



Univar USA, Inc.

Site Management Plan

Woods Cross Facility
Woods Cross, Utah

September 26, 2016



SITE MANAGEMENT PLAN

**SITE MANAGEMENT
PLAN**

Woods Cross Facility

Woods Cross, Utah

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ACRONYMS AND ABBREVIATIONS

1,1-DCE	1,1- dichloroethene
1,1,1-TCA	1,1,1-trichloroethane
Arcadis	Arcadis U.S., Inc.
bgs	below ground surface
BTEX	benzene, toluene, ethylbenzene, and total xylenes
CAP	Draft Corrective Action Plan
cis-1,2-DCE	cis-1,2-dichloroethene
COPC	constituent of potential concern
HHRA	Human Health Risk Assessment
MCL	Maximum Contaminant Level
PCE	tetrachloroethene
ROI	Report of Investigation
site	East Lot, Back Dock, and West Parking Lot areas of the Woods Cross Facility, located at 2465 South 1100 West, Woods Cross, Utah
SMP	Site Management Plan
Supplemental ROI	Supplemental Report of Investigation
SVE	soil vapor extraction
UDEQ	Utah Department of Environmental Quality
Univar	Univar USA, Inc.
USEPA	United States Environmental Protection Agency
VC	vinyl chloride
VCP	Voluntary Cleanup Program
VOC	volatile organic compound
Westwater	Westwater Consulting, Inc.

1 INTRODUCTION

On behalf of Univar USA, Inc. (Univar), Arcadis U.S., Inc. (Arcadis) prepared this Site Management Plan (SMP) for the East Lot, Back Dock, and West Parking Lot areas of the Woods Cross Facility, located at 2465 South 1100 West, Woods Cross, Utah (site; Figure 1). The site was originally developed in 1963 as a ChemCentral Facility for chemical packing and distribution. Univar acquired ChemCentral in October 2007. Today, Univar maintains chemical packaging and distribution operations at the site. The site layout, including the site areas addressed in this SMP, is shown on Figure 2.

The site management actions described in this SMP are designed to control exposure to chemical constituents that may remain in soil and/or groundwater beneath portions of the site such that potential human health risks from these constituents are maintained within the acceptable range for continued use as an industrial facility. This SMP is pursuant to Stipulation and Consent Agreement No. 0802006, which governs corrective action at the site. In addition, this SMP was prepared as requested by the Utah Department of Environmental Quality (UDEQ) following their approval (UDEQ 2016) of the Human Health Risk Assessment (HHRA), which was submitted as Appendix D to the Supplemental Report of Investigation (Supplemental ROI; Arcadis 2015). The UDEQ's letter (UDEQ 2016) also approved the application for waiver of an ecological risk assessment for the site, which was included in the HHRA (Arcadis 2015).

1.1 Scope

Under Utah Administrative Code Rule 315-101, a facility may choose to perform a risk assessment assuming unrestricted land use, or under current and likely future land use conditions. Univar opted to evaluate the Woods Cross Facility under current and likely future land use conditions (industrial). Four areas on site were evaluated in the HHRA (Arcadis 2015; Figure 2):

- *East Lot.* Vacant lot east and hydraulically upgradient of the Univar chemical handling facilities.
- *Back Dock.* Encompasses the loading dock behind the warehouse as well as an area adjacent to the main building that includes a paint booth.
- *Tank Farm/Truck Transfer Area/North Dock Area.* Includes a bermed area with several large chemical storage tanks, a facility for pumping chemicals into trucks, and the loading dock on the north side of the facility.
- *West Parking Lot.* Hydraulically downgradient area on site.

This SMP addresses three of the four areas evaluated in the HHRA (Arcadis 2015) where corrective actions were not recommended, including the East Lot, Back Dock, and West Parking Lot areas. The fourth area evaluated in the HHRA (Arcadis 2015), the Tank Farm/Truck Transfer Area/North Dock Area, was recommended for corrective action and is addressed in a separate Corrective Action Plan (CAP; Arcadis 2016a).

1.2 Objectives

This SMP is based on the results of the HHRA (Arcadis 2015), which did not identify significant risks to human health under current and continued future use as an industrial facility in three areas of the site (East Lot, Back Dock, and West Parking Lot). This SMP describes the controls and restrictions necessary to maintain risk levels within the acceptable range for continued industrial use.

2 SITE BACKGROUND

This section summarizes historical site activities and the site geology and hydrogeology.

2.1 Site History

The site is located in a mostly industrial area in Woods Cross, Utah, as shown on Figure 2. Two residential lots are located across a road to the west of the site. The Univar Facility is a chemical distribution plant that repackages bulk chemicals into smaller containers for distribution. Univar currently maintains active chemical distribution operations at the site. Historically, chemicals were handled in the following areas of the facility:

- Truck and rail car transfer areas
- Tank farm
- Pump house where chemicals are transferred to smaller containers
- Warehouse area
- Dock areas
- Former acid room.

The locations of these chemical handling areas and the general layout of the site are shown on Figure 2.

Subsurface contaminant impacts were initially detected on site in June 2001 (when ChemCentral operated the facility on site) by ConocoPhillips during a routine sampling event to monitor petroleum releases from the adjacent ConocoPhillips Site (now the Phillips 66 Site). The impacts detected were constituents in groundwater samples collected from wells located downgradient of the former ChemCentral Facility that were not consistent with known contamination originating from the ConocoPhillips Site (a petroleum bulk storage facility). ConocoPhillips installed a groundwater pump and treat system at the downgradient edge of their property (and the upgradient edge of the site) that became operational in August 2008. The system was designed to prevent the continued migration of petroleum compounds away from the ConocoPhillips Property. Although this system has been operational since it was installed in 2008, petroleum hydrocarbon impacts migrating from the upgradient property remain evident under the site.

From March 2003 through October 2007, Univar participated in the UDEQ's Voluntary Cleanup Program (VCP). However, participation in the VCP was terminated in 2007 and the site was entered into a Stipulation and Consent Agreement (No. 0802006) with the Utah Solid and Hazardous Waste Control Board on October 22, 2009 (UDEQ 2009).

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In 2010, the Report of Investigation (ROI) was submitted to the UDEQ (Westwater Consulting, Inc. [Westwater] 2010a). The ROI summarizes environmental investigations conducted at the site through 2010, as well as the site and regulatory history. In 2015, a Supplemental ROI (Arcadis 2015) was submitted to the UDEQ, summarizing additional environmental investigations performed since submittal of the ROI (Westwater 2010a) and includes results of the HHRA.

2.2 Site Geology and Hydrogeology

The geology at the site consists of fill material (sandy, silty gravel material) from surface to approximately 5 feet below ground surface (bgs). The fill material was brought to the site to help raise the surface elevation above the shallow water table. Native material occurs beneath the fill material and consists of fine-grained inorganic silt and clay as well as silty and clayey sands. These materials extend from near surface (approximately 5 feet bgs) to at least 30 feet bgs, which is the maximum depth explored during the site investigations.

Groundwater occurs at a shallow depth in an unconfined aquifer beneath the site. Historical groundwater elevation data show seasonal fluctuation in the shallow water table, with an average variation in water levels beneath the site of approximately 7 feet between 2002 and 2015. Groundwater elevations at the site indicate a hydraulic gradient of approximately 0.013 foot per foot toward the west-southwest. The groundwater flow direction observed at the site is consistent with the regional groundwater flow, which is to the southwest toward the Jordan River. A deeper confined aquifer is separated from the shallow aquifer beneath the site by fine-grained sediment, which forms discontinuous confining layers. The deeper aquifer is usually located from 300 to 1,000 feet bgs (Westwater 2010a).

3 SITE RISK

As described in the HHRA (Arcadis 2015), the site was divided into four areas for evaluation: East Lot, Back Dock, West Parking Lot, and Tank Farm/Truck Transfer Area/North Dock Area. In addition, the HHRA (Arcadis 2015) evaluates potential risks to two homes located adjacent (west) and hydraulically downgradient from the site where constituents migrated onto the residential properties in groundwater. The assumed land use was industrial for the site and residential at the two homes located immediately downgradient from the site. Table 1 summarizes cancer risk and hazard index estimates from the HHRA (Arcadis 2015). The HHRA (Arcadis 2015) concludes that there are no unacceptable risks to current workers or residents; however, corrective action was recommended in the Tank Farm/Truck Transfer Area/North Dock Area to protect future site workers, construction workers, and utility workers, and to prevent potential further degradation of groundwater. Most of the potential future risk calculated for a site worker was derived from vapor intrusion and, in assessing potential risks, it was assumed that a small, future building with less ventilation than currently exists would be constructed. Corrective action at the Tank Farm/Truck Transfer Area/North Dock Area is described in the CAP (Arcadis 2016a).

Vapor intrusion is the only complete exposure pathway for residents located downgradient from the site, because the residents are currently connected to the municipal supply and do not obtain drinking water from the shallow aquifer. Current risks are *de minimis*. However, in the unlikely event that shallow groundwater is used as a source of tap water in the future, the risk would exceed the acceptable risk

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range (Table 1). Based on these results, shallow groundwater would not make a suitable domestic water supply.

Based on the results presented in the HHRA (Arcadis 2015), conditions at the site are acceptable for industrial uses, although corrective action will be implemented at the Tank Farm/Truck Transfer Area/North Dock Area to reduce potential future risks. Current risks are also acceptable to downgradient residents. Appropriate site management controls are necessary to maintain these acceptable risks, including restrictions on land use and the use of shallow groundwater as discussed in Section 4 of this SMP.

3.1 Remaining Impacts in Soil

Historically, volatile organic compounds (VOCs) and petroleum hydrocarbons have been detected in soil at the site; however, soil impacts observed in the areas of the East Lot, Back Dock, and West Parking Lot are minimal and do not pose a current risk to human health. Greater soil impacts are limited to the Tank Farm/Truck Transfer Area/North Dock Area where corrective action is planned. Soil impacts in this area also appear to be the source of groundwater contamination originating from the site. Compounds identified in the site HHRA responsible for a potential future vapor intrusion risk assuming a small, poorly ventilated building is constructed in the Tank Farm/Truck Transfer Area/North Dock Area include the following:

- PCE
- TCE
- 1,2,4-Trimethylbenzene
- 1,3,5-Trimethylbenzene
- Ethylbenzene
- Total xylenes

Previous pilot-scale testing indicates that soil vapor extraction (SVE) is a viable corrective action alternative to reduce these soil impacts (Arcadis 2015). The CAP discusses the design, construction, and operation of the SVE system planned for the Tank Farm/Truck Transfer Area/North Dock Area (Arcadis 2016a).

3.2 Remaining Impacts in Groundwater

Historically, VOCs and petroleum hydrocarbons have been detected in groundwater at the site. VOCs detected at concentrations greater than the United States Environmental Protection Agency (USEPA) Regional Screening Level Maximum Contaminant Levels (MCLs) (USEPA 2016) are limited to the following 12 compounds and are identified as the groundwater constituents of potential concern (COPCs) for the site:

- Tetrachloroethene (PCE)
- Trichloroethene

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- cis-1,2-Dichloroethene (cis-1,2-DCE)
- Vinyl chloride (VC)
- 1,1,1-Trichloroethane (1,1,1-TCA)
- 1,1-Dichloroethene
- 1,2-Dichloroethane
- Dichloromethane
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX).

Historical data collected at the site as well as at the neighboring Phillips 66 Property indicate that a BTEX plume originates off site at the Phillips 66 Property and flows in a west-southwest direction on site where it combines with a chlorinated solvent and a separate BTEX plume. The BTEX plumes under the site are differentiated in that the plume originating at the Phillips 66 Property is primarily benzene while the site BTEX plume is dominated by toluene. Figure 3 shows the general plume distributions at the site. This understanding is based on the soil and groundwater investigation activities that have been conducted at the site since 2001 as well as the recent SVE pilot test conducted in 2014. Historical groundwater quality trends at the site support that both the toluene and chlorinated VOC impacts at the site originate in the Truck Transfer/Tank Farm/North Dock Area.

In general, the maximum concentrations of COPCs in groundwater continue to be measured downgradient from the Tank Farm/Truck Transfer Area/North Dock Area and along the southern site boundary (the Phillips 66 Property benzene plume). However, chlorinated VOC concentrations attenuate significantly downgradient (west) of the site and are observed to be generally decreasing through time. Overall, chlorinated VOC parent compounds (e.g., PCE and 1,1,1-TCA) are greatly reduced and intermediate daughter products, especially cis-1,2-DCE and VC, are observed during groundwater monitoring events.

4 SITE MANAGEMENT PLAN

The following site management actions are designed to control site risks by minimizing the potential for exposure to chemical constituents that may remain in the East Lot, Back Dock, and West Parking Lot areas of the site. Any proposed modification to the requirements of the SMP will require UDEQ approval.

4.1 Land Use Restrictions

The site is located in an area zoned I-2 for industrial land use. As such, the current zoning prohibits residential land use. Additional land use restrictions will be imposed to continue to prevent residential development and ensure that the site is used solely for appropriate industrial use in the future. These restrictions will be imposed and enforced on the current and subsequent property owners through an Environmental Covenant placed on the title of the property. A copy of the Environment Covenant for the property is included as Appendix A. The site will be subject to land use restrictions until such time as the remaining level of risk is sufficiently reduced to the point that site management requirements may either be reduced or eliminated

4.2 Groundwater Use Restrictions

As previously stated, groundwater in the shallow aquifer beneath the site contains elevated concentrations of VOCs and petroleum hydrocarbon constituents (related to both on-site operations and off-site contaminant sources that are not related to on-site operations). In the future, if groundwater from the shallow aquifer beneath the site is extracted for use without suitable treatment, undesired exposure to contaminants could occur. Therefore, a groundwater restriction will be put in place to prevent use of groundwater from the shallow aquifer beneath the site. The property owner may petition to modify or remove the restriction on groundwater use if an evaluation of groundwater monitoring results demonstrates a decrease of contaminants to concentrations that do not pose a significant potential health risk.

4.3 Additional Contingent Exposure Controls

Under current and future conditions, no additional controls beyond the land use and groundwater use restrictions identified above are required to maintain risk levels within the acceptable range for continued industrial use. However, if certain conditions change at specific areas of the site, it may be appropriate to consider additional exposure controls.

In each of the three areas addressed in this SMP (East Lot, Back Dock, and West Parking Lot areas), the most significant risk identified during the risk assessment was indoor air risk to future site workers (Table 1). This was identified highest at the Back Dock, where the estimated potential future cancer risk was 2×10^{-5} and the hazard index was 1. No additional contingent controls are required for current workers at this location; however, if a new smaller building is planned for construction in this area in the future, it would be appropriate to further evaluate and address the potential for vapor intrusion. Vapor mitigation, if needed, could include building design controls (e.g., inclusion of vapor barriers or venting systems).

A possible future exposure pathway at this site may be vapor intrusion into a utility construction trench. Shallow groundwater infiltration into the trench, followed by inhaling constituents that volatilize from the groundwater could also occur. For these pathways, it would be appropriate to address the potential hazardous in a health and safety plan specific to utility trench construction, including monitoring for potential inhalation hazards during trench construction.

4.4 Enforcement

The site management requirements identified above will be the responsibility of the property owner pursuant to an Environmental Covenant. A site legal description is included in Appendix B and a copy of the Environmental Covenant is included as Appendix A. Following approval of this SMP, the property owner will file and record the Environmental Covenant, providing notice of its obligations concerning access and site management requirements on the property. Additionally, effective the date that the Environmental Covenant is recorded in the Davis County Recorder's Office, each deed, title, or other instrument of conveyance that conveys an interest in the property and is executed by the property owner or its successors in title to the property will include a notice stating that the property is subject to the SMP. The site management requirements are intended to follow the title to the land in perpetuity unless subsequent determinations by the UDEQ or its successors indicate that the remaining level of risk on site is sufficiently low that the site management requirements may either be reduced or eliminated.

4.5 Site Security

The site is a secured industrial facility. Vehicle and visitor access to the site is controlled by a security fence. Vehicles enter the site from the public road on the west side of the site only, through a locked gate. The gate is open only during business hours when the facility is staffed. Visitor entry to the site is through the office area adjacent to the public road and all visitors are required to present identification and sign in. Active industrial properties that include similar security fencing border the north and south sides of the site. The east side of the site is bordered by an active rail line with a locked gate at the rail spur that enters the site. East of the rail line is another secured industrial property (the Phillips 66 Property).

4.6 Site Access

Upon request by the UDEQ, the property owner shall provide the UDEQ and its authorized representatives with access at reasonable times to the property for purposes of monitoring and observing activities carried out under this SMP. To the extent that the UDEQ and its authorized representatives conduct activities on the property, they will use reasonable efforts to comply with the property owner's security needs and requirements and will conduct such activities to cause the least amount of disruption to the use of the affected portion of the property as reasonable possible. These individuals shall conduct themselves in a safe and prudent manner in accordance with the health and safety standards of the UDEQ and with any additional protocols as required by the property owner's operations.

5 GROUNDWATER MONITORING

Groundwater monitoring will be conducted to monitor VOC concentrations at key monitoring wells on site and at downgradient locations west of the site. The objective of groundwater monitoring will be to evaluate changes that may occur in site COPC concentrations resulting from corrective actions planned on site and actions that may occur to reduce or eliminate the benzene plume sourced on the upgradient Phillips 66 Property. Details of monitoring locations and procedures, data evaluation, and a schedule for implementation and reporting are presented below.

5.1 Monitoring Locations and Procedures

Groundwater monitoring will be conducted annually during the third quarter of the year at 10 monitoring wells. The 10 wells (GP-07, GP-08, MW-02, MW-03, MW-12, MW-16, MW-19, MW-29, MW-30, and MW-31) are identified on Figure 3 and in Table 2. Additional wells may also be included in the annual monitoring event at the discretion of the property owner. Each monitoring well will be gauged for water levels and sampled for field parameters (pH, specific conductivity, dissolved oxygen, oxidation-reduction potential, and temperature) and VOCs (USEPA Method SW8260B). Groundwater sampling and analysis will be conducted in accordance with the Sampling and Analysis Plan and Quality Assurance Plan (Westwater 2010b) and field sampling activities will be conducted in accordance with the existing Site-Specific Health and Safety Plan (Arcadis 2016b).

5.2 Data Evaluation

Groundwater monitoring data evaluation will include assessing both groundwater elevation and chemistry results. Groundwater elevation data will be used to prepare the following:

- A table documenting annual groundwater elevation measurements from each well and showing a comparison with previous groundwater elevation measurements.
- A potentiometric surface map.
- Hydrographs for each monitoring well.

The potentiometric surface map will be used to demonstrate the groundwater flow direction and evaluate consistency with the flow direction observed during historical investigations (west-southwest). The hydrographs will be used to evaluate whether long-term trends in groundwater elevation are evident.

Groundwater chemistry data will be used to prepare the following:

- A table documenting COPC concentrations detected in samples from each monitoring well and showing a comparison with previous analytical results.
- Plume maps showing the estimated distribution of key COPCs best representing groundwater quality at the site, including cis-1,2-DCE, VC, benzene, and toluene.
- Time-concentration graphs by monitoring well of the key COPCs.

The time-concentration graphs will be used to qualitatively evaluate trends in concentrations of the key COPCs. Summary statistics will be computed to compare the concentrations of each COPC to their MCL. Specifically, a Mann-Kendall Test in conjunction with Sen's Slope Estimator will be performed for each COPC in each monitoring well to assess if there is a statistically decreasing trend in concentrations. A linear regression will be conducted to estimate when the MCL may be met. Groundwater monitoring may be revised or eliminated based on trend analysis, the summary statistics, and agreements that may be made between the UDEQ and the property owner and/or its successors.

5.3 Schedule for Implementation and Reporting

The groundwater monitoring program detailed above will be implemented during the third quarter each year upon approval of this SMP by the UDEQ. Annual monitoring is preferred to eliminate the seasonal variation in COPC concentrations historically observed to facilitate long-term trend analysis and statistical evaluation. The third quarter (Fall) is selected to match when groundwater elevations are typically low and COPC concentrations have historically been at their greatest. An annual groundwater monitoring report will be prepared and submitted to the UDEQ within 60 days following the end of each calendar year. The annual groundwater monitoring report will also summarize the results of SVE system performance monitoring as described in the CAP (Arcadis 2016a). Pursuant to Stipulation and Consent Agreement No. 0802006, UDEQ will be provided notice of at least seven days prior to any field activity at the site, including the annual groundwater sampling event.

6 REFERENCES

- Arcadis. 2015. Supplemental Report of Investigation, Univar USA, Inc. Woods Cross Facility, Woods Cross, Utah. October.
- Arcadis. 2016a. Corrective Action Plan, Univar USA, Inc. Woods Cross Facility, Woods Cross, Utah. September 26.
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- USEPA. 2016. Regional Screening Level Generic Summary Table. May.
- Westwater. 2010a. Report of Investigation, Univar USA, Inc. Woods Cross Facility, Woods Cross, Utah. April.
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TABLES



Table 1
Summary of Cancer Risk and Hazard Index Estimates
Site Management Plan
Univar USA Inc., Woods Cross Facility
Woods Cross, Utah

Location	Receptor	Current or Future	Exposure Medium	Cancer Risk	Hazard Index
East Lot	Site Worker	Future	Soil	8E-11	0.00001
			Indoor Air	3E-06	0.2
			Total	3E-06	0.2
	Construction Worker	Future	Soil	3E-10	0.002
Back Dock	Site Worker	Current	Soil	2E-06	0.02
		Future	Soil	8E-06	0.05
			Indoor Air	2E-05	1
	Total	2E-05	1		
	Construction Worker	Future	Soil	1E-06	0.2
West Parking Lot	Site Worker	Current	Soil	3E-06	0.02
		Future	Soil	3E-06	0.02
			Indoor Air	2E-06	0.09
	Total	5E-06	0.1		
	Construction Worker	Future	Soil	5E-07	0.06
Tank Farm/Truck Transfer Area/North Dock Area	Site Worker	Current	Soil	1E-06	0.06
		Future	Soil	5E-06	0.1
			Indoor Air	5E-04	97
	Total	5E-04	97		
	Construction Worker	Future	Soil	4E-06	17
Downgradient	Resident	Current	Indoor Air	8E-07	0.2
		Future	Groundwater	1E-02	116

Notes:

Tank Farm/Truck Transfer Area/North Dock Area future indoor air risk is addressed in the separate Corrective Action Plan.

Downgradient resident future groundwater risk assumes use a domestic water supply. Currently, the residents are connected to the municipal supply and there is no expectation that they will obtain drinking water from the shallow aquifer in the future.

Table 2
Groundwater Sampling Plan
Univar USA Inc.
Woods Cross Facility
Woods Cross, Utah

Monitoring Well Location	Sampling Frequency	Gauge Water Level	Field Parameters ¹	VOCs
GP-07	Annually during third quarter	X	X	X
GP-08	Annually during third quarter	X	X	X
MW-02	Annually during third quarter	X	X	X
MW-03	Annually during third quarter	X	X	X
MW-12	Annually during third quarter	X	X	X
MW-16	Annually during third quarter	X	X	X
MW-19	Annually during third quarter	X	X	X
MW-29	Annually during third quarter	X	X	X
MW-30	Annually during third quarter	X	X	X
MW-31	Annually during third quarter	X	X	X

Notes:

¹ Field parameters include pH, specific conductivity, dissolved oxygen, oxidation-reduction potential, and temperature.

VOC = volatile organic compounds (analyzed by United States Environmental Protection Agency Method SW8460B)

FIGURES



CITY: (DEN_TECH) DIV/GROUP: (ENV/GIS) LD: (B-ALTM) PIC: (J-WHITNEY) PM: () TM: (K-HEINZE)
PROJECT: AZ009001.0003.0300A PATH: W:\GIS\PROJECTS_ENV\UNIVAR\WOODS_CROSS\MXD\2016\SITE MANAGEMENT PLAN\FIG 1 VICINITYMAP.MXD SAVED: 5/4/2016 BY: BGRIFITH



PROJECTION: NAD 1983 STATEPLANE UTAH NORTH FIPS 4301 FEET

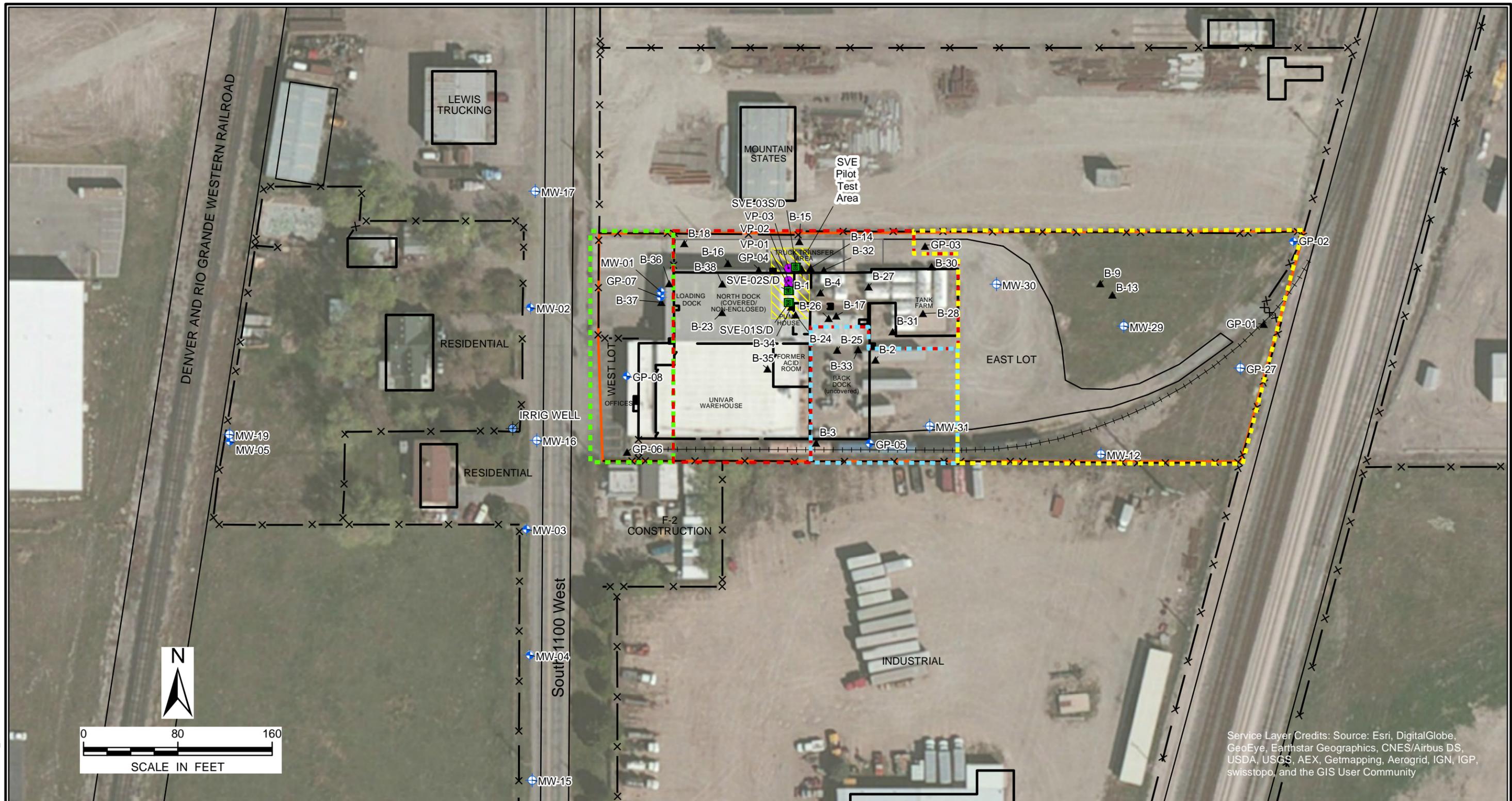
Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

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WOODS CROSS FACILITY, WOODS CROSS, UTAH
SITE MANAGEMENT PLAN
SITE VICINITY MAP



FIGURE
1

CITY: (DEN_TECH) DIV/GROUP: (ENV/GIS) LD: (B.BALTO) PIC: (J.WHITNEY) PM: () TM: (K.HEINZE)
 PROJECT: A2009001.0003.0300A PATH: W:\GIS\PROJECTS\LENNIVARWOODS\CROSSM\XD2016\SITE MANAGEMENT PLAN\FIG 2 SITEPLAN.MXD DATE: 5/24/2016 TIME: 4:11:35 PM SAVED: 5/24/2016 BY: BGRIFITH



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LEGEND

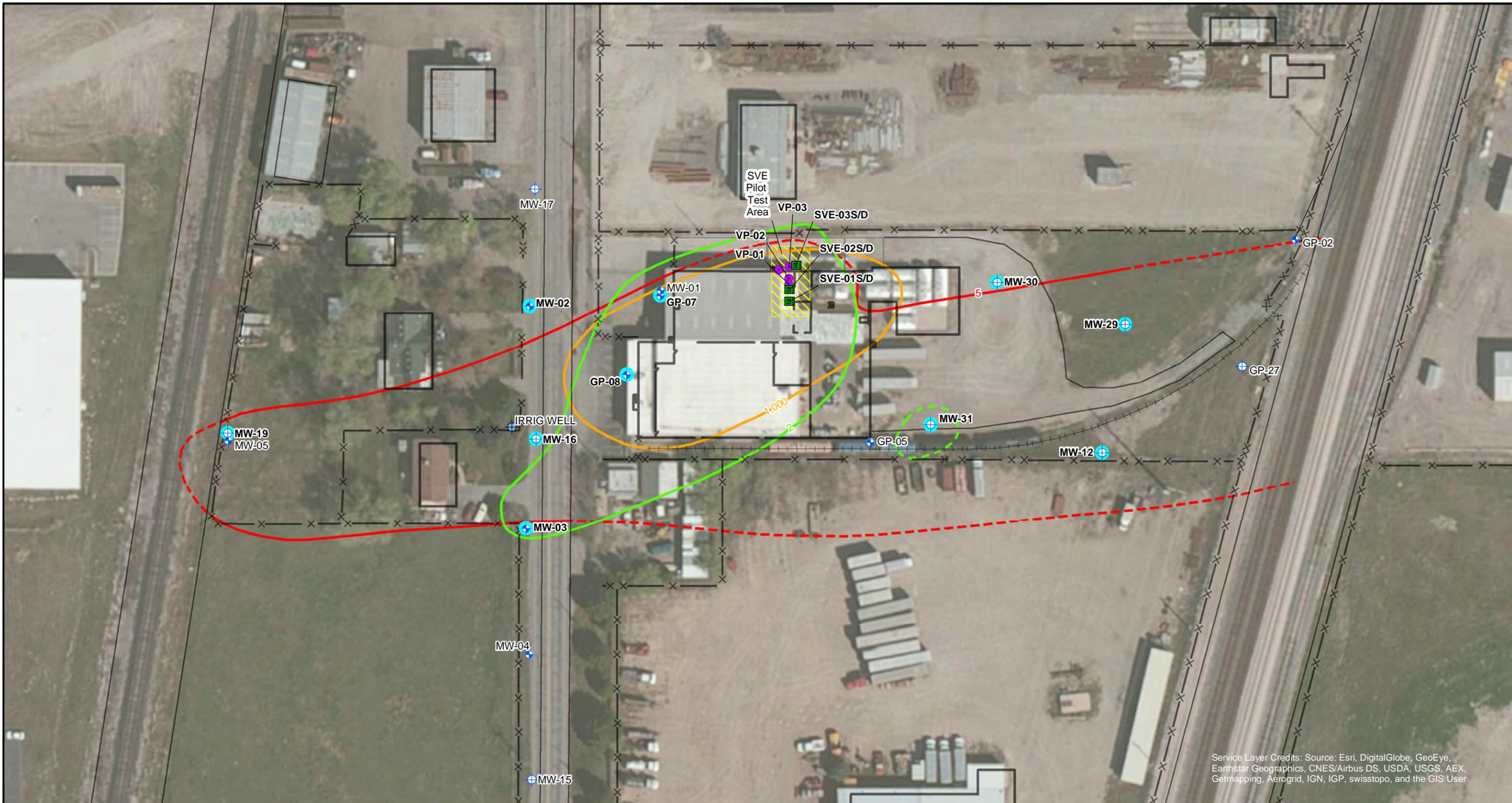
- Monitoring Well
- Monitoring Well Installed by Conoco Phillips
- Irrigation Well
- Soil Boring Location
- Soil Vapor Extraction Location
- Vapor Monitoring Location
- Building
- Concrete
- Site Boundary
- SVE Pilot Test Area
- Fence
- Rail Line
- West Parking Lot
- East Lot
- Back Dock Area
- Truck Transfer/Tank Farm Area/North Dock Area

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 WOODS CROSS FACILITY, WOODS CROSS, UTAH
SITE MANAGEMENT PLAN

SITE PLAN

FIGURE

CITY: (DEN TECH) DIV(GROUP): (ENV/GIS) LD: (B.ALTOM) PIC: (J.WHITNEY) PM: (J. TM: (K.HEINZE)
 PROJECT: A2009001.0003.0300A PATH: Z:\GIS\PROJECTS\ENV\UNIVAR\WOODS CROSS\MXD\2016\16\SITE MANAGEMENT PLAN\FIG_3_COMBINED_VC_BENZENE_TOLUENE_GW_2016.MXD SAVED: 9/14/2016 BY: KKELLEY



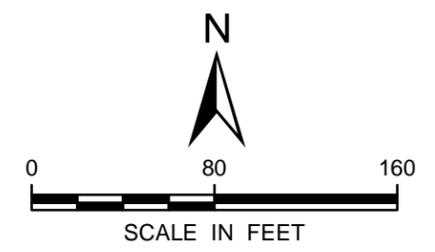
Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User

LEGEND

- Monitoring Well
- Monitoring Well Installed by Conoco Phillips
- Irrigation Well
- Soil Vapor Extraction Location
- Vapor Monitoring Location
- SVE Pilot Test Area
- Isoconcentration Contour (dashed where inferred).
- Benzene Note: Contours are generalized based on historical sampling results.
- Toluene Note: Contours are generalized based on historical sampling results.
- Wells designated for groundwater monitoring program

NOTES:
 1) MCL = Maximum Contaminant Level

CONSTITUENT		MCL (µg/L)
VC	Vinyl Chloride	2
BENZENE	Benzene	5
TOLUENE	Toluene	1000



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 WOODS CROSS FACILITY, WOODS CROSS, UTAH
SITE MANAGEMENT PLAN

**GROUNDWATER MONITORING
 PLAN AND GENERALIZED
 ISOCONCENTRATIONS MAP**

ARCADIS

FIGURE
3

APPENDIX A

Environmental Covenant¹

¹ The Environmental Covenant will be included with the final version of this SMP, following public comment.

APPENDIX B

Site Legal Description²

² The site legal description will be included with the final version of this SMP, following public comment