

**SIXTH FIVE-YEAR REVIEW REPORT FOR
WHITE FARM EQUIPMENT CO DUMP SUPERFUND SITE
FLOYD COUNTY, IOWA**



Prepared by

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LIST OF ABBREVIATIONS & ACRONYMS

COCs	Contaminants of Concern
EPA	U.S. Environmental Protection Agency
ESD	Explanation of Significant Differences
ESV	Ecological Screening Value
FYR	Five-Year Review
ICs	Institutional Controls
IDNR	Iowa Department of Natural Resources
MCL	Maximum Contaminant Level
O&M	Operation and Maintenance
RAO	Remedial Action Objectives
ROD	Record of Decision
UU/UE	Unlimited use and unrestricted exposure

I. INTRODUCTION

The purpose of a Five-Year Review is to evaluate the implementation and performance of a remedy to determine whether that remedy is and will continue to be protective of human health and the environment. The methods, findings and conclusions of reviews are documented in FYR reports such as this one. In addition, FYR reports identify issues found during the review, if any, and document recommendations to address them.

The U.S. Environmental Protection Agency is preparing this FYR pursuant to the Comprehensive Environmental Response, Compensation and Liability Act Section 121, consistent with the National Contingency Plan (40 CFR Section 300.430(f)(4)(ii)) and considering EPA policy.

This is the sixth FYR for the White Farm Equipment Co. Dump Superfund site. The triggering action for this statutory review is the completion date of the previous FYR. The FYR has been prepared because hazardous substances, pollutants, or contaminants remain at the site above levels that allow for unlimited use and unrestricted exposure (UU/UE).

The site consists of one operable unit (OU) that will be addressed in this FYR.

The White Farm Equipment Co. Dump Superfund site FYR was led by Wesley March, EPA. Participants included Randy Brown, Amelia Holcomb, Alicia Dunton, and Venessa Madden, EPA; and Shelly Nellesen, Iowa Department of Natural Resources (IDNR). The review began on March 7, 2023.

Site Background

The site is located along the northern edge of Charles City in Floyd County, Iowa. The site occupies approximately 20 acres at the southeast corner of Kellogg Avenue and Rotary Park Road. It is the location of a former Oxbow Lake formed by a cutoff meander of the Cedar River. Remnants of the Oxbow Lake still exist northwest and south of the site. The site is covered by a vegetated soil cap and is sloped to provide runoff. Current land use of the property is a hay field. The site drains to the wetlands northwest and south of the site and ultimately the Cedar River. The Cedar River is approximately 2,200 feet west-southwest of the site. Site maps showing the limits of the cap and locations of monitoring wells are provided in attached figures.

An alluvial unconfined aquifer exists directly beneath the landfill area. A confined Cedar Valley aquifer, which is used as a source of potable water by Charles City, is located below the unconfined aquifer. The top of the bedrock of the Cedar Valley formation aquifer has been encountered at 135 and 142 feet at the site. A clay till layer exists between the two aquifer systems, and no evidence of a hydraulic connection between the systems has been found. The Charles City municipal wells, which are located 700 feet east of the site, draw drinking water from the deeper confined aquifer for Charles City residents. The hydraulic gradient of the alluvial unconfined aquifer is west-southwest to the Cedar River, away from the Charles City municipal wells.

White Farm Equipment Company operated the disposal site on this property, which it leased from H. E. Construction Company. In 1971, White Farm Equipment Company began disposing of foundry

sand, bag house dust, and other industrial wastes at the site. Disposal activities ended in 1985 with an estimated 650,000 cubic yards of wastes disposed on the site.

FIVE-YEAR REVIEW SUMMARY FORM

SITE IDENTIFICATION		
Site Name: White Farm Equipment Co. Dump		
EPA ID: IAD065210734		
Region: 7	State: IA	City/County: Charles City/Floyd County
SITE STATUS		
National Priorities List Status: Deleted		
Multiple OUs? No	Has the site achieved construction completion? Yes	
REVIEW STATUS		
Lead agency: EPA [If "Other Federal Agency", enter Agency name]:		
Author name (Federal or State Project Manager): Wesley March		
Author affiliation: EPA		
Review period: 3/7/2023 - 11/10/2023		
Date of site inspection: 8/7/2023		
Type of review: Statutory		
Review number: 6		

Triggering action date: 2/28/2018

Due date (five years after triggering action date): 2/28/2024

II. RESPONSE ACTION SUMMARY

Basis for Taking Action

The landfill materials at the site were found to contain elevated levels of metals and low levels of some organic contaminants. The contaminants of concern at the site identified in the risk assessment included benzene in the ground water and lead in the soil and landfill material. The risk assessment identified ingestion of ground water and direct contact with landfill material as exposure pathways which posed unacceptable risks at the site.

Response Actions

In 1984, the IDNR required the White Farm Equipment Company to install monitoring wells for assessing whether environmental impacts from disposal activities had occurred. In 1985, the EPA performed a Preliminary Assessment of the site. The EPA found wastes in contact with ground water at a depth of five to ten feet below ground surface. The site was added to the National Priorities List in 1990.

The remedial investigation, feasibility study, and risk assessment were prepared from 1989 to 1990 to identify the nature and extent of contamination at the site. A Record of Decision was signed on September 28, 1990. The remedy included upgrading the landfill, installation of additional ground water monitoring wells, extraction and treatment of ground water, and long-term maintenance and monitoring. Additional ground water sampling, conducted as part of the remedial design, indicated there was no ground water contamination above the ground water performance criteria at the point of compliance. Therefore, ground water treatment and extraction were not implemented. An Explanation of Significant Differences was signed in 1992 which modified the type of cap, revised the cap construction time frame, and clarified the ground water point of compliance.

Remedy components of the 1990 ROD, as modified by the 1992 ESD, included the following:

- Implementation of institutional controls, including perimeter fencing and a restrictive covenant preventing well installation and restricting property use;
- Regrading the landfill to reduce runoff and erosion;
- Capping the landfill in accordance with the State of Iowa solid waste landfill closure requirements;
- Long-term ground water monitoring; and
- Performing operation and maintenance of the fencing and landfill cover.

Remedial Action Objectives included the following:

- Prevent contaminant transport off site via surface water runoff;
- Reduce human exposure to landfill contaminants via direct contact and incidental ingestion of landfill materials;

- Limit infiltration and leaching of contaminants from the landfill material into ground water; and
- Restore contaminated ground water at and beyond the edge of the area where waste has been placed at the site.

Table 1: Cleanup Levels Selected

Media	Contaminant	Cleanup Level
Ground water	Benzene	1 ug/L
	Lead	15 ug/L *
	Cadmium	5 ug/L
	Chromium	100 ug/L

*Action level for lead changed from 50 micrograms per liter, or µg/L, to 15 µg/L since the 1990 ROD.

Status of Implementation

In a Consent Decree in 1991, Allied Products Corporation agreed to perform the remedial design and construct the remedial action. The remedial design and construction of the remedial action were conducted in accordance with the ROD as modified by the ESD. The remedial design was approved by the EPA in March 1994.

Remedial action construction activities consisted of installing the compacted cap, constructing ditches and a sedimentation basin, vegetating the cap, installing the perimeter fencing and instituting deed restrictions. A restrictive covenant for the property was recorded and filed on October 5, 1992 in Floyd County. The restrictive covenant was replaced by an environmental covenant on October 16, 2009.

The environmental covenant currently imposes the following activity and use limitations for the property:

- The construction, installation, maintenance, and use of any wells on the property for the purpose of extracting water for human drinking or for irrigation of food or feed crops shall be prohibited.
- The soil cap located on the property shall be maintained in good repair to prevent direct contact with the landfill materials, to reduce infiltration and leaching of contaminants and to minimize runoff transport of contaminants.
- The soil cap shall not be excavated or disturbed except for minor excavations necessary to install, maintain, or repair fences unless approved in advance in writing by the EPA or its assigns.
- The fence located on the property shall be maintained in good condition and repair. The hazardous chemical warning signs shall continuously be displayed in a conspicuous place on said fence, and such signs shall be maintained in legible condition.

These restrictions run with the land and are binding to all owners. The remedial action was constructed from July 1994 to June 1995. Construction completion was achieved when the Site Closeout Report was issued on September 8, 1995. A copy of the environmental covenant is included as an appendix.

IC Summary Table

Table 2: Summary of Implemented ICs

Media, engineered controls, and areas that do not support UU/UE based on current conditions	ICs Needed	ICs Called for in the Decision Documents	Impacted Parcel(s)	IC Objective	Title of IC Instrument Implemented and Date
Ground water	Yes	Yes	Entire site	Restrict construction, installation, maintenance and use of any wells on the property for drinking water or irrigation of food or feed crops.	Environmental Covenant, 10/16/2009
Landfill cover	Yes	Yes	Entire site	Prevent direct contact with the landfill materials, reduce infiltration, and minimize run off transport.	Environmental Covenant, 10/16/2009
Landfill cover	Yes	Yes	Entire site	Prevent excavation or disturbance of the soil cap.	Environmental Covenant, 10/16/2009
Fence	Yes	Yes	Entire site	Maintain perimeter fencing and chemical warning signs	Environmental Covenant, 10/16/2009

Systems Operations/Operation & Maintenance

O&M activities at the site, since construction completion, were performed in accordance with the O&M plan for the site in January 1994. Post-closure site activities were conducted by the responsible party since the completion of the remedial action construction and included the inspection of the following items: final cover, ground water monitoring wells, drainage facilities, storm water retention areas, access road, perimeter fencing, signs, and gates.

Under the O&M Plan, ground water monitoring is to be performed concurrently with the FYR process. Shortly after the October 2000 post-closure site inspection, Allied Products Corporation filed for bankruptcy. The site became fund-lead with the EPA and IDNR taking over responsibility for maintenance of the site. The EPA and IDNR agreed to use a 10-year sampling frequency due to the limited detections from previous sampling events; as a result, sampling was not performed for the 2014 FYR. The required sampling was conducted in support of this FYR.

III. PROGRESS SINCE THE LAST REVIEW

This section includes the protectiveness determinations and statements from the most recent FYR as well as the recommendations from the most recent FYR and the current status of those recommendations.

Table 3: Protectiveness Determinations/Statements from the 2018 FYR

OU #	Protectiveness Determination	Protectiveness Statement
1	Protective	The remedy at the site is protective of human health and the environment.

IV. FIVE-YEAR REVIEW PROCESS

Community Notification, Involvement & Site Interviews

A public notice was made available by a newspaper posting in the Charles City Press on March 10, 2023, stating that a FYR was being conducted and inviting the public to submit any comments to the EPA. The site information repository is available at:

<https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0700181>. **Direct Push Sampling**

Sampling using Direct Push Technology (DPT) has typically been conducted each alternating FYR. The last DPT event took place during the 2018 FYR. Therefore, DPT was not conducted as a part of this review. It is recommended that this sampling take place during the next (2028) review.

Ground water Monitoring

Ground water samples were collected in July and August 2023 (see sampling location map in Appendix A) from three of the existing monitoring wells (WFE-5A, WFE-5B and WFE-6B) and the two newly replaced monitoring wells (WFE 7AR and WFE 7BR).

These ground water samples were analyzed for the presence of total and dissolved metals including cadmium, chromium, and lead. The samples were also analyzed for volatile organic compounds including benzene.

Table 5 presents the results of the ground water samples collected for the first, second, third, fifth, and current FYRs as well as the ground water cleanup levels. As seen in previous ground water sampling events from the ground water monitoring well network, all contaminant of concern (COC) concentrations remain below Maximum Contaminant Levels (MCL), for those wells sampled for both total and dissolved phases. As presented in Appendix E, the results indicate that site COC concentrations in the dissolved phase remain below ground water cleanup levels.

Table 5: Ground water Sample Data 1999 to 2023

Analyte (µg/L)		WFE-5A	WFE-5B	WFE-6A	WFE-6B	WFE-7A	WFE-7AR	WFE-7B	WFE-7BR	Performance Standard (µg/L)
Benzene	1999	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NS	1.0 U	NS	1.0
	2004	1.0 U	1.0 U	1.0 U	NS	NS	NS	NS	NS	
	2008	0.5 U	NS	NS	0.5 U	0.5 U	NS	0.5 U	NS	
	2018	0.5 U	5.0 U	NS	5.0 U	NS	NS	NS	NS	
	2023	0.5 U	0.5 U	X	0.5 U	X	0.5 U	X	0.5 U	
Cadmium	1999	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	NS	0.44 U	NS	5.0
	2004	3.0 U	3.0 U	3.0 U	NS	NS	NS	NS	NS	
	2008	1.00 UJ	NS	NS	1.0 UJ	1.0 UJ	NS	3.1	NS	
	2018	5.0 U	5.0 U	NS	5.0 U	NS	NS	NS	NS	
	2023	1.0 U	1.0 U	X	1.0 U	X	1.0 U	X	1.0 U	
Chromium	1999	0.88 Bu	0.97 Bu	0.88 Bu	0.96 Bu	0.88 Bu	NS	1.1 Bu	NS	100.0
	2004	15.0 U	15.0 U	15.0 U	NS	NS	NS	NS	NS	
	2008	2.0 U	NS	NS	2.0 U	2.04	NS	2.04	NS	
	2018	10.0 U	10.0	NS	10.0 U	NS	NS	NS	NS	
	2023	2.0 U	2.0 U	X	2.0 U	X	2.0 U	X	2.0 U	
Lead	1999	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	NS	1.9 U	NS	50.0
	2004	50.0 U	50.0 U	50.0 U	NS	NS	NS	NS	NS	
	2008	1.0 U	NS	NS	1.0 U	1.12	NS	1.12	NS	
	2018	10.0 U	10.0 U	NS	10.0 U	NS	NS	NS	NS	
	2023	1.0 U	1.0 U	X	1.0 U	X	1.0 U	X	1.0 U	

Notes:

The groundwater performance standard for benzene was set in the ROD. The groundwater performance standards for cadmium, chromium, and lead were set in the 1991 Consent Decree.

The Treatment Technique (TT) Federal Action Level, for lead was changed to 15 micrograms per liter.

1999 samples were collected by the responsible party's contractor on June 22 and 23, 1999.

2004 samples were collected by EPA's contractor on March 30 and 31, 2004.

2008 samples were collected by US Army Corps of Engineers on December 4 and 5, 2008.

2018 samples were collected by EPA on May 14 and 15, 2018. In 2018 sampling event, well WFE-6A was destroyed and WFE-7A and WFE 7-B were surrounded by deep wetlands and could not be sampled.

2023 samples were collected by EPA's contractor on June 27 and 28, 2023. Wells WFE-7A and WFE-7B were abandoned and replaced with WFE-7AR and WFE-7BR, respectively.

NS - No samples were collected.

Bu - The result is estimated. The analyte is between the Instrument Detection Limit and the Contract Required Quantitation Limit. The analyte was considered non-detected during data validation on the basis of blank detections.

U - Not detected above reporting limit listed.

J - The identification of the analyte is acceptable; the reported value is an estimate.

X - Monitoring well no longer available for sampling.

Private Water Wells

Based on the review of the IDNR Private Well Tracking System and the University of Iowa GeoSam Database, the closest active private water well is over 4,100 feet northwest of the site. Based on the review of the database, it is used for household purposes. Well records indicate that the well is screened in the lower Cedar Valley Formation aquifer below 145 feet. The closest private water well, also drilled and screened in the lower Cedar Valley Formation aquifer, is on an adjacent property to the east and would be considered side and upgradient of the site based on ground water flow of the upper aquifer.

Site ground water monitoring wells were placed in the upper unconfined aquifer with a maximum drilling depth of 62 feet. Landfill materials were identified from the surface of the site to depths ranging from 15 to 24 feet. During the Remedial Investigation (RI), the contaminant concentrations were not detected in native soil samples from approximately three feet below the landfill materials. Well records will continue to be reviewed during every FYR period.

Interview

During the FYR process, an interview was conducted to document any perceived problems or successes with the remedy that has been implemented to date. The results of these interviews are summarized below.

Shelly Nellesen is the Iowa Department of Natural Resources project manager and responded to the EPA Region 7 Interview form. There were no known issues or complaints at the time of this review. The IDNR is regularly updated by Region 7 and is aware that contamination remains in place. Future discussion will take place regarding the IDNR assuming control of the site.

Data Review

Contaminant detections were consistent with the previous Five-Year Reviews. All concentrations remain below the Remedial Action Objectives (RAOs) selected in the remedy.

Site Inspection

The inspection of the site was conducted on August 7, 2023. In attendance were Wes March, EPA. The purpose of the inspection was to assess the protectiveness of the remedy.

The site inspection included a visual inspection of the final cover, the ground water monitoring wells, the drainage channels and storm water retention areas, the access road, the perimeter fencing, gates, and signs. Photos from the site inspection are included with the site inspection checklist as an appendix.

The cover was inspected by walking and driving the site perimeter and assessing the condition and coverage of vegetation as well as identifying any small erosion features along the slopes. The cover appeared to be in good condition with some signs of erosion. The perimeter fence and gates were in good condition.

“No Trespassing” signs were present and legible. The property owner harvests hay from the property and intends to continue this use.

As noted in the 2018 FYR, two of the monitoring wells located along Kellogg Road, west of the site, were damaged. Monitoring well WFE-6A has been destroyed from above the ground surface. Monitoring well WFE-5B was missing the well casing cover. The monitoring wells located south of the site, WFE-7A and 7B, were not observable as they were removed and relocated. The parcel that these wells reside in is owned by Charles City, Iowa.

V. TECHNICAL ASSESSMENT

QUESTION A: Is the remedy functioning as intended by the decision documents?

Question A Summary

As detailed below, the remedy is functioning as intended by the decision documents. The landfill cap provides an engineering control, and the environmental covenant provides an institutional control. Concentrations of site COCs in ground water were not detected above their respective MCL values (ClearPath Consultants, 2023).

Remedial Action Performance

The ROD, as modified by the ESD, included capping and grading of the landfill material to reduce runoff, erosion, and minimize infiltration. Operation and maintenance of the landfill cover and fencing is conducted periodically. In 2023, ClearPath Consultants conducted a site inspection of the landfill cap. No erosional features were observed, the site was completely vegetated, and no bare soil areas were observed (ClearPath Consultants, 2023). An environmental covenant is in place to prohibit excavation or disturbance of the cap, except for minor necessary excavations (Floyd County, 2009). Thus, exposures to landfill materials in soil by human receptors is considered an incomplete pathway via ingestion, dermal contact and inhalation (EPA 1990, 2014, 2019).

The remedy calls for ground water monitoring and controls to prohibit construction, installation, maintenance, and use of wells on the property as a drinking water source or for irrigation of food or feed crops (EPA 1990, 2014, 2019). Existing monitoring wells WFE-7A and WFE- 7B were abandoned and replaced with monitoring wells WFE-7-AR and WFE-7-BR. WFE-6A could not be located and is assumed to be destroyed (ClearPath Consultants, 2023). A review of previous reports indicates the damage occurred shortly after 2004 and the well has remained inoperable since that time. The absence of WFE-6A sample data has not affected the protectiveness determinations of previous Five-Year Reviews. As has been seen in previous ground water sampling events from the existing ground water monitoring well network, all total and dissolved COC concentrations have been below cleanup levels (ClearPath Consultants, 2023). Based on ground water sampling data conducted in June 2023, there are no detections of ground water COCs above their respective MCL values (ClearPath Consultants, 2023). The environmental covenant prevents complete exposure pathways to site ground water via ingestion, dermal contact, or inhalation (Floyd County, 2009).

Based on this review, it appears the remedy is functioning as intended by the ROD and ESD. The cap and ICs appear to continue to achieve the RAOs.

System Operations/O&M

During 2023, monitoring wells WFE-7A and WFE-7B were abandoned and replaced by monitoring wells WFE-7AR and WFE-7BR, respectively. These new wells are located close to the former monitoring wells

and will be monitoring the same portion of the aquifer. WFE-6A could not be located and is assumed to be destroyed (ClearPath Consultants, 2023). Remaining monitoring wells were reported to be in good condition and suitable for sampling (ClearPath Consultants, 2023).

In 2023, ClearPath Consultants conducted a site inspection of the landfill cap. No erosional features were observed, the site was completely vegetated, and no bare soil areas were observed (ClearPath Consultants, 2023).

Implementation of Institutional Controls (ICs) and Other Measures

The ROD required ICs as part of the selected remedy (EPA, 1990). The ICs listed in the ROD included deed restrictions on well installations and property use. A restrictive covenant was recorded and filed in 1992 with Floyd County. In 2009, the restrictive covenant was replaced with an environmental covenant (Floyd County, 2009).

The environmental covenant currently imposes the following activity and use limitations for the property:

- The construction, installation, maintenance, and use of any wells on the property for the purpose of extracting water for human drinking or for irrigation of food or feed crops shall be prohibited.
- The soil cap located on the property shall be maintained in good repair to prevent direct contact with the landfill materials, reduce infiltration and leaching of contaminants, and minimize runoff transport of contaminants.
- The soil cap shall not be excavated or disturbed except for minor excavations necessary to install, to maintain or to repair fences unless approved in advance in writing by the EPA or its assigns.
- The fence located on the property shall be maintained in good condition and repair. The hazardous chemical warning signs shall continuously be displayed in a conspicuous place on said fence, and such signs shall be maintained in legible condition.

These restrictions run with the land and are binding to all owners.

The IC above remains in place and maintains the remedial action objectives as described above.

Expected Progress Towards Meeting RAOs

Based on this review, it appears the remedy is meeting RAOs.

QUESTION B: Are the exposure assumptions, toxicity data, cleanup levels and RAOs used at the time of the remedy selection still valid?

Question B Summary

The exposure assumptions, toxicity data, cleanup levels, and RAO remain valid. The cleanup goals are the lower of federal drinking water standards or ground water action levels based on the Iowa Administrative Code and the cleanup levels are MCLs, which have not changed since the last FYR.

Human Health Risk

Ground water data collected from monitoring wells in 2023 indicate that levels of COCs remain below

the cleanup levels (ClearPath Consultants, 2023). The cleanup levels set forth in the ROD remain relevant, except for lead, which was changed to 15 µg/L in a previous FYR (EPA 2019). Since the last FYR, the cleanup levels have not changed and remain protective of human health.

COC	Cleanup Level 2019 (µg/L)	Cleanup Level 2023 (µg/L)	Source
Benzene	1	1	Iowa Action Level (MCL is 5)
Cadmium	5	5	MCL
Chromium	100	100	Total Chromium MCL
Lead	15*	15*	MCL

*Action level for lead changed from 50 micrograms per liter, or µg/L, to 15 µg/L since the 1989 ROD.

Ecological Risk

During the 2018 FYR, the EPA collected four surface water and four sediment samples from the wetland. These results were compared to Ecological Screening Values for sediment and surface water. Relatively high concentrations of acetone were found at Site 1; however, this elevated concentration was likely due to laboratory practices. Additionally, for some of the volatile organic compounds, detection limits were higher than the ecological screening level (ESV), which is a data gap. Overall, risk to aquatic life was determined to be low; however, an additional round of sediment sampling was recommended to address issues related to elevated detection limits and as a means of additional monitoring. To date, additional sediment sampling has not been conducted; therefore, additional sediment sampling continues to be a recommendation for the next FYR. Regarding threatened and endangered species, since the last FYR, the tricolored bat has been proposed listed as an endangered species, and the monarch butterfly has been added as a candidate (not yet proposed listed). However, no critical habitat has been identified near the site.

Changes in Standards and To Be Considereds

For ground water, the lower federal drinking water standards or ground water action levels based on the Iowa Administrative Code were identified as cleanup goals. Specifically, the cleanup level of 1 µg/L benzene was from the Iowa Administrative Code and is lower than the current federal MCL of 5 µg/L. The action level for lead was 50 µg/L in the 1990 ROD, which exceeds the current level of 15 µg/L. The action levels for cadmium (5 µg/L) and chromium (100 µg/L) reflect the current MCLs (EPA 2023). Ground water samples collected in May 2018 and in June 2023 were compared with the current MCLs. When MCLs are not available current EPA Regional Screening Levels for tap water were compared to evaluate potential exceedances (EPA 2019, ClearPath Consultants 2023).

Changes in Toxicity and Other Contaminant Characteristics

The human health risk assessment for this site was conducted in 1990. Over the last 33 years, significant changes in contaminant toxicity values have occurred. For example, the primary COC in

ground water, benzene, was evaluated using an oral cancer slope factor of $2.9E-02$ (mg/kg-day)⁻¹, compared to today's value of $5.5E-02$ (mg/kg-day)⁻¹ (EPA 2019). However, human risks associated with exposure to soil were addressed by capping the entire landfill, preventing exposures. Similarly, risks from exposure to ground water were primarily addressed via controls prohibiting use (EPA 2014, 2019).

To evaluate whether additional chemicals would be considered COCs, the maximum concentrations detected in soil and ground water are reported in the Remedial Investigation were compared with current MCLs and risk-based values (EPA 1989, 1990). No additional chemicals were identified as COCs.

Changes in Risk Assessment Methods

Significant changes in risk assessment methodology have occurred since the risk assessment was completed for the site (EPA 2019). For example, risks associated with exposure to lead were evaluated using a reference dose. Today, the EPA would use the EPA's Integrated Exposure Biokinetic Model and Adult Lead Methodology to evaluate potential risks (EPA 2021). However, human risks associated with exposure to lead in soil were addressed by capping the entire landfill, preventing exposures. Site ground water monitoring should continue to be evaluated using the current, more stringent federal or state MCLs and risk-based values to ensure the remedy remains protective. Since the last FYR, no significant changes in risk assessment methodology have occurred.

Changes in Risk Assessment Methods

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Changes in Exposure Pathways

The EPA is not aware of any changes in land use, routes of exposure, contaminants, toxic byproducts, or physical site conditions that could impact the protectiveness of the remedy.

QUESTION C: Has any other information come to light that could call into question the protectiveness of the remedy?

We are not aware of any additional information that could impact the protectiveness of the remedy at this time. Based on the National Oceanic and Atmospheric Administration's 2022 climate summary for Iowa, temperatures across the State have risen more than 1 degree since the beginning of the 20th century, with warming concentrated in the winter and fall. Spring precipitation has been above average since 1990. Higher levels of precipitation and flooding may increase infiltration in the landfill, which is more likely if the cap is not maintained adequately. Higher rainfall would also impact ground water levels, as well as surface water levels in the nearby wetland. On the other hand, higher temperatures may lead to higher evapotranspiration rates, leading to drier conditions at the site.

VI. ISSUES/ RECOMMENDATIONS/ OTHER FINDINGS

Issues/Recommendations
OU(s) without Issues/Recommendations Identified in the Five-Year Review:
01

Other Findings

By the next FYR, there are several items identified that should be considered to update or modify the current O&M plan. These recommendations do not impact current or future protectiveness.

- Evaluate the ground water monitoring network for purposes of ongoing O&M and continue to provide sufficient information for review during future FYRs.
- Collect another round of sediment samples in the wetland area before the next FYR in 2029 to continue monitoring of site COCs.
- Conduct DPT sampling along the west side of the site boundary similar to May 2018 sampling locations.
- Conduct DPT sampling in the proximity of Monitoring Wells WFE-7A and 7B.
- Replace the locking well casing cap on Monitoring Well WFE-5B.
- Replace or abandon Monitoring well WFE-6A

VII. PROTECTIVENESS STATEMENT

Protectiveness Statement(s)		
Operable Unit: OU1 Groundwater	Protectiveness Determination: Protective	Planned Addendum Completion Date: N/A
<i>Protectiveness Statement:</i> The Remedy at the site is protective of human health and the environment.		
Sitewide Protectiveness Statement		
Protectiveness Determination: Protective		Planned Addendum Completion Date: N/A
<i>Protectiveness Statement:</i> The Remedy at the site is protective of human health and the environment.		

VIII. NEXT REVIEW

The next FYR report for the White Farm Equipment Co. Dump Superfund site is required five years from the completion date of this review.

APPENDIX A– REFERENCE LIST

Reference List

EPA. 1990. *Final Revised Risk Assessment for the White Farm Equipment Landfill Site, Charles City, Iowa*. U.S. Environmental Protection Agency Region 7. June 15, 1990.

EPA. 1990. *Record of Decision for the White Farm Equipment Co. Dump Site, Charles City, Iowa*. U.S. Environmental Protection Agency Region 7. September 28, 1990.

EPA. 1992. *Explanation of Significant Differences, White Farm Equipment Co. Dump Site, Charles City, Iowa*. U.S. Environmental Protection Agency Region 7. July 13, 1992.

RMT Inc. 1995. *Remedial Action Report for the White Farm Equipment Landfill, Charles City, Iowa*. RMT Inc., Madison, Wisconsin. July 1995.

EPA. 2009. *Environmental Covenant, White Farm Equipment Co. Dump Site, Charles City, Floyd County, Iowa*. United States Environmental Protection Agency Region 7, Lenexa, Kansas. October 13, 2009.

EPA. 2019. *Final Fifth Five-Year Review Report, White Farm Equipment Co. Dump Site, Charles City, Floyd County, Iowa*. United States Environmental Protection Agency Region 7, Lenexa, Kansas. February 28, 2019.

ClearPath Consultants. 2023. *Ground water Monitoring and Site Inspection Report, September 2023, White Farm Equipment Dump Federal Superfund Site, Charles City, Iowa*.

APPENDIX B— SITE INSPECTION FORM

R7 FYR Inspection Form

Please fill out relevant information. If a section doesn't apply, you may select "N/A" and click the arrow next to the section header to minimize the information.

Site Information

Site Name	White Farm Equipment Co Dump	
Date of Inspection	8/7/2023	
Location	Property Address: Click or tap here to enter text. City: Charles City County: Floyd State: Iowa	
Region	Region 7	
EPA ID	IAD065210734	
Agency, Office, or Company Leading Five-Year Review	EPA	
Weather/Temperature	Warm and Humid	
Remedy includes:	<input checked="" type="checkbox"/> Landfill cover/containment <input type="checkbox"/> Access controls <input checked="" type="checkbox"/> Institutional controls <input type="checkbox"/> Groundwater pump and treatment <input type="checkbox"/> Other: Click or tap here to enter text.	<input checked="" type="checkbox"/> Monitored national attenuation <input type="checkbox"/> Groundwater containment <input type="checkbox"/> Vertical barrier walls <input type="checkbox"/> Surface water collection and treatment
Attachments	<input type="checkbox"/> Inspection team roster attached <input type="checkbox"/> Site map attached <input type="checkbox"/> Photo log attached	

Interviews (Applicable N/A)

Fill out all that apply.

O&M Site Manager	
Name: Shelley Nelleson	Problems and Suggestions: Click or tap here to enter text.
Title: Project Manager	
Date: Click or tap here to enter text.	
Interviewed: <input type="checkbox"/> At site <input type="checkbox"/> At office <input type="checkbox"/> By phone Phone Number: Click or tap here to enter text.	
<input checked="" type="checkbox"/> Report attached	

O&M Staff	
Name: Click or tap here to enter text.	Problems and Suggestions:

Title: Click or tap here to enter text.	Click or tap here to enter text.
Date: Click or tap here to enter text.	
Interviewed: <input type="checkbox"/> At site <input type="checkbox"/> At office <input type="checkbox"/> By phone Phone Number: Click or tap here to enter text.	
<input type="checkbox"/> Report attached	

Local Regulatory Authorities and Response Agencies
For example, state and tribal offices, emergency response office, police department, office of public health or environmental health, zoning office, recorder of deeds, or other city and county officials.

Agency: Click or tap here to enter text.	Problems and Suggestions: Click or tap here to enter text.
Name: Click or tap here to enter text.	
Title: Click or tap here to enter text.	
Date: Click or tap here to enter text.	
Phone Number: Click or tap here to enter text.	
<input type="checkbox"/> Report attached	

Agency: Click or tap here to enter text.	Problems and Suggestions: Click or tap here to enter text.
Name: Click or tap here to enter text.	
Title: Click or tap here to enter text.	
Date: Click or tap here to enter text.	
Phone Number: Click or tap here to enter text.	
<input type="checkbox"/> Report attached	

Agency: Click or tap here to enter text.	Problems and Suggestions: Click or tap here to enter text.
Name: Click or tap here to enter text.	
Title: Click or tap here to enter text.	
Date: Click or tap here to enter text.	
Phone Number: Click or tap here to enter text.	
<input type="checkbox"/> Report attached	

Agency: Click or tap here to enter text.	Problems and Suggestions: Click or tap here to enter text.
Name: Click or tap here to enter text.	
Title: Click or tap here to enter text.	
Date: Click or tap here to enter text.	
Phone Number: Click or tap here to enter text.	
<input type="checkbox"/> Report attached	

Other Interviews (optional)
<input type="checkbox"/> Report attached
Click or tap here to enter text.

On-Site Documents and Records Verified (Applicable N/A)

O&M Documents			
<input checked="" type="checkbox"/> O&M manual	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input type="checkbox"/> N/A
<input type="checkbox"/> As-built drawings	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A
<input type="checkbox"/> Maintenance logs	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A
Remarks: Click or tap here to enter text.			

Site-Specific Health and Safety Plan			
<input checked="" type="checkbox"/> Site-Specific Health and Safety Plan	<input checked="" type="checkbox"/> Readily available	<input checked="" type="checkbox"/> Up to date	<input type="checkbox"/> N/A
<input checked="" type="checkbox"/> Contingency Plan/Emergency Response Plan	<input checked="" type="checkbox"/> Readily available	<input checked="" type="checkbox"/> Up to date	<input type="checkbox"/> N/A
Remarks: Click or tap here to enter text.			

O&M and OSHA Training Records			
<input type="checkbox"/> O&M and OSHA training records	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A
Remarks: Click or tap here to enter text.			

Permits and Service Agreements			
<input type="checkbox"/> Air discharge permit	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A
<input type="checkbox"/> Effluent discharge	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A
<input type="checkbox"/> Waste disposal, POTW	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A
<input type="checkbox"/> Other permits Click or tap here to enter text.	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A
Remarks: Click or tap here to enter text.			

Gas Generation Records			
<input type="checkbox"/> Gas generation records	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A
Remarks: Click or tap here to enter text.			

Settlement Monument Records			
<input type="checkbox"/> Settlement monument records	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A
Remarks: Click or tap here to enter text.			

Groundwater Monitoring Records			
<input checked="" type="checkbox"/> Groundwater monitoring records	<input checked="" type="checkbox"/> Readily available	<input checked="" type="checkbox"/> Up to date	<input type="checkbox"/> N/A
Remarks: Click or tap here to enter text.			

Leachate Extraction Records			
<input type="checkbox"/> Leachate extraction records	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A
Remarks: Click or tap here to enter text.			

Discharge Compliance Records			
<input type="checkbox"/> Air	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A
<input type="checkbox"/> Water (effluent)	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A
Remarks: Click or tap here to enter text.			

Daily Access/Security Logs			
<input type="checkbox"/> Daily access/security logs	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A
Remarks: Click or tap here to enter text.			

O&M Costs (Applicable N/A)

O&M Organization	
<input type="checkbox"/> State in-house	<input type="checkbox"/> Contractor for state
<input type="checkbox"/> PRP in-house	<input type="checkbox"/> Contractor for PRP
<input type="checkbox"/> Federal facility in-house	<input type="checkbox"/> Contractor for federal facility

Other: Site is in O&M but is still EPA Lead

O&M Cost Records

Readily available

Up to date

Funding mechanism/agreement in place

Original O&M cost estimate: Click or tap here to enter text.

Breakdown attached

Total annual cost by year for review period, if available:

From Click or tap here to enter text. to Click or tap here to enter text.

Total cost: Click or tap here to enter text.

Breakdown attached

From Click or tap here to enter text. to Click or tap here to enter text.

Total cost: Click or tap here to enter text.

Breakdown attached

From Click or tap here to enter text. to Click or tap here to enter text.

Total cost: Click or tap here to enter text.

Breakdown attached

From Click or tap here to enter text. to Click or tap here to enter text.

Total cost: Click or tap here to enter text.

Breakdown attached

From Click or tap here to enter text. to Click or tap here to enter text.

Total cost: Click or tap here to enter text.

Breakdown attached

Unanticipated or Unusually High O&M Costs During Review Period

Describe costs and reasons: Click or tap here to enter text.

Access and Institutional Controls (Applicable N/A)

A. Fencing

Fencing damaged

Location shown on site map

Gates secured

N/A

Remarks: Click or tap here to enter text.

B. Other Access Restrictions		
Signs and other security measures	<input type="checkbox"/> Location shown on site map	<input type="checkbox"/> N/A
	Remarks: Signs in place	

C. Institutional Controls (ICs)		
Implementation and enforcement	Site conditions imply ICs not properly implemented	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A
	Site conditions imply ICs not being fully enforced	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A
	Type of monitoring (e.g., self-reporting, drive-by): Site Visit Frequency: Once Per 5 years Responsible party/agency: EPA	
	Contact: Wes March Title: RPM Date: Click or tap here to enter text. Phone number: Click or tap here to enter text.	
	Reporting is up to date	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
	Reports are verified by the lead agency	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
	Specific requirements in deed or decision documents have been met	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Violations have been reported	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Other problems or suggestions: Click or tap here to enter text.		
<input type="checkbox"/> Report attached		
Adequacy	<input type="checkbox"/> ICs are adequate	<input type="checkbox"/> ICs are inadequate
	<input type="checkbox"/> N/A	
Remarks: Click or tap here to enter text.		

D. General		
Vandalism/trespassing	<input type="checkbox"/> Location shown on site map	<input checked="" type="checkbox"/> No vandalism
	Remarks: Click or tap here to enter text.	
Land use changes on site	<input type="checkbox"/> N/A	
	Remarks: Site Use remains unchanged	
<input type="checkbox"/> N/A		

Land use changes off site	Remarks: Nearby use has not changed
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General Site Conditions (Applicable N/A)

A. Roads	<input type="checkbox"/> Applicable <input checked="" type="checkbox"/> N/A		
Roads damaged	<input type="checkbox"/> Location shown on site map	<input type="checkbox"/> Roads adequate	<input type="checkbox"/> N/A
Remarks: Click or tap here to enter text.			

B. Other Site Conditions
Remarks: Click or tap here to enter text.

Landfill Covers (Applicable N/A)

Landfill Surface (Applicable N/A)

1. Settlement (low spots)	<input type="checkbox"/> Location shown on site map		<input checked="" type="checkbox"/> Settlement not evident
	Areal extent: Click or tap here to enter text.		Depth: Click or tap here to enter text.
	Remarks: Click or tap here to enter text.		
2. Cracks	<input type="checkbox"/> Location shown on site map		<input checked="" type="checkbox"/> Cracking not evident
	Areal Extent: Click or tap here to enter text.	Widths: Click or tap here to enter text.	Depth: Click or tap here to enter text.
	Remarks: Click or tap here to enter text.		
3. Erosion	<input type="checkbox"/> Location shown on site map		<input checked="" type="checkbox"/> Erosion not evident
	Areal Extent: Click or tap here to enter text.		Depth: Click or tap here to enter text.
	Remarks: There were small signs of minor erosion noted by the well driller		

4. Holes	<input type="checkbox"/> Location shown on site map		<input checked="" type="checkbox"/> Holes not evident
	Areal Extent: Click or tap here to enter text.		Depth: Click or tap here to enter text.
	Remarks: Click or tap here to enter text.		
5. Vegetative Cover	<input checked="" type="checkbox"/> Grass <input type="checkbox"/> No signs of stress <input type="checkbox"/> Cover properly established <input type="checkbox"/> Trees/shrubs (indicate size and locations on a diagram)		
	Remarks: part of site is a hayfield while downgradient is a wetland		
6. Alternative Cover (armored rock, concrete, etc.)	<input type="checkbox"/> Applicable		<input checked="" type="checkbox"/> N/A
	Remarks: Click or tap here to enter text.		
7. Bulges	<input type="checkbox"/> Location shown on site map		<input checked="" type="checkbox"/> Bulges not evident
	Areal extent: Click or tap here to enter text.		Height: Click or tap here to enter text.
	Remarks: Click or tap here to enter text.		
8. Wet Areas and Water Damage	<input type="checkbox"/> Wet areas/water damage not evident		
	<input checked="" type="checkbox"/> Wet areas	<input type="checkbox"/> Location shown on map site	Areal extent: Click or tap here to enter text.
	<input type="checkbox"/> Ponding	<input type="checkbox"/> Location shown on map site	Areal extent: Click or tap here to enter text.
	<input type="checkbox"/> Seeps	<input type="checkbox"/> Location shown on map site	Areal extent: Click or tap here to enter text.
	<input type="checkbox"/> Soft subgrade	<input type="checkbox"/> Location shown on map site	Areal extent: Click or tap here to enter text.
	Remarks: the southern 2 nested wells are in a wetland area		
9. Slope Instability	<input type="checkbox"/> Slides	<input type="checkbox"/> Location shown on site map	<input checked="" type="checkbox"/> No evidence of slope instability
	Areal extent: Click or tap here to enter text.		
	Remarks: Click or tap here to enter text.		

Benches (Applicable N/A)

Horizontally constructed mounds of earth placed across a steep landfill side slope to interrupt the slope in order to slow down the velocity of surface runoff and intercept and convey the runoff to a lined channel.

1. Flows Bypass Bench	<input type="checkbox"/> Location shown on site map	<input checked="" type="checkbox"/> N/A or okay
	Remarks: Click or tap here to enter text.	
2. Bench Breached	<input type="checkbox"/> Location shown on site map	<input checked="" type="checkbox"/> N/A or okay
	Remarks: Click or tap here to enter text.	
3. Bench Overtopped	<input type="checkbox"/> Location shown on site map	<input checked="" type="checkbox"/> N/A or okay
	Remarks: Click or tap here to enter text.	

Letdown Channels (Applicable N/A)

Channel lined with erosion control mats, riprap, grout bags, or gabions that descend the steep side slope of the cover and will allow the runoff water collected by the benches to move off of the landfill cover without creating erosion gullies.

1. Settlement	<input type="checkbox"/> Location shown on site map	<input type="checkbox"/> No evidence of settlement
	Areal extent: Click or tap here to enter text.	Depth: Click or tap here to enter text.
	Remarks: Click or tap here to enter text.	
2. Material Degradation	<input type="checkbox"/> Location shown on site map	<input type="checkbox"/> No evidence of degradation
	Areal extent: Click or tap here to enter text.	Material type: Click or tap here to enter text.
	Remarks: Click or tap here to enter text.	
3. Erosion	<input type="checkbox"/> Location shown on site map	<input type="checkbox"/> No evidence of erosion
	Areal extent: Click or tap here to enter text.	Depth: Click or tap here to enter text.

	Remarks: Click or tap here to enter text.		
4. Undercutting	<input type="checkbox"/> Location shown on site map	<input type="checkbox"/> No evidence of undercutting	
	Areal extent: Click or tap here to enter text.	Depth: Click or tap here to enter text.	
	Remarks: Click or tap here to enter text.		
5. Obstructions	<input type="checkbox"/> Location shown on site map	<input type="checkbox"/> No evidence of undercutting	
	Type: Click or tap here to enter text.	Areal extent: Click or tap here to enter text.	Size: Click or tap here to enter text.
	Remarks: Click or tap here to enter text.		
6. Excessive Vegetative Growth	<input type="checkbox"/> Location shown on site map	<input type="checkbox"/> No evidence of excessive growth	<input type="checkbox"/> Vegetation in channels does not obstruct flow
	Type: Click or tap here to enter text.	Areal extent: Click or tap here to enter text.	
	Remarks: Click or tap here to enter text.		

Cover Penetrations (Applicable N/A)

1. Gas Vents	<input type="checkbox"/> Active	<input type="checkbox"/> Passive
	<input type="checkbox"/> Properly secured/locked	<input type="checkbox"/> Functioning
	<input type="checkbox"/> Routinely sampled	<input type="checkbox"/> Good condition
	<input type="checkbox"/> Evidence of leakage at penetration	<input type="checkbox"/> Needs maintenance <input type="checkbox"/> N/A
Remarks: Click or tap here to enter text.		
2. Gas Monitoring Probes	<input type="checkbox"/> Properly secured/locked	<input type="checkbox"/> Functioning
	<input type="checkbox"/> Routinely sampled	<input type="checkbox"/> Good condition
	<input type="checkbox"/> Evidence of leakage at penetration	<input type="checkbox"/> Needs maintenance <input type="checkbox"/> N/A
Remarks: Click or tap here to enter text.		

3. Monitoring Wells (within surface area of landfill)	<input type="checkbox"/> Properly secured/locked <input type="checkbox"/> Functioning <input type="checkbox"/> Routinely sampled <input type="checkbox"/> Good condition <input type="checkbox"/> Evidence of leakage at penetration <input type="checkbox"/> Needs maintenance <input type="checkbox"/> N/A		
	Remarks: Click or tap here to enter text.		
4. Leachate Extraction Wells	<input type="checkbox"/> Properly secured/locked <input type="checkbox"/> Functioning <input type="checkbox"/> Routinely sampled <input type="checkbox"/> Good condition <input type="checkbox"/> Evidence of leakage at penetration <input type="checkbox"/> Needs maintenance <input type="checkbox"/> N/A		
	Remarks: Click or tap here to enter text.		
5. Settlement Monuments	<input type="checkbox"/> Located	<input type="checkbox"/> Routinely surveyed	<input type="checkbox"/> N/A
	Remarks: Click or tap here to enter text.		

Gas Collection and Treatment (Applicable N/A)

1. Gas Treatment Facilities	<input type="checkbox"/> Flaring <input type="checkbox"/> Thermal destruction <input type="checkbox"/> Collection for reuse <input type="checkbox"/> Good condition <input type="checkbox"/> Needs maintenance		
	Remarks: Click or tap here to enter text.		
2. Gas Collection Wells, Manifolds and Piping	<input type="checkbox"/> Good condition <input type="checkbox"/> Needs maintenance		
	Remarks: Click or tap here to enter text.		
3. Gas Monitoring Facilities (e.g., gas monitoring of adjacent homes or buildings)	<input type="checkbox"/> Good condition <input type="checkbox"/> Needs maintenance <input type="checkbox"/> N/A		
	Remarks: Click or tap here to enter text.		

Cover Drainage Layer (Applicable N/A)

1. Outlet Pipes Inspected	<input type="checkbox"/> Functioning <input type="checkbox"/> N/A		
	Remarks: Click or tap here to enter text.		

2. Outlet Rock Inspected	<input type="checkbox"/> Functioning <input type="checkbox"/> N/A	
	Remarks: Click or tap here to enter text.	

Detention/Sedimentation Ponds (Applicable N/A)

1. Siltation	<input type="checkbox"/> Siltation not relevant		<input type="checkbox"/> N/A
	Areal extent: Click or tap here to enter text.		Depth: Click or tap here to enter text.
	Remarks: Click or tap here to enter text.		
2. Erosion	<input type="checkbox"/> Erosion not relevant		<input type="checkbox"/> N/A
	Areal Extent: Click or tap here to enter text.		Depth: Click or tap here to enter text.
	Remarks: Click or tap here to enter text.		
3. Outlet Works	<input type="checkbox"/> Functioning <input type="checkbox"/> N/A		
	Remarks: Click or tap here to enter text.		
4. Dam	<input type="checkbox"/> Functioning <input type="checkbox"/> N/A		
	Remarks: Click or tap here to enter text.		

Retaining Walls (Applicable N/A)

1. Deformations	<input type="checkbox"/> Location shown on site map		<input type="checkbox"/> Deformation not evident	
	Horizontal displacement: Click or tap here to enter text.		Vertical displacement: Click or tap here to enter text.	Rotational displacement: Click or tap here to enter text.
	Remarks: Click or tap here to enter text.			
2. Degredation	<input type="checkbox"/> Location shown on site map		<input type="checkbox"/> Degradation not evident	

	Remarks: Click or tap here to enter text.
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Perimeter Ditches/Off-Site Discharge (Applicable N/A)

1. Siltation	<input type="checkbox"/> Location shown on map		<input type="checkbox"/> Siltation not relevant
	Areal extent: Click or tap here to enter text.		Depth: Click or tap here to enter text.
	Remarks: Click or tap here to enter text.		
2. Excessive Vegetative Growth	<input type="checkbox"/> Location shown on site map	<input type="checkbox"/> N/A	<input type="checkbox"/> Vegetation does not impede flow
	Type: Click or tap here to enter text.		Areal extent: Click or tap here to enter text.
	Remarks: Click or tap here to enter text.		
3. Erosion	<input type="checkbox"/> Location shown on map		<input type="checkbox"/> Erosion not relevant
	Areal Extent: Click or tap here to enter text.		Depth: Click or tap here to enter text.
	Remarks: Click or tap here to enter text.		
4. Discharge Structure	<input type="checkbox"/> Functioning <input type="checkbox"/> N/A		
	Remarks: Click or tap here to enter text.		

Vertical Barrier Walls (Applicable N/A)

1. Settlement	<input type="checkbox"/> Location shown on map		<input type="checkbox"/> Settlement not relevant
	Areal extent: Click or tap here to enter text.		Depth: Click or tap here to enter text.

	Remarks: Click or tap here to enter text.		
2. Performance Monitoring	<input type="checkbox"/> Performance not monitored		<input type="checkbox"/> Evidence of breaching
	Type of monitoring: Click or tap here to enter text.	Frequency: Click or tap here to enter text.	Head differential: Click or tap here to enter text.
	Remarks: Click or tap here to enter text.		

Groundwater/Surface Water Remedies (Applicable N/A)

Groundwater Extraction Wells, Pumps, and Pipelines (Applicable N/A)

Pumps, Wellhead Plumbing, and Electrical			
<input type="checkbox"/> Good condition	<input type="checkbox"/> All required wells properly operating	<input type="checkbox"/> Needs maintenance	<input type="checkbox"/> N/A
Remarks	Click or tap here to enter text.		

Extraction System Pipelines, Valves, Valve Boxes, and Other Appurtenances	
<input type="checkbox"/> Good condition	<input type="checkbox"/> Needs maintenance
Remarks	Click or tap here to enter text.

Spare Parts and Equipment			
<input type="checkbox"/> Readily available	<input type="checkbox"/> Good condition	<input type="checkbox"/> Requires upgrade	<input type="checkbox"/> Needs to be provided
Remarks	Click or tap here to enter text.		

Surface Water Collection Structures, Pumps, and Pipelines (Applicable N/A)

Collection Structures, Pumps, and Electrical	
<input type="checkbox"/> Good condition	<input type="checkbox"/> Needs maintenance
Remarks	Click or tap here to enter text.

Surface Water Collection System Pipelines, Valves, Valve Boxes, and Other Appurtenances	
<input type="checkbox"/> Good condition	<input type="checkbox"/> Needs maintenance
Remarks	Click or tap here to enter text.

Spare Parts and Equipment			
<input type="checkbox"/> Readily available	<input type="checkbox"/> Good condition	<input type="checkbox"/> Requires upgrade	<input type="checkbox"/> Needs to be provided
Remarks	Click or tap here to enter text.		

Treatment System (Applicable N/A)

1. Treatment Train	<input type="checkbox"/> Metals removed <input type="checkbox"/> Bioremediation <input type="checkbox"/> Carbon adsorbers <input type="checkbox"/> Filters: Click or tap here to enter text. <input type="checkbox"/> Additive (e.g., chelation agent, flocculent): Click or tap here to enter text. <input type="checkbox"/> Others: Click or tap here to enter text. <input type="checkbox"/> Good condition <input type="checkbox"/> Sampling ports properly marked and functional <input type="checkbox"/> Sampling/maintenance log displayed and up to date <input type="checkbox"/> Equipment properly identified	<input type="checkbox"/> Oil/water separation <input type="checkbox"/> Air stripping <input type="checkbox"/> Needs maintenance
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	<input type="checkbox"/> Quantity of groundwater treated annually: Click or tap here to enter text. <input type="checkbox"/> Quantity of surface water treated annually: Click or tap here to enter text. Remarks: Click or tap here to enter text.		
2. Electrical Enclosures and Panels (properly rated and functional)	<input type="checkbox"/> N/A	<input type="checkbox"/> Good Condition	<input type="checkbox"/> Needs Maintenance
	Remarks: Click or tap here to enter text.		
3. Tanks, Vaults, Storage Vessels	<input type="checkbox"/> N/A	<input type="checkbox"/> Good Condition	
	<input type="checkbox"/> Proper secondary containment	<input type="checkbox"/> Needs Maintenance	
	Remarks: Click or tap here to enter text.		
4. Discharge Structure and Appurtenances	<input type="checkbox"/> N/A	<input type="checkbox"/> Good Condition	<input type="checkbox"/> Needs Maintenance
	Remarks: Click or tap here to enter text.		
5. Treatment Building(s)	<input type="checkbox"/> N/A	<input type="checkbox"/> Good Condition (esp. roof and doorways)	
	<input type="checkbox"/> Chemicals and equipment properly stored	<input type="checkbox"/> Needs Repair	
	Remarks: Click or tap here to enter text.		
6. Monitoring Wells (pump and treatment remedy)	<input type="checkbox"/> Properly secured/locked	<input type="checkbox"/> Functioning	
	<input type="checkbox"/> Routinely sampled	<input type="checkbox"/> Good condition	
	<input type="checkbox"/> All required wells located	<input type="checkbox"/> Needs Maintenance	<input type="checkbox"/> N/A
	Remarks: Click or tap here to enter text.		

Monitoring Data (Applicable N/A)

1. Monitoring Data	<input type="checkbox"/> Is routinely submitted on time	<input type="checkbox"/> Is of acceptable quality
2. Monitoring data suggests:	<input checked="" type="checkbox"/> Groundwater plume is effectively contained	<input checked="" type="checkbox"/> Contaminant concentrations are declining

Monitored Natural Attenuation (Applicable N/A)

1. Monitoring Wells (natural attenuation remedy)	<input checked="" type="checkbox"/> Properly secured/locked	<input type="checkbox"/> Functioning	
	<input type="checkbox"/> Routinely sampled	<input type="checkbox"/> Good condition	
	<input checked="" type="checkbox"/> All required wells located	<input type="checkbox"/> Needs Maintenance	<input type="checkbox"/> N/A

	Remarks: 3 new wells were installed to replace existing non-functioning wells. All 6 wells are fully functional
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Other Remedies (Applicable N/A)

If there are remedies applied at the site which are not covered above, attach an inspection sheet describing the physical nature and condition of any facility associated with the remedy. An example would be soil vapor extraction.

Overall Observations

Implementation of the Remedy

Describe issues and observations relating to whether the remedy is effective and functioning as designed. Begin with a brief statement of what the remedy is to accomplish (i.e., to contain contaminant plume, minimize infiltration and gas emissions, etc.).

The site property is a vacant field that is fenced off and used only for hay farming. The surrounding area is residential properties situated on several acre sized plots of land primarily green space. Downgradient of the site to the south is perpetually water bearing area considered to be a wetland.

Adequacy of O&M

Describe issues and observations related to the implementation and scope of O&M procedures. In particular, discuss their relationship to the current and long-term protectiveness of the remedy.

Historic O&M was not adequate to maintain well integrity and functionality so many rounds of sample data were not collected. However, with this FYR the issues of the previous FYR were addressed and new wells were installed. The current O&M has the remedy functioning as intended.

Early Indicators of Potential Remedy Problems

Describe issues and observations such as unexpected changes in the cost or scope of O&M or a high frequency of unscheduled repairs that suggest that the protectiveness of the remedy may be compromised in the future.

Click or tap here to enter text.

Opportunities for Optimization

Describe possible opportunities for optimization in monitoring tasks or the operation of the remedy.

That should be turned over to the state so that a funding source would exist to maintain the remedy.

APPENDIX C- PHOTO LOG

Appendix C
Photo Log
White Farm Equipment Co Dump
6th Five Year Review



Photo 1: View of well locations for WFE-7AR & WFE-7BR pre- installation.



Photo 2: View of WFE-7AR & WFE-7BR post-installation.



Photo 3: View of WFE-7AR facing North.



Photo 4: View of WFE-7BR facing North.

Appendix C
Photo Log
White Farm Equipment Co Dump
6th Five Year Review



Photo 5: View of WFE-5A & WFE-5B facing West.



Photo 6: Close up view of WFE-5A with stickup lid missing.

Appendix C
Photo Log
White Farm Equipment Co Dump
6th Five Year Review



Photo 7: Close up view of WFE-5B facing Northwest.



Photo 8: Close up view of WFE-6B facing Northwest.



Photo 9: Close up view of WFE-6B showing lid damage facing West.



Photo 10: View of general location of WFE-6B facing West.

Appendix C
Photo Log
White Farm Equipment Co Dump
6th Five Year Review



Photo 11: View of former location of WFE-6A and lid.



Photo 12: View of the landfill cap entrance facing South.

Appendix C
Photo Log
White Farm Equipment Co Dump
6th Five Year Review



Photo 13: View of the landfill cap facing South.



Photo 14: View of Northwest corner of landfill cap facing South.



Photo 15: View of pipe from abandoned WFE-7A.



Photo 16: View of abandonment of WFE-7B.

Appendix C
Photo Log
White Farm Equipment Co Dump
6th Five Year Review



Photo 17: Close up view of excavation under concrete pad during abandonment of WFE-7B.



Photo 18: View of abandoned WFE-7B.

White Farm Sixth FYR Photo Log

APPENDIX D—ANALYTICAL DATA

US Environmental Protection Agency

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7/28/2023

Sample: 2300214-01

Project Name: White Farm Equipment Company

These are the results from the analysis of Water sample number 2300214-01. This sample was collected on 6/27/2023 at the location described as: MW7AR (40'-50'). If you have any questions about these results, contact Welsey March at the above address or by calling (913) 551-7037. Correspondence should refer to sample number 2300214-01 for project: White Farm Equipment Company.

Analysis / Analyte	Amount Found	Units
<u>Contract SOW-Inorganic</u>		
Mercury	Less Than 0.200	Micrograms per Liter
Arsenic	Less Than 1.00	Micrograms per Liter
Barium	Approximately 150	Micrograms per Liter
Cadmium	Less Than 1.00	Micrograms per Liter
Chromium	Less Than 2.00	Micrograms per Liter
Lead	Less Than 1.00	Micrograms per Liter
Selenium	13.0	Micrograms per Liter
Silver	Less Than 1.00	Micrograms per Liter
<u>Contract SOW-SemiVolatiles</u>		
Naphthalene	Less Than 0.050	Micrograms per Liter
1-Methylnaphthalene	Less Than 0.050	Micrograms per Liter
2-Methylnaphthalene	Less Than 0.050	Micrograms per Liter
Acenaphthylene	Less Than 0.050	Micrograms per Liter
Acenaphthene	Less Than 0.050	Micrograms per Liter
Fluorene	Less Than 0.050	Micrograms per Liter
Pentachlorophenol	Less Than 0.20	Micrograms per Liter
Phenanthrene	Less Than 0.050	Micrograms per Liter
Anthracene	Less Than 0.050	Micrograms per Liter
Fluoranthene	Less Than 0.050	Micrograms per Liter
Pyrene	Less Than 0.050	Micrograms per Liter
Benzo(a)anthracene	Less Than 0.050	Micrograms per Liter
Chrysene	Less Than 0.050	Micrograms per Liter
Benzo(b)fluoranthene	Less Than 0.050	Micrograms per Liter
Benzo(k)fluoranthene	Less Than 0.050	Micrograms per Liter
Benzo(a)pyrene	Less Than 0.050	Micrograms per Liter
Indeno(1,2,3-cd)pyrene	Less Than 0.050	Micrograms per Liter
Dibenz(a,h)anthracene	Less Than 0.050	Micrograms per Liter
Benzo(g,h,i)perylene	Less Than 0.050	Micrograms per Liter
<u>Contract SOW-Volatiles</u>		
Dichlorodifluoromethane	Less Than 0.50	Micrograms per Liter
Chloromethane	Less Than 0.50	Micrograms per Liter
Vinyl Chloride	Less Than 0.50	Micrograms per Liter

Sample: 2300214-01 (Continued)

Project Name: White Farm Equipment Company

Analysis / Analyte	Amount Found	Units
Contract SOW-Volatiles (Continued)		
Bromomethane	Less Than 0.50	Micrograms per Liter
Chloroethane	Less Than 0.50	Micrograms per Liter
Trichlorofluoromethane	Less Than 0.50	Micrograms per Liter
1,1-Dichloroethene	Less Than 0.50	Micrograms per Liter
1,1,2-Trichlorotrifluoroethane	Less Than 0.50	Micrograms per Liter
Acetone	Less Than 5.0	Micrograms per Liter
Carbon Disulfide	Less Than 0.50	Micrograms per Liter
Methyl Acetate	Less Than 0.50	Micrograms per Liter
Methylene Chloride	Less Than 0.50	Micrograms per Liter
trans-1,2-Dichloroethene	Less Than 0.50	Micrograms per Liter
Methyl tert-butyl ether	Less Than 0.50	Micrograms per Liter
1,1-Dichloroethane	Less Than 0.50	Micrograms per Liter
cis-1,2-Dichloroethene	Less Than 0.50	Micrograms per Liter
2-Butanone	Less Than 5.0	Micrograms per Liter
Bromochloromethane	Less Than 0.50	Micrograms per Liter
Chloroform	Less Than 0.50	Micrograms per Liter
1,1,1-Trichloroethane	Less Than 0.50	Micrograms per Liter
Cyclohexane	Less Than 0.50	Micrograms per Liter
Carbon Tetrachloride	Less Than 0.50	Micrograms per Liter
Benzene	Less Than 0.50	Micrograms per Liter
1,2-Dichloroethane	Less Than 0.50	Micrograms per Liter
Trichloroethene	Less Than 0.50	Micrograms per Liter
Methylcyclohexane	Less Than 0.50	Micrograms per Liter
1,2-Dichloropropane	Less Than 0.50	Micrograms per Liter
Bromodichloromethane	Less Than 0.50	Micrograms per Liter
cis-1,3-Dichloropropene	Less Than 0.50	Micrograms per Liter
4-Methyl-2-Pentanone	Less Than 5.0	Micrograms per Liter
Toluene	Less Than 0.50	Micrograms per Liter
trans-1,3-Dichloropropene	Less Than 0.50	Micrograms per Liter
1,1,2-Trichloroethane	Less Than 0.50	Micrograms per Liter
Tetrachloroethene	Less Than 0.50	Micrograms per Liter
2-Hexanone	Less Than 5.0	Micrograms per Liter
Dibromochloromethane	Less Than 0.50	Micrograms per Liter
1,2-Dibromoethane	Less Than 0.50	Micrograms per Liter
Chlorobenzene	Less Than 0.50	Micrograms per Liter
Ethyl Benzene	Less Than 0.50	Micrograms per Liter
o-Xylene	Less Than 0.50	Micrograms per Liter
m and/or p-Xylene	Less Than 0.50	Micrograms per Liter
Styrene	Less Than 0.50	Micrograms per Liter
Bromoform	Less Than 0.50	Micrograms per Liter
Isopropylbenzene	Less Than 0.50	Micrograms per Liter
1,2,3-Trichloropropane	Less Than 0.50	Micrograms per Liter
1,1,2,2-Tetrachloroethane	Less Than 0.50	Micrograms per Liter
1,3-Dichlorobenzene	Less Than 0.50	Micrograms per Liter
1,4-Dichlorobenzene	Less Than 0.50	Micrograms per Liter

Sample: 2300214-01 (Continued)

Project Name: White Farm Equipment Company

Analysis / Analyte	Amount Found	Units
<u>Contract SOW-Volatiles (Continued)</u>		
1,2-Dichlorobenzene	Less Than 0.50	Micrograms per Liter
1,2-Dibromo-3-Chloropropane	Less Than 0.50	Micrograms per Liter
1,2,4-Trimethylbenzene	Less Than 0.50	Micrograms per Liter
1,3,5-Trimethylbenzene	Less Than 0.50	Micrograms per Liter
1,2,4-Trichlorobenzene	Less Than 0.50	Micrograms per Liter
1,2,3-Trichlorobenzene	Less Than 0.50	Micrograms per Liter

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Sample: 2300214-02

Project Name: White Farm Equipment Company

These are the results from the analysis of Water sample number 2300214-02. This sample was collected on 6/27/2023 at the location described as: MW7BR (12'-22"). If you have any questions about these results, contact Welsey March at the above address or by calling (913) 551-7037. Correspondence should refer to sample number 2300214-02 for project: White Farm Equipment Company.

Analysis / Analyte	Amount Found	Units
<u>Contract SOW-Inorganic</u>		
Mercury	Less Than 0.200	Micrograms per Liter
Arsenic	Less Than 1.00	Micrograms per Liter
Barium	44.0	Micrograms per Liter
Cadmium	Less Than 1.00	Micrograms per Liter
Chromium	Less Than 2.00	Micrograms per Liter
Lead	Less Than 1.00	Micrograms per Liter
Selenium	Less Than 5.00	Micrograms per Liter
Silver	Less Than 1.00	Micrograms per Liter
<u>Contract SOW-SemiVolatiles</u>		
Naphthalene	Less Than 0.050	Micrograms per Liter
1-Methylnaphthalene	Less Than 0.050	Micrograms per Liter
2-Methylnaphthalene	Less Than 0.050	Micrograms per Liter
Acenaphthylene	Less Than 0.050	Micrograms per Liter
Acenaphthene	Less Than 0.050	Micrograms per Liter
Fluorene	Less Than 0.050	Micrograms per Liter
Pentachlorophenol	Less Than 0.20	Micrograms per Liter
Phenanthrene	Less Than 0.050	Micrograms per Liter
Anthracene	Less Than 0.050	Micrograms per Liter
Fluoranthene	Less Than 0.050	Micrograms per Liter
Pyrene	Less Than 0.050	Micrograms per Liter
Benzo(a)anthracene	Less Than 0.050	Micrograms per Liter
Chrysene	Less Than 0.050	Micrograms per Liter
Benzo(b)fluoranthene	Less Than 0.050	Micrograms per Liter
Benzo(k)fluoranthene	Less Than 0.050	Micrograms per Liter
Benzo(a)pyrene	Less Than 0.050	Micrograms per Liter
Indeno(1,2,3-cd)pyrene	Less Than 0.050	Micrograms per Liter
Dibenz(a,h)anthracene	Less Than 0.050	Micrograms per Liter
Benzo(g,h,i)perylene	Less Than 0.050	Micrograms per Liter
<u>Contract SOW-Volatiles</u>		
Dichlorodifluoromethane	Less Than 0.50	Micrograms per Liter
Chloromethane	Less Than 0.50	Micrograms per Liter
Vinyl Chloride	Less Than 0.50	Micrograms per Liter

Sample: 2300214-02 (Continued)

Project Name: White Farm Equipment Company

Analysis / Analyte	Amount Found	Units
Contract SOW-Volatiles (Continued)		
Bromomethane	Less Than 0.50	Micrograms per Liter
Chloroethane	Less Than 0.50	Micrograms per Liter
Trichlorofluoromethane	Less Than 0.50	Micrograms per Liter
1,1-Dichloroethene	Less Than 0.50	Micrograms per Liter
1,1,2-Trichlorotrifluoroethane	Less Than 0.50	Micrograms per Liter
Acetone	Less Than 5.0	Micrograms per Liter
Carbon Disulfide	Less Than 0.50	Micrograms per Liter
Methyl Acetate	Less Than 0.50	Micrograms per Liter
Methylene Chloride	Less Than 0.50	Micrograms per Liter
trans-1,2-Dichloroethene	Less Than 0.50	Micrograms per Liter
Methyl tert-butyl ether	Less Than 0.50	Micrograms per Liter
1,1-Dichloroethane	Less Than 0.50	Micrograms per Liter
cis-1,2-Dichloroethene	Less Than 0.50	Micrograms per Liter
2-Butanone	Less Than 5.0	Micrograms per Liter
Bromochloromethane	Less Than 0.50	Micrograms per Liter
Chloroform	Less Than 0.50	Micrograms per Liter
1,1,1-Trichloroethane	Less Than 0.50	Micrograms per Liter
Cyclohexane	Less Than 0.50	Micrograms per Liter
Carbon Tetrachloride	Less Than 0.50	Micrograms per Liter
Benzene	Less Than 0.50	Micrograms per Liter
1,2-Dichloroethane	Less Than 0.50	Micrograms per Liter
Trichloroethene	Less Than 0.50	Micrograms per Liter
Methylcyclohexane	Less Than 0.50	Micrograms per Liter
1,2-Dichloropropane	Less Than 0.50	Micrograms per Liter
Bromodichloromethane	Less Than 0.50	Micrograms per Liter
cis-1,3-Dichloropropene	Less Than 0.50	Micrograms per Liter
4-Methyl-2-Pentanone	Less Than 5.0	Micrograms per Liter
Toluene	Less Than 0.50	Micrograms per Liter
trans-1,3-Dichloropropene	Less Than 0.50	Micrograms per Liter
1,1,2-Trichloroethane	Less Than 0.50	Micrograms per Liter
Tetrachloroethene	Less Than 0.50	Micrograms per Liter
2-Hexanone	Less Than 5.0	Micrograms per Liter
Dibromochloromethane	Less Than 0.50	Micrograms per Liter
1,2-Dibromoethane	Less Than 0.50	Micrograms per Liter
Chlorobenzene	Less Than 0.50	Micrograms per Liter
Ethyl Benzene	Less Than 0.50	Micrograms per Liter
o-Xylene	Less Than 0.50	Micrograms per Liter
m and/or p-Xylene	Less Than 0.50	Micrograms per Liter
Styrene	Less Than 0.50	Micrograms per Liter
Bromoform	Less Than 0.50	Micrograms per Liter
Isopropylbenzene	Less Than 0.50	Micrograms per Liter
1,2,3-Trichloropropane	Less Than 0.50	Micrograms per Liter
1,1,2,2-Tetrachloroethane	Less Than 0.50	Micrograms per Liter
1,3-Dichlorobenzene	Less Than 0.50	Micrograms per Liter
1,4-Dichlorobenzene	Less Than 0.50	Micrograms per Liter

Sample: 2300214-02 (Continued)

Project Name: White Farm Equipment Company

Analysis / Analyte	Amount Found	Units
<u>Contract SOW-Volatiles (Continued)</u>		
1,2-Dichlorobenzene	Less Than 0.50	Micrograms per Liter
1,2-Dibromo-3-Chloropropane	Less Than 0.50	Micrograms per Liter
1,2,4-Trimethylbenzene	Less Than 0.50	Micrograms per Liter
1,3,5-Trimethylbenzene	Less Than 0.50	Micrograms per Liter
1,2,4-Trichlorobenzene	Less Than 0.50	Micrograms per Liter
1,2,3-Trichlorobenzene	Less Than 0.50	Micrograms per Liter

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Sample: 2300214-03

Project Name: White Farm Equipment Company

These are the results from the analysis of Water sample number 2300214-03. This sample was collected on 6/27/2023 at the location described as: MW6B (14'-24'). If you have any questions about these results, contact Welsey March at the above address or by calling (913) 551-7037. Correspondence should refer to sample number 2300214-03 for project: White Farm Equipment Company.

Analysis / Analyte	Amount Found	Units
<u>Contract SOW-Inorganic</u>		
Mercury	Less Than 0.200	Micrograms per Liter
Arsenic	Less Than 1.00	Micrograms per Liter
Barium	29.0	Micrograms per Liter
Cadmium	Less Than 1.00	Micrograms per Liter
Chromium	Less Than 2.00	Micrograms per Liter
Lead	Less Than 1.00	Micrograms per Liter
Selenium	Less Than 5.00	Micrograms per Liter
Silver	Less Than 1.00	Micrograms per Liter
<u>Contract SOW-SemiVolatiles</u>		
Naphthalene	Less Than 0.050	Micrograms per Liter
1-Methylnaphthalene	Less Than 0.050	Micrograms per Liter
2-Methylnaphthalene	Less Than 0.050	Micrograms per Liter
Acenaphthylene	Less Than 0.050	Micrograms per Liter
Acenaphthene	Less Than 0.050	Micrograms per Liter
Fluorene	Less Than 0.050	Micrograms per Liter
Pentachlorophenol	Less Than 0.20	Micrograms per Liter
Phenanthrene	Less Than 0.050	Micrograms per Liter
Anthracene	Less Than 0.050	Micrograms per Liter
Fluoranthene	Less Than 0.050	Micrograms per Liter
Pyrene	Less Than 0.050	Micrograms per Liter
Benzo(a)anthracene	Less Than 0.050	Micrograms per Liter
Chrysene	Less Than 0.050	Micrograms per Liter
Benzo(b)fluoranthene	Less Than 0.050	Micrograms per Liter
Benzo(k)fluoranthene	Less Than 0.050	Micrograms per Liter
Benzo(a)pyrene	Less Than 0.050	Micrograms per Liter
Indeno(1,2,3-cd)pyrene	Less Than 0.050	Micrograms per Liter
Dibenz(a,h)anthracene	Less Than 0.050	Micrograms per Liter
Benzo(g,h,i)perylene	Less Than 0.050	Micrograms per Liter
<u>Contract SOW-Volatiles</u>		
Dichlorodifluoromethane	Less Than 0.50	Micrograms per Liter
Chloromethane	Less Than 0.50	Micrograms per Liter
Vinyl Chloride	Less Than 0.50	Micrograms per Liter

Sample: 2300214-03 (Continued)

Project Name: White Farm Equipment Company

Analysis / Analyte	Amount Found	Units
Contract SOW-Volatiles (Continued)		
Bromomethane	Less Than 0.50	Micrograms per Liter
Chloroethane	Less Than 0.50	Micrograms per Liter
Trichlorofluoromethane	Less Than 0.50	Micrograms per Liter
1,1-Dichloroethene	Less Than 0.50	Micrograms per Liter
1,1,2-Trichlorotrifluoroethane	Less Than 0.50	Micrograms per Liter
Acetone	Less Than 5.0	Micrograms per Liter
Carbon Disulfide	Less Than 0.50	Micrograms per Liter
Methyl Acetate	Less Than 0.50	Micrograms per Liter
Methylene Chloride	Less Than 0.50	Micrograms per Liter
trans-1,2-Dichloroethene	Less Than 0.50	Micrograms per Liter
Methyl tert-butyl ether	Less Than 0.50	Micrograms per Liter
1,1-Dichloroethane	Less Than 0.50	Micrograms per Liter
cis-1,2-Dichloroethene	Less Than 0.50	Micrograms per Liter
2-Butanone	Less Than 5.0	Micrograms per Liter
Bromochloromethane	Less Than 0.50	Micrograms per Liter
Chloroform	Less Than 0.50	Micrograms per Liter
1,1,1-Trichloroethane	Less Than 0.50	Micrograms per Liter
Cyclohexane	Less Than 0.50	Micrograms per Liter
Carbon Tetrachloride	Less Than 0.50	Micrograms per Liter
Benzene	Less Than 0.50	Micrograms per Liter
1,2-Dichloroethane	Less Than 0.50	Micrograms per Liter
Trichloroethene	Less Than 0.50	Micrograms per Liter
Methylcyclohexane	Less Than 0.50	Micrograms per Liter
1,2-Dichloropropane	Less Than 0.50	Micrograms per Liter
Bromodichloromethane	Less Than 0.50	Micrograms per Liter
cis-1,3-Dichloropropene	Less Than 0.50	Micrograms per Liter
4-Methyl-2-Pentanone	Less Than 5.0	Micrograms per Liter
Toluene	Less Than 0.50	Micrograms per Liter
trans-1,3-Dichloropropene	Less Than 0.50	Micrograms per Liter
1,1,2-Trichloroethane	Less Than 0.50	Micrograms per Liter
Tetrachloroethene	Less Than 0.50	Micrograms per Liter
2-Hexanone	Less Than 5.0	Micrograms per Liter
Dibromochloromethane	Less Than 0.50	Micrograms per Liter
1,2-Dibromoethane	Less Than 0.50	Micrograms per Liter
Chlorobenzene	Less Than 0.50	Micrograms per Liter
Ethyl Benzene	Less Than 0.50	Micrograms per Liter
o-Xylene	Less Than 0.50	Micrograms per Liter
m and/or p-Xylene	Less Than 0.50	Micrograms per Liter
Styrene	Less Than 0.50	Micrograms per Liter
Bromoform	Less Than 0.50	Micrograms per Liter
Isopropylbenzene	Less Than 0.50	Micrograms per Liter
1,2,3-Trichloropropane	Less Than 0.50	Micrograms per Liter
1,1,2,2-Tetrachloroethane	Less Than 0.50	Micrograms per Liter
1,3-Dichlorobenzene	Less Than 0.50	Micrograms per Liter
1,4-Dichlorobenzene	Less Than 0.50	Micrograms per Liter

Sample: 2300214-03 (Continued)

Project Name: White Farm Equipment Company

Analysis / Analyte	Amount Found	Units
<u>Contract SOW-Volatiles (Continued)</u>		
1,2-Dichlorobenzene	Less Than 0.50	Micrograms per Liter
1,2-Dibromo-3-Chloropropane	Less Than 0.50	Micrograms per Liter
1,2,4-Trimethylbenzene	Less Than 0.50	Micrograms per Liter
1,3,5-Trimethylbenzene	Less Than 0.50	Micrograms per Liter
1,2,4-Trichlorobenzene	Less Than 0.50	Micrograms per Liter
1,2,3-Trichlorobenzene	Less Than 0.50	Micrograms per Liter

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Sample: 2300214-04

Project Name: White Farm Equipment Company

These are the results from the analysis of Water sample number 2300214-04. This sample was collected on 6/27/2023 at the location described as: Field Duplicate (MW6B). If you have any questions about these results, contact Welsey March at the above address or by calling (913) 551-7037. Correspondence should refer to sample number 2300214-04 for project: White Farm Equipment Company.

Analysis / Analyte	Amount Found	Units
<u>Contract SOW-Inorganic</u>		
Mercury	Less Than 0.200	Micrograms per Liter
Arsenic	Less Than 1.00	Micrograms per Liter
Barium	29.0	Micrograms per Liter
Cadmium	Less Than 1.00	Micrograms per Liter
Chromium	Less Than 2.00	Micrograms per Liter
Lead	Less Than 1.00	Micrograms per Liter
Selenium	Less Than 5.00	Micrograms per Liter
Silver	Less Than 1.00	Micrograms per Liter
<u>Contract SOW-SemiVolatiles</u>		
Naphthalene	Less Than 0.050	Micrograms per Liter
1-Methylnaphthalene	Less Than 0.050	Micrograms per Liter
2-Methylnaphthalene	Less Than 0.050	Micrograms per Liter
Acenaphthylene	Less Than 0.050	Micrograms per Liter
Acenaphthene	Less Than 0.050	Micrograms per Liter
Fluorene	Less Than 0.050	Micrograms per Liter
Pentachlorophenol	Less Than 0.20	Micrograms per Liter
Phenanthrene	Less Than 0.050	Micrograms per Liter
Anthracene	Less Than 0.050	Micrograms per Liter
Fluoranthene	Less Than 0.050	Micrograms per Liter
Pyrene	Less Than 0.050	Micrograms per Liter
Benzo(a)anthracene	Less Than 0.050	Micrograms per Liter
Chrysene	Less Than 0.050	Micrograms per Liter
Benzo(b)fluoranthene	Less Than 0.050	Micrograms per Liter
Benzo(k)fluoranthene	Less Than 0.050	Micrograms per Liter
Benzo(a)pyrene	Less Than 0.050	Micrograms per Liter
Indeno(1,2,3-cd)pyrene	Less Than 0.050	Micrograms per Liter
Dibenz(a,h)anthracene	Less Than 0.050	Micrograms per Liter
Benzo(g,h,i)perylene	Less Than 0.050	Micrograms per Liter
<u>Contract SOW-Volatiles</u>		
Dichlorodifluoromethane	Less Than 0.50	Micrograms per Liter
Chloromethane	Less Than 0.50	Micrograms per Liter
Vinyl Chloride	Less Than 0.50	Micrograms per Liter

Sample: 2300214-04 (Continued)

Project Name: White Farm Equipment Company

Analysis / Analyte	Amount Found	Units
Contract SOW-Volatiles (Continued)		
Bromomethane	Less Than 0.50	Micrograms per Liter
Chloroethane	Less Than 0.50	Micrograms per Liter
Trichlorofluoromethane	Less Than 0.50	Micrograms per Liter
1,1-Dichloroethene	Less Than 0.50	Micrograms per Liter
1,1,2-Trichlorotrifluoroethane	Less Than 0.50	Micrograms per Liter
Acetone	Less Than 5.0	Micrograms per Liter
Carbon Disulfide	Less Than 0.50	Micrograms per Liter
Methyl Acetate	Less Than 0.50	Micrograms per Liter
Methylene Chloride	Less Than 0.50	Micrograms per Liter
trans-1,2-Dichloroethene	Less Than 0.50	Micrograms per Liter
Methyl tert-butyl ether	Less Than 0.50	Micrograms per Liter
1,1-Dichloroethane	Less Than 0.50	Micrograms per Liter
cis-1,2-Dichloroethene	Less Than 0.50	Micrograms per Liter
2-Butanone	Less Than 5.0	Micrograms per Liter
Bromochloromethane	Less Than 0.50	Micrograms per Liter
Chloroform	0.65	Micrograms per Liter
1,1,1-Trichloroethane	Less Than 0.50	Micrograms per Liter
Cyclohexane	Less Than 0.50	Micrograms per Liter
Carbon Tetrachloride	Less Than 0.50	Micrograms per Liter
Benzene	Less Than 0.50	Micrograms per Liter
1,2-Dichloroethane	Less Than 0.50	Micrograms per Liter
Trichloroethene	Less Than 0.50	Micrograms per Liter
Methylcyclohexane	Less Than 0.50	Micrograms per Liter
1,2-Dichloropropane	Less Than 0.50	Micrograms per Liter
Bromodichloromethane	Less Than 0.50	Micrograms per Liter
cis-1,3-Dichloropropene	Less Than 0.50	Micrograms per Liter
4-Methyl-2-Pentanone	Less Than 5.0	Micrograms per Liter
Toluene	Less Than 0.50	Micrograms per Liter
trans-1,3-Dichloropropene	Less Than 0.50	Micrograms per Liter
1,1,2-Trichloroethane	Less Than 0.50	Micrograms per Liter
Tetrachloroethene	Less Than 0.50	Micrograms per Liter
2-Hexanone	Less Than 5.0	Micrograms per Liter
Dibromochloromethane	Less Than 0.50	Micrograms per Liter
1,2-Dibromoethane	Less Than 0.50	Micrograms per Liter
Chlorobenzene	Less Than 0.50	Micrograms per Liter
Ethyl Benzene	Less Than 0.50	Micrograms per Liter
o-Xylene	Less Than 0.50	Micrograms per Liter
m and/or p-Xylene	Less Than 0.50	Micrograms per Liter
Styrene	Less Than 0.50	Micrograms per Liter
Bromoform	Less Than 0.50	Micrograms per Liter
Isopropylbenzene	Less Than 0.50	Micrograms per Liter
1,2,3-Trichloropropane	Less Than 0.50	Micrograms per Liter
1,1,2,2-Tetrachloroethane	Less Than 0.50	Micrograms per Liter
1,3-Dichlorobenzene	Less Than 0.50	Micrograms per Liter
1,4-Dichlorobenzene	Less Than 0.50	Micrograms per Liter

Sample: 2300214-04 (Continued)

Project Name: White Farm Equipment Company

Analysis / Analyte	Amount Found	Units
<u>Contract SOW-Volatiles (Continued)</u>		
1,2-Dichlorobenzene	Less Than 0.50	Micrograms per Liter
1,2-Dibromo-3-Chloropropane	Less Than 0.50	Micrograms per Liter
1,2,4-Trimethylbenzene	Less Than 0.50	Micrograms per Liter
1,3,5-Trimethylbenzene	Less Than 0.50	Micrograms per Liter
1,2,4-Trichlorobenzene	Less Than 0.50	Micrograms per Liter
1,2,3-Trichlorobenzene	Less Than 0.50	Micrograms per Liter

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Sample: 2300214-05

Project Name: White Farm Equipment Company

These are the results from the analysis of Water sample number 2300214-05. This sample was collected on 6/27/2023 at the location described as: MW5B (15'-25"). If you have any questions about these results, contact Welsey March at the above address or by calling (913) 551-7037. Correspondence should refer to sample number 2300214-05 for project: White Farm Equipment Company.

Analysis / Analyte	Amount Found	Units
<u>Contract SOW-Inorganic</u>		
Mercury	Less Than 0.200	Micrograms per Liter
Arsenic	Less Than 1.00	Micrograms per Liter
Barium	56.0	Micrograms per Liter
Cadmium	Less Than 1.00	Micrograms per Liter
Chromium	Less Than 2.00	Micrograms per Liter
Lead	Less Than 1.00	Micrograms per Liter
Selenium	Less Than 5.00	Micrograms per Liter
Silver	Less Than 1.00	Micrograms per Liter
<u>Contract SOW-SemiVolatiles</u>		
Naphthalene	Less Than 0.050	Micrograms per Liter
1-Methylnaphthalene	Less Than 0.050	Micrograms per Liter
2-Methylnaphthalene	Less Than 0.050	Micrograms per Liter
Acenaphthylene	Less Than 0.050	Micrograms per Liter
Acenaphthene	Less Than 0.050	Micrograms per Liter
Fluorene	Less Than 0.050	Micrograms per Liter
Pentachlorophenol	Less Than 0.20	Micrograms per Liter
Phenanthrene	Less Than 0.050	Micrograms per Liter
Anthracene	Less Than 0.050	Micrograms per Liter
Fluoranthene	Less Than 0.050	Micrograms per Liter
Pyrene	Less Than 0.050	Micrograms per Liter
Benzo(a)anthracene	Less Than 0.050	Micrograms per Liter
Chrysene	Less Than 0.050	Micrograms per Liter
Benzo(b)fluoranthene	Less Than 0.050	Micrograms per Liter
Benzo(k)fluoranthene	Less Than 0.050	Micrograms per Liter
Benzo(a)pyrene	Less Than 0.050	Micrograms per Liter
Indeno(1,2,3-cd)pyrene	Less Than 0.050	Micrograms per Liter
Dibenz(a,h)anthracene	Less Than 0.050	Micrograms per Liter
Benzo(g,h,i)perylene	Less Than 0.050	Micrograms per Liter
<u>Contract SOW-Volatiles</u>		
Dichlorodifluoromethane	Less Than 0.50	Micrograms per Liter
Chloromethane	Less Than 0.50	Micrograms per Liter
Vinyl Chloride	Less Than 0.50	Micrograms per Liter

Sample: 2300214-05 (Continued)

Project Name: White Farm Equipment Company

Analysis / Analyte	Amount Found	Units
Contract SOW-Volatiles (Continued)		
Bromomethane	Less Than 0.50	Micrograms per Liter
Chloroethane	Less Than 0.50	Micrograms per Liter
Trichlorofluoromethane	Less Than 0.50	Micrograms per Liter
1,1-Dichloroethene	Less Than 0.50	Micrograms per Liter
1,1,2-Trichlorotrifluoroethane	Less Than 0.50	Micrograms per Liter
Acetone	Less Than 5.0	Micrograms per Liter
Carbon Disulfide	Less Than 0.50	Micrograms per Liter
Methyl Acetate	Less Than 0.50	Micrograms per Liter
Methylene Chloride	Less Than 0.50	Micrograms per Liter
trans-1,2-Dichloroethene	Less Than 0.50	Micrograms per Liter
Methyl tert-butyl ether	Less Than 0.50	Micrograms per Liter
1,1-Dichloroethane	Less Than 0.50	Micrograms per Liter
cis-1,2-Dichloroethene	Less Than 0.50	Micrograms per Liter
2-Butanone	Less Than 5.0	Micrograms per Liter
Bromochloromethane	Less Than 0.50	Micrograms per Liter
Chloroform	Less Than 0.50	Micrograms per Liter
1,1,1-Trichloroethane	Less Than 0.50	Micrograms per Liter
Cyclohexane	Less Than 0.50	Micrograms per Liter
Carbon Tetrachloride	Less Than 0.50	Micrograms per Liter
Benzene	Less Than 0.50	Micrograms per Liter
1,2-Dichloroethane	Less Than 0.50	Micrograms per Liter
Trichloroethene	Less Than 0.50	Micrograms per Liter
Methylcyclohexane	Less Than 0.50	Micrograms per Liter
1,2-Dichloropropane	Less Than 0.50	Micrograms per Liter
Bromodichloromethane	Less Than 0.50	Micrograms per Liter
cis-1,3-Dichloropropene	Less Than 0.50	Micrograms per Liter
4-Methyl-2-Pentanone	Less Than 5.0	Micrograms per Liter
Toluene	Less Than 0.50	Micrograms per Liter
trans-1,3-Dichloropropene	Less Than 0.50	Micrograms per Liter
1,1,2-Trichloroethane	Less Than 0.50	Micrograms per Liter
Tetrachloroethene	Less Than 0.50	Micrograms per Liter
2-Hexanone	Less Than 5.0	Micrograms per Liter
Dibromochloromethane	Less Than 0.50	Micrograms per Liter
1,2-Dibromoethane	Less Than 0.50	Micrograms per Liter
Chlorobenzene	Less Than 0.50	Micrograms per Liter
Ethyl Benzene	Less Than 0.50	Micrograms per Liter
o-Xylene	Less Than 0.50	Micrograms per Liter
m and/or p-Xylene	Less Than 0.50	Micrograms per Liter
Styrene	Less Than 0.50	Micrograms per Liter
Bromoform	Less Than 0.50	Micrograms per Liter
Isopropylbenzene	Less Than 0.50	Micrograms per Liter
1,2,3-Trichloropropane	Less Than 0.50	Micrograms per Liter
1,1,2,2-Tetrachloroethane	Less Than 0.50	Micrograms per Liter
1,3-Dichlorobenzene	Less Than 0.50	Micrograms per Liter
1,4-Dichlorobenzene	Less Than 0.50	Micrograms per Liter

Sample: 2300214-05 (Continued)

Project Name: White Farm Equipment Company

Analysis / Analyte	Amount Found	Units
<u>Contract SOW-Volatiles (Continued)</u>		
1,2-Dichlorobenzene	Less Than 0.50	Micrograms per Liter
1,2-Dibromo-3-Chloropropane	Less Than 0.50	Micrograms per Liter
1,2,4-Trimethylbenzene	Less Than 0.50	Micrograms per Liter
1,3,5-Trimethylbenzene	Less Than 0.50	Micrograms per Liter
1,2,4-Trichlorobenzene	Less Than 0.50	Micrograms per Liter
1,2,3-Trichlorobenzene	Less Than 0.50	Micrograms per Liter

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Sample: 2300214-06

Project Name: White Farm Equipment Company

These are the results from the analysis of Water sample number 2300214-06. This sample was collected on 6/27/2023 at the location described as: Equipment Blank. If you have any questions about these results, contact Welsey March at the above address or by calling (913) 551-7037. Correspondence should refer to sample number 2300214-06 for project: White Farm Equipment Company.

Analysis / Analyte	Amount Found	Units
<u>Contract SOW-Inorganic</u>		
Mercury	Less Than 0.200	Micrograms per Liter
Arsenic	Less Than 1.00	Micrograms per Liter
Barium	Less Than 10.0	Micrograms per Liter
Cadmium	Less Than 1.00	Micrograms per Liter
Chromium	Less Than 2.00	Micrograms per Liter
Lead	Less Than 1.00	Micrograms per Liter
Selenium	Less Than 5.00	Micrograms per Liter
Silver	Less Than 1.00	Micrograms per Liter
<u>Contract SOW-SemiVolatiles</u>		
Naphthalene	Less Than 0.050	Micrograms per Liter
1-Methylnaphthalene	Less Than 0.050	Micrograms per Liter
2-Methylnaphthalene	Less Than 0.050	Micrograms per Liter
Acenaphthylene	Less Than 0.050	Micrograms per Liter
Acenaphthene	Less Than 0.050	Micrograms per Liter
Fluorene	Less Than 0.050	Micrograms per Liter
Pentachlorophenol	Less Than 0.20	Micrograms per Liter
Phenanthrene	Less Than 0.050	Micrograms per Liter
Anthracene	Less Than 0.050	Micrograms per Liter
Fluoranthene	Less Than 0.050	Micrograms per Liter
Pyrene	Less Than 0.050	Micrograms per Liter
Benzo(a)anthracene	Less Than 0.050	Micrograms per Liter
Chrysene	Less Than 0.050	Micrograms per Liter
Benzo(b)fluoranthene	Less Than 0.050	Micrograms per Liter
Benzo(k)fluoranthene	Less Than 0.050	Micrograms per Liter
Benzo(a)pyrene	Less Than 0.050	Micrograms per Liter
Indeno(1,2,3-cd)pyrene	Less Than 0.050	Micrograms per Liter
Dibenz(a,h)anthracene	Less Than 0.050	Micrograms per Liter
Benzo(g,h,i)perylene	Less Than 0.050	Micrograms per Liter
<u>Contract SOW-Volatiles</u>		
Dichlorodifluoromethane	Less Than 0.50	Micrograms per Liter
Chloromethane	Less Than 0.50	Micrograms per Liter
Vinyl Chloride	Less Than 0.50	Micrograms per Liter

Sample: 2300214-06 (Continued)

Project Name: White Farm Equipment Company

Analysis / Analyte	Amount Found	Units
Contract SOW-Volatiles (Continued)		
Bromomethane	Less Than 0.50	Micrograms per Liter
Chloroethane	Less Than 0.50	Micrograms per Liter
Trichlorofluoromethane	Less Than 0.50	Micrograms per Liter
1,1-Dichloroethene	Less Than 0.50	Micrograms per Liter
1,1,2-Trichlorotrifluoroethane	Less Than 0.50	Micrograms per Liter
Acetone	11	Micrograms per Liter
Carbon Disulfide	Less Than 0.50	Micrograms per Liter
Methyl Acetate	Less Than 0.50	Micrograms per Liter
Methylene Chloride	Less Than 0.50	Micrograms per Liter
trans-1,2-Dichloroethene	Less Than 0.50	Micrograms per Liter
Methyl tert-butyl ether	Less Than 0.50	Micrograms per Liter
1,1-Dichloroethane	Less Than 0.50	Micrograms per Liter
cis-1,2-Dichloroethene	Less Than 0.50	Micrograms per Liter
2-Butanone	Less Than 5.0	Micrograms per Liter
Bromochloromethane	Less Than 0.50	Micrograms per Liter
Chloroform	Less Than 0.50	Micrograms per Liter
1,1,1-Trichloroethane	Less Than 0.50	Micrograms per Liter
Cyclohexane	Less Than 0.50	Micrograms per Liter
Carbon Tetrachloride	Less Than 0.50	Micrograms per Liter
Benzene	Less Than 0.50	Micrograms per Liter
1,2-Dichloroethane	Less Than 0.50	Micrograms per Liter
Trichloroethene	Less Than 0.50	Micrograms per Liter
Methylcyclohexane	Less Than 0.50	Micrograms per Liter
1,2-Dichloropropane	Less Than 0.50	Micrograms per Liter
Bromodichloromethane	Less Than 0.50	Micrograms per Liter
cis-1,3-Dichloropropene	Less Than 0.50	Micrograms per Liter
4-Methyl-2-Pentanone	Less Than 5.0	Micrograms per Liter
Toluene	Less Than 0.50	Micrograms per Liter
trans-1,3-Dichloropropene	Less Than 0.50	Micrograms per Liter
1,1,2-Trichloroethane	Less Than 0.50	Micrograms per Liter
Tetrachloroethene	Less Than 0.50	Micrograms per Liter
2-Hexanone	Less Than 5.0	Micrograms per Liter
Dibromochloromethane	Less Than 0.50	Micrograms per Liter
1,2-Dibromoethane	Less Than 0.50	Micrograms per Liter
Chlorobenzene	Less Than 0.50	Micrograms per Liter
Ethyl Benzene	Less Than 0.50	Micrograms per Liter
o-Xylene	Less Than 0.50	Micrograms per Liter
m and/or p-Xylene	Less Than 0.50	Micrograms per Liter
Styrene	Less Than 0.50	Micrograms per Liter
Bromoform	Less Than 0.50	Micrograms per Liter
Isopropylbenzene	Less Than 0.50	Micrograms per Liter
1,2,3-Trichloropropane	Less Than 0.50	Micrograms per Liter
1,1,2,2-Tetrachloroethane	Less Than 0.50	Micrograms per Liter
1,3-Dichlorobenzene	Less Than 0.50	Micrograms per Liter
1,4-Dichlorobenzene	Less Than 0.50	Micrograms per Liter

Sample: 2300214-06 (Continued)

Project Name: White Farm Equipment Company

Analysis / Analyte	Amount Found	Units
<u>Contract SOW-Volatiles (Continued)</u>		
1,2-Dichlorobenzene	Less Than 0.50	Micrograms per Liter
1,2-Dibromo-3-Chloropropane	Less Than 0.50	Micrograms per Liter
1,2,4-Trimethylbenzene	Less Than 0.50	Micrograms per Liter
1,3,5-Trimethylbenzene	Less Than 0.50	Micrograms per Liter
1,2,4-Trichlorobenzene	Less Than 0.50	Micrograms per Liter
1,2,3-Trichlorobenzene	Less Than 0.50	Micrograms per Liter

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Sample: 2300214-07

Project Name: White Farm Equipment Company

These are the results from the analysis of Water sample number 2300214-07. This sample was collected on 6/28/2023 at the location described as: MW5A (40'-50'). If you have any questions about these results, contact Welsey March at the above address or by calling (913) 551-7037. Correspondence should refer to sample number 2300214-07 for project: White Farm Equipment Company.

Analysis / Analyte	Amount Found	Units
<u>Contract SOW-Inorganic</u>		
Mercury	Less Than 0.200	Micrograms per Liter
Arsenic	4.90	Micrograms per Liter
Barium	130	Micrograms per Liter
Cadmium	Less Than 1.00	Micrograms per Liter
Chromium	Less Than 2.00	Micrograms per Liter
Lead	Less Than 1.00	Micrograms per Liter
Selenium	Less Than 5.00	Micrograms per Liter
Silver	Less Than 1.00	Micrograms per Liter
<u>Contract SOW-SemiVolatiles</u>		
Naphthalene	Less Than 0.050	Micrograms per Liter
1-Methylnaphthalene	Less Than 0.050	Micrograms per Liter
2-Methylnaphthalene	Less Than 0.050	Micrograms per Liter
Acenaphthylene	Less Than 0.050	Micrograms per Liter
Acenaphthene	Less Than 0.050	Micrograms per Liter
Fluorene	Less Than 0.050	Micrograms per Liter
Pentachlorophenol	Less Than 0.20	Micrograms per Liter
Phenanthrene	Less Than 0.050	Micrograms per Liter
Anthracene	Less Than 0.050	Micrograms per Liter
Fluoranthene	Less Than 0.050	Micrograms per Liter
Pyrene	Less Than 0.050	Micrograms per Liter
Benzo(a)anthracene	Less Than 0.050	Micrograms per Liter
Chrysene	Less Than 0.050	Micrograms per Liter
Benzo(b)fluoranthene	Less Than 0.050	Micrograms per Liter
Benzo(k)fluoranthene	Less Than 0.050	Micrograms per Liter
Benzo(a)pyrene	Less Than 0.050	Micrograms per Liter
Indeno(1,2,3-cd)pyrene	Less Than 0.050	Micrograms per Liter
Dibenz(a,h)anthracene	Less Than 0.050	Micrograms per Liter
Benzo(g,h,i)perylene	Less Than 0.050	Micrograms per Liter
<u>Contract SOW-Volatiles</u>		
Dichlorodifluoromethane	Less Than 0.50	Micrograms per Liter
Chloromethane	Less Than 0.50	Micrograms per Liter
Vinyl Chloride	Less Than 0.50	Micrograms per Liter

Sample: 2300214-07 (Continued)

Project Name: White Farm Equipment Company

Analysis / Analyte	Amount Found	Units
Contract SOW-Volatiles (Continued)		
Bromomethane	Less Than 0.50	Micrograms per Liter
Chloroethane	Less Than 0.50	Micrograms per Liter
Trichlorofluoromethane	Less Than 0.50	Micrograms per Liter
1,1-Dichloroethene	Less Than 0.50	Micrograms per Liter
1,1,2-Trichlorotrifluoroethane	Less Than 0.50	Micrograms per Liter
Acetone	Less Than 5.0	Micrograms per Liter
Carbon Disulfide	Less Than 0.50	Micrograms per Liter
Methyl Acetate	Less Than 0.50	Micrograms per Liter
Methylene Chloride	Less Than 0.50	Micrograms per Liter
trans-1,2-Dichloroethene	Less Than 0.50	Micrograms per Liter
Methyl tert-butyl ether	Less Than 0.50	Micrograms per Liter
1,1-Dichloroethane	Less Than 0.50	Micrograms per Liter
cis-1,2-Dichloroethene	Less Than 0.50	Micrograms per Liter
2-Butanone	Less Than 5.0	Micrograms per Liter
Bromochloromethane	Less Than 0.50	Micrograms per Liter
Chloroform	Less Than 0.50	Micrograms per Liter
1,1,1-Trichloroethane	Less Than 0.50	Micrograms per Liter
Cyclohexane	Less Than 0.50	Micrograms per Liter
Carbon Tetrachloride	Less Than 0.50	Micrograms per Liter
Benzene	Less Than 0.50	Micrograms per Liter
1,2-Dichloroethane	Less Than 0.50	Micrograms per Liter
Trichloroethene	Less Than 0.50	Micrograms per Liter
Methylcyclohexane	Less Than 0.50	Micrograms per Liter
1,2-Dichloropropane	Less Than 0.50	Micrograms per Liter
Bromodichloromethane	Less Than 0.50	Micrograms per Liter
cis-1,3-Dichloropropene	Less Than 0.50	Micrograms per Liter
4-Methyl-2-Pentanone	Less Than 5.0	Micrograms per Liter
Toluene	Less Than 0.50	Micrograms per Liter
trans-1,3-Dichloropropene	Less Than 0.50	Micrograms per Liter
1,1,2-Trichloroethane	Less Than 0.50	Micrograms per Liter
Tetrachloroethene	Less Than 0.50	Micrograms per Liter
2-Hexanone	Less Than 5.0	Micrograms per Liter
Dibromochloromethane	Less Than 0.50	Micrograms per Liter
1,2-Dibromoethane	Less Than 0.50	Micrograms per Liter
Chlorobenzene	Less Than 0.50	Micrograms per Liter
Ethyl Benzene	Less Than 0.50	Micrograms per Liter
o-Xylene	Less Than 0.50	Micrograms per Liter
m and/or p-Xylene	Less Than 0.50	Micrograms per Liter
Styrene	Less Than 0.50	Micrograms per Liter
Bromoform	Less Than 0.50	Micrograms per Liter
Isopropylbenzene	Less Than 0.50	Micrograms per Liter
1,2,3-Trichloropropane	Less Than 0.50	Micrograms per Liter
1,1,2,2-Tetrachloroethane	Less Than 0.50	Micrograms per Liter
1,3-Dichlorobenzene	Less Than 0.50	Micrograms per Liter
1,4-Dichlorobenzene	Less Than 0.50	Micrograms per Liter

Sample: 2300214-07 (Continued)

Project Name: White Farm Equipment Company

Analysis / Analyte	Amount Found	Units
<u>Contract SOW-Volatiles (Continued)</u>		
1,2-Dichlorobenzene	Less Than 0.50	Micrograms per Liter
1,2-Dibromo-3-Chloropropane	Less Than 0.50	Micrograms per Liter
1,2,4-Trimethylbenzene	Less Than 0.50	Micrograms per Liter
1,3,5-Trimethylbenzene	Less Than 0.50	Micrograms per Liter
1,2,4-Trichlorobenzene	Less Than 0.50	Micrograms per Liter
1,2,3-Trichlorobenzene	Less Than 0.50	Micrograms per Liter

APPENDIX E- INTERVIEW RECORD

INTERVIEW RECORD

Site Name: White Farm Equipment

EPA ID No.: IAD065210734

Subject: Five Year Review

Time: 12 p.m.

Date: 12/7/2023

Type: In Person Telephone Email Other: Click or tap here to enter text.

Location: Site Work/Office Home Other: Click or tap here to enter text.

Contact Made By:

Name: Wesley March

Title: Remedial Project
Manager

Organization: EPA Region 7

Individual Contacted:

Name: Shelly Nellesen

Title: Env. Sp. Sr.

Organization: Iowa DNR

Telephone No: 515-669-5494

E-Mail Address: shelly.nellesen@dnr.iowa.gov

Street Address: Wallace State Office Bldg, 502 E 9th St.

City, State, Zip: Des Moines, IA 50319-0034

Summary of Conversation

1. What is your overall impression of the project (general sentiment)?

Although contamination remains onsite, the risks are mainly handled with an EC. There may be some question of future monitoring requirements at the site. In my time as the Iowa DNR Project Manager, there have been no complaints or safety concerns raised.

2. What effects have the site operations had on the surrounding community?

None to my knowledge.

3. Are you aware of any community concerns regarding the site or its operation and administration? If so, please give details.

No

4. Are you aware of any events, incidents, or activities at the site such as vandalism, trespassing, or emergency response from local authorities? If so, please give details.

No.

5. Do you feel well-informed about the site's activities and progress?

This site is newly assigned to me. However, I have had quarterly meetings with EPA that included discussion of White Farm Equipment. I do feel well-informed about activities and progress.

6. Do you have any comments, suggestions, or recommendations regarding the site's management or operation?

From past meetings with EPA, it would seem that the regulatory future management of the site needs to be discussed between the State and the EPA.

7. Any other general comments?

No.

APPENDIX F— FIGURES

Appendix F
Figures
White Farm Equipment Co Dump
6th Five Year Review

Figure 1 - Site Location



Appendix F Figures White Farm Equipment Co Dump 6th Five Year Review

Figure 2 – 2023 Monitoring Well Locations

