DEPARTMENT OF THE ARMY
KANSAS CITY DISTRICT, CORPS OF ENGINEERS
700 FEDERAL BUILDING
601 E. 12 th STREET
KANSAS CITY, MISSOURI 64106-2896

REPLY TO
ATTENTION OF

January 5, 2010

Environmental Programs Branch
Planning, Programs and Project Management Division

Mr. Ken Rapplean, Remedial Project Manager
U.S. Environmental Protection Agency, Region VII
Superfund Division, Kansas/Missouri Remedial Section
901 N. 5th Street
Kansas City, Kansas 66101

Ms. Stacey Stricker
Nebraska Department of Environmental Quality
The Atrium 1200 N Street
P.O. Box 98922
Lincoln, NE 68509-8922

Dear Mr. Rapplean and Ms. Stricker,

Enclosed for your records is the Final 2010 Groundwater Monitoring Program Plan for Operable Unit No. 2 at the former Nebraska Ordnance Plant. This is an update to the tables and figures presented in the *Final Site Wide Work Plan* (ECC, 2009). Minor corrections identified during the December 16, 2009 Project Management meeting have been addressed in the Final document. Two hard copies of this letter and attachments are included along with 1 compact disc (CD) in electronic format. If you have any questions, please contact me at (816) 389-3172 or by email at Kristine.M.Stein@usace.army.mil

Sincerely,

Kristine M. Stein
Project Manager

Monitoring Well

Table 2-3
2010 Rationale for Sampling Monitoring Wells
Former Nebraska Ordnance Plant, Mead, NE

Well Number	Top Screen Depth (ft bgs)	Bot. Screen Depth (ft bgs)	Sampling Frequency for 2009	Proposed Sampling Frequency for 2010	Changes from 2009 to 2010	Analytes	Rationale for Increasing or Decreasing Sampling Frequency	Objective	General Location
MW-01A*	79.0	109.0	None	None	None		Historical Non-Detects crossgradient from AMA TCE plume. Upgradient from UNFL-27.	Upgradient MW	AMA
MW-01B*	39.0	79.0	None	None	None		Historical Non-Detects crossgradient from AMA TCE plume. Upgradient from UNFL-27.	Upgradient MW	AMA
MW-02A*	67.7	96.9	Biennial (2009)	Biennial (2009)	None	E, V	Monitor potential increase in TCE due to FEW-11 shifting plume to the east. Trend important for characterizing nature of source.	Interior Plume MW	LL1
MW-02B*	34.3	63.5	Biennial (2009)	Biennial (2009)	None	E, V	Monitor potential increase in TCE due to FEW-11 shifting plume to the east. Monitor RDX due to result of 9.5 ug/l in 4th Quarter of 2007. Trend important for characterizing nature of source.	Interior Plume MW	LL1
MW-03A*	97.0	145.8	Annual	Annual	None	E, V	Was not sampled between 1995 and 2008. Will help define eastern edge of RDX and TCE plumes During 1995 sampling RDX was just below HA value. 2008 sample was above RDX HA value. Only location where RDX is in intermediate layer in the LL1 plume. Semi-annual not necessary, annual sufficient, especially for TCE.	Interior Plume MW	LL1
MW-03B*	39.9	98.4	Annual	Annual	None	E, V	Was not sampled between 1995 and 2008. Will help define eastern edge of RDX and TCE plumes During 1995 sampling RDX was just below HA value. 2008 sample was above RDX HA value. Only location where RDX is in intermediate layer in the LL1 plume. Semi-annual not necessary, annual sufficient, especially for TCE.	Interior Plume MW	LL1
MW-04A*	74.2	103.5	None	None	None		LL2 RDX plume primarily in shallow layer. Not pertinent for plume delineation. Area already monitored as part of O&M sampling around GCW-2	Interior Plume MW	LL2
MW-04B*	32.1	71.2	Biennial (2009)	Biennial (2009)	None	E	Delineates west side of LL2 RDX plume and high concentration (>50ug/L) area. Temporal variation in MW-04B (but not necessarily 4A) pertinent to estimating contaminant velocity and distribution coefficient of RDX. Biennial sampling was recommended starting in 2009.	Interior Plume MW	LL2
MW-05A*	61.8	100.8	None	Biennial (2010)	Increase	V	Monitor low level TCE concentration on northern edge of LL2 TCE plume.Change to Biennial (2010) to coincide with MW-05B and monitor the increase in TCE concentration.	Interior Plume MW	LL2
MW-05B*	30.0	59.3	Biennial (2009)	Biennial (2010)	Increase	E, V	Temporal variation in MW-05B (but not necessarily 5A) pertinent to estimating contaminant velocity and distribution coefficient of RDX. Biennial sampling recommended starting in 2009. Change to Biennial (2010) to coincide with MW-05A and monitor the increase in TCE concentration and verify the ND in RDX.	Interior Plume MW	LL2
MW-06A*	61.0	100.0	Biennial (2010)	Biennial (2010)	None	V	Historical Non-Detects crossgradient from LL3 RDX plume. TCE and RDX have always been non-detect.	Upgradient MW	LL3
MW-06B*	34.8	64.0	Biennial (2010)	Biennial (2010)	None	V	Historical Non-Detects crossgradient from LL3 RDX plume. TCE and RDX have always been non-detect.	Upgradient MW	LL3
MW-07A*	70.2	99.5	None	None	None		Upgradient of LL3 RDX plume, Data from this location is not necessary for project objectives.	Upgradient MW	LL3
MW-07B*	34.7	73.7	None	None	None		Upgradient of LL3 RDX plume, Data from this location is not necessary for project objectives.	Upgradient MW	LL3
MW-08A*	84.0	123.0	Annual	Annual	None	E, V	Delineate west boundary of AMA TCE and LL4 RDX plume as plumes shift to southwest due to EW-3 through EW-10 pumping.	Sidegradient MW	LL4/AMA
MW-08B*	42.1	81.0	Annual	Annual	None	E, V	Delineate west boundary of AMA TCE and LL4 RDX plume as plumes shift to southwest due to EW-3 through EW-10 pumping.	Sidegradient MW	LL4/AMA
MW-09A*	89.0	128.0	Annual	Annual	None	V	Delineate west boundary and (eventually axis) of AMA TCE . Likely to be in axis in future as axi shifts to south due to EW-3 through EW-10 pumping. Only cluster near axis of AMA TCE plume between FEW-15 and MW-43 (a distance of 8,000 ft). Monitoring migration of centroid of plum necessary for understanding nature of high concentration portion of plume.	Interior Plume MW	AMA
MW-09B*	46.3	85.3	Annual	Annual	None	V	Delineate west boundary and (eventually axis) of AMA TCE . Likely to be in axis in future as axi shifts to south due to EW-3 through EW-10 pumping. Only cluster near axis of AMA TCE plume between FEW-15 and MW-43 (a distance of 8,000 ft). Monitoring migration of centroid of plum necessary for understanding nature of high concentration portion of plume.	Interior Plume MW	AMA

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Well Number	Top Screen Depth (ft bgs)	Bot. Screen Depth (ft bgs)	Sampling Frequency for 2009	Proposed Sampling Frequency for 2010	Changes from 2009 to 2010	Analytes	Rationale for Increasing or Decreasing Sampling Frequency	Objective	General Location
MW-09D	131.0	136.0	Annual	Annual	None	V	Delineate west boundary and (eventually axis) of AMA TCE . Likely to be in axis in future as axi shifts to south due to EW-3 through EW-10 pumping. Only cluster near axis of AMA TCE plume between FEW-15 and MW-43 (a distance of 8,000 ft). Monitoring migration of centroid of plum necessary for understanding nature of high concentration portion of plume.	Interior Plume MW	AMA
MW-10A*	61.4	100.4	Biennial (2010)	Biennial (2010)	None	E, V	Particle tracking of LL1 TCE plume passes 1/4 mile east of MW-10, and will shift farther east now that FEW-11 pulls plume to east. With the exception of a low detect (0.4 ug/L) for TCE in the 2nd Quarter 2000, TCE has always been non-detect. RDX has been non-detect since the 2nd Quarter 1998. MW-10A was installed in the 3rd Quarter 1992.	Sidegradient MW	LL1
MW-10B*	33.0	62.2	Biennial (2010)	Biennial (2010)	None	E, V	Particle tracking of LL1 TCE plume passes 1/4 mile east of MW-10, and will shift farther east now that FEW-11 pulls plume to east. With the exception of a very low detect (0.16 ug/L) for TCE in the 2nd Quarter 2000 and a low detect (2.68 ug/L) for TCE in the 3rd Quarter 2003, TCE has always been non-detect. With the exception of very low detects (0.213 ug/L and 0.117 ug/L) for RDX in the 3rd Quarter 2005 and 3rd Quarter 2006, respectively, RDX has been non-detect since the 2nd Quarter 1995. MW-10A was installed in the 3rd Quarter 1992.	Sidegradient MW	LL1
MW-11*	18.8	48.0	Annual	Annual	None	E	Monitor fluctuating concentrations in RDX. Went from ND in 2006 to 19 ppb in 2009.	Interior Plume MW	LF
MW-12*	27.6	37.3	None	None	None		Installed to monitor USTs at LL1. Will be abandoned as part of the UST removal.	Upgradient MW	LL1
MW-13*	29.5	39.2	None	None	None		Installed to monitor USTs at LL2. Will be abandoned as part of the UST removal.	Upgradient MW	LL2
MW-14*	38.6	48.3	None	None	None		Installed to monitor USTs at LL3. Will be abandoned as part of the UST removal.	Upgradient MW	LL3
MW-15*	37.0	46.7	None	None	None		Installed to monitor USTs at LL4. Will be abandoned as part of the UST removal.	Interior Plume MW	LL4
MW-16B*	NA	NA	None	None	None		RDX area upgradient of LL1 RDX/TCE plume. Data from this location is not necessary for project objectives.	Upgradient MW	LL1
MW-16C*	31.0	41.0	None	None	None		RDX area upgradient of LL1 RDX/TCE plume. Data from this location is not necessary for project objectives.	Upgradient MW	LL1
MW-17A*	72.1	77.1	None	None	None		Historically non-detect. Location not in close proximity to LL1 plume for plume delineation.	Sidegradient MW	LL1
MW-17B*	50.4	55.8	None	None	None		Historically non-detect. Location not in close proximity to LL1 plume for plume delineation.	Sidegradient MW	LL1
MW-17C*	7.2	17.2	None	None	None		Historically non-detect. Location not in close proximity to LL1 plume for plume delineation.	Sidegradient MW	LL1
MW-18A*	122.0	125.0	Annual	Annual	None	E, V	Bedrock well screened in sandstone beneath shale. RDX has always been non-detect. TCE was non-detect until it was detected at 0.55 ug/L in the 1st Quarter 2008.	Interior Plume MW	LF
MW-18B*	NA	NA	Annual	Annual	None	E, V	Intermediate well located within the eastern edge of the Atlas TCE plume. RDX has always been non-detect. With the exception of a low detect (0.6 ug/L) for TCE in the 2nd Quarter 1995, TCE has always been non-detect.	Interior Plume MW	LF
MW-18C*	36.7	46.7	Annual	Annual	None	E, V	Shallow well had TCE and RDX detections from 1994 through 1995 and since 2003. Sample once in 2009 for delineating eastern side of plume.	Interior Plume MW	LF
MW-19B*	99.0	104.0	None	None	None		Upgradient background data obtained during 2006 sampling	Upgradient MW	AMA
MW-19C*	10.4	48.5	None	None	None		Upgradient background data obtained during 2006 sampling. Well is plugged.	Upgradient MW	AMA
MW-20A*	145.0	150.4	Semi-Annual (1st and 3rd Qrtrs)	Semi-Annual (1st and 3rd Qrtrs)	None	E,V	Monitor downgradient of containment system capture zone. The sampling frequency has been increased because the MW-20 wells have been designated as "Compliance Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Compliance Wells will be re-evaluated for the 2012 GMP.	Compliance MW	LL2

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MW-20B*	128.6	133.6	Semi-Annual (1st and 3rd Qrtrs)	Semi-Annual (1st and 3rd Qrtrs)	None	E,V	Monitor downgradient of containment system capture zone. The sampling frequency has been increased because the MW-20 wells have been designated as "Compliance Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Compliance Wells will be re-evaluated for the 2012 GMP.	Compliance MW	LL2
MW-20C*	50.3	60.3	Semi-Annual (1st and 3rd Qrtrs)	Semi-Annual (1st and 3rd Qrtrs)	None	E,V	Monitor downgradient of containment system capture zone. The sampling frequency has been increased because the MW-20 wells have been designated as "Compliance Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Compliance Wells will be re-evaluated for the 2012 GMP.	Compliance MW	LL2
MW-21A	116.0	126.0	Annual	Annual	None	E, V	Monitor RDX and TCE concentration trends of combined LL1 plume as FEW-11 shifts plume axis to the east.	Interior Plume MW	LL1
MW-21B	66.0	76.0	Annual	Annual	None	E, V	Monitor RDX and TCE concentration trends of combined LL1 plume as FEW-11 shifts plume axis to the east.	Interior Plume MW	LL1
MW-21D	133.0	138.0	Annual	Annual	None	E, V	Monitor RDX and TCE concentration trends of combined LL1 plume as FEW-11 shifts plume axis to the east.	Interior Plume MW	LL1
MW-22A	87.8	97.8	None	None	None		Historical Non-Detects or low-level detects upgradient from LL1 RDX plume.	Upgradient MW	LL1
MW-22B	58.0	68.0	None	None	None		Historical Non-Detects upgradient from LL1 RDX plume.	Upgradient MW	LL1
MW-23A	88.5	98.5	None	None	None		Data from this location is not necessary for project objectives.	Upgradient MW	LL1
MW-23B	67.5	77.5	Biennial (2009)	None	Decrease		Location is upgradient of LL1 TCE plume, but had TCE at 200 ug/L in 1995. Decreasing trend and last 2 samples were approaching ND.	Upgradient MW	LL1
MW-24A	111.5	121.5	Semi-Annual	Semi-Annual	None	E, V	Monitor RDX and TCE concentration trends north of FEW-11.	Interior Plume MW	LL1
MW-24B	56.0	66.0	Semi-Annual	Semi-Annual	None	E, V	Monitor RDX and TCE concentration trends north of FEW-11.	Interior Plume MW	LL1
MW-25A	145.0	155.0	Annual	Annual	None	E, V	Monitor downgradient and sidegradient of LL1 RDX and TCE plumes.	Sidegradient MW Downgradient MW	LL1
MW-25B	74.0	84.0	Annual	Annual	None	E, V	Monitor downgradient and sidegradient of LL1 RDX and TCE plumes.	Sidegradient MW Downgradient MW	LL1
MW-25D	163.2	168.2	Annual	Annual	None	E, V	Monitor downgradient and sidegradient of LL1 RDX and TCE plumes.	Sidegradient MW Downgradient MW	LL1
MW-26A	92.5	102.5	None	None	None		Historical Non-Detects upgradient from LL2 RDX plume.	Upgradient MW	LL2
MW-26B	66.0	76.0	None	None	None		Historical Non-Detects upgradient from LL2 RDX plume.	Upgradient MW	LL2
MW-27A	96.0	106.0	None	None	None		Historical Non-Detects upgradient from LL2 RDX plume.	Upgradient MW	LL2
MW-27B	61.5	71.5	None	None	None		Historical Non-Detects upgradient from LL2 RDX plume.	Upgradient MW	LL2
MW-28A	127.6	137.6	Annual	Annual	None	E	Sidegradient MW to monitor RDX concentrations along west edge of LL2 for plume definition.	Sidegradient MW	LL2

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MW-28B	67.5	77.5	Annual	Annual	None	E	Sidegradient MW to monitor RDX concentrations along west edge of LL2 for plume definition.	Sidegradient MW	LL2
MW-28D	144.0	149.0	Annual	Annual	None	E	Sidegradient MW to monitor RDX concentrations along west edge of LL2 for plume definition.	Sidegradient MW	LL2
MW-29A	122.6	132.6	Annual	Annual	None	E	Interior plume MW to monitor small isolated west portion of LL2 RDX plume.	Interior Plume MW	LL2
MW-29B	64.5	74.5	Annual	Annual	None	E	Interior plume MW to monitor small isolated west portion of LL2 RDX plume.	Interior Plume MW	LL2
MW-30A	94.0	99.0	None	None	None		Historical Non-Detects upgradient from LL3 RDX plume.	Upgradient MW	LL3
MW-30B	59.5	69.5	None	None	None		Historical Non-Detects upgradient from LL3 RDX plume.	Upgradient MW	LL3
MW-31A	94.5	104.5	Biennial (2009)	Biennial (2009)	None	E,V	Not directly downgradient of LL2 TCE and RDX plumes. RDX has always been non-detect. Wit the exception of a low detect (1.1 ug/L) for TCE in the 4th Quarter 2000, TCE has always been non-detect. Unlikely that LL2 TCE plume would move toward MW-31. Sample biennially, beginning in 2009.	Sidegradient MW	LL2
MW-31B	50.0	60.0	Biennial (2009)	Biennial (2009)	None	E,V	Not directly downgradient of LL2 TCE and RDX plumes. RDX concentration has decreased from 2.5 ug/L (1st Quarter 2005) to 0.49 ug/L (1st Quarter 2008). TCE has always been non-detect. Unlikely that LL2 TCE plume would move toward MW-31. Sample biennially, beginning in 2009.	Sidegradient MW	LL2
MW-32A	88.5	98.5	Annual (Expl.) Biennial (2009-VOCs)	Annual (Expl.) Biennial (2009-VOCs)	None	E, V	Sample RDX annually to verify centroid of plume remains west of MW-32 in EW-7 capture zone, and RDX trend remains stable. With the exception of a low detect (1.32 ug/L) for TCE in the 1st Quarter 2006, TCE has always been non-detect; however, biennial sampling for TCE is recommended because the LL2 TCE plume may migrate toward MW-32.	Interior Plume MW	LL2
MW-32B	71.0	81.0	Annual (Expl.) Biennial (2009-VOCs)	Annual (Expl.) Biennial (2009-VOCs)	None	E, V	Sample RDX annually to verify centroid of plume remains west of MW-32 in EW-7 capture zone, and RDX trend remains stable. With the exception of a low detect (0.5 ug/L) for TCE in the 1st Quarter 2006, TCE has always been non-detect; however, biennial sampling for TCE is recommended because the LL2 TCE plume may migrate toward MW-32.	Interior Plume MW	LL2
MW-32D	106.5	111.5	Annual (Expl.) Biennial (2009-VOCs)	Annual (Expl.) Biennial (2009-VOCs)	None	E, V	Sample RDX annually to verify centroid of plume remains west of MW-32 in EW-7 capture zone, and RDX trend remains stable. With the exception of a low detect (0.69 ug/L) for TCE in the 1st Quarter 2006, TCE has always been non-detect; however, biennial sampling for TCE is recommended because the LL2 TCE plume may migrate toward MW-32.	Interior Plume MW	LL2
MW-33A	100.5	110.5	Annual (3rd Qtr)	Annual	None	E	Rationale for MW-33 is to monitor upgradient RDX concentrations. Monitor shift of LL3 RDX plume to west. TCE results have always been low detection.	Sidegradient MW	LL3
MW-33B	73.5	83.5	Annual (3rd Qtr)	Annual	None	E	Rationale for MW-33 is to monitor upgradient RDX concentrations. Monitor shift of LL3 RDX plume to west. TCE results have always been low detection.	Sidegradient MW	LL3
MW-33D	120.0	125.0	Annual (3rd Qtr)	Annual	None	E	Rationale for MW-33 is to monitor upgradient RDX concentrations. Monitor shift of LL3 RDX plume to west. TCE results have always been non-detect.	Sidegradient MW	LL3
MW-34A	102.0	112.0	Annual (1st Qtr)	None	Decrease		Monitor migration of centroid of LL3 RDX plume (not VOCs) near EW-5 for use in allocating pumping rates between EW-5 and FEW-14. New well MW-128A provides better decision data in the area.	Interior Plume MW	LL3
MW-34B	65.0	75.0	Annual (1st Qtr)	None	Decrease		Monitor migration of centroid of LL3 RDX plume (not VOCs) near EW-5 for use in allocating pumping rates between EW-5 and FEW-14. New well MW-128B provides better decision data in the area.	Interior Plume MW	LL3
MW-34D	120.0	125.0	Annual (1st Qtr)	None	Decrease		Monitor migration of centroid of LL3 RDX plume (not VOCs) near EW-5 for use in allocating pumping rates between EW-5 and FEW-14.New well MW-128D provides better decision data in the area.	Interior Plume MW	LL3

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MW-35A	81.5	91.5	Quarterly	Quarterly	None	E,V	Well is just outside EW-3 capture zone, but possibly in EW-1 capture zone. The sampling frequency has been increased because the MW-35 wells have been designated as "Perimeter Wells The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Perimeter Wells will be re-evaluated for the 2012 GMP.	Perimeter MW	LL3
MW-35B	57.0	67.0	Quarterly	Quarterly	None	E,V	Well is just outside EW-3 capture zone, but possibly in EW-1 capture zone. The sampling frequency has been increased because the MW-35 wells have been designated as "Perimeter Wells The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Perimeter Wells will be re-evaluated for the 2012 GMP.	Perimeter MW	LL3
MW-35D	100.5	105.5	Quarterly	Quarterly	None	E,V	Well is just outside EW-3 capture zone, but possibly in EW-1 capture zone. The sampling frequency has been increased because the MW-35 wells have been designated as "Perimeter Wells The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Perimeter Wells will be re-evaluated for the 2012 GMP.	Perimeter MW	LL3
MW-36A	28.0	38.0	None	None	None		Not Accessible. Replaced with MW-105 cluster.	Interior Plume MW	AMA
MW-36B	17.0	27.0	None	None	None		Not Accessible. Replaced with MW-105 cluster.	Interior Plume MW	AMA
MW-36D	43.0	48.0	None	None	None		Not Accessible. Replaced with MW-105 cluster.	Interior Plume MW	AMA
MW-37A	30.5	40.5	None	None	None		Historically ND, downgradient of perimeter well MW-117 and complience wells MW-86 and MW-100.	Downgradient MW	LL3
MW-37B	24.0	29.0	None	None	None		Historically ND, downgradient of perimeter well MW-117 and complience wells MW-86 and MW-100.	Downgradient MW	LL3
MW-37D	45.5	50.5	None	None	None		Historically ND, downgradient of perimeter well MW-117 and complience wells MW-86 and MW-100.	Downgradient MW	LL3
MW-38A	44.7	49.2	Quarterly	Quarterly	None	E, V	Monitor eastern edge of AMA TCE plume. Establish baseline for proposed M.U.D. Well Field. The sampling frequency has been increased because the MW-38 wells have been designated as "Perimeter Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Perimeter Wells will be re-evaluated for the 2012 GMP.	Perimeter MW	AMA
MW-38D	58.5	63.5	Quarterly	Quarterly	None	E, V	Monitor eastern edge of AMA TCE plume. Establish baseline for proposed M.U.D. Well Field. The sampling frequency has been increased because the MW-38 wells have been designated as "Perimeter Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Perimeter Wells will be re-evaluated for the 2012 GMP.	Perimeter MW	AMA
MW-39A	44.0	48.5	None	None	None		Historically ND, sidegradient of perimeter wells MW-46, MW-112, and MW-113.	Sidegradient MW	AMA
MW-39D	52.5	55.3	None	None	None		Historically ND, sidegradient of perimeter wells MW-46, MW-112, and MW-113.	Sidegradient MW	AMA
MW-40A	121	126	Annual	Annual	None	V	Monitor trend in AMA TCE plume as centroid shifts to southwest due to EW-3 through EW-10, and eventually FEW-15. If trend continues to below 5ug/L, will provide data to evaluate whether TCE is desorbing from silt, and whether AMA high concentration area can be remediated to levels below 5ug/L with extraction or GCW.	Interior Plume MW	AMA
MW-40B	54	64	Annual	Annual	None	V	Monitor trend in AMA TCE plume as centroid shifts to southwest due to EW-3 through EW-10, and eventually FEW-15. If trend continues to below 5ug/L, will provide data to evaluate whether TCE is desorbing from silt, and whether AMA high concentration area can be remediated to levels below 5ug/L with extraction or GCW.	Interior Plume MW	AMA
MW-41A	71.5	81.5	Quarterly	Quarterly	None	E,V	Monitor eastern edge of AMA TCE plume. Establish baseline for proposed M.U.D. Well Field. Non-detect for TCE since the 1st Quarter 1993. MW-41A was installed in the 3rd Quarter 1992. The sampling frequency has been increased because the MW-41 wells have been designated as "Perimeter Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Perimeter Wells will be re-evaluated for the 2012 GMP.	Perimeter MW	AMA

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Well Number	Top Screen Depth (ft bgs)	Bot. Screen Depth (ft bgs)	Sampling Frequency for 2009	Proposed Sampling Frequency for 2010	Changes from 2009 to 2010	Analytes	Rationale for Increasing or Decreasing Sampling Frequency	Objective	General Location
MW-41B	36.0	46.0	Quarterly	Quarterly	None	E,V	Monitor eastern edge of AMA TCE plume. Establish baseline for proposed M.U.D. Well Field. TCE has always been non-detect. MW-41B was installed in the 3rd Quarter 1992. The sampling frequency has been increased because the MW-41 wells have been designated as "Perimeter Wells The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Perimeter Wells will be re-evaluated for the 2012 GMP.	Perimeter MW	AMA
MW-41D	87.0	92.0	Quarterly	Quarterly	None	E,V	Monitor eastern edge of AMA TCE plume. Establish baseline for proposed M.U.D. Well Field. Non-detect for TCE since the 1st Quarter 1993. MW-41D was installed in the 3rd Quarter 1992. The sampling frequency has been increased because the MW-41 wells have been designated as "Perimeter Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Perimeter Wells will be re-evaluated for the 2012 GMP.	Perimeter MW	AMA
MW-42A	86.0	96.0	Annual	Annual	None	E, V	Monitor LL4 RDX plume and inside western edge of the AMA TCE plume.	Interior Plume MW	LL4/AMA
MW-42B	53.0	63.0	Annual	Annual	None	E, V	Monitor LL4 RDX plume and inside western edge of the AMA TCE plume.	Interior Plume MW	LL4/AMA
MW-42D	103.2	108.2	Annual	Annual	None	E, V	Monitor LL4 RDX plume and inside western edge of the AMA TCE plume.	Interior Plume MW	LL4/AMA
MW-43A	90.5	100.5	Annual for TCE Biennial for RDX	Annual	Increase	E, V	Monitor separation of eastern portion of TCE plume downgradient of Landfill Area from eastern portion of TCE plume downgradient of AMA plume and potential southwest shift of RDX plume originating from landfill.	Interior Plume MW	LF/AMA
MW-43B	40.0	50.0	Annual for TCE Biennial for RDX	Annual	Increase	E, V	Monitor separation of eastern portion of TCE plume downgradient of Landfill Area from eastern portion of TCE plume downgradient of AMA plume and potential southwest shift of RDX plume originating from landfill.	Interior Plume MW	LF/AMA
MW-43D	106.4	111.4	Annual for TCE Biennial for RDX	Annual	Increase	E, V	Monitor separation of eastern portion of TCE plume downgradient of Landfill Area from eastern portion of TCE plume downgradient of AMA plume and potential southwest shift of RDX plume originating from landfill.	Interior Plume MW	LF/AMA
MW-44A	29.5	39.5	Annual for TCE Biennial for RDX (2009)	Annual	Increase	E, V	Monitor temporal trends and migration of the high concentration portion of the AMA TCE plume to the southeast and potential southwest shift of RDX plume originating from landfill.	Interior Plume MW	LF/AMA
MW-44B	16.0	26.0	Annual for TCE Biennial for RDX (2009)	Annual	Increase	E, V	Monitor temporal trends and migration of the high concentration portion of the AMA TCE plume to the southeast and potential southwest shift of RDX plume originating from landfill.	Interior Plume MW	LF/AMA
MW-44D	50.8	55.8	Annual for TCE Biennial for RDX (2009)	Annual	Increase	E, V	Monitor temporal trends and migration of the high concentration portion of the AMA TCE plume to the southeast and potential southwest shift of RDX plume originating from landfill.	Interior Plume MW	LF/AMA
MW-45A	28.0	38.0	None	None	None		Not Accessible. Replaced with MW-104 cluster.	Interior Plume MW	AMA
MW-45B	17.0	27.0	None	None	None		Not Accessible. Replaced with MW-104 cluster.	Interior Plume MW	AMA
MW-45D	43.0	48.0	None	None	None		Not Accessible. Replaced with MW-104 cluster.	Interior Plume MW	AMA
MW-46A	33.2	43.2	Quarterly	Quarterly	None	E, V	Monitor eastern edge of AMA TCE plume. Establish baseline for proposed M.U.D. Well Field. The sampling frequency has been increased because the MW-46 wells have been designated as "Perimeter Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Perimeter Wells will be re-evaluated for the 2012 GMP.	Perimeter MW	AMA
MW-46B	21.0	31.0	Quarterly	Quarterly	None	E, V	Monitor eastern edge of AMA TCE plume. Establish baseline for proposed M.U.D. Well Field. The sampling frequency has been increased because the MW-46 wells have been designated as "Perimeter Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Perimeter Wells will be re-evaluated for the 2012 GMP.	Perimeter MW	AMA

Table 2-3
2010 Rationale for Sampling Monitoring Wells
Former Nebraska Ordnance Plant, Mead, NE

Well Number	Top Screen Depth (ft bgs)	Bot. Screen Depth (ft bgs)	Sampling Frequency for 2009	Proposed Sampling Frequency for 2010	Changes from 2009 to 2010	Analytes	Rationale for Increasing or Decreasing Sampling Frequency	Objective	General Location
MW-46D	52.5	57.5	Quarterly	Quarterly	None	E, V	Monitor eastern edge of AMA TCE plume. Establish baseline for proposed M.U.D. Well Field. The sampling frequency has been increased because the MW-46 wells have been designated as "Perimeter Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Perimeter Wells will be re-evaluated for the 2012 GMP.	Perimeter MW	AMA
MW-47A	112.8	122.8	None	None	None		Located more than two miles upgradient of plumes. Recommend to keep for water levels.	Upgradient MW	
MW-47B	74.8	84.8	None	None	None		Located more than two miles upgradient of plumes. Consider for abandonment.	Upgradient MW	
MW-52A	48.0	58.0	Biennial (2009)	Biennial (2009)	None	E, V	Sample biennially beginning in 2009 to monitor desorption in burning ground area. TCE detected at 0.71 J ug/L in 2007.	Interior Plume MW	LF
MW-52B	42.5	52.5	Biennial (2009)	Biennial (2009)	None	E, V	Sample biennially beginning in 2009 to monitor desorption in burning ground area. TCE detected at 0.57 J ug/L in 2007.	Interior Plume MW	LF
MW-53A	87.0	97.0	Biennial (2009)	Biennial (2009)	None	E	Sample biennially beginning in 2009 to monitor desorption in burning ground area. RDX present (1.3ug/L) in 2007.	Interior Plume MW	LF
MW-53B	27.5	37.5	Biennial (2009)	Biennial (2009)	None	E	Sample biennially beginning in 2009 to monitor desorption in burning ground area. RDX present >2ug/L. Last sampled in 2007.	Interior Plume MW	LF
MW-54A	66.0	76.0	Annual (1st Qtr)	Annual (1st Qtr)	None	E, V	Monitor eastern edge of Landfill TCE/RDX plume. Upgradient and in close proximity to MW-55 Recent sampling (since 1st Quarter 2006) show non-detects for TCE (with a single low detection o 0.21 ug/L - 1st Quarter 2008) and consistent detections (1.4 ug/L) for RDX.	Interior Plume MW	LF
MW-54B	24.0	29.0	Annual (1st Qtr)	Annual (1st Qtr)	None	E, V	Monitor eastern edge of Landfill TCE/RDX plume. Upgradient and in close proximity to MW-55 Recent sampling (since 1st Quarter 2006) show non-detects for TCE and RDX.	Interior Plume MW	LF
MW-55A	74.0	84.0	Annual (3rd Qtr)	Annual (3rd Qtr)	None	E, V	Monitor eastern edge of Landfill TCE/RDX plume. Establish baseline for proposed M.U.D. Well Field. Recent sampling (since 1st Quarter 2005) show non-detects for TCE and detections for RDX decreasing from 0.949 ug/L (1st Quarter 2005) to 0.53 ug/L (1st Quarter 2008).	Sidegradient MW	LF
MW-55B	56.0	66.0	Annual (3rd Qtr)	Annual (3rd Qtr)	None	E, V	Monitor eastern edge of Landfill TCE/RDX plume. Establish baseline for proposed M.U.D. Well Field. Recent sampling (since 1st Quarter 2005) show non-detects for TCE and detections for RDX increasing from non-detect (1st Quarter 2005) to 0.73 ug/L (1st Quarter 2008).	Sidegradient MW	LF
MW-56A	69.0	79.0	NONE	None	None		Monitor eastern edge of Landfill TCE/RDX plume. Downgradient and in close proximity to MW-55. Recent sampling (since 1st Quarter 2007) show non-detects for TCE and consistent detections (1.1 ug/L) for RDX.	Sidegradient MW	LF
MW-56B	21.0	31.0	NONE	None	None		Monitor eastern edge of Landfill TCE/RDX plume. Downgradient and in close proximity to MW-55. Recent sampling (since 1st Quarter 2007) show detections for TCE decreasing from 1.32 ug/L (1st Quarter 2007) to 0.82 ug/L (1st Quarter 2008) and non-detects for RDX.	Sidegradient MW	LF
MW-57B	55.0	65.0	None	None	None		Located upgradient of plumes.	Upgradient MW	
MW-60A	92.0	102.0	None	None	None		Located downgradient of complience wells MW- 82, MW-96, and MW-97.	Downgradient MW	LL2
MW-60B	70.0	80.0	None	None	None		Located downgradient of complience wells MW- 82, MW-96, and MW-97.	Downgradient MW	LL2
MW-61A	75.7	85.7	Semi-Annual (1st and 3rd Qrtrs)	Semi-Annual	None	E,V	Monitor sidegradient of containment system capture zone. The sampling frequency has been increased because the MW-61 wells have been designated as "Compliance Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Compliance Wells will be re-evaluated for the 2012 GMP.	Compliance MW	LL1
MW-61B	25.0	35.0	Semi-Annual (1st and 3rd Qrtrs)	Semi-Annual	None	E,V	Monitor sidegradient of containment system capture zone. The sampling frequency has been increased because the MW-61 wells have been designated as "Compliance Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Compliance Wells will be re-evaluated for the 2012 GMP.	Compliance MW	LL1
MW-61D	97.0	102.0	Semi-Annual (1st and 3rd Qrtrs)	Semi-Annual	None	E,V	Monitor downgradient of containment system capture zone. The sampling frequency has been increased because the MW-61 wells have been designated as "Compliance Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Compliance Wells will be re-evaluated for the 2012 GMP.	Compliance MW	LL1
MW-62A	27.0	37.0	Semi-Annual (1st and 3rd Qrtrs)	Semi-Annual	None	E, V	Monitor downgradient of containment system capture zone. The sampling frequency has been updated because the MW-62 wells have been designated as "Compliance Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Compliance Wells will be re-evaluated for the 2012 GMP.	Compliance MW	AMA

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Well Number	Top Screen Depth (ft bgs)	Bot. Screen Depth (ft bgs)	Sampling Frequency for 2009	Proposed Sampling Frequency for 2010	Changes from 2009 to 2010	Analytes	Rationale for Increasing or Decreasing Sampling Frequency	Objective	General Location
MW-62B	17.0	24.0	Semi-Annual (1st and 3rd Qrtrs)	Semi-Annual	None	E, V	Monitor downgradient of containment system capture zone. The sampling frequency has been updated because the MW-62 wells have been designated as "Compliance Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Compliance Wells will be re-evaluated for the 2012 GMP.	Compliance MW	AMA
MW-62D	44.0	49.0	Semi-Annual (1st and 3rd Qrtrs)	Semi-Annual	None	E, V	Monitor downgradient of containment system capture zone. The sampling frequency has been updated because the MW-62 wells have been designated as "Compliance Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Compliance Wells will be re-evaluated for the 2012 GMP.	Compliance MW	AMA
MW-63B	18.5	28.5	None	None	None		Location upgradient and not in close proximity to LL plumes.	Upgradient MW	
MW-64B	19.0	29.0	Annual	Annual	None	E, V	Establish baseline for proposed M.U.D. Well Field.	Sidegradient MW	LF
MW-65A	93	103	Biennial (2009)	Biennial (2009)	None	E,V	Monitor to ensure minimal vertical migration beneath high concentration portion of LL2 RDX plume. Monitor VOCs for any southwestward movement of LL2 TCE plume.	Interior Plume MW	LL2
MW-65B	35	65	Annual	Annual	None	E	Monitor for desorption from high concentration upgradient portion of LL2 RDX plume.	Interior Plume MW	LL2
MW-71B	36	66	Biennial (2009)	Biennial (2009)	None	E, V	Monitor for desorption from high concentration upgradient portion of LL2 RDX plume. Monitor VOCs for any southwestward movement of LL2 TCE plume.	Interior Plume MW	LL2
MW-72A	88	108	Annual	Annual	None	V	Monitor trend in AMA TCE plume as centroid shifts to southwest due to EW-3 through EW-10, and eventually FEW-15. If trend continues to below 5ug/L, will provide data to evaluate whether AMA high concentration area can be remediated to levels below 5ug/L with extraction or GCW.	Interior Plume MW	AMA
MW-72B	40	70	Annual	Annual	None	V	Monitor trend in AMA TCE plume as centroid shifts to southwest due to EW-3 through EW-10, and eventually FEW-15. If trend continues to below 5ug/L, will provide data to evaluate whether AMA high concentration area can be remediated to levels below 5ug/L with extraction or GCW.	Interior Plume MW	AMA
MW-78A	85	105	Annual	Annual	None	V	Monitor trend in AMA TCE plume as centroid shifts to southwest due to EW-3 through EW-10, and eventually FEW-15. If trend continues to below 5ug/L, will provide data to evaluate whether AMA high concentration area can be remediated to levels below 5ug/L with extraction or GCW.	Interior Plume MW	AMA
MW-78B	40	70	Annual	Annual	None	V	Monitor trend in AMA TCE plume as centroid shifts to southwest due to EW-3 through EW-10, and eventually FEW-15. If trend continues to below 5ug/L, will provide data to evaluate whether AMA high concentration area can be remediated to levels below 5ug/L with extraction or GCW.	Interior Plume MW	AMA
MW-79A	76.3	86.3	Semi-Annual	Semi-Annual	None	V	Sidegradient MW used to monitor any westward shift of the LL1 TCE plume.	Sidegradient MW	LL1
MW-79B	30.3	40.3	Semi-Annual	Semi-Annual	None	V	Sidegradient MW used to monitor any westward shift of the LL1 TCE plume.	Sidegradient MW	LL1
MW-80A	69.3	79.3	Annual	Annual	None	V	Installed to monitor concentration within the LL1 plume and evaluate the migration of TCE toward the capture zone. Between installation of MW-80A (3rd Quarter 2005) and startup of EW-12 (1st Quarter 2006), TCE concentrations increased from 12 ug/L to 17.5 ug/L. With EW-12 pumping, TCE concentrations steadily declined to non-detect in the 3rd Quarter 2007 and have been non-detect since the 3rd Quarter 2007.	Downgradient MW	LL1
MW-80B	30.3	40.3	Annual	Annual	None	V	Installed to monitor concentration within the LL1 plume and evaluate the migration of TCE toward the capture zone. Between installation of MW-80B (3rd Quarter 2005) and startup of EW-12 (1st Quarter 2006), TCE concentrations increased from 7.3 ug/L to 18 ug/L. With EW-12 pumping, TCE concentrations have steadily declined to 2.3 ug/L in the 1st Quarter 2009, which is the last quarter sampled.	Downgradient MW	LL1
MW-80D	88.3	93.3	Annual	Annual	None	V	Installed to monitor concentration within the LL1 plume and evaluate the migration of TCE toward the capture zone. TCE has been non-detect since MW-80D was first sampled (3rd Quarter 2005).	Downgradient MW	LL1

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2010 Rationale for Sampling Monitoring Wells
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Well Number	Top Screen Depth (ft bgs)	Bot. Screen Depth (ft bgs)	Sampling Frequency for 2009	Proposed Sampling Frequency for 2010	Changes from 2009 to 2010	Analytes	Rationale for Increasing or Decreasing Sampling Frequency	Objective	General Location
MW-81A	82.3	92.3	Quarterly	Quarterly	None	E,V	Monitor southeastern downgradient edge of LL1 TCE plume. The sampling frequency has been increased because the MW-81 wells have been designated as "Perimeter Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Perimeter Wells will be re-evaluated for the 2012 GMP.	Perimeter MW	LL1
MW-81B	28.3	38.3	Quarterly	Quarterly	None	E,V	Monitor southeastern downgradient edge of LL1 TCE plume. The sampling frequency has been increased because the MW-81 wells have been designated as "Perimeter Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Perimeter Wells will be re-evaluated for the 2012 GMP.	Perimeter MW	LL1
MW-81D	99.9	104.9	Quarterly	Quarterly	None	E,V	Monitor southeastern downgradient edge of LL1 TCE plume. The sampling frequency has been increased because the MW-81 wells have been designated as "Perimeter Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Perimeter Wells will be re-evaluated for the 2012 GMP.	Perimeter MW	LL1
MW-82A	89.5	94.5	Semi-Annual (1st and 3rd Qrtrs)	Semi-Annual	None	E,V	Monitor downgradient of containment system capture zone. With the exception of a low detect (0.49 ug/L) for TCE in the 1st Quarter 2007, TCE and RDX have been non-detect since MW-82A was first sampled (4th Quarter 2004). The sampling frequency has been increased because the MW-82 wells have been designated as "Compliance Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Compliance Wells will be re-evaluated for the 2012 GMP.	Compliance MW	LL2
MW-82B	61.2	65.7	Semi-Annual (1st and 3rd Qrtrs)	Semi-Annual	None	E,V	Monitor downgradient of containment system capture zone. TCE and RDX have been non-detect since MW-82B was first sampled (4th Quarter 2004). The sampling frequency has been increased because the MW-82 wells have been designated as "Compliance Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Compliance Wells will be re-evaluated for the 2012 GMP.	Compliance MW	LL2
MW-82D	120.0	125.0	Semi-Annual (1st and 3rd Qrtrs)	Semi-Annual	None	E,V	Monitor downgradient of containment system capture zone. TCE and RDX have been non-detect since MW-82D was first sampled (4th Quarter 2004). The sampling frequency has been increased because the MW-82 wells have been designated as "Compliance Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Compliance Wells will be re-evaluated for the 2012 GMP.	Compliance MW	LL2
MW-83A	103.5	108.5	Quarterly	Quarterly	None	E,V	Monitor downgradient of LL2 RDX plume. The sampling frequency has been increased because the MW-83 wells have been designated as "Perimeter Wells". The designation is based on revisio to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Perimeter Wells will be re-evaluated for the 2012 GMP.	Perimeter MW	LL2
MW-83B	75.0	80.0	Quarterly	Quarterly	None	E,V	Monitor downgradient of LL2 RDX plume. The sampling frequency has been increased because the MW-83 wells have been designated as "Perimeter Wells". The designation is based on revisio to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Perimeter Wells will be re-evaluated for the 2012 GMP.	Perimeter MW	LL2
MW-83D	116.0	121.0	Quarterly	Quarterly	None	E,V	Monitor downgradient of LL2 RDX plume. The sampling frequency has been increased because the MW-83 wells have been designated as "Perimeter Wells". The designation is based on revisio to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Perimeter Wells will be re-evaluated for the 2012 GMP.	Perimeter MW	LL2
MW-84A	87.1	91.1	Quarterly	Quarterly	None	E,V	Monitor downgradient of LL2 RDX plume. The sampling frequency has been increased because the MW-84 wells have been designated as "Perimeter Wells". The designation is based on revisio to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Perimeter Wells will be re-evaluated for the 2012 GMP.	Perimeter MW	LL2
MW-84B	66.5	71.5	Quarterly	Quarterly	None	E,V	Monitor downgradient of LL2 RDX plume. The sampling frequency has been increased because the MW-84 wells have been designated as "Perimeter Wells". The designation is based on revisio to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Perimeter Wells will be re-evaluated for the 2012 GMP.	Perimeter MW	LL2
MW-84D	103.5	108.5	Quarterly	Quarterly	None	E,V	Monitor downgradient of LL2 RDX plume. The sampling frequency has been increased because the MW-84 wells have been designated as "Perimeter Wells". The designation is based on revisio to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Perimeter Wells will be re-evaluated for the 2012 GMP.	Perimeter MW	LL2
MW-85A	81.0	86.0	Quarterly	Quarterly	None	E,V	Monitor downgradient of LL3 RDX plume. The sampling frequency has been increased because the MW-85 wells have been designated as "Perimeter Wells". The designation is based on revisio to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Perimeter Wells will be re-evaluated for the 2012 GMP.	Perimeter MW	LL3
MW-85B	62.0	67.0	Quarterly	Quarterly	None	E,V	Monitor downgradient of LL3 RDX plume. The sampling frequency has been increased because the MW-85 wells have been designated as "Perimeter Wells". The designation is based on revisio to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Perimeter Wells will be re-evaluated for the 2012 GMP.	Perimeter MW	LL3
MW-85D	90.0	95.0	Quarterly	Quarterly	None	E,V	Monitor downgradient of LL3 RDX plume. The sampling frequency has been increased because the MW-85 wells have been designated as "Perimeter Wells". The designation is based on revisio to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Perimeter Wells will be re-evaluated for the 2012 GMP.	Perimeter MW	LL3
MW-86A	52.5	62.5	Semi-Annual (1st and 3rd Qrtrs)	Semi-Annual	None	E,V	Monitor downgradient of containment system capture zone. The sampling frequency has been increased because the MW-86 wells have been designated as "Compliance Wells". The designatio is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Compliance Wells will be re-evaluated for the 2012 GMP.	Compliance MW	LL3
MW-86B	43.0	53.0	Semi-Annual (1st and 3rd Qrtrs)	Semi-Annual	None	E,V	Monitor downgradient of containment system capture zone. The sampling frequency has been increased because the MW-86 wells have been designated as "Compliance Wells". The designatio is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Compliance Wells will be re-evaluated for the 2012 GMP.	Compliance MW	LL3
MW-86D	69.0	74.5	Semi-Annual (1st and 3rd Qrtrs)	Semi-Annual	None	E,V	Monitor downgradient of containment system capture zone. The sampling frequency has been increased because the MW-86 wells have been designated as "Compliance Wells". The designatio is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Compliance Wells will be re-evaluated for the 2012 GMP.	Compliance MW	LL3
MW-87A	36.0	46.0	Annual	Annual	None	E, V	Downgradient of perimeter well MW-117 and complience wells MW-86 and MW-100. TCE and RDX have been non-detect since MW-87A was first sampled (January 2007).	Downgradient MW	LL3

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Well Number	Top Screen Depth (ft bgs)	Bot. Screen Depth (ft bgs)	Sampling Frequency for 2009	Proposed Sampling Frequency for 2010	Changes from 2009 to 2010	Analytes	Rationale for Increasing or Decreasing Sampling Frequency	Objective	General Location
MW-87B	17.0	27.0	Annual	Annual	None	E, V	Downgradient of perimeter well MW-117 and complience wells MW-86 and MW-100. TCE has been non-detect since MW-87B was first sampled (January 2007). RDX concentration has declined from 0.458 ug/L (1st Quarter 2007) to 0.25 ug/L (1st Quarter 2009).	Downgradient MW	LL3
MW-87D	50.1	55.6	Annual	Annual	None	E, V	Downgradient of perimeter well MW-117 and complience wells MW-86 and MW-100. TCE and RDX have been non-detect since MW-87A was first sampled (January 2007).	Downgradient MW	LL3
MW-88A	35.0	45.0	Semi-Annual (1st and 3rd Qrtrs)	Semi-Annual	None	E, V	Monitor downgradient of containment system capture zone. The sampling frequency has been increased because the MW-88 wells have been designated as "Compliance Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Compliance Wells will be re-evaluated for the 2012 GMP.	Compliance MW	AMA
MW-88B	20.0	30.0	Semi-Annual (1st and 3rd Qrtrs)	Semi-Annual	None	E, V	Monitor downgradient of containment system capture zone. The sampling frequency has been increased because the MW-88 wells have been designated as "Compliance Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Compliance Wells will be re-evaluated for the 2012 GMP.	Compliance MW	AMA
MW-88D	50.5	55.5	Semi-Annual (1st and 3rd Qrtrs)	Semi-Annual	None	E, V	Monitor downgradient of containment system capture zone. The sampling frequency has been increased because the MW-88 wells have been designated as "Compliance Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Compliance Wells will be re-evaluated for the 2012 GMP.	Compliance MW	AMA
MW-89A	129.32	139.32	Annual	Annual	None	V	Monitor possible westward shift of TCE plume axis, and monitor migration of higher concentrations into Wahoo Valley aquifer upgradient of EW-12.	Sidegradient MW	LL1
MW-89B	65.33	75.33	Annual	Annual	None	V	Monitor possible westward shift of TCE plume axis, and monitor migration of higher concentrations into Wahoo Valley aquifer upgradient of EW-12.	Sidegradient MW	LL1
MW-89D	145.4	150.4	Annual	Annual	None	V	Monitor possible westward shift of TCE plume axis, and monitor migration of higher concentrations into Wahoo Valley aquifer upgradient of EW-12.	Sidegradient MW	LL1
MW-90A	113.8	123.8	VOCs Semi-Annual, Explosives Annual	VOCs Semi-Annual, Explosives Annual	None	E, V	Monitor interrior plume higher TCE concentrations upgradient of EW-12 .	Interior Plume MW	LL1
MW-90B	65.8	75.8	VOCs Semi-Annual, Explosives Annual	VOCs Semi-Annual, Explosives Annual	None	E, V	Monitor interrior plume higher TCE concentrations upgradient of EW-12 .	Interior Plume MW	LL1
MW-90D	130.3	135.3	VOCs Semi-Annual, Explosives Annual	VOCs Semi-Annual, Explosives Annual	None	E, V	Monitor interrior plume higher TCE concentrations upgradient of EW-12 .	Interior Plume MW	LL1
MW-91A	109.3	119.3	Semi-Annual	Semi-Annual	None	V	Sidegradient MW used to monitor any eastward shift of the LL1 TCE plume.	Sidegradient MW	LL1
MW-91B	67.8	77.8	Semi-Annual	Semi-Annual	None	V	Sidegradient MW used to monitor any eastward shift of the LL1 TCE plume.	Sidegradient MW	LL1
MW-91D	125.3	130.3	Semi-Annual	Semi-Annual	None	V	Sidegradient MW used to monitor any eastward shift of the LL1 TCE plume.	Sidegradient MW	LL1
MW-92A	72.3	82.3	Semi-Annual	Annual	Decrease	V	Sidegradient MW used to monitor any westward shift of the LL1 TCE plume, historically ND.	Sidegradient MW	LL1

Table 2-3
2010 Rationale for Sampling Monitoring Wells
Former Nebraska Ordnance Plant, Mead, NE

Well Number	Top Screen Depth (ft bgs)	Bot. Screen Depth (ft bgs)	Sampling Frequency for 2009	Proposed Sampling Frequency for 2010	Changes from 2009 to 2010	Analytes	Rationale for Increasing or Decreasing Sampling Frequency	Objective	General Location
MW-92B	31.3	41.3	Semi-Annual	Annual	Decrease	V	Sidegradient MW used to monitor any westward shift of the LL1 TCE plume, historically ND.	Sidegradient MW	LL1
MW-93A	84.3	94.3	Semi-Annual	Annual	Decrease	V	Sidegradient MW used to monitor any eastward shift of the LL1 TCE plume, historically ND.	Sidegradient MW	LL1
MW-93B	60.3	70.3	Semi-Annual	Annual	Decrease	V	Sidegradient MW used to monitor any eastward shift of the LL1 TCE plume, historically ND.	Sidegradient MW	LL1
MW-94A	84.0	94.0	Semi-Annual	Semi-Annual	None	E	Sidegradient MW used to monitor any westward shift of the LL2 RDX plume.	Sidegradient MW Downgradient MW	LL2
MW-94B	64.0	74.0	Semi-Annual	Semi-Annual	None	E	Sidegradient MW used to monitor any westward shift of the LL2 RDX plume.	Sidegradient MW Downgradient MW	LL2
MW-94D	115.9	121.4	Semi-Annual	Semi-Annual	None	E	Sidegradient MW used to monitor any westward shift of the LL2 RDX plume.	Sidegradient MW Downgradient MW	LL2
MW-95A	93.0	103.0	Quarterly	Quarterly	None	E,V	Monitor side gradient of LL2 RDX plume. The sampling frequency has been increased because th MW-95 wells have been designated as "Perimeter Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Perimeter Wells will be re-evaluated for the 2012 GMP.	Perimeter MW	LL2
MW-95B	65.0	75.0	Quarterly	Quarterly	None	E,V	Monitor side gradient of LL2 RDX plume. The sampling frequency has been increased because th MW-95 wells have been designated as "Perimeter Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Perimeter Wells will be re-evaluated for the 2012 GMP.	Perimeter MW	LL2
MW-95D	124.5	129.5	Quarterly	Quarterly	None	E,V	Monitor side gradient of LL2 RDX plume. The sampling frequency has been increased because th MW-95 wells have been designated as "Perimeter Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Perimeter Wells will be re-evaluated for the 2012 GMP.	Perimeter MW	LL2
MW-96A	82.5	92.5	Semi-Annual (1st and 3rd Qrtrs)	Semi-Annual	None	E,V	Monitor downgradient of containment system capture zone. The sampling frequency has been increased because the MW-96 wells have been designated as "Compliance Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Compliance Wells will be re-evaluated for the 2012 GMP.	Compliance MW	LL2
MW-96B	71.0	81.0	Semi-Annual (1st and 3rd Qrtrs)	Semi-Annual	None	E,V	Monitor downgradient of containment system capture zone. The sampling frequency has been increased because the MW-96 wells have been designated as "Compliance Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Compliance Wells will be re-evaluated for the 2012 GMP.	Compliance MW	LL2
MW-96D	101.5	106.0	Semi-Annual (1st and 3rd Qrtrs)	Semi-Annual	None	E,V	Monitor downgradient of LL2 plume. The sampling frequency has been increased because the MV 96 wells have been designated as "Compliance Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Compliance Wells will be re-evaluated for the 2012 GMP.	Compliance MW	LL2
MW-97A	83.0	93.0	Semi-Annual (1st and 3rd Qrtrs)	Semi-Annual	None	E,V	Monitor downgradient of containment system capture zone. The sampling frequency has been increased because the MW-97 wells have been designated as "Compliance Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Compliance Wells will be re-evaluated for the 2012 GMP.	Compliance MW	LL2
MW-97B	68.0	73.0	Semi-Annual (1st and 3rd Qrtrs)	Semi-Annual	None	E,V	Monitor downgradient of containment system capture zone. The sampling frequency has been increased because the MW-97 wells have been designated as "Compliance Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Compliance Wells will be re-evaluated for the 2012 GMP.	Compliance MW	LL2
MW-97D	100.0	105.5	Semi-Annual (1st and 3rd Qrtrs)	Semi-Annual	None	E,V	Monitor downgradient of containment system capture zone. The sampling frequency has been increased because the MW-97 wells have been designated as "Compliance Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Compliance Wells will be re-evaluated for the 2012 GMP.	Compliance MW	LL2
MW-98A	82.0	92.0	Semi-Annual (1st and 3rd Qrtrs)	Semi-Annual	None	E,V	Monitor downgradient of containment system capture zone. The sampling frequency has been increased because the MW-98 wells have been designated as "Compliance Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Compliance Wells will be re-evaluated for the 2012 GMP.	Compliance MW	LL2
MW-98B	64.0	69.0	Semi-Annual (1st and 3rd Qrtrs)	Semi-Annual	None	E,V	Monitor downgradient of containment system capture zone. The sampling frequency has been increased because the MW-98 wells have been designated as "Compliance Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Compliance Wells will be re-evaluated for the 2012 GMP.	Compliance MW	LL2
MW-98D	97.0	102.0	Semi-Annual (1st and 3rd Qrtrs)	Semi-Annual	None	E,V	Monitor downgradient of containment system capture zone. The sampling frequency has been increased because the MW-98 wells have been designated as "Compliance Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Compliance Wells will be re-evaluated for the 2012 GMP.	Compliance MW	LL2
MW-99A	102.0	112.0	Annual	Annual	None	E	Monitor RDX concentrations upgradient of EW-3, EW-4 and EW16.	Interior Plume MW	LL3

Table 2-3
2010 Rationale for Sampling Monitoring Wells
Former Nebraska Ordnance Plant, Mead, NE

Well Number	Top Screen Depth (ft bgs)	Bot. Screen Depth (ft bgs)	Sampling Frequency for 2009	Proposed Sampling Frequency for 2010	Changes from 2009 to 2010	Analytes	Rationale for Increasing or Decreasing Sampling Frequency	Objective	General Location
MW-99B	75.0	85.0	Annual	Annual	None	E	Monitor RDX concentrations upgradient of EW-3, EW-4 and EW16.	Interior Plume MW	LL3
MW-99D	118.5	123.5	Annual	Annual	None	E	Monitor RDX concentrations upgradient of EW-3, EW-4 and EW16.	Interior Plume MW	LL3
MW-100A	83.0	93.0	Semi-Annual (1st and 3rd Qrtrs)	Semi-Annual	None	E, V	Monitor downgradient of containment system capture zone. The sampling frequency has been increased because the MW-100 wells have been designated as "Compliance Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Compliance Wells will be re-evaluated for the 2012 GMP.	Compliance MW	LL3
MW-100B	65.0	75.0	Semi-Annual (1st and 3rd Qrtrs)	Semi-Annual	None	E, V	Monitor downgradient of containment system capture zone. The sampling frequency has been increased because the MW-100 wells have been designated as "Compliance Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Compliance Wells will be re-evaluated for the 2012 GMP.	Compliance MW	LL3
MW-100D	99.9	104.9	Semi-Annual (1st and 3rd Qrtrs)	Semi-Annual	None	E, V	Monitor downgradient of containment system capture zone. The sampling frequency has been increased because the MW-100 wells have been designated as "Compliance Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Compliance Wells will be re-evaluated for the 2012 GMP.	Compliance MW	LL3
MW-101A	83.0	93.0	Semi-Annual (1st and 3rd Qrtrs)	Semi-Annual	None	E,V	Monitor downgradient of containment system capture zone. The sampling frequency has been increased because the MW-101 wells have been designated as "Compliance Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Compliance Wells will be re-evaluated for the 2012 GMP.	Compliance MW	LL1
MW-101B	30.0	40.0	Semi-Annual (1st and 3rd Qrtrs)	Semi-Annual	None	E,V	Monitor downgradient of containment system capture zone. The sampling frequency has been increased because the MW-101 wells have been designated as "Compliance Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Compliance Wells will be re-evaluated for the 2012 GMP.	Compliance MW	LL1
MW-101D	90.0	95.0	Semi-Annual (1st and 3rd Qrtrs)	Semi-Annual	None	E,V	Monitor downgradient of containment system capture zone. The sampling frequency has been increased because the MW-101 wells have been designated as "Compliance Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Compliance Wells will be re-evaluated for the 2012 GMP.	Compliance MW	LL1
MW-102A	117.0	127.0	Quarterly	Quarterly	None	E,V	Monitor eastern edge of AMA TCE plume. Establish baseline for proposed M.U.D. Well Field. The sampling frequency has been increased because the MW-102 wells have been designated as "Perimeter Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Perimeter Wells will be re-evaluated for the 2012 GMP.	Perimeter MW	AMA
MW-102B	50.0	60.0	Quarterly	Quarterly	None	E,V	Monitor eastern edge of AMA TCE plume. Establish baseline for proposed M.U.D. Well Field. The sampling frequency has been increased because the MW-102 wells have been designated as "Perimeter Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Perimeter Wells will be re-evaluated for the 2012 GMP.	Perimeter MW	AMA
MW-102D	134.5	139.5	Quarterly	Quarterly	None	E,V	Monitor eastern edge of AMA TCE plume. Establish baseline for proposed M.U.D. Well Field. The sampling frequency has been increased because the MW-102 wells have been designated as "Perimeter Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Perimeter Wells will be re-evaluated for the 2012 GMP.	Perimeter MW	AMA
MW-103A	116.0	126.0	Quarterly	Quarterly	None	E,V	Monitor eastern edge of AMA TCE plume. Establish baseline for proposed M.U.D. Well Field. The sampling frequency has been increased because the MW-103 wells have been designated as "Perimeter Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Perimeter Wells will be re-evaluated for the 2012 GMP.	Perimeter MW	AMA
MW-103B	50.0	60.0	Quarterly	Quarterly	None	E,V	Monitor eastern edge of AMA TCE plume. Establish baseline for proposed M.U.D. Well Field. The sampling frequency has been increased because the MW-103 wells have been designated as "Perimeter Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Perimeter Wells will be re-evaluated for the 2012 GMP.	Perimeter MW	AMA
MW-103D	130.0	135.0	Quarterly	Quarterly	None	E,V	Monitor eastern edge of AMA TCE plume. Establish baseline for proposed M.U.D. Well Field. The sampling frequency has been increased because the MW-103 wells have been designated as "Perimeter Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Perimeter Wells will be re-evaluated for the 2012 GMP.	Perimeter MW	AMA
MW-104A	31	41	Quarterly	Semi-Annual (1st and 3rd Qrtrs)	Decrease	E, V	Replace MW-45 in monitoring concentration and location of AMA plume axis in Platte Valley. Baseline sampling of new wells installed in Spring 2009 completedFrequency decreased to semi-annual.	Interior Plume MW	AMA
MW-104B	15	25	Quarterly	Semi-Annual (1st and 3rd Qrtrs)	Decrease	E, V	Replace MW-45 in monitoring concentration and location of AMA plume axis in Platte Valley. Baseline sampling of new wells installed in Spring 2009 completed. Frequency decreased to semi-annual.	Interior Plume MW	AMA
MW-104D	45	49	Quarterly	Semi-Annual (1st and 3rd Qrtrs)	Decrease	E, V	Replace MW-45 in monitoring concentration and location of AMA plume axis in Platte Valley. Baseline sampling of new wells installed in Spring 2009 completed. Frequency decreased to semi-annual.	Interior Plume MW	AMA
MW-104O	5	7	Quarterly	Semi-Annual (1st and 3rd Qrtrs)	Decrease	E, V	Replace MW-45 in monitoring concentration and location of AMA plume axis in Platte Valley. Baseline sampling of new wells installed in Spring 2009 completed. Frequency decreased to semi-annual.	Interior Plume MW	AMA
MW-105A	30	40	Quarterly	Semi-Annual (1st and 3rd Qrtrs)	Decrease	E, V	Replace MW-36 in monitoring concentration of toe of AMA TCE plume entering EW-1Baseline sampling of new wells installed in Spring 2009 completed. Frequency decreased to semi-annual.	Interior Plume MW	AMA

Table 2-3
2010 Rationale for Sampling Monitoring Wells
Former Nebraska Ordnance Plant, Mead, NE

Well Number	Top Screen Depth (ft bgs)	Bot. Screen Depth (ft bgs)	Sampling Frequency for 2009	Proposed Sampling Frequency for 2010	Changes from 2009 to 2010	Analytes	Rationale for Increasing or Decreasing Sampling Frequency	Objective	General Location
MW-105B	15	24	Quarterly	Semi-Annual (1st and 3rd Qrtrs)	Decrease	E, V	Replace MW-36 in monitoring concentration of toe of AMA TCE plume entering EW-1 Baseline sampling of new wells installed in Spring 2009 completed. Frequency decreased to semi-annual.	Interior Plume MW	AMA
MW-105O	5	7	Quarterly	Semi-Annual (1st and 3rd Qrtrs)	Decrease	E, V	Replace MW-36 in monitoring concentration of toe of AMA TCE plume entering EW-1 Baseline sampling of new wells installed in Spring 2009 completed. Frequency decreased to semi-annual.	Interior Plume MW	AMA
MW-106A	57.0	67.0	Quarterly	Quarterly	None	E, V	Monitor eastern edge of AMA TCE plume. Establish baseline for proposed M.U.D. Well Field. The sampling frequency has been increased because the MW-106 wells have been designated as "Perimeter Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Perimeter Wells will be re-evaluated for the 2012 GMP.	Perimeter MW	AMA
MW-106B	25.0	35.0	Quarterly	Quarterly	None	E, V	Monitor eastern edge of AMA TCE plume. Establish baseline for proposed M.U.D. Well Field. The sampling frequency has been increased because the MW-106 wells have been designated as "Perimeter Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Perimeter Wells will be re-evaluated for the 2012 GMP.	Perimeter MW	AMA
MW-106D	74.0	79.0	Quarterly	Quarterly	None	E, V	Monitor eastern edge of AMA TCE plume. Establish baseline for proposed M.U.D. Well Field. The sampling frequency has been increased because the MW-106 wells have been designated as "Perimeter Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Perimeter Wells will be re-evaluated for the 2012 GMP.	Perimeter MW	AMA
MW-107A	78.0	88.0	Quarterly	Quarterly	None	E, V	Monitor eastern edge of AMA TCE plume. Establish baseline for proposed M.U.D. Well Field. The sampling frequency has been increased because the MW-107 wells have been designated as "Perimeter Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Perimeter Wells will be re-evaluated for the 2012 GMP.	Perimeter MW	AMA
MW-107B	45.0	55.0	Quarterly	Quarterly	None	E, V	Monitor eastern edge of AMA TCE plume. Establish baseline for proposed M.U.D. Well Field. The sampling frequency has been increased because the MW-107 wells have been designated as "Perimeter Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Perimeter Wells will be re-evaluated for the 2012 GMP.	Perimeter MW	AMA
MW-107D	95.5	100.5	Quarterly	Quarterly	None	E, V	Monitor eastern edge of AMA TCE plume. Establish baseline for proposed M.U.D. Well Field. The sampling frequency has been increased because the MW-107 wells have been designated as "Perimeter Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Perimeter Wells will be re-evaluated for the 2012 GMP.	Perimeter MW	AMA
MW-108A	71.0	81.0	Quarterly	Quarterly	None	E, V	Monitor eastern edge of AMA TCE plume. Establish baseline for proposed M.U.D. Well Field. The sampling frequency has been increased because the MW-108 wells have been designated as "Perimeter Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Perimeter Wells will be re-evaluated for the 2012 GMP.	Perimeter MW	AMA
MW-108B	35.0	45.0	Quarterly	Quarterly	None	E, V	Monitor eastern edge of AMA TCE plume. Establish baseline for proposed M.U.D. Well Field. The sampling frequency has been increased because the MW-108 wells have been designated as "Perimeter Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Perimeter Wells will be re-evaluated for the 2012 GMP.	Perimeter MW	AMA
MW-108D	88.5	93.5	Quarterly	Quarterly	None	E, V	Monitor eastern edge of AMA TCE plume. Establish baseline for proposed M.U.D. Well Field. The sampling frequency has been increased because the MW-108 wells have been designated as "Perimeter Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Perimeter Wells will be re-evaluated for the 2012 GMP.	Perimeter MW	AMA
MW-109A	37	46	Quarterly	Semi-Annual (1st and 3rd Qrtrs)	Decrease	E, V	Monitoring LL4 RDX plume and relatively higher concentration portion of AMA TCE plume near Johnson Creek. Baseline sampling of new wells installed in Spring 2009 completed. Frequency decreased to semi-annual.	Interior Plume MW	LL4/AMA
MW-109B	19	29	Quarterly	Semi-Annual (1st and 3rd Qrtrs)	Decrease	E, V	Monitoring LL4 RDX plume and relatively higher concentration portion of AMA TCE plume near Johnson Creek. Baseline sampling of new wells installed in Spring 2009 completed. Frequency decreased to semi-annual.	Interior Plume MW	LL4/AMA
MW-109O	7	9	Quarterly	Semi-Annual (1st and 3rd Qrtrs)	Decrease	E, V	Monitoring LL4 RDX plume and relatively higher concentration portion of AMA TCE plume near Johnson Creek. Baseline sampling of new wells installed in Spring 2009 completed. Frequency decreased to semi-annual.	Interior Plume MW	LL4/AMA
MW-110A	39.5	44.5	Quarterly	Quarterly	None	E, V	Monitor eastern edge of AMA TCE plume. Establish baseline for proposed M.U.D. Well Field. The sampling frequency has been increased because the MW-110 wells have been designated as "Perimeter Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Perimeter Wells will be re-evaluated for the 2012 GMP.	Perimeter MW	AMA
MW-110B	23.0	28.0	Quarterly	Quarterly	None	E, V	Monitor eastern edge of AMA TCE plume. Establish baseline for proposed M.U.D. Well Field. The sampling frequency has been increased because the MW-110 wells have been designated as "Perimeter Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Perimeter Wells will be re-evaluated for the 2012 GMP.	Perimeter MW	AMA
MW-110D	50.0	55.0	Quarterly	Quarterly	None	E, V	Monitor eastern edge of AMA TCE plume. Establish baseline for proposed M.U.D. Well Field. The sampling frequency has been increased because the MW-110 wells have been designated as "Perimeter Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Perimeter Wells will be re-evaluated for the 2012 GMP.	Perimeter MW	AMA
MW-111A	31	41	Quarterly	Semi-Annual (1st and 3rd Qrtrs)	Decrease	E, V	Monitoring eastern side of AMA TCE plume between Johnson Creek and Clear Creek. Baseline sampling of new wells installed in Spring 2009 completed. Frequency decreased to semi-annual.	Interior Plume MW	AMA
MW-111B	15	24	Quarterly	Semi-Annual (1st and 3rd Qrtrs)	Decrease	E, V	Monitoring eastern side of AMA TCE plume between Johnson Creek and Clear Creek. Baseline sampling of new wells installed in Spring 2009 completed. Frequency decreased to semi-annual.	Interior Plume MW	AMA

Table 2-3
2010 Rationale for Sampling Monitoring Wells
Former Nebraska Ordnance Plant, Mead, NE

Well Number	Top Screen Depth (ft bgs)	Bot. Screen Depth (ft bgs)	Sampling Frequency for 2009	Proposed Sampling Frequency for 2010	Changes from 2009 to 2010	Analytes	Rationale for Increasing or Decreasing Sampling Frequency	Objective	General Location
MW-111O	5	7	Quarterly	Semi-Annual (1st and 3rd Qrtrs)	Decrease	E, V	Monitoring eastern side of AMA TCE plume between Johnson Creek and Clear Creek. Baseline sampling of new wells installed in Spring 2009 completed. Frequency decreased to semi-annual.	Interior Plume MW	AMA
MW-112A	42.5	47.5	Quarterly	Quarterly	None	E, V	Monitor eastern edge of AMA TCE plume. Establish baseline for proposed M.U.D. Well Field. The sampling frequency has been increased because the MW-112 wells have been designated as "Perimeter Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Perimeter Wells will be re-evaluated for the 2012 GMP.	Perimeter MW	AMA
MW-112B	21.0	26.0	Quarterly	Quarterly	None	E, V	Monitor eastern edge of AMA TCE plume. Establish baseline for proposed M.U.D. Well Field. The sampling frequency has been increased because the MW-112 wells have been designated as "Perimeter Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Perimeter Wells will be re-evaluated for the 2012 GMP.	Perimeter MW	AMA
MW-113A	36.0	41.0	Quarterly	Quarterly	None	E, V	Monitor eastern edge of AMA TCE plume. Establish baseline for proposed M.U.D. Well Field. The sampling frequency has been increased because the MW-113 wells have been designated as "Perimeter Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Perimeter Wells will be re-evaluated for the 2012 GMP.	Perimeter MW	AMA
MW-113B	26.0	31.0	Quarterly	Quarterly	None	E, V	Monitor eastern edge of AMA TCE plume. Establish baseline for proposed M.U.D. Well Field. The sampling frequency has been increased because the MW-113 wells have been designated as "Perimeter Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Perimeter Wells will be re-evaluated for the 2012 GMP.	Perimeter MW	AMA
MW-113D	48.7	53.7	Quarterly	Quarterly	None	E, V	Monitor eastern edge of AMA TCE plume. Establish baseline for proposed M.U.D. Well Field. The sampling frequency has been increased because the MW-113 wells have been designated as "Perimeter Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Perimeter Wells will be re-evaluated for the 2012 GMP.	Perimeter MW	AMA
MW-114A	37.0	47.0	Quarterly	Quarterly	None	E, V	Monitor eastern edge of AMA TCE plume. Establish baseline for proposed M.U.D. Well Field. The sampling frequency has been increased because the MW-114 wells have been designated as "Perimeter Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Perimeter Wells will be re-evaluated for the 2012 GMP.	Perimeter MW	AMA
MW-114B	20.0	30.0	Quarterly	Quarterly	None	E, V	Monitor eastern edge of AMA TCE plume. Establish baseline for proposed M.U.D. Well Field. The sampling frequency has been increased because the MW-114 wells have been designated as "Perimeter Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Perimeter Wells will be re-evaluated for the 2012 GMP.	Perimeter MW	AMA
MW-114D	52.4	58.0	Quarterly	Quarterly	None	E, V	Monitor eastern edge of AMA TCE plume. Establish baseline for proposed M.U.D. Well Field. The sampling frequency has been increased because the MW-114 wells have been designated as "Perimeter Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Perimeter Wells will be re-evaluated for the 2012 GMP.	Perimeter MW	AMA
MW-115A	43.0	48.0	Quarterly	Quarterly	None	E, V	Monitor eastern edge of AMA TCE plume. Establish baseline for proposed M.U.D. Well Field. The sampling frequency has been increased because the MW-115 wells have been designated as "Perimeter Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Perimeter Wells will be re-evaluated for the 2012 GMP.	Perimeter MW	AMA
MW-115B	28.0	33.0	Quarterly	Quarterly	None	E, V	Monitor eastern edge of AMA TCE plume. Establish baseline for proposed M.U.D. Well Field. The sampling frequency has been increased because the MW-115 wells have been designated as "Perimeter Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Perimeter Wells will be re-evaluated for the 2012 GMP.	Perimeter MW	AMA
MW-115D	53.9	59.4	Quarterly	Quarterly	None	E, V	Monitor eastern edge of AMA TCE plume. Establish baseline for proposed M.U.D. Well Field. The sampling frequency has been increased because the MW-115 wells have been designated as "Perimeter Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Perimeter Wells will be re-evaluated for the 2012 GMP.	Perimeter MW	AMA
MW-116A	37.5	42.5	Quarterly	Quarterly	None	E, V	Monitor eastern edge of AMA TCE plume. Establish baseline for proposed M.U.D. Well Field. The sampling frequency has been increased because the MW-116 wells have been designated as "Perimeter Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Perimeter Wells will be re-evaluated for the 2012 GMP.	Perimeter MW	AMA
MW-116B	27.0	32.0	Quarterly	Quarterly	None	E, V	Monitor eastern edge of AMA TCE plume. Establish baseline for proposed M.U.D. Well Field. The sampling frequency has been increased because the MW-116 wells have been designated as "Perimeter Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Perimeter Wells will be re-evaluated for the 2012 GMP.	Perimeter MW	AMA
MW-116D	48.0	53.5	Quarterly	Quarterly	None	E, V	Monitor eastern edge of AMA TCE plume. Establish baseline for proposed M.U.D. Well Field. The sampling frequency has been increased because the MW-116 wells have been designated as "Perimeter Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Perimeter Wells will be re-evaluated for the 2012 GMP.	Perimeter MW	AMA
MW-117A	66.0	76.0	Quarterly	Quarterly	None	E,V	Monitor downgradient of LL3 RDX plume. The sampling frequency has been increased because the MW-117 wells have been designated as "Perimeter Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Perimeter Wells will be re-evaluated for the 2012 GMP.	Perimeter MW	LL3
MW-117B	43.0	53.0	Quarterly	Quarterly	None	E,V	Monitor downgradient of LL3 RDX plume. The sampling frequency has been increased because the MW-117 wells have been designated as "Perimeter Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Perimeter Wells will be re-evaluated for the 2012 GMP.	Perimeter MW	LL3
MW-117D	81.5	86.5	Quarterly	Quarterly	None	E,V	Monitor downgradient of LL3 RDX plume. The sampling frequency has been increased because the MW-117 wells have been designated as "Perimeter Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Perimeter Wells will be re-evaluated for the 2012 GMP.	Perimeter MW	LL3

Table 2-3
2010 Rationale for Sampling Monitoring Wells
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Well Number	Top Screen Depth (ft bgs)	Bot. Screen Depth (ft bgs)	Sampling Frequency for 2009	Proposed Sampling Frequency for 2010	Changes from 2009 to 2010	Analytes	Rationale for Increasing or Decreasing Sampling Frequency	Objective	General Location
MW-118A	84.8	95.3	Quarterly	Quarterly	None	E,V	Monitor downgradient of LL3 RDX plume. No historical TCE detections in upgradient MW-34 cluster. The sampling frequency has been increased because the MW-118 wells have been designated as "Perimeter Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Perimeter Wells will be re-evaluated for the 2012 GMP.	Perimeter MW	LL3
MW-118B	70.0	75.0	Quarterly	Quarterly	None	E,V	Monitor downgradient of LL3 RDX plume. No historical TCE detections in upgradient MW-34 cluster. The sampling frequency has been increased because the MW-118 wells have been designated as "Perimeter Wells". The designation is based on revisions to the Containment Evaluation Work Plan, as approved by EPA and NDEQ. The sampling frequency for Perimeter Wells will be re-evaluated for the 2012 GMP.	Perimeter MW	LL3
MW-119A	119.7	129.2	Quarterly	Semi-Annual (1st and 3rd Qrtrs)	Decrease	E, V	Monitor LL1 TCE plume sidegradient of FEW-11. Baseline sampling of new wells installed in Spring 2009 completed. Frequency decreased to semi-annual.	Focused Extraction MW	LL1
MW-119B	74	83.5	Quarterly	Semi-Annual (1st and 3rd Qrtrs)	Decrease	E, V	Monitor LL1 TCE plume sidegradient of FEW-11. Baseline sampling of new wells installed in Spring 2009 completed. Frequency decreased to semi-annual.	Focused Extraction MW	LL1
MW-120A	128.7	138.2	Quarterly	Semi-Annual (1st and 3rd Qrtrs)	Decrease	E, V	Monitor LL1 TCE plume downgradient of FEW-11. Baseline sampling of new wells installed in Spring 2009 completed. Frequency decreased to semi-annual.	Focused Extraction MW	LL1
MW-120B	65.5	75	Quarterly	Semi-Annual (1st and 3rd Qrtrs)	Decrease	E, V	Monitor LL1 TCE plume downgradient of FEW-11. Baseline sampling of new wells installed in Spring 2009 completed. Frequency decreased to semi-annual.	Focused Extraction MW	LL1
MW-120D	144	148.4	Quarterly	Semi-Annual (1st and 3rd Qrtrs)	Decrease	E, V	Monitor LL1 TCE plume downgradient of FEW-11. Baseline sampling of new wells installed in Spring 2009 completed. Frequency decreased to semi-annual.	Focused Extraction MW	LL1
MW-120E	95.3	104.8	Quarterly	Semi-Annual (1st and 3rd Qrtrs)	Decrease	E, V	Monitor LL1 TCE plume downgradient of FEW-11. Baseline sampling of new wells installed in Spring 2009 completed. Frequency decreased to semi-annual.	Focused Extraction MW	LL1
MW-121A	132.6	142.1	Quarterly	Semi-Annual (1st and 3rd Qrtrs)	Decrease	E, V	Monitor LL1 TCE plume sidegradient of FEW-11. Baseline sampling of new wells installed in Spring 2009 completed. Frequency decreased to semi-annual.	Focused Extraction MW	LL1
MW-121B	75.7	85.2	Quarterly	Semi-Annual (1st and 3rd Qrtrs)	Decrease	E, V	Monitor LL1 TCE plume sidegradient of FEW-11. Baseline sampling of new wells installed in Spring 2009 completed. Frequency decreased to semi-annual.	Focused Extraction MW	LL1
MW-121E	105.5	115	Quarterly	Semi-Annual (1st and 3rd Qrtrs)	Decrease	E, V	Monitor LL1 TCE plume sidegradient of FEW-11. Baseline sampling of new wells installed in Spring 2009 completed. Frequency decreased to semi-annual.	Focused Extraction MW	LL1
MW-122A	128.5	138	Quarterly	Semi-Annual (1st and 3rd Qrtrs)	Decrease	E, V	Monitor LL1 TCE plume downgradient of FEW-11. Baseline sampling of new wells installed in Spring 2009 completed. Frequency decreased to semi-annual.	Focused Extraction MW	LL1
MW-122B	97.6	107.1	Quarterly	Semi-Annual (1st and 3rd Qrtrs)	Decrease	E, V	Monitor LL1 TCE plume downgradient of FEW-11. Baseline sampling of new wells installed in Spring 2009 completed. Frequency decreased to semi-annual.	Focused Extraction MW	LL1
MW-123A	131.8	141.3	Quarterly	Semi-Annual (1st and 3rd Qrtrs)	Decrease	E, V	Monitor LL1 TCE plume sidegradient of FEW-11. Baseline sampling of new wells installed in Spring 2009 completed. Frequency decreased to semi-annual.	Focused Extraction MW	LL1
MW-123B	90.1	99.6	Quarterly	Semi-Annual (1st and 3rd Qrtrs)	Decrease	E, V	Monitor LL1 TCE plume sidegradient of FEW-11. Baseline sampling of new wells installed in Spring 2009 completed. Frequency decreased to semi-annual.	Focused Extraction MW	LL1
MW-124A	100	110	Quarterly	Semi-Annual (1st and 3rd Qrtrs)	Decrease	E, V	Monitor concentration in centroid of LL1 TCE plume, and provide data on the desorption of TCE from high concentration centroid.Baseline sampling of new wells installed in Spring 2009 completed. Frequency decreased to semi-annual.	Interior Plume MW	LL1

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Well Number	Top Screen Depth (ft bgs)	Bot. Screen Depth (ft bgs)	Sampling Frequency for 2009	Proposed Sampling Frequency for 2010	Changes from 2009 to 2010	Analytes	Rationale for Increasing or Decreasing Sampling Frequency	Objective	General Location
MW-124B	70	79	Quarterly	Semi-Annual (1st and 3rd Qrtrs)	Decrease	E, V	Monitor concentration in centroid of LL1 TCE plume, and provide data on the desorption of TCE from high concentration centroid.Baseline sampling of new wells installed in Spring 2009 completed. Frequency decreased to semi-annual.	Interior Plume MW	LL1
MW-124D	121	126	Quarterly	Semi-Annual (1st and 3rd Qrtrs)	Decrease	E, V	Monitor concentration in centroid of LL1 TCE plume, and provide data on the desorption of TCE from high concentration centroid.Baseline sampling of new wells installed in Spring 2009 completed. Frequency decreased to semi-annual.	Interior Plume MW	LL1
MW-125A	118	127	Quarterly	Semi-Annual (1st and 3rd Qrtrs)	Decrease	E, V	Monitor concentration in centroid of LL1 TCE plume, and provide data on the desorption of TCE from high concentration centroid.Baseline sampling of new wells installed in Spring 2009 completed. Frequency decreased to semi-annual.	Interior Plume MW	LL1
MW-125B	77	86	Quarterly	Semi-Annual (1st and 3rd Qrtrs)	Decrease	E, V	Monitor concentration in centroid of LL1 TCE plume, and provide data on the desorption of TCE from high concentration centroid.Baseline sampling of new wells installed in Spring 2009 completed. Frequency decreased to semi-annual.	Interior Plume MW	LL1
MW-125D	134	139	Quarterly	Semi-Annual (1st and 3rd Qrtrs)	Decrease	E, V	Monitor concentration in centroid of LL1 TCE plume, and provide data on the desorption of TCE from high concentration centroid.Baseline sampling of new wells installed in Spring 2009 completed. Frequency decreased to semi-annual.	Interior Plume MW	LL1
MW-126A	112	122	Quarterly	Semi-Annual (1st and 3rd Qrtrs)	Decrease	E, V	Monitor concentration in centroid of LL1 TCE plume, and provide data on the desorption of TCE from high concentration centroid.Baseline sampling of new wells installed in Spring 2009 completed. Frequency decreased to semi-annual.	Interior Plume MW	LL1
MW-126B	82	92	Quarterly	Semi-Annual (1st and 3rd Qrtrs)	Decrease	E, V	Monitor concentration in centroid of LL1 TCE plume, and provide data on the desorption of TCE from high concentration centroid.Baseline sampling of new wells installed in Spring 2009 completed. Frequency decreased to semi-annual.	Interior Plume MW	LL1
MW-126D	149	153	Quarterly	Semi-Annual (1st and 3rd Qrtrs)	Decrease	E, V	Monitor concentration in centroid of LL1 TCE plume, and provide data on the desorption of TCE from high concentration centroid.Baseline sampling of new wells installed in Spring 2009 completed. Frequency decreased to semi-annual.	Interior Plume MW	LL1
MW-127A	119	128	Quarterly	Semi-Annual (1st and 3rd Qrtrs)	Decrease	E, V	Monitor concentration in centroid of LL1 TCE plume, and provide data on the desorption of TCE from high concentration centroid.Baseline sampling of new wells installed in Spring 2009 completed. Frequency decreased to semi-annual.	Interior Plume MW	LL1
MW-127B	72	81	Quarterly	Semi-Annual (1st and 3rd Qrtrs)	Decrease	E, V	Monitor concentration in centroid of LL1 TCE plume, and provide data on the desorption of TCE from high concentration centroid.Baseline sampling of new wells installed in Spring 2009 completed. Frequency decreased to semi-annual.	Interior Plume MW	LL1
MW-127E	52	51	Quarterly	Semi-Annual (1st and 3rd Qrtrs)	Decrease	E, V	Monitor concentration in centroid of LL1 TCE plume, and provide data on the desorption of TCE from high concentration centroid.Baseline sampling of new wells installed in Spring 2009 completed. Frequency decreased to semi-annual.	Interior Plume MW	LL1
MW-128A	96.2	106.2	Quarterly	Semi-Annual after 1st Qrtr (2nd and 4th Qrtrs)	Decrease	E	Monitor inside edge of LL3 RDX plume by FEW-14. Post EW startup sampling of new monitoring wells will be completed 1Q 2010. Frequency decreased to semi-annual.	Focused Extraction MW	LL3
MW-128B	79.5	90.1	Quarterly	Semi-Annual after 1st Qrtr (2nd and 4th Qrtrs)	Decrease	E	Monitor inside edge of LL3 RDX plume by FEW-14. Post EW startup sampling of new monitoring wells will be completed 1Q 2010. Frequency decreased to semi-annual.	Focused Extraction MW	LL3
MW-128D	112	117	Quarterly	Semi-Annual after 1st Qrtr (2nd and 4th Qrtrs)	Decrease	E	Monitor inside edge of LL3 RDX plume by FEW-14. Post EW startup sampling of new monitoring wells will be completed 1Q 2010. Frequency decreased to semi-annual.	Focused Extraction MW	LL3
MW-129A	89.5	99.5	Quarterly	Semi-Annual after 1st Qrtr (2nd and 4th Qrtrs)	Decrease	E	Monitor sidegradent of LL3 RDX Plume by EW-16. Post EW startup sampling of new monitoring wells will be completed 1Q 2010. Frequency decreased to semi-annual.	Downgradient MW	LL3
MW-129B	74.1	84.1	Quarterly	Semi-Annual after 1st Qrtr (2nd and 4th Qrtrs)	Decrease	E	Monitor sidegradent of LL3 RDX Plume by EW-16. Post EW startup sampling of new monitoring wells will be completed 1Q 2010. Frequency decreased to semi-annual.	Downgradient MW	LL3
MW-129D	106	111	Quarterly	Semi-Annual after 1st Qrtr (2nd and 4th Qrtrs)	Decrease	E	Monitor sidegradent of LL3 RDX Plume by EW-16. Post EW startup sampling of new monitoring wells will be completed 1Q 2010. Frequency decreased to semi-annual.	Downgradient MW	LL3
MW-130A	89	99	Quarterly	Semi-Annual after 1st Qrtr (2nd and 4th Qrtrs)	Decrease	E	Monitor sidegradent of LL3 RDX Plume by EW-16. Post EW startup sampling of new monitoring wells will be completed 1Q 2010. Frequency decreased to semi-annual.	Interior Plume MW	LL3
MW-130B	69.9	79.9	Quarterly	Semi-Annual after 1st Qrtr (2nd and 4th Qrtrs)	Decrease	E	Monitor sidegradent of LL3 RDX Plume by EW-16. Post EW startup sampling of new monitoring wells will be completed 1Q 2010. Frequency decreased to semi-annual.	Interior Plume MW	LL3
MW-130D	101	106	Quarterly	Semi-Annual after 1st Qrtr (2nd and 4th Qrtrs)	Decrease	E	Monitor sidegradent of LL3 RDX Plume by EW-16. Post EW startup sampling of new monitoring wells will be completed 1Q 2010. Frequency decreased to semi-annual.	Interior Plume MW	LL3
MW-131A	88.5	98.5	Quarterly	Semi-Annual after 1st Qrtr (2nd and 4th Qrtrs)	Decrease	E	Monitor inside edge of LL3 RDX plume by FEW-14. Post EW startup sampling of new monitoring wells will be completed 1Q 2010. Frequency decreased to semi-annual.	Focused Extraction MW	LL3
MW-131B	70.5	80.5	Quarterly	Semi-Annual after 1st Qrtr (2nd and 4th Qrtrs)	Decrease	E	Monitor inside edge of LL3 RDX plume by FEW-14. Post EW startup sampling of new monitoring wells will be completed 1Q 2010. Frequency decreased to semi-annual.	Focused Extraction MW	LL3

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Well Number	Top Screen Depth (ft bgs)	Bot. Screen Depth (ft bgs)	Sampling Frequency for 2009	Proposed Sampling Frequency for 2010	Changes from 2009 to 2010	Analytes	Rationale for Increasing or Decreasing Sampling Frequency	Objective	General Location
MW-131D	102	107	Quarterly	Semi-Annual after 1st Qrtr (2nd and 4th Qrtrs)	Decrease	E	Monitor inside edge of LL3 RDX plume by FEW-14. Post EW startup sampling of new monitoring wells will be completed 1Q 2010. Frequency decreased to semi-annual.	Focused Extraction MW	LL3
MW-132A	95.4	105.4	Quarterly	Semi-Annual after 1st Qrtr (2nd and 4th Qrtrs)	Decrease	E	Monitor inside edge of LL3 RDX plume by FEW-14. Post EW startup sampling of new monitoring wells will be completed 1Q 2010. Frequency decreased to semi-annual.	Focused Extraction MW	LL3
MW-132B	81.3	91.3	Quarterly	Semi-Annual after 1st Qrtr (2nd and 4th Qrtrs)	Decrease	E	Monitor inside edge of LL3 RDX plume by FEW-14. Post EW startup sampling of new monitoring wells will be completed 1Q 2010. Frequency decreased to semi-annual.	Focused Extraction MW	LL3
MW-132D	112	117	Quarterly	Semi-Annual after 1st Qrtr (2nd and 4th Qrtrs)	Decrease	E	Monitor inside edge of LL3 RDX plume by FEW-14. Post EW startup sampling of new monitoring wells will be completed 1Q 2010. Frequency decreased to semi-annual.	Focused Extraction MW	LL3
MW-133A	96.5	106.5	Quarterly	Quarterly	None	V	Monitor sidegradent of the AMA TCE plume by FEW-15, provide concentration data on the anticipated southwesterly shift to the AMA TCE plume axis, and provide additional piezometric data for aquifer analysis. Sampled monthly for 2 months after FEW-15 startup and then quarterly for the remainder of 2010. Provide data regarding the concentrations of VOCs and explosives downgradient of FEW-15.	Focused Extraction MW	AMA
MW-133B	66	76	Quarterly	Quarterly	None	V	Monitor sidegradent of the AMA TCE plume by FEW-15, provide concentration data on the anticipated southwesterly shift to the AMA TCE plume axis, and provide additional piezometric data for aquifer analysis. Sampled monthly for 2 months after FEW-15 startup and then quarterly for the remainder of 2010. Provide data regarding the concentrations of VOCs and explosives downgradient of FEW-15.	Focused Extraction MW	AMA
MW-133D	111	117	Quarterly	Quarterly	None	V	Monitor sidegradent of the AMA TCE plume by FEW-15, provide concentration data on the anticipated southwesterly shift to the AMA TCE plume axis, and provide additional piezometric data for aquifer analysis. Sampled monthly for 2 months after FEW-15 startup and then quarterly for the remainder of 2010. Provide data regarding the concentrations of VOCs and explosives downgradient of FEW-15.	Focused Extraction MW	AMA
MW-134A	103	113	Quarterly	Quarterly	None	V	Monitor downgradent of the AMA TCE plume by FEW-15, provide concentration data on the anticipated southwesterly shift to the AMA TCE plume axis, and provide additional piezometric data for aquifer analysis. Sampled monthly for 2 months after FEW-15 startup and then quarterly for the remainder of 2010. Provide data regarding the concentrations of VOCs and explosives downgradient of FEW-15.	Focused Extraction MW	AMA
MW-134B	68	78	Quarterly	Quarterly	None	V	Monitor downgradent of the AMA TCE plume by FEW-15, provide concentration data on the anticipated southwesterly shift to the AMA TCE plume axis, and provide additional piezometric data for aquifer analysis. Sampled monthly for 2 months after FEW-15 startup and then quarterly for the remainder of 2010. Provide data regarding the concentrations of VOCs and explosives downgradient of FEW-15.	Focused Extraction MW	AMA
MW-134D	123	127	Quarterly	Quarterly	None	V	Monitor downgradent of the AMA TCE plume by FEW-15, provide concentration data on the anticipated southwesterly shift to the AMA TCE plume axis, and provide additional piezometric data for aquifer analysis. Sampled monthly for 2 months after FEW-15 startup and then quarterly for the remainder of 2010. Provide data regarding the concentrations of VOCs and explosives downgradient of FEW-15.	Focused Extraction MW	AMA
MW-135A	99.7	109.7	Quarterly	Quarterly	None	V	Monitor downgradent of the AMA TCE plume by FEW-15, provide concentration data on the anticipated southwesterly shift to the AMA TCE plume axis, and provide additional piezometric data for aquifer analysis. Sampled monthly for 2 months after FEW-15 startup and then quarterly for the remainder of 2010. Provide data regarding the concentrations of VOCs and explosives downgradient of FEW-15.	Focused Extraction MW	AMA
MW-135B	60	70	Quarterly	Quarterly	None	V	Monitor downgradent of the AMA TCE plume by FEW-15, provide concentration data on the anticipated southwesterly shift to the AMA TCE plume axis, and provide additional piezometric data for aquifer analysis. Sampled monthly for 2 months after FEW-15 startup and then quarterly for the remainder of 2010. Provide data regarding the concentrations of VOCs and explosives downgradient of FEW-15.	Focused Extraction MW	AMA
MW-135D	117	122	Quarterly	Quarterly	None	V	Monitor downgradent of the AMA TCE plume by FEW-15, provide concentration data on the anticipated southwesterly shift to the AMA TCE plume axis, and provide additional piezometric data for aquifer analysis. Sampled monthly for 2 months after FEW-15 startup and then quarterly for the remainder of 2010. Provide data regarding the concentrations of VOCs and explosives downgradient of FEW-15.	Focused Extraction MW	AMA
MW-136A	100	109	Quarterly	Semi-Annual (1st and 3rd Qrtrs)	Decrease	V	Monitor concentration in centroid of AMA TCE plume, and provide data on the anticipated southwesterly shift to the AMA TCE plume axis. Baseline sampling of new wells installed in Spring 2009 completed. Frequency decreased to semi-annual.	Interior Plume MW	AMA
MW-136B	65	75	Quarterly	Semi-Annual (1st and 3rd Qrtrs)	Decrease	V	Monitor concentration in centroid of AMA TCE plume, and provide data on the anticipated southwesterly shift to the AMA TCE plume axis. Baseline sampling of new wells installed in Spring 2009 completed. Frequency decreased to semi-annual.	Interior Plume MW	AMA
MW-136D	120	124	Quarterly	Semi-Annual (1st and 3rd Qrtrs)	Decrease	V	Monitor concentration in centroid of AMA TCE plume, and provide data on the anticipated southwesterly shift to the AMA TCE plume axis. Baseline sampling of new wells installed in Spring 2009 completed. Frequency decreased to semi-annual.	Interior Plume MW	AMA
MW-136E	41	60	Quarterly	Semi-Annual (1st and 3rd Qrtrs)	Decrease	V	Monitor concentration in centroid of AMA TCE plume, and provide data on the anticipated southwesterly shift to the AMA TCE plume axis. Baseline sampling of new wells installed in Spring 2009 completed. Frequency decreased to semi-annual.	Interior Plume MW	AMA
MW-137A	93	103	Quarterly	Semi-Annual (1st and 3rd Qrtrs)	Decrease	V	Monitor concentration in centroid of AMA TCE plume, and provide data on the anticipated southwesterly shift to the AMA TCE plume axis. Baseline sampling of new wells installed in Spring 2009 completed. Frequency decreased to semi-annual.	Interior Plume MW	AMA
MW-137B	63	72	Quarterly	Semi-Annual (1st and 3rd Qrtrs)	Decrease	V	Monitor concentration in centroid of AMA TCE plume, and provide data on the anticipated southwesterly shift to the AMA TCE plume axis. Baseline sampling of new wells installed in Spring 2009 completed. Frequency decreased to semi-annual.	Interior Plume MW	AMA
MW-137D	112	117	Quarterly	Semi-Annual (1st and 3rd Qrtrs)	Decrease	V	Monitor concentration in centroid of AMA TCE plume, and provide data on the anticipated southwesterly shift to the AMA TCE plume axis. Baseline sampling of new wells installed in Spring 2009 completed. Frequency decreased to semi-annual.	Interior Plume MW	AMA

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Well Number	Top Screen Depth (ft bgs)	Bot. Screen Depth (ft bgs)	Sampling Frequency for 2009	Proposed Sampling Frequency for 2010	Changes from 2009 to 2010	Analytes	Rationale for Increasing or Decreasing Sampling Frequency	Objective	General Location
MW-137E	42	62	Quarterly	Semi-Annual (1st and 3rd Qtrs)	Decrease	V	Monitor concentration in centroid of AMA TCE plume, and provide data on the anticipated southwesterly shift to the AMA TCE plume axis. Baseline sampling of new wells installed in Spring 2009 completed. Frequency decreased to semi-annual.	Interior Plume MW	AMA
MW-138A	117	127	Quarterly	Semi-Annual (1st and 3rd Qrtrs)	Decrease	V	Provide data on desorption of TCE and nature of high concentration area in AMA Area. Baseline sampling of new wells installed in Spring 2009 completed. Frequency decreased to semi-annual.	Interior Plume MW	AMA
MW-138B	64	74	Quarterly	Semi-Annual (1st and 3rd Qrtrs)	Decrease	V	Provide data on desorption of TCE and nature of high concentration area in AMA Area. Baseline sampling of new wells installed in Spring 2009 completed. Frequency decreased to semi-annual.	Interior Plume MW	AMA
MW-139A	132	141	Quarterly	Semi-Annual (1st and 3rd Qrtrs)	Decrease	V	Provide data on desorption of TCE and nature of high concentration area in AMA Area. Baseline sampling of new wells installed in Spring 2009 completed. Frequency decreased to semi-annual.	Interior Plume MW	AMA
MW-139B	71	81	Quarterly	Semi-Annual (1st and 3rd Qrtrs)	Decrease	V	Provide data on desorption of TCE and nature of high concentration area in AMA Area. Baseline sampling of new wells installed in Spring 2009 completed. Frequency decreased to semi-annual.	Interior Plume MW	AMA
MW-140A	37	47	Quarterly	Semi-Annual (1st and 3rd Qrtrs)	Decrease	V	Monitor eastern edge of AMA TCE plume. Establish baseline for proposed M.U.D. Well Field. Baseline sampling of new wells installed in Spring 2009 completed. Frequency decreased to semi-annual.	Interior Plume MW	AMA
MW-140B	13	23	Quarterly	Semi-Annual (1st and 3rd Qrtrs)	Decrease	V	Monitor eastern edge of AMA TCE plume. Establish baseline for proposed M.U.D. Well Field. Baseline sampling of new wells installed in Spring 2009 completed. Frequency decreased to semi-annual.	Interior Plume MW	AMA
MW-140D	57	62	Quarterly	Semi-Annual (1st and 3rd Qrtrs)	Decrease	V	Monitor eastern edge of AMA TCE plume. Establish baseline for proposed M.U.D. Well Field. Baseline sampling of new wells installed in Spring 2009 completed. Frequency decreased to semi-annual.	Interior Plume MW	AMA
MW-140O	7	9	Quarterly	Semi-Annual (1st and 3rd Qrtrs)	Decrease	V	Monitor eastern edge of AMA TCE plume. Establish baseline for proposed M.U.D. Well Field. Baseline sampling of new wells installed in Spring 2009 completed. Frequency decreased to semi-annual.	Interior Plume MW	AMA
BAZE-MW-01	55	75	Biennial (2010)	None	Decrease		Monitor high concentration area in LL2 RDX plume, and downgradient extent of LL2 TCE plume. Well will be sampled as part of the pre pilot investigation program.	Interior Plume MW	LL2
BAZE-MW-07	59	79	None	None	None		Monitor high concentration area in LL2 RDX plume, and downgradient extent of LL2 TCE plume.	Interior Plume MW	LL2
BAZE-MW-11	52	72	None	None	None		Monitor high concentration area in LL2 RDX plume, and downgradient extent of LL2 TCE plume.	Interior Plume MW	LL2
NPR-MW01I	81	91	None	None	None		Monitor concentration in centroid of AMA TCE plume, and provide data on the anticipated southwesterly shift to the AMA TCE plume axis.	Interior Plume MW	AMA
NPR-MW01S	46	56	Biennial (2009)	Biennial (2009)	None	E,V	Monitor concentration in centroid of AMA TCE plume, and provide data on the anticipated southwesterly shift to the AMA TCE plume axis.	Interior Plume MW	AMA
NPR-MW02I	80	90	Biennial (2009)	Biennial (2009)	None	E,V	Monitor concentration in centroid of AMA TCE plume, and provide data on the anticipated southwesterly shift to the AMA TCE plume axis.	Interior Plume MW	AMA
NPR-MW02S	45	55	Biennial (2009)	Biennial (2009)	None	E,V	Monitor concentration in centroid of AMA TCE plume, and provide data on the anticipated southwesterly shift to the AMA TCE plume axis.	Interior Plume MW	AMA

Objective:

- Interior Plume MW LL2 or LL3
- Interior plume MW LL1 or AMA/LL4/LF
- Focused Extraction MW
- Perimeter MW
- Compliance MW
- Upgradient, or Sidegradient, or Downgradient MW

Area Code Explanation

LL = Load Line designation with number
AMA = Atlas Missile Area
LF = Landfill

Color Codes

- CHANGE IN FREQUENCY AND/OR DESIGNATION FROM 2009 to 2010
- None or biennial (2009) frequency identified indicates no sample to be collected in 2010
- Increased Sampling Frequency between 2009 and 2010
- Decreased Sampling Frequency between 2009 and 2010

Table MW-1
2010 Monitoring Well Sampling Summary
Former Nebraska Ordnance Plant, Mead, Nebraska

Monitoring Well	Required Analyses	Total depth (ft. BTOC)	Pump Level (ft. BTOC)	Easting (NAD83)	Northing (NAD83)	Frequency	Feb 2010	March 2010	1Q2010	2Q2010	3Q2010	4Q2010	Perimeter Well	Compliance Well
MW-03A	E,V	150.40	123.3	2607532.26	506223.42	A			1					
MW-03B	E,V	101.13	71.4	2607542.05	506225.42	A			1					
MW-05A	V	105.02	83.3	2613044.09	507097.63	B				1				
MW-05B	E,V	62.09	46.9	2613053.87	507097.47	B				1				
MW-06A	V	104.26	82.6	2617375.69	506522.12	B				1				
MW-06B	V	66.56	51.5	2617384.61	506525.48	B				1				
MW-08A	E,V	127.80	105.8	2622863.97	506814.76	A			1					
MW-08B	E,V	83.82	63.9	2622872.08	506820.56	A			1					
MW-09A	V	133.18	111.2	2623570.81	507435.84	A			1					
MW-09B	V	88.40	68.4	2623580.33	507436.09	A			1					
MW-09D	V	138.76	135.5	2623593.10	507436.00	A			1					
MW-10A	E,V	105.14	83.3	2607883.83	496858.27	B			1					
MW-10B	E,V	65.28	50.2	2607893.74	496858.92	B			1					
MW-11	E	52.65	35.9	2626486.32	509499.80	A			1					
MW-18A	E,V	127.64	126.1	2629150.33	506832.34	A			1					
MW-18B	E,V	NA	NA	2629156.57	506827.46	A			1					
MW-18C	E,V	49.77	44.4	2629148.53	506821.93	A			1					
MW-20A	E,V	152.85	150.1	2616622.54	493189.94	S			1		1			1
MW-20B	E,V	136.57	133.7	2616633.43	493191.47	S			1		1			1
MW-20C	E,V	63.15	57.8	2616611.43	493187.61	S			1		1			1
MW-21A	E,V	128.72	122.9	2607121.37	503524.81	A			1					
MW-21B	E,V	78.45	72.9	2607111.29	503524.05	A			1					
MW-21D	E,V	140.59	137.4	2607131.41	503525.83	A			1					
MW-24A	E,V	123.54	118.5	2608476.90	501919.83	S			1		1			
MW-24B	E,V	68.69	63.2	2608477.73	501909.01	S			1		1			
MW-25A	E,V	158.08	152.0	2608308.41	504875.16	A			1		1			
MW-25B	E,V	86.60	80.8	2608308.27	504885.58	A			1					
MW-25D	E,V	170.76	167.6	2608308.83	504864.77	A			1					
MW-28A	E	140.03	134.5	2612951.02	502242.71	A				1				
MW-28B	E	80.12	74.6	2612936.01	502242.26	A				1				
MW-28D	E	151.65	148.7	2612969.60	502242.92	A				1				
MW-29A	E	135.66	129.2	2614469.84	498383.11	A				1				
MW-29B	E	77.28	71.8	2614460.98	498382.37	A				1				
MW-32A	E	101.19	95.3	2619697.25	499062.26	AE/BV				1				
MW-32B	E	83.29	77.8	2619696.91	499069.08	AE/BV				1				
MW-32D	E	114.08	111.0	2619697.54	499055.63	AE/BV				1				
MW-33A	E	112.89	107.4	2622410.84	502847.91	A				1				
MW-33B	E	86.10	80.3	2622401.05	502854.78	A				1				
MW-33D	E	127.45	124.5	2622421.53	502856.97	A				1				
MW-35A	E,V	94.01	88.5	2629595.76	496323.64	Q			1	1	1	1	1	
MW-35B	E,V	69.41	63.8	2629595.84	496329.37	Q			1	1	1	1	1	
MW-35D	E,V	108.70	105.2	2629595.80	496317.10	Q			1	1	1	1	1	
MW-38A	E,V	53.24	49.3	2638131.88	496248.57	Q			1	1	1	1	1	
MW-38D	E,V	66.20	63.2	2638138.80	496250.60	Q			1	1	1	1	1	
MW-40A	V	128.14	125.0	2623018.62	511963.35	A			1					
MW-40B	V	66.71	61.0	2623006.75	511962.76	A			1					
MW-41A	E,V	85.61	78.8	2624371.47	512001.33	Q			1	1	1	1	1	
MW-41B	E,V	48.91	43.4	2624361.83	512001.37	Q			1	1	1	1	1	
MW-41D	E,V	94.70	91.7	2624353.22	512000.98	Q			1	1	1	1	1	
MW-42A	E,V	98.70	93.0	2629385.20	501582.56	A			1					
MW-42B	E,V	65.63	60.1	2629385.28	501592.64	A			1					
MW-42D	E,V	111.43	107.9	2629384.99	501572.17	A			1					
MW-43A	E,V	103.39	97.4	2629243.07	504317.91	A			1					
MW-43B	E,V	52.79	46.8	2629244.24	504328.20	A			1					
MW-43D	E,V	113.90	110.9	2629242.21	504308.09	A			1					
MW-44A	E,V	41.77	36.3	2632953.68	500415.12	A			1					
MW-44B	E,V	28.34	22.8	2632954.90	500426.32	A			1					
MW-44D	E,V	58.49	55.2	2632952.84	500403.76	A			1					
MW-46A	E,V	46.25	40.2	2637464.94	499387.37	Q			1	1	1	1	1	
MW-46B	E,V	33.80	28.0	2637464.42	499396.68	Q			1	1	1	1	1	
MW-46D	E,V	59.94	56.9	2637465.40	499375.99	Q			1	1	1	1	1	
MW-54A	E,V	78.82	72.9	2627893.82	508858.25	A			1					
MW-54B	E,V	32.87	28.4	2627883.88	508855.98	A			1					
MW-55A	E,V	86.50	81.0	2628135.40	508377.66	A					1			
MW-55B	E,V	68.69	63.2	2628125.88	508374.22	A					1			
MW-61A	E,V	88.05	82.8	2608656.02	492900.05	S			1		1			1
MW-61B	E,V	37.42	32.1	2608644.38	492898.60	S			1		1			1
MW-61D	E,V	104.61	101.6	2608667.93	492901.85	S			1		1			1
MW-62A	E,V	39.54	34.0	2635396.62	493874.24	S			1		1			1
MW-62B	E,V	26.55	22.6	2635385.06	493871.95	S			1		1			1
MW-62D	E,V	51.49	48.5	2635407.14	493876.96	S			1		1			1
MW-64B	E,V	31.35	25.9	2628038.55	510106.02	A			1					
MW-65B	E	66.20	50.4	2613193.30	506091.23	A				1				
MW-72A	V	108.50	98.0	2622930.98	512064.69	A			1					
MW-72B	V	70.50	55.0	2622921.73	512064.19	A			1					
MW-78A	V	105.50	95.0	2623223.84	512032.75	A			1					
MW-78B	V	70.50	55.0	2623213.77	512031.30	A			1					
MW-79A	V	88.19	83.2	2610432.14	492336.21	S			1		1			
MW-79B	V	42.62	37.4	2610428.14	492345.18	S			1		1			

Table MW-1
2010 Monitoring Well Sampling Summary
Former Nebraska Ordnance Plant, Mead, Nebraska

Monitoring Well	Required Analyses	Total depth (ft. BTOC)	Pump Level (ft. BTOC)	Easting (NAD83)	Northing (NAD83)	Frequency	Feb 2010	March 2010	1Q2010	2Q2010	3Q2010	4Q2010	Perimeter Well	Compliance Well
MW-80A	V	81.33	76.3	2610925.54	492067.12	A			1					
MW-80B	V	42.19	37.2	2610916.24	492064.59	A			1					
MW-80D	V	94.88	92.4	2610935.55	492068.65	A			1					
MW-81A	E,V	94.18	87.7	2611637.99	492369.38	Q			1	1	1	1	1	
MW-81B	E,V	40.58	35.4	2611635.91	492360.36	Q			1	1	1	1	1	
MW-81D	E,V	106.73	103.7	2611633.37	492349.85	Q			1	1	1	1	1	
MW-82A	E,V	96.54	94.0	2619288.65	493318.05	S			1		1			1
MW-82B	E,V	68.42	65.4	2619284.94	493325.47	S			1		1			1
MW-82D	E,V	127.62	124.6	2619293.00	493310.90	S			1		1			1
MW-83A	E,V	111.21	108.2	2621924.08	495274.66	Q			1	1	1	1	1	
MW-83B	E,V	81.88	79.4	2621921.79	495302.77	Q			1	1	1	1	1	
MW-83D	E,V	124.52	120.5	2621922.97	495288.85	Q			1	1	1	1	1	
MW-84A	E,V	93.79	91.3	2624277.77	495685.51	Q			1	1	1	1	1	
MW-84B	E,V	74.32	71.3	2624272.04	495712.90	Q			1	1	1	1	1	
MW-84D	E,V	112.17	108.2	2624275.75	495695.58	Q			1	1	1	1	1	
MW-85A	E,V	88.08	85.6	2628326.53	494439.02	Q			1	1	1	1	1	
MW-85B	E,V	68.29	66.5	2628315.15	494449.81	Q			1	1	1	1	1	
MW-85D	E,V	98.19	94.7	2628338.54	494428.03	Q			1	1	1	1	1	
MW-86A	E,V	64.87	59.9	2631939.21	493759.74	S			1		1			1
MW-86B	E,V	56.50	50.5	2631933.61	493758.65	S			1		1			1
MW-86D	E,V	76.92	74.2	2631944.47	493760.43	S			1		1			1
MW-87A	E,V	48.55	43.6	2635039.81	491898.03	A			1					
MW-87B	E,V	29.55	24.6	2635035.21	491900.97	A			1					
MW-87D	E,V	58.16	55.4	2635044.01	491895.21	A			1					
MW-88A	E,V	47.51	42.5	2637643.92	494045.13	S			1		1			1
MW-88B	E,V	32.56	27.6	2637639.18	494044.21	S			1		1			1
MW-88D	E,V	60.09	55.6	2637648.62	494046.08	S			1		1			1
MW-89A	V	141.38	136.4	2610430.84	494253.88	A			1					
MW-89B	V	77.87	72.5	2610408.69	494254.10	A			1					
MW-89D	V	152.70	149.9	2610451.41	494254.27	A			1					
MW-90A	E,V	125.57	120.0	2611235.54	494302.04	SV/AE			1		1			
MW-90B	E,V	77.62	72.6	2611226.60	494297.96	SV/AE			1		1			
MW-90D	E,V	137.39	134.9	2611244.85	494306.05	SV/AE			1		1			
MW-91A	V	121.39	116.4	2612076.97	494323.00	S			1		1			
MW-91B	V	79.81	74.8	2612067.85	494317.53	S			1		1			
MW-91D	V	132.37	129.9	2612085.70	494327.97	S			1		1			
MW-92A	V	84.36	79.4	2610047.26	492722.58	A			1					
MW-92B	V	42.31	37.3	2610047.80	492733.82	A			1					
MW-93A	V	96.39	91.4	2612162.89	493551.29	A			1					
MW-93B	V	72.20	67.2	2612154.07	493546.80	A			1					
MW-94A	E	96.31	91.3	2617023.16	496428.72	S				1		1		
MW-94B	E	76.53	71.5	2617023.07	496434.50	S				1		1		
MW-94D	E	123.83	121.1	2617023.47	496422.56	S				1		1		
MW-95A	E,V	106.49	100.5	2617552.81	494508.64	Q			1	1	1	1	1	
MW-95B	E,V	78.31	72.3	2617546.97	494508.01	Q			1	1	1	1	1	
MW-95D	E,V	132.37	129.4	2617558.46	494509.13	Q			1	1	1	1	1	
MW-96A	E,V	95.06	90.1	2621468.23	493387.73	S			1		1			1
MW-96B	E,V	83.56	78.6	2621468.23	493387.80	S			1		1			1
MW-96D	E,V	109.08	106.3	2621476.25	493387.89	S			1		1			1
MW-97A	E,V	95.48	90.5	2623938.04	493492.83	S			1		1			1
MW-97B	E,V	75.58	73.1	2623932.70	493492.45	S			1		1			1
MW-97D	E,V	108.08	105.3	2623943.48	493493.13	S			1		1			1
MW-98A	E,V	94.52	89.5	2626495.30	493604.94	S			1		1			1
MW-98B	E,V	71.58	69.1	2626488.71	493605.28	S			1		1			1
MW-98D	E,V	107.58	102.1	2626502.36	493605.21	S			1		1			1
MW-99A	E	114.35	109.4	2627117.43	498780.95	A				1				
MW-99B	E	88.32	82.3	2627118.41	498787.93	A				1				
MW-99D	E	127.38	123.4	2627116.78	498773.69	A				1				
MW-100A	E,V	95.58	90.6	2629718.84	493770.41	S			1		1			1
MW-100B	E,V	77.52	72.5	2629718.07	493777.19	S			1		1			1
MW-100D	E,V	107.52	105.0	2629718.36	493783.73	S			1		1			1
MW-101A	E,V	95.44	90.4	2610929.39	491574.12	S			1		1			1
MW-101B	E,V	42.45	37.5	2610923.62	491573.82	S			1		1			1
MW-101D	E,V	98.66	95.0	2610935.30	491574.49	S			1		1			1
MW-102A	E,V	129.14	124.1	2622929.38	514541.24	Q			1	1	1	1	1	
MW-102B	E,V	62.37	57.4	2622923.37	514540.93	Q			1	1	1	1	1	
MW-102D	E,V	141.82	139.3	2622935.91	514541.49	Q			1	1	1	1	1	
MW-103A	E,V	128.97	123.5	2623590.77	513115.79	Q			1	1	1	1	1	
MW-103B	E,V	62.44	57.4	2623591.23	513110.25	Q			1	1	1	1	1	
MW-103D	E,V	138.14	134.9	2623589.45	513132.90	Q			1	1	1	1	1	
MW-104A	E,V	43.96	38.6	2634092.18	499205.59	S			1		1			
MW-104B	E,V	27.99	22.7	2634082.83	499205.61	S			1		1			
MW-104D	E,V	52.67	49.9	2634100.80	499205.35	S			1		1			
MW-104O	E,V	10.60	9.4	2634073.87	499205.00	S			1		1			
MW-105A	E,V	43.02	37.7	2635041.98	496642.99	S			1		1			
MW-105B	E,V	28.00	22.5	2635042.34	496652.98	S			1		1			
MW-105O	E,V	10.01	9.1	2635040.67	496662.29	S			1		1			
MW-106A	E,V	69.56	64.6	2630544.55	506843.26	Q			1	1	1	1	1	
MW-106B	E,V	37.48	32.5	2630539.26	506844.10	Q			1	1	1	1	1	

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Monitoring Well	Required Analyses	Total depth (ft. BTOC)	Pump Level (ft. BTOC)	Easting (NAD83)	Northing (NAD83)	Frequency	Feb 2010	March 2010	1Q2010	2Q2010	3Q2010	4Q2010	Perimeter Well	Compliance Well
MW-106D	E,V	81.68	79.2	2630549.50	506842.72	Q			1	1	1	1	1	
MW-107A	E,V	87.67	82.7	2631375.72	506138.76	Q			1	1	1	1	1	
MW-107B	E,V	54.77	49.8	2631374.08	506125.16	Q			1	1	1	1	1	
MW-107D	E,V	100.15	97.6	2631375.03	506131.87	Q			1	1	1	1	1	
MW-108A	E,V	80.79	75.8	2631915.55	505912.28	Q			1	1	1	1	1	
MW-108B	E,V	44.70	39.7	2631917.07	505899.47	Q			1	1	1	1	1	
MW-108D	E,V	93.26	90.8	2631916.34	505906.33	Q			1	1	1	1	1	
MW-109A	E,V	50.02	44.7	2634807.18	501896.06	S			1		1			
MW-109B	E,V	32.17	26.8	2634805.75	501904.25	S			1		1			
MW-109O	E,V	12.32	10.8	2634805.17	501911.81	S			1		1			
MW-110A	E,V	47.39	44.4	2634397.71	504432.79	Q			1	1	1	1	1	
MW-110B	E,V	30.98	28.0	2634397.16	504438.89	Q			1	1	1	1	1	
MW-110D	E,V	57.65	55.1	2634398.64	504425.93	Q			1	1	1	1	1	
MW-111A	E,V	44.33	39.0	2636151.56	499337.97	S			1		1			
MW-111B	E,V	27.79	22.4	2636151.75	499348.24	S			1		1			
MW-111O	E,V	9.88	8.8	2636152.14	499356.67	S			1		1			
MW-112A	E,V	50.20	47.2	2637365.72	501825.77	Q			1	1	1	1	1	
MW-112B	E,V	28.20	25.7	2637365.30	501832.67	Q			1	1	1	1	1	
MW-113A	E,V	43.20	40.7	2637420.11	500472.22	Q			1	1	1	1	1	
MW-113B	E,V	33.20	30.7	2637419.51	500477.68	Q			1	1	1	1	1	
MW-113D	E,V	57.70	53.4	2637420.34	500466.05	Q			1	1	1	1	1	
MW-114A	E,V	49.20	44.2	2637470.60	497206.93	Q			1	1	1	1	1	
MW-114B	E,V	32.20	27.2	2637465.73	497204.32	Q			1	1	1	1	1	
MW-114D	E,V	60.20	57.4	2637475.70	497209.79	Q			1	1	1	1	1	
MW-115A	E,V	50.20	47.7	2637702.52	495346.88	Q			1	1	1	1	1	
MW-115B	E,V	35.20	32.7	2637696.42	495346.87	Q			1	1	1	1	1	
MW-115D	E,V	61.60	58.8	2637708.86	495346.84	Q			1	1	1	1	1	
MW-116A	E,V	44.70	42.2	2636335.80	495297.60	Q			1	1	1	1	1	
MW-116B	E,V	34.20	31.7	2636331.54	495297.24	Q			1	1	1	1	1	
MW-116D	E,V	55.70	52.9	2636334.22	495293.68	Q			1	1	1	1	1	
MW-117A	E,V	78.20	73.2	2631041.42	495048.00	Q			1	1	1	1	1	
MW-117B	E,V	55.20	50.2	2631040.50	495053.98	Q			1	1	1	1	1	
MW-117D	E,V	88.70	86.2	2631042.35	495042.20	Q			1	1	1	1	1	
MW-118A	E,V	97.45	92.2	2625890.45	496207.70	Q			1	1	1	1	1	
MW-118B	E,V	77.10	74.6	2625884.54	496207.84	Q			1	1	1	1	1	
MW-119A	E,V	129.36	124.2	2607952.61	499580.81	S			1		1			
MW-119B	E,V	83.72	78.4	2607941.55	499593.35	S			1		1			
MW-120A	E,V	138.20	133.0	2609372.30	499419.07	S			1		1			
MW-120B	E,V	75.43	70.1	2609372.70	499438.97	S			1		1			
MW-120D	E,V	148.54	145.9	2609371.09	499409.47	S			1		1			
MW-120E	E,V	104.86	99.7	2609372.68	499430.79	S			1		1			
MW-121A	E,V	142.27	137.1	2609752.79	500071.02	S			1		1			
MW-121B	E,V	85.45	80.1	2609779.26	500071.59	S			1		1			
MW-121E	E,V	115.39	110.0	2609763.30	500071.29	S			1		1			
MW-122A	E,V	137.91	132.8	2609240.41	498101.34	S			1		1			
MW-122B	E,V	107.43	102.0	2609232.29	498114.61	S			1		1			
MW-123A	E,V	141.40	136.3	2608677.91	499909.07	S			1		1			
MW-123B	E,V	99.85	94.5	2608666.00	499909.02	S			1		1			
MW-124A	E,V	110.04	104.7	2609115.81	501486.16	S			1		1			
MW-124B	E,V	79.27	73.9	2609107.79	501496.31	S			1		1			
MW-124D	E,V	125.68	123.1	2609125.65	501475.69	S			1		1			
MW-125A	E,V	127.70	122.3	2609457.06	500663.23	S			1		1			
MW-125B	E,V	86.40	81.0	2609468.11	500661.63	S			1		1			
MW-125D	E,V	138.92	136.3	2609446.30	500664.74	S			1		1			
MW-126A	E,V	122.06	116.7	2607483.63	504504.82	S			1		1			
MW-126B	E,V	92.19	86.7	2607482.56	504514.66	S			1		1			
MW-126D	E,V	153.15	150.6	2607483.02	504494.77	S			1		1			
MW-127A	E,V	128.05	122.9	2606121.55	506918.35	S			1		1			
MW-127B	E,V	81.71	76.4	2606121.65	506931.42	S			1		1			
MW-127E	E,V	61.27	55.9	2606121.31	506941.60	S			1		1			
MW-128A	E	108.91	103.9	2624836.13	498190.80	S			1	1		1		
MW-128B	E	92.74	87.4	2624838.49	498197.84	S			1	1		1		
MW-128D	E	119.74	117.2	2624833.49	498183.94	S			1	1		1		
MW-129A	E	102.50	97.5	2627766.39	496542.43	S			1	1		1		
MW-129B	E	87.03	82.0	2627771.40	496545.39	S			1	1		1		
MW-129D	E	114.94	111.4	2627759.96	496536.62	S			1	1		1		
MW-130A	E	101.31	96.3	2629053.38	496650.27	S			1	1		1		
MW-130B	E	82.60	77.6	2629059.01	496659.85	S			1	1		1		
MW-130D	E	108.46	106.0	2629047.82	496641.12	S			1	1		1		
MW-131A	E	101.71	96.2	2626341.54	496939.83	S			1	1		1		
MW-131B	E	83.17	78.2	2626348.52	496944.69	S			1	1		1		
MW-131D	E	109.88	107.4	2626333.42	496933.31	S			1	1		1		
MW-132A	E	108.31	103.2	2625254.59	497254.40	S			1	1		1		
MW-132B	E	94.31	89.1	2625258.17	497261.76	S			1	1		1		
MW-132D	E	120.17	117.7	2625250.89	497247.01	S			1	1		1		
MW-133A	V	106.88	101.9	2622522.67	509720.93	Q	1	1	1	1	1	1		
MW-133B	V	76.52	71.5	2622522.69	509729.90	Q	1	1	1	1	1	1		
MW-133D	V	117.64	114.1	2622523.17	509713.15	Q	1	1	1	1	1	1		
MW-134A	V	112.82	107.8	2623417.21	509045.74	Q	1	1	1	1	1	1		

Table MW-1
2010 Monitoring Well Sampling Summary
Former Nebraska Ordnance Plant, Mead, Nebraska

Monitoring Well	Required Analyses	Total depth (ft. BTOC)	Pump Level (ft. BTOC)	Easting (NAD83)	Northing (NAD83)	Frequency	Feb 2010	March 2010	1Q2010	2Q2010	3Q2010	4Q2010	Perimeter Well	Compliance Well
MW-134B	V	77.84	72.8	2623413.31	509052.47	Q	1	1	1	1	1	1		
MW-134D	V	126.83	124.8	2623421.55	509039.29	Q	1	1	1	1	1	1		
MW-135A	V	110.15	104.9	2623150.45	509762.33	Q	1	1	1	1	1	1		
MW-135B	V	70.02	65.0	2623151.02	509772.44	Q	1	1	1	1	1	1		
MW-135D	V	121.84	119.3	2623149.03	509752.68	Q	1	1	1	1	1	1		
MW-136A	V	109.16	103.8	2623054.23	510561.26	S			1		1			
MW-136B	V	74.90	69.5	2623064.05	510560.70	S			1		1			
MW-136D	V	124.34	121.7	2623043.85	510561.58	S			1		1			
MW-136E	V	60.20	49.8	2623075.88	510559.75	S			1		1			
MW-137A	V	103.03	97.8	2622837.54	511702.36	S			1		1			
MW-137B	V	72.32	67.0	2622846.21	511704.35	S			1		1			
MW-137D	V	116.44	113.8	2622826.93	511700.85	S			1		1			
MW-137E	V	62.48	51.9	2622857.08	511706.78	S			1		1			
MW-138A	V	129.48	124.3	2622366.41	512816.57	S			1		1			
MW-138B	V	77.59	72.2	2622378.08	512817.20	S			1		1			
MW-139A	V	144.03	138.9	2621290.29	514264.29	S			1		1			
MW-139B	V	84.50	79.0	2621297.04	514275.44	S			1		1			
MW-140A	V	50.02	44.6	2634717.63	503375.83	S			1		1			
MW-140B	V	25.63	20.3	2634717.22	503383.63	S			1		1			
MW-140D	V	64.13	61.5	2634718.42	503365.40	S			1		1			
MW-140O	V	11.97	10.4	2634717.20	503393.26	S			1		1			

Notes:

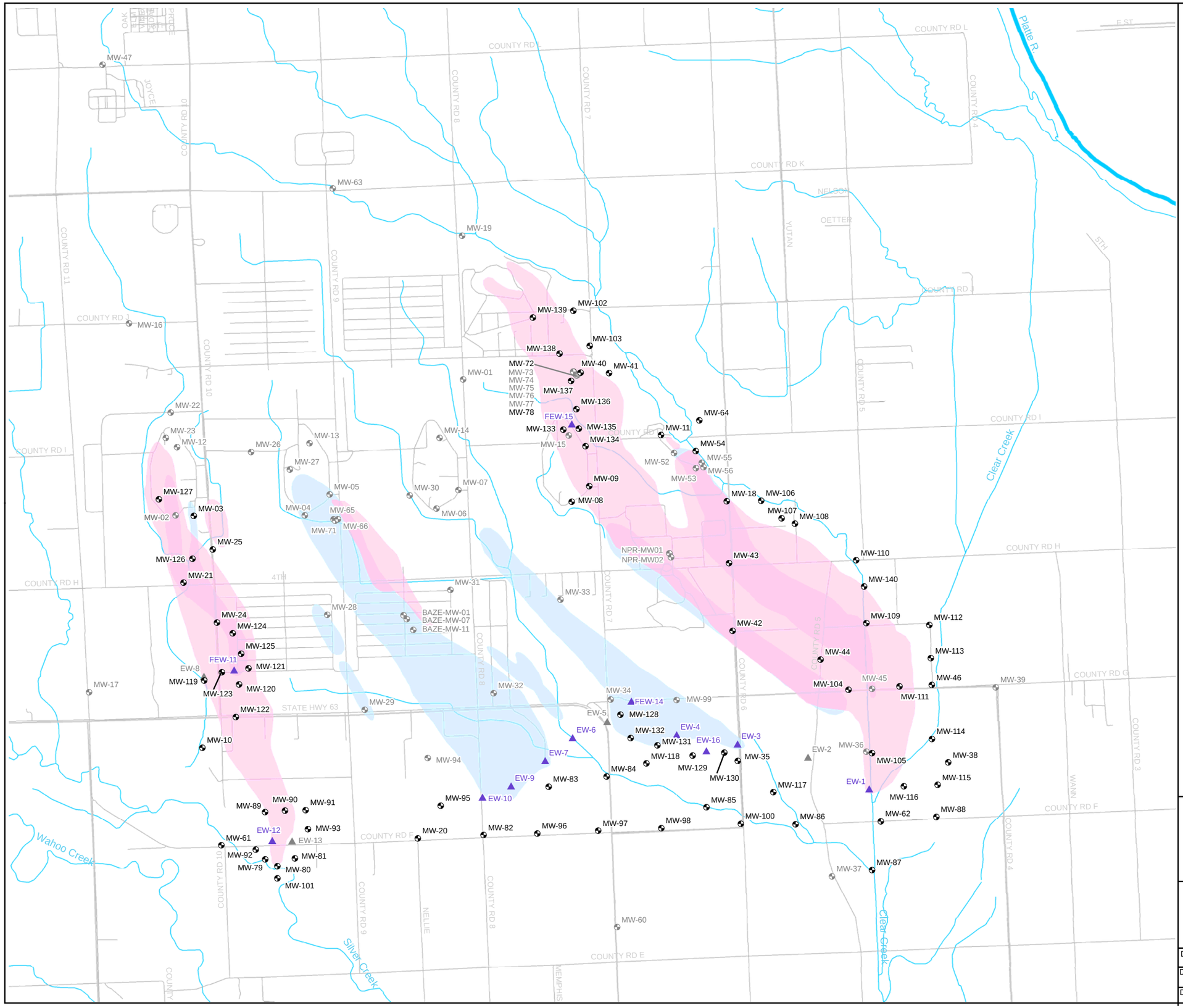
BTOC = Bottom of Casing

NA = Not available

Frequencies: A=Annual; B=Biennial; Q=quarterly; S=Semi-Annual; SV/AE=Volatiles Semi-Annual and Explosives Annual; AE/BV=Explosives Annual and Volatiles Biennial

Required Analyses:

E = explosive compounds (contaminants of concern: TNT, TNB, 2,4-DNT, and RDX); analysis by EPA SW-846 Method 8330
V = volatile organic compound (contaminants of concern: TCE, DCP, and methylene chloride); analysis by EPA SW-846 Method 8260



EXPLANATION

- Monitoring Well Cluster (Sampled 1st Quarter 2010)
- Monitoring Well Cluster (Not Sampled 1st Quarter 2010)
- Extraction Well (Active)
- Extraction Well (Inactive)
- Approximate Area of TCE at a Concentration of 5 ug/L or Greater (2008)
- Approximate Area of RDX at a Concentration of 2 ug/L or Greater (2008)
- Approximate Area of Both TCE at a Concentration of 5 ug/L or Greater and RDX at a Concentration of 2 ug/L or Greater (2008)

NOTE:

TCE and RDX plume delineations for 2008 (URS, 2009) are based on Groundwater Monitoring Program data, direct-push data, and other data. The plume delineations represent a combination of the shallow zone data and the intermediate zone data.

TCE - trichloroethene

RDX - hexahydro-1,3,5-trinitro-1,3,5-triazine

ug/L - micrograms per liter

N

0 0.25 0.5 1 1.5 2 Miles

1,500 750 0 1,500 3,000 4,500 6,000 7,500 9,000 10,500 Feet

0 0.25 0.5 1 1.5 2 Kilometers

ECC

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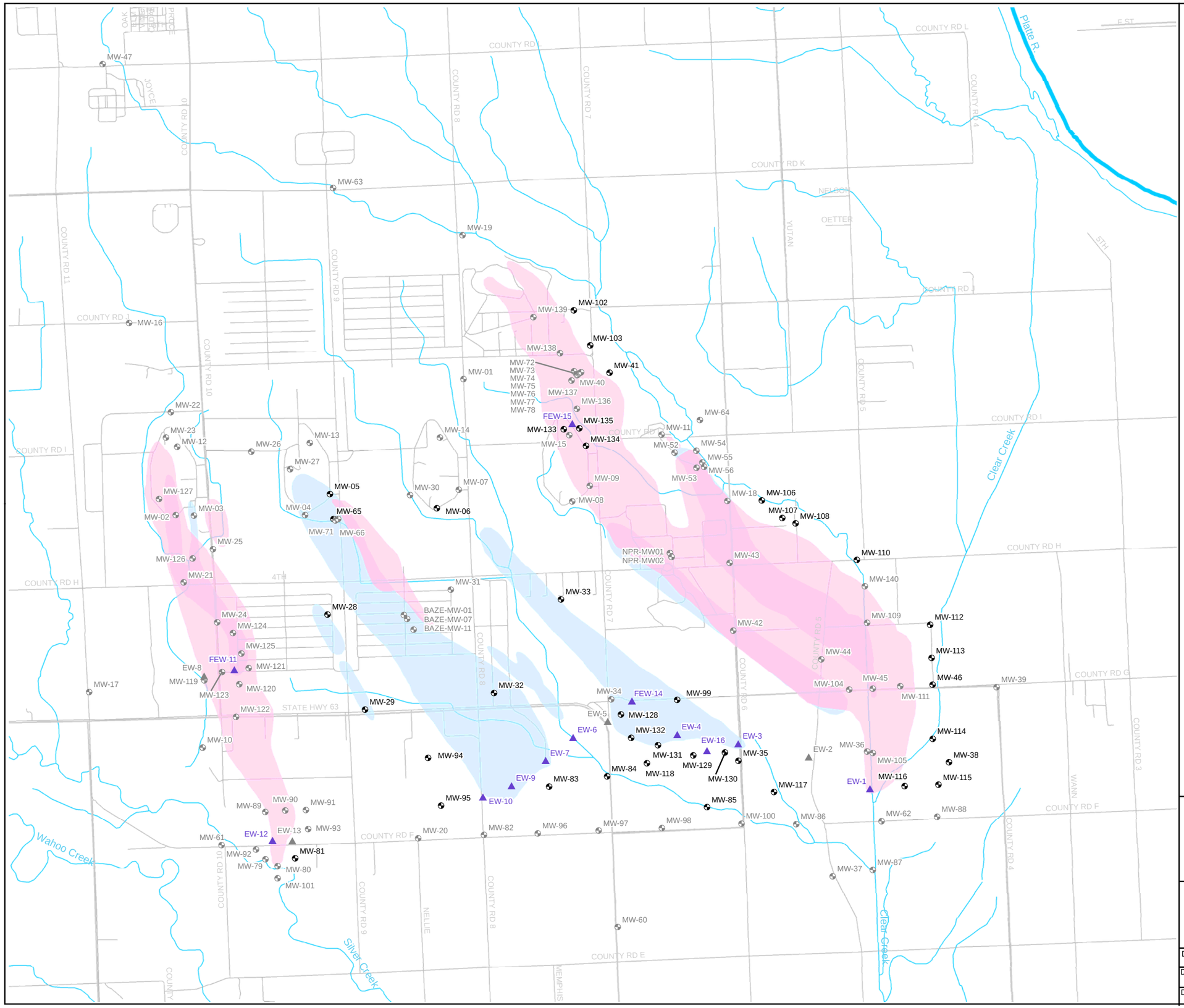
First Quarter 2010 Monitoring Well Sampling Summary

Drawn By:	M Johanson	Sheet No:	Notes and Sources Projection: North American Datum 1983 Nebraska State Plane Units: Feet
Date:	December 3, 2009		
Dwg No:	Rev 4		



EXPLANATION

- Monitoring Well Cluster (Sampled 2nd Quarter 2010)
- Monitoring Well Cluster (Not Sampled 2nd Quarter 2010)
- Extraction Well (Active)
- Extraction Well (Inactive)
- Approximate Area of TCE at a Concentration of 5 ug/L or Greater (2008)
- Approximate Area of RDX at a Concentration of 2 ug/L or Greater (2008)
- Approximate Area of Both TCE at a Concentration of 5 ug/L or Greater and RDX at a Concentration of 2 ug/L or Greater (2008)

NOTE:

TCE and RDX plume delineations for 2008 (URS, 2009) are based on Groundwater Monitoring Program data, direct-push data, and other data. The plume delineations represent a combination of the shallow zone data and the intermediate zone data.

TCE - trichloroethene

RDX - hexahydro-1,3,5-trinitro-1,3,5-triazine

ug/L - micrograms per liter

N

0 0.25 0.5 1 1.5 2 Miles

1,500 750 0 1,500 3,000 4,500 6,000 7,500 9,000 10,500 Feet

0 0.25 0.5 1 1.5 2 Kilometers

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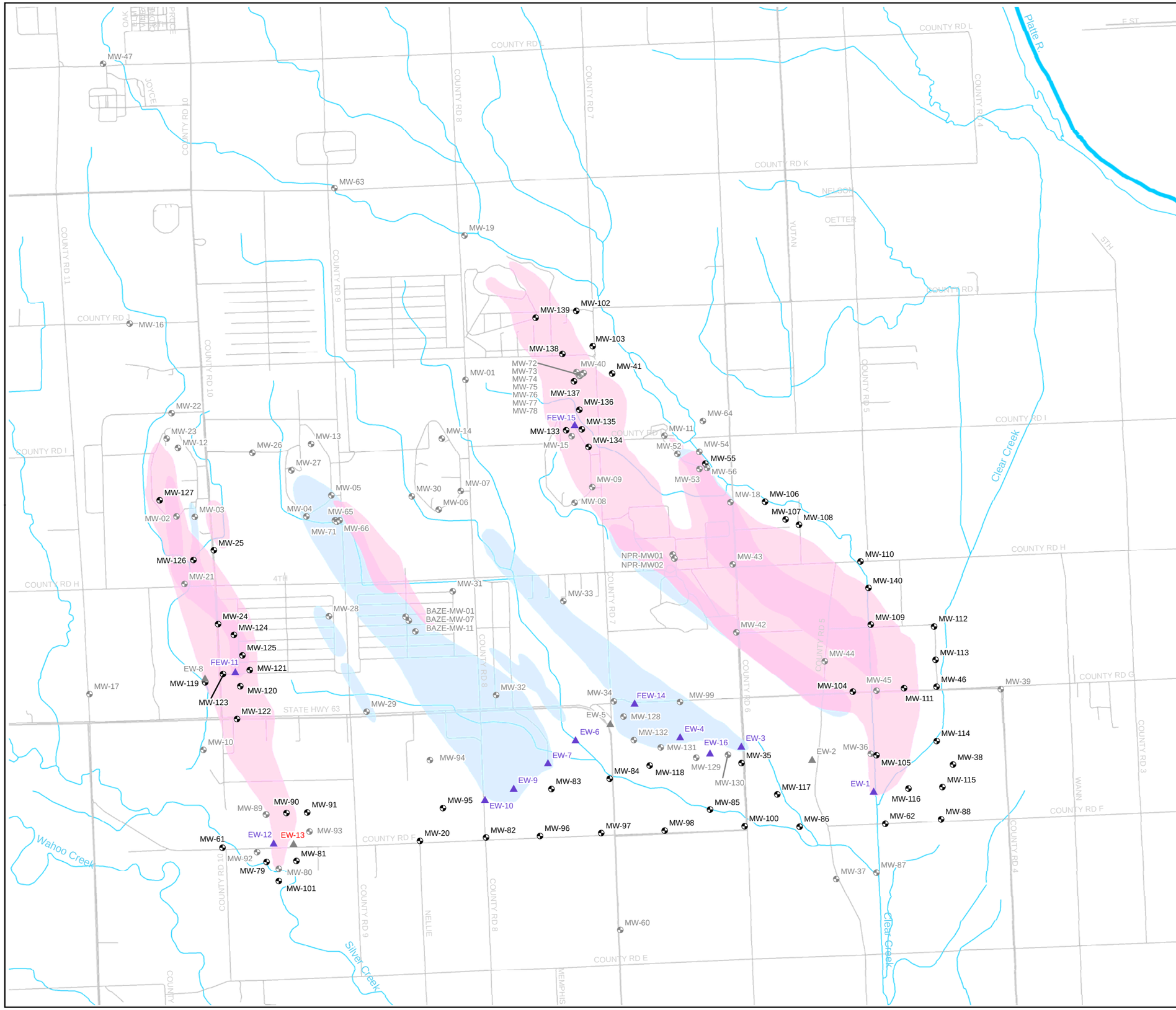
Second Quarter 2010 Monitorin Well Sampling Summary

Drawn By:	M Johanson	Sheet No:	Notes and Sources Projection: North American Datum 1983 Nebraska State Plane Units: Feet
Date:	December 4, 2009		
Dwg No:	Rev 4		



EXPLANATION

- Monitoring Well Cluster (Sampled 3rd Quarter 2010)
- Monitoring Well Cluster (Not Sampled 3rd Quarter 2010)
- Extraction Well (Active)
- Extraction Well (Inactive)
- Approximate Area of TCE at a Concentration of 5 ug/L or Greater (2008)
- Approximate Area of RDX at a Concentration of 2 ug/L or Greater (2008)
- Approximate Area of Both TCE at a Concentration of 5 ug/L or Greater and RDX at a Concentration of 2 ug/L or Greater (2008)

NOTE:

TCE and RDX plume delineations for 2008 (URS, 2009) are based on Groundwater Monitoring Program data, direct-push data, and other data. The plume delineations represent a combination of the shallow zone data and the intermediate zone data.

TCE - trichloroethene

RDX - hexahydro-1,3,5-trinitro-1,3,5-triazine

ug/L - micrograms per liter

N

0 0.25 0.5 1 1.5 2 Miles

1,500 750 0 1,500 3,000 4,500 6,000 7,500 9,000 10,500 Feet

0 0.25 0.5 1 1.5 2 Kilometers

ECC

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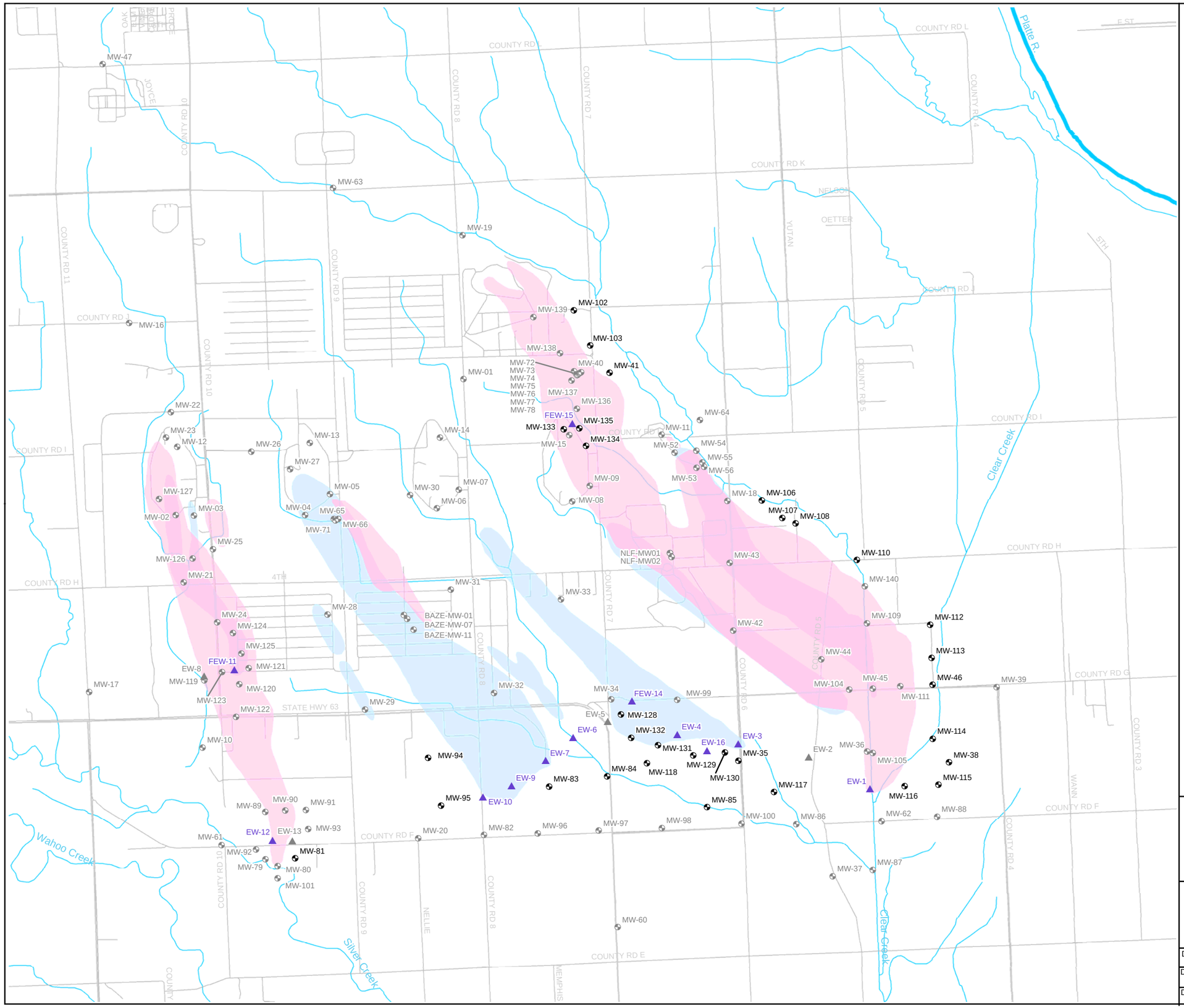
Third Quarter 2010 Monitoring Well Sampling Summary

Drawn By:	M Johanson	Sheet No:	Notes and Sources Projection: North American Datum 1983 Nebraska State Plane Units: Feet
Date:	December 4, 2009		
Dwg No:	Rev 4		



EXPLANATION

- Monitoring Well Cluster (Sampled 4th Quarter 2010)
- Monitoring Well Cluster (Not Sampled 4th Quarter 2010)
- Extraction Well (Active)
- Extraction Well (Inactive)
- Approximate Area of TCE at a Concentration of 5 ug/L or Greater (2008)
- Approximate Area of RDX at a Concentration of 2 ug/L or Greater (2008)
- Approximate Area of Both TCE at a Concentration of 5 ug/L or Greater and RDX at a Concentration of 2 ug/L or Greater (2008)

NOTE:

TCE and RDX plume delineations for 2008 (URS, 2009) are based on Groundwater Monitoring Program data, direct-push data, and other data. The plume delineations represent a combination of the shallow zone data and the intermediate zone data.

TCE - trichloroethene

RDX - hexahydro-1,3,5-trinitro-1,3,5-triazine

ug/L - micrograms per liter

N

0 0.25 0.5 1 1.5 2 Miles

1,500 750 0 1,500 3,000 4,500 6,000 7,500 9,000 10,500 Feet

0 0.25 0.5 1 1.5 2 Kilometers

ECC

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Fourth Quarter 2010
Monitoring Well Sampling Summary

Drawn By:	M Johanson	Sheet No:	Notes and Sources Projection: North American Datum 1983 Nebraska State Plane Units: Feet
Date:	December 4, 2009		
Dwg No:	Rev 4		

Surface Water

Surface Water 2010 sampling events selection criteria

- SW-15 and SW-16 were removed from the surface water sampling program during 4th quarter 2009. These intermediate surface water locations were added and collected in conjunction with past drain tile sampling events that were also removed from the program at the same time.
- Remaining surface water sample locations are the same as those agreed upon for the 2009 sampling events.

Table 2-4
2010 Surface Water Sampling Locations
Former Nebraska Ordnance Plant, Mead, Nebraska

Surface Water	Required Analyses	Easting (NAD83)	Northing (NAD83)	Frequency	1Q2010	2Q2010	3Q2010	4Q2010
SW-05	E, V	2634433.08	504143.86	Q	1	1	1	1
SW-06	E, V	2634697.82	501956.05	Q	1	1	1	1
SW-08	E, V	2634804.46	499327.01	Q	1	1	1	1
SW-09	E, V	2637628.38	500102.85	Q	1	1	1	1
SW-10	E, V	2634914.77	496731.06	Q	1	1	1	1
SW-11	E, V	2636359.82	496289.83	Q	1	1	1	1
SW-12	E, V	2635028.75	494407.21	Q	1	1	1	1
SW-13	E, V	2635295.91	487827.97	Q	1	1	1	1
SCW-04	E, V	2610662.89	492013.07	Q	1	1	1	1
SCW-05	E, V	2610982.95	491972.39	Q	1	1	1	1
SCW-06	E, V	2611420.30	491927.09	Q	1	1	1	1
Artesian	E, V	2633273.62	499328.37	Q	1	1	1	1

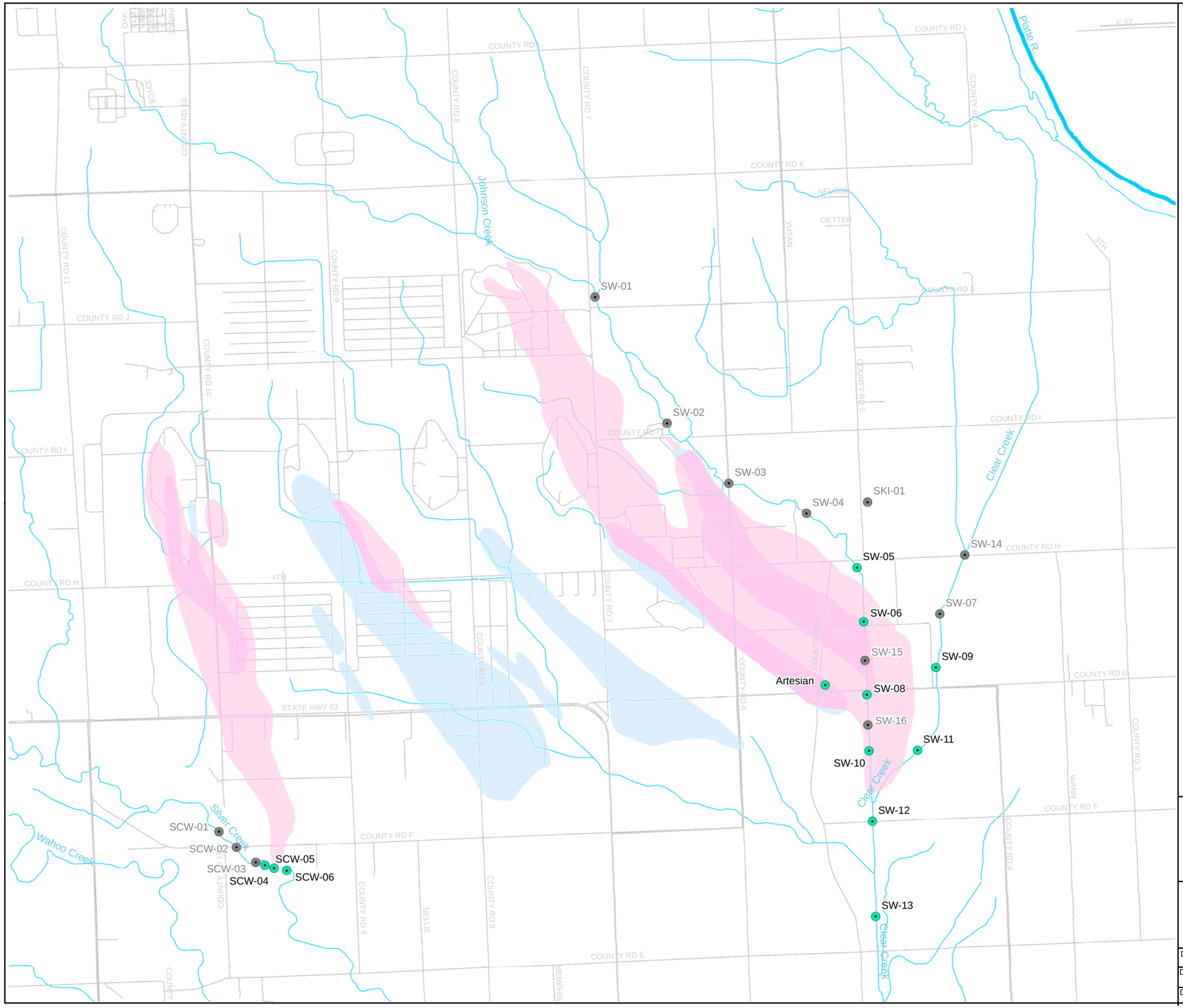
Notes:

Frequencies: A=Annual; B=Biennial; Q=quarterly; S=Semi-Annual;
SV/AE=Volatiles Semi-Annual and Explosives Annual; AE/BV=Explosives Annual and Volatiles Biennial

Required Analyses:

E = explosive compounds (contaminants of concern: TNT, TNB, 2,4-DNT, and RDX);
analysis by EPA SW-846 Method 8330

V = volatile organic compound (contaminants of concern: TCE, DCP, and methylene chloride);
analysis by EPA SW-846 Method 8260



EXPLANATION

Surface Water Location (Sampled 1st - 4th Quarters 2010)

Surface Water Location (Not Sampled in 2010)

Approximate Area of TCE at a Concentration of 5 ug/L or Greater (2008)

Approximate Area of RDX at a Concentration of 2 ug/L or Greater (2008)

Approximate Area of Both TCE at a Concentration of 5 ug/L or Greater and RDX at a Concentration of 2 ug/L or Greater (2008)

NOTE:

TCE and RDX plume delineations for 2008 (URS, 2009) are based on Groundwater Monitoring Program data, direct-push data, and other data. The plume delineations represent a combination of the shallow zone data and the intermediate zone data.

TCE - trichloroethene

RDX - hexahydro-1,3,5-trinitro-1,3,5-triazine

ug/L - micrograms per liter

N

0 0.25 0.5 1 1.5 2 Miles

1,500 750 0 1,500 3,000 4,500 6,000 7,500 9,000 10,500 Feet

0 0.25 0.5 1 1.5 2 Kilometers

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First - Fourth Quarters 2010 Surface Water Sampling Summary

Drawn By:	M Johanson	Sheet No:	Notes and Sources Projection: North American Datum 1983 Nebraska State Plane Units: Feet
Date:	December 4, 2009		
Dwg No:	Rev 1		

Water Supply Well

Water Supply Well 2010 sampling events selection criteria

- Annual sampling of all residential drinking water supply wells inside the 1 mile buffer zone.
- Semi-Annual sampling of those wells inside the ½ mile buffer zone.
- Semi-Annual sampling of wells in the south-east corner of the site between the ½ mile and 1 mile buffer zones as discussed in September 07 memo to EPA.
- Quarterly sampling of WSW-55 as discussed in September 07 memo to EPA.
- The buffer zones may be extended out if groundwater contamination above the action levels is delineated beyond its current location.
- UNFL-27 andUNFL-9A (both connected to the ARDC municipal water system) have been added for semi annual sampling in 2010. The wells had been sampled in previous years when in periodic use. The well will be temporarily turned on in 2010 for sample collection if not in use.
- UNFL-23 is connected to the ARDC municipal water system and is registered with the State of Nebraska HHS as emergency public water service. This well will be sampled semi-annually and will be requested to be turned on temporarily for sampling if not in use.
- New wells, WSW-114 and WSW-115, both located inside the ½ mile buffer zone, will be sampled on a semi-annual basis during 2010. These wells have been located on the sampling figures for 2010.
- Irrigation wells G-054654 and G-053630 were previously sampled for and additional data need and will not be sampled as part of the 2010 WSW program.

Table 2-5
2010 Water Supply Well Sampling Locations
Former Nebraska Ordnance Plant, Mead, Nebraska

Water Supply Well	Sample Location Description	Required Analyses	GPS Location Northing (NAD 83 SP feet)	GPS Location Easting (NAD 83 SP feet)	Frequency	1Q2010	2Q2010	3Q2010	4Q2010
27	hydrant, south side of house	E, V	491314	2633452	A			Y	
29	hydrant at end of walkway	E, V	493553	2632818	S	Y		Y	
29A	spigot on front of house outside of gate	E, V	494120	2632506	S	Y		Y	
32	hydrant on southeast corner of house	E, V	493237	2629736	A			Y	
34	spigot on northeast corner of house	E, V	493445	2627371	A			Y	
36	spigot east side of house	E, V	492605	2622751	A			Y	
50A	spigot on side of house	E, V	495657	2632261	S	Y		Y	
50B	spigot south side of house	E, V	496332	2632399	S	Y		Y	
51	spigot east side of house	E, V	497399	2632494	S	Y		Y	
51A	outside spigot by driveway	E, V	498189	2632594	S	Y		Y	
52A [1]	basement, before GAC units	TSS, E, V	497518	2629718	S	Y		Y	
52A	basement, between GAC units	E, V	497518	2629718	S	Y		Y	
52B	spigot, west side of house	E, V	496817	2632452	S	Y		Y	
52C [1]	Before first GAC unit	TSS, E, V	500793	2632544	S	Y		Y	
52C	After first GAC unit	E, V	500793	2632544	S	Y		Y	
53 [1]	Before first GAC unit	TSS, E, V	501678	2632682	S	Y		Y	
53	After first GAC unit	E, V	501678	2632682	S	Y		Y	
54 [1]	basement, before GAC units	TSS, E, V	502782	2632795	S	Y		Y	
54	basement, between GAC units	E, V	502782	2632795	S	Y		Y	
55	spigot in front of house (east side)	E, V	502159	2636409	Q	Y	Y	Y	Y
56	hydrant by horses	E, V	504584	2633233	S	Y		Y	
57	spigot, south side of house	E, V	506221	2631593	S	Y		Y	
58	spigot, east side of white pump box	E, V	508317	2629362	S	Y		Y	
59	spigot on backside of house	E, V	505914	2632317	S	Y		Y	
60	outside hydrant, north of house by paddock	E, V	506720	2632396	S	Y		Y	
61	spigot south side of house	E, V	505448	2633182	S	Y		Y	
62	spigot north of house	E, V	506004	2633401	S	Y		Y	
63	hydrant southeast of house	E, V	508978	2633939	A			Y	
64	hydrant north of house	E, V	508313	2634110	A			Y	
65	hydrant southeast side of barn	E, V	491734	2614640	S	Y		Y	
66	hydrant northwest of house near shed	E, V	492959	2616348	S	Y		Y	
67	hydrant east of house under windmills	E, V	492635	2617043	S	Y		Y	
68	hydrant south of barn	E, V	493041	2618954	S	Y		Y	
73	hydrant north side of house	E, V	495422	2640114	S	Y		Y	
74	hydrant west of shed	E, V	495424	2640477	S	Y		Y	
75	hydrant south side of house	E, V	494855	2638732	S	Y		Y	
76	hydrant south side of house	E, V	494924	2639193	S	Y		Y	
77	hydrant south side of garage	E, V	494926	2639589	S	Y		Y	
79	hydrant east side of house	E, V	494931	2640348	S	Y		Y	
80	hydrant south side of house	E, V	517293	2623788	A			Y	
81	hydrant east of chicken coup	E, V	515756	2628719	A			Y	
82	hydrant southeast corner of house	E, V	516109	2624422	A			Y	
84	hydrant south side of house	E, V	510629	2633529	A			Y	
86	hydrant north of house	E, V	495576	2638562	S	Y		Y	
87	hydrant south of horse barn	E, V	497785	2639967	S	Y		Y	
89	spigot on south side of garage	E, V	509317	2629604	S	Y		Y	
90	hydrant northwest corner of house	E, V	508507	2634670	A			Y	
91	hydrant south side of building	E, V	505420	2634717	S	Y		Y	
92	hydrant south of house by kennel	E, V	504970	2634886	S	Y		Y	
93	spigot south of house	E, V	504166	2638589	A			Y	
94	hydrant west of shed	E, V	504539	2638753	A			Y	
95	spigot on north side of house	E, V	497660	2640417	S	Y		Y	
96	hydrant south of barn	E, V	495637	2640886	S	Y		Y	
97	spigot in back of building	E, V	496114	2637891	S	Y		Y	
99	hydrant west of house	E, V	494364	2638966	S	Y		Y	
100	spigot in back of building (east side)	E, V	495185	2615279	S	Y		Y	
101	hydrant west of house	E, V	488282	2613804	A			Y	
102	hydrant north side of boat house	E, V	506314	2634797	A			Y	
103	spigot in white pumphouse	E, V	498075	2639207	S	Y		Y	

Table 2-5
2010 Water Supply Well Sampling Locations
Former Nebraska Ordnance Plant, Mead, Nebraska

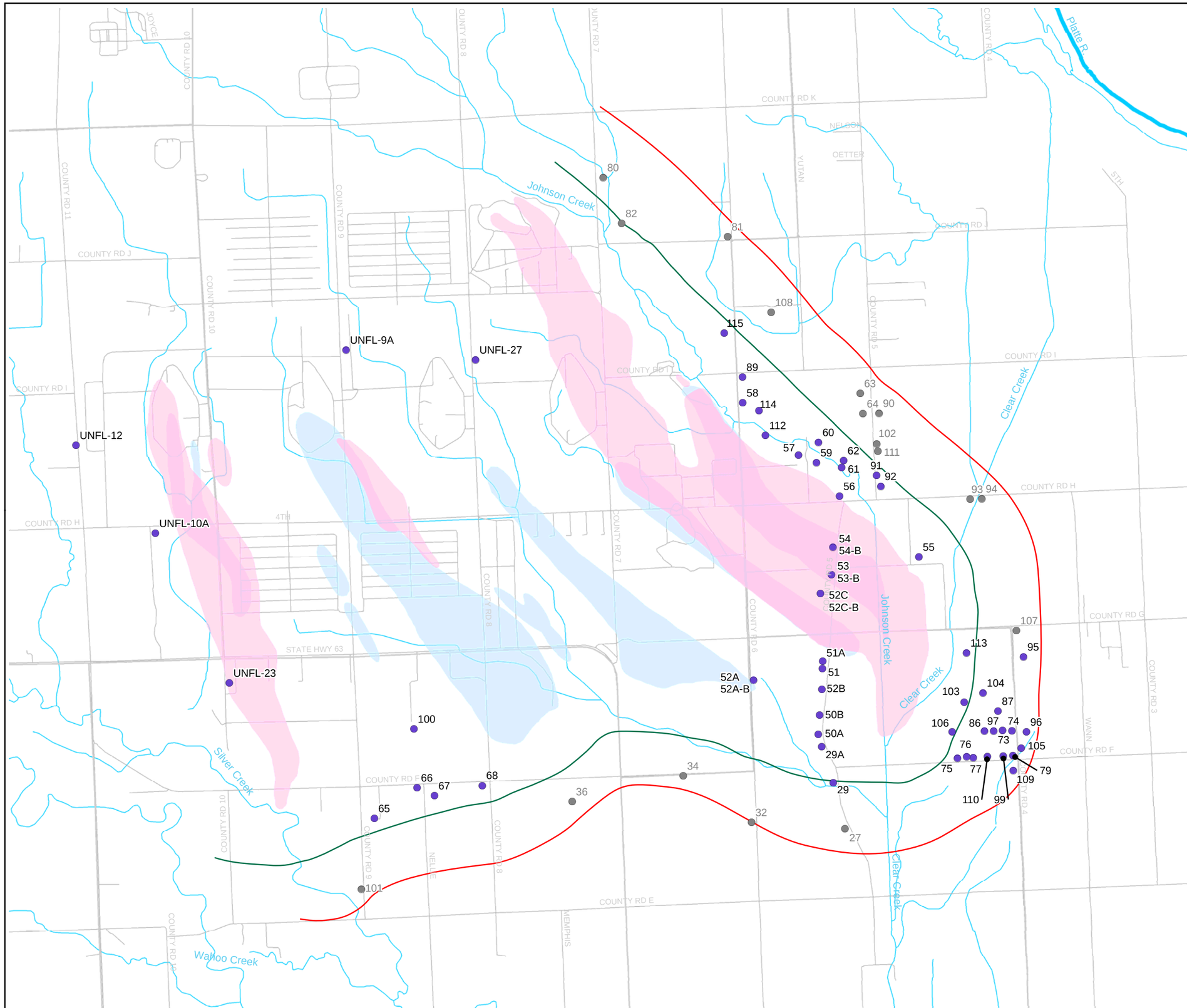
Water Supply Well	Sample Location Description	Required Analyses	GPS Location Northing (NAD 83 SP feet)	GPS Location Easting (NAD 83 SP feet)	Frequency	1Q2010	2Q2010	3Q2010	4Q2010
104	storage Room sink	E, V	498343	2639997	S	Y		Y	
105	spigot west side of house	E, V	494537	2640496	S	Y		Y	
106	spigot east side of house	E, V	496389	2638316	S	Y		Y	
107	spigot south of bath house	E, V	499376	2640196	A			Y	
108	spigot east side of house	E, V	512118	2630546	A			Y	
109	hydrant south of house next to gate	E, V	493992	2640254	S	Y		Y	
110	spigot south side of house	E, V	494087	2639143	S	Y		Y	
111	spigot west side of house	E, V	506408	2634660	A			Y	
112	spigot west side of house	E, V	506936	2630157	S	Y		Y	
113	hydrant next to horse corral	E, V	498325	2638308	S	Y		Y	
114	hydrant southeast corner of bldg	E,V	507998	2630015	S	Y		Y	
115	location to be determined	E,V	511088	2628624	S	Y		Y	
UNFL-9A	Pump House	E,V	510413	2613507	S	Y		Y	
UNFL-10A	Pump House	E, V	503105	2605889	S	Y		Y	
UNFL-12	Pump House	E, V	506617	2602709	S	Y		Y	
UNFL-23	Pump House	E, V	497127	2608843	S	Y		Y	
UNFL-27	Pump House	E, V	510015	2618683	S	Y		Y	

Notes:

[1]= sample taken before GAC system
GAC = Granular Activated Carbon
GPS locations are general not for other use
Frequencies: Q=Quarterly, S=Semi-Annually, and A=Annually

Analyses Required:

E = explosive compounds (contaminants of concern: TNT, TNB, 2,4-DNT, and RDX); analysis by EPA SW-846 Method 8330
V = volatile organic compound (contaminants of concern: TCE, DCP, and methylene chloride); analysis by EPA SW-846 Method 524.2
TSS = Total Suspended Solids



EXPLANATION

- Water Supply Well (Sampled 1st Quarter 2010)
- Water Supply Well (Not Sampled 1st Quarter 2010)
- Half-Mile Buffer Zone
- One Mile Buffer Zone
- Approximate Area of TCE at a Concentration of 5 ug/L or Greater (2008)
- Approximate Area of RDX at a Concentration of 2 ug/L or Greater (2008)
- Approximate Area of Both TCE at a Concentration of 5 ug/L or Greater and RDX at a Concentration of 2 ug/L or Greater (2008)

NOTE:

TCE and RDX plume delineations for 2008 (URS, 2009) are based on Groundwater Monitoring Program data, direct-push data, and other data. The plume delineations represent a combination of the shallow zone data and the intermediate zone data.

TCE - trichloroethene

RDX - hexahydro-1,3,5-trinitro-1,3,5-triazine

ug/L - micrograms per liter

N

0 0.25 0.5 1 1.5 2 Miles

1,500 750 0 1,500 3,000 4,500 6,000 7,500 9,000 10,500 Feet

0 0.25 0.5 1 1.5 2 Kilometers

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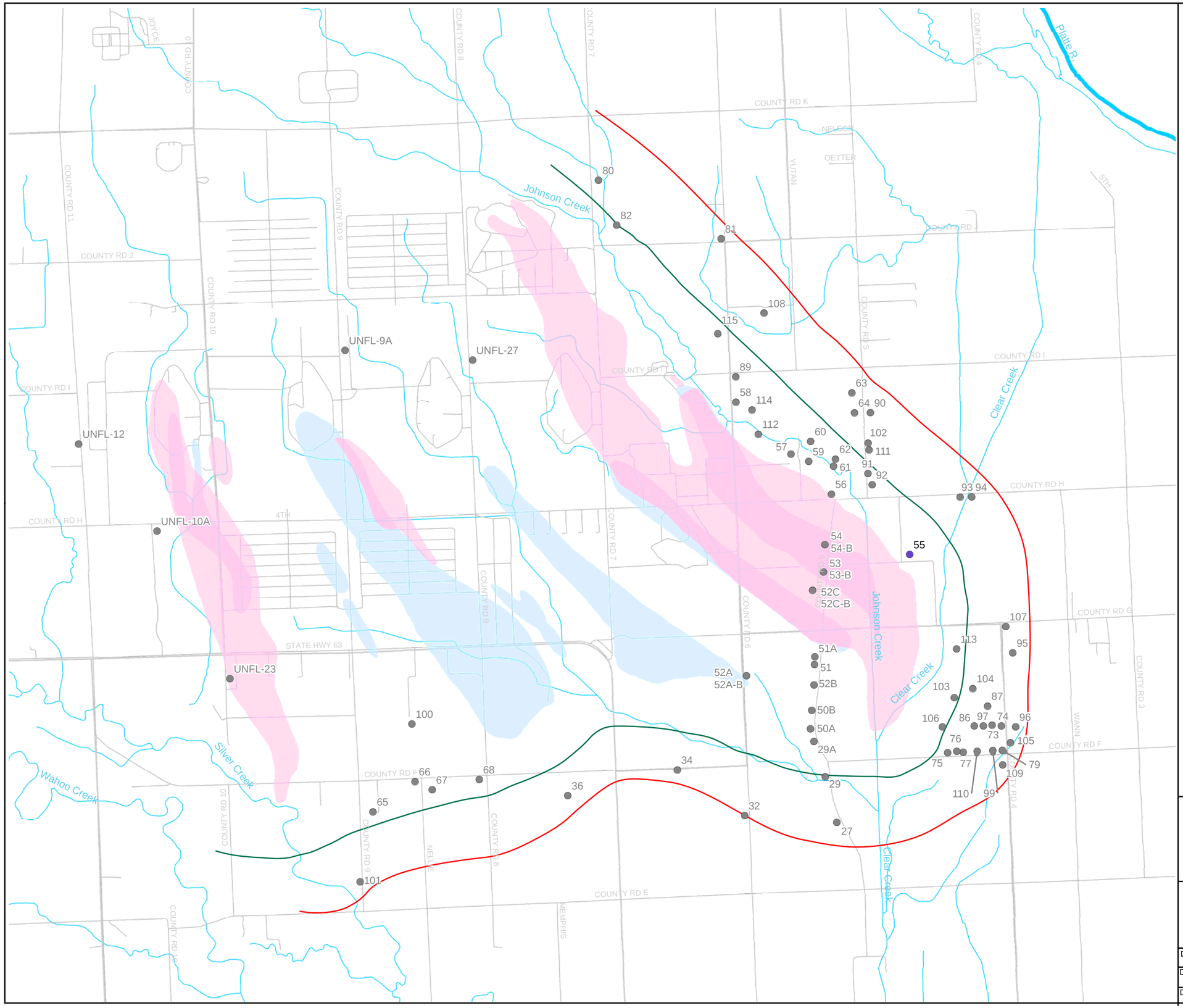
First Quarter 2010
Water Supply Well Sampling Summary

Drawn By:	M Johanson	Sheet No:	Notes and Sources Projection: North American Datum 1983 Nebraska State Plane Units: Feet
Date:	December 3, 2009		
Dwg No:	Rev 0		



EXPLANATION

- Water Supply Well (Sampled 2nd Quarter 2010)
- Water Supply Well (Not Sampled 2nd Quarter 2010)
- Half-Mile Buffer Zone
- One Mile Buffer Zone
- Approximate Area of TCE at a Concentration of 5 ug/L or Greater (2008)
- Approximate Area of RDX at a Concentration of 2 ug/L or Greater (2008)
- Approximate Area of Both TCE at a Concentration of 5 ug/L or Greater and RDX at a Concentration of 2 ug/L or Greater (2008)

NOTE:

TCE and RDX plume delineations for 2008 (URS, 2009) are based on Groundwater Monitoring Program data, direct-push data, and other data. The plume delineations represent a combination of the shallow zone data and the intermediate zone data.

TCE - trichloroethene

RDX - hexahydro-1,3,5-trinitro-1,3,5-triazine

ug/L - micrograms per liter

N

0 0.25 0.5 1 1.5 2 Miles

1,500 750 0 1,500 3,000 4,500 6,000 7,500 9,000 10,500 Feet

0 0.25 0.5 1 1.5 2 Kilometers

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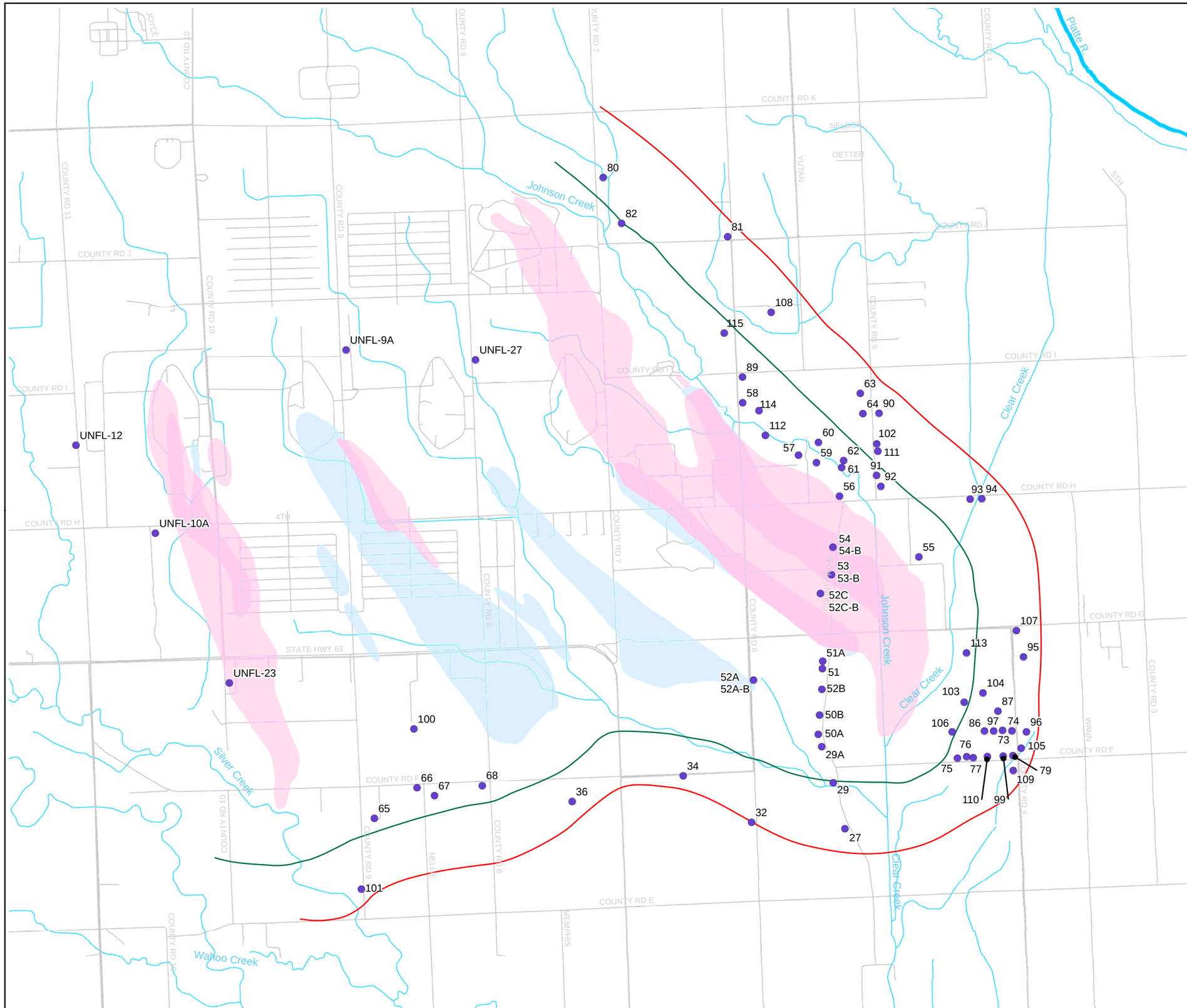
Second Quarter 2010
Water Supply Well Sampling Summary

Drawn By:	M Johanson	Sheet No:	Notes and Sources Projection: North American Datum 1983 Nebraska State Plane Units: Feet
Date:	December 3, 2009		
Dwg No:	Rev 0		



EXPLANATION

- Water Supply Well (Sampled 3rd Quarter 2010)
- Half-Mile Buffer Zone
- One Mile Buffer Zone
- Approximate Area of TCE at a Concentration of 5 ug/L or Greater (2008)
- Approximate Area of RDX at a Concentration of 2 ug/L or Greater (2008)
- Approximate Area of Both TCE at a Concentration of 5 ug/L or Greater and RDX at a Concentration of 2 ug/L or Greater (2008)

NOTE:

TCE and RDX plume delineations for 2008 (URS, 2009) are based on Groundwater Monitoring Program data, direct-push data, and other data. The plume delineations represent a combination of the shallow zone data and the intermediate zone data.

TCE - trichloroethene

RDX - hexahydro-1,3,5-trinitro-1,3,5-triazine

ug/L - micrograms per liter

N

0 0.25 0.5 1 1.5 2 Miles

1,500 750 0 1,500 3,000 4,500 6,000 7,500 9,000 10,500 Feet

0 0.25 0.5 1 1.5 2 Kilometers

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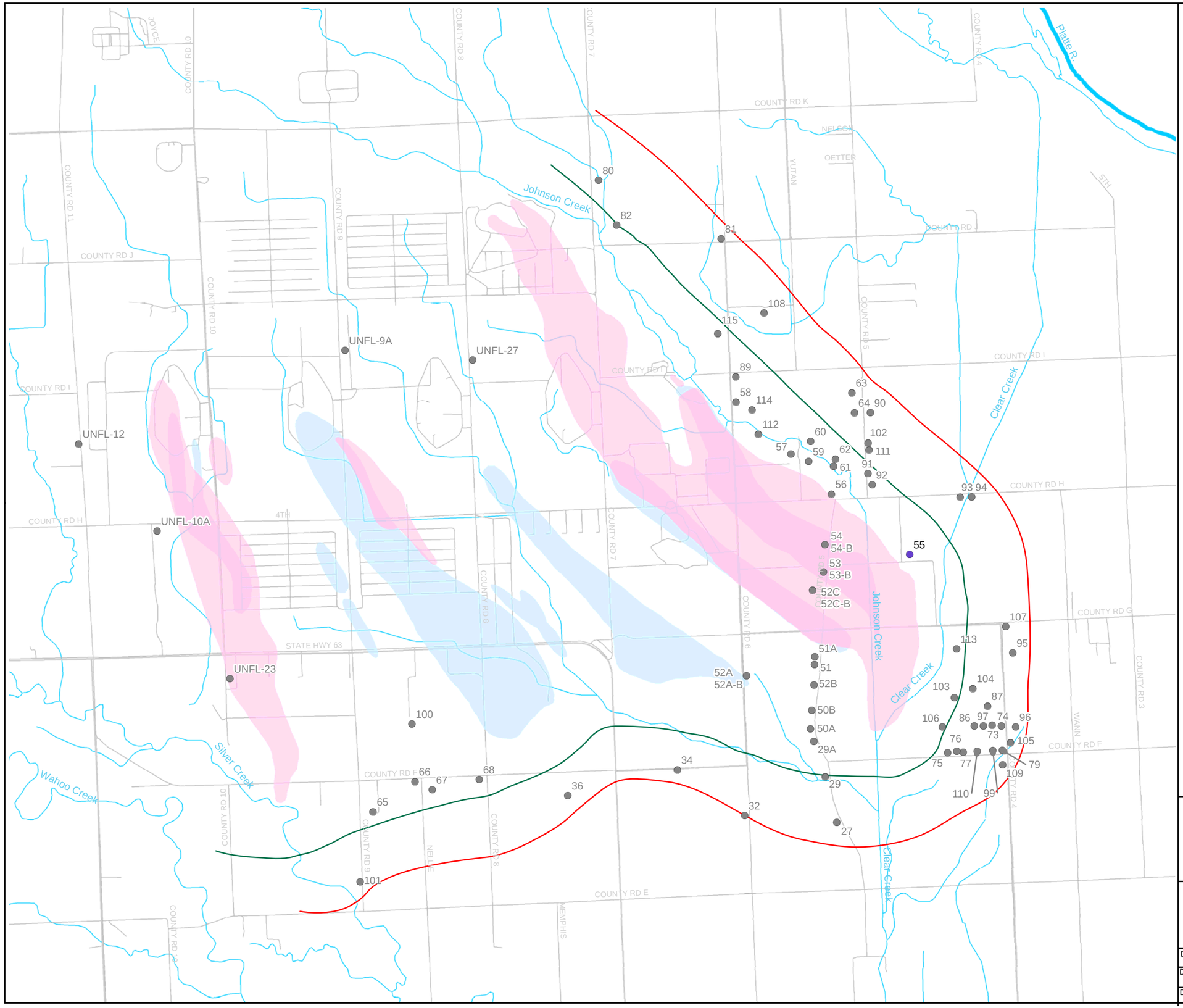
Third Quarter 2010
Water Supply Well Sampling Summary

Drawn By:	M Johanson	Sheet No:	Notes and Sources Projection: North American Datum 1983 Nebraska State Plane Units: Feet
Date:	December 3, 2009		
Dwg No:	Rev 0		



EXPLANATION

- Water Supply Well (Sampled 4th Quarter 2010)
- Water Supply Well (Not Sampled 4th Quarter 2010)
- Half-Mile Buffer Zone
- One Mile Buffer Zone
- Approximate Area of TCE at a Concentration of 5 ug/L or Greater (2008)
- Approximate Area of RDX at a Concentration of 2 ug/L or Greater (2008)
- Approximate Area of Both TCE at a Concentration of 5 ug/L or Greater and RDX at a Concentration of 2 ug/L or Greater (2008)

NOTE:

TCE and RDX plume delineations for 2008 (URS, 2009) are based on Groundwater Monitoring Program data, direct-push data, and other data. The plume delineations represent a combination of the shallow zone data and the intermediate zone data.

TCE - trichloroethene

RDX - hexahydro-1,3,5-trinitro-1,3,5-triazine

ug/L - micrograms per liter

N

0 0.25 0.5 1 1.5 2 Miles

1,500 750 0 1,500 3,000 4,500 6,000 7,500 9,000 10,500 Feet

0 0.25 0.5 1 1.5 2 Kilometers

ECC

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Fourth Quarter 2010
Water Supply Well Sampling Summary

Drawn By:	M Johanson	Sheet No:	Notes and Sources Projection: North American Datum 1983 Nebraska State Plane Units: Feet
Date:	December 3, 2009		
Dwg No:	Rev 0		