

Region 6 Compliance Assurance and Enforcement Division

INSPECTION REPORT

Inspection Date(s):	08/23/2016 – 8/24/2016		
Media:	Water		
Regulatory Program(s)	NPDES - Oil and Gas, Produced/Brine Water		
Company Name:	Seven Cross Operating, LLC		
Facility Name:	Novice Unit – Unknown Lease		
Facility Physical Location:	Approx. 1.1 miles SW of HWY 84 and CR 702 (31.998661, -99.640461)		
(city, state, zip code)	Novice, Texas 79538		
Mailing address:	10973 FM 1176		
(city, state, zip code)	Santa Anna, Texas 76878		
County/Parish:	Coleman County		
Facility Contact:	Loy Strom	Registered Agent	
	(325) 200-1020		
FRS Number:	N/A		
Identification/Permit Number:	TXU011042		
Media Number:	N/A		
NAICS:	211111		
SIC:	1311		
Personnel participating in inspection:			
Jeanne Eckhart	6EN – WR	Environmental Scientist	(214) 665 – 8174
Jack Arias	6EN – WR	Environmental Scientist	(214) 665 – 8164
EPA Lead Inspector Signature/Date			
	Jeanne Eckhart		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, Jeanne Eckhart and Jack Arias, arrived at the Seven Cross Operating, LLC – Novice Unit – Unknown lease at approximately 01:00 PM on August 23, 2016 for an unannounced inspection. We presented our credentials to C.T. Taylor and Jet Taylor, landowners where Seven Cross Operating, LLC operates the Novice Unit – Unknown Lease. We proceeded to conduct an oil and gas, produced/brine water Clean Water Act (CWA) inspection. The scope of the inspection was to evaluate the facility's 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 Seven Cross Operating, LLC – Novice Unit – Unknown lease and is located in Novice, Coleman County, Texas. The lease is located at latitude 31.998661 N and longitude -99.640461 W. The facility consisted of two produced water storage tanks approximately 400 barrels each, associated pumps and equipment to circulate the produced water to various locations on the lease, and the at least three active injection or enhanced recovery wells at the time of the inspection associated with the lease. See Photo Nos. 1 – 2, 11, 21 and 30 in Appendix 1.

The lease consists of 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, and crude oil. 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 lease also produces natural gas. The natural gas is either utilized for enhanced recovery purposes by the Seven Cross Operating, LLC or the natural gas is commercially sold for profit.

The facility is located near a tributary of the South Fork of Jim Ned Creek, which coalesces with the South Fork of the Jim Ned Creek and connects to the Jim Ned Creek which coalesces with Lake Coleman. Lake Coleman has the Texas stream segment number 1419, which has a designated use as a domestic public water supply. The facility is approximately 8 miles from the designated stream segment 1419. Therefore this facility meets the National Enforcement Initiative for Energy Extraction and this lease is an Energy Extraction facility.

Section II – OBSERVATIONS

When we arrived at this facility on August 23, 2016, we observed that the tank battery and associated equipment had inadequate raised secondary containment wall separating two areas. We observed erosion on the wall and visible flow paths leading from the tank battery area north towards the tributary of the South Fork of Jim Ned Creek. We observed salt crystals, oil condensate, and oil staining present throughout the facility at the time of the inspection. According to the on-site representatives, there was a rain event within the week prior to the inspection of approximately 1 inch to 1.5 inches of rain in the area. We observed the Novice Unit Unknown tank battery and associated production equipment connected to the tank battery, including active injection wells.

Novice Unit – Unknown Lease Tank Battery

The Novice Unit Unknown tank battery was located at latitude 31.998661 N and longitude -99.640461 W. On August 23, 2016, we observed the Novice Unit Unknown Lease tank battery had inadequate raised secondary containment wall. We observed erosion on wall, visible seepage, and a flow path north from the facility. At the time of the inspection, we observed that there was oil, fluids, oil staining on the ground, and salt crystals visible in the containment area. We observed a large amount of oil and oil staining on the ground in the containment area. We observed an overflow pipe from the produced water tank with fluids at the end of the overflow pipe. See Photo Nos. 1 – 3, 5 – 6 in Appendix 1. A calibrated YSI 30 Conductivity meter was used to measure the Total Soluble Salts (TSS) of the fluids. We took a Total Soluble Salts (TSS) reading of 3,600 parts-per-million (ppm) taken from the fluids at the end of the overflow pipe. See Photo No. 4 in Appendix. There was excessive vegetation on the southwestern sides of the containment area at the time of the inspection. We saw that there was a chemical (emulsifiers) storage tank also being utilized at the facility. We observed active transfer pumps as well. There was an overflow pipe on the southern storage tank that had fluids pooled at the bottom of it. The raised secondary containment area was inadequate due to excessive vegetation, oil in the containment area, eroded and uncompact berm walls, and seepage occurring through the containment area north towards the tributary of the South Fork of the Jim Ned Creek. Also, the smell of hydrocarbons was strong at the time of the inspection. See Photo Nos. 2 – 7 in Appendix 1.

We observed seepage from the tank battery and a dry flow path north towards the tributary of the South Fork of the Jim Ned Creek. The flow path had no visible vegetation, while visible vegetation was around the flow path at the time of the inspection. We saw salt crystals and no vegetation along the flow path, which went north along a lease road. We observed seepage and ponded fluids outside of the containment area at the north berm walls of the tank battery at the time of the inspection. A TSS reading of 12,600 ppm was taken from the fluids observed in the seepage area along the flow path, outside of the containment area. See Photo Nos. 6 – 10 in Appendix 1.

Novice Unit – Well No. 8025 (injection well)

The Novice Unit – Well No. 8025 was located at 32.007440 N and -99.642306 W. On August 23, 2016, we observed the Novice Unit – injection Well No. 8024, which was connected to the Novice Unit Unknown

Lease tank battery at the time of the inspection. We observed a second discharge location downstream from the facility approximately 0.63 miles, north along the tributary of the South Fork of the Jim Ned Creek. We observed an active injection well at this site that was leaking and had ponded fluids around the well head. We saw salt crystals as well at the injection well area. We observed visible fluids near the injection well and the injection well leaking near the tubing head. We took a TSS reading of over 80,000 ppm at the fluids ponded up near the injection well at the time of the inspection. The pressure on the injection well gauge read approximately 800 psi and there was visible salt crystals near the well head. At the time of the inspection, we observed a dry flow path east of the leaking well area and pooled fluids towards the tributary of the South Fork of the Jim Ned Creek. We observed along the dry flow path that there was no vegetation and some erosion. We also observed a flow line over the dry flow path and some debris in the flow path. See Photo No. 11 - 17 in Appendix 1.

Novice Unit – Well No. 8024 (injection well)

The Novice Unit – Well No. 8024 was located at 32.010190 N and -99.639262 W. On August 23, 2016, we observed the Novice Unit – Well No. 8024, which was connected to the Novice Unit Unknown Lease tank battery Lease at the time of the inspection. We observed that the injection well had a new pump at the well head. We observed the well had 125 psi from the top pressure gauge. Also, we saw that the side pressure gauge attached to the tubing head casing had approximately 200 psi of pressure. We observed no vegetation near the well head and some ponding of fluids near the well at the time of the inspection. We observed fluids pooled up north east of the injection well. We took a TSS reading of 2,400 ppm at the ponded fluids at the time of the inspection. This reading was taken approximately 0.8 miles north of the tank battery. We observed a dry flow path from the facility, north east of the injection well, where there was no vegetation along the flow path. We observed salt crystals along the flow path as well. We saw this flow path approximately 140 feet north east from the injection well. We observed salt crystals along the flow path as well. The dry flow path went west towards the tributary of the South Fork of the Jim Ned Creek. We observed salt crystals along the flow path as well. We saw this flow path approximately 350 feet along the flow path from the injection well. See Photo No. 21 - 28 in Appendix 1.

Novice Unit – Well No. 8030 (injection well)

The Novice Unit – Well No. 8030 was located at 32.010065 N and -99.642317 W. On August 23, 2016, we observed the Novice Unit – Well No. 8030, which was connected to the Novice Unit Unknown Lease tank battery at the time of the inspection. We observed oil staining, debris, exposed steel piping near the well head, and a chemical storage tank container with no secondary containment at the time of the inspection. We saw a dirt pit that had been dug and had debris and fluids in it near the well head. We took a TSS reading of 29,300 ppm at the time of the inspection from the fluids in the unlined pit near the well head. The pressure on the gauge was approximately 185 psi at the time of the inspection. See Photo Nos. 30 – 32 in Appendix 1.

The Flow Path, Point of Entry, and Downstream TSS Reading

On August 23, 2016, we observed a dry flow paths, which were connected to the Novice Unit Lease tank battery at the time of the inspection. The dry flow paths lead to the tributary of the South Fork of the Jim Ned Creek., which were approximately 0.5 miles north of the unknown tank battery, approximately 540 feet of Well No. 8030, and approximately 580 feet of Well No. 8025. We took a TSS measurement of 4,000 ppm at latitude 32.008648 N and -99.640657 W at the point of entry to the tributary of the South Fork of the Jim Ned Creek. Also, we took a downstream TSS measurement of 700 ppm along the South Fork of the Jim Ned Creek after the tributary coalesces with the South Fork of the Jim Ned Creek located at latitude 32.015545 N and longitude -99.640737 W, which was approximately 1.4 miles downstream from the facility. See Photo Nos. 10, 18 – 20, and 29 in Appendix 1.

Background TSS Readings

On August 23, 2016, we took a TSS measurement upstream along the South Fork of the Jim Ned Creek, approximately 100 feet upstream from where the tributary of the South Fork of the Jim Ned Creek coalesces with the South Fork of the Jim Ned Creek. This background TSS reading of 400 ppm was taken at this location, which was located at latitude 32.014905 N and longitude -99.640939 W. On August 24, 2016, we took a TSS measurement of 200 ppm upstream on the tributary of the South Fork of the Jim Ned Creek, approximately 0.9 miles south east of the facility. The TSS reading was taken at latitude 31.993257 N and longitude -99.626160 W. See Photo Nos. 33 - 34 in Appendix 1.

A summary of the TSS readings taken during the inspection can be seen in Table 1.

Table 1. Summary of Total Soluble Salts (TSS) Measurements taken during the inspection

	TSS Reading	Latitude	Longitude
Point of Discharge 1 –Unknown Lease tank battery and seepage	3,600 ppm	31.998661 N	-99.640461 W
Flow path north towards tributary of South Fork of Jim Ned Creek – approx. 10 feet from tank battery	12,600 ppm	31.998837 N	-99.642435 W
Point of Discharge 2 – Novice Unit – Injection Well No. 8025, approx. 0.63 miles north of the facility	>80,000 ppm	32.007540 N	-99.642293 W
Point of Entry to tributary of South Fork of the Jim Ned Creek, approx. 0.8 miles north of the facility	4,000 ppm	32.008648 N	-99.640657 W
Point of Discharge No. 3 – Novice Unit – Injection Well No. 8024, approx. 0.85 miles north of the facility	2,400 ppm	32.010307 N	-99.639168 W

Downstream TSS Reading at South Fork of the Jim Ned Creek	700 ppm	32.015545 N	-99.640737 W
Background TSS Reading – Upstream on the South Fork of the Jim Ned Creek	400 ppm	32.014905 N	-99.640939 W
Background TSS Reading – Upstream from facility along a tributary of the South Fork of the Jim Ned Creek	200 ppm	31.993257 N	-99.626160 W
Novice Unit – Injection Well No. 8030 , approx. 0.8 miles north east of the facility	29,300 ppm	32.010153 N	-99.642267 W

Section III – AREAS OF CONCERN

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

- Inadequate secondary containment at the facility due to seepage on the north side of the containment berm area and fluids pooled on the flow path north of the facility with a TSS reading of 12,600 ppm
- Visible salt crystals, oil staining, fluids, and oil throughout the facility, and an overflow pipe on the one of the produced water tanks with fluids at the end of the pipe in the containment area with a TSS reading of 3,600 ppm
- Excessive vegetation on the southwest side of the facility's containment area
- The secondary containment area had an area where a pit had been dug within the containment that had oil staining and salt crystals at the time of the inspection near the seepage in the berm on the north side
- No vegetation along the dry flow path north of the facility towards the tributary of South Fork of Jim Ned Creek
- Approximately 0.63 miles north of the facility, an additional point of discharge was identified as the Novice Unit injection Well No. 8025, which was actively leaking at the time of the inspection
- Ponded fluids that measured over 80,000 ppm were observed near the well head of the Novice Unit injection Well No. 8025
- We observed salt crystals and fluids at the Novice Unit injection Well No. 8025 and a dry flow path with no vegetation east of the well head towards the tributary of the South Fork of the Jim Ned Creek
- At the point of entry into the tributary of the South Fork of the Jim Ned Creek, a TSS reading of 4,000 ppm was taken, approximately 0.8 miles north from the Novice Unit – Unknown Lease tank battery
- A TSS reading of 2,400 ppm was taken from fluids near the Novice Unit injection Well No. 8024, which was approximately 0.8 miles north of the facility
- A dry flow path north and north west of the Novice Unit injection Well No. 8024 was observed towards the tributary of the South Fork of Jim Ned Creek, and we observed salt crystals and no vegetation along the flow path

- Downstream approximately 1.4 miles from the facility after the tributary of the South Fork of the Jim Ned Creek coalesces with the South Fork of the Jim Ned Creek a TSS reading of 700 ppm was taken
- The Novice Unit injection Well No. 8030 had oil staining, debris, and a chemical storage container with no containment area near the well head
- At the Novice Unit injection Well No. 8030 fluids in an unlined pit near the well head had a TSS reading of 29,300 ppm

Section IV – FOLLOW UP

The following follow-up actions will be conducted:

- EPA will send a copy of the inspection report to the facility
- EPW will refer this facility to the EPA Region 6 SPCC program

Section V – LIST OF APPENDICES

Appendix 1 – Photo Log – 34 photos taken on 08/23/2016 and 08/24/2016.

Appendix 1

Photograph Log



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 1

Location: Approx. 1.1 miles SW of HWY 84 and CR 702 (31.998661, -99.640461)		
City: Novice	County/Parish: Coleman	State: Texas



Photograph File Name: DSCN0910.JPG

Date of Photograph: 08/24/2016

Latitude: 32.010190 N

Longitude: -99.639262 W

Orientation: NW

Map Datum: WGS-84

Time of Photo: 07:51 AM

Photographer: Jeanne Eckhart

Description: This image shows the signs at the Seven Cross Operating, LLC – Novice Unit Unknown lease injection Well No. 8024, which is associated with the Novice Unit Unknown lease tank battery.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 2

Location: Approx. 1.1 miles SW of HWY 84 and CR 702 (31.998661, -99.640461)		
City: Novice	County/Parish: Coleman	State: Texas



Photograph File Name: DSCN0891.JPG

Date of Photograph: 08/23/2016

Latitude: 31.998661 N

Longitude: -99.640461 W

Orientation: NW

Map Datum: WGS-84

Time of Photo: 03:27 PM

Photographer: Jack Arias

Description: This image shows the Novice Unit – Unknown Lease that has two produced water storage tanks. We observed a large amount of oil and oil staining on the ground in the containment area. We saw that there was a chemical storage tank also being utilized at the facility. We observed active transfer pumps as well. There was an overflow pipe on the southern storage tank that had fluids pooled at the bottom of it. The secondary containment area was inadequate due to excessive vegetation, oil in the containment area, eroded and uncompact berm walls, and seepage occurring through the containment area north towards the tributary of the South Fork of the Jim Ned Creek.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 3

Location: Approx. 1.1 miles SW of HWY 84 and CR 702 (31.998661, -99.640461)		
City: Novice	County/Parish: Coleman	State: Texas



Photograph File Name: DSCN0892.JPG

Date of Photograph: 08/23/2016

Latitude: 31.998661 N

Longitude: -99.640461 W

Orientation: W

Map Datum: WGS-84

Time of Photo: 03:28 PM

Photographer: Jack Arias

Description: This image shows the produced water storage tanks at the Novice Unit – Unknown Lease, including the overflow pipe from one of the storage tanks that we observed. There was oil and oil staining that was significant at the time of the inspection. We observed fluids at the end of the overflow pipe. There was excessive vegetation on the southwestern sides of the containment area at the time of the inspection. We observed a leak at the bottom of the pipe at the time of the inspection.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 4

Location: Approx. 1.1 miles SW of HWY 84 and CR 702 (31.998661, -99.640461)		
City: Novice	County/Parish: Coleman	State: Texas



Photograph File Name: DSCN0893.JPG

Date of Photograph: 08/23/2016

Latitude: 31.998661 N

Longitude: -99.640461 W

Orientation: W

Map Datum: WGS-84

Time of Photo: 03:29 PM

Photographer: Jack Arias

Description: This image shows a Total Soluble Salts (TSS) reading of 3,600 parts-per-million (ppm) taken from the fluids at the end of the overflow pipe. We observed oil staining and oil in the containment area.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 5

Location: Approx. 1.1 miles SW of HWY 84 and CR 702 (31.998661, -99.640461)		
City: Novice	County/Parish: Coleman	State: Texas



Photograph File Name: DSCN0894.JPG

Date of Photograph: 08/23/2016

Latitude: 31.998661 N

Longitude: -99.640461 W

Orientation: SW

Map Datum: WGS-84

Time of Photo: 03:30 PM

Photographer: Jack Arias

Description: This image shows the containment area at the produced water storage tanks, a pump, the storage tanks, and a chemical storage tank. We observed oil, oil staining, salt crystals, and an area in the containment area where a hole had been dug.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 6

Location: Approx. 1.1 miles SW of HWY 84 and CR 702 (31.998661, -99.640461)		
City: Novice	County/Parish: Coleman	State: Texas



Photograph File Name: DSCN0895.JPG

Date of Photograph: 08/23/2016

Latitude: 31.998661 N

Longitude: -99.640461 W

Orientation: NE

Map Datum: WGS-84

Time of Photo: 03:31 PM

Photographer: Jack Arias

Description: This image shows the north side of the tank battery, where we observed seepage from the tank battery and a dry flow path north towards the tributary of the South Fork of the Jim Ned Creek. The flow path had no visible vegetation, while visible vegetation was around the flow path at the time of the inspection.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 7

Location: Approx. 1.1 miles SW of HWY 84 and CR 702 (31.998661, -99.640461)		
City: Novice	County/Parish: Coleman	State: Texas



Photograph File Name: DSCN0896.JPG

Date of Photograph: 08/23/2016

Latitude: 31.998661 N

Longitude: -99.640461 W

Orientation: NE

Map Datum: WGS-84

Time of Photo: 03:33 PM

Photographer: Jack Arias

Description: This image shows the north side of the tank battery, where we observed a dry flow path from the north of the facility towards the tributary of the South Fork of the Jim Ned Creek. We saw salt crystals and no vegetation along the flow path, which went north along a lease road. We observed seepage at the north berm walls of the tank battery at the time of the inspection.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 8

Location: Approx. 1.1 miles SW of HWY 84 and CR 702 (31.998661, -99.640461)		
City: Novice	County/Parish: Coleman	State: Texas



Photograph File Name: DSCN0897.JPG
Date of Photograph: 08/23/2016
Latitude: 31.998837 N
Longitude: -99.642435 W
Orientation: N
Map Datum: WGS-84
Time of Photo: 03:34 PM
Photographer: Jack Arias
Description:

This image shows the seepage on the north side of the Novice Unit – Unknown Lease tank battery. We observed the seepage outside of the containment area at the dry flow path, which we observed the flow path north towards the tributary of the South Fork of the Jim Ned Creek. A TSS reading of 12,600 ppm was taken from the fluids observed in the seepage area.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 9

Location: Approx. 1.1 miles SW of HWY 84 and CR 702 (31.998661, -99.640461)		
City: Novice	County/Parish: Coleman	State: Texas



Photograph File Name: DSCN0898.JPG

Date of Photograph: 08/23/2016

Latitude: 31.998837 N

Longitude: -99.642435 W

Orientation: N

Map Datum: WGS-84

Time of Photo: 03:36 PM

Photographer: Jack Arias

Description: This image shows the flow path north of the Novice Unit – Unknown Lease tank battery. We observed dead vegetation, salt crystals, and a dry flow path towards the tributary of the South Fork of the Jim Ned Creek.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 10

Location: Approx. 1.1 miles SW of HWY 84 and CR 702 (31.998661, -99.640461)		
City: Novice	County/Parish: Coleman	State: Texas



Photograph File Name: DSCN0857.JPG

Date of Photograph: 08/23/2016

Latitude: 32.007786 N

Longitude: -99.640440 W

Orientation: S

Map Datum: WGS-84

Time of Photo: 02:16 PM

Photographer: Jack Arias

Description: This image shows the dry flow path, downstream of the Novice Unit – Unknown Lease. We observed a dry flow path north of the facility that merged with the tributary of the South Fork of the Jim Ned Creek and went north towards the South Fork of the Jim Ned Creek. We observed bed and bank along the tributary as well as a lack of vegetation along the flow path. This part of the tributary was approximately 0.5 miles downstream from the facility and flow path.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 11

Location: Approx. 1.1 miles SW of HWY 84 and CR 702 (31.998661, -99.640461)		
City: Novice	County/Parish: Coleman	State: Texas



Photograph File Name: DSCN0848.JPG

Date of Photograph: 08/23/2016

Latitude: 32.007440 N

Longitude: -99.642306 W

Orientation: N

Map Datum: WGS-84

Time of Photo: 01:47 PM

Photographer: Jeanne Eckhart

Description: This image shows the Novice Unit Well No. 8025, which is associated with the Novice Unit – Unknown Lease. We observed a second discharge location downstream from the facility approximately 0.63 miles, north along the tributary of the South Fork of the Jim Ned Creek. We observed an active injection well at this site that was leaking and had ponded fluids around the well head. We saw salt crystals as well at the injection well area.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 12

Location: Approx. 1.1 miles SW of HWY 84 and CR 702 (31.998661, -99.640461)		
City: Novice	County/Parish: Coleman	State: Texas



Photograph File Name: DSCN0847.JPG
Date of Photograph: 08/23/2016
Latitude: 32.007540 N
Longitude: -99.642293 W
Orientation: S
Map Datum: WGS-84
Time of Photo: 01:44 PM
Photographer: Jeanne Eckhart
Description:

This image shows the Novice Unit Well No. 8025, which is associated with the Novice Unit – Unknown Lease. At the time of the inspection, we observed visible fluids near the injection well and the injection well leaking near the tubing head. The pressure on the injection well gauge read approximately 800 psi and there was visible salt crystals near the well head.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 13

Location: Approx. 1.1 miles SW of HWY 84 and CR 702 (31.998661, -99.640461)		
City: Novice	County/Parish: Coleman	State: Texas



Photograph File Name: DSCN0849.JPG
Date of Photograph: 08/23/2016
Latitude: 32.007540 N
Longitude: -99.642293 W
Orientation: NE
Map Datum: WGS-84
Time of Photo: 01:50 PM
Photographer: Jeanne Eckhart
Description:

This image shows the Novice Unit Well No. 8025, which is associated with the Novice Unit – Unknown Lease. We observed the injection well was leaking at the well head, near the tubing casing, at the time of the inspection.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 14

Location: Approx. 1.1 miles SW of HWY 84 and CR 702 (31.998661, -99.640461)		
City: Novice	County/Parish: Coleman	State: Texas



Photograph File Name: DSCN0846.JPG

Date of Photograph: 08/23/2016

Latitude: 32.007540 N

Longitude: -99.642293 W

Orientation: S

Map Datum: WGS-84

Time of Photo: 01:43 PM

Photographer: Jeanne Eckhart

Description: This image shows the Novice Unit Well No. 8025, which is associated with the Novice Unit – Unknown Lease. We took a TSS reading of over 80,000 ppm at the fluids ponded up near the injection well at the time of the inspection.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 15

Location: Approx. 1.1 miles SW of HWY 84 and CR 702 (31.998661, -99.640461)		
City: Novice	County/Parish: Coleman	State: Texas



Photograph File Name: DSCN0851.JPG

Date of Photograph: 08/23/2016

Latitude: 32.007649 N

Longitude: -99.642224 W

Orientation: SW

Map Datum: WGS-84

Time of Photo: 01:53 PM

Photographer: Jeanne Eckhart

Description: This image shows the Novice Unit Well No. 8025, which is associated with the Novice Unit – Unknown Lease. At the time of the inspection, we observed a dry flow path east of the leaking well area and pooled fluids towards the tributary of the South Fork of the Jim Ned Creek. We observed along the dry flow path that there was no vegetation and some erosion.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 16

Location: Approx. 1.1 miles SW of HWY 84 and CR 702 (31.998661, -99.640461)		
City: Novice	County/Parish: Coleman	State: Texas



Photograph File Name: DSCN0852.JPG

Date of Photograph: 08/23/2016

Latitude: 32.007649 N

Longitude: -99.642224 W

Orientation: E

Map Datum: WGS-84

Time of Photo: 01:54 PM

Photographer: Jeanne Eckhart

Description: This image shows the Novice Unit Well No. 8025, which is associated with the Novice Unit – Unknown Lease. At the time of the inspection, we observed a dry flow path east of the injection well that was leaking and had pooled fluids near it at the time of the inspection. We saw visible erosion and no vegetation along the flow path east of the injection well towards the tributary of the South Fork of the Jim Ned Creek.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 17

Location: Approx. 1.1 miles SW of HWY 84 and CR 702 (31.998661, -99.640461)		
City: Novice	County/Parish: Coleman	State: Texas



Photograph File Name: DSCN0853.JPG
Date of Photograph: 08/23/2016
Latitude: 32.007632 N
Longitude: -99.641693 W
Orientation: SW
Map Datum: WGS-84
Time of Photo: 01:58 PM
Photographer: Jeanne Eckhart
Description:

This image shows the Novice Unit Well No. 8025, which is associated with the Novice Unit – Unknown Lease. At the time of the inspection, we observed a dry flow path east of the injection well approximately 215 feet east from the injection well. We saw visible erosion and no vegetation along the flow path east of the injection well towards the tributary of the South Fork of the Jim Ned Creek. We also observed a flow line over the dry flow path and some debris in the flow path.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 18

Location: Approx. 1.1 miles SW of HWY 84 and CR 702 (31.998661, -99.640461)		
City: Novice	County/Parish: Coleman	State: Texas



Photograph File Name: DSCN0854.JPG

Date of Photograph: 08/23/2016

Latitude: 32.008648 N

Longitude: -99.640657 W

Orientation: S

Map Datum: WGS-84

Time of Photo: 02:02 PM

Photographer: Jeanne Eckhart

Description: This image shows the dry flow path, downstream of the Novice Unit Unknown tank battery and the injection Well No. 8025. We observed that the flow path merged with the tributary of the South Fork of the Jim Ned Creek and went north towards the South Fork of the Jim Ned Creek. We observed bed and bank along the tributary, including visible rock bottom and bank on the west side of the tributary.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 19

Location: Approx. 1.1 miles SW of HWY 84 and CR 702 (31.998661, -99.640461)		
City: Novice	County/Parish: Coleman	State: Texas



Photograph File Name: DSCN0856.JPG

Date of Photograph: 08/23/2016

Latitude: 32.008648 N

Longitude: -99.640657 W

Orientation: NW

Map Datum: WGS-84

Time of Photo: 02:06 PM

Photographer: Jeanne Eckhart

Description: This image shows the dry flow path, downstream of the Novice Unit Unknown Tank Battery and the injection Well No. 8025 Lease. We observed a dry flow path to a tributary of the South Fork of the Jim Ned Creek and ponded fluids. We took a TSS reading at the point of entry of the flow path from the tank battery, downstream along the tributary. We observed visible bed and bank as well as high water marks shown on the tributary approximately 0.8 miles north and downstream from the facility.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 20

Location: Approx. 1.1 miles SW of HWY 84 and CR 702 (31.998661, -99.640461)		
City: Novice	County/Parish: Coleman	State: Texas



Photograph File Name: DSCN0855.JPG

Date of Photograph: 08/23/2016

Latitude: 32.008648 N

Longitude: -99.640657 W

Orientation: NW

Map Datum: WGS-84

Time of Photo: 02:05 PM

Photographer: Jeanne Eckhart

Description: This image shows the dry flow path, downstream of the Novice Unit Unknown Tank Battery and the injection Well No. 8025 Lease. We observed a dry flow path to a tributary of the South Fork of the Jim Ned Creek and ponded fluids. We took a TSS reading of 4,000 ppm at the point of entry of the flow path from the tank battery, downstream along the tributary.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 21

Location: Approx. 1.1 miles SW of HWY 84 and CR 702 (31.998661, -99.640461)		
City: Novice	County/Parish: Coleman	State: Texas



Photograph File Name: DSCN0911.JPG

Date of Photograph: 08/24/2016

Latitude: 32.010190 N

Longitude: -99.639262 W

Orientation: W

Map Datum: WGS-84

Time of Photo: 07:52 AM

Photographer: Jeanne Eckhart

Description: This image shows the Novice Unit Well No. 8024, which is associated with the Novice Unit – Unknown Lease. We observed that the injection well had a new pump at the well head. We observed the well had 125 psi from the top pressure gauge. Also, we saw that the side pressure gauge attached to the tubing head casing had approximately 200 psi of pressure. We observed no vegetation near the well head and some ponding of fluids near the well at the time of the inspection.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 22

Location: Approx. 1.1 miles SW of HWY 84 and CR 702 (31.998661, -99.640461)		
City: Novice	County/Parish: Coleman	State: Texas



Photograph File Name: DSCN0912.JPG

Date of Photograph: 08/24/2016

Latitude: 32.010190 N

Longitude: -99.639262 W

Orientation: N

Map Datum: WGS-84

Time of Photo: 07:55 AM

Photographer: Jeanne Eckhart

Description: This image shows the Novice Unit Well No. 8024, which is associated with the Novice Unit – Unknown Lease. We observed that the injection well had a new pump at the well head. We observed the well had 125 psi from the top pressure gauge. Also, we saw that the side pressure gauge attached to the tubing head casing had approximately 200 psi of pressure. We observed no vegetation near the well head and some ponding of fluids near the well at the time of the inspection. A TSS reading was taken at the ponded fluids north east of the injection well near the well head.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 23

Location: Approx. 1.1 miles SW of HWY 84 and CR 702 (31.998661, -99.640461)		
City: Novice	County/Parish: Coleman	State: Texas



Photograph File Name: DSCN0919.JPG
Date of Photograph: 08/24/2016
Latitude: 32.010307 N
Longitude: -99.639168 W
Orientation: N
Map Datum: WGS-84
Time of Photo: 08:45 AM
Photographer: Jeanne Eckhart
Description:

This image shows the Novice Unit Well No. 8024, which is associated with the Novice Unit – Unknown Lease. We observed fluids pooled up north east of the injection well. We took a TSS reading of 2,400 ppm at the ponded fluids at the time of the inspection. This reading was taken approximately 0.8 miles north of the facility.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 24

Location: Approx. 1.1 miles SW of HWY 84 and CR 702 (31.998661, -99.640461)		
City: Novice	County/Parish: Coleman	State: Texas



Photograph File Name: DSCN0918.JPG

Date of Photograph: 08/24/2016

Latitude: 32.010587 N

Longitude: -99.639013 W

Orientation: S

Map Datum: WGS-84

Time of Photo: 08:42 AM

Photographer: Jeanne Eckhart

Description: This image shows the Novice Unit Well No. 8024, which is associated with the Novice Unit – Unknown Lease. We observed a dry flow path from the facility, north east of the injection well, where there was no vegetation along the flow path. We observed salt crystals along the flow path as well. We saw this flow path approximately 140 feet north east from the injection well.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 25

Location: Approx. 1.1 miles SW of HWY 84 and CR 702 (31.998661, -99.640461)		
City: Novice	County/Parish: Coleman	State: Texas



Photograph File Name: DSCN0917.JPG
Date of Photograph: 08/24/2016
Latitude: 32.010793 N
Longitude: -99.639221 W
Orientation: SW
Map Datum: WGS-84
Time of Photo: 08:36 AM
Photographer: Jeanne Eckhart
Description:

This image shows the Novice Unit Well No. 8024, which is associated with the Novice Unit – Unknown Lease. We observed a dry flow path from the facility, north east of the injection well, where there was no vegetation along the flow path. The dry flow path went west towards the tributary of the South Fork of the Jim Ned Creek. We observed salt crystals along the flow path as well. We saw this flow path approximately 300 feet along the flow path from the injection well.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 26

Location: Approx. 1.1 miles SW of HWY 84 and CR 702 (31.998661, -99.640461)		
City: Novice	County/Parish: Coleman	State: Texas



Photograph File Name: DSCN0916.JPG

Date of Photograph: 08/24/2016

Latitude: 32.010698 N

Longitude: -99.639628 W

Orientation: SW

Map Datum: WGS-84

Time of Photo: 08:35 AM

Photographer: Jeanne Eckhart

Description: This image shows the Novice Unit Well No. 8024, which is associated with the Novice Unit – Unknown Lease. We observed a dry flow path from the facility, north east of the injection well, where there was no vegetation along the flow path. The dry flow path went west towards the tributary of the South Fork of the Jim Ned Creek. We observed salt crystals along the flow path as well. We saw this flow path approximately 350 feet along the flow path from the injection well.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 27

Location: Approx. 1.1 miles SW of HWY 84 and CR 702 (31.998661, -99.640461)		
City: Novice	County/Parish: Coleman	State: Texas



Photograph File Name: DSCN0914.JPG
Date of Photograph: 08/24/2016
Latitude: 32.010498 N
Longitude: -99.640078 W
Orientation: NE
Map Datum: WGS-84
Time of Photo: 08:31 AM
Photographer: Jeanne Eckhart
Description:

This image shows the Novice Unit Well No. 8024, which is associated with the Novice Unit – Unknown Lease. We observed a dry flow path from the facility, north east of the injection well, where there was no vegetation along the flow path. The dry flow path went west towards the tributary of the South Fork of the Jim Ned Creek. We observed salt crystals and some vegetation along the flow path as well. We saw this flow path approximately 500 feet along the flow path from the injection well.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 28

Location: Approx. 1.1 miles SW of HWY 84 and CR 702 (31.998661, -99.640461)		
City: Novice	County/Parish: Coleman	State: Texas



Photograph File Name: DSCN0913.JPG

Date of Photograph: 08/24/2016

Latitude: 32.010592 N

Longitude: -99.640195 W

Orientation: E

Map Datum: WGS-84

Time of Photo: 08:02 AM

Photographer: Jeanne Eckhart

Description: This image shows the Novice Unit Well No. 8024, which is associated with the Novice Unit – Unknown Lease. We observed a dry flow path from the facility, north east of the injection well, where there was no vegetation along the flow path. The dry flow path went west towards the tributary of the South Fork of the Jim Ned Creek. We observed salt crystals, dead vegetation, and wet soil along the flow path approximately 500 feet along the flow path from the injection well.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 29

Location: Approx. 1.1 miles SW of HWY 84 and CR 702 (31.998661, -99.640461)		
City: Novice	County/Parish: Coleman	State: Texas



Photograph File Name: DSCN0909.JPG
Date of Photograph: 08/23/2016
Latitude: 32.015545 N
Longitude: -99.640737 W
Orientation: SW
Map Datum: WGS-84
Time of Photo: 04:48 PM
Photographer: Jack Arias
Description:

This image shows the South Fork of the Jim Ned Creek downstream from where the tributary coalesces with the South Fork of Jim Ned Creek. A TSS reading of 700 ppm was taken at this location. We observed riparian debris and vegetation at the time of inspection. This location was approximately 1.4 miles downstream from the Novice Unit – Unknown tank battery along the tributary of the South Fork of the Jim Ned Creek.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 30

Location: Approx. 1.1 miles SW of HWY 84 and CR 702 (31.998661, -99.640461)		
City: Novice	County/Parish: Coleman	State: Texas



Photograph File Name: DSCN0842.JPG
Date of Photograph: 08/23/2016
Latitude: 32.010065 N
Longitude: -99.642317 W
Orientation: NE
Map Datum: WGS-84
Time of Photo: 01:30 PM
Photographer: Jeanne Eckhart
Description:

This image shows the Novice Unit Well No. 8030, which is associated with the Novice Unit – Unknown Lease. We observed oil staining, debris, exposed steel piping near the well head, and a chemical storage tank container with no secondary containment at the time of the inspection. We saw a dirt pit that had been dug and had debris and fluids in it near the well head. The pressure on the gauge was approximately 185 psi at the time of the inspection.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 31

Location: Approx. 1.1 miles SW of HWY 84 and CR 702 (31.998661, -99.640461)		
City: Novice	County/Parish: Coleman	State: Texas



Photograph File Name: DSCN0844.JPG

Date of Photograph: 08/23/2016

Latitude: 32.010215 N

Longitude: -99.642328 W

Orientation: SE

Map Datum: WGS-84

Time of Photo: 01:35 PM

Photographer: Jeanne Eckhart

Description: This image shows the Novice Unit Well No. 8030, which is associated with the Novice Unit – Unknown Lease. We observed oil staining, debris, exposed steel piping near the well head, and a chemical storage tank container with no secondary containment at the time of the inspection. We saw a dirt pit that had been dug and had debris and fluids in it near the well head. The pressure on the gauge was approximately 185 psi at the time of the inspection.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 32

Location: Approx. 1.1 miles SW of HWY 84 and CR 702 (31.998661, -99.640461)		
City: Novice	County/Parish: Coleman	State: Texas



Photograph File Name: DSCN0843.JPG
Date of Photograph: 08/23/2016
Latitude: 32.010153 N
Longitude: -99.642267 W
Orientation: E
Map Datum: WGS-84
Time of Photo: 01:32 PM
Photographer: Jeanne Eckhart
Description:

This image shows the Novice Unit Well No. 8030, which is associated with the Novice Unit – Unknown Lease. We observed oil staining, debris, exposed steel piping near the well head, and a chemical storage tank container with no secondary containment at the time of the inspection. We saw a dirt pit that had been dug and had debris and fluids in it near the well head. We took a TSS reading of 29,300 ppm at the time of the inspection from the fluids in the unlined pit near the well head.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 33

Location: Approx. 1.1 miles SW of HWY 84 and CR 702 (31.998661, -99.640461)		
City: Novice	County/Parish: Coleman	State: Texas



Photograph File Name: DSCN0908.JPG

Date of Photograph: 08/23/2016

Latitude: 32.014905 N

Longitude: -99.640939 W

Orientation: SW

Map Datum: WGS-84

Time of Photo: 04:41 PM

Photographer: Jack Arias

Description: This image shows the South Fork of the Jim Ned Creek upstream approximately 100 feet from where the tributary coalesces with the South Fork of Jim Ned Creek. A TSS reading of 400 ppm was taken at this location as a background measurement.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 34

Location: Approx. 1.1 miles SW of HWY 84 and CR 702 (31.998661, -99.640461)		
City: Novice	County/Parish: Coleman	State: Texas



Photograph File Name: DSCN0939.JPG

Date of Photograph: 08/24/2016

Latitude: 31.993257 N

Longitude: -99.626160 W

Orientation: SW

Map Datum: WGS-84

Time of Photo: 10:20 AM

Photographer: Jack Arias

Description: This image shows an additional background TSS reading of 200 ppm taken upstream along the tributary of the South Fork of the Jim Ned Creek. We observed visible aquatic life at the time of the inspection at the ponded area, as seen in this photo.