

Layne Report for the

Seminole Tribe of Florida

Public Works Water Plant Brighton Indian Reservation

Well Acidization of UFA-2

Sampling of UFA-1

Seminole Brighton WTP <u>UFA-2</u> Well Acidization

November 30, 2016, preconstruction and walk thru onsite at STOF.

On January 10th 2017, Layne cut 16" pipe and machined to fabricate adapters to fit the existing well casing for well headers.

On January 16th, Layne shop has acid header modified to fit 16" and made plan for pumping acid.

On January 18th Rental equipment delivery is set up, Layne equipment and material is gathered for job.

On January 19th, Layne crew checked test pump to be used and cleaned risers up, an adapter made to fit test pump to pipe made, crew checked fittings on acid header before loading on trailer to take to job site.

On January 20th, Layne crew onsite to take delivery of Baker poly tanks to store acid, tanks are set up in secondary containment.

On January 23rd, Layne Crew arrives onsite, frac tanks start arriving and start filling with water from well for use as chase water for acid. Xylem delivered pump for chase water, Layne acid tubing arrives on site.

On January 24th Layne crew arrives with light tower and scaffold, remaining frac tanks arrive and are hooked up and filled. Two frac tanks are set in secondary containment for venting acid if necessary.

On January 25th, Layne crew working on headers hooking tanks together. First tanker of acid arrives and is put into Baker poly tank for storage, two pallets of soda ash arrive and are set on plastic and wrapped..

On January 26th, Layne crew takes delivery of second tanker of acid.

Crew moved to well FA1 and went thru check list for setting the test pump.

The generator from Pensacola is bad, called to get rental generator.

On January 30th, Layne crew killed well FA2 and installed acid tubing, sealed well with acid header, then brought well back alive and had salt plug hauled off site.

The crew then moved and set test pump in well FA1 and lay out hoses for discharge.

On February 1st, Layne crew set up containment for cementer, cementer arrives on site, crew laid out hoses from well to cementer. Crew set anchors around well to tie down header. Crew tested hoses and fittings pumping water.

On February 2nd, Layne began acid operations at UFA-2. 8000 gallons of 32% inhibited acid was pumped in batches of 1000 and 2000 gallons at a rate between 50 and 80 gallons per minute with a 5000 gallon water flush between stages. Upon completion of the final acid batch, 10,000 gallons of water was flushed and the well was sealed in. Pressure was monitored over a 10 day period with pressures ranging between 8 and 9 psi each day.

On February 13th, post-acid development operations began. Discharge water and brackish acid byproducts from UFA-2 were stored in frac tanks and neutralized with soda ash and hauled to an off-site facility. On February 16th, well development operations continued. After exceeding the volume of acid and water pumped during acid operations, pH results determined that the step rate testing would be delayed and a change order was initiated.

On February 16^{th and 20th} (6) Tanker loads of post acid water were removed from the site. Loads are listed below. (Manifest are attached to this report)

February 16th Truck # T-21 6,550 gallons.

February 16th Truck # MT-23 6,550 gallons.

February 16th Truck # MT-12 6,250 gallons.

February 20th Truck # T-21 5,000 gallons.

February 20th Truck # MT-12 6,250 gallons.

February 20th Truck # MT-23 6,550 gallons.

UFA-1

2 Rate Well Sampling

On February 6th, the 5 consecutive day water sampling began on UFA-1. The well was pumped at 750 gpm for 2 hours and samples were collected by Florida Spectrum Environmental Services. The rate was increased to 1000 gpm and pumped for 2 hours and samples were collected again. This process was repeated daily during the week of 2/6 thru 2/10 as listed below:

February 6, Start pumping at 10:56 AM

February 7, Start pumping at 7:57 AM

February 8, Start pumping at 8:10 AM

February 9, Start pumping at 8:01AM

February 10, Start pumping at 8:06 AM

The water analysis reports are attached to this report. The reports are titled 2.6.17 to 2.10.17 Layne Christensen Brighton WTP- Well UFA-1

Work on site was put on hold from February 20th until April 17th while the STOF determined a solution for disposal of the high PH test water from the well UFA-1

<u>UFA-2</u>

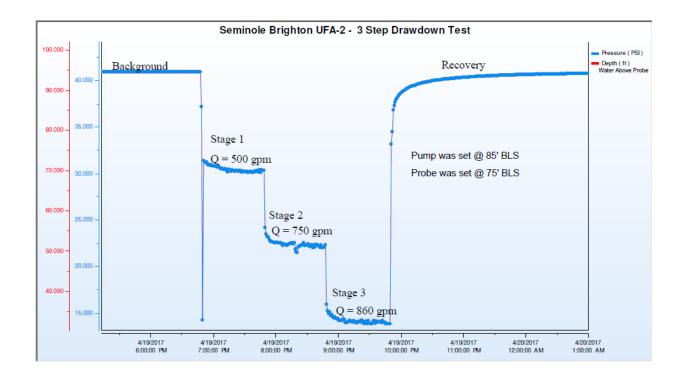
3 Step Drawdown Testing

On April 17th, operations resumed, Layne returned to UFA-2 and removed the acid tubing and installed the test pump in preparation for step test. Tubing trailer left site.

On April 18th Layne crew arrived onsite, offload pump and hose from Xylem, for pumping water from the tanks to the water plant. Rental generator from Sunbelt rentals arrived on site. Each tank was pumped into the next so a valve and header could be installed. The transducer was installed into the well.

On April 19th, Layne crew finished hooking tanks together, laid pipeline to where we can hook to STOF pipe. When STOF plant operator gave the word we hooked into STOF pipeline and laid hose at plant from pipe to pond and started empting tanks. After tanks were empty crew prepared for step rate test. As soon as test was over crew put pipeline back together so STOF could run the well.

UFA-2 was pumped at three separate, steady pumping rates of 60 minutes per step. The rates increased incrementally beginning at 500 gpm increased to 750 gpm and finishing with 860 gpm. The pump was set at a depth of 85' below land surface. A transducer was lowered to a depth of 75' below land surface. Background data was collected for approximately 24 hours prior to starting the pump testing. The drawdown data was collected during each step followed by approximately 36 hours of recovery data. The graph below illustrates the water levels during this activity.



On April 20th Layne crew arrived onsite to start demobilizing, breaking down hoses and headers. Sunbelt picked up rental generator.

On April 21st Layne crew pulled transducer from well, pulled test pump and secured the well. Loaded hoses, pipe, and light tower on Xylem truck. Clean up site.

On April 25th, Layne was onsite as frac tanks began getting picked up, portable toilet was picked up.

On April 26th, the last frac tank was picked up, Layne had a final walkthrough with Jason from STOF and Carlton from CH.

NON-HAZARDOUS WASTE MANIFEST

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and are in proper condition for transportation ac	cording to the applicable regulations of the Department of Transportation	on.			
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NON-HAZARDOUS WASTE MANIFEST

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3210 Whitten Rd		F. Facility's		J.
11. WASTE DESCRIPTION	FLR000034033	12. Containers	3-644-066	
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described on this manifest are not subject to federal hazardous waste regul and are in proper condition for transportation according to the applicable reg	ations. I also certify that the above named m pulations of the Department of Transportation	nateriais are properly cla n.	ssified, described, packaged	, marked and labeled,
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Page 1 of 5

Report Printed: 2/13/2017 **Work Order** # 17B0174

Project:

Brighton WTP - Well UFA-1

1125 BIA Hwy. 282, Brighton, FL

Lab ID: 17B0174-01

Client Sample ID: Well UFA-1 100% Flow Rate

Matrix: Wate

Total Hardness

Iron

Strontium

 Collection Date:
 02/06/17 14:25

 Received Date:
 02/06/17 18:25

 Collected By:
 Bevin Morris

Laboratory Analysis Report

Parameter	Result	QC	Units	Dil	MDL	PQL	Method	Date Ext.	Date Analy.	Analyst
Field Parameter (s)										
Specific Conductance (field)	1930		uS/cm	1	1	3	EPA 120.1	02/06 14:25	02/06 14:25	BM
pH (Field)	7.32		pH Units	1	0.100	0.300	SM4500-H+-B	02/06 14:25	02/06 14:25	BM
Temperature	27.6		°C	1	1.00	1.00	EPA 170.1	02/06 14:25	02/06 14:25	BM
Wet Chemistry										
Total Alkalinity (pH 4.5)	89.9		mg/L	1	2.00	6.00	EPA 310.2	02/08 17:22	02/08 17:22	SA
Ammonia as N	0.0668		mg/L	1	0.0140	0.0420	EPA 350.1	02/08 10:31	02/08 10:31	YBR
Nitrate as N	ND	U	mg/L	1	0.0870	0.260	EPA 300.0	02/07 18:12	02/07 18:12	DGK
Silica, Total (SiO2)	13.5		mg/L	1	0.0880	0.265	SM4500-SiO2 C	02/07 13:35	02/07 13:35	SA
Sulfide	2.47	J-3	mg/L	10	0.100	0.300	SM 4500-S D	02/10 16:30	02/10 16:30	LLC
Total Dissolved Solids	1080		mg/L	1	10.0	30.0	TDS SM 2540C	02/10 15:30	02/13 15:30	AR
Total Organic Carbon	0.775		mg/L	1	0.168	0.504	TOC SM 5310C	02/08 14:47	02/08 15:12	SA
Total Suspended Solids	18.0		mg/L	1	1.00	3.00	TSS SM 2540D	02/09 17:00	02/10 13:00	AR

Florida-Spectrum Environmental Services, Inc. 1460 W. McNab Road, Fort Lauderdale, FL 33309

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0.0105

0.00600

0.0315

Pembroke Laboratory 528 Gooch Rd. Fort Mead, FL 33841

427

23.9

0.0212

Big Lake Laboratory 610 Parrot Ave. N. Okeechobee, FL 34972

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mg/L

mg/L

mg/L

Spectrum Laboratories 630 Indian St. Savannah, GA 31401

EPA 200.7 Calc

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02/07 14:00

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02/08 09:02

02/07 19:10

02/08 09:02

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MAZ





Page 2 of 5

Report Printed: 2/13/2017 Work Order# 17B0174

Project:

Brighton WTP - Well UFA-1

1125 BIA Hwy. 282, Brighton, FL

Lab ID: 17B0174-02

Well UFA-1 100% Flow Rate Duplica

Matrix: Water

Client Sample ID:

Collection Date: 02/06/17 14:25 **Received Date:** 02/06/17 18:25 Collected By: Bevin Morris

Laboratory Analysis Report

			Lab	oratory	Alialysis K	ерогі				
Parameter	Result	QC	Units	Dil	MDL	PQL	Method	Date Ext.	Date Analy.	Analyst
Field Parameter (s)										
Specific Conductance (field)	1933		uS/cm	1	1	3	EPA 120.1	02/06 14:25	02/06 14:25	BM
pH (Field)	7.31		pH Units	1	0.100	0.300	SM4500-H+-B	02/06 14:25	02/06 14:25	BM
Temperature	27.5		°C	1	1.00	1.00	EPA 170.1	02/06 14:25	02/06 14:25	BM
Wet Chemistry										
Total Alkalinity (pH 4.5)	91.1		mg/L	1	2.00	6.00	EPA 310.2	02/08 17:22	02/08 17:22	SA
Ammonia as N	0.0696		mg/L	1	0.0140	0.0420	EPA 350.1	02/08 10:31	02/08 10:31	YBR
Nitrate as N	ND	U	mg/L	1	0.0870	0.260	EPA 300.0	02/07 18:12	02/07 18:12	DGK
Silica, Total (SiO2)	14.2		mg/L	1	0.0880	0.265	SM4500-SiO2 C	02/07 13:35	02/07 13:35	SA
Sulfide	3.04		mg/L	10	0.100	0.300	SM 4500-S D	02/10 16:30	02/10 16:30	LLC
Total Dissolved Solids	1100		mg/L	1	10.0	30.0	TDS SM 2540C	02/10 15:30	02/13 15:30	AR
Total Organic Carbon	0.765		mg/L	1	0.168	0.504	TOC SM 5310C	02/08 14:47	02/08 15:21	SA
Total Suspended Solids	1.00	I	mg/L	1	1.00	3.00	TSS SM 2540D	02/09 17:00	02/10 13:00	AR
Total Recoverable Metals by	EPA 200 Ser	ies Metl	hods							
T + 1 II - 1	100	Т	/7	1			ED4 200 7 C 1	1 02/07 14 00	02/08 00:06	

Total Hardness	423	mg/L	1			EPA 200.7 Calc	02/07 14:00	02/08 09:06	MAZ
Iron	0.0213	mg/L	1	0.00200	0.00600	EPA 200.7	02/07 14:00	02/07 19:14	MAZ
Strontium	23.8	mg/L	50	0.0105	0.0315	EPA 200.7	02/07 14:00	02/08 09:06	MAZ

Florida-Spectrum Environmental Services, Inc. 1460 W. McNab Road, Fort Lauderdale, FL 33309

Pembroke Laboratory 528 Gooch Rd. Fort Mead, FL 33841

Big Lake Laboratory 610 Parrot Ave. N. Okeechobee, FL 34972





Page 3 of 5

 Report Printed:
 2/13/2017

 Work Order #
 17B0174

Project:

Brighton WTP - Well UFA-1

1125 BIA Hwy. 282, Brighton, FL

Lab ID: 17B0174-03

Matrix:

Client Sample ID: Well UFA-1 125% Flow Rate

Water

 Collection Date:
 02/06/17 16:18

 Received Date:
 02/06/17 18:25

 Collected By:
 Bevin Morris

Laboratory Analysis Report

Parameter	Result	QC	Units	Dil	MDL	PQL	Method	Date Ext.	Date Analy.	Analyst
Field Parameter (s)										
Specific Conductance (field)	1929		uS/cm	1	1	3	EPA 120.1	02/06 16:18	02/06 16:18	BM
pH (Field)	7.63		pH Units	1	0.100	0.300	SM4500-H+-B	02/06 16:18	02/06 16:18	BM
Temperature	28.2		°C	1	1.00	1.00	EPA 170.1	02/06 16:18	02/06 16:18	BM
Wet Chemistry										
Sulfide	2.98		mg/L	10	0.100	0.300	SM 4500-S D	02/10 16:30	02/10 16:30	LLC
Total Suspended Solids	3.60		mg/L	1	1.00	3.00	TSS SM 2540D	02/09 17:00	02/10 13:00	AR

Florida-Spectrum Environmental Services, Inc. 1460 W. McNab Road, Fort Lauderdale, FL 33309





Page 4 of 5

Report Printed: 2/13/2017 **Work Order #** 17B0174

Project:

Brighton WTP - Well UFA-1

1125 BIA Hwy. 282, Brighton, FL

Lab ID: 17B0174-04

Matrix:

Client Sample ID: Well UFA-1 125% Flow Rate Duplica

Water

 Collection Date:
 02/06/17 16:18

 Received Date:
 02/06/17 18:25

 Collected By:
 Bevin Morris

Laboratory Analysis Report

Parameter	Result	QC	Units	Dil	MDL	PQL	Method	Date Ext.	Date Analy.	Analyst
Field Parameter (s)										
Specific Conductance (field)	1931		uS/cm	1	1	3	EPA 120.1	02/06 16:18	02/06 16:18	BM
pH (Field)	7.79		pH Units	1	0.100	0.300	SM4500-H+-B	02/06 16:18	02/06 16:18	BM
Temperature	27.4		°C	1	1.00	1.00	EPA 170.1	02/06 16:18	02/06 16:18	BM
Wet Chemistry										
Sulfide	3.00		mg/L	10	0.100	0.300	SM 4500-S D	02/10 16:30	02/10 16:30	LLC
Total Suspended Solids	3.40		mg/L	1	1.00	3.00	TSS SM 2540D	02/09 17:00	02/10 13:00	AR

Florida-Spectrum Environmental Services, Inc. 1460 W. McNab Road, Fort Lauderdale, FL 33309





Page 5 of 5

Report Printed: 2/13/2017 **Work Order #** 17B0174

Project:

Brighton WTP - Well UFA-1

1125 BIA Hwy. 282, Brighton, FL

Notes and Definitions

U Indicated that the compound was analyzed for but not detected. This shall be used to indicate that the specific component was not

detected. The value associated with the qualifier shall be the laboratory method detection limit.

J-3 The matrix spike recovery exceeded method acceptance limits indicating matrix interference.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the detection limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

V Indicated that the analyte was detected in both the sample and the associated method blank.

I The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

Z Too many colonies were present for accurate counting.

QC=Qualifier Codes as defined by DEP 62-160
Unless indicated, soil results are reported on actual (wet) weight basis.
Work performed by outside (subcontracted) labs denoted by SUB in Analyst Field.

Results relate only to this sample.

Suresh (Bobby) Supan - CSM

Authorized CSM Signature (954) 978-6400 Florida-Spectrum Environmental Services, Inc. Certification# E86006

All NELAP certified analysis are performed in accordance with Chapter 64E-1 Florida Administrative code, which has been determined to be equivalent to NELAC standards. Analysis certified by programs other than NELAP are designated with a "~".

Florida-Spectrum Environmental Services, Inc. 1460 W. McNab Road, Fort Lauderdale, FL 33309

Pembroke Laboratory 528 Gooch Rd. Fort Mead, FL 33841 Big Lake Laboratory 610 Parrot Ave. N. Okeechobee, FL 34972

DUE DATE Requested	RUSH RESERVATION#	Rush Surcharges apply				Email: cibrugger@laynechristensen.com		Meld Tests	RUIT RUITIONS	X = 732 276 1930	X 7.51225 1933	763 282 1929	186 5tz 6tż		3/ 5/	(80, 7, 10%)				COC Page / of /	
	Fax: (954) 978-2233 Fax: (863) 638-3637 Fax (912) 234-4815	Fax (863) 283-7030 Pink- Sampler Copy	ers, FL 33905	ers, FL 33905	on . FL			s Required	Hardness	×	×			SAMPLE CUSTODY AND TRANSFER SIGNATURES 1 Relinquished by:							And the second s
RECORD	•	Fi	Report to Address: 5061 Luckett Road, Fort Myers, FL 33905	Invoice to Address: 5061 Luckett Road, Fort Myers,	VY 282. Brighton		A	Analysis	IsioT YinilsiIA norl	×	×			E CUSTODY AND THE	Received by:	Relinquished by:	Received by:	Relinquished by:	Received by:	www.flenviro.com	
	Tel: (954) 978-6400 Tel: (863) 638-3255 Tel: (912) 238-5050 Tel: (963) 385 9145	File Copy	1 Luckett	1 Luckett	25 BIA HV				LeioT shilin2 S2T	×	× ×	×	×	SAMPLE C 1 Reli	1 Rece	2 Reli	2 Rece	3 Relii	3 Rece	WW	
OF CUSTODY	L 33309 327	Tellow- Lab File Copy	Report to Address: 506	Invoice to Address: 506	Site Location: 1125 BIA HWY 282	Fax:	Sampler Signature:	Number of Containers	Received & NELAC Letter Suffixes # A-?	Ź	1527	2	7	Total	(additional charge)		P.H.PO.	S-H;SO; T-Na;S;O;-H;O	U-Unpreserved P-H;PO	Z-zinc acetate	
CHAIN (1460 W McNab Road Ft Lauderdale FL 33309 940 Alt. 27 South Babson Park, FL 33827 630 Indian Street Savannah, GA 31401	528 Gooch Road Fort Meade FL 33841 Original-Return w/report	·			.275.1025		ς Bottle		13/3		24072	٦)		No (addi	Precervatives					
	Nab Road F South Babs street Savan	28 Gooch Road Fort Meade Original-Return w/report				Phone: 239.275.1029/239		Matrix	DW SW GW SED S EFF HW BIO SA OIL X	<u>GW</u>	/ GW	ΘM	MS .	maranda paranamenta de maranda de	? Yes		A-ascor	Cu-Cuso.	H-HINO3 M-MCAB	N-NaOH NH,-NH,CL	
	460 W Mc] 40 Alt. 27 3 30 Indian S	28 Gooch I Original-1		Purchase Order#	Marylin galance de la circa della circa de la circa della circa de	: 239.275.		Time Sampled	٠.	74:26	3 8:h/	81:91	81:91		oort Needed		O-125ml Amber	Plastic Liter	G-Gallon		
			any	any		Phone	B	Date Sampled		0000	4900	906m	tr 99-00		QA/QC Report Needed?		o/hottle H-	le le		outh	
1	Florida Spectrum Extramental Services, Ita.		Report to: Layne Christensen Company	Invoice to: Layne Christensen Company	n WTP - Well UFA-1		Salus Mone	e e	A	Well UFA-1 100% Flow Rate	Well UFA-1 100% Flow Rate Duplicate	Well UFA-1 125% Flow Rate	Well UFA-1 125% Flow Rate- Duplicate	(sign here) >		Comments Rottle Tyne	C A-liter amber	N F-500 ml L-liter bottle	_ brs	V-40 ml vial W-wide mouth X-other	
SUBMISSION#	Logged into	LIMS by:	Report to: Layne Ch	Invoice to: Layne Ch	Project Name and/or Number: Brighton WTP - Well UFA-1	Project Mgr: Craig Brugger	Sampler Name: (printed)	ORDER#	Lab Control Number Shaded Areas For Laboratory Use Only	1 61	2	3 03	40	Special Comments: I waive NELAC protocol" (sign here) >	Deliverables:	Sample Custody & Field Comments	Temp as received	Custody Seals? Y	Billable Field Time6	C. Charges	6 of





Page 1 of 5

Report Printed: 2/15/2017 Work Order# 17B0216

Project:

Brighton WTP - Well UFA-1

1125 BIA Hwy. 282, Brighton, FL

Lab ID: 17B0216-01 **Client Sample ID:**

Well UFA-1 100% Flow Rate

Matrix:

Collection Date: 02/07/17 10:55 **Received Date:** 02/07/17 17:15 Collected By: Bevin Morris

Laboratory Analysis Report

Parameter	Result	QC	Units	Dil	MDL	PQL	Method	Date Ext.	Date Analy.	Analyst
Field Parameter (s)										
Specific Conductance (field)	2029		uS/cm	1	1	3	EPA 120.1	02/07 10:55	02/07 10:55	BM
pH (Field)	7.61		pH Units	1	0.100	0.300	SM4500-H+-B	02/07 10:55	02/07 10:55	BM
sulfide (field)	0.390		mg/L	1	0.0100	0.0300	SM 4500-S D	02/07 10:55	02/07 10:55	BM
Temperature (field)	27.4		°C	1	1.00	1.00	EPA 170.1	02/07 10:55	02/07 10:55	BM
Wet Chemistry				•	-		-			
		1 1	~	1			<u> </u>	T	T	

Total Alkalinity (pH 4.5)	90.6		mg/L	1	2.00	6.00	EPA 310.2	02/08 17:22	02/08 17:22	SA
Ammonia as N	0.0795	J-3	mg/L	1	0.0140	0.0420	EPA 350.1	02/08 10:31	02/08 10:31	YBR
Nitrate as N	ND	U	mg/L	1	0.0870	0.260	EPA 300.0	02/08 17:42	02/08 17:42	DGK
Silica, Total (SiO2)	13.4		mg/L	1	0.0880	0.265	SM4500-SiO2 C	02/14 12:30	02/14 12:30	SA
Sulfide	3.13		mg/L	10	0.100	0.300	SM 4500-S D	02/10 16:30	02/10 16:30	LLC
Total Dissolved Solids	1140		mg/L	1	10.0	30.0	TDS SM 2540C	02/10 15:30	02/13 15:30	AR
Total Organic Carbon	0.671		mg/L	1	0.168	0.504	TOC SM 5310C	02/08 14:47	02/08 17:16	SA
Total Suspended Solids	ND	U	mg/L	1	1.00	3.00	TSS SM 2540D	02/10 13:30	02/13 11:00	AR

Total Recoverable Metals by EPA 200 Series Methods

Total Hardness	9.04	mg/L	1			EPA 200.7 Calc	02/08 17:30	02/08 19:10	MAZ
Iron	0.0610	mg/L	1	0.00200	0.00600	EPA 200.7	02/08 17:30	02/08 19:18	MAZ
Strontium	23.4	mg/L	50	0.0105	0.0315	EPA 200.7	02/08 17:30	02/08 19:10	MAZ

Florida-Spectrum Environmental Services, Inc. 1460 W. McNab Road, Fort Lauderdale, FL 33309

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Big Lake Laboratory 610 Parrot Ave. N. Okeechobee, FL 34972





Page 2 of 5

Report Printed: 2/15/2017 **Work Order #** 17B0216

Project:

Brighton WTP - Well UFA-1

1125 BIA Hwy. 282, Brighton, FL

Lab ID: 17B0216-02

Well UFA-1 100% Flow Rate Duplica

Matrix: Water

Client Sample ID:

Total Suspended Solids

 Collection Date:
 02/07/17 10:55

 Received Date:
 02/07/17 17:15

 Collected By:
 Bevin Morris

Laboratory Analysis Report

			Labo	ratory	Analysis Re	eport				
Parameter	Result	QC	Units	Dil	MDL	PQL	Method	Date Ext.	Date Analy.	Analyst
Field Parameter (s)										
Specific Conductance (field)	2037		uS/cm	1	1	3	EPA 120.1	02/07 10:55	02/07 10:55	BM
pH (Field)	7.80		pH Units	1	0.100	0.300	SM4500-H+-B	02/07 10:55	02/07 10:55	BM
Temperature (field)	27.3		°C	1	1.00	1.00	EPA 170.1	02/07 10:55	02/07 10:55	BM
Wet Chemistry										
Total Alkalinity (pH 4.5)	90.4		mg/L	1	2.00	6.00	EPA 310.2	02/08 17:22	02/08 17:22	SA
Ammonia as N	0.0665		mg/L	1	0.0140	0.0420	EPA 350.1	02/08 10:31	02/08 10:31	YBR
Nitrate as N	ND	U	mg/L	1	0.0870	0.260	EPA 300.0	02/08 17:42	02/08 17:42	DGK
Silica, Total (SiO2)	13.5		mg/L	1	0.0880	0.265	SM4500-SiO2 C	02/14 12:30	02/14 12:30	SA
Sulfide	3.31		mg/L	10	0.100	0.300	SM 4500-S D	02/10 16:30	02/10 16:30	LLC
Total Dissolved Solids	1110		mg/L	1	10.0	30.0	TDS SM 2540C	02/10 15:30	02/13 15:30	AR
Total Organic Carbon	0.696		mg/L	1	0.168	0.504	TOC SM 5310C	02/08 14:47	02/08 17:25	SA

Total Recoverable Metals by EPA 200 Series Methods

ND

Total Hardness	8.68	mg/L	1			EPA 200.7 Calc	02/08 17:30	02/08 19:14	MAZ
Iron	0.0240	mg/L	1	0.00200	0.00600	EPA 200.7	02/08 17:30	02/08 19:22	MAZ
Strontium	22.2	mg/L	50	0.0105	0.0315	EPA 200.7	02/08 17:30	02/08 19:14	MAZ

mg/L

U

1.00

3.00

TSS SM 2540D

02/10 13:30

02/13 11:00

AR

Florida-Spectrum Environmental Services, Inc. 1460 W. McNab Road, Fort Lauderdale, FL 33309

Pembroke Laboratory 528 Gooch Rd. Fort Mead, FL 33841 Big Lake Laboratory 610 Parrot Ave. N. Okeechobee, FL 34972





Page 3 of 5

 Report Printed:
 2/15/2017

 Work Order #
 17B0216

Project:

Brighton WTP - Well UFA-1

1125 BIA Hwy. 282, Brighton, FL

02/10 13:30

02/13 11:00

AR

Lab ID: 17B0216-03

Client Sample ID: Well UFA-1 125% Flow Rate

1.50

Matrix: Water

Total Suspended Solids

Collection Date: 02/07/17 13:00 **Received Date:** 02/07/17 17:15

Collected By: Bevin Morris

TSS SM 2540D

Laboratory Analysis Report

Parameter	Result	QC	Units	Dil	MDL	PQL	Method	Date Ext.	Date Analy.	Analyst
Field Parameter (s)										
Specific Conductance (field)	1924		uS/cm	1	1	3	EPA 120.1	02/07 13:00	02/07 13:00	BM
pH (Field)	7.54		pH Units	1	0.100	0.300	SM4500-H+-B	02/07 13:00	02/07 13:00	BM
sulfide (field)	1.85		mg/L	1	0.0100	0.0300	SM 4500-S D	02/07 13:00	02/07 13:00	BM
Temperature (field)	28.1		°C	1	1.00	1.00	EPA 170.1	02/07 13:00	02/07 13:00	BM
Wet Chemistry										
Sulfide	3.42		mg/L	10	0.100	0.300	SM 4500-S D	02/10 16:30	02/10 16:30	LLC

1.00

3.00

mg/L

Florida-Spectrum Environmental Services, Inc. 1460 W. McNab Road, Fort Lauderdale, FL 33309





Page 4 of 5

Report Printed: 2/15/2017 **Work Order #** 17B0216

Project:

Brighton WTP - Well UFA-1

1125 BIA Hwy. 282, Brighton, FL

02/10 13:30

02/13 11:00

AR

Lab ID: 17B0216-04

Well UFA-1 125% Flow Rate Duplica

Matrix: Water

Client Sample ID:

Total Suspended Solids

Collection Date: 02/07/17 13:00 **Received Date:** 02/07/17 17:15

Collected By: Bevin Morris

TSS SM 2540D

Laboratory Analysis Report

Parameter	Result	QC	Units	Dil	MDL	PQL	Method	Date Ext.	Date Analy.	Analyst
Field Parameter (s)										
Specific Conductance (field)	1928		uS/cm	1	1	3	EPA 120.1	02/07 13:00	02/07 13:00	BM
pH (Field)	7.84		pH Units	1	0.100	0.300	SM4500-H+-B	02/07 13:00	02/07 13:00	BM
sulfide (field)	1.98		mg/L	1	0.0100	0.0300	SM 4500-S D	02/07 13:00	02/07 13:00	BM
Temperature (field)	28.3		°C	1	1.00	1.00	EPA 170.1	02/07 13:00	02/07 13:00	BM
Wet Chemistry										
Sulfide	3.36		mg/L	10	0.100	0.300	SM 4500-S D	02/10 16:30	02/10 16:30	LLC

1.00

3.00

mg/L

Florida-Spectrum Environmental Services, Inc. 1460 W. McNab Road, Fort Lauderdale, FL 33309

ND





Page 5 of 5

Report Printed: 2/15/2017 **Work Order #** 17B0216

Project:

Brighton WTP - Well UFA-1

1125 BIA Hwy. 282, Brighton, FL

Notes and Definitions

U Indicated that the compound was analyzed for but not detected. This shall be used to indicate that the specific component was not

detected. The value associated with the qualifier shall be the laboratory method detection limit.

J-3 The matrix spike recovery exceeded method acceptance limits indicating matrix interference.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the detection limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

V Indicated that the analyte was detected in both the sample and the associated method blank.

I The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

Z Too many colonies were present for accurate counting.

QC=Qualifier Codes as defined by DEP 62-160
Unless indicated, soil results are reported on actual (wet) weight basis.
Work performed by outside (subcontracted) labs denoted by SUB in Analyst Field.

Results relate only to this sample.

Suresh (Bobby) Supan - CSM

Authorized CSM Signature (954) 978-6400 Florida-Spectrum Environmental Services, Inc. Certification# E86006

All NELAP certified analysis are performed in accordance with Chapter 64E-1 Florida Administrative code, which has been determined to be equivalent to NELAC standards. Analysis certified by programs other than NELAP are designated with a "~".

Florida-Spectrum Environmental Services, Inc. 1460 W. McNab Road, Fort Lauderdale, FL 33309

Pembroke Laboratory 528 Gooch Rd. Fort Mead, FL 33841 Big Lake Laboratory 610 Parrot Ave. N. Okeechobee, FL 34972

DUE DATE Requested	RUSH RESERVATION#	Rush Surcharges apply				The first of the f	Email: cibrugger@laynechristensen.com			SCIT muthnowale	X 0.39 76/27:42029	X	1.85 354 28.1 1924	2761 E3868 £ 361	DATE/TI	2/7/7 17					COC Page of /
	Fax: (954) 978-2233 Fax: (863) 638-3637 Fax (912) 234-4815	Fax (863) 285-7030 Pink- Samuler Conv		: Myers, FL 33905	Myers, FL 33905	ighton . FL	\vdash		lysis Required	Trotal Total Hardness Ammonia Silica Nitrate TOC	×	×			SAMPLE CUSTODY AND TRANSFER SIGNATURES 1 Relinquished by:		7				
CHAIN OF CUSTODY RECORD	Tel: (954) 978-6400 Tel: (863) 638-3255 Tel: (912) 238-5050	Tel: (863) 285-8145 File Conv		Address: 5061 Luckett Road, Fort Myers, FL 33905	Invoice to Address: 5061 Luckett Road, Fort Myers, FL 33905	Site Location: 1125 BIA HWY 282 . Brighton . FL			Analy	Total Sulfide TSS Total Alkalinity	×	×	×	×	SAMPLE CUSTODY AN 1 Relinquished by:	1 Received by:	2 Relinquished by:	2 Received by:	3 Relinquished by:	3 Received by:	www.flenviro.com
N OF CUST	33309	Vellow-Lab	Report to	Address: 5061	Invoice to Address: 5061	Site Location: 112		Sampler Signature:		Solffixes	7 770	7	- A	4	Total	(additional charge)	office	P-H;PO	S-H ₂ SO ₄ T-Na ₂ S ₂ O ₇ -H ₂ O	U-Unpreserved P-H ₃ PO ₄	Z-zinc acetate
CHAD	1460 W McNab Road Ft Lauderdale FL 3 940 Alt. 27 South Babson Park, FL 33827 630 Indian Street Savannah, GA 31401	528 Gooch Road Fort Meade FL 33841 Original-Return w/report				n de la constantina del constantina de la constantina del constantina de la constant	Phone: 239.275.1029/239.275.1025			S EFF Combo SA OIL X X X S EFF Combo Codes SA OIL X X S S S S S S S S S S S S S S S S S S	GW CLU	GW .	7 7 M5	GW		Yes No	Decemention	A-ascorbic acid	Cu-Cuso,	H-EINO3 M-MCAB	N-NaOH NHL-NHLCL
	1460 W McNab Road940 Alt. 27 South Bab630 Indian Street Sava	☐ 528 Gooch Road Fort. Original-Return w/	G	-	Purchase Order#	makeri provincia de de descripción de de del de descripción de de de descripción de	Phone: 239.275.1	R	Date Time Sampled Sampled		72:01 F-50.5T	03-07-17 10: St	-OF-17 13:00	00:81 42:00	e.	QA/QC Report Needed?		O-125ml ottle H-Amber	Plastic Liter	G-Gallon	
	Spectrum Evitamenti Service. Inc.		stensen Company	رم	stensen Company	VTP - Well UFA-1		Will Koly	Sample San	3	Well UFA-1 100% Flow Rate	Well UFA-1 100% Flow Rate 03-4 Duplicate	Rate OF	Well UFA-1 125% Flow Rate-	m here) >	OA.	<u>ments</u>	C A-liter amber O-125ml B-Bacteria bag/bottle H- Amber	F-500-ml L-liter bottle		V-40 ml vial W-wide mouth X-other
*NOISSIMBS	1762/L Tagged into	LIMS.by:	Report to: Layne Christensen Company		Invoice to: Layne Christensen Company	Project Name and/or Number: Brighton WTP - Well UFA-1	Project Mgr: Craig Brugger	Sampler Name:	ORDER # Lab Control Number	Shaded Areas For Laboratory Use Only	1 We	2 OS 100 Du	3 We 125	/ We 12:	Special Comments: I waive NELAC protocol" (sign here) >	Deliverables:	Sample Custody & Field Comments	Temp as received	Custody Seals? Y N	Billable Field Time 6_hrs	isc. Charges





Page 1 of 5

 Report Printed:
 2/15/2017

 Work Order #
 17B0272

Project:

Brighton WTP - Well UFA-1

1125 BIA Hwy. 282, Brighton, FL

Lab ID: 17B0272-01

Well UFA-1 100% Flow Rate

Matrix: Wate

Client Sample ID:

Silica, Total (SiO2)

Total Dissolved Solids

Total Organic Carbon

Total Suspended Solids

Sulfide

 Collection Date:
 02/08/17 10:25

 Received Date:
 02/08/17 17:00

 Collected By:
 Bevin Morris

SM4500-SiO2 C

SM 4500-S D

TDS SM 2540C

TOC SM 5310C

TSS SM 2540D

02/14 12:30

02/10 16:30

02/10 15:30

02/13 13:52

02/10 13:30

02/14 12:30

02/10 16:30

02/13 15:30

02/13 14:17

02/13 11:00

SA

LLC

AR

SA

AR

Laboratory Analysis Report

Parameter	Result	QC	Units	Dil	MDL	PQL	Method	Date Ext.	Date Analy.	Analyst
Field Parameter (s)										
Specific Conductance (field)	1924		uS/cm	1	1	3	EPA 120.1	02/08 10:25	02/08 10:25	ROL
pH (Field)	6.45		pH Units	1	0.100	0.300	SM4500-H+-B	02/08 10:25	02/08 10:25	ROL
sulfide (field)	1.65		mg/L	1	0.0100	0.0300	SM 4500-S D	02/08 10:25	02/08 10:25	BM
Temperature (field)	27.4		°C	1	1.00	1.00	EPA 170.1	02/08 10:25	02/08 10:25	BM
Wet Chemistry										
Total Alkalinity (pH 4.5)	83.4		mg/L	1	2.00	6.00	EPA 310.2	02/10 14:52	02/10 14:52	SA
Ammonia as N	0.0976		mg/L	1	0.0140	0.0420	EPA 350.1	02/13 12:11	02/13 12:11	YBR
Nitrate as N	ND	U	mg/L	1	0.0870	0.260	EPA 300.0	02/09 19:54	02/09 19:54	DGK
		_		_		•		-		_

0.0880

0.100

10.0

0.168

1.00

1

10

1

1

0.265

0.300

30.0

0.504

3.00

mg/L

mg/L

mg/L

mg/L

mg/L

Total Recoverable Metals by EPA 200 Series Methods

13.1

3.23

1140

0.747

ND

Total Hardness	423	mg/L	1			EPA 200.7 Calc	02/10 08:00	02/10 12:59	MAZ
Iron	0.0190	mg/L	1	0.00200	0.00600	EPA 200.7	02/10 08:00	02/10 12:27	MAZ
Strontium	22.8	mg/L	50	0.0105	0.0315	EPA 200.7	02/10 08:00	02/10 12:59	MAZ

Florida-Spectrum Environmental Services, Inc. 1460 W. McNab Road, Fort Lauderdale, FL 33309

Pembroke Laboratory 528 Gooch Rd. Fort Mead, FL 33841 Big Lake Laboratory 610 Parrot Ave. N. Okeechobee, FL 34972





Page 2 of 5

Report Printed: 2/15/2017 **Work Order #** 17B0272

Project:

Brighton WTP - Well UFA-1

1125 BIA Hwy. 282, Brighton, FL

Lab ID: 17B0272-02

Client Sample ID:

Matrix:

Strontium

Well UFA-1 100% Flow Rate Duplica

Water

 Collection Date:
 02/08/17 10:25

 Received Date:
 02/08/17 17:00

Collected By: Bevin Morris

Laboratory Analysis Report

Parameter	Result	QC	Units	Dil	MDL	PQL	Method	Date Ext.	Date Analy.	Analyst
Field Parameter (s)										
Specific Conductance (field)	1931		uS/cm	1	1	3	EPA 120.1	02/08 10:25	02/08 10:25	ROL
pH (Field)	7.14		pH Units	1	0.100	0.300	SM4500-H+-B	02/08 10:25	02/08 10:25	ROL
sulfide (field)	1.77		mg/L	1	0.0100	0.0300	SM 4500-S D	02/08 10:25	02/08 10:25	BM
Temperature (field)	27.9		°C	1	1.00	1.00	EPA 170.1	02/08 10:25	02/08 10:25	BM
Wet Chemistry										
Total Alkalinity (pH 4.5)	84.6		mg/L	1	2.00	6.00	EPA 310.2	02/10 14:52	02/10 14:52	SA
Ammonia as N	0.0837		mg/L	1	0.0140	0.0420	EPA 350.1	02/13 12:11	02/13 12:11	YBR
Nitrate as N	ND	U	mg/L	1	0.0870	0.260	EPA 300.0	02/09 19:54	02/09 19:54	DGK
Silica, Total (SiO2)	13.2		mg/L	1	0.0880	0.265	SM4500-SiO2 C	02/14 12:30	02/14 12:30	SA
Sulfide	3.18		mg/L	10	0.100	0.300	SM 4500-S D	02/10 16:30	02/10 16:30	LLC
Total Dissolved Solids	1140		mg/L	1	10.0	30.0	TDS SM 2540C	02/10 15:30	02/13 15:30	AR
Total Organic Carbon	0.747		mg/L	1	0.168	0.504	TOC SM 5310C	02/13 13:52	02/13 14:26	SA
Total Suspended Solids	ND	U	mg/L	1	1.00	3.00	TSS SM 2540D	02/10 13:30	02/13 11:00	AR
Total Recoverable Metals by	EPA 200 Ser	ies Meth	ods	-			-			
Total Hardness	431		mg/L	1			EPA 200.7 Calc	02/10 08:00	02/10 13:02	MAZ
Iron	0.0190		mg/L	1	0.00200	0.00600	EPA 200.7	02/10 08:00	02/10 12:31	MAZ

Florida-Spectrum Environmental Services, Inc. 1460 W. McNab Road, Fort Lauderdale, FL 33309

0.0105

0.0315

Pembroke Laboratory 528 Gooch Rd. Fort Mead, FL 33841

23.3

Big Lake Laboratory 610 Parrot Ave. N. Okeechobee, FL 34972

mg/L

Spectrum Laboratories 630 Indian St. Savannah, GA 31401

EPA 200.7

02/10 08:00

02/10 13:02

MAZ





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 Report Printed:
 2/15/2017

 Work Order #
 17B0272

Project:

Brighton WTP - Well UFA-1

1125 BIA Hwy. 282, Brighton, FL

Lab ID: 17B0272-03

Well UFA-1 125% Flow Rate

Matrix: Water

Client Sample ID:

Collection Date: 02/08/17 12:35 **Received Date:** 02/08/17 17:00

Collected By: Bevin Morris

Laboratory Analysis Report

Parameter	Result	QC	Units	Dil	MDL	PQL	Method	Date Ext.	Date Analy.	Analyst
Field Parameter (s)										
Specific Conductance (field)	1917	1	uS/cm	1	1	3	EPA 120.1	02/08 12:35	02/08 12:35	ROL
pH (Field)	7.85		pH Units	1	0.100	0.300	SM4500-H+-B	02/08 12:35	02/08 12:35	ROL
sulfide (field)	1.90		mg/L	1	0.0100	0.0300	SM 4500-S D	02/08 12:35	02/08 12:35	BM
Temperature (field)	28.6		°C	1	1.00	1.00	EPA 170.1	02/08 12:35	02/08 12:35	BM
Wet Chemistry	•	•		•					•	
Sulfide	3.22		mg/L	10	0.100	0.300	SM 4500-S D	02/10 16:30	02/10 16:30	LLC
Total Suspended Solids	3 50		mg/L	1	1.00	3.00	TSS SM 2540D	02/10 13:30	02/13 11:00	AR

Florida-Spectrum Environmental Services, Inc. 1460 W. McNab Road, Fort Lauderdale, FL 33309





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 Report Printed:
 2/15/2017

 Work Order #
 17B0272

Project:

Brighton WTP - Well UFA-1

1125 BIA Hwy. 282, Brighton, FL

Lab ID: 17B0272-04

Client Sample ID:

Total Suspended Solids

Matrix:

Well UFA-1 125% Flow Rate Duplica

Water

 Collection Date:
 02/08/17 12:35

 Received Date:
 02/08/17 17:00

 Collected By:
 Bevin Morris

Laboratory Analysis Report

Parameter	Result	QC	Units	Dil	MDL	PQL	Method	Date Ext.	Date Analy.	Analyst
Field Parameter (s)										
Specific Conductance (field)	1920		uS/cm	1	1	3	EPA 120.1	02/08 12:35	02/08 12:35	ROL
pH (Field)	7.89		pH Units	1	0.100	0.300	SM4500-H+-B	02/08 12:35	02/08 12:35	ROL
sulfide (field)	1.90		mg/L	1	0.0100	0.0300	SM 4500-S D	02/08 12:35	02/08 12:35	BM
Temperature (field)	28.4		°C	1	1.00	1.00	EPA 170.1	02/08 12:35	02/08 12:35	BM
Wet Chemistry										
Sulfide	3.12		mg/L	10	0.100	0.300	SM 4500-S D	02/10 16:30	02/10 16:30	LLC

1.00

mg/L

3.00

TSS SM 2540D

Florida-Spectrum Environmental Services, Inc. 1460 W. McNab Road, Fort Lauderdale, FL 33309

3.10

02/13 11:00

02/10 13:30





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Report Printed: 2/15/2017 **Work Order** # 17B0272

Project:

Brighton WTP - Well UFA-1

1125 BIA Hwy. 282, Brighton, FL

Notes and Definitions

U Indicated that the compound was analyzed for but not detected. This shall be used to indicate that the specific component was not

detected. The value associated with the qualifier shall be the laboratory method detection limit.

J-3 The matrix spike recovery exceeded method acceptance limits indicating matrix interference.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the detection limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

V Indicated that the analyte was detected in both the sample and the associated method blank.

I The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

Z Too many colonies were present for accurate counting.

QC=Qualifier Codes as defined by DEP 62-160
Unless indicated, soil results are reported on actual (wet) weight basis.
Work performed by outside (subcontracted) labs denoted by SUB in Analyst Field.

Results relate only to this sample.

Suresh (Bobby) Supan - CSM

Authorized CSM Signature (954) 978-6400 Florida-Spectrum Environmental Services, Inc. Certification# E86006

Certification# E80000

All NELAP certified analysis are performed in accordance with Chapter 64E-1 Florida Administrative code, which has been determined to be equivalent to NELAC standards. Analysis certified by programs other than NELAP are designated with a "~".

Florida-Spectrum Environmental Services, Inc. 1460 W. McNab Road, Fort Lauderdale, FL 33309

Pembroke Laboratory 528 Gooch Rd. Fort Mead, FL 33841 Big Lake Laboratory 610 Parrot Ave. N. Okeechobee, FL 34972

	*NOISSING					CHAIN	OF CUSTODY		RECORD				DUE DA	DUE DATE Requested	g
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	Tomodiute (Spectrum Environmental Services, Inc.		940 Alt. 27 South Babson Park, FL 33827 630 Indian Street Savannah GA 31401	outh Babson	Park, FL 33	12 33309 827 1	Tel: (863) 638-3255 Tel: (912) 238-5050	978-9400 638-3255 238-5050	Fax: (95/ Fax: (86/ Fax (917	Fax: (954) 9/8-2233 Fax: (863) 638-3637 Fax (912) 234-4815	- L	RUSH RE	RUSH RESERVATION#	#
	LIMS by: (/			528 Gooch Road Fort Meade FL 33841	oad Fort Me	ade FL 3384		Tel: (863) 285-8145	285-8145	Fax (863	Fax (863) 285-7030		Rush Su	Rush Surcharges annly	
				Original-R	Original-Return w/report	ort	Yellow-La	Yellow-Lab File Copy		Pink-Sampler Copy	oler Copy			C XX	
	Report to: Layne Christensen Company	nristensen Com	pany				Keport to Address: 50	61 Lucketi	keport to Address: 5061 Luckett Road, Fort Myers, FL 33905	: Myers, FI	33905				
	Invoice to: Layne Christensen Company	hristensen Com	pany	Purchase Order#			Invoice to Address: 50	61 Luckett	Invoice to Address: 5061 Linckett Road Fort Myzars HI 32005	Mazore HI	33905				
	Project Name and/or Number: Brighton WTP - Well UFA-1	on WTP - Well UFA-		-			Site	25 PIA TR	WW 202 B	1417 (217)	00600				
·	Project			Phone: 239 275 1029 / 239 275 1025	026/2392	75 1005	Fax:	T WIG C7	Fax:	Ignton , FI	_	1			
(.	Mgr: Craig Brugger		1		4.704/740	0.1020					Email:	Siprugger(@	Linan: clorudger@jaynechristensen.com	ensen.com	
	Sampler Name: (printed)	Bonn M	populas				Sampler Signature:		W.		1				
	ORDER#	Sample	Date	-	Matrix	Bottle	Number of		Anglivere	155. EX	Danmingo		Ē	15	1
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	200	100% Flow Rate Duplicate	02-05-17	JC:01 M	ĞW.		N	^ × :	×	×	× ×	×	Ħ	675 N.7	1931
1	, 0,2	Well UFA-1 125% Flow Rate	1-30-60	17/2:35	-GW		d	×					1,0,0	286726	201
	2	Well UFA-1 125% Flow Rate- Dunlicate	4-20-60	4 12:35	GW		4	×					06/	78976	2 2
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	I waive NELAC protocol" (sign here) >	' (sign here) >				,		1 Reli	Relinquished by:	D I KANSFEL	AND THE PROPERTY OF THE PROPER	KES	1801	DATE/TIME	E G
	Deliverables:		QA/QCR	QA/QC Report Needed?	Yes	No (addi	(additional charge)	1 Rec	Received by:				1	3	
1	Sample Custody & Field Comments	Comments						+		0			8/0/8	#11	00/
		100	ed.			Preservatives	801	7 Kell	Kennquisned by:						
-	[당	C A-liter amber B-Bacteria ba	A-liter amber B-Bacteria bag/bottle H- Amber	O-125ml - Amber	A-ascorbic acid		P-H.PO.	. 2 Rec	Received by:						
-, a.,	Custody Seals? Y	N F-500 ml L-liter bottle		Plastic Liter	Cu-CuSO,		S-H ₂ SO ₄ T-Na ₂ S ₂ O ₄ -H ₂ O	3 Reli	Relinquished by:						
	Billable Field Time -6	hrs S-soil jar T-250 ml		G-Gallon	H-HNO3 M-MCAB		U-Unpreserved P-H3PO4	3 Rec	Received by:						
	tisc. Charges	V-40 ml vial W-wide mouth	nal nouth		N-NaOH NH,-NH,CL		Z-zinc acetate	M.M.	www.flenviro.com	o.com		COC Page	Page	/ Jo /	
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6 of 6														ad a	





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Report Printed: 2/15/2017 **Work Order** # 17B0311

Project:

Brighton WTP - Well UFA-1

1125 BIA Hwy. 282, Brighton, FL

Lab ID: 17B0311-01 Client Sample ID: Well UFA-1

Well UFA-1 100% Flow Rate

Matrix: Water

 Collection Date:
 02/09/17 10:30

 Received Date:
 02/09/17 17:10

 Collected By:
 Bevin Morris

Laboratory Analysis Report

Parameter	Result	QC	Units	Dil	MDL	PQL	Method	Date Ext.	Date Analy.	Analyst

Field Parameter (s)

Specific Conductance (field)	1935	uS/cm	1	1	3	EPA 120.1	02/09 10:30	02/09 10:30	BM
pH (Field)	7.74	pH Units	1	0.100	0.300	SM4500-H+-B	02/09 10:30	02/09 10:30	BM
sulfide (field)	1.70	mg/L	1	0.0100	0.0300	SM 4500-S D	02/09 10:30	02/09 10:30	BM
Temperature (field)	26.7	°C	1	1.00	1.00	EPA 170.1	02/09 10:30	02/09 10:30	BM

Wet Chemistry

Total Alkalinity (pH 4.5)	73.6		mg/L	1	2.00	6.00	EPA 310.2	02/13 10:08	02/13 10:08	YBR
Ammonia as N	0.103	J-3	mg/L	1	0.0140	0.0420	EPA 350.1	02/13 12:11	02/13 12:11	YBR
Nitrate as N	ND	U	mg/L	1	0.0870	0.260	EPA 300.0	02/09 19:54	02/09 19:54	DGK
Silica, Total (SiO2)	11.8		mg/L	1	0.0880	0.265	SM4500-SiO2 C	02/14 12:30	02/14 12:30	SA
Sulfide	3.09		mg/L	10	0.100	0.300	SM 4500-S D	02/10 16:30	02/10 16:30	LLC
Total Dissolved Solids	1200		mg/L	1	10.0	30.0	TDS SM 2540C	02/13 10:00	02/14 14:00	AR
Total Organic Carbon	0.784		mg/L	1	0.168	0.504	TOC SM 5310C	02/13 13:52	02/13 14:35	SA
Total Suspended Solids	1.30	I	mg/L	1	1.00	3.00	TSS SM 2540D	02/10 13:30	02/13 11:00	AR

Total Recoverable Metals by EPA 200 Series Methods

Total Hardness	410	mg/L	1			EPA 200.7 Calc	02/10 14:30	02/10 15:19	MAZ
Iron	0.0260	mg/L	1	0.00200	0.00600	EPA 200.7	02/10 14:30	02/10 15:27	MAZ
Strontium	21.2	mg/L	50	0.0105	0.0315	EPA 200.7	02/10 14:30	02/10 15:19	MAZ

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Pembroke Laboratory 528 Gooch Rd. Fort Mead, FL 33841 Big Lake Laboratory 610 Parrot Ave. N. Okeechobee, FL 34972





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 Report Printed:
 2/15/2017

 Work Order #
 17B0311

Project:

Brighton WTP - Well UFA-1

1125 BIA Hwy. 282, Brighton, FL

Lab ID: 17B0311-02

Client Sample ID:

Matrix:

Well UFA-1 100% Flow Rate Duplica

Water

 Collection Date:
 02/09/17 10:30

 Received Date:
 02/09/17 17:10

 Collected By:
 Bevin Morris

Laboratory Analysis Report

					• •					
Parameter	Result	QC	Units	Dil	MDL	PQL	Method	Date Ext.	Date Analy.	Analyst
Field Parameter (s)										
Specific Conductance (field)	1937	Τ	uS/cm	1	1	3	EPA 120.1	02/09 10:30	02/09 10:30	BM
pH (Field)	7.76		pH Units	1	0.100	0.300	SM4500-H+-B	02/09 10:30	02/09 10:30	BM
sulfide (field)	1.93		mg/L	1	0.0100	0.0300	SM 4500-S D	02/09 10:30	02/09 10:30	BM
Temperature (field)	27.3		°C	1	1.00	1.00	EPA 170.1	02/09 10:30	02/09 10:30	BM
Wet Chemistry										
Total Alkalinity (pH 4.5)	74.0	Ι	mg/L	1	2.00	6.00	EPA 310.2	02/13 10:08	02/13 10:08	YBR
Ammonia as N	0.0852	J-3	mg/L	1	0.0140	0.0420	EPA 350.1	02/13 12:11	02/13 12:11	YBR
Nitrate as N	ND	U	mg/L	1	0.0870	0.260	EPA 300.0	02/09 19:54	02/09 19:54	DGK
Silica, Total (SiO2)	11.4		mg/L	1	0.0880	0.265	SM4500-SiO2 C	02/14 12:30	02/14 12:30	SA
Sulfide	3.04		mg/L	10	0.100	0.300	SM 4500-S D	02/10 16:30	02/10 16:30	LLC
Total Dissolved Solids	1240		mg/L	1	10.0	30.0	TDS SM 2540C	02/13 10:00	02/14 14:00	AR
Total Organic Carbon	0.756	Ī	mg/L	1	0.168	0.504	TOC SM 5310C	02/13 13:52	02/13 14:44	SA
Total Suspended Solids	1.10	I	mg/L	1	1.00	3.00	TSS SM 2540D	02/10 13:30	02/13 11:00	AR

Total Recoverable Metals by EPA 200 Series Methods

Total Hardness	423	mg/L	1			EPA 200.7 Calc	02/10 14:30	02/10 15:23	MAZ
Iron	0.0240	mg/L	1	0.00200	0.00600	EPA 200.7	02/10 14:30	02/10 15:31	MAZ
Strontium	22.2	mg/L	50	0.0105	0.0315	EPA 200.7	02/10 14:30	02/10 15:23	MAZ

Florida-Spectrum Environmental Services, Inc. 1460 W. McNab Road, Fort Lauderdale, FL 33309

Pembroke Laboratory 528 Gooch Rd. Fort Mead, FL 33841 Big Lake Laboratory 610 Parrot Ave. N. Okeechobee, FL 34972





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Report Printed: 2/15/2017 **Work Order** # 17B0311

Project:

Brighton WTP - Well UFA-1

1125 BIA Hwy. 282, Brighton, FL

Lab ID: 17B0311-03

Well UFA-1 125% Flow Rate

Matrix: Water

 Collection Date:
 02/09/17 12:35

 Received Date:
 02/09/17 17:10

 Collected By:
 Bevin Morris

Laboratory Analysis Report

Parameter	Result	QC	Units	Dil	MDL	PQL	Method	Date Ext.	Date Analy.	Analyst

Field Parameter (s)

Client Sample ID:

Specific Conductance (field)	1934	uS/cm	1	1	3	EPA 120.1	02/09 12:35	02/09 12:35	BM
pH (Field)	7.86	pH Units	1	0.100	0.300	SM4500-H+-B	02/09 12:35	02/09 12:35	BM
sulfide (field)	1.70	mg/L	1	0.0100	0.0300	SM 4500-S D	02/09 12:35	02/09 12:35	BM
Temperature (field)	27.2	°C	1	1.00	1.00	EPA 170.1	02/09 12:35	02/09 12:35	BM

Wet Chemistry

Sulfide	3.48		mg/L	10	0.100	0.300	SM 4500-S D	02/10 16:30	02/10 16:30	LLC
Total Suspended Solids	1.50	I	mg/L	1	1.00	3.00	TSS SM 2540D	02/10 13:30	02/13 11:00	AR

Florida-Spectrum Environmental Services, Inc. 1460 W. McNab Road, Fort Lauderdale, FL 33309





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Report Printed: 2/15/2017 **Work Order** # 17B0311

Project:

Brighton WTP - Well UFA-1

1125 BIA Hwy. 282, Brighton, FL

Lab ID: 17B0311-04

Client Sample ID:

Total Suspended Solids

Matrix:

Well UFA-1 125% Flow Rate Duplica

Water

 Collection Date:
 02/09/17 12:35

 Received Date:
 02/09/17 17:10

 Collected By:
 Bevin Morris

Laboratory Analysis Report

Parameter	Result	QC	Units	Dil	MDL	PQL	Method	Date Ext.	Date Analy.	Analyst
Field Parameter (s)										
Specific Conductance (field)	1932	Π	uS/cm	1	1	3	EPA 120.1	02/09 12:35	02/09 12:35	BM
pH (Field)	7.81		pH Units	1	0.100	0.300	SM4500-H+-B	02/09 12:35	02/09 12:35	BM
sulfide (field)	1.62		mg/L	1	0.0100	0.0300	SM 4500-S D	02/09 12:35	02/09 12:35	BM
Temperature (field)	27.2		°C	1	1.00	1.00	EPA 170.1	02/09 12:35	02/09 12:35	BM
Wet Chemistry	•	•		•		•			•	
Sulfide	3 20		mg/L	10	0.100	0.300	SM 4500-S D	02/10 16:30	02/10 16:30	LLC

1.00

mg/L

3.00

TSS SM 2540D

Florida-Spectrum Environmental Services, Inc. 1460 W. McNab Road, Fort Lauderdale, FL 33309

1.60

02/13 11:00

02/10 13:30





Page 5 of 5

Report Printed: 2/15/2017 **Work Order** # 17B0311

Project:

Brighton WTP - Well UFA-1

1125 BIA Hwy. 282, Brighton, FL

Notes and Definitions

U Indicated that the compound was analyzed for but not detected. This shall be used to indicate that the specific component was not

detected. The value associated with the qualifier shall be the laboratory method detection limit.

J-3 The matrix spike recovery exceeded method acceptance limits indicating matrix interference.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the detection limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

V Indicated that the analyte was detected in both the sample and the associated method blank.

I The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

Z Too many colonies were present for accurate counting.

QC=Qualifier Codes as defined by DEP 62-160
Unless indicated, soil results are reported on actual (wet) weight basis.
Work performed by outside (subcontracted) labs denoted by SUB in Analyst Field.

Results relate only to this sample.

Suresh (Bobby) Supan - CSM

Authorized CSM Signature (954) 978-6400 Florida-Spectrum Environmental Services, Inc. Certification# E86006

Certification# E80000

All NELAP certified analysis are performed in accordance with Chapter 64E-1 Florida Administrative code, which has been determined to be equivalent to NELAC standards. Analysis certified by programs other than NELAP are designated with a "~".

Florida-Spectrum Environmental Services, Inc. 1460 W. McNab Road, Fort Lauderdale, FL 33309

Pembroke Laboratory 528 Gooch Rd. Fort Mead, FL 33841 Big Lake Laboratory 610 Parrot Ave. N. Okeechobee, FL 34972

	**NOISSION **						HAIN	CHAIN OF CUSTODY	STOD	VREC	RECORD				DOE	DUE DATE Requested	Requeste	ğ
	12/201				0 W McNa	h Road Ft	1460 W McNab Road Ft Landerdale FT 33309	FI 33300	Tel. (0	Tel· (954) 978-6400) (1	Fav. (05)	Fav. (054) 079 222	ç				
	1 1 2 2 1 1	SDE STEER	SDECTRUM ENVIronmental Services, Inc.		Alt. 27 So	uth Babsor	940 Alt. 27 South Babson Park, FL 33827	3827	Tel: (8	Tel: (863) 638-3255	255	Fax: (86:	Fax: (863) 638-3637	5 L	RUSH	RUSH RESERVATION#	VATION	# Z
	Logged into		\	528 = 528	Gooch Ro	et Savann ad Fort Me	oso Indian Street Savannan, GA 31401 528 Gooch Road Fort Meade FL 33841		Tel: (8	Tel: (863) 285-8145	150 145	Fax (912) Fax (863)	Fax (912) 234-4815 Fax (863) 285-7030		Rus	Rush Surcharges apply	ses anntv	
	1			0	Original-Return w/report	turn w/re	oort	Yellow-	Yellow- Lab File Copy	opy	F	ink-Sam	Pink-Sampler Copy				GATO	
	Report to: Layne Cr	Christensen Company	npany		,			Report to Address:	5061 Luc	keport to Address: 5061 Luckett Road, Fort Myers, FL 33905	d, Fort N	fyers, FI	. 33905					
	Invoice to: Layne Christensen Company	ıristensen Cor	npany	C	Purchase Order#			Invoice to	5061 Luc	Invoice to Address: 5061 Luckett Road. Fort Wyers H 33905	J. Fort N	TVPrs HT	33905					
	Project Name and/or Number: Brighton WTP - Well UFA-1	on WTP - Well UFA	-1					Site Location:	1125 BI	Site Location: 1125 BIA HWV 282 Brighton FT	87 Brig	hton El			:			
•-	Project Mgr: Craig Brugger	The state of the s		Phone: 2	Phone: 239.275.1029/239.2	29/239.2	75.1025	Fax:	7	7 1 11 11	27 , DI 15	HIOM , F.	_	cibrugger	Email: cibrugger@laynechristensen.com	nristenser	r.com	
	Sampler Name: (printed)	Done	Hor	Res.				Sampler Signature:		K		1						
	ORDER #	Sample	Date Sampled		Time Sampled	Matrix	Bottle	Number of Containers	J. S.	A	nalysis R	is Re	equire	0				20
	Shaded Areas For Laboratory Use Only	a				DW SW GW SED S EFF HW BIO SA OIL X	Combo Codes	Received & NELAC Letter Suffixes # A-?	LatoT Sulfide	SST	Total Alkalinity nort	Total esenbraH	sinommA solli2	Vitrate TOC	SUT SUT	əbiliu2 istoT 一口 二口	ныхыл	COZA
		Well UFA-1 100% Flow Rate	62-09-13	the	06:01	GW	75	1	×	×	×	×	×	×	×	名	1676 10	1921
		Well UFA-1 100% Flow Rate Duplicate	43-09-1	4	10:30	GW	7	N	×	×	×	×	×	×	×			
	2	Well UFA-1 125% Flow Rate	92.09	47	12.38	GW	シスプ	4	×	×						136 2 CH	2421	
	4 OJ	Well UFA-1 125% Flow Rate- Duplicate	the to	~	Seid	GW	7	7	×	×						18.7 63.		
	Special Comments: I waive NELAC protocol" (sign here) >	(sign here) >	, increase of					Total	SAMP	SAMPLE CUSTODY AND TRANSFER SCENATURES 1 Relinquished by:	DY AND	FRANSFE	STGNAT	URES		DAT		
	Deliverables:		QA/Q(C Report	QA/QC Report Needed?	Yes	No (ad	Cadditional charge	1	Received hy:	.vi		1		5	1/1/20	1	0)
	Sample Custody & Field Comments								-	Relinquished by:	ed by:	7			18	77	11/6	
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	Custody Seals? Y	N F-500 ml	nia vagyootti nii bottie	Marian III	Plastic Titer	A-ascornic C-HCL	acid S - S	F-E3FO, S-E4SO, T-No-8-0-E1-0	æ	Relinquished by:	ed by:							
17	Billable Field Time6_	S-soil jar - hrs T-250 ml	b a	G-Gallon	8	H-HINO, M-MCAB	, D. T.	U-Unpreserved P-H ₃ PO ₄	3	Received by:	y:							
	Misc. Charges	V-40 ml vial W-wide mouth X-other	vial mouth r			N-NaOH NH,-NH,CL		Z-zinc acetate	<u> </u>	www.flenviro.com	enviro.	com		Ö	COC Page	1	of	5
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of 6																		





Page 1 of 5

Report Printed: 2/16/2017 **Work Order** # 17B0342

Project:

Brighton WTP - Well UFA-1

1125 BIA Hwy. 282, Brighton, FL

Date Ext.

Date Analy.

Analyst

Lab ID: Client Sample ID: 17B0342-01

Result

Well UFA-1 100% Flow Rate

QC

Units

Matrix: Wate

Collection Date:

02/10/17 10:30

Received Date: 02/10/17 16:10
Collected By: Bevin Morris

Method

Laboratory Analysis Report

MDL

PQL

Dil

Field Parameter (s)									
Specific Conductance (field)	1925	uS/cm	1	1	3	EPA 120.1	02/10 10:30	02/10 10:30	BM
pH (Field)	7.87	pH Units	1	0.100	0.300	SM4500-H+-B	02/10 10:30	02/10 10:30	BM
sulfide (field)	1.60	mg/L	1	0.0100	0.0300	SM 4500-S D	02/10 10:30	02/10 10:30	BM
Temperature (field)	26.2	°C	1	1.00	1.00	EPA 170.1	02/10 10:30	02/10 10:30	BM

Wet Chemistry

Parameter

Total Alkalinity (pH 4.5)	75.4		mg/L	1	2.00	6.00	EPA 310.2	02/13 10:08	02/13 10:08	YBR
Ammonia as N	0.0797		mg/L	1	0.0140	0.0420	EPA 350.1	02/13 12:11	02/13 12:11	YBR
Nitrate as N	ND	U	mg/L	1	0.0870	0.260	EPA 300.0	02/10 18:47	02/10 18:47	DGK
Silica, Total (SiO2)	12.7		mg/L	1	0.0880	0.265	SM4500-SiO2 C	02/14 12:30	02/14 12:30	SA
Sulfide	2.59		mg/L	10	0.100	0.300	SM 4500-S D	02/13 13:34	02/13 13:34	LLC
Total Dissolved Solids	1210		mg/L	1	10.0	30.0	TDS SM 2540C	02/13 10:00	02/14 14:00	AR
Total Organic Carbon	0.724		mg/L	1	0.168	0.504	TOC SM 5310C	02/13 13:52	02/13 15:00	SA
Total Suspended Solids	1.00	I	mg/L	1	1.00	3.00	TSS SM 2540D	02/15 14:30	02/16 10:00	SA

Total Recoverable Metals by EPA 200 Series Methods

Total Hardness	441	mg/L	1			EPA 200.7 Calc	02/13 09:45	02/13 14:43	MAZ
Iron	0.0178	mg/L	1	0.00200	0.00600	EPA 200.7	02/13 09:45	02/13 14:53	MAZ
Strontium	24.6	mg/L	50	0.0105	0.0315	EPA 200.7	02/13 09:45	02/13 14:43	MAZ

Florida-Spectrum Environmental Services, Inc. 1460 W. McNab Road, Fort Lauderdale, FL 33309

Pembroke Laboratory 528 Gooch Rd. Fort Mead, FL 33841 Big Lake Laboratory 610 Parrot Ave. N. Okeechobee, FL 34972





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Report Printed: 2/16/2017 **Work Order** # 17B0342

Project:

Brighton WTP - Well UFA-1

1125 BIA Hwy. 282, Brighton, FL

Lab ID: 17B0342-02

Well UFA-1 100% Flow Rate Duplica

Matrix: Water

 Collection Date:
 02/10/17 10:30

 Received Date:
 02/10/17 16:10

 Collected By:
 Bevin Morris

Laboratory Analysis Report

Parameter	Result	QC	Units	Dil	MDL	PQL	Method	Date Ext.	Date Analy.	Analyst

Field Parameter (s)

Client Sample ID:

Specific Conductance (field)	1924	uS/cm	1	1	3	EPA 120.1	02/10 10:30	02/10 10:30	BM
pH (Field)	7.81	pH Units	1	0.100	0.300	SM4500-H+-B	02/10 10:30	02/10 10:30	BM
sulfide (field)	1.65	mg/L	1	0.0100	0.0300	SM 4500-S D	02/10 10:30	02/10 10:30	BM
Temperature (field)	26.5	°C	1	1.00	1.00	EPA 170.1	02/10 10:30	02/10 10:30	BM

Wet Chemistry

Total Alkalinity (pH 4.5)	75.8		mg/L	1	2.00	6.00	EPA 310.2	02/13 10:08	02/13 10:08	YBR
Ammonia as N	0.0767		mg/L	1	0.0140	0.0420	EPA 350.1	02/13 12:11	02/13 12:11	YBR
Nitrate as N	ND	U	mg/L	1	0.0870	0.260	EPA 300.0	02/10 18:47	02/10 18:47	DGK
Silica, Total (SiO2)	12.7		mg/L	1	0.0880	0.265	SM4500-SiO2 C	02/14 12:30	02/14 12:30	SA
Sulfide	3.12		mg/L	10	0.100	0.300	SM 4500-S D	02/13 13:34	02/13 13:34	LLC
Total Dissolved Solids	1200		mg/L	1	10.0	30.0	TDS SM 2540C	02/13 10:00	02/14 14:00	AR
Total Organic Carbon	0.727		mg/L	1	0.168	0.504	TOC SM 5310C	02/13 13:52	02/13 15:08	SA
Total Suspended Solids	ND	U	mg/L	1	1.00	3.00	TSS SM 2540D	02/15 14:30	02/16 10:00	SA

Total Recoverable Metals by EPA 200 Series Methods

Total Hardness	436	mg/L	1			EPA 200.7 Calc	02/13 09:45	02/13 14:49	MAZ
Iron	0.0218	mg/L	1	0.00200	0.00600	EPA 200.7	02/13 09:45	02/13 14:57	MAZ
Strontium	24.8	mg/L	50	0.0105	0.0315	EPA 200.7	02/13 09:45	02/13 14:49	MAZ

Florida-Spectrum Environmental Services, Inc. 1460 W. McNab Road, Fort Lauderdale, FL 33309

Pembroke Laboratory 528 Gooch Rd. Fort Mead, FL 33841 Big Lake Laboratory 610 Parrot Ave. N. Okeechobee, FL 34972





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 Report Printed:
 2/16/2017

 Work Order #
 17B0342

Project:

Brighton WTP - Well UFA-1

1125 BIA Hwy. 282, Brighton, FL

02/15 14:30

02/16 10:00

SA

Lab ID: 17B0342-03

Client Sample ID: Well UFA-1 125% Flow Rate

1.30

Matrix: Water

Total Suspended Solids

Collection Date: 02/10/17 12:35 **Received Date:** 02/10/17 16:10

Collected By: Bevin Morris

TSS SM 2540D

Laboratory Analysis Report

Parameter	Result	QC	Units	Dil	MDL	PQL	Method	Date Ext.	Date Analy.	Analyst
Field Parameter (s)										
Specific Conductance (field)	1935		uS/cm	1	1	3	EPA 120.1	02/10 12:35	02/10 12:35	BM
pH (Field)	7.67		pH Units	1	0.100	0.300	SM4500-H+-B	02/10 12:35	02/10 12:35	BM
sulfide (field)	1.65		mg/L	1	0.0100	0.0300	SM 4500-S D	02/10 12:35	02/10 12:35	BM
Temperature (field)	27.0		°C	1	1.00	1.00	EPA 170.1	02/10 12:35	02/10 12:35	BM
Wet Chemistry										
Sulfide	3.16		mg/L	10	0.100	0.300	SM 4500-S D	02/13 13:34	02/13 13:34	LLC

1.00

3.00

mg/L

Florida-Spectrum Environmental Services, Inc. 1460 W. McNab Road, Fort Lauderdale, FL 33309





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 Report Printed:
 2/16/2017

 Work Order #
 17B0342

Project:

Brighton WTP - Well UFA-1

1125 BIA Hwy. 282, Brighton, FL

Lab ID: 17B0342-04

Client Sample ID:

Total Suspended Solids

Matrix:

Well UFA-1 125% Flow Rate Duplica

Water

 Collection Date:
 02/10/17 12:35

 Received Date:
 02/10/17 16:10

 Collected By:
 Bevin Morris

Laboratory Analysis Report

Parameter	Result	QC	Units	Dil	MDL	PQL	Method	Date Ext.	Date Analy.	Analyst
Field Parameter (s)										
Specific Conductance (field)	1935		uS/cm	1	1	3	EPA 120.1	02/10 12:35	02/10 12:35	BM
pH (Field)	7.65		pH Units	1	0.100	0.300	SM4500-H+-B	02/10 12:35	02/10 12:35	BM
sulfide (field)	1.95		mg/L	1	0.0100	0.0300	SM 4500-S D	02/10 12:35	02/10 12:35	BM
Temperature (field)	27.1		°C	1	1.00	1.00	EPA 170.1	02/10 12:35	02/10 12:35	BM
Wet Chemistry										
Sulfide	3.26		mg/L	10	0.100	0.300	SM 4500-S D	02/13 13:34	02/13 13:34	LLC

1.00

mg/L

3.00

TSS SM 2540D

Florida-Spectrum Environmental Services, Inc. 1460 W. McNab Road, Fort Lauderdale, FL 33309

1.80

02/16 10:00

02/15 14:30

SA





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Report Printed: 2/16/2017 Work Order # 17B0342

Project:

Brighton WTP - Well UFA-1

1125 BIA Hwy. 282, Brighton, FL

Notes and Definitions

Indicated that the compound was analyzed for but not detected. This shall be used to indicate that the specific component was not U

detected. The value associated with the qualifier shall be the laboratory method detection limit.

J-3 The matrix spike recovery exceeded method acceptance limits indicating matrix interference.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the detection limit

NR Not Reported

dry Sample results reported on a dry weight basis

Relative Percent Difference RPD

Indicated that the analyte was detected in both the sample and the associated method blank.

The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

Too many colonies were present for accurate counting. Z

QC=Qualifier Codes as defined by DEP 62-160 Unless indicated, soil results are reported on actual (wet) weight basis. Work performed by outside (subcontracted) labs denoted by SUB in Analyst Field.

Results relate only to this sample.

Suresh (Bobby) Supan - CSM

Authorized CSM Signature (954) 978-6400 Florida-Spectrum Environmental Services, Inc.

Certification# E86006

All NELAP certified analysis are performed in accordance with Chapter 64E-1 Florida Administrative code, which has been determined to be equivalent to NELAC standards. Analysis certified by programs other than NELAP are designated with a "~".

> Florida-Spectrum Environmental Services, Inc. 1460 W. McNab Road, Fort Lauderdale, FL 33309

Pembroke Laboratory 528 Gooch Rd. Fort Mead, FL 33841

Big Lake Laboratory 610 Parrot Ave. N. Okeechobee, FL 34972

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	Logged into			Gooch Ros	et Savanna d Fort Mea	528 Gooch Road Fort Meade FL 33841	- 	Tel: (86	Tel: (863) 285-8145		ax (312)	Fax (863) 285-7030		Rusi	Rush Surcharges apply	ajaan
			0 -	iginal-Ret	Original-Return w/report	ort	Yellow-Lab File Copy	b File Co	py	Pin	Pink-Sampler Copy	er Copy			0	CAA
	Report to: Layne Christensen Company	mpany					Report to Address: 5061 Luckett Road, Fort Myers, FL	61 Luck	ett Road,	Fort M	rers, FL	33905				
	Invoice to: Layne Christensen Company	mpany	<u> </u>	Purchase Order#	-		Invoice to Address: 5061 Luckett Road, Fort Wvers, FI. 33905	——————————————————————————————————————	eff Road	Fort M	Prs. FT.	33905				
	Project Name and/or Number: Brighton WTP - Well UFA-1	λ-1					Site	125 BIA	HWV 28	Rrigh	fon Fil					
	Project Mgr: Craig Brugger		Phone: 23	Phone: 239.275.1029/239	29/239.2	275.1025	Fax:			Sur	7 (10)	Email: 0	ibrugger(<u> </u>	Email: cibrugger@laynechristensen.com	티
_	Sampler Name: Server	Nouns	3				Sampler Signatura.									
	ORDER# Sample	Date	-	Time	Matrix	Bottle	Number of		V	A no lyana	Dogme				7	
	Lab Control Number ID	Sampled		Sampled	DW SW	& Pres.	Containers Received	in the second		2	60.00	-5				
	Shaded Areas For Laboratory Use Only				S EFF HW BIO SA OIL X	Compo Codes	& NELAC Letter Suffixes # A-?	Total Sulfide	SST	Total Alkalinity non	Total Hardness	Ammonia Silica	Vitrate TOC	Strontium	obillu2 letoT	HΣΨΩ ONO
	1 Well UFA-1 100% Flow Rate	7-01-60		10:30	GW	3	4	×	×	×	×	×		×	1287 03	262.63
	B	Brots		10,30	GW	()	14	×	×	×	×	×	×		1 1/2	· · · · · · · · · · · · · · · · · · ·
	Ü	02-10-	4	12.35	GW	J. (12)	ď	×	×						14	70 10-70
	Well UFA-1 125% Flow Rate- Duplicate	porco		13:38	GW.	-	λ	×	×					1 /2/2	195 76627.1	-
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	Sample Custouy & Field Comments Bottle Type	Type				Preservatives	ଥ	7	Relinquished by:	d by:	•					
	D	A-liter amber O-125ml B-Bacteria bag/bottle H-Amber	O-125ml le H-Amber	5ml er	A-ascorbic acid	,	P-H,PO,	2	Received by:							
	Custody Seals? Y N F-500 ml	ml bottle	武马	Plastic Liter	C-HCL Cu-CuSO		S-H ₂ SO ₄ T-N ₂ ,S,O,-H,O	8	Relinquished by:	d by:						
	Billable Field Time_6_hrs S-soil jar	jar ml	G-Gallon		H-HINO3 M-MCAB	E.T.	U-Unpreserved P-H3PO,	3	Received by:							
	Misc. Charges V-40 ml vial	V-40 ml vial W-wide mouth	•		N-NaOH NH,-NH,CL		Z-zinc acetate		www.flenviro.com	nviro.c	ОШО		000	COC Page) of	
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