: Osage	State: Oklahoma



Photo File Name: R0010032

Orientation: n/a

Date of Photo: 01/09/2023

Time of Photo: 1:00 PM

Latitude: 36.535378

Longitude: -96.402255

Photographer: Matthew Allen

Description: This was a photo of Little Hominy Creek, with a view to the southwest. The confluence of the impacted tributary and Little Hominy Creek was directly behind the photographer at the time of the photo.