JUNEAU-DOUGLAS WASTEWATER TREATMENT FACILITY

Juneau, Alaska — September 2015

		Influent										Effluent									
DAY	DATE	TEMP °F	RAIN FALL INCHES	J-D TTL EFFL MGD	TEMP °C	pH	D.O. mg/L	S.S. mg/L	S.S. LBS	B.O.D. mg/L	B.O.D. LBS	TEMP °C	pH	D.O. mg/L	S.S. mg/L	S.S. LBS	B.O.D. mg/L	B.O.D. LBS	Enterro Fecal	Composite NH3	Channel Fecal	FECAL Coliform /100 ml
SUN	30	49	0.35	2.392																		
MON	31	48	1.05	2.073	13.4	7.4	6.0					13.3	6.9	7.0								
TUE	1	50	0.60	1.191	13.5	7.3	5.8	280.0	2781.2	350.0	3476.5	13.7	6.9	5.3	5.6	55.6	3.60	35.8				1.0
WED	2	51	0.00	1.152	13.9	7.5	4.8	184.0	1767.8	290.0	2786.2	14.2	6.9	4.6	1.0	9.6	3.5	33.6				
THU	3	53	0.00	0.964	14.1	7.5	4.4					15.3	7.2	4.2								
FRI	4	53	0.00	0.804	13.8	7.3	0.6					15.8	7.2	3.8								
SAT	5	54	0.03	0.828																		
SUN	6	53	0.02	0.902																		
MON	7	52	0.50	1.052	14.5	7.4	4.1					15.9	7.0	4.5								
TUE	8	51	0.15	0.871	15.1	7.4	3.0	360.0	2615.1	480.0	3559.4	16.0	7.1	3.8	1.0	7.3	4.1	29.8				3.0
WED	9	53	T	1.941	14.8	7.5	2.7	780.0	12626.6	1200.0	19425.5	16.2	7.2	4.0	6.0	97.1	6.0	97.1				
THU	10	54	1.90	4.806	14.6	7.7	5.6					16.0	7.6	5.1								
FRI	11	55	1.98	1.610	14.0	7.4	8.5					15.0	6.9	5.2								
SAT	12	51	0.10	1.223																		
SUN	13	50	0.41	1.021																		
MON	14	48	0.01	1.086	14.0	7.5	4.1					14.8	7.1	4.4								
TUE	15	49	0.22	1.134	13.8	7.5	5.3	186.0	1759.1	420.0	3972.2	15.0	7.1	4.4	27.0	255.4	4.3	40.7				3.0
WED	16	48	0.41	1.405	14.1	7.4	5.4	71.0	832.0	140.0	1640.5	14.6	6.9	4.9	1.0	11.7	4.6	53.9				
THU	17	50	0.65	3.325	13.1	7.7	5.2					14.8	7.0	4.4								
FRI	18	49	2.05	2.433	12.2	7.1	7.6					13.4	6.6	5.6								
SAT	19	47	0.29	1.629																		
SUN	20	47	0.54	1.435																		
MON	21	45	0.38	1.205	13.1	7.4	5.7					13.1	6.9	5.6								
TUE	22	45	0.24	0.918	12.7	7.5	4.8	312.0	2388.7	340.0	2603.1	13.0	6.8	5.4	1.0	7.7	2.0	15.3				
WED	23	47	0.04	0.902	13.2	7.5	4.6	51.0	383.7	76.0	571.7	13.7	6.6	5.5	1.0	7.5	0.5	3.8	1.0	0.11	1.0	1.0
THU	24	45	0.00	0.762	13.1	7.5	4.4					13.6	6.6	5.5								
FRI	25	46	0.11	0.853	13.6	7.6	3.6					15.2	6.6	5.2								
SAT	26	46	0.44	1.489																		
SUN	27	50	0.75	1.760																		
MON	28	53	1.20	4.271	12.9	7.4	6.8					13.2	6.8	6.5								
TUE	29	54	2.50	3.196	13.0	7.3	8.7	178.0	4744.5	140.0	3731.6	12.4	7.0	7.4	4.1	109	16.0	426				31.0
WED	30	47	0.81	1.476	11.8	7.4	7.8	67.0	824.8	79.0	972.5	11.9	7.1	8.5	1.0	12.3	2.1	25.9				
THU	1	46	0.12	0.934	12.8	7.4	6.4					12.3	6.8	6.3								
FRI	2	40	0.03	0.871	11.7	7.5	2.7					13.0	6.9	5.4								
SAT	3	49	T	0.741																		
TOTAL			17.88	54.65																		
MAXIMUM		55	2.50	4.81	15.10	7.74	8.67	780	12627	1200	19426	16.2	7.6	8.5	27.0	255.4	16.0	426.5	1.0	0.11	1.0	31.0
MINIMUM		40	0.00	0.74	11.70	7.13	0.60	51.0	383.7	76.0	571.7	11.9	6.6	3.8	1.0	7.3	0.5	3.8	1.0	0.11	1.0	1.0
AVERAGE		49.3	0.5	1.6	13.5	7.4	5.1	246.9	3072.3	352.5	4273.9	14		5.3	4.9	57.3	4.7	76.2	1	0.11	1.0	3
Number Of Analyses		35	33	35	25	25	25	10	10	10	10	25	25	25	10	10	10	10	1	1	1	5

BOD % Removal	TSS % Removal
98.7	98.0

Channel Grab 8/26/2015					
pH	7.31	Temp	16.70	DO	3.61
Enterro	1.00	FC	1.00	Salinity	16.10

Weekly TSS,BOD Aver.	TSS		BOD		Weekly Coliform Geo. Mean
	mg/l	lbs.	mg/l	lbs	
WEEK1	3.3	32.6	3.6	34.7	1.0
WEEK2	3.5	52.2	5.1	63.5	3.0
WEEK3	14.0	133.5	4.5	47.3	3.0
WEEK4	1.0	7.6	1.3	9.5	1.0
WEEK5	2.6	60.6	9.1	226.2	31.0
MAX	14.0	133.5	9.1	226.2	31.0

Alaska Department of Environmental Conservation Monthly Discharge Monitoring Report (DMR)

CONTACT NAME: Samantha Stoughtenger
MAILING ADDRESS: 2009 Radcliffe Road
Juneau, AK 99801

FACILITY: JUNEAU DOUGLAS WW TREATMENT FACILITY
LOCATION: 1540 Thane Rd
Juneau, AK 99801

PERMIT NUMBER: AK0023213
OUTFALL / MONITORING POINT: 001

MONITORING PERIOD: 9/1/2015 TO 9/30/2015
NO DISCHARGE:

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
		Average	Maximum		Minimum	Average	Maximum				
Temperature (C)	Sample meas.	******	******		******	******	16.2		0		
1 - Final Effluent 00010	Permit reqmt.	******	******		******	******	Report daily maximum	DEG.C		5X Weekly	Grab
Dissolved Oxygen	Sample meas.	******	******		3.8	******	8.5		0		
1 - Final Effluent 00300	Permit reqmt.	******	******		2.0 daily minimum	******	17 daily maximum	mg/l		5X Weekly	Grab
Biochemical Oxygen Demand (BOD5)	Sample meas.	76.2	426.5		******	4.7	16.0		0		
1 - Final Effluent 00310	Permit reqmt.	690 monthly average	1,380 daily maximum	lbs/day	******	30 monthly average	60 daily maximum	mg/l		Monthly	24-Hr Composite
Biochemical Oxygen Demand (BOD5)	Sample meas.	4273.9	******		******	352.5	******		0		
G - Influent 00310	Permit reqmt.	report monthly average	******	lbs/day	******	report monthly average	******	mg/l		Monthly	24-Hr Composite
Biochemical Oxygen Demand (BOD5)	Sample meas.	******	226.2		******	9.1	******		0		
W - See Comments 00310	Permit reqmt.	******	1,035 weekly average	lbs/day	******	45 weekly average	******	mg/l		Monthly	24-Hr Composite

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER			TELEPHONE	DATE
Jim Westcott	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.		907 586.0393	2015/10/15
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA | NUMBER	Y | M | D

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Juneau, AK 99801

PERMIT NUMBER: AK0023213
OUTFALL / MONITORING POINT: 001

MONITORING PERIOD: 9/1/2015 TO 9/30/2015
NO DISCHARGE:

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
		Average	Maximum		Minimum	Average	Maximum				
pH	Sample meas.	******	******		6.6	******	7.6		0		
1 - Final Effluent 00400	Permit reqmt.	******	******		6.5 minimum	******	8.5 maximum	S.U.		5X Weekly	Grab
Total Suspended Solids	Sample meas.	57.3	255.4		******	4.9	27.0		0		
1 - Final Effluent 00530	Permit reqmt.	690 monthly average	1,380 daily maximum	lbs/day	******	30 monthly average	60 daily maximum	mg/l		Monthly	24-Hr Composite
Total Suspended Solids	Sample meas.	3072.3	******		******	246.9	******		0		
G - Influent 00530	Permit reqmt.	report monthly average	******	lbs/day	******	report monthly average	******	mg/l		Monthly	24-Hr Composite
Total Suspended Solids	Sample meas.	******	133.5		******	14.0	******		0		
W - See Comments 00530	Permit reqmt.	******	1,035 weekly average	lbs/day	******	45 weekly average	******	mg/l		Monthly	24-Hr Composite
Ammonia Nitrogen (as N)	Sample meas.	******	******		******	0.11	0.11		0		
1 - Final Effluent 00610	Permit reqmt.	******	******		******	14 monthly average	30 daily maximum	mg/l		Monthly	24-Hr Composite

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MONITORING PERIOD: 9/1/2015 TO 9/30/2015
NO DISCHARGE:

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
		Average	Maximum		Minimum	Average	Maximum				
Ammonia Nitrogen (as N)	Sample meas.	******	******		******	0.11	******		0		
W - See Comments 00610	Permit reqmt.	******	******		******	21 weekly average	******	mg/l		Monthly	24-Hr Composite
Copper Total Recoverable	Sample meas.	******	******		******	******			NA		
1 - Final Effluent 01119	Permit reqmt.	******	******		******	******	Report daily maximum	ug/l		Quarterly	24-Hr Composite
Flow	Sample meas.	1.56	4.81		******	******	******		0		
1 - Final Effluent 50050	Permit reqmt.	2.76 monthly average	6.0 daily maximum	MGD	******	******	******			Continuous	Recorded
Enterococci	Sample meas.	******	******		******	******	1.0		0		
1 - Final Effluent 61211	Permit reqmt.	******	******		******	******	Report daily maximum	cts/100 ml		See Permit Requirements	Grab
Fecal Coliform	Sample meas.	******	******		******	3.1	31.0		0		
1 - Final Effluent 74055	Permit reqmt.	******	******		******	200 monthly geometric mean	800 daily maximum	cts/100 ml		Weekly	Grab

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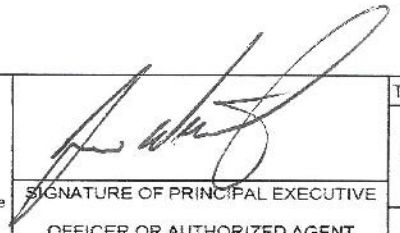
Jim Westcott	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.		907. 586.0395	2015/10/15
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Juneau, AK 99801

PERMIT NUMBER: AK0023213
OUTFALL / MONITORING POINT: 001

MONITORING PERIOD: 9/1/2015 TO 9/30/2015
NO DISCHARGE:

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
		Average	Maximum		Minimum	Average	Maximum				
Fecal Coliform	Sample meas.	******	******		******	31.0	******		0		
W - See Comments 74055	Permit reqmt.	******	******		******	400 weekly average	******	cts/100 ml		Weekly	Grab
BOD5 Minimum % Removal	Sample meas.	******	******		98.7	******	******		0		
K - Percent Removal 81010	Permit reqmt.	******	******		85 minimum percent removal	******	******	%		Monthly	Calculation
Total Suspended Solids Minimum % Removal	Sample meas.	******	******		98.0	******	******		0		
K - Percent Removal 81011	Permit reqmt.	******	******		85 minimum percent removal	******	******	%		Monthly	Calculation

COMMENTS:
W = weekly average;

Mail this report when completed to ADEC, Division of Water, 555 Cordova Street, Anchorage, AK 99501-2617
Attach an explanation of any violations. Reference all attachments below.

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TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA | NUMBER	Y | M | D

Alaska Department of Environmental Conservation Monthly Discharge Monitoring Report (DMR)

CONTACT NAME: Mark Mow
MAILING ADDRESS: 155 S. Seward Street
Juneau, AK 99801
PERMIT NUMBER: AK0023213

FACILITY: JUNEAU DOUGLAS WW TREATMENT FACILITY
LOCATION: 1540 Thane Rd
Juneau, AK 99801
MONITORING PERIOD: 9/1/2015 TO 9/30/2015
MONITORING POINT: 004 (N-15.1) (R) Douglas NO DISCHARGE: X

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
		Average	Maximum		Minimum	Average	Maximum				
Biochemical Oxygen Demand (BOD5)	Sample meas.				******						
1 - Final Effluent 00310 R	Permit reqmt.	Report monthly average	Report daily maximum	lbs/day	******	Report monthly average	Report daily maximum	mg/l		When Discharging	Grab
Total Suspended Solids	Sample meas.				******						
1 - Final Effluent 00530 R	Permit reqmt.	Report monthly average	Report daily maximum	lbs/day	******	Report monthly average	Report daily maximum	mg/l		When Discharging	Grab
Coliform, fecal MF, M-FC broth, 44.5 C	Sample meas.	******	******		******						
1 - Final Effluent 31616 R	Permit reqmt.	******	******		******	Report monthly geometric mean	Report daily maximum	cts/100 ml		When Discharging	Grab
Flow	Sample meas.				******	******	******				
1 - Final Effluent 50050 R	Permit reqmt.	Report monthly average	Report daily maximum	MGD	******	******	******			When Discharging	Recorded
Duration of Discharge	Sample meas.	******			******	******	******				
1 - Final Effluent 81381 R	Permit reqmt.	******	report daily maximum	min/day	******	******	******			When Discharging	Instantaneous Reading

COMMENTS:

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NAME/TITLE PRINCIPAL EXECUTIVE OFFICER			TELEPHONE	DATE
MARK I. MOW / SR. OPERATOR	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	Mark I. Mow	907-790-2525	10/1/15
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA | NUMBER	Y | M | D

Alaska Department of Environmental Conservation Monthly Discharge Monitoring Report (DMR)

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PERMIT NUMBER: AK0023213

FACILITY: JUNEAU DOUGLAS WW TREATMENT FACILITY
LOCATION: 1540 Thane Rd
Juneau, AK 99801

MONITORING PERIOD: 9/1/2015 TO 9/30/2015
MONITORING POINT: 003 (N11.2) (Q) Sta C NO DISCHARGE: X

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
		Average	Maximum		Minimum	Average	Maximum				
Biochemical Oxygen Demand (BOD5)	Sample meas.				******						
1 - Final Effluent 00310 Q	Permit reqmt.	Report monthly average	Report daily maximum	lbs/day	******	Report monthly average	Report daily maximum	mg/l		When Discharging	Grab
Total Suspended Solids	Sample meas.				******						
1 - Final Effluent 00530 Q	Permit reqmt.	Report monthly average	Report daily maximum	lbs/day	******	Report monthly average	Report daily maximum	mg/l		When Discharging	Grab
Coliform, fecal MF, M-FC broth, 44.5 C	Sample meas.	******	******		******						
1 - Final Effluent 31616 Q	Permit reqmt.	******	******		******	Report monthly geometric mean	Report daily maximum	cts/100 ml		When Discharging	Grab
Flow	Sample meas.	******			******	******	******				
1 - Final Effluent 50050 Q	Permit reqmt.	******	Report daily maximum	MGD	******	******	******			When Discharging	Recorded
Duration of Discharge	Sample meas.	******			******	******	******				
1 - Final Effluent 81381 Q	Permit reqmt.	******	report daily maximum	min/day	******	******	******			When Discharging	Recorded

COMMENTS:

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NAME/TITLE PRINCIPAL EXECUTIVE OFFICER			TELEPHONE	DATE
MARK T. MOW / SR. OPERATOR	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	Mark T. Mow	907-790-2525	10/1/15
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA | NUMBER	Y | M | D

Alaska Department of Environmental Conservation Monthly Discharge Monitoring Report (DMR)

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Juneau, AK 99801

FACILITY: JUNEAU DOUGLAS WW TREATMENT FACILITY
LOCATION: 1540 Thane Rd
Juneau, AK 99801

PERMIT NUMBER: AK0023213

MONITORING PERIOD: 9/1/2015 TO 9/30/2015
MONITORING POINT: 002 (N-11) (P) Sta AE NO DISCHARGE: X

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
		Average	Maximum		Minimum	Average	Maximum				
Biochemical Oxygen Demand (BOD5)	Sample meas.				******						
1 - Final Effluent 00310 P	Permit reqmt.	report monthly average	report daily maximum	lbs/day	******	report monthly average	report daily maximum	mg/l		When Discharging	Grab
Total Suspended Solids	Sample meas.				******						
1 - Final Effluent 00530 P	Permit reqmt.	report monthly average	report daily maximum	lbs/day	******	report monthly average	report maximum monthly average	mg/l		When Discharging	Grab
Coliform, fecal MF, M-FC broth, 44.5 C	Sample meas.	******	******		******						
1 - Final Effluent 31616 P	Permit reqmt.	******	******		******	report monthly geometric mean	report daily maximum	cts/100 ml		When Discharging	Grab
Flow	Sample meas.	******			******	******	******				
1 - Final Effluent 50050 P	Permit reqmt.	******	report daily maximum	MGD	******	******	******			When Discharging	Recorded
Duration of Discharge	Sample meas.	******			******	******	******				
1 - Final Effluent 81381 P	Permit reqmt.	******	Report daily maximum	min/day	******	******	******			When Discharging	Recorded

COMMENTS:

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TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA | NUMBER	Y | M | D

Admiralty ENVIRONMENTAL

641 W. Willoughby Ave., Suite 301 Juneau, AK 99801
(907) 463 - 4415 Fax (480) 247 - 4476

CBJ Wastewater: Juneau-Douglas TP

Permit AK-002321-3

Analytical Report

August 26, 2015

Admiralty Environmental EPA ID AK 00976

Juneau, AK

AE 13503

Sample Location	Effluent Composite	Influent Composite	Effluent Grab
Date & Time Sampled	08/26/15; 07:15	08/26/15; 07:15	08/26/15; 07:15
Fecal Coliform (FC/100 mL)	---	---	2.0
BOD (mg/L)	5.6	360	---
TSS (mg/L)	4.0	126	---
Enterococci (100 mL)	---	---	<10

Quality Control:

Analysis	MB	LCS	LCS Duplicate	RPD	Date/Time Commenced	Holding Time Met
BOD	< 2	104.3%	101.5%	2.7%	08/27/2015; 13:45	yes
TSS	< 4	100.0%	94.0%	6.2%	08/27/2015; 12:10	yes
FC	< 2	---	---	---	08/26/2015; 10:57	yes
Entero	<10	---	---	---	08/26/2015; 12:28	yes

Analysis Description:

Analysis	Method	MDL	PQL	Unit
FC	SM 9222D	1.0	2.0	FC/100ml
BOD	EPA 405.1	0.5	2.0	mg/L
TSS	EPA 160.2	1.0	4.0	mg/L
Entero	ASTM D6503-99	1.0	10.0	MPN/ 100ml

Case Narrative:

All sample analysis QA/QC parameters were met for this event.

Key:

BOD	Biochemical Oxygen Demand
Cl	Chlorine
FC	Fecal Coliform
LCS	Laboratory Control Standard
MB	Method Blank
MDL	Method Detection Limit
mg/L	Milligrams Per Liter
ND	Not Detected
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TSS	Total Suspended Solids

David Wetzel
President, Admiralty Environmental
dwetzel@admiraltyenv.com

MICROBAC

September 9, 2015

Admiralty Environmental, LLC
641 W. Willoughby Ave, Suite 301
Juneau, AK 99801-

Work Order No.: 15I0077

Re: CBJ Wastewater AE 13503

Dear David Wetzel:

Microbac Laboratories, Inc. - Chicagoland Division received 1 sample(s) on 9/1/2015 10:22:00AM for the analyses presented in the following report as Work Order 15I0077.

The enclosed results were obtained from and are applicable to the sample(s) as received at the laboratory. All sample results are reported on an "as received" basis unless otherwise noted.

All data included in this report have been reviewed and meet the applicable project specific and certification specific requirements, unless otherwise noted. A qualifications page is included in this report and lists the programs under which Microbac maintains certification.

This report has been paginated in its entirety and shall not be reproduced except in full, without the written approval of Microbac Laboratories.

We appreciate the opportunity to service your analytical needs. If you have any questions, please contact your project manager. For any feedback, please contact Robert Crookston, Managing Director, at robert.crookston@microbac.com.

Sincerely,
Microbac Laboratories, Inc.

Carey Gadzala

Carey Gadzala
Project Manager

MICROBAC

WORK ORDER SAMPLE SUMMARY

Date: *Wednesday, September 9, 2015*

Client: Admiralty Environmental, LLC
Project: CBJ Wastewater AE 13503
Lab Order: 15I0077

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
15I0077-01	J-D WTP Effluent 24hr Composit	AE 13503	08/26/2015 07:15	9/1/2015 10:22:00AM

MICROBAC

Analytical Results

Date: *Wednesday, September 9, 2015*

Client:	Admiralty Environmental, LLC		
Client Project:	CBJ Wastewater AE 13503		
Client Sample ID:	J-D WTP Effluent 24hr Composite	**Work Order/ID:**	15I0077-01
Sample Description:	AE 13503	**Sampled:**	08/26/2015 7:15
Matrix:	Aqueous	**Received:**	09/01/2015 10:22

Analyses	Certs	AT	Result	RL	Qual	Units	DF	Analyzed
			Method: **EPA 200.8 Rev 5.4**					Analyst: **SA**
Total Recoverable Metals by ICP/MS								Prep Date/Time: **09/02/2015 08:20**
Copper	chjm	A	***6.2***	1.0		ppb	1	09/02/2015 16:43
			Method: **EPA 350.1 Rev 2.0**					Analyst: **GRIEF**
Nitrogen, Ammonia as N			Prep Method: **Aqueous Ammonia Distillation**					Prep Date/Time: **09/09/2015 09:55**
Nitrogen, Ammonia (As N)	ch	A	***5.2***	0.10		mg/L	1	09/09/2015 12:52

FLAGS, FOOTNOTES AND ABBREVIATIONS (as needed)

B = Detected in the associated method Blank at a concentration above the routine RL
b- = Detected in the associated method Blank at a concentration greater than 2.2 times the MDL
b* = Detected in the associated method Blank at a concentration greater than half the RL
CFU = Colony forming units
D = Dilution performed on sample
DF = Dilution Factor
g = Gram
E = Value above quantitation range
H = Analyte was prepared and/or analyzed outside of the analytical method holding time
I = Matrix Interference
J = Analyte concentration detected between RL and MDL (Metals / Organics)
LOD = Limit of Detection
LOQ = Limit of Quantitation
m3 = Meters cubed
MDL = Method Detection Limit
mg/Kg = Milligrams per Kilogram (ppm)
mg/L = Milligrams per Liter (ppm)
NA = Not Analyzed
ND = Not Detected at the Reporting Limit (or the Method Detection Limit, if used)
NR = Not Recovered
R = RPD outside accepted recovery limits
RL = Reporting Limit
S = Spike recovery outside recovery limits
Surr = Surrogate
U = Undetected
> = Greater than
< = Less than
% = Percent
* = Result exceeds project specific limits

ANALYTE TYPES: (AT)

A,B = Target Analyte
I = Internal Standard
M = Summation Analyte
S = Surrogate
T = Tentatively Identified Compound (TIC, concentration estimated)

QC SAMPLE IDENTIFICATIONS

BLK = Method Blank
DUP = Method Duplicate
BS = Method Blank Spike
MS = Matrix Spike
ICB = Initial Calibration Blank
CCB = Continuing Calibration Blank
CRL = Client Required Reporting Limit
PDS = Post Digestion Spike
QCS = Quality Control Standard
ICSA = Interference Check Standard "A"
ICSAB = Interference Check Standard "AB"
BSD = Method Blank Spike Duplicate
MSD = Matrix Spike Duplicate
ICV = Initial Calibration Verification
CCV = Continuing Calibration Verification
OPR = Ongoing Precision and Recovery Standard
SD = Serial Dilution

CERTIFICATIONS (Certs)

Below is a list of certifications maintained by the Microbac Merrillville Laboratory. All data included in this report has been reviewed for and meets all project specific and quality control requirements of the applicable accreditation, unless otherwise noted. Complete lists of individual analytes pursuant to each certification below are available upon request.

[a] The American Association for Laboratory Accreditation [A2LA] for Biological Testing, ISO/IEC 17025 (Certificate# 3045.01)
[b] The American Association for Laboratory Accreditation [A2LA] for Environmental Department of Defense Testing, ISO/IEC 17025 (Certificate# 3045.02)
[c] Illinois EPA for the analysis wastewater and solid waste in accordance with the requirements of the National Environmental Laboratory Accreditation Program [NELAP] (accreditation #200064)
[d] Illinois DOPH for the microbiological analysis of drinking water (registry #1755266)
[e] Indiana DEM approved support laboratory for solid waste and wastewater analyses
[f] Indiana State Board of Animal Health for microbiological analysis of dairy containers (18137)
[g] Indiana SDH for the chemical analysis of drinking water (lab #C-45-03)
[h] Indiana SDH for the microbiological analysis of drinking water (lab #M-45-8)
[i] Kansas DPHE for the analysis of drinking water, wastewater, and solid hazardous waste in accordance with the requirements of the National Environmental Laboratory Accreditation Program [NELAP] (Certificate No. E-10397)
[j] Kentucky DEP for the analysis of samples applicable to the Underground Storage Tank program (lab #75)
[k] Kentucky EEC Wastewater Laboratory Certification Program for the analysis of wastewater (lab #90147)
[m] New York SDOH in accordance with the requirements of the National Environmental Laboratory Accreditation Program [NELAP] (Lab#12006)
[n] North Carolina DENR for the environmental analysis for NPDES effluent, surface water, groundwater, and pretreatment regulations(certificate #597)
[o] Pennsylvania Department of Environmental Protection [NELAP] (Lab# 68-04863)
[p] United States Department of Agriculture Animal and Plant Health Inspection Service Permit To Receive Soil (Permit #P330-12-00174))
[q] Washington State Department of Ecology in accordance to Ch. 173-50 WAC (lab #C992)
[r] Wisconsin Department of Natural Resources for the chemical analysis of wastewater and solid waste (lab #998036710)
[s] Center for Disease Control [CDC] ELITE Proficiency Program member

Analytical QC Summary

Client: Admiralty Environmental, LLC
Work Order: 15I0077
Project: CBJ Wastewater AE 13503

Metals - Quality Control

Batch: B074510

Total Recoverable Metals by ICP/MS

Sample ID:	Blank (B074510-BLK1)			**Method:**	EPA 200.8 Rev 5.4			**Prepped:**	09/02/2015 08:20		
Source:								**Analyzed:**	09/02/2015 14:59		
Analyte		Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Copper		ND	1.0	ppb							
Sample ID:	LCS (B074510-BS1)			**Method:**	EPA 200.8 Rev 5.4			**Prepped:**	09/02/2015 08:20		
Source:								**Analyzed:**	09/02/2015 15:03		
Analyte		Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Copper		20.6	1.0	ppb	20.00		103	85-115			
Sample ID:	LCS (B074510-BS2)			**Method:**	EPA 200.8 Rev 5.4			**Prepped:**	09/02/2015 08:20		
Source:								**Analyzed:**	09/03/2015 11:56		
Analyte		Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Copper		20.6	1.0	ppb	20.00		103	85-115			
Sample ID:	Matrix Spike (B074510-MS1)			**Method:**	EPA 200.8 Rev 5.4			**Prepped:**	09/02/2015 08:20		
Source:	15I0062-01							**Analyzed:**	09/02/2015 15:51		
Analyte		Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Copper		21.6	5.0	ppb	20.00	0.750	104	70-130			
Sample ID:	Matrix Spike (B074510-MS2)			**Method:**	EPA 200.8 Rev 5.4			**Prepped:**	09/02/2015 08:20		
Source:	15I0075-01							**Analyzed:**	09/02/2015 16:23		
Analyte		Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Copper		114	1.0	ppb	20.00	94.2	101	70-130			
Sample ID:	Matrix Spike Dup (B074510-MSD1)			**Method:**	EPA 200.8 Rev 5.4			**Prepped:**	09/02/2015 08:20		
Source:	15I0062-01							**Analyzed:**	09/02/2015 15:55		
Analyte		Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Copper		21.1	5.0	ppb	20.00	0.750	102	70-130	2.38	20	
Sample ID:	Matrix Spike Dup (B074510-MSD2)			**Method:**	EPA 200.8 Rev 5.4			**Prepped:**	09/02/2015 08:20		
Source:	15I0075-01							**Analyzed:**	09/02/2015 16:27		
Analyte		Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Copper		114	1.0	ppb	20.00	94.2	97.2	70-130	0.585	20	

Analytical QC Summary

Client: Admiralty Environmental, LLC
Work Order: 15I0077
Project: CBJ Wastewater AE 13503

Wet Chemistry - Quality Control

Batch: B074774 **Prep:** Aqueous Ammonia Distillation

Nitrogen, Ammonia as N

Sample ID:	Blank (B074774-BLK1)			**Method:**	EPA 350.1 Rev 2.0			**Prepped:**	09/09/2015 09:55		
Source:								**Analyzed:**	09/09/2015 12:43		
Analyte		Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Nitrogen, Ammonia (As N)		ND	0.10	mg/L							
Sample ID:	LCS (B074774-BS1)			**Method:**	EPA 350.1 Rev 2.0			**Prepped:**	09/09/2015 09:55		
Source:								**Analyzed:**	09/09/2015 12:45		
Analyte		Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Nitrogen, Ammonia (As N)		4.09	0.10	mg/L	4.000		102	90-110			
Sample ID:	Matrix Spike (B074774-MS1)			**Method:**	EPA 350.1 Rev 2.0			**Prepped:**	09/09/2015 09:55		
Source:	15I0078-01							**Analyzed:**	09/09/2015 12:56		
Analyte		Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Nitrogen, Ammonia (As N)		3.84	0.10	mg/L	4.000	0.202	90.9	90-110			
Sample ID:	Matrix Spike (B074774-MS2)			**Method:**	EPA 350.1 Rev 2.0			**Prepped:**	09/09/2015 09:55		
Source:	15I0229-17							**Analyzed:**	09/09/2015 13:15		
Analyte		Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Nitrogen, Ammonia (As N)		4.27	0.10	mg/L	4.000	0.674	89.8	90-110			S
Sample ID:	Matrix Spike Dup (B074774-MSD1)			**Method:**	EPA 350.1 Rev 2.0			**Prepped:**	09/09/2015 09:55		
Source:	15I0078-01							**Analyzed:**	09/09/2015 12:58		
Analyte		Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Nitrogen, Ammonia (As N)		4.05	0.10	mg/L	4.000	0.202	96.1	90-110	5.26	20	
Sample ID:	Matrix Spike Dup (B074774-MSD2)			**Method:**	EPA 350.1 Rev 2.0			**Prepped:**	09/09/2015 09:55		
Source:	15I0229-17							**Analyzed:**	09/09/2015 13:17		
Analyte		Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Nitrogen, Ammonia (As N)		4.50	0.10	mg/L	4.000	0.674	95.6	90-110	5.25	20	

MICROBAC

PREPARATION BENCH SHEET

B074510

Microbac Laboratories, Inc. - Chicagoland

Printed: 9/9/2015 4:30:40PM

Matrix: Aqueous

Lab Number	Analysis	Prepared	Initial mL	Final mL	Sur 1 uL	Sur 2 uL	Spike 1 ID	Spike 2 ID	Spike 1 uL	Spike 2 uL	Source ID
15I0077-01	200.8_LL	9/2/2015 8:20:00AM	50.00	50.00							
B074510-BLK1	200.8_LL	9/2/2015 8:20:00AM	50.00	50.00							
B074510-BS1	200.8_LL	9/2/2015 8:20:00AM	50.00	50.00			0057274		100		
B074510-BS2	200.8_LL	9/2/2015 8:20:00AM	50.00	50.00			0057274		100		
B074510-MS1	200.8_LL	9/2/2015 8:20:00AM	50.00	50.00			0057274		100		15I0062-01
B074510-MS2	200.8_LL	9/2/2015 8:20:00AM	50.00	50.00			0057274		100		15I0075-01
B074510-MSD1	200.8_LL	9/2/2015 8:20:00AM	50.00	50.00			0057274		100		15I0062-01
B074510-MSD2	200.8_LL	9/2/2015 8:20:00AM	50.00	50.00			0057274		100		15I0075-01

MICROBAC

PREPARATION BENCH SHEET

B074774

Microbac Laboratories, Inc. - Chicagoland

Printed: 9/9/2015 4:30:40PM

Matrix: Aqueous **Prepared Using: Aqueous Ammonia Distillation**

Lab Number	Analysis	Prepared	Initial mL	Final mL	Sur 1 uL	Sur 2 uL	Spike 1 ID	Spike 2 ID	Spike 1 uL	Spike 2 uL	Source ID
15I0077-01	NH4_350.1	9/9/2015 9:55:00AM	50.00	50.00							
B074774-BLK1	NH4_350.1	9/9/2015 9:55:00AM	50.00	50.00							
B074774-BS1	NH4_350.1	9/9/2015 9:55:00AM	50.00	50.00			0046760		200		
B074774-MS1	NH4_350.1	9/9/2015 9:55:00AM	50.00	50.00			0046760		200		15I0078-01
B074774-MS2	NH4_350.1	9/9/2015 9:55:00AM	50.00	50.00			0046760		200		15I0229-17
B074774-MSD1	NH4_350.1	9/9/2015 9:55:00AM	50.00	50.00			0046760		200		15I0078-01
B074774-MSD2	NH4_350.1	9/9/2015 9:55:00AM	50.00	50.00			0046760		200		15I0229-17

Admiralty ENVIRONMENTAL

Admiralty Environmental
641 W. Willoughby Ave., Ste 301
Juneau, AK 99801 (907)
463-4415 fax (480) 247-4476

CHAIN OF CUSTODY/TRANSMITTAL RECORD
PAGE 1 OF 1

PROJECT NAME: **CBJ Wastewater**
Juneau Douglas Treatment Plant Permit # AK-002321-3

ADEC Compliance

AE 13503

REPORT TO: City and Borough of Juneau
E-mail: karen_sewell@ci.juneau.ak.us
jim_westcott@ci.juneau.ak.us
PHONE#: (907) 586-0393

ADDRESS: 2009 Radcliffe Road
Juneau, AK 99801

SAMPLED BY: Lawson / L Vaughn

DATE	TIME	SITE DESCRIPTION /IDENTIFIER	MATRIX	# of Bottles	BOD and TSS	Fecal Coliform	Enterro. ~~fecal~~	Copper	NH3					Field Results pH	Temp	D.O.	
08/26/15	0715	J-D WTP Effluent 24hr Composite	H_2O	3	X			X	X					7.31	16.7	3.61	
08/26/15	0715	J-D WTP Influent 24hr Composite	H_2O	1	X									7.59	14.8	3.67	
08/26/15	0715	J-D WTP Effluent Grab	H_2O	2		X	X										

Comments:
Collected in conjunction with toxicity samping

Relinquished by: (signature)	Relinquished by: (print)	Date:	Time:
	Lauren Vaughn	8-26-15	0828
Recieved by: (signature)	Received by: (print)	Date:	Time:
	Hope O'Neill	8/26/15	0828
Relinquished by: (signature)	Relinquished by: (print)	Date:	Time:
Recieved by: (signature)	Received by: (print)	Date:	Time:

Section to be completed by receiving laboratory

Temp (°C):	5.33		
Thermo ID#:	SR1		
Condition of Custody seal	✓		
Initialed By:	HO		
Shipped Via:	—		

Sample Receipt:

	Yes /No
Bottles Intact:	Y
Sufficient Sample Volume:	Y
Labels Agree with COC:	Y
Holding Time Met:	Y
Problems:	N

15I0077 Carey Gadzala
Admiralty - Juneau, AK
CBJ Wastewater AE 13503
09/01/2015

Admiralty Environmental
641 W. Willoughby Ave., Ste 301
Juneau, AK 99801 (907)
463-4415 fax (480) 247-4476

CHAIN OF CUSTODY/TRANSMITTAL RECORD
PAGE 1 OF 1

15I0077

CBJ Wastewater
Juneau Douglas Treatment Plant Permit # AK-002321-3

ADEC Compliance

AE 13503

City and Borough of Juneau
E-mail: karen_sewall@ci.juneau.ak.us
jim_weston@ci.juneau.ak.us
2009 Radcliffe Road
Juneau, AK 99801

PHONE#: (907) 586-0393

SAMPLED BY: Jim Weston / K Vaughan

DATE	TIME	SITE DESCRIPTION /IDENTIFIER	MATRIX	# of Bottles	BOD and TSS	Fecal Coliform	Enterococci	Copper	NH3	Field Results pH	Temp	D.O.	
08/26/15	0715	J-D WTP Effluent 24hr Composite	H_2O	3	X			X	X				-01
08/26/15	0715	J-D WTP Influent 24hr Composite	H_2O	1	X					7.59	14.6	3.67	
08/26/15	0715	J-D WTP Effluent Grab	H_2O	2		X	X						

Comments:
Collected in conjunction with toxicity samping

Relinquished by: (signature)	Relinquished by: (print)	Date:	Time:
	Karen Vaughan	8-26-15	0828
Received by: (signature)	**Received by: (print)**	**Date:**	**Time:**
	Karen Vaughan	8/26/15	0828
Relinquished by: (signature)	**Relinquished by: (print)**	**Date:**	**Time:**
	J FELSTEAD	8/31/15	0722
Recieved by: (signature)	**Received by: (print)**	**Date:**	**Time:**
Nicole Rainwater	Nicole Rainwater	9-1-15	1022

			Yes /No
Temp (°C):	5.33	-0.6	Bottles Intact: Y
Thermo ID#:	829	IR	Sufficient Sample Volume: Y
Condition of Custody seal	✓	✓	Labels Agree with COC: Y
Initialed By:	KV	NR	Holding Time Met: Y
Shipped Via:	—	Fedex	Problems: N

-07
fecal -01
-0.6 c

MICROBAC

COOLER INSPECTION

Date: Wednesday, September 9, 2015

Client Name: Admiralty Environmental, LLC

Date/Time Received: 09/01/2015 10:22

Work Order Number: 1510077

Received by: Nicole Rainwater

Checklist completed by: 9/1/2015 4:41:00PM | Nicole Rainwater

Reviewed by: 9/2/2015 | CAG

Carrier Name: FedEx

Cooler ID: Default Cooler

Container/Temp Blank Temperature: -0.6° C

After-Hour Arrival?	Yes	☐	No	☑		
Shipping container/cooler in good condition?	Yes	☑	No	☐	Not Present	☐
Custody seals intact on shipping container/cooler?	Yes	☑	No	☐	Not Present	☐
Custody seals intact on sample containers?	Yes	☐	No	☐	Not Present	☑
COC present?	Yes	☑	No	☐		
COC included sufficient client identification?	Yes	☑	No	☐		
COC included sufficient sample collector information?	Yes	☑	No	☐		
COC included a sample description?	Yes	☑	No	☐		
COC agrees with sample labels?	Yes	☑	No	☐		
COC identified the appropriate matrix?	Yes	☑	No	☐		
COC included date of collection?	Yes	☑	No	☐		
COC included time of collection?	Yes	☑	No	☐		
COC identified the appropriate number of containers?	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	☐		
If the samples are preserved, are the preservatives identified?	Yes	☑	No	☐		

If No, adjusted by? _____

COC included the requested analyses?	Yes	☑	No	☐		
COC signed when relinquished and received?	Yes	☑	No	☐		
Samples received on ice?	Yes	☑	No	☐		
Samples properly preserved?	Yes	☑	No	☐		
Voa vials for aqueous samples have zero headspace?	Yes	☐	No	☐	No VOA vials submitted	☑

Cooler Comments:

ANY "NO" EVALUATION (excluding After-Hour Receipt) REQUIRES CLIENT NOTIFICATION.

Sample ID	Client Sample ID	Comments
1510077-01	J-D WTP Effluent 24hr Composite	

Admiralty ENVIRONMENTAL

641 W. Willoughby Ave., Suite 301 Juneau, AK 99801
(907) 463 - 4415 Fax (480) 247 - 4476

www.admiraltyenvironmental.com

CBJ Wastewater: Juneau-Douglas TP

Permit AK-002321-3

Analytical Report

August 26, 2015

Admiralty Environmental EPA ID AK 00976

Juneau, AK

AE 13506

Sample Location	Channel Grab
Date & Time Sampled	08/26/2015; 06:15
Fecal Coliform (FC/100 mL)	<2.0
Enterococci (MPN/100 mL)	<10
Salinity (ppt)	16.1

Quality Control:

Analysis	MB	LCS	LCS Duplicate	RPD	Date/Time Commenced	Holding Time Met
FC	< 2	---	---	---	08/26/2015; 10:57	yes
Enter.	<10	---	---	---	08/26/2015; 12:28	yes
Salinity	---	---	---	---	09/02/2015; 11:35	yes

Analysis Description:

Analysis	Method	MDL	PQL	Unit
FC	SM 9222D	1.0	2.0	FC/100ml
Enter.	ASTM D6503-99	1.0	10.0	MPN/ 100ml
Salinity	SM 2510 A	0.17	1.0	ppt

Case Narrative:

All sample analysis QA/QC parameters were met for this event.

Key:

FC	Fecal Coliform
ENT	Enterococci
LCS	Laboratory Control Standard
MB	Method Blank
MDL	Method Detection Limit
mg/L	Milligrams Per Liter
ND	Not Detected
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference

David Wetzel
President, Admiralty Environmental
dwetzel@admiraltyenv.com

MICROBAC

September 9, 2015

Admiralty Environmental, LLC
641 W. Willoughby Ave, Suite 301
Juneau, AK 99801-

Work Order No.: 15I0078

Re: CBJ Wastewater AE 13506

Dear David Wetzel:

Microbac Laboratories, Inc. - Chicagoland Division received 1 sample(s) on 9/1/2015 10:22:00AM for the analyses presented in the following report as Work Order 15I0078.

The enclosed results were obtained from and are applicable to the sample(s) as received at the laboratory. All sample results are reported on an "as received" basis unless otherwise noted.

All data included in this report have been reviewed and meet the applicable project specific and certification specific requirements, unless otherwise noted. A qualifications page is included in this report and lists the programs under which Microbac maintains certification.

This report has been paginated in its entirety and shall not be reproduced except in full, without the written approval of Microbac Laboratories.

We appreciate the opportunity to service your analytical needs. If you have any questions, please contact your project manager. For any feedback, please contact Robert Crookston, Managing Director, at robert.crookston@microbac.com.

Sincerely,
Microbac Laboratories, Inc.

Carey Gadzala

Carey Gadzala
Project Manager

MICROBAC

WORK ORDER SAMPLE SUMMARY

Date: *Wednesday, September 9, 2015*

Client: Admiralty Environmental, LLC
Project: CBJ Wastewater AE 13506
Lab Order: 15I0078

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
15I0078-01	J-D WTP channel Grab	AE 13506	08/26/2015 06:15	9/1/2015 10:22:00AM

MICROBAC

Analytical Results

Date: *Wednesday, September 9, 2015*

Client:	Admiralty Environmental, LLC		
Client Project:	CBJ Wastewater AE 13506		
Client Sample ID:	J-D WTP channel Grab	**Work Order/ID:**	15I0078-01
Sample Description:	AE 13506	**Sampled:**	08/26/2015 6:15
Matrix:	Aqueous	**Received:**	09/01/2015 10:22

Analyses	Certs	AT	Result	RL	Qual	Units	DF	Analyzed
			Method: **EPA 350.1 Rev 2.0**					Analyst: **GRIEF**
Nitrogen, Ammonia as N			Prep Method: **Aqueous Ammonia Distillation**					Prep Date/Time: **09/09/2015 09:55**
Nitrogen, Ammonia (As N)	ch	A	***0.20***	0.10		mg/L	1	09/09/2015 12:54

FLAGS, FOOTNOTES AND ABBREVIATIONS (as needed)

B = Detected in the associated method Blank at a concentration above the routine RL
b- = Detected in the associated method Blank at a concentration greater than 2.2 times the MDL
b* = Detected in the associated method Blank at a concentration greater than half the RL
CFU = Colony forming units
D = Dilution performed on sample
DF = Dilution Factor
g = Gram
E = Value above quantitation range
H = Analyte was prepared and/or analyzed outside of the analytical method holding time
I = Matrix Interference
J = Analyte concentration detected between RL and MDL (Metals / Organics)
LOD = Limit of Detection
LOQ = Limit of Quantitation
m3 = Meters cubed
MDL = Method Detection Limit
mg/Kg = Milligrams per Kilogram (ppm)
mg/L = Milligrams per Liter (ppm)
NA = Not Analyzed
ND = Not Detected at the Reporting Limit (or the Method Detection Limit, if used)
NR = Not Recovered
R = RPD outside accepted recovery limits
RL = Reporting Limit
S = Spike recovery outside recovery limits
Surr = Surrogate
U = Undetected
> = Greater than
< = Less than
% = Percent
* = Result exceeds project specific limits

ANALYTE TYPES: (AT)

A,B = Target Analyte
I = Internal Standard
M = Summation Analyte
S = Surrogate
T = Tentatively Identified Compound (TIC, concentration estimated)

QC SAMPLE IDENTIFICATIONS

BLK = Method Blank
DUP = Method Duplicate
BS = Method Blank Spike
MS = Matrix Spike
ICB = Initial Calibration Blank
CCB = Continuing Calibration Blank
CRL = Client Required Reporting Limit
PDS = Post Digestion Spike
QCS = Quality Control Standard
ICSA = Interference Check Standard "A"
ICSAB = Interference Check Standard "AB"
BSD = Method Blank Spike Duplicate
MSD = Matrix Spike Duplicate
ICV = Initial Calibration Verification
CCV = Continuing Calibration Verification
OPR = Ongoing Precision and Recovery Standard
SD = Serial Dilution

CERTIFICATIONS (Certs)

Below is a list of certifications maintained by the Microbac Merrillville Laboratory. All data included in this report has been reviewed for and meets all project specific and quality control requirements of the applicable accreditation, unless otherwise noted. Complete lists of individual analytes pursuant to each certification below are available upon request.

[a] The American Association for Laboratory Accreditation [A2LA] for Biological Testing, ISO/IEC 17025 (Certificate# 3045.01)
[b] The American Association for Laboratory Accreditation [A2LA] for Environmental Department of Defense Testing, ISO/IEC 17025 (Certificate# 3045.02)
[c] Illinois EPA for the analysis wastewater and solid waste in accordance with the requirements of the National Environmental Laboratory Accreditation Program [NELAP] (accreditation #200064)
[d] Illinois DOPH for the microbiological analysis of drinking water (registry #1755266)
[-] Indiana DEM approved support laboratory for solid waste and wastewater analyses
[e] Indiana State Board of Animal Health for microbiological analysis of dairy containers (18137)
[f] Indiana SDH for the chemical analysis of drinking water (lab #C-45-03)
[g] Indiana SDH for the microbiological analysis of drinking water (lab #M-45-8)
[h] Kansas DPHE for the analysis of drinking water, wastewater, and solid hazardous waste in accordance with the requirements of the National Environmental Laboratory Accreditation Program [NELAP] (Certificate No. E-10397)
[i] Kentucky DEP for the analysis of samples applicable to the Underground Storage Tank program (lab #75)
[l] Kentucky EEC Wastewater Laboratory Certification Program for the analysis of wastewater (lab #90147)
[k] New York SDOH in accordance with the requirements of the National Environmental Laboratory Accreditation Program [NELAP] (Lab#12006)
[m] North Carolina DENR for the environmental analysis for NPDES effluent, surface water, groundwater, and pretreatment regulations(certificate #597)
[n] Pennsylvania Department of Environmental Protection [NELAP] (Lab# 68-04863)
[-] United States Department of Agriculture Animal and Plant Health Inspection Service Permit To Receive Soil (Permit #P330-12-00174))
[o] Washington State Department of Ecology in accordance to Ch. 173-50 WAC (lab #C992)
[p] Wisconsin Department of Natural Resources for the chemical analysis of wastewater and solid waste (lab #998036710)
[q] Center for Disease Control [CDC] ELITE Proficiency Program member

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Analytical QC Summary

Client: Admiralty Environmental, LLC
Work Order: 15I0078
Project: CBJ Wastewater AE 13506

Wet Chemistry - Quality Control

Batch: B074774 **Prep:** Aqueous Ammonia Distillation

Nitrogen, Ammonia as N

Sample ID:	Blank (B074774-BLK1)			**Method:**	EPA 350.1 Rev 2.0			**Prepped:**	09/09/2015 09:55		
Source:								**Analyzed:**	09/09/2015 12:43		
Analyte		Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Nitrogen, Ammonia (As N)		ND	0.10	mg/L							
Sample ID:	LCS (B074774-BS1)			**Method:**	EPA 350.1 Rev 2.0			**Prepped:**	09/09/2015 09:55		
Source:								**Analyzed:**	09/09/2015 12:45		
Analyte		Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Nitrogen, Ammonia (As N)		4.09	0.10	mg/L	4.000		102	90-110			
Sample ID:	Matrix Spike (B074774-MS1)			**Method:**	EPA 350.1 Rev 2.0			**Prepped:**	09/09/2015 09:55		
Source:	15I0078-01							**Analyzed:**	09/09/2015 12:56		
Analyte		Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Nitrogen, Ammonia (As N)		3.84	0.10	mg/L	4.000	0.202	90.9	90-110			
Sample ID:	Matrix Spike (B074774-MS2)			**Method:**	EPA 350.1 Rev 2.0			**Prepped:**	09/09/2015 09:55		
Source:	15I0229-17							**Analyzed:**	09/09/2015 13:15		
Analyte		Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Nitrogen, Ammonia (As N)		4.27	0.10	mg/L	4.000	0.674	89.8	90-110			S
Sample ID:	Matrix Spike Dup (B074774-MSD1)			**Method:**	EPA 350.1 Rev 2.0			**Prepped:**	09/09/2015 09:55		
Source:	15I0078-01							**Analyzed:**	09/09/2015 12:58		
Analyte		Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Nitrogen, Ammonia (As N)		4.05	0.10	mg/L	4.000	0.202	96.1	90-110	5.26	20	
Sample ID:	Matrix Spike Dup (B074774-MSD2)			**Method:**	EPA 350.1 Rev 2.0			**Prepped:**	09/09/2015 09:55		
Source:	15I0229-17							**Analyzed:**	09/09/2015 13:17		
Analyte		Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Nitrogen, Ammonia (As N)		4.50	0.10	mg/L	4.000	0.674	95.6	90-110	5.25	20	

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PREPARATION BENCH SHEET

B074774

Microbac Laboratories, Inc. - Chicagoland

Printed: 9/9/2015 4:34:19PM

Matrix: Aqueous **Prepared Using: Aqueous Ammonia Distillation**

Lab Number	Analysis	Prepared	Initial mL	Final mL	Sur 1 uL	Sur 2 uL	Spike 1 ID	Spike 2 ID	Spike 1 uL	Spike 2 uL	Source ID
15I0078-01	NH4_350.1	9/9/2015 9:55:00AM	50.00	50.00							
B074774-BLK1	NH4_350.1	9/9/2015 9:55:00AM	50.00	50.00							
B074774-BS1	NH4_350.1	9/9/2015 9:55:00AM	50.00	50.00			0046760		200		
B074774-MS1	NH4_350.1	9/9/2015 9:55:00AM	50.00	50.00			0046760		200		15I0078-01
B074774-MS2	NH4_350.1	9/9/2015 9:55:00AM	50.00	50.00			0046760		200		15I0229-17
B074774-MSD1	NH4_350.1	9/9/2015 9:55:00AM	50.00	50.00			0046760		200		15I0078-01
B074774-MSD2	NH4_350.1	9/9/2015 9:55:00AM	50.00	50.00			0046760		200		15I0229-17

Admiralty
ENVIRONMENTAL

Admiralty Environmental
641 W. Willoughby Ave., Ste 301
Juneau, AK 99801 (907)
463-4415 fax (480) 247-4476

CHAIN OF CUSTODY/TRANSMITTAL RECORD
PAGE 1 OF 1

PROJECT NAME: **CBJ Wastewater**
Juneau Douglas Treatment Plant Permit # AK-002321-3

ADEC Compliance

AE 13506

REPORT TO: City and Borough of Juneau
E-mail: karen_sewell@ci.juneau.ak.us
jim_westcott@ci.juneau.ak.us

PHONE#: (907) 586-0393

ADDRESS: 2009 Radcliffe Road
Juneau, AK 99801

SAMPLED BY: J. WESTCOTT/L. VAUGHN

DATE	TIME	SITE DESCRIPTION/IDENTIFIER	MATRIX	# of Bottles	Fecal Coliform	Enterro. ~~fecal~~	Total Ammonia	Salinity	~~NH3~~	Field Results pH	Temp	D.O.
08/26/15	0615	J-D WTP Channel Grab	H_2O	1	X					8.01	11.1	10.91
08/26/15	0615	J-D WTP Channel Grab	H_2O	1		X						
08/26/15	0615	J-D WTP Channel Grab	H_2O	1			X		X			
08/26/15	0615	J-D WTP Channel Grab	H_2O	1				X				

Comments:
Taken in conjunction with composite samping

Relinquished by: (signature)	Relinquished by: (print)	Date:	Time:
	Harry Vaughn	8-26-15	0828
Recieved by: (signature)	Received by: (print)	Date:	Time:
	Hope O'Neill	8/26/15	0828
Relinquished by: (signature)	Relinquished by: (print)	Date:	Time:
Recieved by: (signature)	Received by: (print)	Date:	Time:

Section to be completed by receiving laboratory

Temp (°C)	5.33		
Thermo ID#	SR-1		
Condition of Custody seal	✓		
Initialed By	HO		
Shipped Via	—		

Sample Receipt:

	Yes /No
Bottles Intact	Y
Sufficient Sample Volume	Y
Labels Agree with COC	Y
Holding Time Met	Y
Problems	N

Admiralty Environmental
641 W. Willoughby Ave., Ste 301
Juneau, AK 99801 (907)
463-4415 fax (480) 247-4476

CHAIN OF CUSTODY/TRANSMITTAL RECORD
PAGE 1 OF 1

(W) Saltwater matrix

15I0078
Admiralty - Juneau, AK
CBJ Wastewater AE 13506
09/01/2015
Carey Gadzala

CBJ Wastewater
Juneau Douglas Treatment Plant Permit # AK-002321-3

ADEC Compliance

15I0078

AE 13506

City and Borough of Juneau
E-mail: karen_sewell@ci.juneau.ak.us
jim_westcott@ci.juneau.ak.us
2009 Radcliffe Road
Juneau, AK 99801

PHONE#: (907) 586-0393

SAMPLED BY: J. WESTCOTT/K. VAUGHN

	TIME	SITE DESCRIPTION /IDENTIFIER	MATRIX	# of Bottles	Total Ammonia	NH3	Field Results pH	Temp	D.O.	
08/26/15	0615	J-D WTP Channel Grab	H_2O	1			8.01	11.1	10.97	
08/26/15	0615	J-D WTP Channel Grab	H_2O	1						
08/26/15	0615	J-D WTP Channel Grab	H_2O	1	X	X				-01
08/26/15	0615	J-D WTP Channel Grab	H_2O	1	X					

Comments:
Taken in conjunction with composite samping

Relinquished by: (signature)	Relinquished by: (print)	Date:	Time:
	Larry Vaughn	8-26-15	0828
Received by: (signature)	Received by: (print)	Date:	Time:
	Hope O'Neill	8/26/15	0828
Relinquished by: (signature)	Relinquished by: (print)	Date:	Time:
	I FELSTEAD	8/31/15	0722
Received by: (signature)	Received by: (print)	Date:	Time:
	Nicole Rainwater	9-1-15	1022

Conditions for sample receipt by receiving laboratory

Temp (°C): 5.33 / -0.6

Thermo ID#: 8K1 / 1R

Condition of Custody seal: ✓ / ✓

Initialed By: KO / NR

Shipped Via: — / FedEx

Sample Receipt

	Yes /No
Bottles Intact:	Y
Sufficient Sample Volume:	Y
Labels Agree with COC:	Y
Holding Time Met:	Y
Problems:	N

-0.7
+0.1
-0.6 °C
01

MICROBAC

COOLER INSPECTION

Date: Wednesday, September 9, 2015

Client Name: Admiralty Environmental, LLC

Date/Time Received: 09/01/2015 10:22

Work Order Number: 15I0078

Received by: Nicole Rainwater

Checklist completed by: 9/1/2015 4:46:00PM | Nicole Rainwater

Reviewed by: 9/2/2015 | CAG

Carrier Name: FedEx

Cooler ID: Default Cooler

Container/Temp Blank Temperature: -0.6° C

After-Hour Arrival?	Yes	☐	No	☑		
Shipping container/cooler in good condition?	Yes	☑	No	☐	Not Present	☐
Custody seals intact on shipping container/cooler?	Yes	☑	No	☐	Not Present	☐
Custody seals intact on sample containers?	Yes	☐	No	☐	Not Present	☑
COC present?	Yes	☑	No	☐		
COC included sufficient client identification?	Yes	☑	No	☐		
COC included sufficient sample collector information?	Yes	☑	No	☐		
COC included a sample description?	Yes	☑	No	☐		
COC agrees with sample labels?	Yes	☑	No	☐		
COC identified the appropriate matrix?	Yes	☑	No	☐		
COC included date of collection?	Yes	☑	No	☐		
COC included time of collection?	Yes	☑	No	☐		
COC identified the appropriate number of containers?	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	☐		
If the samples are preserved, are the preservatives identified?	Yes	☑	No	☐		

If No, adjusted by? _____

COC included the requested analyses?	Yes	☑	No	☐		
COC signed when relinquished and received?	Yes	☑	No	☐		
Samples received on ice?	Yes	☑	No	☐		
Samples properly preserved?	Yes	☑	No	☐		
Voa vials for aqueous samples have zero headspace?	Yes	☐	No	☐	No VOA vials submitted	☑

Cooler Comments:

ANY "NO" EVALUATION (excluding After-Hour Receipt) REQUIRES CLIENT NOTIFICATION.

Sample ID	Client Sample ID	Comments
15I0078-01	J-D WTP channel Grab	