

**Region 6 Compliance Assurance and Enforcement Division  
INSPECTION REPORT**

|                                        |                                                                |                         |                  |
|----------------------------------------|----------------------------------------------------------------|-------------------------|------------------|
| Inspection Date(s):                    | 02/08/2018                                                     |                         |                  |
| Media:                                 | Water                                                          |                         |                  |
| Regulatory Program(s)                  | NPDES - Oil and Gas, Produced/Brine Water                      |                         |                  |
| Company Name:                          | <b>Belva Oil L.L.C.</b>                                        |                         |                  |
| Facility Name:                         | <b>Taylor 2 Lease</b>                                          |                         |                  |
| Facility Physical Location:            | 984 Armer Road El Dorado, AR 71730 (33.254899 N, -92.534644 W) |                         |                  |
| (city, state, zip code)                | El Dorado, AR 71730                                            |                         |                  |
| Mailing address:                       | 208 Ruth Street                                                |                         |                  |
| (city, state, zip code)                | El Dorado, AR 71730                                            |                         |                  |
| County/Parish:                         | Union County                                                   |                         |                  |
| Facility Contact:                      | Charles B. King                                                | Register Agent          |                  |
|                                        | Cell 870-312-0982, Home 870-862-4657                           |                         |                  |
| FRS Number:                            | N/A                                                            |                         |                  |
| Identification/Permit Number:          | ARU001229                                                      |                         |                  |
| Media Number:                          | N/A                                                            |                         |                  |
| NAICS:                                 | 211111                                                         |                         |                  |
| SIC:                                   | 1311                                                           |                         |                  |
| Personnel participating in inspection: |                                                                |                         |                  |
| Jack Arias                             | US EPA, Region 6 (EPA)                                         | Environmental Scientist | (214) 665 – 8164 |
|                                        |                                                                |                         |                  |
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|                                        |                                                                |                         |                  |
| EPA Lead Inspector<br>Signature/Date   |                                                                |                         |                  |
|                                        | Jack Arias                                                     |                         | Date             |
| Supervisor<br>Signature/Date           |                                                                |                         | 04 Apr 2018      |
|                                        | Guy Tidmore                                                    |                         | Date             |

## **Section I – INTRODUCTION**

### **PURPOSE OF THE INSPECTION**

The purpose of the inspection was to follow-up previous enforcement actions and 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 inspector Jack Arias arrived at Belva Oil L.L.C. – Taylor 2 Lease at approximately 4:47 PM on February 08, 2018 for an unannounced inspection. EPA region 6 inspector notified the Arkansas Oil and Gas Commission (AOGC) about the inspection. There were no representatives present at the time of entry. I 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 oil and produced water storage tanks and associated equipment at the site; flow paths from the facility and containment area to a nearby tributary and creek; potential downstream impacts, sensitive areas, and ponds; and other related factors that are connected to the CWA at the facility upstream and downstream of the facility.

### **FACILITY DESCRIPTION**

The facility is known as the Belva Oil L.L.C. – Taylor 2 Lease and is located in a remote zone in El Dorado, Union County, Arkansas (See Photo No. 1 in Appendix 1). The facility consisted of one oil storage tank and one heater treater separator (See Photo Nos. 1 and 4 in Appendix 1). The tanks were not surrounded by a secondary containment wall. The capacity of the tanks to store produced water and oil was approximately 400 barrels. The tanks were connected to production wells, vessels, flow lines, collection points, and other equipment used for the production of crude oil and disposal of produced water. 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 or brine water is typically high in salts and is commonly known as brine (See Photo Nos. 1 – 8 in Appendix 1).

For aerial and topographic views review the Waters of the US Analysis Report (See Photo Nos. 3 to 5 in Waters of the US Analysis Report in Appendix 2).

The facility is located near the Arkansas stream plate GC2 #16 (Bayou de Loutre from Gum Creek and Mill Creek), which is designated as a stream with extraordinary resource water and has a Total Dissolved Solids (TDS) water quality criteria of 750 parts-per-million (ppm) and Chlorides 250 ppm. Also it is located 1.53 miles from a water quality monitoring station. The facility is located near the tributary to Mill Creek, which leads to Mill Creek approximately 165 feet downstream from the facility to the point of entry into the tributary of Mill Creek. (See Photo No. 7 in Waters of the US Analysis Report in Appendix 2). There is hydrologic connection between Mill Creek and Ouachita River. The tributary of Mill Creek flows into Mill creek and eventually flows into Ouachita River. The confluence of Mill Creek with the Ouachita River was approximately 7 miles downstream from the Point of Entry (POE) into the tributary of Mill Creek (See Photo No. 6 in Waters of the US Analysis Report in Appendix 2).

## **Section II - OBSERVATIONS**

### **FACILITY AND POINT OF ENTRY OBSERVATIONS**

When I arrived at this facility on February 08, 2018, at around 4:47 pm, I conducted a preliminary evaluation of the tanks and the secondary containment wall conditions. I observed that the facility had an inadequate raised secondary containment wall around the oil and heater treater separator. I observed visible erosion on the containment wall; oil staining and produced water pools in and out the containment area; oil and produced water leaks from tanks and lines; and visible corrosion on tanks and flowlines. At the time of the inspection, I observed that the heater treater separator was open at the bottom of the tank (lowest point of the tank) and all fluids were discharged out of the tank. I observed oil, produced water, sediments fully saturated with oil, and a flow path of fluids out of the containment area. Also at the north west corner of the wall, I observed the existence of a trench and a drain flowline installed over the trench and containment area. The trench allowed fluids to flow out of the containment area. I observed a flowpath of fluids going downhill and downstream from the facility to the tributary of Mill Creek. Also, I observed visible oil staining and dead vegetation downstream along the flow path (See Photo Nos. 2 – 8 in Appendix 1).

Using a calibrated YSI 30 Pro Conductivity Meter (EPA #00000), at the point source of contamination (next to the facility's separator), at latitude 33.254667 N and longitude -92.534389 W, I took a Total Dissolved Solids (TDS) measurement of 43,885 parts-per-million (ppm) inside the containment area near the separator and trench I observed oil staining and pool of fluids inside and outside the containment area (See Photo Nos. 5 – 6 in Appendix 1).

I followed the flow path of fluids downstream from the facility to Mill Creek and at approximately 165 feet from the facility to the tributary of Mill Creek, I identified the Point of Entry (POE) of fluids at latitude 33.254702 N and longitude -92.533788 W. At this point, using the calibrated YSI 30 Pro Conductivity Meter, I took a TDS measurement of 39,711 ppm. At the POE, I observed a clear flowpath of fluids, dead vegetation along the flowpath, defined bed and bank, high water marks, and debris along the tributary of Mill Creek and Mill Creek (See Photo No. 9 - 11 in Appendix 1).

### **DOWNSTREAM OBSERVATIONS ALONG THE TRIBUTARY OF MILL CREEK**

I followed the tributary downstream to determine if low lying areas and potential vegetation along the tributary were impacted by oil and produced water discharges. At approximately 66 feet downstream from the POE at latitude 33.254527 N and longitude -92.533815 W, I found a flow path of fluids with oil staining on vegetation, defined bed and bank, high water marks, and debris. At this point, using the calibrated YSI 30 Pro Conductivity Meter, I took a TDS measurement of 12,679 ppm (See Photo Nos. 12 - 13 in Appendix 1).

At approximately 166 feet downstream from the POE at latitude 33.254194 N and longitude -92.533583 W, I found a flow path of fluids with oil staining on vegetation, defined bed and bank, high water marks, and debris. At this point, using a calibrated YSI 30 Pro Conductivity Meter, I took a TDS measurement of 11,958 ppm (See Photo Nos. 15 in Appendix 1).

At approximately 487 feet downstream from the POE at latitude 33.253483 N and longitude -92.533984 W, I found a flow path of fluids with oil staining on vegetation and debris. At this point, using the calibrated YSI 30 Pro Conductivity Meter, I took a TDS measurement of 9,819 ppm (See Photo No. 16 – 17 in Appendix 1).

At approximately 0.19 miles downstream from the POE at latitude 33.251639 N and longitude -92.533944 W, at the intersection between tributary of Mill creek and mill Creek, I observed fluids and dead vegetation along the tributary of Mill Creek. At this point, using a calibrated YSI 30 Pro Conductivity Meter, I took a TDS measurement of 9,819 ppm.

To assess the flow direction of fluids, I determined the elevation between the facility and downstream points. The elevations obtained upstream 184.59 feet (facility / point source) and downstream 117.25 feet (tributary of Mill Creek and Mill Creek) demonstrated the downstream flow of fluids towards the Mill creek and Ouachita River. (See Photo Nos. 4 to 6 in Waters of the US Analysis Report in Appendix 2).

#### **UPSTREAM OBSERVATIONS ALONG THE UNNAMED TRIBUTARY OF NORTH LAPILE CREEK**

I followed the tributary upstream to determine if higher lying areas of the tributary were impacted by oil and produced water discharges and to obtain TDS background information. Therefore, at approximately 0.18 miles upstream from the point between tributary of Mill creek and mill Creek at latitude 33.25450 N and longitude -92.53654 W, I took a TDS reading of 207.6 ppm. We observed defined bed and bank, high water marks, debris, and riparian vegetation and plants growing along the tributary (See Photo No. 18 in Appendix 1).

#### **Section III – AREAS OF CONCERN**

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

- High concentrations of TDS around tanks (point source of contamination), POE, and downstream the tributary of Mill Creek and Mill Creek.
- Leaks of oil and produced water from flowlines and tanks.
- Discharge of fluids through a trench built at the containment area.
- Visible oil staining and dead vegetation along the flow path
- Visible corrosion on tanks and flowlines.
- Inadequate secondary containment walls around the tanks with visible erosion on the containment wall, oil pools and staining in and out the containment area.
- Potential concerns of soil contamination at the facility, flowpath, and downstream of the facility

#### **Section IV – FOLLOW UP**

The following follow-up actions will be conducted:

- EPA will call and send a copy of the inspection report to the facility

- EPA will refer this facility to the EPA Region 6 Spill Prevention Control and Countermeasure (SPCC) program
- EPA will send a copy of the inspection report to the Arkansas Department of Environmental Quality (ADEQ) and Arkansas Oil and Gas Commission (AOGC).

## **Section V – LIST OF APPENDICES**

Appendix 1 – Photo Log – 18 photos taken on 04/08/2018.

Appendix 2 – Waters of the US Analysis Report

## Appendix 1

### Photograph Log



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

## Photograph Log

Photo No. 1

|                                                                |               |                 |
|----------------------------------------------------------------|---------------|-----------------|
| 984 Armer Road El Dorado, AR 71730 (33.254899 N, -92.534644 W) |               |                 |
| City: El Dorado                                                | County: Union | State: Arkansas |



Photograph File Name: DSCN3281.JPG  
Date of Photograph: 02/20/2018  
Latitude: 33.254899 N  
Longitude: -92.534644 W  
Orientation: W  
Map Datum: WGS-84  
Time of Photo: 04:55 AM  
Photographer: Jack Arias  
Description: This image shows the sign and tank at Belva Oil, LLC – Taylor 2 lease.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 2

|                                                                |               |                 |
|----------------------------------------------------------------|---------------|-----------------|
| 984 Armer Road El Dorado, AR 71730 (33.254899 N, -92.534644 W) |               |                 |
| City: El Dorado                                                | County: Union | State: Arkansas |



Photograph File Name: DSCN3279.JPG  
Date of Photograph: 02/08/2018  
Latitude: 33. 254899 N  
Longitude: -92. 534644 W  
Orientation: W  
Map Datum: WGS-84  
Time of Photo: 04:55 PM  
Photographer: Jack Arias  
Description: This image shows the sign at Belva Oil, LLC – Taylor 2 Lease and a pool of fluids around the tank inside the containment area.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 3

|                                                                |               |                 |
|----------------------------------------------------------------|---------------|-----------------|
| 984 Armer Road El Dorado, AR 71730 (33.254899 N, -92.534644 W) |               |                 |
| City: El Dorado                                                | County: Union | State: Arkansas |



Photograph File Name: DSCN3280.JPG

Date of Photograph: 02/08/2018

Latitude: 33. 254899 N

Longitude: -92. 534644 W

Orientation: NW

Map Datum: WGS-84

Time of Photo: 04:55 PM

Photographer: Jack Arias

Description: This image shows an oil storage tank, a pool of fluids inside the containment area, oil staining in the containment area and tank, visible erosion on the containment wall, and corrosion on tanks and flowlines.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

## Photograph Log

Photo No. 4

|                                                                |               |                 |
|----------------------------------------------------------------|---------------|-----------------|
| 984 Armer Road El Dorado, AR 71730 (33.254899 N, -92.534644 W) |               |                 |
| City: El Dorado                                                | County: Union | State: Arkansas |



Photograph File Name: DSCN3263.JPG

Date of Photograph: 02/08/2018

Latitude: 33. 254899 N

Longitude: -92. 534644 W

Orientation: SW

Map Datum: WGS-84

Time of Photo: 04:47 PM

Photographer: Jack Arias

Description: This image shows the existence of fluids inside the containment area near the oil tank. Also, I observed that the facility had an inadequate size and elevation of raised secondary containment wall around the oil tank.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

## Photograph Log

Photo No. 5

|                                                                |               |                 |
|----------------------------------------------------------------|---------------|-----------------|
| 984 Armer Road El Dorado, AR 71730 (33.254899 N, -92.534644 W) |               |                 |
| City: El Dorado                                                | County: Union | State: Arkansas |



Photograph File Name: DSCN3262.JPG  
Date of Photograph: 02/08/2018  
Latitude: 33.254899 N  
Longitude: -92.534644 W  
Orientation: SW  
Map Datum: WGS-84  
Time of Photo: 04:47 PM  
Photographer: Jack Arias  
Description: This image shows a Total Dissolved Solids (TDS) measurement of 43,885 ppm in the containment area near the heater treater separator.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 6

|                                                                |               |                 |
|----------------------------------------------------------------|---------------|-----------------|
| 984 Armer Road El Dorado, AR 71730 (33.254899 N, -92.534644 W) |               |                 |
| City: El Dorado                                                | County: Union | State: Arkansas |



Photograph File Name: DSCN3264.JPG

Date of Photograph: 02/08/2018

Latitude: 33.254899 N

Longitude: -92.534644 W

Orientation: SW

Map Datum: WGS-84

Time of Photo: 04:47 PM

Photographer: Jack Arias

Description: This image shows that the heater treater separator was open at the bottom of the tank (lowest point of the tank) and all fluids were discharged out of the tank. I observed oil, produced water, sediments fully saturated with oil, and a flow path of fluids out of the containment area.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

## Photograph Log

Photo No. 7

|                                                                |               |                 |
|----------------------------------------------------------------|---------------|-----------------|
| 984 Armer Road El Dorado, AR 71730 (33.254899 N, -92.534644 W) |               |                 |
| City: El Dorado                                                | County: Union | State: Arkansas |



Photograph File Name: DSCN3266.JPG

Date of Photograph: 02/08/2018

Latitude: 33. 254667 N

Longitude: -92. 534389 W

Orientation: SW

Map Datum: WGS-84

Time of Photo: 04:47 PM

Photographer: Jack Arias

Description: This image shows the existence of a trench and a drain flowline installed over the trench and containment wall. The trench allowed fluids to flow out of the containment area.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

## Photograph Log

Photo No. 8

|                                                                |               |                 |
|----------------------------------------------------------------|---------------|-----------------|
| 984 Armer Road El Dorado, AR 71730 (33.254899 N, -92.534644 W) |               |                 |
| City: El Dorado                                                | County: Union | State: Arkansas |



Photograph File Name: DSCN3265.JPG

Date of Photograph: 02/08/2018

Latitude: 33. 254667 N

Longitude: -92. 534389 W

Orientation: SW

Map Datum: WGS-84

Time of Photo: 04:47 PM

Photographer: Jack Arias

Description: This image shows the existence of a trench and a drain flowline installed over the trench and containment wall. The trench allowed fluids to flow out of the containment area.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

## Photograph Log

Photo No. 9

|                                                                |               |                 |
|----------------------------------------------------------------|---------------|-----------------|
| 984 Armer Road El Dorado, AR 71730 (33.254899 N, -92.534644 W) |               |                 |
| City: El Dorado                                                | County: Union | State: Arkansas |



Photograph File Name: DSCN3269.JPG

Date of Photograph: 02/08/2018

Latitude: 33.254702 N

Longitude: -92.533788 W

Orientation: SE

Map Datum: WGS-84

Time of Photo: 04:49 PM

Photographer: Jack Arias

Description: This image shows visible downstream flowpath of fluids, dead vegetation, and debris and oil along the along the flowpath.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

## Photograph Log

Photo No. 10

|                                                                |               |                 |
|----------------------------------------------------------------|---------------|-----------------|
| 984 Armer Road El Dorado, AR 71730 (33.254899 N, -92.534644 W) |               |                 |
| City: El Dorado                                                | County: Union | State: Arkansas |



Photograph File Name: DSCN3268.JPG

Date of Photograph: 02/08/2018

Latitude: 33.254702 N

Longitude: -92.533788 W

Orientation: SE

Map Datum: WGS-84

Time of Photo: 04:49 PM

Photographer: Jack Arias

Description: This image shows visible downstream flowpath of fluids, dead vegetation, defined bed and bank, high water marks, and debris along the tributary of Mill Creek. It also identified the Point of Entry (POE) of fluids. At this point, using a calibrated YSI 30 Pro Conductivity Meter, I took a TDS measurement of 39,711 ppm.

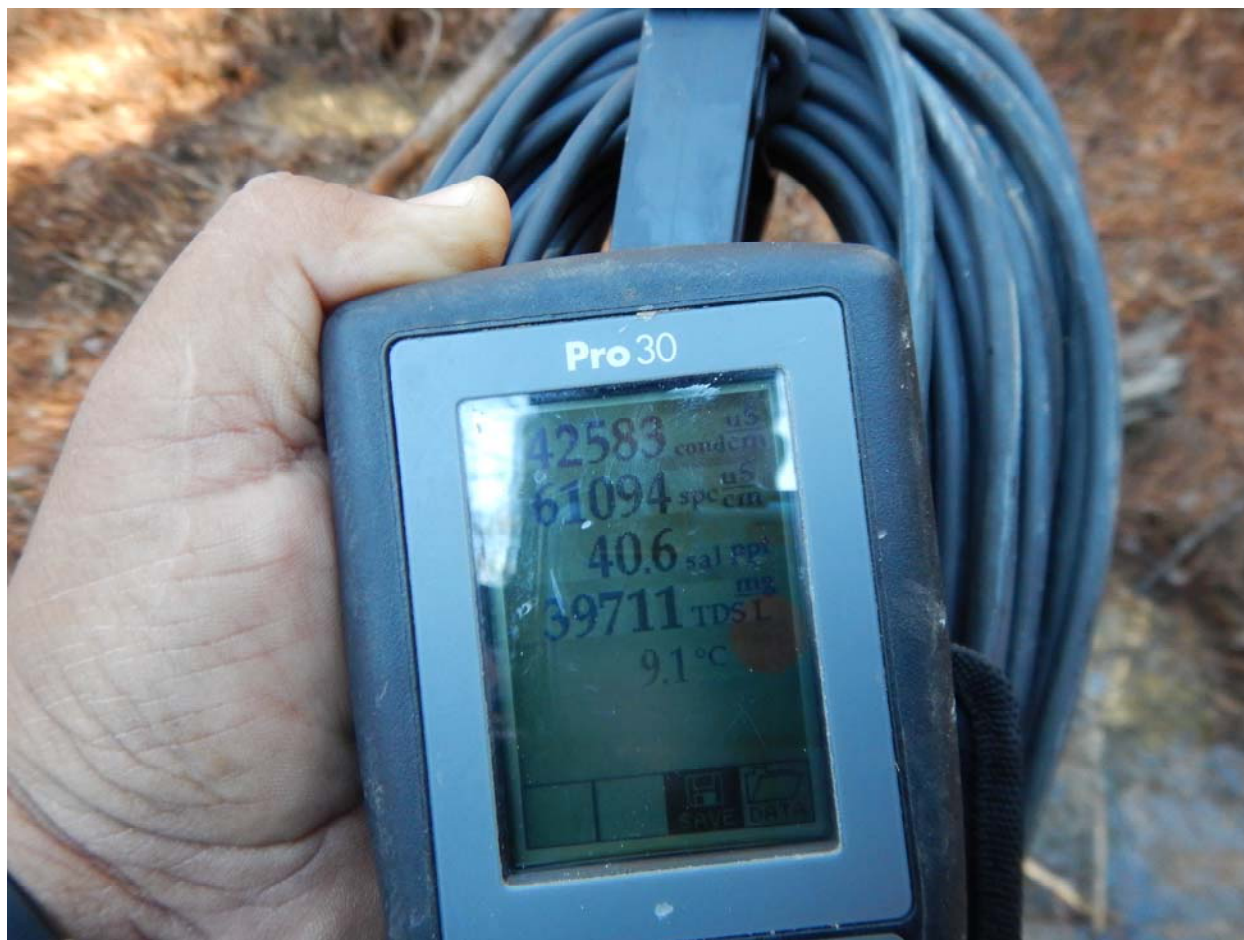


UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 11

|                                                                |               |                 |
|----------------------------------------------------------------|---------------|-----------------|
| 984 Armer Road El Dorado, AR 71730 (33.254899 N, -92.534644 W) |               |                 |
| City: El Dorado                                                | County: Union | State: Arkansas |



Photograph File Name: DSCN3267.JPG

Date of Photograph: 02/08/2018

Latitude: 33.254702 N

Longitude: -92.533788 W

Orientation: SE

Map Datum: WGS-84

Time of Photo: 04:49 PM

Photographer: Jack Arias

Description: This image shows visible downstream flowpath of fluids, dead vegetation, defined bed and bank, high water marks, and debris along the tributary of Mill Creek. It also identified the Point of Entry (POE) of fluids. At this point, using a calibrated YSI 30 Pro Conductivity Meter, I took a TDS measurement of 39,711 ppm.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

## Photograph Log

Photo No. 12

|                                                                |               |                 |
|----------------------------------------------------------------|---------------|-----------------|
| 984 Armer Road El Dorado, AR 71730 (33.254899 N, -92.534644 W) |               |                 |
| City: El Dorado                                                | County: Union | State: Arkansas |



Photograph File Name: DSCN3271.JPG  
Date of Photograph: 02/08/2018  
Latitude: 33.254527 N  
Longitude: -92.533815 W  
Orientation: SW  
Map Datum: WGS-84  
Time of Photo: 04:50 PM  
Photographer: Jack Arias  
Description: This image shows a flow path of fluids with oil staining on vegetation and debris.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

## Photograph Log

Photo No. 13

|                                                                |               |                 |
|----------------------------------------------------------------|---------------|-----------------|
| 984 Armer Road El Dorado, AR 71730 (33.254899 N, -92.534644 W) |               |                 |
| City: El Dorado                                                | County: Union | State: Arkansas |



Photograph File Name: DSCN3270.JPG

Date of Photograph: 02/08/2018

Latitude: 33.254527 N

Longitude: -92.533815 W

Orientation: SW

Map Datum: WGS-84

Time of Photo: 04:51 PM

Photographer: Jack Arias

Description: This image shows a Total Dissolved Solids (TDS) measurement of 12,679 ppm at approximately 66 feet downstream from the POE.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

## Photograph Log

Photo No. 14

|                                                                |               |                 |
|----------------------------------------------------------------|---------------|-----------------|
| 984 Armer Road El Dorado, AR 71730 (33.254899 N, -92.534644 W) |               |                 |
| City: El Dorado                                                | County: Union | State: Arkansas |



Photograph File Name: DSCN3273.JPG

Date of Photograph: 02/20/2018

Latitude: 33.254527 N

Longitude: -92.533815 W

Orientation: NE

Map Datum: WGS-84

Time of Photo: 04:51 PM

Photographer: Jack Arias

Description: This image shows a Total Dissolved Solids (TDS) measurement of 12,396 ppm at approximately 70 feet downstream from the POE, a flow path of fluids, dead vegetation, defined bed and bank, high water marks, and debris along the tributary of Mill Creek.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

## Photograph Log

Photo No. 15

|                                                                |               |                 |
|----------------------------------------------------------------|---------------|-----------------|
| 984 Armer Road El Dorado, AR 71730 (33.254899 N, -92.534644 W) |               |                 |
| City: El Dorado                                                | County: Union | State: Arkansas |



Photograph File Name: DSCN3272.JPG  
Date of Photograph: 02/08/2018  
Latitude: 33.254194 N  
Longitude: -92.533583 W  
Orientation: NE  
Map Datum: WGS-84  
Time of Photo: 04:51 PM  
Photographer: Jack Arias  
Description: This image shows a Total Dissolved Solids (TDS) measurement of 11,958 ppm at approximately 166 feet downstream from the POE.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

## Photograph Log

Photo No. 16

|                                                                |               |                 |
|----------------------------------------------------------------|---------------|-----------------|
| 984 Armer Road El Dorado, AR 71730 (33.254899 N, -92.534644 W) |               |                 |
| City: El Dorado                                                | County: Union | State: Arkansas |



Photograph File Name: DSCN3284.JPG

Date of Photograph: 02/08/2018

Latitude: 33.253483 N

Longitude: -92.533984 W

Orientation: NE

Map Datum: WGS-84

Time of Photo: 5:04 PM

Photographer: Jack Arias

Description: This image shows at approximately 487 feet downstream from the POE at a flow path of fluids with oil staining on vegetation and debris.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

## Photograph Log

Photo No. 17

|                                                                |               |                 |
|----------------------------------------------------------------|---------------|-----------------|
| 984 Armer Road El Dorado, AR 71730 (33.254899 N, -92.534644 W) |               |                 |
| City: El Dorado                                                | County: Union | State: Arkansas |



Photograph File Name: DSCN3283.JPG

Date of Photograph: 02/08/2018

Latitude: 33.253483 N

Longitude: -92.533984 W

Orientation: NE

Map Datum: WGS-84

Time of Photo: 5:03 PM

Photographer: Jack Arias

Description: This image shows a Total Dissolved Solids (TDS) measurement of 9,819 ppm at approximately 487 feet downstream from the Point of Entry (POE) to the tributary of Mill Creek.

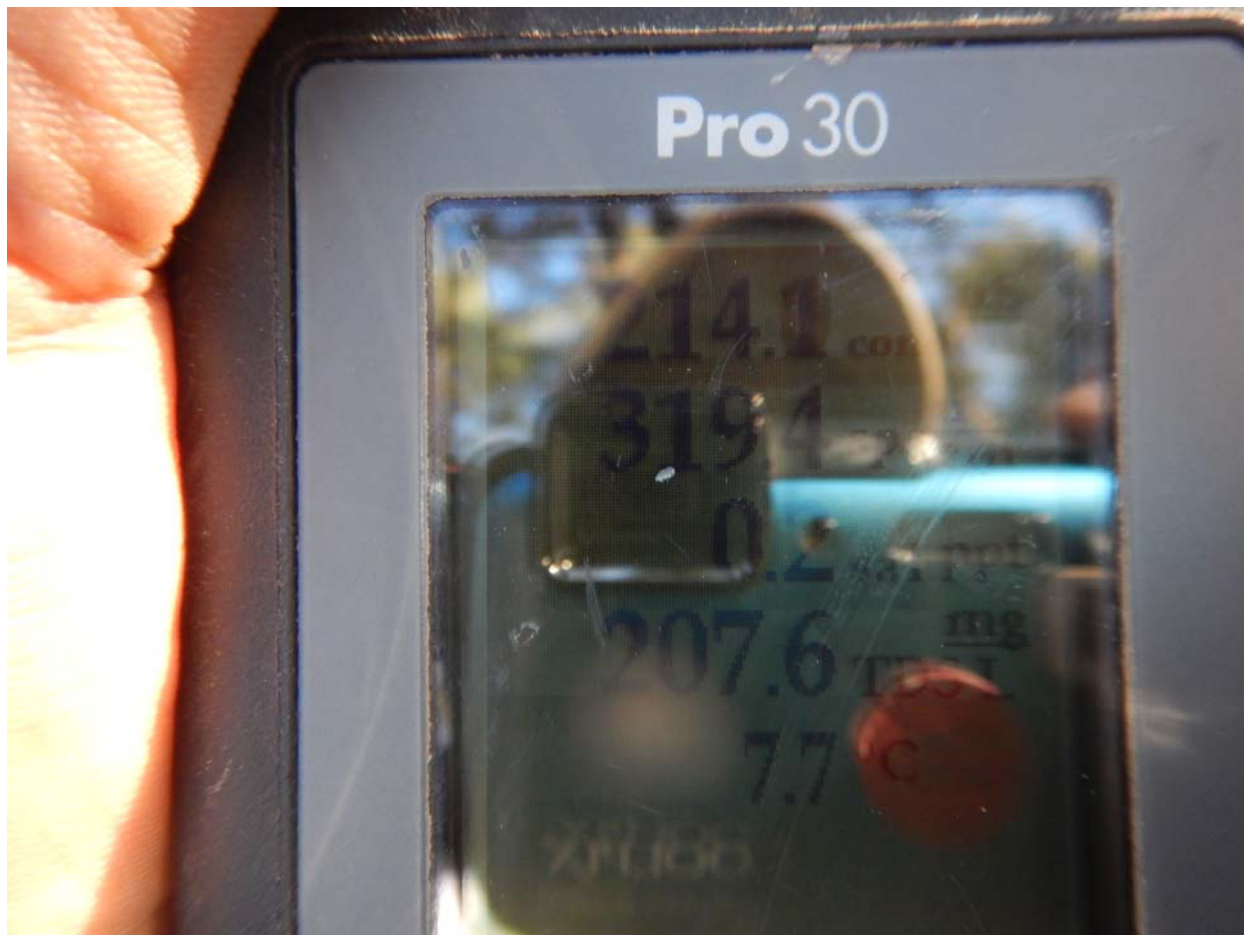


UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 18

|                                                                |               |                 |
|----------------------------------------------------------------|---------------|-----------------|
| 984 Armer Road El Dorado, AR 71730 (33.254899 N, -92.534644 W) |               |                 |
| City: El Dorado                                                | County: Union | State: Arkansas |



Photograph File Name: DSCN3287.JPG

Date of Photograph: 02/08/2018

Latitude: 33.25450 N

Longitude: -92.53654 W

Orientation: N

Map Datum: WGS-84

Time of Photo: 5:06 PM

Photographer: Jack Arias

Description: This image shows a Total Dissolved Solids (TDS) measurement of 207.6 ppm at approximately 792 feet upstream from the Point of Entry (POE) to the tributary of Mill Creek.