

Datum WGS 84 Lat: 38.9483038 5-13-24E SE NW NE SW
 Long: -94.7728085

HNTB

LOG OF BORING

BORING NO. **B-13**
 PAGE **1** OF **2**

PROJECT Gateway STATION / NORTHING / 240329.709
 LOCATION Johnson County, Kansas OFFSET / EASTING / 2229968.977
 DATE STARTED 04/03/2012 DATE COMPLETED 04/03/2012 SURFACE ELEVATION 989.3 ft
 EXPLORATION CONTRACTOR Terracon DATUM NAVD 88
 DRILLER K. Kernpton DRILL RIG CME-55 ATV GROUND WATER LEVELS:
 HAMMER TYPE Auto HAMMER EFFICIENCY 79% ☒ AT TIME OF DRILLING NATD
 LOGGED BY L. Wagner REVIEWED BY J. Martens ☒ AFTER N/A

DRILLING METHOD	DEPTH (ft)	SAMPLE TYPE NUMBER	SAMPLE RECOVERY (in)	CORE REC % (RQD %)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	GRAPHIC LOG	MATERIAL DESCRIPTION Unified (Visual) Classification System	GEOLOGIC NAME	ELEVATION (ft)
	0									989.3
HSA 3.25" ID								Crushed Stone and Gravel Base Brown and Gray, SAND with Silt and Clay, Slightly Moist (FILL)		0.4
										3.0
								LIMESTONE, Gray, Medium Bedded, Highly Weathered, Fossiliferous	Plattsburg LS	986.3
CORE BARREL NQ	5	NQ C1		83% (0%)						985
	10	NQ C2		100% (48%)				Becoming Weathered		980
	15	NQ C3		100% (35%)				Sandy SHALE, Gray, Laminated, Weathered, Moderately Hard to Hard	Bonner Springs SH	978.5
										975
	20	NQ C4		97% (35%)				LIMESTONE, Gray, Medium Bedded, Slightly Weathered, Moderately Hard		17.1
										18.7
								Sandy SHALE, Gray, Very Thinly Bedded, Slightly Weathered, Moderately Hard to Hard		
										970
	25	NQ C5		97% (13%)						965

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	25									
	25							Sandy SHALE, Gray, Very Thinly Bedded, Slightly Weathered, Moderately Hard to Hard <i>(continued)</i> Very Soft at 25' Moderately Hard to Hard at 25.3'		
		NQ C6		100% (30%)						
	29.0									
	30							LIMESTONE, Gray, Medium Bedded, Slightly Weathered, Moderately Hard		960
	30							SHALE, Gray, Laminated, Weathered, Moderately Hard		
		NQ C7		88% (40%)						
	35									955
	35									
		NQ C8		100% (88%)						
	39.2									
	40.0							LIMESTONE, Gray, Medium Bedded, Slightly Weathered, Moderately Hard, Fossiliferous	Farley LS	950
Boring backfilled with Holeplug upon completion. Auger Refusal at 4.0 feet. Bottom of borehole at 40.0 feet.										