

CORRECTION(S) TO WATER WELL RECORD (Form WWC-5)
(to rectify lacking or incorrect information)

LOCATION OF WATER WELL: County: <u>Johnson</u>	Fraction <u>1/4 NE 1/4 SE 1/4 SW 1/4</u>	Section <u>31</u>	Township T <u>13</u> S	Range R <u>22</u> <input checked="" type="checkbox"/> E <input type="checkbox"/> W
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Owner: USACE c/o Burns & McDonnell

Location was listed as:

Sec. _____ T _____ S R _____ E W

Fraction: _____

Location changed to:

Sec. _____ T _____ S R _____ E W

Fraction: _____

Other changes: Initial statements: HTW Drill Log Location: N 210373, 1576 E 2850496, 7055

Changed to: 38.072443548 -95.012544138

Comments: Converted State Plane 1501-Kansas North NAD 27 to Geographic Decimal Degrees NAD 83.

Verification method: Corpscon 6.0.1

initials: df date: 04/14/2014

Submitted by: Kansas Geological Survey, Data Resources Library, 1930 Constant Ave., Lawrence, KS 66047-3726
to: Kansas Dept of Health & Environment, Bureau of Water, 1000 SW Jackson, Suite 420, Topeka, KS 66612-1367.

HTW DRILLING LOG

HOLE NO.
96-230

1. COMPANY NAME
BURNS & McDONNELL

2. DRILLING SUBCONTRACTOR
AQUADRILL

SHEET 1
OF SHEETS

3. PROJECT
94-800-4-020-01 USSFRFI

4. LOCATION
SUNFLOWER ARMY AMMUNITION PLANT

5. NAME OF DRILLER
Jeff Joslyn

6. MANUFACTURER'S DESIGNATION OF DRILL
L-us Peck - Brat 22B

7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	8 1/4" I.D. Hollow Stem Augers	8. HOLE LOCATION N-210373.1576 E-2850496.7055
	Blade & Chisel bit	
	Kelly bit	
	NG2 CORE BARREL	
9. SURFACE ELEVATION 936.7		10. DATE STARTED 8-30-96
6" Trecon rotary bit		11. DATE COMPLETED 9/9/96

12. OVERBURDEN THICKNESS
12.5 ft

15. DEPTH GROUND WATER ENCOUNTERED ^{Setting surf. cap. 10' 3-4'}
8-30-96/0900 - while reaching - 12.4 BGS.

13. DEPTH DRILLED INTO ROCK
11.3

16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED

14. TOTAL DEPTH OF HOLE
30.0' (Reamed to 30.0 to allow well installation)

17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)
11.10' TOC; POST-DEVELOPMENT; 10-3-96 @ (24)

18. GEOTECHNICAL SAMPLES Collected from 96-235	DISTURBED N/A	UNDISTURBED N/A	19. TOTAL NUMBER OF CORE BOXES 2		
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20. SAMPLES FOR CHEMICAL ANALYSIS Collected from 96-235	VOC N/A	METALS N/A	OTHER (SPECIFY) N/A	OTHER (SPECIFY) N/A	OTHER (SPECIFY) N/A	21. TOTAL CORE RECOVERY 100%
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22. DISPOSITION OF HOLE Monitoring well	BACKFILLED NA	MONITORING WELL 96-230 X 96-14	OTHER (SPECIFY) NA	23. SIGNATURE OF INSPECTOR <i>[Signature]</i>
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ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	GEOTECH SAMPLE OR CORE BOX NO. e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	REMARKS h
	0	CLAY and SILT, black (10YR 2/1) [TOPSOIL]				0820	0820 Beyond drilling with 8 1/4" I.D. HSAs logging from cuttings.
	1	SILT and Clay dark greyish brown (10YR 4/2)	Bit=0ppm B2=0ppm LEL=0% O2=20.8%	N/A	N/A	N/A	
	2						
	3						
	4						
	5					0823	0823 End Run!

HTW DRILLING LOG

HOLE NO. **96-230**

PROJECT **94-800-4-020-01 USSRFI**

INSPECTOR

SHEET **2**
OF SHEETS

ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	GEOTECH SAMPLE OR CORE BOX NO. e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	REMARKS h
	5	SILT and CLAY, dark grayish brown (10YR 4/2) [TILL]				0836	
	6						
	7	SILT and CLAY, brown ^{5m} some fine-grained sand brown (7.5YR 4/3) [TILL]	BH=0ppm BZ=0ppm LCL=0% O ₂ =20.8%	N/A	N/A	N/A	
	8						
	9						
	10	CLAY and SILT, trace fine to medium-grained sand, yellowish brown (10YR 5/6), limonite nodules					
	11						
	12						
	13	LIMESTONE, WHITE (N9) to medium light gray (10Y).					0845 Reached bedrock at 12.5 ft BGS.
	14	SEE PAGE 4 FOR ROCK CORING DESCRIPTION.					0852 Reached FD approx 13.5 ft BGS.

HTW DRILLING LOG

HOLE NO.
96-230

PROJECT
94-800-4-020-01 USSRFRI

INSPECTOR

SHEET 3
OF SHEETS

ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	GEOTECH SAMPLE OR CORE BOX NO. e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	REMARKS h
	0						0900 WL = 12.4 ft BGS TD = 12.9 ft BGS
	1						0903 Casing is Monoflex PVC Schedule 40, flush threaded, 6" I.D.; 14.9 ft. Stickup = 2.0 ft
	2						0930 Start mixing batch 1 grout. 3.94 lb bags of Lonestar (TYPE I) Portland cement, 14.5 lb of Benseal bentonite, 2 gal H ₂ O. (5% bentonite, 7 gal H ₂ O/bag)
	3						0936 Placing 1st batch grout.
	4						0938 Mixing batch & same as 1.
	5						0946 Placing batch 2.
	6						0955 Checking casing for plumbness. Note: augers pulled before grout pumped.

HTW DRILLING LOG

HOLE NO.
96-28D

PROJECT
94-800-4-020-01 USSRFI

INSPECTOR
Stephen R. Hoff

SHEET
OF 4 SHEETS

ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	GEOTECH SAMPLE OR CORE BOX NO. e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	REMARKS h
	12						9/8/96 @ 0326 BEGIN CORING - 0.6' GROUT IN CASING
	13						
	14	SANDSTONE, MOTTLED LIGHT BROWN (54%) TO LIGHT GREY (N7), MODERATELY WEATHERED MODERATELY STRONG, FINE TO 1/2" GRAINED, QZT CALCARCIOUS, BROWN COLOR DUE TO IRON OXIDE WEATHERING, TRACE TO SOME (1-10%) SMALL SHALE CLASTS, TRACE (1%) ORANGE MANGANESE OXIDE - WELL SORTED, SUBROUND, SOME (15%) SILT/CLAY. WET [ROCK LAKE SHALE]					FRACTURE FRACTURE FRACTURE
	15	SHALE, GRADES FROM BLACK (N1) TO GREENISH GRAY (5G%) TO DARK YELLOWISH ORANGE (10YR 4/6) HIGHLY TO EXTREMELY WEATHERED, WEAK TO VERY WEAK CALCARCIOUS, TRACE TO SOME (1-30%) SHALE CLASTS, VERY THINLY LAMINATED WET [ROCK LAKE SHALE]					FRACTURE FRACTURE FRACTURE FRACTURE
	16	LIMESTONE, LIGHT GREY (N7), SLIGHTLY WEATHERED TO FRESH, MICACRYSTALLINE MATRIX, SOME (20-30%) CLAY & CLAY SEAMS, SOME (30-40%) FOSSILS & FRAGMENTS: BRACHIOBIVALVES, BRACHIOPODS, RECRYSTALLIZED ALGAE, CRINOID, FUSULINIDS (CONCENTRATED AT CLAY SEAMS), TRACE TO SOME (5-10%) HEALED VERTICAL FRACTURES, TRACE (5%) SPARSE CALCFIN MATRIX TRACE (5%) CLAY FILLED VUGS/FRACTURES NEAR TOP OF UNIT, INCREASE FOSSIL CONTENT W/INX. DEPTH				6.6 6.6	FRACTURE FRACTURE/CLAY SEAM FRACTURE FRACTURE FRACTURE FRACTURE/CLAY SEAM FRACTURE/STYOLITE STYOLITE FRACTURE/CLAY SEAM
	17						
	18	(STONER LIMESTONE)					
	19						
	20						FRACTURE 0842 END RUN 0852 RESUME CORING
	21					10.0 10.0	FRACTURE FRACTURE CLAY PARTING

Run
Box 1

Run
Box 2

HTW DRILLING LOG

HOLE NO. 96-23D

PROJECT 94-800-4-020-01 USSRFI

INSPECTOR [Signature]

SHEET OF 5 SHEETS

ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	GEOTECH SAMPLE OR CORE BOX NO. e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	REMARKS h	
	22	SAME AS PREVIOUS [STONER LIMESTONE]					- CLAY SEAM - CLAY SEAM	
	23						- CLAY SEAM - FRACTURE	
	24						- CLAY SEAM - CLAY SEAM	
	25						- CLAY SEAM	
	26						- CLAY SEAM	
	27						- CLAY SEAM - CLAY SEAM	
	28						- FRACTURE - FRACTURE	
	29						- FRACTURE/CLAY SEAM	
	30						- CLAY SEAM - CLAY SEAM - FRACTURE - FRACTURE	
	31						- FRACTURE	
		BOTTOM OF HOLE 30.0' bgs					<p>RUN BOX 2 10.0 10.0</p>	<p>0915 END LOG @ 29.8'</p> <p>0919/96 0850 Begin reaming with 6" ^{Double} Tricone bit. 0940 @ 30.0' bgs</p>

HTW DRILLING LOG

HOLE NO.
96-23D
SHEET **6**
OF SHEETS

PROJECT
94-800-4-020-01 USSRFI

INSPECTOR

ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	GEOTECH SAMPLE OR CORE BOX NO. e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	REMARKS h
							<p>0942 set casing in boring</p> <p>0.20' Endcap (threaded)</p> <p>10.00' PVC 0.010" 2" slotted screen</p> <p>25.00' PVC riser 2" (5.0' snclup)</p> <p>1 S.S. Centralizer at 10.0' Bgs</p> <p>0950 Begin tremmiling sand Northern Gravel Co. size ϕ.</p> <p>0958 Filter pack ϕ 15.0' bgs. Stop begin surging Filter pack.</p> <p>1008 End surging Filter pack at 15.2' Add more Filter pack to 15.0' bgs.</p> <p>1011 Begin adding bentonite.</p> <p>1020 Bentonite chips to 10.0' bgs</p> <p>1051 10 gallons H₂O during drilling + well installation cut off 2.50' - stick is 2.50'.</p> <p>9-11-96</p> <p>1920 Encuted to just below ground surface with bentonite slurry grout.</p>