CZ-087-70607 8.1

FINAL

DOCUMENTATION OF ENVIRONMENTAL INDICATOR DETERMINATION

Interim Final 2/5/99
Revised 9/20/02

RCRA Corrective Action
Environmental Indicator (EI) RCRA Info code (CA725)
Current Human Exposures Under Control

Facility Name: Univar USA Inc (Former Van Waters & Rogers)
Facility Address: 2041 North Mosley Avenue, Wichita, Kansas
Facility EPA ID #: KSD000809715

DETERMINATION RESULT: YES

1. Has **all** available relevant/significant information on known and reasonably suspected releases to soil, groundwater, surface water/sediments, and air, subject to RCRA Corrective Action (e.g., from Solid Waste Management Units (SWMU), Regulated Units (RU), and Areas of Concern (AOC)), been **considered** in this EI determination?

   X If yes - check here and continue with #2 below.

   ____ If no - re-evaluate existing data, or

   ____ If data are not available skip to #6 and enter "IN" (more information needed) status code.

BACKGROUND

Definition of Environmental Indicators (for the RCRA Corrective Action)

Environmental Indicators (EI) are measures being used by the RCRA Corrective Action program to go beyond programmatic activity measures (e.g., reports received and approved, etc.) to track changes in the quality of the environment. The two EI developed to-date indicate the quality of the environment in relation to current human exposures to contamination and the migration of contaminated groundwater. An EI for non-human (ecological) receptors is intended to be developed in the future.

Definition of "Current Human Exposures Under Control" EI

A positive "Current Human Exposures Under Control" EI determination ("YE" status code) indicates that there are no "unacceptable" human exposures to "contamination" (i.e., contaminants in concentrations in excess of appropriate risk-based levels) that can be reasonably expected under current land- and groundwater-use conditions (for all "contamination" subject to RCRA corrective action at or from the identified facility (i.e., site-wide)).

Relationship of EI to Final Remedies

While Final remedies remain the long-term objective of the RCRA Corrective Action program the EI are near-term objectives which are currently being used as Program measures for the Government Performance and Results Act of 1993, GPRA). The "Current Human Exposures Under Control" EI are for reasonably expected human exposures under current land- and groundwater-use conditions ONLY, and do not consider potential future land- or groundwater-use conditions or ecological receptors. The RCRA Corrective Action program's overall mission to protect human health and the environment requires that Final remedies address these issues (i.e., potential future

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human exposure scenarios, future land and groundwater uses, and ecological receptors).

Duration / Applicability of EI Determinations

EI Determinations status codes should remain in RCRA Info national database ONLY as long as they remain true (i.e., RCRA Info status codes must be changed when the regulatory authorities become aware of contrary information).

2. Are groundwater, soil, surface water, sediments, or air **media** known or reasonably suspected to be **"contaminated"**[1] above appropriately protective risk-based "levels" (applicable promulgated standards, as well as other appropriate standards, guidelines, guidance, or criteria [e.g., Maximum Contaminant Levels (MCLs), the maximum permissible level of a contaminant in water delivered to any user of a public water system under the Safe Drinking Water Act] from releases subject to RCRA Corrective Action (from SWMUs, RUs or AOCs)?

Media	**Yes**	**No**	**?**	**Rationale/Key Contaminants**
Groundwater	X			TCE and Vinyl Chloride were above MCLs in the most recent sampling event (February 2013)
Air (indoors)[2]		X		An EPA preliminary evaluation of the vapor intrusion pathway was conducted based on the most recent groundwater data(February 2013). "Potential indoor air concentrations ranged from 0.73 ug/m3 to 5.65 ug/m3. Under an industrial scenario, concentrations of TCE in groundwater would have to exceed 40 ug/L to exhibit the potential for VI concerns in overlying structures. Based on these results a vapor intrusion investigation is not warranted in the site area." Additionally, the North Industrial Corridor Site-Wide Vapor Intrusion Assessment dated May 2012 evaluated vapor intrusion potential in the NIC of which Univar is a part. The report determined that "given the results from Phase2 analytical screening and Phase 3 indoor source evaluation and confirmation sampling, the multiple lines of evidence at the NIC Site indicate an absence of potentially unacceptable risk for the VI pathway.
Surface Soil (e.g., <2 ft)		X		TCE detections in surface soil were less than the Regional Screening Level for industrial (2.0 mg/kg) and residential (0.44 mg/kg) soils. TCE results were between non-detect and 0.15mg/kg. No other VOC constituents were detected. Technical Memorandum and Data Report (Revision 1) April 2006
Surface Water		X		No surface water at facility
Sediment		X		No sediment at facility
Subsurf. Soil (e.g., >2 ft)		X		TCE (or other VOC Constituents) was not detected in soil samples collected from between 7ft bgs and 11 ft bgs. Technical Memorandum and Data Report (Revision 1) April 2006
Air (outdoors)		X		The North Industrial Corridor Site-Wide Vapor Intrusion Assessment dated May 2012 evaluated outdoor air. No COPC exceeded their respective Tier 2 cleanup goals.

[1] "Contamination" and "contaminated" describes media containing contaminants (in any form, NAPL and/or dissolved, vapors, or solids, that are subject to RCRA) in concentrations in excess of appropriately protective risk-based "levels" (for the media, that identify risks within the acceptable risk range).

_____ If no (for all media) - skip to #6, and enter "YE," status code after providing or citing appropriate "levels," and referencing sufficient supporting documentation demonstrating that these "levels" are not exceeded.

_X_____ If yes (for any media) - continue after identifying key contaminants in each "contaminated" medium, citing appropriate "levels" (or provide an explanation for the determination that the medium could pose an unacceptable risk), and referencing supporting documentation.

_____ If unknown (for any media) - skip to #6 and enter "IN" status code.

Rationale and Reference(s): Administrative file (EPA/KDHE, et. al.) references used in this EI determination include: 1) Monitoring Natural Attenuation Report, July 30, 2013; 2) North Industrial Corridor Site-wide Vapor Intrusion Assessment, May 2012; 3) April 2012 Groundwater Sampling Data Submittal (former Van Waters & Rogers Inc.) Mosley Avenue, North Industrial Corridor, Wichita, Kansas, May 14, 2012; 4) 2009 Technical Memorandum UNIVAR USA Inc., (Formerly Van Waters and Rogers, Inc.) Mosley Avenue, North Industrial Corridor, Wichita, Kansas, July 2009; 5) Technical Memorandum and Data Report (Revision 1), UNIVAR USA Inc., Facility, April 2006; 6) Remedial Investigation Report (Revision 2), UNIVAR USA, Inc., August 2005; 7) Technical Memorandum and Data Report, December 2004 Groundwater Sampling, UNIVAR USA Inc., Facility, February 2005; 8) Revised Remedial Investigation Report, UNIVAR USA Inc., March 31, 2005; 9) Draft Remedial Investigation Report, Van Waters & Rogers Inc., Mosley Avenue Facility, Wichita, Kansas, March 29, 1999; and, 10) Attached charts and figures.

These reports show that the site has gone through various environmental investigation phases, collecting soil (near and subsurface) and several rounds of groundwater samples. These investigations include three iterations of the Remedial Investigation (RI) and various Technical Memoranda. TCE values historically have been above the Maximum Contaminate Level (MCL). Contaminants detected in groundwater include: I, 1-Dichloroethane (1, I-DCA), 1, 1-Dichloroethene (1, 1-DCE), Cis-I ,2-Dichloroethene (Cis-1 ,2-DCE), Tetrachloroethylene (PCE), Trichloroethene (TCE), and Vinyl chloride. In the most recent ground water sampling event (February 2013) the only parameters detected above MCLs were TCE (MCL =5.0 ug/L), ranging from a low of 3.0 micrograms per liter (ug/L) (below MCL) to a high of 23.1 ug/L, and vinyl chloride (MCL = 2ug/L) ranging from a low of 1.0 ug/L (below MCL) to a high of 5.1 ug/L. The 5.1 ug/L of vinyl chloride was in monitoring well MW-2S which is located on the upgradient property boundary. No other parameters were detected in the most recent groundwater sampling data above MCLs. Depth to water is approximately 13 feet below ground surface or an average elevation of 1230 feet above mean sea level. (Monitoring Natural Attenuation Report dated July 30, 2013)

3. Are there **complete pathways** between "contamination" and human receptors such that exposures can be reasonably expected under the current (land- and groundwater-use) conditions?

Summary Exposure Pathway Evaluation Table **Potential Human Receptors (Under Current Conditions)**							
"Contaminated" Media	Residents	Workers	Day-Care	Construction	Trespassers	Recreation	Food[3]
Groundwater	No	No	No	No	No	No	No
Air (indoors)	X	X	X	X	X	X	X
Soil (surface, e.g., <2 ft)	X	X	X	X	X	X	X
Surface Water	X	X	X	X	X	X	X
Sediment	X	X	X	X	X	X	X
Soil (subsurface e.g., >2 ft)	X	X	X	X	X	X	X
Air (outdoors)	X	X	X	X	X	X	X

Instructions for Summary Exposure Pathway Evaluation Table:

1. Strike-out specific Media including Human Receptors' spaces for Media which are not "contaminated") as identified in #2 above.

2. Enter "yes" or "no" for potential "completeness" under each "Contaminated" Media -- Human Receptor combination (Pathway).

Note: In order to focus the evaluation to the most probable combinations some potential "Contaminated" Media - Human Receptor combinations (Pathways) do not have check spaces ("___"). While these combinations may not be probable in most situations they may be possible in some settings and should be added as necessary.

_X_ If no (pathways are not complete for any contaminated media-receptor combination) - skip to #6, and enter "YE" status code, after explaining and/or referencing condition(s) in-place, whether natural or man-made, preventing a complete exposure pathway from each contaminated medium (e.g., use optional Pathway Evaluation Work Sheet to analyze major pathways).

_____ If yes (pathways are complete for any "Contaminated" Media - Human Receptor combination) - continue after providing supporting explanation.

_____ If unknown (for any "Contaminated" Media - Human Receptor combination) - skip to #6 and enter "IN" status code

[3]Indirect Pathway/Receptor (e.g., vegetables, fruits, crops, meat and dairy products, fish, shellfish, etc.)

Rationale and Reference(s): Administrative file (EPA/KDHE, et. al.) references used in this EI determination include: 1) Monitoring Natural Attenuation Report, July 30, 2013; 2) North Industrial Corridor Site-wide Vapor Intrusion Assessment, May 2012; 3) April 2012 Groundwater Sampling Data Submittal (former Van Waters & Rogers Inc.) Mosley Avenue, North Industrial Corridor, Wichita, Kansas, May 14, 2012; 4) 2009 Technical Memorandum UNIVAR USA Inc., (Formerly Van Waters and Rogers, Inc.) Mosley Avenue, North Industrial Corridor, Wichita, Kansas, July 2009; 5) Technical Memorandum and Data Report (Revision 1), UNIVAR USA Inc., Facility, April 2006; 6) Remedial Investigation Report (Revision 2), UNIVAR USA, Inc., August 2005; 7) Technical Memorandum and Data Report, December 2004 Groundwater Sampling, UNIVAR USA Inc., Facility, February 2005; 8) Revised Remedial Investigation Report, UNIVAR USA Inc., March 31, 2005; 9) Draft Remedial Investigation Report, Van Waters & Rogers Inc., Mosley Avenue Facility, Wichita, Kansas, March 29, 1999; 10) KDHE letter to Univar USA, November 9, 2011; and 11) Attached charts and figures.

Potential human receptors are not in contact with groundwater. The groundwater is not used for drinking water. Any final solution for the facility will include Environmental Use Controls to ensure continued protection of human health and the environment (KDHE letter to Univar USA Inc dated November 9, 2011).

4 Can the **exposures** from any of the complete pathways identified in #3 be reasonably expected to be **"significant"**[4] (i.e., potentially "unacceptable" because exposures can be reasonably expected to be: 1) greater in magnitude (intensity, frequency and/or duration) than assumed in the derivation of the acceptable "levels" (used to identify the "contamination"); or 2) the combination of exposure magnitude (perhaps even though low) and contaminant concentrations (which may be substantially above the acceptable "levels") could result in greater than acceptable risks)?

__NA__ If no (exposures cannot be reasonably expected to be significant (i.e., potentially "unacceptable") for any complete exposure pathway) - skip to #6 and enter "YE" status code after explaining and/or referencing documentation justifying why the exposures (from each of the complete pathways) to "contamination" (identified in #3) are not expected to be "significant."

__NA__ If yes (exposures could be reasonably expected to be "significant" (i.e., potentially "unacceptable") for any complete exposure pathway) - continue after providing a description (of each potentially "unacceptable" exposure pathway) and explaining and/or referencing documentation justifying why the exposures (from each of the remaining complete pathways) to "contamination" (identified in #3) are not expected to be "significant."

__NA__ If unknown (for any complete pathway) - skip to #6 and enter "IN" status code

Rationale and Reference(s):_____

[4]If there is any question on whether the identified exposures are "significant" (i.e., potentially "unacceptable") consult a human health Risk Assessment specialist with appropriate education, training and experience.

5 Can the "significant" **exposures** (identified in #4) be shown to be within **acceptable** limits?

__NA__ If yes (all "significant" exposures have been shown to be within acceptable limits) - continue and enter "YE" after summarizing and referencing documentation justifying why all "significant" exposures to "contamination" are within acceptable limits (e.g., a site-specific Human Health Risk Assessment).

__NA__ If no (there are current exposures that can be reasonably expected to be "unacceptable") - continue and enter "NO" status code after providing a description of each potentially "unacceptable" exposure.

__NA__ If unknown (for any potentially "unacceptable" exposure) - continue and enter "IN" status code

Rationale and Reference(s): _____

6. Check the appropriate RCRA Info status codes for the Current Human Exposures Under Control EI event code (CA725), and obtain Supervisor (or appropriate Manager) signature and date on the EI determination below (and attach appropriate supporting documentation as well as a map of the facility):

__X__ YES - Yes, "Current Human Exposures Under Control" has been verified. Based on a review of the information contained in this EI Determination, "Current Human Exposures" are expected to be "Under Control" at the **Univar USA Inc. (Former Van Waters & Rogers** facility, EPA ID # **KSD000809715**, located at **2041 North Mosley Avenue, Wichita, Kansas** under current and reasonably expected conditions. This determination will be re-evaluated when the Agency/State becomes aware of significant changes at the facility.

____ NO - "Current Human Exposures" are NOT "Under Control."

____ IN - More information is needed to make a determination.

Completed by (signature) _____ Date 9/18/13
(print) Amber Whisnant
(title) RCRA Project Manager

Supervisor (signature) _____ Date 9/19/13
(print) Jeff Johnson
(title) Chief, KNRP Section
(EPA Region or State) EPA Region 7

Locations where References may be found:

KDHE and EPA Region 7 Office

Contact telephone and e-mail numbers

(name) Amber Whisnant
(phone #) 913-551-7212
(e-mail) Whisnant.Amber@epa.gov

FINAL NOTE: THE HUMAN EXPOSURES EI IS A QUALITATIVE SCREENING OF EXPOSURES AND THE DETERMINATIONS WITHIN THIS DOCUMENT SHOULD NOT BE USED AS THE SOLE BASIS FOR RESTRICTING THE SCOPE OF MORE DETAILED (E.G., SITE-SPECIFIC) ASSESSMENTS OF RISK.

ATTACHMENTS

MEMORANDUM

SUBJECT: Vapor Intrusion Evaluation
Univar USA Inc., Wichita, KS

FROM: Dan Nicoski, Geologist
ENSV/EAMB

TO: Amber Whisnant, Project Manager
AWMD/CRIB

Per your request, a preliminary evaluation of the vapor intrusion pathway was conducted based on the most recent groundwater data (February 2013) from samples collected at site associated wells. As TCE is the primary contaminant of concern, concentrations for this constituent were used for the evaluation. I offer the following comments for your consideration. Should you have any questions, please contact me at x7230.

TCE concentrations from these samples were entered into EPA's Vapor Intrusion Screening Level calculator for this task. Two VISL constants were adjusted in the calculator; groundwater temperature and the target risk level. Based on purge parameters from the site wells, the average groundwater temperature was approximately 15°C. This value was used as a site-specific adjustment to the Henry's Law Constant. The VISL results are weighted against the VI carcinogenic risk level of 1E-05 and the VI hazard quotient of HI=1. The VISL calculator uses a 0.1 attenuation factor for sub-slab vapors.

TCE was detected in groundwater from several site associated wells. Concentrations in those wells ranged from 3.0 μg/L to 23.1 μg/L. These values were placed into the VISL calculator. TCE screening levels for potential VI concerns are as follows:

($\mu g/m^3$)	**Cancer** (1E-05)	**Non-cancer** (HI=1)
Residential	4.3	2.1
Industrial	30	8.8

Based on the above screening levels, the non-cancer value is the driver in risk management decisions. Potential indoor air concentrations ranged from 0.73 $\mu g/m^3$ to 5.65 $\mu g/m^3$. Under an industrial scenario, concentrations of TCE in groundwater would have to exceed 40 μg/L to exhibit the potential for VI concerns in overlying structures. Based on these results a VI investigation is not warranted in the site area.

The values generated by the VISL calculator represent one line of evidence. Mitigating factors to consider in the evaluation of these values include: depth to water, well screening interval (i.e. – groundwater collection depth), site geology (e.g. – silty clay vs. sandy material), building construction (e.g. – slab-on-grade, basement, etc.), slab integrity (e.g. – cracks and/or sumps), preferential pathways (e.g. – utility corridors), etc.

TCE concentrations in the deeper screened wells were detected at lower or similar concentrations detected in the shallower wells. Typically, the concentrations detected at the shallower depths are evaluated for potential VI concerns. The shallow wells at this site are screened across the water table. This is where the VOCs in the groundwater partition into the vadose zone and should represent the maximum levels in the vadose zone that could potentially impact overlying structures.

The depth to water in the site area is about 15 ft. The unconsolidated alluvial material that underlies the site consists of clay underlain by sand. The finer clayey material will impede soil vapor migration relatively more than the coarser sandy materials due to higher soil moisture, lower permeability and biodegradation.

The Univar area consists primarily of commercial/industrial buildings. The C/I structures are typically slab-on-grade. This extends the vertical distance between the groundwater and the structure which may increase potential attenuation of contaminated vapors. In addition, C/I slabs tend to be thicker and therefore offer greater attenuation; although this is based on slab integrity and utility penetrations.

Bureau of Environmental Remediation
Curtis State Office Building
1000 SW Jackson St., Suite 410
Topeka, KS 66612-1367

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Phone: 785.296.1673
Fax: 785.296.7030
mmorgan@kdheks.gov
www.kdheks.gov

Robert Moser, MD, Secretary

Department of Health & Environment

Sam Brownback, Governor

November 9, 2011

Mr. Tony Pirelli
UNIVAR USA, Inc
W205 N 6849 Woodward Court
Menomonee Falls, Wisconsin 53501

RE: Draft Feasibility Study, Former Van Waters and Rogers (UNIVAR) Site, Wichita, Kansas

Dear Mr. Pirelli;

The Kansas Department of Health and Environment (KDHE) and the United States Environmental Protection Agency (EPA) (reviewers) acknowledge receipt of the Draft Feasibility Study Report (FS Report) prepared by Environmental Project Management, LLC on behalf of UNIVAR, dated April 2011. KDHE and EPA have completed their review and offer the following comments.

1. UNIVAR is proposing in numerous portions of the text that any and/or all current site-impacts are from off-site sources. For the record, historical groundwater and soil data collected at the property document that there have been chlorinated solvent releases at the UNIVAR property (e.g., trichloroethene (TCE) concentrations up to 150 micrograms per kilogram (µg/kg) in soil and 760 micrograms per liter (µg/L) in groundwater). Please revise the FS to discuss historical data and potential site-related source areas.

2. While portions of the FS cite the most current version of the Risk-Based Standards for Kansas, RSK Manual (5th Version - October 2010), certain parts of the document reference obsolete versions of the RSK Manual. Please revise the FS to reference the current version of the RSK Manual (e.g., text, figures, calculations and tables).

3. As a note of clarification, KDHE observes that on page 14, Section 2.6 – Conceptual Site Model, the text states:

   "...the NIC [ed. Northern Industrial Corridor] completed an extensive Baseline Risk Assessment (BRA), approved by the KDHE, which included evaluations of the entire NIC area and each OU [ed. Operable Unit], including the area of the UNIVAR facility."

   This statement, while correct for the overall NIC area, it is not applicable specifically to the UNIVAR facility. The BRA did not specifically address risks posed by the UNIVAR facility. And for the record, the designations of groundwater units (GWUs) came after completion of the BRA. Please revise the text accordingly.

   Furthermore, KDHE considers a BRA to consist of an evaluation of individual and cumulative risk for the site/area without the benefit of engineering and/or institutional controls (ICs) (e.g., concrete parking areas acting as an informal cap restricting exposures) and that as such ICs are more appropriately considered as risk management technologies. Since UNIVAR's assessment of risk relies on impediments to exposure (e.g. paved areas) that are currently in place, UNIVAR should note in the text that should these controls change then the overall risk will need to be reevaluated and possibly the remedial alternative. Please revise the FS accordingly.

4. The vapor intrusion evaluation presented in Section 2.6 is not consistent with the *Kansas Vapor Intrusion Guidance* or fully representative of the ongoing NIC vapor intrusion assessment. As you may be aware, KDHE's guidance focuses on vapor intrusion under residential settings, and as such further evaluation of this pathway for the UNIVAR facility is not required at this time by KDHE. However, for accuracy, KDHE requests that UNIVAR revise the text to indicate that further assessment of the vapor intrusion pathway for the NIC site is ongoing.

5. Section 5.1.2 contains a list of applicable federal and state Applicable or Relevant and Appropriate Requirements (ARARs); however, the list is incomplete and does not specify whether the cited requirements are applicable, relevant and appropriate, or to be considered (TBC) guidance. Please review KDHE's Potential Applicable or Relevant and Appropriate Requirements Policy (BER-RS-015, available online at http://www.kdheks.gov/ber/policies/BER_RS_015.pdf) and provide an updated, complete and thorough table of ARARs and TBCs. UNIVAR will need to evaluate each remedial action alternative with respect to the comprehensive list of ARARs evaluated in the revised FS.

6. UNIVAR identifies Alternative 2 – Monitored Natural Attenuation (MNA) as the recommended alternative for the Site. However, although the observed concentration trends are promising, the existing data for this site do not meet the analytical or temporal requirements of KDHE's MNA Policy (BER-RS-042, available online at http://www.kdheks.gov/ber/policies/BER_RS_042.pdf) for evaluating the potential applicability of MNA. Specifically, the KDHE policy indicates that *four consecutive quarterly sampling episodes from the same wells are required, at a minimum, to begin to make* [a MNA] *evaluation*. To the extent MNA is retained as the recommended remedial alternative, KDHE requests that UNIVAR collect the data necessary to evaluate MNA consistent with the cited KDHE policy and EPA's *Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Groundwater* (EPA/600/R-98/128, available online at http://www.epa.gov/nrmrl/pubs/600R98128/protocol.pdf) to support the inclusion of MNA as a component of the overall remedial alternative for the Site prior to resubmittal of the FS. Please submit a letter work plan for conducting the MNA assessment within 45 days of the date of this letter. Finally, KDHE will require upfront identification of a contingent remedy should MNA (or other less-aggressive remedial approach(es)) not effectively control the contaminant plume. Please identify an appropriate contingency in the revised FS.

7. Given the contaminant concentrations encountered at the site and since some areas of the site (e.g., under buildings) have not been fully characterized, KDHE believes Environmental Use Controls (EUCs) are warranted to ensure continued protection of human health and the environment. Please revise the FS to include EUCs as a component of each remedial action alternative (except the no action alternative).

8. Figure 2: Please revise the figure to indicate the date when the presented data were collected.

KDHE requests that you provide a response to the comments presented above and the MNA assessment work plan, should UNIVAR retain MNA as the recommended remedial alternative, within 45 days of the date of this letter. Although FS revisions are required, as errata sheets possibly, KDHE requests that the revised FS be submitted upon completion of the MNA assessment, should UNIVAR retain MNA as the recommended alternative.

Please do not hesitate to contact me on my direct line at (785) 296-8986 or through electronic-mail at johncook@kdheks.gov if you desire to meet (telephonically) to discuss these comments.

Sincerely,

John K. Cook, L.P.G.
Professional Geologist
Remedial Section/Site Restoration Unit
Kansas Department of Health and Environment

cc: Chris Carey > J. K. Cook > File C2-087-70607
Amber Whisnant, USEPA, Region VII RCRA-CA Branch, WRAP/KNRP

TABLE 1
Soil Analytical Data
Univar - Mosley Avenue Facility, Wichita, Kansas

Soil Boring Location	Depth (ft)	Trichloroethene (TCE) (µg/kg)	Tier 2 TCE [1] Risk Value (µg/kg)	Methylene Chloride (MC) (µg/kg)	Tier 2 MC [1] Risk Value (µg/kg)
MW-1	7.5-8.5	ND	41,000 / 84.2	ND	149,000 / 42.9
	12.5-13.5	ND	41,000 / 84.2	ND	149,000 / 42.9
MW-2	4-5	ND	41,000 / 84.2	ND	149,000 / 42.9
	14-15	ND	41,000 / 84.2	ND	149,000 / 42.9
	18-19	ND	41,000 / 84.2	ND	149,000 / 42.9
MW-3	4-5	5.2	41,000 / 84.2	ND	149,000 / 42.9
	13-14	ND	41,000 / 84.2	ND	149,000 / 42.9
MW-3D	1-3	150	41,000 / 84.2	ND	149,000 / 42.9
	10-12	ND	41,000 / 84.2	ND	149,000 / 42.9
MW-4	4-5	ND	41,000 / 84.2	ND	149,000 / 42.9
	9-10	ND	41,000 / 84.2	ND	149,000 / 42.9
	12-5-13.5	ND	41,000 / 84.2	ND	149,000 / 42.9
MW-5	9-10	ND	41,000 / 84.2	ND	149,000 / 42.9
	25-26	ND	41,000 / 84.2	ND	149,000 / 42.9
MW-6	4-5	ND	41,000 / 84.2	ND	149,000 / 42.9
	9-10	ND	41,000 / 84.2	ND	149,000 / 42.9
MW-6D	1-3	ND	41,000 / 84.2	ND	149,000 / 42.9
	10-12	ND	41,000 / 84.2	ND	149,000 / 42.9
MW-7	9-10	ND	41,000 / 84.2	ND	149,000 / 42.9
	20-22	ND	41,000 / 84.2	ND	149,000 / 42.9
MW-8	2-3	12.0	41,000 / 84.2	ND	149,000 / 42.9
	7-8	ND	41,000 / 84.2	ND	149,000 / 42.9
	13-14	ND	41,000 / 84.2	ND	149,000 / 42.9
	27-29	ND	41,000 / 84.2	ND	149,000 / 42.9
MW-9	3-5	ND	41,000 / 84.2	ND	149,000 / 42.9
	7-9	ND	41,000 / 84.2	ND	149,000 / 42.9
MW-9D	12-13	ND	41,000 / 84.2	ND	149,000 / 42.9
	17-18	ND	41,000 / 84.2	5.5	149,000 / 42.9
MW-10	7-8	ND	41,000 / 84.2	ND	149,000 / 42.9
	17-18	ND	41,000 / 84.2	ND	149,000 / 42.9

Notes:
1) Residential Tier 2 KDHE Risk-Based Values (from RSK Manual, October 2010; first is soil pathway, second is soil to groundwater pathway)
µg/kg = micrograms per kilogram; equivalent to parts per billion
TCE = trichloroethylene; MC = methylene chloride
ND = not detected above the laboratory analytical detection limit
Complete VOC list analyzed, only TCE and MC detected in any samples

TABLE 1
Soil Analytical Data
Univar - Mosley Avenue Facility, Wichita, Kansas

Soil Boring Location	Depth (ft)	Trichloroethene (TCE) (µg/kg)	Tier 2 TCE [1] Risk Value (µg/kg)	Methylene Chloride (MC) (µg/kg)	Tier 2 MC [1] Risk Value (µg/kg)
SB-1	4-5	ND	41,000 / 84.2	ND	149,000 / 42.9
	9-10	ND	41,000 / 84.2	ND	149,000 / 42.9
SB-2	3-4	ND	41,000 / 84.2	ND	149,000 / 42.9
	9-10	ND	41,000 / 84.2	ND	149,000 / 42.9
SB-4	6-7	ND	41,000 / 84.2	ND	149,000 / 42.9
	11-12	ND	41,000 / 84.2	ND	149,000 / 42.9
SB-5	7-8	ND	41,000 / 84.2	ND	149,000 / 42.9
	11-12	ND	41,000 / 84.2	ND	149,000 / 42.9
SB-6	7-8	ND	41,000 / 84.2	ND	149,000 / 42.9
	9-10	ND	41,000 / 84.2	ND	149,000 / 42.9
SB-7	5-6	ND	41,000 / 84.2	ND	149,000 / 42.9
	12-13	ND	41,000 / 84.2	ND	149,000 / 42.9
SB-8	6-7	ND	41,000 / 84.2	ND	149,000 / 42.9
	12-13	ND	41,000 / 84.2	ND	149,000 / 42.9
SB-9	0-3	5.7	41,000 / 84.2	ND	149,000 / 42.9
	9-11	5.2	41,000 / 84.2	ND	149,000 / 42.9
SB-10	0-3	ND	41,000 / 84.2	ND	149,000 / 42.9
	9-11	ND	41,000 / 84.2	ND	149,000 / 42.9
SB-11	0-3	15	41,000 / 84.2	ND	149,000 / 42.9
	7-9	ND	41,000 / 84.2	ND	149,000 / 42.9
SB-12	0-3	77	41,000 / 84.2	ND	149,000 / 42.9
	9-11	ND	41,000 / 84.2	ND	149,000 / 42.9

Notes:
1) Residential Tier 2 KDHE Risk-Based Values (from RSK Manual, October 2010; first is soil pathway, second is soil to groundwater pathway)
mg/kg = milligrams per kilogram; equivalent to parts per million
TCE = trichloroethylene; MC = methylene chloride
ND = not detected above the laboratory analytical detection limit
Complete VOC list analyzed, only TCE and MC detected in any samples

TABLE 2. Historic and Current Groundwater Analtylcal Data, Univar - Moseley Avenue Facility, Wichita, Kansas.

Monitoring Well Location	Date	1,1-Dichloroethane (µg/L)	1,1-Dichloroethene (µg/L)	Cis-1,2-Dichloroethene (µg/L)	Trans-1,2-Dichloroethene (µg/L	PCE (µg/L)	TCE (µg/L)	Vinyl Chloride (µg/L)	Chloroform (µg/L)	Methylene Chloride (µg/L)	1,1,1-Trichloroethane (µg/L)	Benzene (µg/L)	Toluene (µg/L)	pH or Other in µg/L	Total VOCs
MW-1S	6/16/1998	5.7	13.0	78	ND	ND	140	12	ND	ND	ND	ND	ND	6.9	248.7
	10/13/1998	5.7	13.0	130	2.9	ND	150	22	ND	ND	ND	ND	ND	—	323.6
	5/23/2001	ND	ND	50	ND	ND	25	ND	ND	ND	ND	ND	ND	—	75
	12/29/2004	10.0	ND	ND	ND	1.2	3.2	ND	ND	ND	ND	ND	ND	—	14.4
	10/20/2005	ND	ND	5.1	ND	ND	2.3	ND	ND	ND	ND	ND	ND	6.7	7.4
	4/20/2009	ND	ND	15.1	ND	ND	2.2	ND	ND	ND	ND	ND	ND	—	17.3
	9/14/2010	ND	ND	9.8	ND	ND	1.6	ND	ND	ND	ND	ND	ND	—	11.4
	5/17/2011	1.5	ND	5.8	1.9	1.1	2.1	1.9	ND	ND	ND	ND	ND	8**	22.3
	1/25/2012	ND	ND	8.4	ND	ND	2.7	ND	ND	ND	ND	ND	ND	1.1***	12.2
	4/25/2012	ND	ND	4.7	ND	ND	1.9	ND	ND	ND	ND	ND	ND	1.5**	8.1
	7/9/2012	ND	ND	5.8	ND	2.2	2.5	1.2	ND	ND	ND	ND	ND	—	12.7
	10/23/2012	2.6	ND	13	ND	ND	2.7	2.0	ND	ND	ND	ND	ND	5.2**/1***	26.5
	2/12/2013	1.6	ND	10.6	ND	ND	4.6	1.1	ND	ND	ND	ND	ND	—	17.9
MW-1D	6/16/1998	ND	55	180	ND	ND	760	82	ND	ND	ND	ND	ND	7.2	1077
	10/13/1998	ND	34	190	ND	ND	530	88	ND	ND	ND	ND	ND	—	840
	5/23/2001	6.1	7.2	100	3.4	ND	94	26	ND	ND	ND	ND	ND	—	236.7
	12/29/2004	2.0	1.2	48	2.5	ND	28	3.8	ND	ND	ND	ND	ND	—	85.5
	10/20/2005	2.4	1.6	45	7.5	ND	12	6.9	ND	ND	ND	0.35	ND	7.0	75.75
	4/20/2009	ND	ND	29.8	ND	ND	6.98	ND	ND	ND	ND	ND	ND	—	36.8
	9/14/2010	ND	ND	12.3	ND	ND	3.2	1	ND	ND	ND	ND	ND	—	16.5
	5/17/2011	ND	ND	11.5	ND	ND	6.7	2.5	ND	ND	ND	ND	ND	—	20.7
	1/25/2012	ND	ND	10.5	ND	ND	5.8	ND	ND	ND	ND	ND	ND	—	16.4
	4/25/2012	ND	ND	8.9	ND	ND	3.3	1.3	ND	ND	ND	ND	ND	—	13.5
	7/9/2012	ND	ND	11	ND	ND	3.7	1.7	ND	ND	ND	ND	ND	—	16.4
	10/23/2012	ND	ND	13.1	ND	ND	3.0	ND	ND	ND	ND	ND	ND	—	16.1
	2/12/2013	ND	ND	13.9	ND	ND	4.4	1.1	ND	ND	ND	ND	ND	—	19.4
MW-2S	6/17/1998	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	6.9	ND
	10/13/1998	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	—	ND
	5/23/2001	ND	ND	9.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	—	9.7
	12/29/2004	ND	ND	1.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	—	1.8
	10/20/2005	0.84	6.7	ND	ND	ND	4.6	2.3	ND	ND	ND	ND	ND	6.8	16.44
>	12/17/2007	2.3	1.5	40.3	2	ND	23.5	8.0	ND	ND	ND	ND	ND	—	77.7
	4/20/2009	ND	ND	11.8	ND	ND	3.2	ND	ND	ND	ND	ND	ND	—	15.0
	9/14/2010	1.5	ND	9.5	2.8	1.9	3.3	3.6	ND	ND	ND	ND	ND	13.6**	36.3
	5/17/2011	ND	ND	12.6	ND	ND	6.7	1.5	ND	ND	ND	ND	ND	—	19.8
	1/25/2012	ND	ND	11.3	ND	ND	6.2	1.7	ND	ND	ND	ND	ND	1.1***	20.3
	4/25/2012	ND	ND	5.8	ND	ND	3.3	6.3	ND	ND	ND	ND	ND	—	16.4
	7/9/2012	ND	ND	6.6	ND	ND	3.3	6.7	ND	ND	ND	ND	ND	—	15.6
	10/23/2012	ND	ND	7.1	ND	ND	3.2	3.6	ND	ND	ND	ND	ND	—	13.9
	2/12/2013	ND	ND	5.7	ND	ND	3.0	5.1	ND	ND	ND	ND	ND	—	13.8
MW-2D	6/17/1998	ND	52	150	ND	ND	630	73	ND	ND	ND	ND	ND	7.1	915
	10/13/1998	ND	39	180	ND	ND	660	96	ND	ND	ND	ND	ND	—	955
	5/23/2001	6.0	5.4	63	3.4	ND	88	27	ND	ND	ND	ND	ND	—	188.8
	12/29/2004	2.1	1.2	43	1.3	ND	28.0	4.9	ND	ND	ND	ND	ND	—	80.5
	10/20/2005	2.9	2.5	50	1.8	ND	30	11	ND	ND	ND	0.41	ND	7.0	98.61
>	12/17/2007	4.1	4.1	65.9	2.4	ND	44	ND	ND	ND	ND	ND	ND	—	120.7
	4/20/2009	2.1	ND	33	ND	ND	9.06	ND	ND	ND	ND	ND	ND	—	44.1
	9/14/2010	ND	ND	12.8	ND	ND	5.9	2.2	ND	ND	ND	ND	ND	—	20.9
	5/17/2011	ND	ND	13.2	ND	ND	5.0	2.2	ND	ND	ND	ND	ND	—	20.4
	1/25/2012	ND	ND	8.7	ND	ND	2.8	ND	ND	ND	ND	ND	ND	—	11.5
	4/25/2012	ND	ND	11	ND	ND	4.5	ND	ND	ND	ND	ND	ND	—	15.5
	7/9/2012	ND	ND	13.5	ND	ND	7.9	ND	ND	ND	ND	ND	ND	—	21.4
	10/23/2012	ND	ND	9.7	ND	ND	1.5	1.4	ND	ND	ND	ND	ND	—	12.6
	2/12/2013	ND	ND	13.0	ND	ND	4.3	1.3	ND	ND	ND	ND	ND	—	18.6
MW-3S	6/16/1998	ND	ND	25	ND	ND	130	ND	ND	ND	ND	ND	ND	6.7	155
	10/13/1998	ND	ND	7.4	ND	ND	110	ND	ND	ND	ND	ND	ND	—	117.4
	5/24/2001	ND	ND	3.2	ND	ND	50	ND	5.4	ND	ND	ND	ND	—	58.6
	12/29/2004	ND	ND	2.0	ND	ND	52	ND	ND	ND	ND	ND	ND	—	54
	10/19/2005	ND	ND	ND	ND	ND	73	ND	ND	ND	ND	ND	ND	6.2	73
	4/21/2009	ND	ND	ND	ND	ND	9	ND	ND	ND	ND	ND	ND	—	8.6
	9/13/2010	ND	ND	ND	ND	ND	28.6	ND	ND	ND	ND	ND	ND	—	28.6
	5/17/2011	ND	ND	3.8	ND	ND	13.7	ND	ND	ND	ND	ND	ND	—	17.5
	1/24/2012	ND	ND	ND	ND	ND	38.7	ND	ND	ND	ND	ND	ND	—	36.7
	4/25/2012	ND	ND	ND	ND	ND	25.4	ND	ND	ND	ND	ND	ND	—	25.4
	7/9/2012	ND	ND	ND	ND	ND	33.3	ND	ND	ND	ND	ND	ND	—	33.3
	10/22/2012	ND	ND	ND	ND	ND	21.5	ND	ND	ND	ND	ND	ND	—	21.5
	2/12/2013	ND	ND	3.3	1.5	ND	10.7	1.2	ND	ND	ND	ND	ND	—	16.7
Tier 2 / MCLs		5 / 25	7 / 7	70 / 70	100 / 100	5 / 5	5 / 5	2 / 2	100 / 80	5 / 5	200 / 200	5 / 5	1000 / 1000	—	—

All concentrations in ug/L (micrograms per liter) or parts per billion (ppb). ND=not present at detection limit. **Dichlorodifluoromethane detected; ***Methyl Tert Buty Ether detected.

—=not analyzed. Tier 2 / MCLs=KDHE Tier 2 RSK (October 2010) values. MCLs=US EPA maximum contaminant levels. Shaded data exceeds Tier 2 Levels.

TABLE 2. Historic and Current Groundwater Analtylical Data, Univar - Moseley Avenue Facility, Wichita, Kansas.

Monitoring Well Location	Date	1,1-Dichloroethane (µg/L)	1,1-Dichloroethene (µg/L)	Cis-1,2-Dichloroethene (µg/L)	Trans-1,2-Dichloroethene (µg/L	PCE (µg/L)	TCE (µg/L)	Vinyl Chloride (µg/L)	Chloroform (µg/L)	Methylene Chloride (µg/L)	1,1,1-Trichloroethane (µg/L)	Benzene (µg/L)	Toluene (µg/L)	pH or Other in µg/L	Total VOCs
MW-3D	10/19/2005	2.1	3.7	45	ND	ND	19	1.9	ND	ND	ND	ND	ND	7.0	72.7
	4/21/2009	ND	ND	26.5	ND	ND	11.4	ND	ND	ND	ND	ND	ND	---	37.8
	9/13/2010	ND	ND	10.4	ND	ND	7.4	ND	ND	ND	ND	ND	ND	---	17.8
	5/17/2011	ND	ND	8.1	ND	ND	5.5	ND	ND	ND	ND	ND	ND	---	14.6
	1/24/2012	ND	ND	10.9	ND	ND	6.4	ND	ND	ND	ND	ND	ND	—	17.3
	4/25/2012	ND	ND	7.0	ND	ND	4.8	ND	ND	ND	ND	ND	ND	—	11.8
	7/9/2012	ND	ND	8.3	ND	ND	4.9	ND	ND	ND	ND	ND	ND	—	13.2
	10/22/2012	ND	ND	11.8	ND	ND	5.9	ND	ND	ND	ND	ND	ND	—	17.7
	2/12/2013	ND	ND	16.6	ND	ND	8.2	1.1	ND	ND	ND	ND	ND	—	25.9
MW-4S	6/16/1998	ND	ND	24	ND	6.0	63	ND	ND	ND	ND	ND	ND	7.1	93
	10/13/1998	ND	ND	27	ND	11	62	ND	ND	ND	ND	ND	ND	---	100
	5/23/2001	5.5	7.4	64	3.2	ND	62	16	ND	ND	ND	ND	ND	---	198.1
	12/29/2004	ND	ND	1.9	ND	4.0	5.7	ND	12	ND	ND	ND	ND	---	23.6
	10/19/2005	ND	2.6	7.1	ND	3.3	5.2	ND	1.9	ND	ND	ND	ND	6.6	20.1
	4/21/2009	ND	ND	12.6	ND	ND	4.29	ND	ND	ND	ND	ND	ND	---	16.89
	9/14/2010	ND	ND	9.2	ND	ND	2	ND	ND	ND	ND	ND	ND	---	11.20
	5/17/2011	ND	ND	5.7	ND	ND	1.6	1.0	ND	ND	ND	ND	ND	---	8.3
	1/24/2012	ND	ND	4.9	ND	1.7	2.5	ND	ND	ND	1.1	ND	ND	---	10.2
	4/25/2012	ND	ND	5.4	ND	1.0	2.3	ND	ND	ND	ND	ND	ND	1.4**	10.1
	7/9/2012	ND	ND	4.7	ND	ND	1.9	ND	ND	ND	ND	ND	ND	—	6.6
	10/22/2012	ND	ND	6.5	ND	1.3	2.5	1.1	ND	ND	ND	ND	ND	—	11.4
	2/12/2013	1.2	ND	8.2	ND	1.1	3.6	ND	ND	ND	ND	ND	ND	—	14.1
MW-4D	6/16/1998	ND	51	180	ND	ND	670	80	ND	ND	ND	ND	ND	6.9	981
	10/13/1998	ND	ND	150	ND	ND	440	63	ND	ND	ND	ND	ND	---	653
	5/23/2001	5.4	6.5	76	2.5	ND	110	29	ND	ND	ND	ND	ND	---	229.4
	12/29/2004	ND	1.0	56	ND	ND	25	ND	ND	ND	ND	ND	ND	---	82
	10/19/2005	ND	ND	5.9	ND	ND	5.5	0.59	ND	ND	ND	ND	ND	6.9	11.99
	4/21/2009	ND	ND	29.2	ND	ND	10.4	ND	ND	ND	ND	ND	ND	---	39.6
	9/14/2010	ND	ND	10.4	ND	ND	6	ND	ND	ND	ND	ND	ND	---	16.4
	5/17/2011	ND	ND	12.0	ND	ND	7.3	1.9	ND	ND	ND	ND	ND	—	21.2
	1/24/2012	ND	ND	10.5	ND	ND	8.7	ND	ND	ND	ND	ND	ND	---	19.2
	4/25/2012	ND	ND	9.4	ND	ND	4.3	1.1	ND	ND	ND	ND	ND	—	14.8
	7/9/2012	ND	ND	10.7	ND	ND	5.6	ND	ND	ND	ND	ND	ND	—	16.3
	10/22/2012	ND	ND	14.5	ND	ND	5.7	ND	ND	ND	ND	ND	ND	—	20.2
	2/12/2013	ND	ND	14.2	ND	ND	5.2	ND	ND	ND	ND	ND	ND	—	19.4
MW-5S	6/17/1998	ND	ND	18	ND	ND	110	ND	22	ND	ND	ND	ND	7.2	150
	10/13/1998	ND	ND	31	ND	ND	130	ND	17	ND	ND	ND	ND	---	178
	5/24/2001	ND	ND	33	ND	ND	77	ND	ND	ND	ND	ND	ND	---	110
	12/29/2004	ND	ND	14	ND	4.9	47	ND	11	ND	1.8	ND	ND	---	76.8
	10/18/2005	ND	2.7	8.1	ND	1.2	60	ND	1.7	ND	2.9	ND	ND	6.9	73.7
	4/21/2009	ND	ND	13.4	ND	ND	10.8	ND	ND	ND	ND	ND	ND	---	24.2
	9/14/2010	ND	ND	2	ND	ND	32.8	ND	ND	ND	ND	ND	ND	---	34.8
	5/17/2011	ND	ND	13.5	ND	ND	6.2	ND	ND	ND	ND	ND	ND	---	19.7
	1/24/2012	ND	ND	7.8	1.6	ND	3.6	2.5	ND	ND	ND	ND	ND	—	15.5
	4/24/2012	ND	ND	6.8	1.6	ND	5.5	1.6	ND	ND	ND	1.2	ND	6.4**	23.9
	7/9/2012	ND	ND	5.8	2	ND	3.4	1.6	ND	ND	ND	ND	ND	—	12.8
	10/22/2012	1.1	ND	5.1	1.6	ND	3.2	1.8	ND	ND	ND	ND	ND	1.9**	14.7
	2/12/2013	2.2	ND	5.8	1.3	ND	3.7	1.6	ND	ND	ND	ND	ND	—	14.6
MW-5D	6/17/1998	ND	40	130	ND	ND	510	65	ND	ND	ND	ND	ND	7.1	745
	10/13/1998	ND	19	88	ND	ND	350	40	ND	ND	ND	ND	ND	---	497
	5/24/2001	7.2	9.9	84	3.1	ND	170	28	ND	ND	ND	ND	ND	---	302.2
	12/29/2004	ND	ND	13	ND	ND	29	ND	ND	ND	ND	ND	5.7	---	47.7
	10/18/2005	0.83	2.9	12	ND	ND	28	ND	ND	ND	ND	ND	ND	7.0	41.73
	4/21/2009	ND	ND	25.3	ND	ND	11	ND	ND	ND	ND	ND	ND	—	36.3
	9/14/2010	ND	ND	17.1	ND	ND	10.7	ND	ND	ND	ND	ND	ND	—	27.8
	5/17/2011	ND	ND	10.6	ND	ND	7.5	ND	ND	ND	ND	ND	ND	—	18.1
	1/24/2012	ND	ND	8.3	ND	ND	6.3	1.3	ND	ND	ND	ND	ND	---	15.9
	4/24/2012	ND	ND	7.8	ND	ND	6.3	1.1	ND	ND	ND	ND	ND	---	15.2
	7/9/2012	ND	ND	8	ND	ND	6.1	ND	ND	ND	ND	ND	ND	—	14.1
	10/22/2012	ND	ND	11.3	ND	ND	5.8	1.6	ND	ND	ND	ND	ND	—	18.7
	2/12/2013	ND	ND	15.0	ND	ND	6.8	1.6	ND	ND	ND	ND	ND	—	23.4
Tier 2 / MCLs		5 / 25	7 / 7	70 / 70	100 / 100	5 / 5	5 / 5	2 / 2	100 / 80	5 / 5	200 / 200	5 / 5	1000 / 1000	---	---

All concentrations in ug/L (micrograms per liter) or parts per billion (ppb). ND=not present at detection limit. **Dichlorodifluoromethane detected; ***Methyl Tert Buty Ether detected.

---=not analyzed. Tier 2 / MCLs=KDHE Tier 2 RSK (October 2010) values. MCLs=US EPA maximum contaminant levels. Shaded data exceeds Tier 2 Levels.

TABLE 2. Historic and Current Groundwater Analtyical Data, Univar - Moseley Avenue Facility, Wichita, Kansas.

Monitoring Well Location	Date	1,1-Dichloroethane (µg/L)	1,1-Dichloroethane (µg/L)	Cis-1,2-Dichloroethene (µg/L)	Trans-1,2-Dichloroethene (µg/L	PCE (µg/L)	TCE (µg/L)	Vinyl Chloride (µg/L)	Chloroform (µg/L)	Methylene Chloride (µg/L)	1,1,1-Trichloroethane (µg/L)	Benzene (µg/L)	Toluene (µg/L)	pH or Other in µg/L	Total VOCs
MW-6S	6/16/1998	ND	ND	33	ND	5.9	92	ND	ND	ND	ND	ND	ND	6.7	131.9
	10/12/1998	ND	ND	30	ND	8.8	82	ND	ND	ND	ND	ND	ND	---	120.8
	5/24/2001	5.1	6.0	56	ND	ND	120	11	ND	ND	ND	ND	ND	---	198.1
	12/29/2004	ND	ND	16	1.2	8.8	14	ND	4.40	ND	1.40	ND	ND	---	44.4
	10/19/2005	0.75	ND	9.5	ND	5.0	8.1	0.91	1.1	ND	0.72	ND	ND	6.7	25.36
	4/21/2009	ND	ND	4.83	ND	ND	6.94	ND	ND	ND	ND	ND	ND	---	11.57
	9/14/2010	ND	ND	7.5	ND	2.8	5.1	ND	ND	ND	ND	ND	ND	---	15.4
	5/17/2011	ND	ND	8.1	ND	1.4	4.1	1.2	ND	ND	ND	ND	ND	---	14.8
	1/25/2012	ND	ND	8.8	1.1	2.2	5.8	ND	ND	ND	ND	ND	ND	—	17.7
	4/24/2012	ND	ND	8.2	ND	1.2	4.4	1.3	ND	ND	ND	ND	ND	1.8**	16.9
	7/9/2012	ND	ND	8.4	ND	1.7	4.3	ND	ND	ND	ND	ND	ND	—	14.4
	10/23/2012	ND	ND	8.6	ND	1.8	4.4	1	ND	ND	ND	ND	ND	—	15.8
	2/12/2013	ND	ND	7.7	ND	1.5	4.8	1.9	ND	ND	ND	ND	ND	—	15.9
MW-6D	10/19/2005	2.60	1.9	47	1.1	ND	26	12	ND	ND	ND	0.34	ND	7.0	90.94
	4/21/2009	ND	ND	29.5	ND	ND	8.85	ND	ND	ND	ND	ND	ND	---	38.35
	9/14/2010	ND	ND	12.1	ND	ND	4.8	ND	ND	ND	ND	ND	ND	---	16.9
	5/17/2011	ND	ND	13.6	ND	ND	5.7	ND	ND	ND	ND	ND	ND	---	20.3
	1/25/2012	ND	ND	10.0	ND	ND	3.3	ND	ND	ND	ND	ND	ND	—	13.3
	4/24/2012	ND	ND	7.3	ND	ND	2.6	ND	ND	ND	ND	ND	ND	---	9.9
	7/9/2012	ND	ND	13.4	ND	ND	6.2	ND	ND	ND	ND	ND	ND	—	19.6
	10/23/2012	ND	ND	10.1	ND	ND	3.8	ND	ND	ND	ND	ND	ND	—	13.9
	2/12/2013	ND	ND	14.3	ND	ND	6.9	ND	ND	ND	ND	ND	ND	—	21.2
MW-7S	6/17/1998	ND	7.8	29	ND	ND	120	ND	ND	ND	ND	ND	ND	7.2	156.8
	10/13/1998	ND	ND	22	ND	ND	100	ND	ND	ND	ND	ND	ND	---	122
	5/24/2001	ND	ND	20	ND	ND	48	ND	ND	ND	ND	ND	ND	---	66
	12/29/2004	ND	ND	3.7	ND	ND	5.1	ND	ND	ND	ND	ND	ND	---	8.8
	10/18/2005	ND	1.8	ND	ND	ND	4.5	ND	ND	ND	ND	ND	ND	8.9	6.3
>	12/17/2007	ND	ND	9.8	ND	ND	7.7	ND	ND	ND	ND	ND	ND	---	17.5
	4/21/2009	ND	ND	12.9	ND	ND	8.29	ND	ND	ND	ND	ND	ND	---	21.19
	9/14/2010	ND	ND	3.1	ND	ND	3.8	ND	ND	ND	ND	ND	ND	---	6.9
	5/17/2011	ND	ND	6.0	ND	ND	5.8	ND	ND	ND	ND	ND	ND	---	11.8
	1/24/2012	ND	ND	2.3	ND	ND	16.3	ND	ND	ND	ND	ND	ND	—	18.6
	4/25/2012	ND	ND	1.4	ND	ND	9.8	ND	ND	ND	ND	ND	ND	—	11.2
	7/9/2012	ND	ND	1.4	ND	ND	6.7	ND	ND	ND	ND	ND	ND	—	8.1
	10/22/2012	ND	ND	ND	ND	ND	9.8	ND	ND	ND	ND	ND	ND	—	9.8
	2/12/2013	ND	ND	1.7	ND	ND	23.1	ND	ND	ND	ND	ND	ND	—	24.8
MW-7D	6/17/1998	ND	43	140	ND	ND	550	76	ND	ND	ND	ND	ND	7.9	809
	10/13/1998	ND	ND	100	ND	ND	420	64	ND	ND	ND	ND	ND	---	584
	5/24/2001	ND	5.7	66	ND	ND	91	ND	ND	ND	ND	ND	ND	---	162.7
	12/29/2004	ND	ND	57	ND	ND	13	ND	ND	ND	ND	ND	ND	---	70
	10/18/2005	1.5	3.5	35	0.66	ND	37	1.2	ND	ND	ND	ND	ND	6.9	78.86
>	12/17/2007	2.7	1.6	41.5	ND	ND	21	ND	ND	ND	ND	ND	ND	---	66.8
	4/21/2009	ND	ND	28.1	ND	ND	16.6	ND	ND	ND	ND	ND	ND	---	44.7
	9/14/2010	ND	ND	20.3	ND	ND	10.4	ND	ND	ND	ND	ND	ND	---	30.7
	5/17/2011	ND	ND	13.6	ND	ND	12.8	ND	ND	ND	ND	ND	ND	—	26.4
	1/24/2012	ND	ND	10.3	ND	ND	7.5	ND	ND	ND	ND	ND	ND	—	17.8
	4/25/2012	ND	ND	8.8	ND	ND	7.2	ND	ND	ND	ND	ND	ND	—	16.0
	7/9/2012	ND	ND	8.3	ND	ND	7.4	ND	ND	ND	ND	ND	ND	—	15.7
	10/22/2012	ND	ND	8.5	ND	ND	9.4	ND	ND	ND	ND	ND	ND	1.1***	19.0
	2/12/2013	ND	ND	8.1	ND	ND	7.0	ND	ND	ND	ND	ND	ND	—	15.1
MW-8S	6/16/1998	5.2	8.5	52	ND	ND	190	ND	10	ND	ND	ND	ND	6.8	265.7
	10/13/1998	ND	ND	57	ND	ND	180	ND	ND	ND	ND	ND	ND	---	237
	5/24/2001	5.7	5.0	70	ND	ND	120	ND	ND	ND	ND	ND	ND	---	200.7
	12/28/2004	1.70	ND	22	ND	3.4	83	ND	12.0	ND	2.9	ND	ND	---	122.1
	10/20/2005	1.4	ND	17	0.48	ND	57	ND	2.7	ND	1.4	ND	ND	6.8	78.58
	4/21/2009	ND	ND	11.2	ND	ND	25.8	ND	ND	ND	ND	ND	ND	---	37
	9/15/2010	ND	ND	3.1	ND	ND	16	ND	ND	ND	ND	ND	ND	—	19.1
	5/17/2011	ND	ND	11.1	ND	ND	8.3	ND	ND	ND	ND	ND	ND	—	19.4
	1/25/2012	ND	ND	7.5	1.5	1.3	7.0	ND	ND	ND	ND	ND	ND	—	17.3
	4/24/2012	ND	ND	7.1	1.7	ND	4.3	1.8	ND	ND	ND	ND	ND	5.8**	20.7
	7/9/2012	1.1	ND	7.5	1.7	ND	4.8	1.1	ND	ND	ND	ND	ND	—	16.2
	10/23/2012	1.4	ND	5.6	1.4	1	3.9	1.2	ND	ND	ND	ND	ND	1.5**	16.0
	2/12/2013	1.1	ND	7.0	ND	1.5	4.4	1.0	ND	ND	ND	ND	ND	—	15.0
Tier 2 / MCLs		**5 /25**	**7 /7**	**70 70**	**100. 100**	**5 5**	**5 5**	**2 2**	**100 80**	**5 5**	**200 / 200**	**5 / 5**	**1000 / 1000**	---	---

All concentrations in ug/L (micrograms per liter) or parts per billion (ppb). ND=not present at detection limit. **Dichlorodifluoromethane detected; ***Methyl Tert Buty Ether detected.

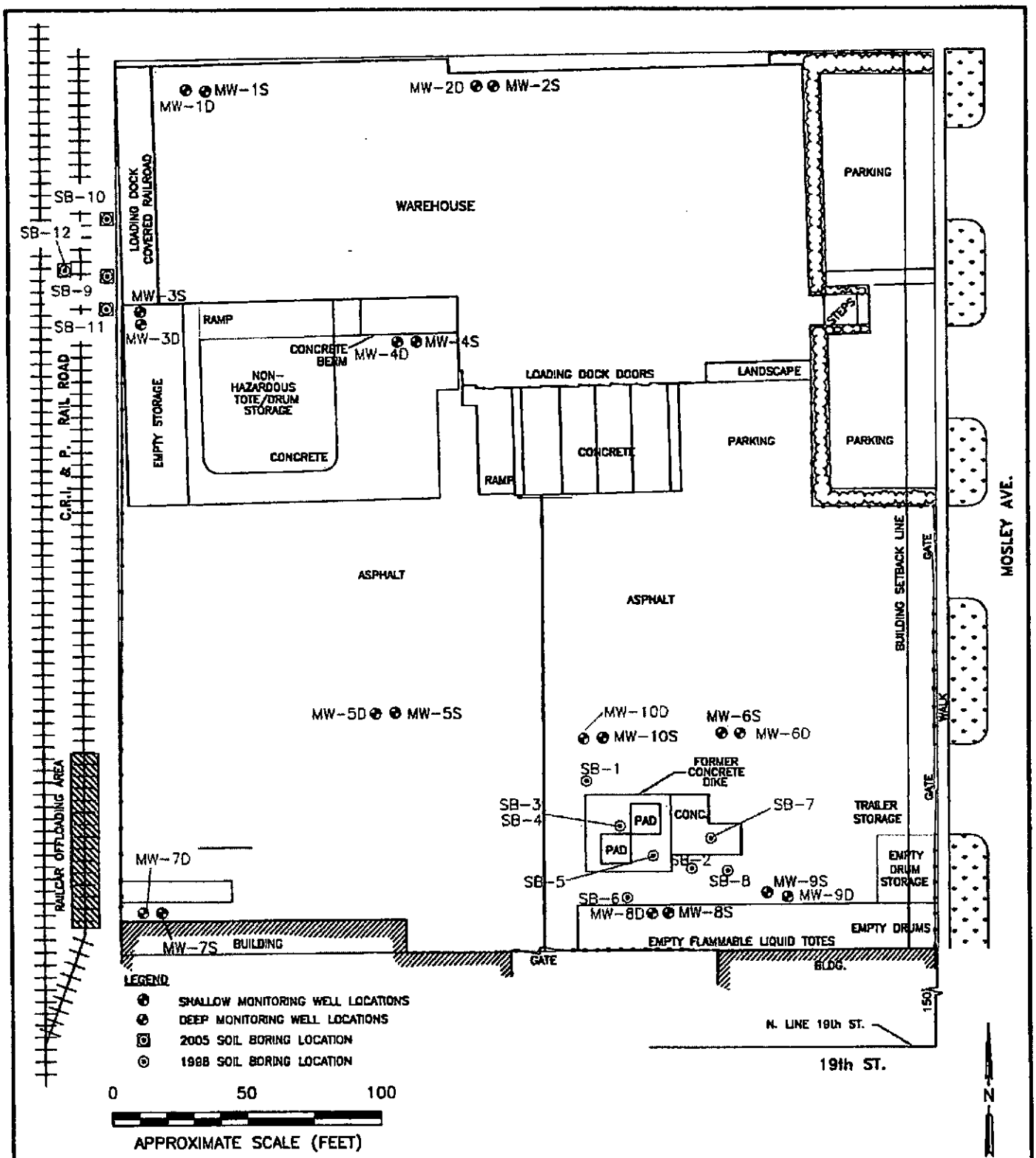
---=not analyzed. Tier 2 / MCLs=KDHE Tier 2 RSK (October 2010) values. MCLs=US EPA maximum contaminant levels. Shaded data exceeds Tier 2 Levels.

TABLE 2. Historic and Current Groundwater Analtyical Data, Univar - Moseley Avenue Facility, Wichita, Kansas.

Monitoring Well Location	Date	1,1-Dichloroethane (µg/L)	1,1-Dichloroethene (µg/L)	Cis-1,2-Dichloroethene (µg/L)	Trans-1,2-Dichloroethene (µg/L	PCE (µg/L)	TCE (µg/L)	Vinyl Chloride (µg/L)	Chloroform (µg/L)	Methylene Chloride (µg/L)	1,1,1-Trichloroethane (µg/L)	Benzene (µg/L)	Toluene (µg/L)	pH or Other in µg/L	Total VOCs
MW-8D	6/16/1998	ND	43	140	ND	ND	700	70	ND	ND	ND	ND	ND	8.1	953
	10/13/1998	ND	26	110	ND	ND	450	60	ND	ND	ND	ND	ND	—	646
	5/24/2001	7.4	10	86	3.4	ND	170	30	ND	ND	ND	ND	ND	—	306.8
	12/28/2004	ND	ND	40	ND	ND	27	ND	ND	ND	ND	ND	ND	—	67
	10/20/2005	2.2	0.58	41	0.74	ND	27	0.96	ND	ND	ND	ND	ND	6.9	72.58
	4/21/2009	2.08	ND	30	ND	ND	13.3	ND	ND	ND	ND	ND	ND	—	45.38
	9/15/2010	ND	ND	17.9	ND	ND	11	ND	ND	ND	ND	ND	ND	—	28.9
	5/17/2011	ND	ND	11.6	ND	ND	8.0	ND	ND	ND	ND	ND	ND	—	19.6
	1/25/2012	ND	ND	13.3	ND	ND	8.3	ND	ND	ND	ND	ND	ND	1.1***	22.7
	4/24/2012	ND	ND	10.9	ND	ND	8.1	ND	ND	ND	ND	ND	ND	—	19.0
	7/9/2012	ND	ND	10.2	ND	ND	5.7	ND	ND	ND	ND	ND	ND	—	15.9
	10/23/2012	ND	ND	13	ND	ND	5.9	ND	ND	ND	ND	ND	ND	—	18.9
	2/12/2013	ND	ND	14.2	ND	ND	6.4	1.3	ND	ND	ND	ND	ND	—	21.9
MW-9S	6/16/1998	9.5	20	87	2.7	ND	230	ND	ND	ND	ND	ND	ND	6.8	349.2
	10/12/1998	ND	13	92	ND	ND	270	ND	ND	ND	ND	ND	ND	—	375
	5/24/2001	ND	7.3	58	ND	ND	140	13	ND	ND	ND	ND	ND	—	218.3
	12/28/2004	ND	ND	34	ND	1.3	33	ND	ND	ND	ND	ND	ND	—	68.3
	10/19/2005	1.3	0.76	31	0.63	1.3	27	3.0	ND	ND	ND	ND	ND	6.8	64.99
>	12/17/2007	1.9	ND	24	1.4	2.9	18	1.4	ND	ND	ND	ND	ND	—	49.5
	4/21/2009	ND	ND	16.2	ND	ND	18.7	ND	ND	ND	ND	ND	ND	—	34.9
	9/15/2010	ND	ND	14.3	ND	ND	13.9	ND	ND	ND	ND	ND	ND	—	28.2
	5/17/2011	ND	ND	14.6	ND	ND	8.7	ND	ND	ND	ND	ND	ND	—	23.3
	1/25/2012	ND	ND	10.3	1.4	1.5	9.0	ND	ND	ND	ND	ND	ND	—	22.2
	4/24/2012	ND	ND	9.2	ND	ND	7.1	1.1	ND	ND	ND	ND	ND	2.3**	19.7
	7/9/2012	ND	ND	11.6	ND	1.3	10.3	1.1	ND	ND	ND	ND	ND	—	24.3
	10/23/2012	ND	ND	11.6	ND	1.3	6.6	1.2	ND	ND	ND	ND	ND	—	20.7
	2/11/2013	ND	ND	9.9	ND	1.1	6.4	1.2	ND	ND	ND	ND	ND	—	18.6
MW-9D	10/12/1998	ND	18	92	ND	ND	290	49	ND	ND	ND	ND	ND	—	449
	5/24/2001	5.6	7.7	67	2.6	ND	130	28	ND	ND	ND	ND	ND	—	240.9
	12/28/2004	1.4	ND	52	ND	ND	9.3	ND	ND	ND	ND	ND	ND	—	62.7
	10/19/2005	2.4	0.61	46	0.86	ND	30	ND	ND	ND	ND	ND	ND	7.0	79.87
>	12/17/2007	3.4	2.7	58	2.3	ND	27.4	ND	ND	ND	ND	ND	ND	—	93.8
	4/21/2009	2.0	ND	29.5	ND	ND	13.5	ND	ND	ND	ND	ND	ND	—	45.01
	9/15/2010	ND	ND	15.5	ND	ND	11	1	ND	ND	ND	ND	ND	—	27.5
	5/17/2011	ND	ND	13.3	ND	ND	7.5	ND	ND	ND	ND	ND	ND	—	20.8
	1/25/2012	ND	ND	5.9	ND	ND	2.2	ND	ND	ND	ND	ND	ND	—	8.1
	4/24/2012	ND	ND	10.5	ND	ND	5.6	ND	ND	ND	ND	ND	ND	—	16.1
	7/9/2012	ND	ND	13.5	ND	ND	8.2	ND	ND	ND	ND	ND	ND	—	21.7
	10/23/2012	ND	ND	13.2	ND	ND	6.8	ND	ND	ND	ND	ND	ND	—	20.0
	2/11/2013	ND	ND	9.9	ND	ND	5.2	ND	ND	ND	ND	ND	ND	—	15.1
MW-10S	10/12/1998	10	ND	62	ND	5.9	120	ND	ND	ND	ND	ND	ND	—	197.9
	12/29/2004	ND	ND	11	ND	4.7	17	ND	6.1	ND	1.4	ND	ND	—	38.8
	10/19/2005	0.70	ND	15	ND	ND	16	1.1	1.40	ND	0.86	ND	ND	6.8	33.2
	4/20/2009	ND	ND	10.1	ND	ND	11.5	ND	ND	ND	ND	ND	ND	—	21.7
	9/14/2010	ND	ND	8.9	ND	ND	8.5	ND	ND	ND	ND	ND	ND	—	17.4
	5/17/2011	ND	ND	8.7	ND	ND	4.7	2.0	ND	ND	ND	ND	ND	1**	16.4
	1/24/2011	ND	ND	7.5	ND	1.3	5.4	ND	ND	ND	ND	ND	ND	—	14.2
	4/24/2012	ND	ND	6.9	ND	1.7	4.7	ND	ND	ND	ND	ND	ND	1.3**	14.6
	7/9/2012	ND	ND	7.5	ND	1.3	4.6	ND	ND	ND	ND	ND	ND	—	13.4
	10/23/2012	ND	ND	9.4	ND	1.3	4.2	1.3	ND	ND	ND	ND	ND	—	16.2
	2/11/2013	ND	ND	9.6	ND	1.3	6.6	ND	ND	ND	ND	ND	ND	—	16.5
MW-10D	10/12/1998	ND	10	55	ND	ND	160	26	ND	ND	ND	ND	ND	—	251
	12/29/2004	3.1	1.6	74	ND	ND	29	ND	ND	ND	ND	ND	ND	—	107.9
	10/19/2005	2.4	2.4	44	1.2	ND	23	7.4	ND	ND	ND	0.35	ND	7.0	80.75
	4/20/2009	ND	ND	19.7	ND	ND	5.88	ND	ND	ND	ND	ND	ND	—	25.58
	9/14/2010	ND	ND	17	ND	ND	5.8	ND	ND	ND	ND	ND	ND	—	22.8
	5/17/2011	ND	ND	11.4	ND	ND	5.0	2.2	ND	ND	ND	ND	ND	—	18.6
	1/24/2011	ND	ND	13.1	ND	ND	3.9	ND	ND	ND	ND	ND	ND	1.4***	18.4
	4/24/2012	ND	ND	11.2	ND	ND	5.1	ND	ND	ND	ND	ND	ND	—	16.3
	7/9/2012	ND	ND	10.7	ND	ND	3.3	ND	ND	ND	ND	ND	ND	—	10.7
	10/23/2012	ND	ND	14.7	ND	ND	5.2	1.3	ND	ND	ND	ND	ND	—	21.2
	2/11/2013	ND	ND	10.5	ND	ND	4.6	1.0	ND		ND	ND	ND	1.8*	16.1
Tier 2 MCLs		5 / 25	7 7	70 70	100 / 100	5 / 5	5 / 5	2 / 2	100 / 80	5 / 5	200 / 200	5 / 5	1000 / 1000	—	—

All concentrations in ug/L (micrograms per liter) or parts per billion (ppb). ND=not present at detection limit. * Methylene Chloride detected; **Dichlorodifluoromethane detected; ***Methyl Tert Butyl Ether detected.

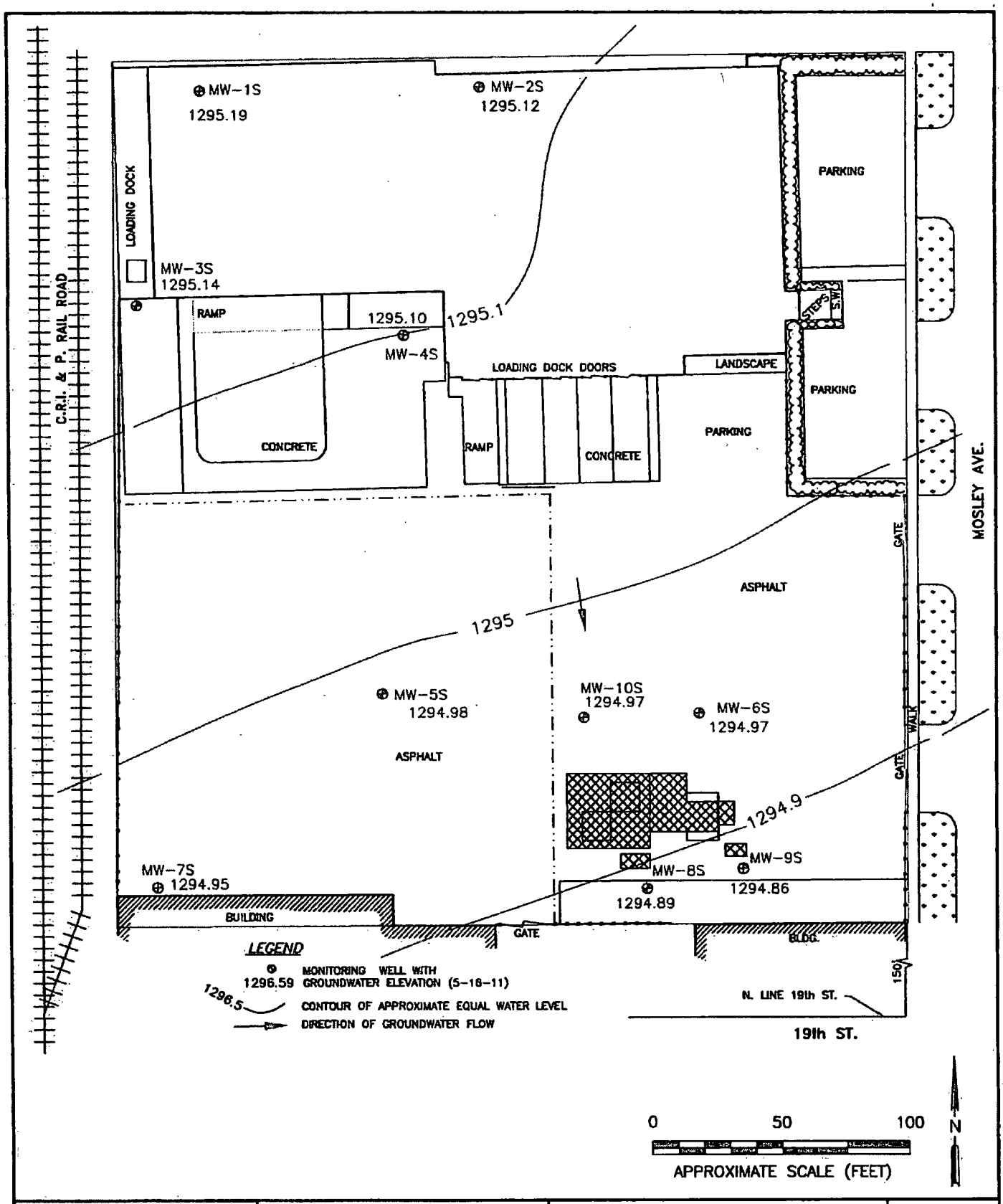
—=not analyzed. Tier 2 / MCLs=KDHE Tier 2 RSK (October 2010) values. MCLs=US EPA maximum contaminant levels. Shaded data exceeds Tier 2 Levels.



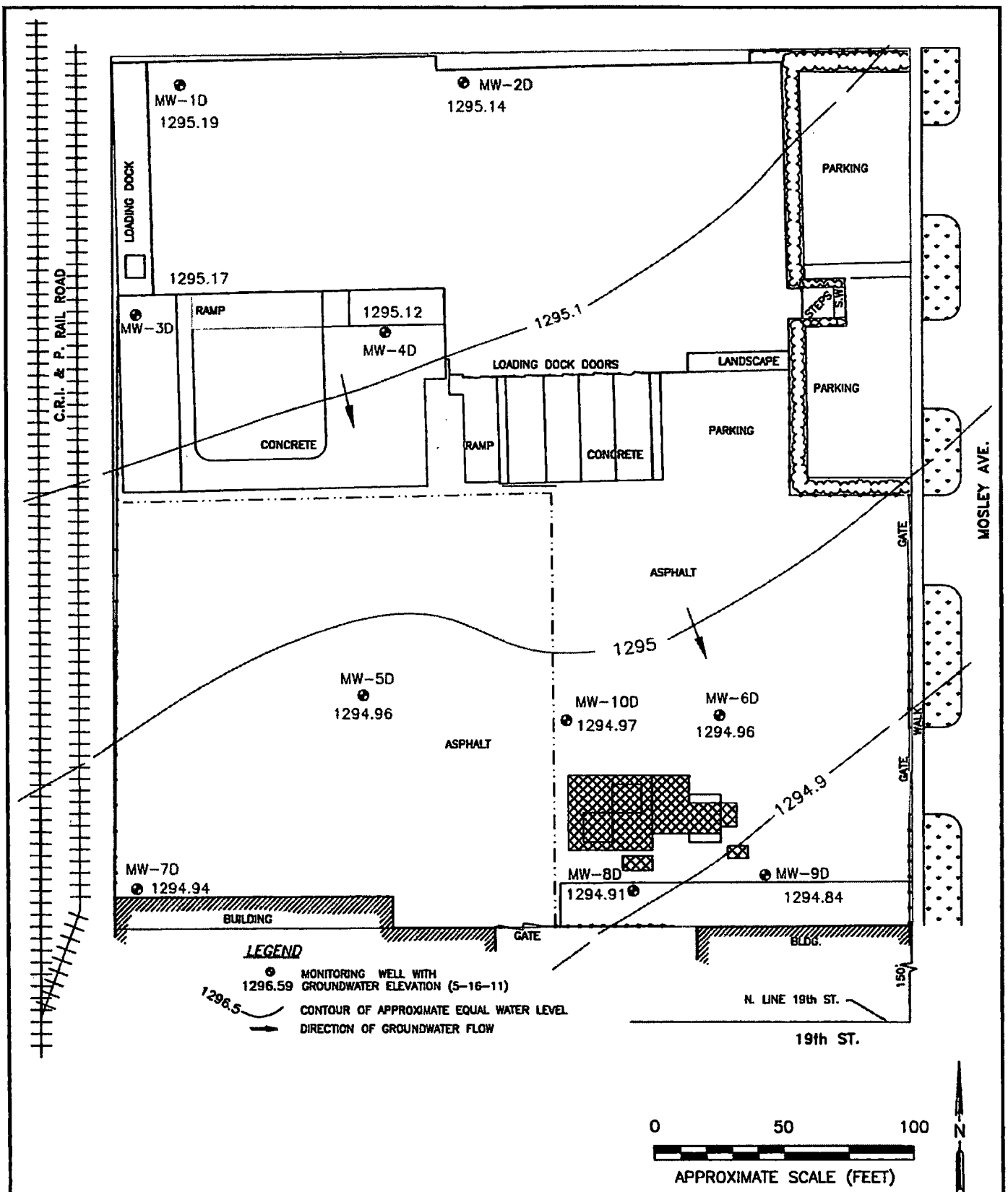
UNIVAR USA INC.
WICHITA KANSAS

FACILITY LAYOUT MAP

CHECKED T.SULLIVAN	DATE 9-29-10
FILENAME: Univar Basemap 5-09	FIGURE 1



UNIVAR	UNIVAR USA INC. MOSLEY AVENUE WICHITA, KANSAS	**POTENTIOMETRIC SURFACE SHALLOW WELLS MAY 16, 2011**	FIGURE: **2**
		APPROVED BY: AJP	DATE: 5-31-11



UNIVAR	UNIVAR USA INC. MOSLEY AVENUE WICHITA, KANSAS	**POTENTIOMETRIC SURFACE DEEP WELLS MAY 16, 2011**	FIGURE: **3**
		APPROVED BY: AJP	DATE: 5-31-11