PTS Laboratories, Inc.

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September 14, 2011

Pamela Moss
Shaw E & I
7604 Technology Way, Suite 300
Denver, CO 80237

Re: PTS File No: 41516
Physical Properties Data – Phase 2
KAFBBFF; 667917

Dear Ms. Moss:

Please find enclosed report for Phase 2 Physical Properties analyses conducted upon samples received from your KAFBBFF; 667917 project. All analyses were performed by applicable ASTM, EPA, or API methodologies. An electronic version of the report has previously been sent to your attention via the internet. The samples are currently in storage and will be retained for thirty days past completion of testing at no charge. Please note that the samples will be disposed of at that time. You may contact me regarding storage, disposal, or return of the samples.

PTS Laboratories appreciates the opportunity to be of service. If you have any questions or require additional information, please give Rachel Spitz a call at (562) 347-2504.

Sincerely,
PTS Laboratories

For Rachel S

Michael Mark Brady, P.G.
District Manager

Encl.

PTS Laboratories

Project Name: KAFBBFF
Project Number: 667917

PTS File No: 41516
Client: Shaw E & I

TEST PROGRAM - 20110829

CORE ID	Depth ft.	Core Recovery ft.	Grain Size Analysis ASTM D422	Hydraulic Conductivity API RP40/EPA 9100	Effective Porosity Mod. ASTM D425	TOC/foc Walkley-Black	Notes
		Plugs:	Grab	Remold 1"	Remold 1.5"	Grab	
Date Received: 20110803							
106040-535	N/A	N/A	X	X	X		
106089-490	N/A	N/A	X	X	X		
106052-465	N/A	N/A	X	X	X	X	
106039-520	N/A	N/A	X	X	X		
106043-540	N/A	N/A	X	X	X	X	
106086-477	N/A	N/A	X	X	X	X	
106099-510	N/A	N/A	X	X	X		
106093-550	N/A	N/A	X	X	X	X	
106090-560	N/A	N/A	X	X	X		
106065-515	N/A	N/A	X	X	X		
106050-475	N/A	N/A	X	X	X	X	
106074-570	N/A	N/A	X	X	X		
106071-565	N/A	N/A	X	X	X	X	
106100-535	N/A	N/A	X	X	X		
106032-465	N/A	N/A	X	X	X	X	
106094-500	N/A	N/A	X	X	X		
106057-490	N/A	N/A	X	X	X		
106055-465	N/A	N/A	X	X	X		
106066-585	N/A	N/A	X	X	X		
106073-520	N/A	N/A	X	X	X	X	
106072-475	N/A	N/A	X	X	X	X	
106049-470	N/A	N/A	X	X	X		
106097-520	N/A	N/A	X	X	X		
106051-505	N/A	N/A	X	X	X		

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		Plugs:	Grab	Remold 1"	Remold 1.5"	Grab	
106053-480	N/A	N/A	X	X	X	X	
106037-515	N/A	N/A	X	X	X		
106031-500	N/A	N/A	X	X	X	X	
106092-480	N/A	N/A	X	X	X	X	
106042-485	N/A	N/A	X	X	X		
106091-465	N/A	N/A	X	X	X	X	
106041-460	N/A	N/A	X	X	X	X	
106095-510	N/A	N/A	X	X	X		
106070-460	N/A	N/A	X	X	X		
106034-505	N/A	N/A	X	X	X		
106030-475	N/A	N/A	X	X	X		
106029-460	N/A	N/A	X	X	X	X	
106088-475	N/A	N/A	X	X	X	X	
106058-515	N/A	N/A	X	X	X		
106104-515	N/A	N/A	X	X	X		
106087-545	N/A	N/A	X	X	X		
106033-480	N/A	N/A	X	X	X		
106103-490	N/A	N/A	X	X	X		
106085-446	N/A	N/A	X	X	X	X	
106054-510	N/A	N/A	X	X	X		
106036-490	N/A	N/A	X	X	X	X	
106096-585	N/A	N/A	X	X	X	X	
106067-500	N/A	N/A	X	X	X	X	
106068-590	N/A	N/A	X	X	X	X	

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TEST PROGRAM - 20110829

CORE ID	Depth ft.	Core Recovery ft.	Grain Size Analysis ASTM D422	Hydraulic Conductivity API RP40/EPA 9100	Effective Porosity Mod. ASTM D425	TOC/foc Walkley-Black	Notes
		Plugs:	Grab	Remold 1"	Remold 1.5"	Grab	
TOTALS:	48-2.5 qts.		48	48	48	21	48

Laboratory Test Program Notes
Standard TAT for basic analysis is 10-15 business days.

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ORGANIC CARBON DATA - TOC (foc)

(METHODOLOGY: WALKLEY-BLACK)

PROJECT NAME: KAFBBFF
PROJECT NO: 667917

SAMPLE ID.	DEPTH, ft.	ANALYSIS DATE	ANALYSIS TIME	SAMPLE MATRIX	TOTAL ORGANIC CARBON, mg/kg	FRACTION ORGANIC CARBON, g/g
106052-465	N/A	20110912	1307	SOIL	300	3.00E-04
106043-540	N/A	20110912	1307	SOIL	130	1.30E-04
106086-477	N/A	20110912	1307	SOIL	170	1.70E-04
106093-550	N/A	20110912	1307	SOIL	200	2.00E-04
106050-475	N/A	20110912	1307	SOIL	190	1.90E-04
106071-565	N/A	20110912	1307	SOIL	180	1.80E-04
106032-465	N/A	20110912	1307	SOIL	330	3.30E-04
106073-520	N/A	20110912	1307	SOIL	310	3.10E-04
106072-475	N/A	20110912	1307	SOIL	230	2.30E-04
106053-480	N/A	20110912	1307	SOIL	350	3.50E-04
106031-500	N/A	20110912	1307	SOIL	310	3.10E-04
106092-480	N/A	20110912	1307	SOIL	260	2.60E-04
106091-465	N/A	20110912	1307	SOIL	290	2.90E-04
106041-460	N/A	20110912	1307	SOIL	250	2.50E-04
106029-460	N/A	20110912	1307	SOIL	190	1.90E-04
106088-475	N/A	20110912	1307	SOIL	200	2.00E-04
106085-446	N/A	20110912	1307	SOIL	170	1.70E-04
106036-490	N/A	20110912	1307	SOIL	160	1.60E-04
106096-585	N/A	20110912	1307	SOIL	160	1.60E-04
106067-500	N/A	20110912	1307	SOIL	380	3.80E-04
Blank	N/A	20110912	1307	BLANK	ND	ND
SRM D071-542	N/A	20110912	1307	SRM	1800	1.80E-03

QC DATA

SRM ID/Lot No.	REC (%)	Control Limits	Certified Concentration mg/kg	QC Performance Acceptance Limits, mg/kg	
				Lower	Upper
D071-542	83	75-125	2180	1635	2725

ND = Not Detected

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ORGANIC CARBON DATA - TOC (foc)

(METHODOLOGY: WALKLEY-BLACK)

PROJECT NAME: KAFBBFF
PROJECT NO: 667917

SAMPLE ID.	DEPTH, ft.	ANALYSIS DATE	ANALYSIS TIME	SAMPLE MATRIX	TOTAL ORGANIC CARBON, mg/kg	FRACTION ORGANIC CARBON, g/g
106068-590	N/A	20110913	1052	SOIL	170	1.70E-04
Blank	N/A	20110913	1052	BLANK	ND	ND
SRM D071-542	N/A	20110913	1052	SRM	2020	2.02E-03

QC DATA

SRM ID/Lot No.	REC (%)	Control Limits	Certified Concentration mg/kg	QC Performance Acceptance Limits, mg/kg Lower	Upper
D071-542	93	75-125	2180	1635	2725

ND = Not Detected