



Region 6 Compliance Assurance and Enforcement Division
INSPECTION REPORT

Inspection Date(s):	7/20/2016		
Media:	Water		
Regulatory Program(s)	NPDES - Oil and Gas, Produced/Brine Water		
Company Name:	EOG Resources, INC.		
Facility Name:	Allen Pit		
Facility Physical Location:	Approx. 0.3 miles NE from the intersection of 1519 U.S. 87 (29.250968, -97.547761)		
(city, state, zip code)	Smiley, Texas 78159		
Mailing address:	1999 Bryan St., Ste. 900		
(city, state, zip code)	Dallas, TX 75201		
County/Parish:	Gonzales County		
Facility Contact:	Nick Groves	713-651-6440	
	Group Director, Safety and Environmental EOG Resources, Inc.		
FRS Number:	N/A		
Identification/Permit Number:	TXU011141		
Media Number:	N/A		
NAICS:	211111		
SIC:	1311		
Personnel participating in inspection:			
Jack Arias	6EN – WR	Environmental Scientist	(214) 665 – 8164
Jeanne Eckhart	6EN – WR	Environmental Scientist	(214) 665 – 8174
EPA Lead Inspector Signature/Date			
	Jack Arias		Date
Supervisor Signature/Date			
	Willie Lane		Date

Section I - INTRODUCTION

PURPOSE OF THE INSPECTION

The purpose of the inspection was to determine if the facility was in compliance with Section 301 of the Clean Water Act (CWA) and to identify and document discharges of produced wastewater (brine) to waters of the United States. The inspection was conducted under the authority of Section 308 of the CWA. EPA Region 6 inspectors, Jack Arias and Jeanne Eckhart, arrived at the *EOG Resources, INC. – Allen Pit* at approximately 11:30 AM on July 20, 2016 for an unannounced inspection. EPA Region 6 inspectors talked with several contract workers at the facility at approximately 11:25 AM. I presented my credentials to EOG Resources' contract workers and proceeded to conduct an oil and gas, produced/brine water Clean Water Act (CWA) inspection. The scope of the inspection is to evaluate the facility's pits, tanks, flow lines, flow paths, ponds, tributaries, creeks, and other related factors that are connected to the CWA at the facility.

FACILITY DESCRIPTION

The facility is known as the *EOG Resources, INC. – Allen Pit* and is located in Smiley, Gonzales County, Texas. The facility consists of an open pit that collects and stores produced water from nearby wells. The facility's collection pit for produced water is located at latitude 29.253440 N and longitude -97.549752 W. See Photo Nos. 3 – 4 in Appendix 1.

The capacity to store water in the pit is approximately 240,000 barrels and it is connected to production wells, injection wells, vessels, flow lines, collection points, and other equipment used for the production of crude oil and natural gas. Production wells produce a mixture of produced water and crude oil (well fluids). Flow lines are used to transport well fluids from various locations on the leases. Collection points known as tank batteries consist of various tanks, vessels, and equipment used to separate and store the produced water, brine water, crude oil, and gas. Produced water is typically high in salts and is commonly known as oil field brine. The crude oil is sold for profit and the produced water, and/or brine, is transported to and disposed of in various injection wells. The facility also produces and commercially sells natural gas. The facility is located near the Texas stream segment ID 1803B. This segment is considered part of Sandies Creek which is located between the confluence of the Guadalupe River west of Cuero in Dewitt County to the upstream perennial portion of the stream northwest of Smiley in Gonzales County. This segment is considered freshwater stream and has been designated as a domestic public water supply. Therefore this facility is nominated as an Energy Extraction Initiative facility. See Photo No. 2 in Appendix 1.

Section II - OBSERVATIONS

When we arrived at the Allen Pit on July 20, 2016, which is located approximately 240 feet east of the Floy Unit production facility, we observed potential concerns connected with the collection and storing of the produced water. See Photo Nos. 3 – 4 in Appendix 1.

Allen pit is located at latitude 29.250968 N and longitude -97.547761 W. It has the capacity to enclosed approximately 240,000 barrels of water. We observed that multiples produced flow lines with indeterminate source and destination where going in and out of the pit. One of the large produced

flowline, going inside the pit, showed an active and continuous discharge of water. See Photo Nos. 3 – 4 in Appendix 1. Apparently the flow line collects and stores water from wells nearby the pit. At the same time we observed that the produced water pit had some sheens on the surface of water in pit. The open pit did not have a net system over it to prevent wildlife, like birds from coming into contact with the produced fluids. Calibrated YSI 30 Salinity Conductivity Meter was used to measure the Total Soluble Salt (TSS). We obtained a Total Soluble Salts (TSS) reading of 2,000 parts-per-million (ppm) taken at the point of release into the pit of produced water at latitude 29.251617 N and longitude -97.549370 W. See Photo No. 4 in Appendix 1. We followed a potential flowpath and monitored the surrounding areas around the pit and found that the produced water reached the tributary of Sandies Creek. We observed a marshland area with produced fluids potentially seeping below the North West corner of the pit above the surface of the ground and entering the tributary of the Sandies Creek. This is considered as the point of entry (POE), where fluids reached the tributary of Sandies Creek and it is located at latitude 29.253539 N and longitude -97.549849 W. We obtained a TSS reading of 1,900 ppm at the POE point. See Photo Nos. 5- 6 in Appendix 1. At this location, the tributary of Sandies Creek that look like a marshland area showed a flowpath of fluids and dead vegetation. It was approximately 1 foot deep and approximately 50 feet wide. We obtained another TSS reading of 1,800 ppm 90 feet down to this point. See Photo Nos. 7, 8, and 9 in Appendix 1. Additionally during the inspection we noticed a direct flowpath coming directly from the Floy Unit Lease located next to the pit. The flowpath showed water marks, sediments and debris towards the tributary of Sandies Creek. See Photo Nos. 10, 11, and 12 in Appendix 1. We followed the discharge to Sandies creek and obtained a TSS reading of 900 ppm approximately 4,659 feet downstream along Sandies Creek from the POE at latitude 29.251447 N and longitude -97.538721 W. Sandies Creek showed a defined bed and bank and evidence of riparian plants growing along the creek, sediments, debris and water marks. Tributary was approximately 35 feet in width and 4 feet deep. See Photo No. 13 in Appendix 1.

Background Measurement upstream of tributary of the Sandies Creek

We went approximately 11 Miles upstream of the POE to the tributary of the Sandies Creek and measured the TSS to determine water quality data, such as water quality in the area. We obtained at approximately 11.29 Miles a TSS reading of 400 ppm at Latitude 29.282821 N and Longitude -97.655582 W. See Photo No. 14 in Appendix 1. Additionally we obtained at approximately 11.41 Miles a TSS reading of 700 ppm at Latitude 29.281059 N and Longitude -97.655716 W. See Photo No. 15 in Appendix 1.

Section III – AREAS OF CONCERN

We observed during the inspection areas of concerns at this facility that included:

- A TSS reading of 2,000 ppm from fluids inside the pit structure
- A TSS reading of 1,900 ppm from fluids at the point of entry of tributary of Sandies Creek
- Potential seepage of produced fluids from the collection pit into the tributary of the Sandies Creek
- Flow paths next to Floy Unit Lease and Pit connected to the tributary of the Sandies Creek

Section IV – FOLLOW UP

The following follow-up actions will be conducted:

- EPA will send a copy of the inspection report to the facility
- EPA will work with the facility to enable it to come into compliance with the requirements of the CWA
- Refer facility to EPA – SPCC

Section V – LIST OF APPENDICES

Appendix 1 – Photo Log – 15 photos taken on 07/20/2016.

Appendix 1

Photograph Log

Description: This image shows a Delorme Topo North America Topo-Imagery map. The red dot on the map is the facility point source of contamination, and blue dots on the map are the field measurements taken during the inspection.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

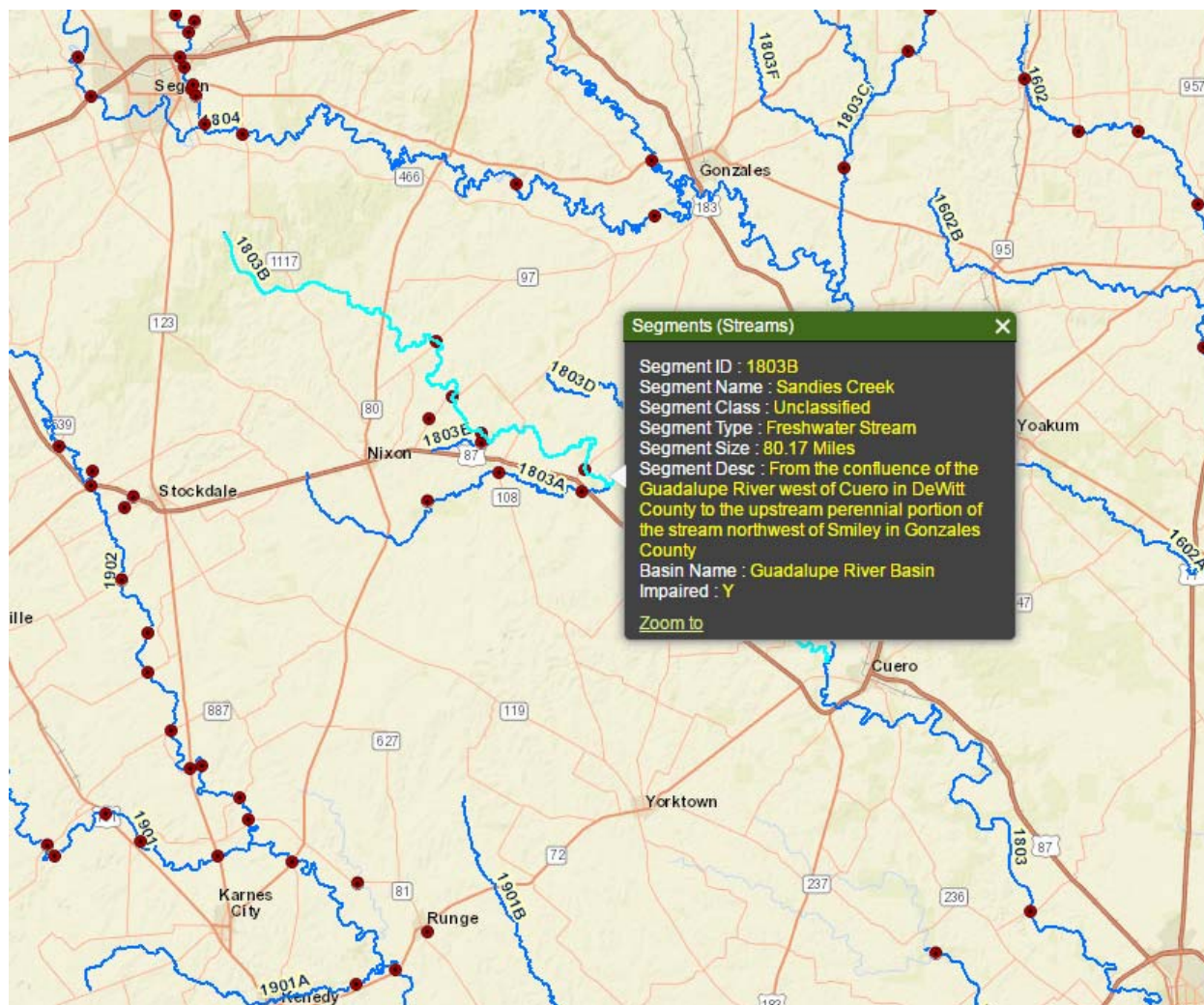
Photo No. 2

Approx. 0.3 miles NE from the intersection of 1519 U.S. 87
(29.250968, -97.547761)

City: Smiley, Texas

County/Parish: Gonzales

State: Texas



Photograph File Name: TCEQ GIS Segments Imagery.JPG

Date of Photograph: 08/10/2016

Latitude: 29.250968 N

Longitude: -97.547761 W

Map Datum: WGS-84

Time of Photo: 1:20 PM

Photographer: Jack Arias

Description: This image shows a TCEQ GIS Segments Imagery map. The blue line and information on the map specified the connection of the facility point source of contamination and the segment designated as a domestic public water supply.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 3

Approx. 0.3 miles NE from the intersection of 1519 U.S. 87
(29.250968, -97.547761)

City: Smiley, Texas

County/Parish: Gonzales

State: Texas



Photograph File Name: DSCN0803.JPG

Date of Photograph: 07/20/2016

Latitude: 29.251617 N

Longitude: -97.549370 W

Orientation: NE

Map Datum: WGS-84

Time of Photo: 11:30 AM

Photographer: Jack Arias

Description: This image shows the EOG Resources, INC. – Allen Pit.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 4

Approx. 0.3 miles NE from the intersection of 1519 U.S. 87
(29.250968, -97.547761)

City: Smiley, Texas

County/Parish: Gonzales

State: Texas



Photograph File Name: DSCN0802.JPG

Date of Photograph: 07/20/2016

Latitude: 29.251617 N

Longitude: -97.549370 W

Orientation: NE

Map Datum: WGS-84

Time of Photo: 11:29 AM

Photographer: Jack Arias

Description: This image shows a measurement of Total Soluble Salts (TSS) reading of 2,000 parts-per-million in the open produced water collection pit. Also it shows an overview of a large flowline discharging produced water into the pit.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 5

Approx. 0.3 miles NE from the intersection of 1519 U.S. 87
(29.250968, -97.547761)

City: Smiley, Texas

County/Parish: Gonzales

State: Texas



Photograph File Name: DSCN0804.JPG

Date of Photograph: 07/20/2016

Latitude: 29.253440 N

Longitude: -97.549752 W

Orientation: NE

Map Datum: WGS-84

Time of Photo: 12:01 PM

Photographer: Jack Arias

Description: This image shows the point of Entry (POE) to tributary of Sandies Creek, where a measurement of Total Soluble Salts (TSS) reading of 1,900 parts-per-million was taken.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 6

Approx. 0.3 miles NE from the intersection of 1519 U.S. 87
(29.250968, -97.547761)

City: Smiley, Texas

County/Parish: Gonzales

State: Texas



Photograph File Name: DSCN0806.JPG

Date of Photograph: 07/20/2016

Latitude: 29.253325 N

Longitude: -97.549601 W

Orientation: E

Map Datum: WGS-84

Time of Photo: 12:06 PM

Photographer: Jack Arias

Description: This image shows the marshland area with produced fluids potentially seeping below the North West corner of the pit above the surface of the ground and entering the tributary of the Sandies Creek.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 7

Approx. 0.3 miles NE from the intersection of 1519 U.S. 87
(29.250968, -97.547761)

City: Smiley, Texas

County/Parish: Gonzales

State: Texas



Photograph File Name: DSCN0807.JPG

Date of Photograph: 07/20/2016

Latitude: 29.253188 N

Longitude: -97.549442 W

Orientation: E

Map Datum: WGS-84

Time of Photo: 12:08 PM

Photographer: Jack Arias

Description: This image shows a flowpath of fluids and dead vegetation downstream from the POE to the creek.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 8

Approx. 0.3 miles NE from the intersection of 1519 U.S. 87
(29.250968, -97.547761)

City: Smiley, Texas

County/Parish: Gonzales

State: Texas



Photograph File Name: DSCN0808.JPG

Date of Photograph: 07/20/2016

Latitude: 29.253193 N

Longitude: -97.5494341 W

Orientation: E

Map Datum: WGS-84

Time of Photo: 12:11 PM

Photographer: Jack Arias

Description: This image shows a pool of fluids approximately 100 downstream of POE, where a TSS reading of 1,800 ppm was taken. This image also shows a flowpath of dead vegetation.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 9

Approx. 0.3 miles NE from the intersection of 1519 U.S. 87
(29.250968, -97.547761)

City: Smiley, Texas

County/Parish: Gonzales

State: Texas



Photograph File Name: DSCN0809.JPG

Date of Photograph: 07/20/2016

Latitude: 29.253137 N

Longitude: -97.549301 W

Orientation: NW

Map Datum: WGS-84

Time of Photo: 12:12 PM

Photographer: Jack Arias

Description: This image shows a flowpath of fluids and dead vegetation going downstream to Sandies Creek.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 10

Approx. 0.3 miles NE from the intersection of 1519 U.S. 87
(29.250968, -97.547761)

City: Smiley, Texas

County/Parish: Gonzales

State: Texas



Photograph File Name: DSCN0812.JPG

Date of Photograph: 07/20/2016

Latitude: 29.252210 N

Longitude: -97.551127 W

Orientation: SE

Map Datum: WGS-84

Time of Photo: 12:30 PM

Photographer: Jack Arias

Description: This image shows the sign at the EOG Resources, INC. – Floyd Unit Lease.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 11

Approx. 0.3 miles NE from the intersection of 1519 U.S. 87
(29.250968, -97.547761)

City: Smiley, Texas

County/Parish: Gonzales

State: Texas



Photograph File Name: DSCN0811.JPG

Date of Photograph: 07/20/2016

Latitude: 29.252711 N

Longitude: -97.550210 W

Orientation: SW

Map Datum: WGS-84

Time of Photo: 12:21 PM

Photographer: Jack Arias

Description: This image shows the EOG Resources, INC. – Floyd Unit Lease and a flowpath leaving lease to tributary of Sandies Creek.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 12

Approx. 0.3 miles NE from the intersection of 1519 U.S. 87
(29.250968, -97.547761)

City: Smiley, Texas

County/Parish: Gonzales

State: Texas



Photograph File Name: DSCN0810.JPG

Date of Photograph: 07/20/2016

Latitude: 29.252879 N

Longitude: -97.550205 W

Orientation: SW

Map Datum: WGS-84

Time of Photo: 12:19 PM

Photographer: Jack Arias

Description: This image shows the back of EOG Resources, INC. – Floyd Unit Lease and a flowpath.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 13

Approx. 0.3 miles NE from the intersection of 1519 U.S. 87
(29.250968, -97.547761)

City: Smiley, Texas

County/Parish: Gonzales

State: Texas



Photograph File Name: DSCN0801.JPG

Date of Photograph: 07/20/2016

Latitude: 29.251447 N

Longitude: -97.538721 W

Orientation: SW

Map Datum: WGS-84

Time of Photo: 10:51 AM

Photographer: Jack Arias

Description: This image shows a downstream TSS reading of 900 ppm along the tributary of the Sandies creek. This location was approximately 4,659 feet downstream from the Point Source of Contamination.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 14

Approx. 0.3 miles NE from the intersection of 1519 U.S. 87
(29.250968, -97.547761)

City: Smiley, Texas

County/Parish: Gonzales

State: Texas



Photograph File Name: DSCN0815.JPG

Date of Photograph: 07/20/2016

Latitude: 29.282821 N

Longitude: -97.655582 W

Orientation: NW

Map Datum: WGS-84

Time of Photo: 1:26 PM

Photographer: Jack Arias

Description: This image shows an upstream TSS reading of 400 ppm along the tributary of the Sandies creek. This location was approximately 11.29 miles upstream from the Point Source of Contamination.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 15

Approx. 0.3 miles NE from the intersection of 1519 U.S. 87
(29.250968, -97.547761)

City: Smiley, Texas

County/Parish: Gonzales

State: Texas



Photograph File Name: DSCN0816.JPG

Date of Photograph: 07/20/2016

Latitude: 29.291059 N

Longitude: -97.655716 W

Orientation: E

Map Datum: WGS-84

Time of Photo: 1:26 PM

Photographer: Jack Arias

Description: This image shows an upstream TSS reading of 700 ppm along the tributary of the Sandies creek. This location was approximately 11.41 miles upstream from the Point Source of Contamination.