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KOCH NITROGEN COMPANY LLC

January 27, 2010

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Director, RCRA Corrective Action & Permits Branch
Air, RCRA and Toxics Division
U.S. Environmental Protection Agency Region VII
901 North Fifth Street
Kansas City, Kansas 66101

**RE: Koch Nitrogen Company, LLC – Dodge City, Kansas
EPA ID No. KSD044625010
Quarterly Progress Report for Fourth Quarter 2009**

Ladies/Gentlemen:

In accordance with Section C.13 of the above referenced Permit, Koch Nitrogen Company, LLC (KNC) hereby submits the enclosed original and duplicate of the Quarterly Progress Report for the Fourth Quarter of 2009.

If you have any questions about the attachments, please contact Elise Stucky-Gregg at (620) 227-8631, ext. 350.

Sincerely,

Gary J. LeRock
Plant Manager

cc w/ encl:

UPS Tracking #:

1Z 693 661 03 9597 0372

Andrea Stone, U.S. Environmental Protection Agency
Region VII, Kansas City, KS

UPS Tracking #:

1Z 693 661 03 9824 8764

Kansas Department of Health and Environment,
Bureau of Waste Management, Topeka, KS

Tom Siegrist, Koch Fertilizer, Wichita, KS (electronic copy)
Elise Stucky-Gregg, KNC Dodge City, KS

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497835



RCRA

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**QUARTERLY PROGRESS REPORT
4th QUARTER 2009**

**DODGE CITY NITROGEN PLANT
KOCH NITROGEN COMPANY, LLC**

EPA ID NO. KSD044625010

January 27, 2010

CERTIFICATION STATEMENT

In accordance with Sections B.2.b and B.22 of the Part II Permit, I certify under penalty of law that this document and all attachments were prepared under my direction or supervision according to a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

By: 
Gary J. LeRock
Plant Manager

A description of the work completed (Part II Permit Section C.13.a): This Quarterly Report covers activities in the fourth quarter of 2009, during which KNC accomplished the following work:

- The fourth quarter groundwater sampling event was completed on November 19, 2009. As requested by EPA, KNC has supplemented our approved SAP methods to include differentiation between trivalent chromium (Cr+3) and the hexavalent form (Cr+6), and between nitrate (NO₃) and nitrite (NO₂).
- Based on discussions at the meeting of May 15, 2009, subsequent communications, and the extension letter of July 10, 2009, KNC incorporated the recommendations from KDHE's O&M report and finalized the groundwater addendum to the approved Phase II work plan. The Phase II RFI Work Plan Addendum: Groundwater Characterization was submitted on October 28, 2009.
- KNC completed preliminary sampling at SWMUs 3 and 7 under the approved Phase II Work Plan during the fourth quarter. Results of the analyses received as of January 25th are displayed in the attached preliminary figures. Also attached is a preliminary figure for sampling performed during the 3rd quarter at SWMU 14. The results for SWMU 14 were received after the 3rd quarter progress report was submitted. KNC is currently performing a more detailed evaluation of the results as described below.
- KNC continued engineering and began construction on stormwater projects near the boundaries of various AOCs, SWMUs and monitoring/recovery system structures. The projects include the following;
 1. Sunflower Tank: repair walls and provide paved vehicular/pedestrian access into containment. – Construction in progress
 2. NH₃ Process and Utility Area: grade area and provide drainage for runoff. – Construction in progress
 3. Drum Corral: pave area within corral and install perimeter berm. – Construction in progress
 4. Sanitary Lagoon: line north cell and maintain south cell for backup. – Engineering in progress
 5. Fire Engine Building: Establish containment and repair paving. – Engineering in progress
- KNC continued work on the project to line and repair the Recovery RO Equalization Basin. Liner installation was completed on October 18, 2009. During the liner installation the recovery wells were briefly out of service. KNC measured static water levels and produced a Potentiometric Surface Map for all of the wells during this period (figure attached). As reported to EPA and KDHE by letter dated December 9, 2009, a pinhole leak in the liner was discovered and repaired. KNC is monitoring the leak detection system of the basin to ensure that the repairs are functioning to their designed specifications. Upon determination that the repairs are complete, KNC will submit a report presenting the details of the construction, the

sampling and analytical results, and the completion of the requirements in the KDHE authorization letter of November 5, 2008.

- As noted above, a pinhole leak was discovered in the liner of the Recovery RO Equalization Basin. This pinhole leak lead to seepage from a crack on an outer wall of the basin, which was reported to the agencies. In response to EPA's request by letter dated January 4, 2010, KNC submitted a Phase II RFI Work Plan Addendum No. 2 on January 22, 2010. This addendum proposed soil sampling locations to address the seepage from the Recovery RO Equalization Basin, as well as leakage from well TW-83 as reported to the agencies by letter dated July 29, 2009.
- As requested by EPA in the meeting on May 15, 2009 and summarized by letter date May 27, 2009, KNC has compiled a summary of the neighboring private water well information as presented on Table PW-01 and Figure PW-01. This information was gathered through discussions with the private well owners and their pump contractors, Kansas Geological Survey, and the Kansas Department of Agriculture - Division of Water Resources.

Summaries of all findings, including summaries of laboratory data (Part II Permit Section C.13.b): Fourth quarter findings include the following:

- KNC continued the evaluation of Phase II soil sampling results as reported last quarter. The results appear consistent with the probable historical source of chromium releases, and with current understanding of the behavior of chromium and nitrates in the environment, as described in the 1st Quarter 2009 Progress Report. The analytical results for SWMUs 3, 7, and 14 are represented in the attached figures. KNC is evaluating the results as three-dimensional data presentations through Rockware and ArcView to develop further recommendations.
- At SWMU 7, seven samples had detections of Tetrachloroethene. Because of this, KNC will perform additional water sampling during the 2nd Quarter 2010. KNC will analyze wells TW-21, TW-88, and TW-89 for VOCs.
- The sample results from SWMU 14 (area of the former Andco Basin) showed no detectable levels of hexavalent chromium. The analytical data showed low levels of trivalent chromium (12.5 to 29.5 mg/kg), consistent with earlier results from this area and from other SWMUs where chromate compounds were not directly handled. Nitrate + nitrite levels ranged from 3.9 to 15.4 mg/kg, also within the ranges of earlier samples in the area and other SWMUs where concentrated compounds were not directly managed. These results do not suggest any specific impact from past overflows or leakage from the basin. See attached figure.
- Laboratory results from the fourth quarter 2009 groundwater sampling event were also evaluated during the quarter. The results were consistent with those of the previous quarter. Only small changes in chromium and nitrate concentrations were observed.

Summaries of all problems or potential problems encountered during the reporting period and actions taken to rectify problems (Part II Permit Section C.13.c): Except for the liner installation problem discussed above, no significant problems were encountered during this reporting period.

Projected work for the next quarter (Part II Permit Section C.13.d): In the next quarter (First Quarter 2010), KNC expects to conduct the following work under Part II of the permit:

- KNC will continue the sampling of AOCs and SWMUs in accordance with the Phase II RFI Work Plan as weather permits and the drilling contractor is available. Upon completion of the Phase II (Tier I) soil sampling, KNC will submit the results and any additional proposed Phase II (Tier II) soil sampling location as described in the approved Phase II Work Plan.
- Although not a part of the Part II permit requirements, KNC anticipates that the First Quarter 2010 Groundwater Sampling will be completed by mid February.
- KNC will continue to coordinate sampling at the sites of the miscellaneous spills from the recovered water system with the main elements of the Phase II field investigation per Addendum No. 1 to the RFI Phase II Sampling and Analysis Plan.
- KNC will continue monitoring the leak detection system of the Recovery RO Equalization Basin to ensure that the repairs are functioning to their designed specifications. Upon determination that the repairs are complete, KNC will submit a report presenting the details of the construction, the sampling and analytical results, and the completion of the requirements in the KDHE authorization of November 5, 2008.
- In response to KDHE's O&M report of September 3, 2009, KNC will correct the issue of water retention at TW-38, weather permitting.
- Upon receipt of an approval from EPA, KNC will implement Addendum No. 2 to the Phase II RFI Work Plan.

Any instances of noncompliance with Part II of this permit not otherwise required to be reported pursuant to Part II Permit Conditions B.18 (Part II Permit Section C.13.e): To the extent that the Part II Permit includes requirements to continue implementation of the existing groundwater monitoring, recovery, and treatment system, supplemental information regarding potential instances of noncompliance is described in the attached document.

**SUPPLEMENTAL INFORMATION
SUBMITTED WITH THE
Fourth QUARTER REPORT 2009
Koch Nitrogen Company, LLC
Dodge City, Kansas
EPA ID No. KSD044625010
January 27, 2010**

Pursuant to Section I.E. 14 of the Hazardous Waste Management Facility Permit, Part I (Part I Permit), Koch Nitrogen Company, LLC (KNC) is required to "report all other instances of noncompliance not otherwise required to be reported above in Sections Permit Conditions I.E.10 through I.E.13, at the time monitoring reports are submitted."

The following items have been previously discussed with the Agencies, who have indicated that they do not consider these to be deviations. However, because there are inconsistencies between certain permit documents, or between the language in these documents and best practices (e. g., use of most recent and accurate analytical methods), KNC is listing these items to meet the intent of Section I.E. 14 of the Part I permit.

KDHE and KNC have previously discussed and revised a request for modifications to the Part I Permit to ensure consistency of wording and to clarify the acceptable use of alternate methods. KDHE and EPA have previously suggested in informal discussions that there may be more effective approaches to managing the permit; for example, EPA has indicated that they prefer to consolidate the two parts of the Permit. At the meeting of May 15, 2009, KDHE indicated that its O&M report would propose recommended changes to Part 1 of the permit. KNC subsequently received the O&M Plan, and as noted above, incorporated information it contained into the Phase II Work Plan Addendum: Groundwater Characterization submitted to EPA on October 28, 2009. KNC also submitted the requested responses to the O&M Plan on October 30, 2009. These responses proposed an approach and a schedule to address updating of the permit.

1. **Private Wells.** Attachment D of the Part I Permit, and the September 7, 2001 RCRA Groundwater Sampling and Analysis Plan (SAP) (page 4) identify ten private wells that are to be sampled quarterly.
 - Plumbing at the Coker well was disconnected in 2005, and the well has not been sampled since that time. The Cokers have been connected to the City of Dodge City water system since the fall of 2004.
 - The Bogners have been connected to the City of Dodge City water system since the fall of 2005. KNC continues to sample their well, where the analyte of concern is nitrogen species above the MCL. During the second quarter 2009 sampling event, Mr. Bogner indicated that he had not used the well in recent months.
 - It has not been possible to sample the Chaffin well since 2007, as previously noticed to KDHE. The current owner still had electrical power to the site turned off during the 4th quarter sampling. KNC will continue to monitor the Chaffin Well status, and, if conditions permit, the well will be sampled.

2. **Nitrogen Laboratory Method.** Section I.E.9.a of the Part I Permit specifies that chemical analyses must be those specified in the U.S. Environmental Protection Agency (EPA) Publication SW-846. The SAP indicates that the method to be used for nitrate plus nitrite analysis will be EPA Method 353.2. Based on direction from the Agencies, KNC is using the latest approved methods for all analytes. In addition, at the direction of EPA, KNC began nitrate-nitrite speciation on these compounds. KNC anticipates that the small inconsistency among the permit conditions, the SAP requirement, and the Agencies' preference for most recent methods, and perhaps expanded methods, will be resolved by the selection of the agreed-upon permit management option.
3. **Nitrogen Species Measured.** Section I.E.9.a, and Attachment D of the Part I Permit state that the Permittee shall determine the concentrations of "nitrate" throughout the compliance period and any extension due to corrective action implementation according to the schedule set out in the SAP. There is no reference to testing for "nitrite" in the Part I Permit. However, Attachment C of the Part I Permit specifies that the Ground Water Protection Standard (GWPS) will be nitrate plus nitrite as N (See Part I Permit Attachment C). Table 2.3 of the SAP specifies that the groundwater sampling parameters should include nitrate plus nitrite. KNC has analyzed for nitrate plus nitrite as N since 2004. As noted above, KNC is currently speciating nitrate and nitrite at the direction of EPA in addition to the analysis previously agreed on.
4. **Field/Laboratory Forms.** Section IV.C.3.b of the Part I Permit provides that the Permittee will comply with the Ground Water Monitoring Plan set out in the Part B Permit Application. The Ground Water Monitoring Plan in the Part B Permit Application states that the data will be reported on Field Sampling and Laboratory Results Data Sheets (see Section E, p. E-2). KDHE has clarified that any format that includes all required data is acceptable. KNC anticipates that this issue will be resolved by the selection of the permit management option referenced above.
5. **Recovery Well Operation.** Wells TW-2, 4 and 8, and TW-79 have been identified in the Part I Permit as recovery wells (Part I Table 1 IV.C.1.a and Attachment D). KNC has noted previously, and KDHE and EPA have acknowledged, that TW-2 and TW-79 are not used for recovery, due to insufficient water level and the original well design, respectively. As previously noted, the regional drop in water level has caused the level in several of the monitoring/recovery wells to fall below the well pump, making it impossible to continue to utilize these wells for recovery and sampling. KNC has noted previously that the regional drop had impacted wells TW-4, TW-8, TW-36, and the "CP" wells. KNC will continue to document any wells that are affected by the regional water table changes.
6. **Alternate Field Meters.** The SAP in Section E, Appendix F of the Part B Permit Application provides that a multi-parameter water quality meter (MP20 Flow Cell) will be used during low-flow groundwater purging (See page 15 of SAP). The Agencies have previously acknowledged that nonfunctional equipment should be replaced with newer equipment that offers a higher degree of accuracy and reliability.

KDHE provided an O&M Inspection Report to KNC, dated September 3, 2009, which contained some items described as deficiencies and identified by KDHE relating to the groundwater monitoring system. It is not clear whether those items are required to be disclosed in this report, but in the interest of completeness, KNC includes those items below:

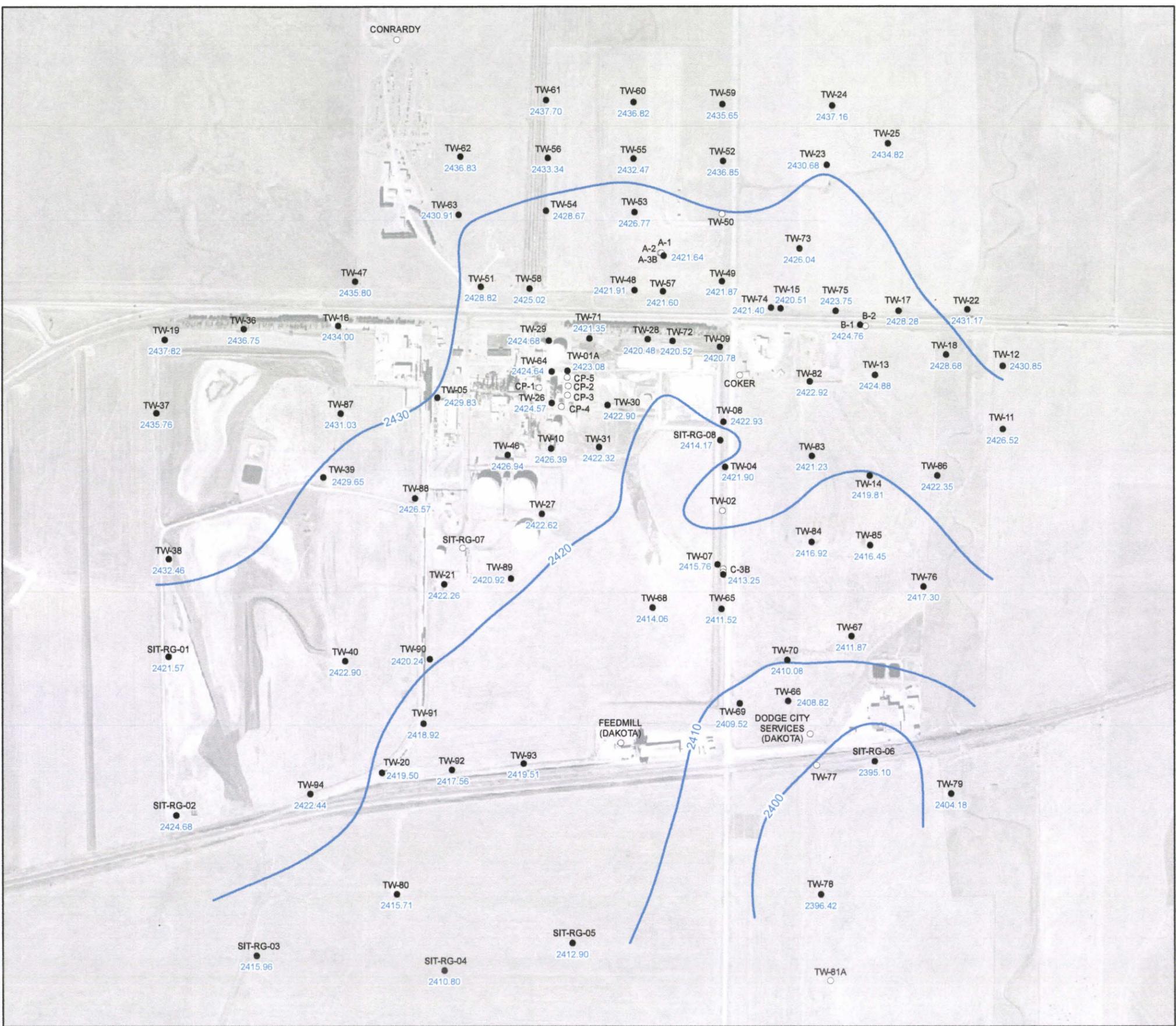
1. **Evidence of water retention near Well TW-38.** – In progress. To be completed 1st quarter 2010.
2. **Field forms contained incorrect date.** – Completed.
3. **Recommendation to propose static water level monitoring network separate from the existing recovery well network.** – In progress. To be proposed after evaluation of the work to be completed upon approval of the RFI Phase II Work Plan Addendum: Groundwater Characterization.
4. **KNC incorrectly included Dakota wells on chromium and nitrate-nitrite concentration maps.** - Completed
5. **Total depth measurements not reported on field forms.** – Completed. KNC has created a new well maintenance form that will be used to ensure recording of total depth field measurements.
6. **See item 3.**
7. **KDHE will no longer accept potentiometric surface maps that include water level measurements from operating recovery wells.** – Completed. KNC will ensure that all future maps will include non pumping wells.

Table PW-01
Summary of Private Water Well Information
Adjacent to Koch Nitrogen Company, LLC, Dodge City, KS

Owner	Location (T.26S., R.24W.)			Completion Depth	Well Casing	Screen Interval	Gravel Pack	Static Water Level	Pump Information				Comments
	Section	Longitude	Latitude						Size	Motor	Yield	Depth	
Lix, Gerard	SW-SW-NW Sec 14	99°55.418'	37°47.182'	110'	5" PVC to 70'	70-110'	24-110'	74' 10/26/00	4"	1 Hp	10-20 gpm	100'	Ogallala, domestic
Conrardy, Don	SE-SW-SE Sec. 15	99°55.947'	37°47.066'	Est. 120-130'	5" PVC	Est. 185'	ND	81' 3/2/04	4"	1 1/2 Hp	10-20 gpm	160'	Ogallala, domestic and livestock
		99°55.896'	37°47.097'	Est. 185'	5" PVC	Est. 145-185'	ND	ND	ND	ND	ND	160'	Ogallala, windmill, pump broken, livestock
Buehne, David (Buehne-North)	SE-SE-SE Sec. 16	99°56.588'	37°46.865'	Est. 120-130'	5" PVC	ND	ND	ND	4"	1 1/2 Hp	10-20 gpm	ND	Ogallala, domestic and livestock
Buehne, Dale (Buehne-South)	SE-SE-SE Sec. 16	99°56.596'	37°46.789'	ND	ND	ND	ND	ND	4"	1 1/2 Hp	10-20 gpm	Est. 100'	Ogallala, domestic and livestock
Tawzer, Don	NW-SE-NE Sec. 21	99°56.791'	37°46.417'	Est. 145'	5" PVC	ND	ND	ND	4"	1 1/2 Hp	10-20 gpm	ND	Ogallala, domestic
Chaffin, Inc.	NW-NE-SE. Sec. 21	99°56.823'	37°46.265'	195'	8" PVC to 95'	8" PVC: 95-195'	20-200'	87' 11/19/85	NA	NA	NA	NA	Ogallala
		99°56.809'	37°46.259'	175'	8" PVC to 145'	8" PVC: 145-170'	22-175'	90' 11/19/85	4"	8 Hp	40-90 gpm	180'	Industrial for heat exchange groundwater
		99°56.795'	37°46.250'	175'	8" PVC to 145'	8" PVC: 145-175'	20-175'	90' 12/2/85	4"	8 Hp	40-90 gpm	180'	extraction and re-injection
		99°56.766'	37°46.237'	175'	10" PVC to 85'	10" PVC: 85-175'	20-175'	83' 12/6/85	NA	NA	NA	NA	
Feed Mill (Currently Hi Plains Feed)	NE-NE-SE Sec. 22	99°55.616'	37°46.251'	277'	6" PVC to 237'	237-267'	230-267'	187' 9/19/94	4"	2 Hp	18-32 gpm	ND	Dakota, industrial
Coker, Raymond	NW-NW-NW Sec 23	99°55.443'	37°46.677'	Est. 80'	4" Steel	ND	ND	ND	4"	1 1/2 Hp	10-20 gpm	ND	Ogallala, no longer used
Dodge City Services	SW-SE-NW Sec. 23	99°55.340'	37°46.266'	360'	6" Steel to 280'	280-360'	20-360'	140' 3/17/86 180' 1/14/05	6"	15 Hp	145-195 gpm	290'	Dakota, commercial Formerly Consolidated Pet Foods / KS BY Products / Others
Bogner, David	SW-SW-NW Sec. 26	99°55.444'	37°45.515'	184'	6" Steel	ND	ND	112' 4/1/02	4"	1 1/2 Hp	10-20 gpm	Est. 150'	Ogallala, no longer used
Maxwell, Richard	SW-SW-SE Sec. 27	99°55.984'	37°45.042'	Est. 210'	6" Steel	ND	ND	ND	4"	1 1/2 Hp	10-20 gpm	ND	Est. Dakota, domestic and livestock
	NE-SW-SW Sec. 27	99°56.358'	37°45.119'	240'	16" Steel	ND	ND	144' 1957	8"	100 Hp	500-1,500 gpm	ND	Dakota, irrigation
Riley, Charles	SE-SW-SW Sec. 27	99°56.286'	37°45.027'	Est. 210'	5" PVC	ND	ND	ND	4"	1 1/2 Hp	10-20 gpm	ND	Est. Dakota, domestic
Winter Feed Yard	SW-SW-SW Sec. 27	99°56.525'	37°45.047'	245'	5" PVC	205-245'	24-245'	159' 8/28/05	4"	1 1/2 Hp	10-20 gpm	ND	Dakota, domestic and livestock
Winter Feed Yard	SW-NE-NE Sec. 28	99°56.727'	37°45.751'	422'	10" PVC	345-425'	25-425'	195' 10/17/97	8"	100 Hp	75-550 gpm	ND	Dakota, irrigation
Winter Feed Yard	NW-NW-SE Sec. 28	99°56.969'	37°45.436'	ND	16" Steel	ND	ND	ND	8"	125 Hp	500-1,500 gpm	ND	Ogallala, irrigation
Dodge City Feeders #1	SW-SE-SW Sec. 28	99°56.223'	37°45.194'	180'	6 5/8"	ND	ND	110' 8/14/90	4"	1 Hp	10-20 gpm	ND	Ogallala, domestic for office
#2	NE-SE-SW Sec. 28	99°57.264'	37°45.227'	217'	6 5/8"	ND	ND	140' 8/14/90	4"	3 Hp	24-55 gpm	180'	Dakota, livestock
#3	NW-SE-SW Sec. 28	99°57.305"	37°45.081'	215'	6 5/8"	ND	ND	137'	4"	3 Hp	24-55 gpm	180'	Dakota, livestock

Notes:

- ND-not detected
- NA-not analyzed or not applicable
- Est.-estimated
- All of the wells are domestic/livestock unless otherwise noted



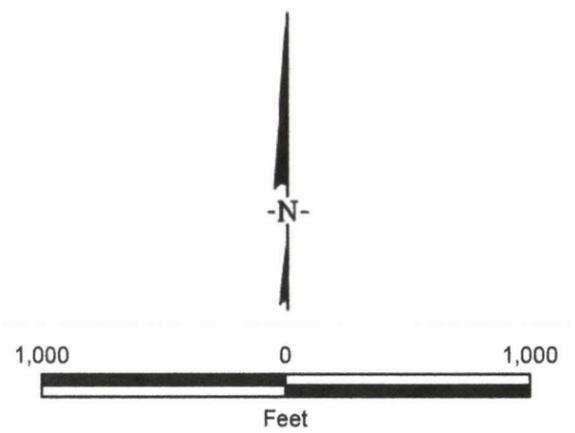
LEGEND

- MONITORING WELL GAUGED IN OCTOBER 2009
- OTHER WELL WITHIN STUDY AREA
- POTENTIOMETRIC SURFACE CONTOUR (FT AMSL) - OCTOBER 2009

NOTE:

THIS POTENTIOMETRIC SURFACE REPRESENTS WATER TABLE CONDITIONS DURING THE PLANT'S TURNAROUND PERIOD WITH ALL PUMPING WELLS TURNED OFF.

DRAFT
FOR REVIEW PURPOSES ONLY



**POTENTIOMETRIC SURFACE
MAP - OCTOBER 2009**

PREPARED BY:		
KOCH KOCH NITROGEN COMPANY <small>11559 US HIGHWAY 50 - P.O. BOX 1337 DODGE CITY, KS 67801</small>		
PROJECT.	FIGURE NO.	X
DATE. 12/09/2009	REVISION NO.	0

Sample	Feet	mg/kg	Sample	Feet	mg/kg	Sample	Feet	mg/kg
SS01	0-0.5	15.7	SB27	0-0.5	76.2	SB38	0-0.5	18.0
SB01	2	16.7	SB27	2	18.0	SB38	2	21.0
SS02	0-0.5	17.0	SB27	4	20.8	SB38	4	22.2
SB02	2	19.0	SB27	6	20.1	SB38	6	31.7
SS03	0-0.5	17.7	SB27	8	17.0	SB38	8	17.0
SB03	2	16.6	SB27	10	17.0	SB38	10	33.8
SS04	0-0.5	31.1	SB27	15	17.0	SB38	15	8.1
SB04	2	18.8	SB27	20	14.0	SB38	20	14.0
SS05	0-0.5	20.0	SB27	25	12.0	SB38	25	13.0
SB05	2	20.3	SB27	30	16.0	SB38	30	9.0
SS06	0-0.5	16.5	SB28	0-0.5	19.0	SB39	0-0.5	18.0
SB06	2	15.7	SB28	2	17.0	SB39	2	33.8
SS07	0-0.5	30.2	SB28	4	15.0	SB39	4	79.2
SB07	2	18.6	SB28	6	17.0	SB39	6	17.2
SS08	0-0.5	47.9	SB28	8	11.0	SB39	8	50.1
SB08	2	21.3	SB28	10	14.0	SB39	10	17.0
SS09	0-0.5	21.4	SB28	15	13.0	SB39	15	12.0
SB09	2	19.6	SB28	20	17.0	SB39	20	8.2
SS10	0-0.5	68.0	SB28	25	13.0	SB39	25	14.0
SB10	2	18.5	SB29	0-0.5	17.0	SB39	30	14.7
SS11	0-0.5	47.5	SB29	2	15.0	SB40	0-0.5	2070
SB11	2	17.6	SB29	4	14.0	SB40	2	23.9
SS12	0-0.5	34.1	SB29	6	15.0	SB40	4	18.0
SB12	2	15.5	SB29	8	16.0	SB40	6	17.0
SS13	0-0.5	37.3	SB29	10	16.0	SB40	8	15.0
SB13	2	18.0	SB29	15	16.0	SB40	10	9.3
SS14	0-0.5	561	SB29	20	14.0	SB40	15	13.0
SB14	2	77.8	SB29	25	14.2	SB40	20	9.9
SS15	0-0.5	1990	SB30	0-0.5	70.8	SB41	0-0.5	3790
SB15	2	149	SB30	2	24.1	SB41	2	17.7
SS16	0-0.5	64.9	SB30	4	77.5	SB41	4	18.0
SB16	2	39.8	SB30	6	35.6	SB41	6	18.0
SS17	0-0.5	24.3	SB30	8	64.6	SB41	8	14.3
SB17	2	140	SB30	10	59.1	SB41	10	9.8
SS18	0-0.5	17.9	SB30	15	19.0	SB41	15	15.0
SB18	2	16.5	SB30	20	15.0	SB41	20	11.0
SS19	0-0.5	19.5	SB30	25	12.0	SB42	0-0.5	49.7
SB19	2	19.5	SB30	30	8.5	SB42	2	16.0
SS20	0-0.5	19.8	SB31	0-0.5	154.0	SB42	4	19.0
SB20	2	18.0	SB31	2	20.0	SB42	6	12.4
SS21	0-0.5	20.0	SB31	4	18.0	SB42	8	12.0
SB21	2	19.8	SB31	6	20.0	SB42	10	14.0
SS22	0-0.5	26.1	SB31	8	13.5	SB42	15	11.0
SB22	2	35.1	SB31	10	11.1	SB42	20	15.0
SB22	4	17.2	SB31	15	15.0			
SB22	6	17.2	SB31	20	16.0			
SB22	8	19.6	SB32	0-0.5	77.4			
SB22	10	13.8	SB32	2	21.4			
SB22	15	15.0	SB32	4	15.0			
SB22	20	15.3	SB32	6	16.0			
SB22	25	11.0	SB32	8	16.0			
SB22	30	11.9	SB32	10	15.0			
SB23	2	13.9	SB32	15	13.0			
SB23	4	15.9	SB32	20	12.0			
SB23	6	16.0	SB33	0-0.5	27.7			
SB23	8	13.2	SB33	2	18.0			
SB23	10	14.3	SB33	4	17.0			
SB23	15	12.0	SB33	6	16.0			
SB23	20	14.4	SB33	8	19.0			
SB23	25	12.8	SB33	10	11.2			
SB23	30	14.6	SB33	15	12.0			
SB23	35	6.9	SB33	20	15.0			
SB24	0-0.5	8.2	SB34	0-0.5	94.1			
SB24	2	12.2	SB34	2	11.0			
SB24	4	64.5	SB34	4	14.1			
SB24	6	114	SB34	6	14.6			
SB24	8	38.3	SB34	8	11.4			
SB24	10	20.0	SB34	10	15.0			
SB24	15	18.0	SB34	15	13.0			
SB24	20	14.0	SB34	20	13.0			
SB24	25	13.0	SB35	0-0.5	49.0			
SB24	30	17.0	SB35	2	17.0			
SB25	0-0.5	19.0	SB35	4	15.0			
SB25	2	33.7	SB35	6	18.0			
SB25	4	22.2	SB35	8	10.9			
SB25	6	60.3	SB35	10	14.3			
SB25	8	17.0	SB35	15	15.0			
SB25	10	18.0	SB35	20	9.0			
SB25	15	9.6	SB36	0-0.5	142.0			
SB25	20	14.0	SB36	2	14.3			
SB25	25	15.0	SB36	4	20.0			
SB25	30	15.0	SB36	6	16.0			
SB26	0-0.5	22.4	SB36	8	13.6			
SB26	2	35.4	SB36	10	14.9			
SB26	4	18.0	SB36	15	13.0			
SB26	6	15.0	SB36	20	10.0			
SB26	8	14.0	SB37	0-0.5	68.7			
SB26	10	10.9	SB37	2	28.0			
SB26	15	11.0	SB37	4	19.0			
SB26	20	10.5	SB37	6	18.0			
			SB37	8	17.0			
			SB37	10	14.0			
			SB37	15	13.0			
			SB37	20	12.2			



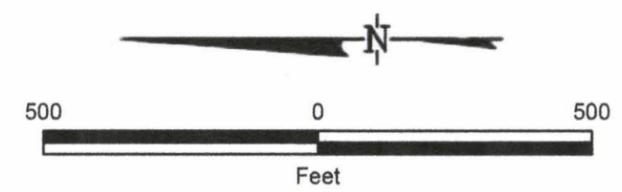
LEGEND

● SWMU 3 SOIL INVESTIGATION SAMPLE LOCATION

NOTES:

1. DATA TABLES INDICATE SWMU 3 SAMPLE LOCATIONS, SAMPLE DEPTHS IN FEET BELOW GROUND SURFACE, AND TOTAL CHROMIUM CONCENTRATIONS IN mg/kg.
2. MAP SAMPLE IDENTIFICATIONS ARE ABBREVIATED.

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**SWMU 3
EAST POND SOIL
INVESTIGATION RESULTS FOR
TOTAL CHROMIUM**

PREPARED BY:		KOCH KOCH NITROGEN COMPANY 11559 US HIGHWAY 50 - P.O. BOX 1337 DODGE CITY, KS 67801	
PROJECT NO.	FIGURE NO.	X-X	
DATE.	1/25/2010	FILE NO.	

Sample	Feet	mg/kg
SB24	0-0.5	ND(20)
SB24	2	ND(20)
SB24	4	ND(20)
SB24	6	ND(20)
SB24	8	ND(20)
SB24	10	ND(20)
SB24	15	ND(20)
SB24	20	ND(20)
SB24	25	ND(20)
SB24	30	ND(20)
SB25	0-0.5	ND(20)
SB25	2	ND(20)
SB25	4	ND(20)
SB25	6	ND(20)
SB25	8	ND(20)
SB25	10	ND(20)
SB25	15	ND(20)
SB25	20	ND(20)
SB25	25	ND(20)
SB25	30	ND(20)
SB26	0-0.5	ND(20)
SB26	2	ND(20)
SB26	4	ND(20)
SB26	6	ND(20)
SB26	8	ND(20)
SB26	10	ND(20)
SB26	15	ND(20)
SB26	20	ND(20)
SB27	0-0.5	ND(20)
SB27	2	ND(20)
SB27	4	ND(20)
SB27	6	ND(20)
SB27	8	ND(20)
SB27	10	ND(20)
SB27	15	ND(20)
SB27	20	ND(20)
SB27	25	ND(20)
SB27	30	ND(20)
SB28	0-0.5	ND(20)
SB28	2	ND(20)
SB28	4	ND(20)
SB28	6	ND(20)
SB28	8	ND(20)
SB28	10	ND(20)
SB28	15	ND(20)
SB28	20	ND(20)
SB28	25	ND(20)
SB29	0-0.5	ND(20)
SB29	2	ND(20)
SB29	4	ND(20)
SB29	6	ND(20)
SB29	8	ND(20)
SB29	10	ND(20)
SB29	15	ND(20)
SB29	20	ND(20)
SB29	25	ND(20)
SB30	0-0.5	ND(20)
SB30	2	ND(20)
SB30	4	ND(20)
SB30	6	ND(20)
SB30	8	ND(20)
SB30	10	ND(20)
SB30	15	ND(20)
SB30	20	ND(20)
SB30	25	ND(20)
SB30	30	ND(20)
SB38	0-0.5	ND(20)
SB38	2	ND(20)
SB38	4	ND(20)
SB38	6	ND(20)
SB38	8	ND(20)
SB38	10	ND(20)
SB38	15	ND(20)
SB38	20	ND(20)
SB38	25	ND(20)
SB38	30	ND(20)
SB39	0-0.5	ND(20)
SB39	2	ND(20)
SB39	4	ND(20)
SB39	6	ND(20)
SB39	8	ND(20)
SB39	10	ND(20)
SB39	15	ND(20)
SB39	20	ND(20)
SB39	25	ND(20)
SB39	30	ND(20)



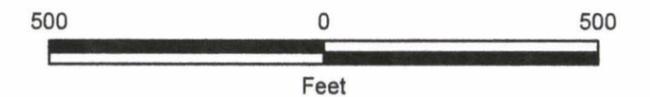
LEGEND

- SWMU 3 SOIL INVESTIGATION SAMPLE LOCATION

NOTES:

1. DATA TABLES INDICATE SWMU 3 SAMPLE LOCATIONS, SAMPLE DEPTHS IN FEET BELOW GROUND SURFACE, AND HEXAVALENT CHROMIUM CONCENTRATIONS IN mg/kg.
2. MAP SAMPLE IDENTIFICATIONS ARE ABBREVIATED.
3. ND = NOT DETECTED AT CONCENTRATIONS IN PARENTHESES.

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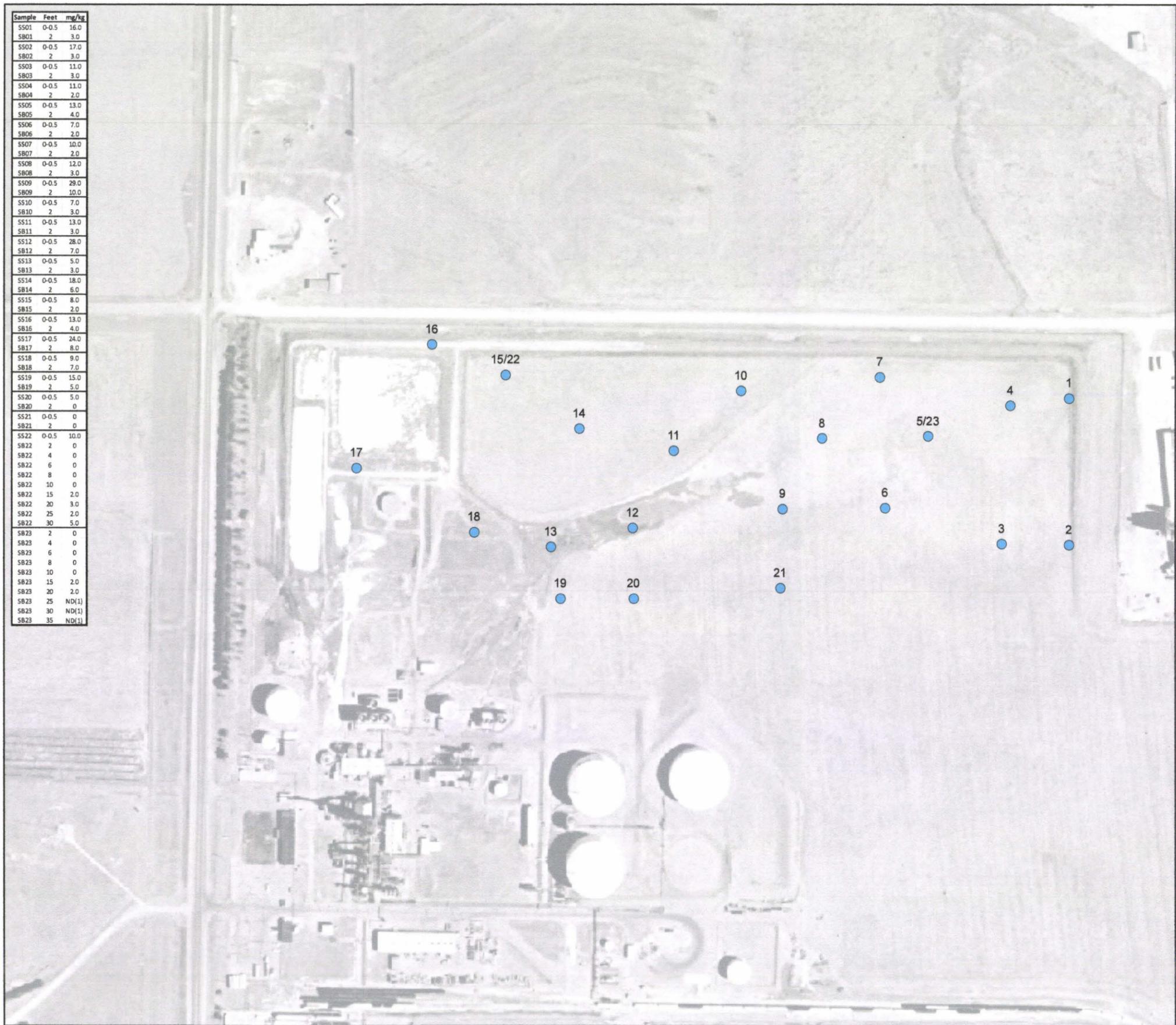
SWMU 3
EAST POND SOIL
INVESTIGATION RESULTS FOR
HEXAVALENT CHROMIUM

PREPARED BY:



PROJECT NO.	FIGURE NO. X-X
DATE. 1/25/2010	FILE NO.

Sample	Feet	mg/kg
SS01	0-0.5	16.0
SB01	2	3.0
SS02	0-0.5	17.0
SB02	2	3.0
SS03	0-0.5	11.0
SB03	2	3.0
SS04	0-0.5	11.0
SB04	2	2.0
SS05	0-0.5	13.0
SB05	2	4.0
SS06	0-0.5	7.0
SB06	2	2.0
SS07	0-0.5	10.0
SB07	2	2.0
SS08	0-0.5	12.0
SB08	2	3.0
SS09	0-0.5	29.0
SB09	2	10.0
SS10	0-0.5	7.0
SB10	2	3.0
SS11	0-0.5	13.0
SB11	2	3.0
SS12	0-0.5	28.0
SB12	2	7.0
SS13	0-0.5	5.0
SB13	2	3.0
SS14	0-0.5	18.0
SB14	2	6.0
SS15	0-0.5	8.0
SB15	2	2.0
SS16	0-0.5	13.0
SB16	2	4.0
SS17	0-0.5	24.0
SB17	2	8.0
SS18	0-0.5	9.0
SB18	2	7.0
SS19	0-0.5	15.0
SB19	2	5.0
SS20	0-0.5	5.0
SB20	2	0
SS21	0-0.5	0
SB21	2	0
SS22	0-0.5	10.0
SB22	2	0
SB22	4	0
SB22	6	0
SB22	8	0
SB22	10	0
SB22	15	2.0
SB22	20	3.0
SB22	25	2.0
SB22	30	5.0
SB23	2	0
SB23	4	0
SB23	6	0
SB23	8	0
SB23	10	0
SB23	15	2.0
SB23	20	2.0
SB23	25	ND(1)
SB23	30	ND(1)
SB23	35	ND(1)



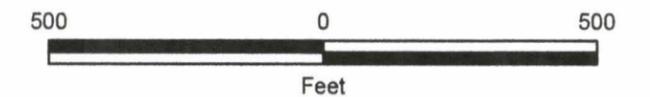
LEGEND

- SWMU 3 SOIL INVESTIGATION SAMPLE LOCATION

NOTES:

1. DATA TABLES INDICATE SWMU 3 SAMPLE LOCATIONS, SAMPLE DEPTHS IN FEET BELOW GROUND SURFACE, AND NITRATE+NITRITE (as N) CONCENTRATIONS IN mg/kg.
2. MAP SAMPLE IDENTIFICATIONS ARE ABBREVIATED.
3. ND = NOT DETECTED AT CONCENTRATIONS IN PARENTHESES.

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SWMU 3 EAST POND SOIL INVESTIGATION RESULTS FOR NITRATE+NITRITE (as N)

PREPARED BY:



PROJECT NO.	FIGURE NO. X-X
DATE. 1/25/2010	FILE NO.

TOTAL CHROMIUM

Sample	Feet	mg/kg
SB01	4	12.3
SB02	10	43.4
TR01	3	17.7
TR02	3	22.8
TR03	3	30500
TR10	4	15.6
TR11	2	31.1
TR12	3	13.8
TR13	3	17.3

HEXAVALENT CHROMIUM

Sample	Feet	mg/kg
TR01	3	ND(20)
TR02	3	ND(20)
TR03	3	ND(20)
TR10	4	ND(20)
TR11	2	ND(20)
TR12	3	ND(20)
TR13	3	ND(20)

NITRATE + NITRITE (as N)

Sample	Feet	mg/kg
SB01	4	68.0
SB02	10	27.0
TR01	3	34.6
TR02	3	18.9
TR03	3	36.5
TR10	4	65.5
TR11	2	76.0
TR12	3	52.0
TR13	3	39.5

NITRITE (as N)

Sample	Feet	mg/kg
TR01	3	ND(1.0)
TR02	3	ND(1.0)
TR03	3	ND(1.0)
TR10	4	ND(1.0)
TR11	2	ND(1.0)
TR12	3	ND(1.0)
TR13	3	ND(1.0)

TETRACHLOROETHENE

Sample	Feet	ug/kg
TR01	3	24.1
TR02	3	19.4
TR03	3	2260
TR10	4	28.9
TR11	2	65.1
TR12	3	49.2
TR13	3	46.5



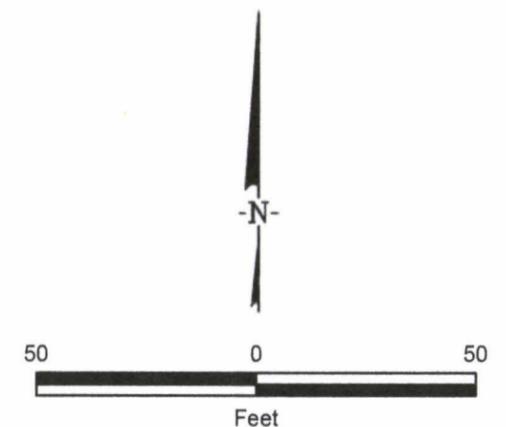
LEGEND

- SWMU 7 SOIL INVESTIGATION SAMPLE LOCATION

NOTES:

1. DATA TABLES INDICATE SWMU 7 SAMPLE LOCATIONS, SAMPLE DEPTHS IN FEET BELOW GROUND SURFACE, AND ANALYTE CONCENTRATIONS.
2. OTHER VOLATILE ORGANIC COMPOUNDS WERE ANALYZED. ONLY TETRACHLOROETHENE WAS DETECTED AND REPORTED IN THIS FIGURE.
3. MAP SAMPLE IDENTIFICATIONS ARE ABBREVIATED.

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SWMU 7
LANDFILL FOR GENERAL PLANT TRASH SOIL INVESTIGATION RESULTS TOTAL CHROMIUM AND NITRATE+NITRITE (as N)

PREPARED BY:



PROJECT NO.	FIGURE NO. X-X
DATE. 1/25/2010	FILE NO.

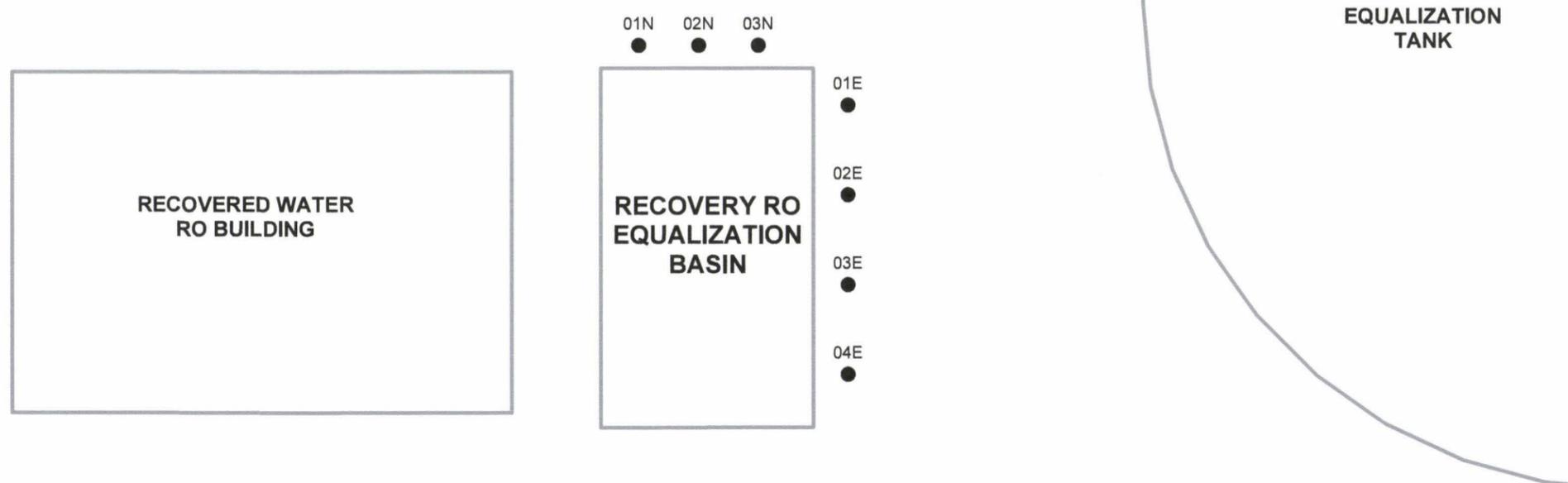
TOTAL CHROMIUM			HEXAVALENT CHROMIUM			NITRATE + NITRITE (as N)			NITRITE (as N)		
Sample	Feet	mg/kg	Sample	Feet	mg/kg	Sample	Feet	mg/kg	Sample	Feet	mg/kg
SB01E	0-0.5	21.5	SB01E	0-0.5	ND(20)	SB01E	0-0.5	15.4	SB01E	0-0.5	ND(1)
SB01E	1	26.2	SB01E	1	ND(20)	SB01E	1	8.3	SB01E	1	ND(1)
SB01E	2	13.3	SB01E	2	ND(20)	SB01E	2	8.7	SB01E	2	ND(1)
SB01N	0-0.5	12.5	SB01N	0-0.5	ND(20)	SB01N	0-0.5	3.9	SB01N	0-0.5	ND(1)
SB01N	1	28.8	SB01N	1	ND(20)	SB01N	1	7.8	SB01N	1	ND(1)
SB01N	2	19.1	SB01N	2	ND(20)	SB01N	2	8.5	SB01N	2	ND(1)
SB02E	0-0.5	14.8	SB02E	0-0.5	ND(20)	SB02E	0-0.5	9.7	SB02E	0-0.5	ND(1)
SB02E	1	18.7	SB02E	1	ND(20)	SB02E	1	9.1	SB02E	1	ND(1)
SB02E	2	13.1	SB02E	2	ND(20)	SB02E	2	9.0	SB02E	2	ND(1)
SB02N	0-0.5	29.5	SB02N	0-0.5	ND(20)	SB02N	0-0.5	5.5	SB02N	0-0.5	ND(1)
SB02N	1	12.6	SB02N	1	ND(20)	SB02N	1	8.6	SB02N	1	ND(1)
SB02N	2	16.5	SB02N	2	ND(20)	SB02N	2	7.5	SB02N	2	ND(1)
SB03E	0-0.5	17.7	SB03E	0-0.5	ND(20)	SB03E	0-0.5	12.0	SB03E	0-0.5	1.6
SB03E	1	21.1	SB03E	1	ND(20)	SB03E	1	11.1	SB03E	1	1.8
SB03E	2	12.8	SB03E	2	ND(20)	SB03E	2	10.3	SB03E	2	ND(1)
SB03N	0-0.5	21.2	SB03N	0-0.5	ND(20)	SB03N	0-0.5	11.3	SB03N	0-0.5	ND(1)
SB03N	1	27.5	SB03N	1	ND(20)	SB03N	1	13.7	SB03N	1	ND(1)
SB03N	2	12.9	SB03N	2	ND(20)	SB03N	2	11.9	SB03N	2	ND(1)
SB04E	0-0.5	26.3	SB04E	0-0.5	ND(20)	SB04E	0-0.5	11.1	SB04E	0-0.5	ND(1)
SB04E	1	19.1	SB04E	1	ND(20)	SB04E	1	10.4	SB04E	1	ND(1)
SB04E	2	15.9	SB04E	2	ND(20)	SB04E	2	12.8	SB04E	2	ND(1)

LEGEND

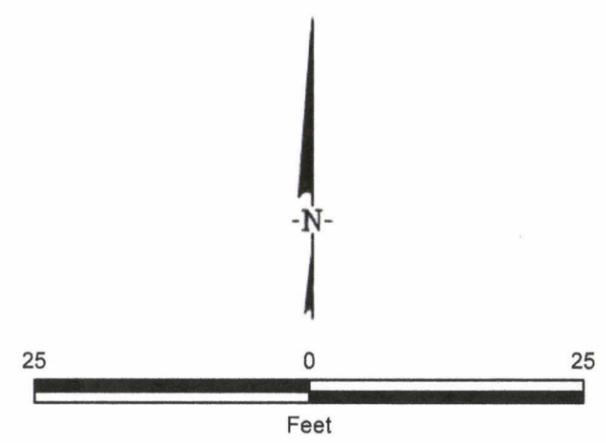
- SWMU 14 SOIL INVESTIGATION SAMPLE LOCATION

NOTES:

1. DATA TABLES INDICATE SWMU 14 SAMPLE LOCATIONS, SAMPLE DEPTHS IN FEET BELOW GROUND SURFACE, AND ANALYTE CONCENTRATIONS IN mg/kg.
2. MAP SAMPLE IDENTIFICATIONS ARE ABBREVIATED.
3. ND = NOT DETECTED AT CONCENTRATIONS IN PARENTHESES.

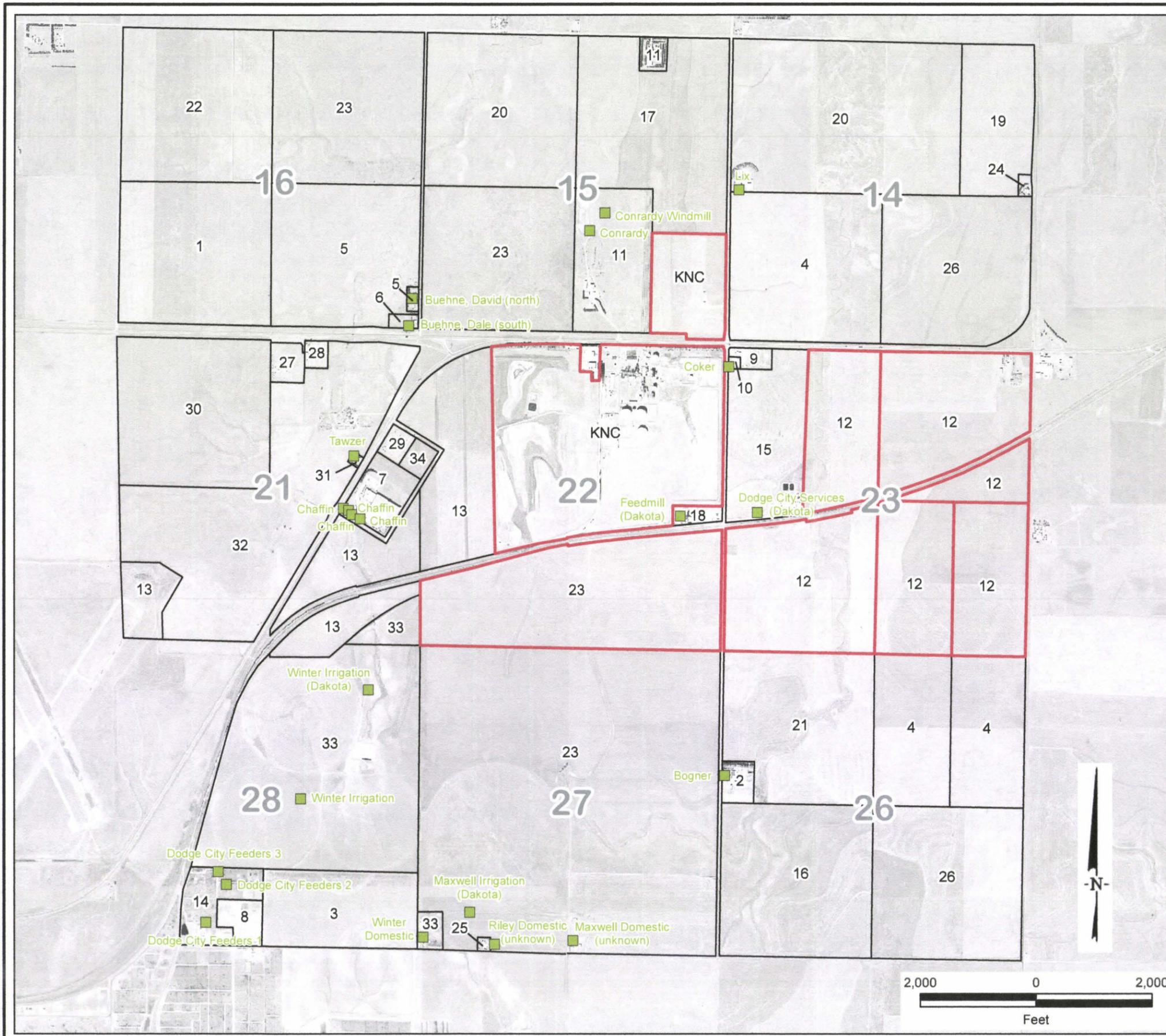


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**SWMU 14
RECOVERY RO
EQUALIZATION BASIN
SOIL INVESTIGATION RESULTS**

PREPARED BY:		 KOCH KOCH NITROGEN COMPANY <small>11559 US HIGHWAY 50 - P.O. BOX 1337 DODGE CITY, KS 67801</small>	
PROJECT NO.	FIGURE NO.	X-X	
DATE.	1/25/2010	FILE NO.	



LEGEND

- KNC PROPERTY OR PROPERTY WHERE KNC HAS ACCESS AGREEMENTS IN PLACE
- PARCEL BOUNDARY (APPROXIMATE)
- 14** SECTION NUMBER IN T.26S., R.24W.
- PRIVATE WELL (OGALLALA UNLESS INDICATED)

Private Property Owners Surrounding KNC Property

- 1 Adams, Kenny & Pamela L., Pueblo, CO
- 2 Bogner, David H. & Janice D., Wright, KS
- 3 Black, Charlcie, Dodge City, KS
- 4 Buddy, Nance & Nelson P., San Antonio, TX
- 5 Buehne, Casey, Wright, KS
- 6 Buehne, Dale A., Wright, KS
- 7 Chaffin, Inc., Dodge City, KS
- 8 Coake Feeding Co., Inc., Dodge City, KS
- 9 Coker, Dennis R., Wright, KS
- 10 Coker, Raymond K. & Hilda, Dodge City, KS
- 11 Conrardy, Donald & Virgie, Wright, KS
- 12 Crane, Don & Pauline TR, Dodge City, KS
- 13 Dodge City, City of Dodge City, KS
- 14 Dodge City Feeders, LLC, Great Bend, KS
- 15 Dodge City Services, Inc., Lexington, NE
- 16 Doll, Dale A., Spearville, KS
- 17 Durler, Galen Dean, Dodge City, KS
- 18 Hi Plains Feed, LLC, Garden City, KS
- 19 Lix, Terrence, Enid, OK
- 20 Lix, Gerard L. & Diane K., Wright, KS
- 21 Lix, Randy J., Dodge City, KS
- 22 Lockhart, Sandra, Canon City, CO
- 23 Maxwell, Richard & Thelma, Dodge City, KS
- 24 McCarty, Sheila M., Wright, KS
- 25 Riley, Charles F. & Pauline, Dodge City, KS
- 26 Rost, Thomas Odell Etal, Topeka, KS
- 27 Schawe, Bernard P., Wright, KS
- 28 Seaton, Monica, Wright, KS
- 29 Southwest Capitol Corp., Dodge City, KS
- 30 Stroma Properties, LLC, Spokane, WA
- 31 Tawzer, Donald L. & Louise A., Dodge City, KS
- 32 Transport Express, Inc., Dodge City, KS
- 33 Winter Feed Yard, Inc., Dodge City, KS
- 34 2008 Dodge City, LLC., Madison, WI

PRIVATE PROPERTY OWNERS & PRIVATE WELL LOCATIONS

PREPARED BY:		KOCH KOCH NITROGEN COMPANY <small>11550 US HIGHWAY 50 - P.O. BOX 1337 DODGE CITY, KS 67801</small>
PROJECT NO.	FIGURE NO.	PW-01
DATE.	1/6/2010	REVISION NO. 0