

KRRs Does

Comp. Ex. 286

MWG13-15_14744

Midland Standard Engineering & Testing, Inc.
558 Plate Drive Unit 6
East Dundee, Illinois 60118
(847) 844-1895 fax (847) 844-3875

August 22, 2012

KPRG and Associates, Inc.
14665 W. Lisbon Road
Suite 2B
Brookfield, WI 53005

Attention: Rich Gnat

Re: Laboratory Testing Services
Midwest Generation – Will Co. Station
MSET File No. 12395

Dear Gnat:

Midland Standard Engineering & Testing, Inc. has completed the testing requested for the sample submitted. The sample was a drilled core of a pozzolanic layer of a holding cell.

Laboratory Test Methods

Materials submitted were tested to determine grain size distribution and classification in accordance with the following methods:

Permeability Using Triaxial Chamber and Back Pressure Saturation	ASTM D 5084
Compressive Strength of Concrete Core	ASTM C 42

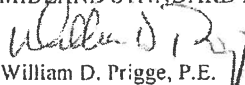
Permeability and strength was consistent with a stabilized granular base. Additionally the sample was inspected for signs of cracking and discoloration. Hairline cracks were noted at the ends of the core. No evidence of discoloration through the length of the core was noted in the sample after strength testing. Some discoloration was noted at the top of the core sample. See the attached photo.

Laboratory test reports are attached.

Closure

If you have any questions regarding the test data, please contact us at your convenience.

Very truly yours,
MIDLAND STANDARD ENGINEERING & TESTING, INC.


William D. Prigge, P.E.
Principal

WDP/mj
Attachments

MWG13-15_14745

MIDLAND STANDARD ENGINEERING & TESTING, INC.

558 PLATE DRIVE UNIT 6 EAST DUNDEE, ILLINOIS 60118 (847) 844-1895 F (847) 844-3875

REPORT OF PERMEABILITY TESTING

PROJECT NAME	Midwest Generation - Will County Station	REPORT NO:	1 perm
SAMPLE NO.	Pozz-o-Pac Core	DATE:	8/22/12
CLASSIFICATION	Crushed Limestone Pozz	PROJECT NO:	12395
SAMPLE TYPE	Drilled Core		
METHOD OF TEST	ASTM D-5084-90 Measurement of Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter		

PERMEANT LIQUID	Tap Water	TOTAL BACK PRESSURE	30 psi
TEMPERATURE, °C	20	EFF. CONSOLIDATION STRESS, max	0.72 tsf
		EFF. CONSOLIDATION STRESS, min	0.5 tsf
CELL PRESSURE, psi	40	HYDRAULIC GRADIENT, i	14.5

		PERMEABILITY, k (cm/sec)
TEST INTERVAL	1	2.48E-05
TEST INTERVAL	2	2.92E-05
TEST INTERVAL	3	4.11E-05
TEST INTERVAL	4	2.98E-05
AVERAGE k		3.12E-05
k ₂₀		3.12E-05

SAMPLE DATA:	INITIAL	FINAL
DIAMETER, in	3.21	3.21
LENGTH, in	5.73	5.73
VOLUME, cu in	46.27	46.27
WEIGHT, gm	1499.8	1686.2
UNIT WEIGHT, pcf	123.4	138.7
MOIST. CONTENT, %	3.0	15.8
DRY DENSITY, pcf	119.8	119.8
DEGREE OF SATUR, %	19	100

Respectfully Submitted:
William D. Prigge, P.E.

MWG13-15_14746

REPORT OF CONCRETE CORE COMPRESSIVE STRENGTH

PROJECT: Midwest Generation
 LOCATION: Will County Station
 CLIENT: KPRG and Associates, Inc.

REPORT NO. 1C
 MSET FILE NO. 12395
 DATE: 8/22/12

CORE I.D.	LOCATION	DATE RECEIVED	DATE TESTED	AGE (days)	DIAMETER (inches)	LENGTH (inches)	L/D	LOAD (lbs)	STRENGTH (psi)	CORRECTED STRENGTH
C-1	Liner	8/17/12	8/21/12	unknown	3.206	6.23	1.94	13,060	1,618	1,620

Cores were tested wet.

Tested in accordance with:
 ASTM C-42, Standard Method of Obtaining and Testing Drilled Cores of Concrete