TEKLAB, INC.

5445 HORSESHOE LAKE ROAD
COLLINSVILLE, ILLINOIS 62234

ENVIRONMENTAL TESTING LABORATORY

TEL: 618-344-1004
FAX: 618-344-1005

July 03, 2008

Derek Ingram
Philip Environmental
210 West Sand Bank Road
Columbia, IL 62236-0230
TEL: (618) 281-7173
FAX: (618) 281-5120

NELAP Accredited #100226

RE: A831-735002-012901-225/IP Champaign 62403053 **WorkOrder:** 08060975

Dear Derek Ingram:

TEKLAB, INC received 1 sample on 6/27/2008 3:20:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. IL ELAP and NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Heather A. White

Heather A. White
Project Manager
(618)344-1004 ex.20

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SAMPLE SUMMARY

Client: Philip Environmental
Project: A831-735002-012901-225/IP Champaign 62403053
Lab Order: 08060975
Report Date: 03-Jul-08

Lab Sample ID	Client Sample ID	Fractions	Collection Date
08060975-001	WW-2	3	6/27/2008 7:45:00 AM

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TEL: 618-344-1004
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Client: Philip Environmental

CASE NARRATIVE

Project: A831-735002-012901-225/IP Champaign 62403053

LabOrder: 08060975

Report Date: 03-Jul-08

Cooler Receipt Temp: 10.4 °C

State accreditations:

KS: NELAP #E-10347 | KY: UST #0073 | MO: DNR #00930 | AR: ADEQ #70-028-0

Qualifiers

DF - Dilution Factor	**B** - Analyte detected in the associated Method Blank	**C** - Client requested RL below
RL - Reporting Limit	**J** - Analyte detected below reporting limits	**D** - Diluted out of sample
ND - Not Detected at the Reporting Limit	**R** - RPD outside accepted recovery limits	**E** - Value above quantitation range
Surr - Surrogate Standard added by lab	**S** - Spike Recovery outside accepted recovery limits	**H** - Holding time exceeded
TNTC - Too numerous to count (> 200 CFU)	X - Value exceeds Maximum Contaminant Level	**MI** - Matrix interference
Q - QC criteria failed or noncompliant CCV	# - Unknown hydrocarbon	**DNI** - Did not ignite
NELAP - IL ELAP and NELAP Accredited Field of Testing	**IDPH** - IL Dept. of Public Health	

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TEL: 618-344-1004
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LABORATORY RESULTS

Client: Philip Environmental
WorkOrder: 08060975
Lab ID: 08060975-001
Report Date: 03-Jul-08

Client Project: A831-735002-012901-225/IP Champ
Client Sample ID: WW-2
Collection Date: 6/27/2008 7:45:00 AM
Matrix: WASTE WATER

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Analyst
EPA 600 350.1 R2.0 (TOTAL)								
Nitrogen, Ammonia (as N)	NELAP	0.10		**1.43**	mg/L	1	6/30/2008 11:59:57 AM	BED
EPA 600 351.2 R2.0 (TOTAL)								
Total Kjeldahl Nitrogen (as N)	NELAP	0.29		**2.86**	mg/L	1	7/2/2008 10:52:29 AM	BED
STANDARD METHOD 18TH ED. 4500-H B, LABORATORY ANALYZED								
Lab pH	NELAP	1.00		**12.1**		1	6/27/2008 5:49:00 PM	LMK
STANDARD METHODS 18TH ED. 5210 B								
Biochemical Oxygen Demand	NELAP	5	E	**101**	mg/L	1	6/27/2008 6:10:00 PM	TWM

Sample Narrative

Standard Methods 18th Ed. 5210 B

Results are estimated, biased high.

Laboratory control sample did not recover within QC limits.

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TEL: 618-344-1004
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DATES REPORT

Client: Philip Environmental
Project: A831-735002-012901-225/IP Champaign 62403053
Lab Order: 08060975
Report Date: 03-Jul-08

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Prep Date	Analysis Date
08060975-001A	WW-2	6/27/2008	Waste Water	Standard Methods 18th Ed. 5210 B	6/27/2008	6/27/2008
08060975-001B				EPA 600 350.1 R2.0 (Total)		6/30/2008
				EPA 600 351.2 R2.0 (Total)		7/2/2008
08060975-001C				Standard Method 18th Ed. 4500-H B, Laboratory Analyzed		6/27/2008

ANALYTICAL QC SUMMARY REPORT

Key QC concepts:

CCV Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.

DF Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilutions factors.

DUP Laboratory duplicate is an aliquot of a sample taken from the same container under laboratory conditions for independent processing and analysis independently of the original aliquot. (NELAC)

ICV Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.

LCS Laboratory control sample, spiked with verified known amounts of analytes, is analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system. (NELAC) The acceptable recovery range is listed in this report.

MS Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in this report.

MSD Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in this report.

MDL Method detection limit or limit of detection (LOD) means the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix type containing the analyte.

MB/LCB Method blank or lab control blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences are present at concentrations that impact the analytical results for sample analyses. (NELAC)

PQL Practical quantitation limit or limit of quantitation (LOQ) means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions. The acceptable recovery range is listed in this report.

RL The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.

RPD Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in this report.

SPK The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes. (NELAC)

Surr Surrogates are an organic compound which is similar to the analytes of interest in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples.

Qualifiers

DF - Dilution Factor	**B** - Analyte detected in the associated Method Blank	**C** - Client requested RL below PQL	**MI** - Matrix interference
RL - Reporting Limit	**J** - Analyte detected below reporting limits	**D** - Diluted out of sample	**DNI** - Did not ignite
ND - Not Detected at the Reporting Limit	**R** - RPD outside accepted recovery limits	**IDPH** - IL Dept. of Public Health	**E** - Value above quantitation range
Surr - Surrogate Standard added by lab	**S** - Spike Recovery outside accepted recovery limits	**Q** - QC criteria failed	**H** - Holding time exceeded
TNTC - Too numerous to count (> 200 CFU)	X - Value exceeds Maximum Contaminant Level	# - Unknown hydrocarbon	**NELAP** - IL ELAP and NELAP Accredited

Client: Philip Environmental
Project: A831-735002-012901-225/IP Champaign 62403053
Lab Order: 08060975 **Report Date:** *03-Jul-08*

ANALYTICAL QC SUMMARY REPORT

TestCode: A_NH3_E_AT_350.1R2

Sample ID: **MBLK**	SampType: **MBLK**	Units: **mg/L**	Prep Date:	RunNo: **110026**
Client ID: **ZZZZZZ**	Batch ID: **R110026**		Analysis Date: **6/30/2008**	SeqNo: **1989410**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia (as N)	< 0.10	0.10									

Sample ID: **LCS**	SampType: **LCS**	Units: **mg/L**	Prep Date:	RunNo: **110026**
Client ID: **ZZZZZZ**	Batch ID: **R110026**		Analysis Date: **6/30/2008**	SeqNo: **1989412**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia (as N)	2.45	0.10	2.500	0	98.1	90	110				

Sample ID: **08060975-001B MS**	SampType: **MS**	Units: **mg/L**	Prep Date:	RunNo: **110026**
Client ID: **WW-2MS**	Batch ID: **R110026**		Analysis Date: **6/30/2008**	SeqNo: **1989438**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia (as N)	3.37	0.10	2.000	1.432	96.8	85	115				

Sample ID: **08060975-001B MSD**	SampType: **MSD**	Units: **mg/L**	Prep Date:	RunNo: **110026**
Client ID: **WW-2MSD**	Batch ID: **R110026**		Analysis Date: **6/30/2008**	SeqNo: **1989439**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia (as N)	3.32	0.10	2.000	1.432	94.5	85	115	3.367	1.35	10	

Client: Philip Environmental
Project: A831-735002-012901-225/IP Champaign 62403053
Lab Order: 08060975 **Report Date:** *03-Jul-08*

ANALYTICAL QC SUMMARY REPORT

TestCode: A_TKN_E_AT_351.2R2

Sample ID: **MBLK** SampType: **MBLK** Units: **mg/L** Prep Date: RunNo: **110101**
Client ID: **ZZZZZZ** Batch ID: **R110101** Analysis Date: **7/2/2008** SeqNo: **1991281**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Kjeldahl Nitrogen (as N)	< 0.21	0.21									

Sample ID: **LCS** SampType: **LCS** Units: **mg/L** Prep Date: RunNo: **110101**
Client ID: **ZZZZZZ** Batch ID: **R110101** Analysis Date: **7/2/2008** SeqNo: **1991282**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Kjeldahl Nitrogen (as N)	9.72	0.21	10.00	0	97.2	85	115				

Sample ID: **08060975-001B MS** SampType: **MS** Units: **mg/L** Prep Date: RunNo: **110101**
Client ID: **WW-2MS** Batch ID: **R110101** Analysis Date: **7/2/2008** SeqNo: **1991284**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Kjeldahl Nitrogen (as N)	16.6	0.29	13.60	2.857	101.1	85	115				

Sample ID: **08060975-001B MSD** SampType: **MSD** Units: **mg/L** Prep Date: RunNo: **110101**
Client ID: **WW-2MSD** Batch ID: **R110101** Analysis Date: **7/2/2008** SeqNo: **1991285**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Kjeldahl Nitrogen (as N)	16.4	0.29	13.60	2.857	99.6	85	115	16.61	1.29	15	

Client: Philip Environmental
Project: A831-735002-012901-225/IP Champaign 62403053
Lab Order: 08060975 **Report Date:** *03-Jul-08*

ANALYTICAL QC SUMMARY REPORT

TestCode: I_BOD_M_AT

Sample ID: **LCS-45947**	SampType: **LCS**			Units: **mg/L**		Prep Date: **6/27/2008**			RunNo: **110095**		
Client ID: **ZZZZZZ**	Batch ID: **45947**			**SOP 2030**		Analysis Date: **6/27/2008**			SeqNo: **1991192**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	303	5	198.0	0	153.0	84.6	115.4				SE

Sample ID: **08060975-001A-DUP**	SampType: **DUP**			Units: **mg/L**		Prep Date: **6/27/2008**			RunNo: **110095**		
Client ID: **WW-2DUP**	Batch ID: **45947**			**SOP 2030**		Analysis Date: **6/27/2008**			SeqNo: **1991197**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	102	5						101.0	0.985	40	E

Sample ID: **LCSQC-45947**	SampType: **LCSQC**			Units: **mg/L**		Prep Date: **6/27/2008**			RunNo: **110095**		
Client ID: **ZZZZZZ**	Batch ID: **45947**			**SOP 2030**		Analysis Date: **6/27/2008**			SeqNo: **1991200**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	40	5	29.30	0	136.5	70	129				SE

Client: Philip Environmental
Project: A831-735002-012901-225/IP Champaign 62403053
Lab Order: 08060975 **Report Date:** *03-Jul-08*

ANALYTICAL QC SUMMARY REPORT

TestCode: I_PH_M_AT_NF

Sample ID: **LCS-R109951**	SampType: **LCS**	Units:	Prep Date:	RunNo: **109951**
Client ID: **ZZZZZZ**	Batch ID: **R109951**		Analysis Date: **6/27/2008**	SeqNo: **1988202**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lab pH	6.99	1.00	7.000	0	99.9	99.1	100.9				

Sample ID: **LCS-R109951**	SampType: **LCS**	Units:	Prep Date:	RunNo: **109951**
Client ID: **ZZZZZZ**	Batch ID: **R109951**		Analysis Date: **6/27/2008**	SeqNo: **1988631**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lab pH	7.00	1.00	7.000	0	100	99.1	100.9				

Sample ID: **08060975-001CDUP**	SampType: **DUP**	Units:	Prep Date:	RunNo: **109951**
Client ID: **WW-2DUP**	Batch ID: **R109951**		Analysis Date: **6/27/2008**	SeqNo: **1988633**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lab pH	12.1	1.00						12.12	0.165	10	

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RECEIVING CHECK LIST

Client: Philip Environmental
Project: A831-735002-012901-225/IP Champaign 62403053
Lab Order: 08060975
Report Date: 03-Jul-08

Carrier: Rachael Husan

Received By: EC

Completed by: Erin Clarke
On: 27-Jun-08

Reviewed by: Elizabeth A. Hurley
On: 28-Jun-08

Pages to follow: Chain of custody 1 Extra pages included 0

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	Temp °C	10.4		
Custody seals intact on shippping container/cooler?	Yes ☐	No ☐	Not Present ☑				
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑				
Type of thermal preservation?	None ☐	Ice ☑	Blue Ice ☐	Dry Ice ☐			
Chain of custody present?	Yes ☑	No ☐					
Chain of custody signed when relinquished and received?	Yes ☑	No ☐					
Chain of custody agrees with sample labels?	Yes ☑	No ☐					
Samples in proper container/bottle?	Yes ☑	No ☐					
Sample containers intact?	Yes ☑	No ☐					
Sufficient sample volume for indicated test?	Yes ☑	No ☐					
All samples received within holding time?	Yes ☑	No ☐					
Reported field parameters measured:	Field ☐	Lab ☑	NA ☐				
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐					

When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.

Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	

Any No responses must be detailed below or on the COC.

Chain of Custody Record

210 West Sand Bank Road
P.O. Box 230
Columbia, IL 62236-0230

(618) 281-7173 Phone
(800) 733-7173
(618) 281-5120 Fax

08060975

COC Serial No. B 08890

Project Name: Ameren IP Champaign Project Mgr.: Derek Ingram
Project Number: 024 3053 Cost Code: 024 501
Sampler(s): R. Husar
Laboratory Name: Teklab
Laboratory Location: Collinsville, IL

Sample Number and (depth)	Date	Time	Matrix: Soil	Water	Air	Wipes	Other *	Total Number of Containers	Analyses by Method Name and Number: Ammonia	Total Nitrogen	pH	5 day BOD	Comments (Field PID)	Lab ID #'s
~~Wash Water Analysis~~ WW-2	6/27	0745		X					X	X	X	X		08060975-001

Laboratory Temperature upon Receipt: 10.4 iced

Pres. ✓ EDC

*PER DEREK I, PROCEED W/ TKN. EDC 6/30/08

Samples Iced: ☒ Yes ☐ No

Preservatives (ONLY for Water Samples)

- ☐ Volatile Organics ..... Hydrochloric acid (HCl)
- ☐ VOC Soil (5035) ..... Sodium Bisulfate/Methanol
- ☐ TPH ..... Hydrochloric acid and/or Sulfuric acid
- ☐ Metals ..... Nitric acid (HNO_3)
- ☐ Cyanide ..... Sodium hydroxide (NaOH)
- ☐ Other (Specify) .....

Lab Directives:

Requested TAT: ☐ Rush ☐ 5 Days ☒ STD ☐ Other
Fax and/or Mail Results to: D. Ingram
Send Invoice to:
QC Deliverable Requested: ☐ Full QC & Limits ☐ CLP-LIKE ☐ EDD ☐ Other
Special Guidelines:
Reporting Limits:
* Special:

Shipping:

Carrier / Airbill No.

Relinquished by:

Signature	Date	Time
Rachael Husar	6/27/08	1520

Received by:

Signature	Date	Time
[signature]	6/27/08	1520

Distribution: WHITE to Lab CANARY to PM PINK to QA/QC GREEN to Sampler

PE-179 (6/03)

Shaded Areas to be Completed by Lab