

GROUP INFO: MUSC Health	1	D	ATE: 7-2-19
CUSTOMER: MUSC		INFO	OTHER: University Tanks
FACILITY: Building 500	IN A TOP IS		
ADDRESS: 118 Jonathan Lucas S	t. MSC 190. Charleston	SC 29425	THE SERVE
CONTACT: Rick Burt, Matthew L		PHONE: 843-32	3-0433
EMAIL burtd@musc.edu, Longmato		CELL: (843) 7	
Unit Id: 500-FT-33	Type: UST Capa	city: 20,000	Material: Dsl
Last Tank Service: 2018			
FUEL SAMPLE TAKEN:			THE STATE OF THE S
✓ Annual/Pre-Clean			775
Post Clean			The second secon
None			B
SERVICES PERFORMED:		Petroleum	Recovery Services
Maintenance		MAN 1996	North Charleston, South Cardin 3rd 1PRS (1777) Fax: 843-377-0412
STI 001 Inspection		man petr	deumrecovervservices.com
Tank Cleaning		1 2	119
Bottom Sweep  Pre-clean Lab Analysis			(Blu)
Post-clean Lab Analysis		Musc	
Fuel Treatment:		- RU	500
✓ HydroClean		2 30,000 W	
ILFC 1032		-	Equipment "
Biocide Predator 6000			
None			
sterior Tank Condition:			The IN THE STATE OF
Good Bad			
Recommend Inspection			
RTS CONDITION:	CONTAMINANTS I	OUND:	VISUAL FUEL RATING:
		st Clean	✓ Pre-Clean Post Clean
Good Bad N/A -Fill Cap Good Bad N/A - Vent	None		Refinery Fresh
Good Bad N/A - Vent	Bulk Water		✓ Good
Good Bad N/A -Fill Fort	Suspended		Watch Closely
Good Bad N/A - Spill Bucket	Micro-orga	nisms	Advanced Aging
Good Bad N/A - Gauge	<b>✓</b> Sediments		Bad-Not Recommended
Good Bad N/A - Gaskets	Rust		
	Sludge	_	Severe-Do Not Use
S TANK DOES NOT PASS ASTM D975 "C	LEAR & BRIGHT"	_ THIS TANK F	ASSES THE ASTM D975 "CLEAR &
UAL INSPECTION		BRIGHT" VIS	SUAL INSPECTION.
k cleaning is recommended hased on Visual Fuel I			ll determine fuel parameters based on
letermine fuel parameters based on ASTM D975 Sp		ASTM D975 Sp	ecifications
MMENTS: Picture of the before cleani	ng sample		
	100		
	Ron and Steven		DATE: 7-2-19
SERVICE TECHNICIAN	; rion and steven		DATE: 7-2-19

877-252-6396 (Toll Free) ● 843-225-1777 ● 843-377-0412 (Fax)
4310 Amsterdam St., N. Charleston, SC 29418
www.petroleumrecoveryservices.com





Loretta Shaw

Petroleum Recovery Services

4310 Amsterdam St.

North Charleston, SC 29418

843-225-1777

Sample Taken From:

Sample ID:

PO:

WO:

500-FT-33 500-FT-33

632487

MUSC-University - Pre

Sample Collection Date:

07/2/2019 Date Received: 07/15/2019 Date Released: 07/18/2019

Component Make:

Component Model: UST

Tank Capacity:

Quantity in Tank:

Test Package: Petroleum Recovery Pkg.

20,000 g

ULSD

Type of Fuel:

Serial Number:

Test	Limits	Methods	Result
API Gravity by Hydrometer	report	ASTM D1298-99	37
Cetane Number		ASTM D613	44.4
Cloud Point	report *C	ASTM D2500-99	-10
Copper Strip Corrosion	3 maximum	ASTM D130-04	1a
Distillation, 50%	report *C	ASTM D86-08a	242.22
Distillation, 90%	282 - 338 °C	ASTM D86-08a	306.67
Flash Point	52 °C minimum	ASTM D93-10	74.44
Microbial Growth	report	Micro/Culture Medium	Negative
Particulate Contamination	report in milligrams/liter	ASTM D6217-08	1.3
Sulfur	15 ppm maximum	ASTM D5453-09	80
Visual Appearance	Visual	ASTM D4176-04	Clear, Trace Particles
Water and Sediment	0.05 maximum (% volume)	ASTM D2709	0.001
Water by Karl Fischer	report in ppm	ASTM D6304-16	45

### Comments

High Sulfur; Too much sulfur can cause wear in diesel engines as a result of the corrosive nature of its combustion by-products. It also increases the amount of deposits in the combustion chamber and on the pistons. ASTM sets limits at 15ppm ULSD, 500ppm LSD & 5,000 High Sulfur.



GROUP INFO: MUSC Health	1		ATE: 8/15/19
CUSTOMER: MUSC		INFO	-OTHER: University Tanks
FACILITY: Building 520 (CAT Ger	Day-MRE #1)	101	- The same of the
ADDRESS: 119 Jonathan Lucas S	t. MSC 190, Charle	ston, SC 29425	
CONTACT: Rick Burt, Matthew L		PHONE: 843-32	23-0433
EMAIL burtd@musc.edu, Longmat		CELL: (843) 7	
Unit Id: 520-01-1DT		Capacity: 300	
Last Tank Service: 2018		1 1212	A DELL'INSTRUMENT
FUEL SAMPLE TAKEN:  Annual/Pre-Clean  Post Clean None  SERVICES PERFORMED:  Maintenance  STI 001 Inspection  Tank Cleaning  Bottom Sweep  Pre-clean Lab Analysis  Post-clean Lab Analysis  HydroClean  ILFC 1032  Biocide Predator 6000  None  xterior Tank Condition:  Good  Bad  Recommend Inspection		stroleum Recovery Survey  The Mark Control of the Control  The Mark Control of the Control  The Mark C	
ARTS CONDITION:  Good Bad N/A -Fill Cap Good Bad N/A - Fill Port Good Bad N/A - Fill Port Good Bad N/A - Spill Bucket Good Bad N/A - Spill Bucket Good Bad N/A - Gauge Good Bad N/A - Gaskets  IS TANK DOES NOT PASS ASTM D975 "COUAL INSPECTION Ink cleaning is recommended based on Visual Fuel Indetermine fuel parameters based on ASTM D975 Spill Bucket Good Bad N/A - Gaskets	✓ None Bulk V Susper Micro- Sedime Rust Sludge CLEAR & BRIGHT"  Inspection ONLY Lab Reponenticutions	Post Clean  Vater  Ided Water  organisms  ents  THIS TANK I  BRIGHT" VI	VISUAL FUEL RATING: Pre-Clean Post Clean Refinery Fresh Good Watch Closely Advanced Aging Bad-Not Recommended Severe-Do Not Use  PASSES THE ASTM D975 "CLEAR & SUAL INSPECTION. ill determine fuel parameters based on pecifications
MMENTS: This is your after cleaning s	sample		
SERVICE TECHNICIAN	. Mike and Tommie		DATE: 8/15/19





PRS Package

Loretta Shaw Petroleum Recovery Services 4310 Amsterdam St. North Charleston, SC 29418

843-225-1777

Sample Taken From:

Sample ID:

PQ: WO: 520-01-1DT 520-01-1DT 632519

MUSC - University - Post

Sample Collection Date:

08/15/2019 Date Received: 08/23/2019 Date Released: 08/30/2019

Component Make:

Component Model: **AST** Tank Capacity: 300 g

Quantity in Tank:

Test Package:

Type of Fuel: ULSD

Serial Number:

Test	Limits	Methods	Result
API Gravity by Hydrometer	report	ASTM D1298-99	37
Cetane Index	40 minimum	ASTM D976-01	44.5
Cloud Point	report *C	ASTM D2500-99	-9
Copper Strip Corrosion	3 maximum	ASTM D130-04	1a
Distillation, 50%	report °C	ASTM D86-08a	242.22
Distillation, 90%	282 - 338 °C	ASTM D86-08a	307.22
Flash Point	52 °C minimum	ASTM D93-10	64.44
Microbial Growth	report	Micro/Culture Medium	Negative
Particulate Contamination	report in milligrams/liter	ASTM D6217-08	1.3
Sulfur	15 ppm maximum	ASTM D5453-09	83
Visual Appearance	Visual	ASTM D4176-04	Clear, Trace Particles
Water and Sediment	0.05 maximum (% volume)	ASTM D2709	0.001
Water by Karl Fischer	report in ppm	ASTM D6304-16	71

#### Comments

High Sulfur. Too much sulfur can cause wear in diesel engines as a result of the corrosive nature of its combustion by-products. It also increases the amount of deposits in the combustion chamber and on the pistons. ASTM sets limits at 15ppm ULSD, 500ppm LSD & 5,000 High Sulfur.



GROUP INFO: MUSC Health	1	DATE: 7-3-19
CUSTOMER: MUSC		INFO-OTHER: University Tanks
FACILITY: Building 520 (CAT Ger	n Day-MRE #2)	
ADDRESS: 120 Jonathan Lucas S		5
CONTACT: Rick Burt, Matthew L		843-323-0434
EMAIL burtd@musc.edu, Longmato	@musc.edu CELL: (	843) 792-3533
Unit Id: 520-01-2DT	Type: AST Capacity: 30	0 Material: Dsl
Last Tank Service: 2018	The same of the sa	
FUEL SAMPLE TAKEN:		
✓ Annual/Pre-Clean Post Clean	The same	
None None		
SERVICES PERFORMED:	STOREGISTING STOREGISTING	医、油气、油性、水质等性的
Maintenance		
STI 001 Inspection	taleum D	Panayam, Caminas A
Tank Cleaning	W125 AV	Recovery Services AS Land Carolina 29418
Bottom Sweep	40-14	WC 147777 F. 644 APP 0440
Pre-clean Lab Analysis		mrscoveryservices.com
Post-clean Lab Analysis Fuel Treatment:		19
✓ HydroClean	Mac	
ILFC 1032	100	
Biocide Predator 6000	100	(HE) Calore
None		The state of the s
to to de la companya		Equipment #: 520 = 01: 201
Exterior Tank Condition:		
Good Bad		
Recommend Inspection		
	CONTAMINANTS FOUND.	WOULD PHEL DATING
ARTS CONDITION:	CONTAMINANTS FOUND:  ✓ Pre-Clean Post Clean	VISUAL FUEL RATING:  ✓ Pre-Clean Post Clean
Good Bad N/A -Fill Cap	None	Refinery Fresh
Good Bad N/A - Vent	Bulk Water	✓ Good
Good Bad N/A -Fill Port Good Bad N/A -Sump	Suspended Water	Watch Closely
Good Bad N/A - Sump  Good Bad N/A - Spill Bucket	Micro-organisms	
Good Bad N/A -Sump Good Bad N/A - Spill Bucket Good Bad N/A - Gauge	Sediments	Advanced Aging
Good Bad N/A - Gaskets	Rust	Bad-Not Recommended
0000	Sludge	Severe-Do Not Use
IS TANK DOES NOT PASS ASTM D975 "C	THE THE	TANK PASSES THE ASTM D975 "CLEAR &
UAL INSPECTION		HT" VISUAL INSPECTION.
nk cleaning is recommended based on Visual Fuel I	spection ONLY Lab Report *Lab i	Report will determine fuel parameters based on 🕊
determine fuel parameters based on ASTM D975 Sf		D975 Specifications
MMENTS: Picture of the before cleani	ng sample	
SERVICE TRANSPORT	Ron and Steven	рате. 7-3-19
SERVICE TECHNICIAN	LION BIN DIEABIL	DATE: 7-3-19





Loretta Shaw

Petroleum Recovery Services

4310 Amsterdam St.

North Charleston, SC 29418

843-225-1777

Sample Taken From:

Sample ID:

PO:

WO:

520-01-2DT 520-01-2DT

632487

MUSC-University - Pre

Sample Collection Date:

07/3/2019 07/15/2019

Date Received: Date Released:

Released: 07/18/2019

Component Make:

Component Model:

Tank Capacity: Quantity in Tank:

Test Package:

Petroleum Recovery Pkg.

Type of Fuel:

Serial Number:

ULSD

AST 300 g

Test	Limits	Methods	Result
API Gravity by Hydrometer	report	ASTM D1298-99	37
Cetane Index	40 minimum	ASTM D976-01	44.4
Cloud Point	report °C	ASTM D2500-99	-11
Copper Strip Corrosion	3 maximum	ASTM D130-04	1a
Distillation, 50%	report °C	ASTM D86-08a	242.22
Distillation, 90%	282 - 338 °C	ASTM D86-08a	306.67
Flash Point	52 °C minimum	ASTM D93-10	72.22
Microbial Growth	report	Micro/Culture Medium	Negative
Particulate Contamination	report in milligrams/liter	ASTM D6217-08	6.7
Sulfur	15 ppm maximum	ASTM D5453-09	86
Visual Appearance	Visual	ASTM D4176-04	Clear, Few Particles
Water and Sediment	0.05 maximum (% volume)	ASTM D2709	0.005
Water by Karl Fischer	report in ppm	ASTM D6304-16	47

#### Comments

High Sulfur: Too much sulfur can cause wear in diesel engines as a result of the corrosive nature of its combustion by-products. It also increases the amount of deposits in the combustion chamber and on the pistons. ASTM sets limits at 15ppm ULSD, 500ppm LSD & 5,000 High Sulfur.



GROUP INFO: MUSC Health		DATE: 7-3-19
CUSTOMER: MUSC		INFO-OTHER: University Tanks
FACILITY: Building 520 MRE (520-	FT-35)	
ADDRESS: 121 Jonathan Lucas St.	Total management of the second	25
CONTACT: Rick Burt, Matthew Lor		843-323-0435
EMAIL burtd@musc.edu, Longmat@	musc.edu CELL:	(843) 792-3534
Unit Id : 520-FT-41	Type: UST Capacity: 40	0,000 Material: Dsl
Last Tank Service: 2018		The same that I want to
<b>FUEL SAMPLE TAKEN:</b>	40	AND DESCRIPTION OF THE PERSON
✓ Annual/Pre-Clean Post Clean	200	
None	100 1000	AND ART ARE ARREST
SERVICES PERFORMED:	MADNESS.	PRS 1
Maintenance	their	m Recovery Services
STI 001 Inspection		st North Charleston, South Carolina 29418 25-IPRS (1777) Fax: 843-377-0412
Tank Cleaning	ma	Tribumecoveryservices.com
Bottom Sweep	_3	1.19
✓ Pre-clean Lab Analysis	South and the second se	
Post-clean Lab Analysis		TI I
Fuel Treatment:	2	20 520 MR (BL)
✓ HydroClean ILFC 1032	No.	Equipment # 520-FT-11
Biocide Predator 6000		
None		
xterior Tank Condition:		
Good Bad	A A	V to State of
Recommend Inspection		
ARTS CONDITION:	CONTAMINANTS FOUND:	VISUAL FUEL RATING:
Good Bad N/A -Fill Cap	✓ Pre-Clean Post Clean	✓ Pre-CleanPost Clean
Good Bad N/A - Vent	None	Refinery Fresh
Good Bad N/A -Fill Port	Bulk Water	✓ Good
Good Bad N/A -Sump	Suspended Water	Watch Closely
Good Bad N/A - Spill Bucket	Micro-organisms	Advanced Aging
Good Bad N/A - Gauge	Sediments	Bad-Not Recommended
Good Bad N/A - Gaskets	Rust	Severe-Do Not Use
	Sludge	
IS TANK DOES NOT PASS ASTM D975 "CL		S TANK PASSES THE ASTM D975 "CLEAR &
UAL INSPECTION  nk cleaning is recommended hased on Visual Fuel Insp		GHT" VISUAL INSPECTION.
determine fuel parameters based on ASTM D975 Spec		o Report will determine fuel parameters based on  M D975 Specifications
MMENTS: Picture of the before cleaning	sample	
111111111111111111111111111111111111111		
	Don and Staves	DATE: 7-3-19
SERVICE TECHNICIAN:	non and Sieven	DATE: 7-3-19

877-252-6396 (Toll Free) • 843-225-1777 • 843-377-0412 (Fax)
4310 Amsterdam St., N. Charleston, SC 29418
www.petroleumrecoveryservices.com





Loretta Shaw Petroleum Recovery Services

4310 Amsterdam St.

North Charleston, SC 29418

843-225-1777

Sample Taken From:

Sample ID:

PO: WO: 520-FT-41 520-FT-41

632487

MUSC-University - Pre

Sample Collection Date:

07/3/2019 07/15/2019 07/18/2019

Date Released: Component Make:

Date Received:

Component Model: Tank Capacity:

40,000 g

UST

Quantity in Tank:

Test Package:

Petroleum Recovery Pkg.

Type of Fuel: Serial Number: ULSD

Test	Limits	Methods	Result
API Gravity by Hydrometer	report	ASTM D1298-99	38
Cetane Index	40 minimum	ASTM D976-01	47.5
Cloud Point	report °C	ASTM D2500-99	-10
Copper Strip Corrosion	3 maximum	ASTM D130-04	1a
Distillation, 50%	report °C	ASTM D86-08a	247.22
Distillation, 90%	282 - 338 °C	ASTM D86-08a	307.78
Flash Point	52 °C minimum	ASTM D93-10	64.44
Microbial Growth	report	Micro/Culture Medium	Negative
Particulate Contamination	report in milligrams/liter	ASTM D6217-08	3.3
Sulfur	15 ppm maximum	ASTM D5453-09	5
Visual Appearance	Visual	ASTM D4176-04	Clear, Trace Particles
Water and Sediment	0.05 maximum (% volume)	ASTM D2709	0.001
Water by Karl Fischer	report in ppm	ASTM D6304-16	57

### Comments



GROUP INFO: MUSC Health	1	DATE: 8/15/19
CUSTOMER: MUSC		INFO-OTHER: University Tanks
FACILITY: Building 525 (Dental BI	dg CDM Gen)	
ADDRESS: 122 Jonathan Lucas St	t. MSC 190, Charleston, SC 29	9425
CONTACT: Rick Burt, Matthew Lo	ong PHON	NE: 843-323-0436
EMAIL burtd@musc.edu, Longmat@	<del></del>	(843) 792-3535
Unit Id: 525-01-139DT	Type: SBT Capacity:	300 Material: Dsl
Last Tank Service: 2018		THE PROPERTY AND THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NAMED IN C
FUEL SAMPLE TAKEN:  Annual/Pre-Clean  Post Clean None  SERVICES PERFORMED:  Maintenance  STI 001 Inspection  Tank Cleaning  Bottom Sweep  Pre-clean Lab Analysis  Post-clean Lab Analysis  Fuel Treatment:  HydroClean  ILFC 1032  Biocide Predator 6000  None  Exterior Tank Condition:  Good Bad  Recommend Inspection	Purpleam Recovery Agents All States of the Control	
ARTS CONDITION:  Good Bad N/A Fill Cap Good Bad N/A - Vent Good Bad N/A - Fill Port Good Bad N/A - Spill Bucket Good Bad N/A - Spill Bucket Good Bad N/A - Gauge Good Bad N/A - Gaskets  IS TANK DOES NOT PASS ASTM D975 "Cl SUAL INSPECTION Ink cleaning is recommended based on Visual Fuel Inc Indetermine fuel parameters based on ASTAI 19975 Spe	spection ONLY Lub Report #1	Pre-Clean Post Clean Refinery Fresh Good Watch Closely Advanced Aging Bad-Not Recommended Severe-Do Not Use  HIS TANK PASSES THE ASTM D975 "CLEAR & RIGHT" VISUAL INSPECTION.  Lab Report will determine fuel parameters based on STM D975 Specifications

877-252-6396 (Toll Free) • 843-225-1777 • 843-377-0412 (Fax)
4310 Amsterdam St., N. Charleston, SC 29418
www.petroleumrecoveryservices.com





Loretta ShawSample Collection Date:08/15/2019Petroleum Recovery ServicesDate Received:08/23/20194310 Amsterdam St.Date Released:08/30/2019

North Charleston, SC 29418 Component Make:

 843-225-1777
 Component Model:
 AST

 Sample Taken From:
 525-01-139DT
 Tank Capacity:
 300 g

Sample ID: 525-01-139DT Quantity in Tank:

PO: 632519 Test Package: PRS Package
WO: MUSC - University - Post Type of Fuel: ULSD

Serial Number:

Result Test Limits Methods ASTM D1298-99 37 API Gravity by Hydrometer report 44.5 Cetane Index 40 minimum **ASTM D976-01 Cloud Point** report °C ASTM D2500-99 -10 **ASTM D130-04** Copper Strip Corrosion 3 maximum 1a Distillation, 50% report °C **ASTM D86-08a** 242.22 282 - 338 °C 307.22 Distillation, 90% **ASTM D86-08a** 75.56 Flash Point 52 °C minimum **ASTM D93-10** Micro/Culture Medium Negative Microbial Growth report Particulate Contamination report in milligrams/liter **ASTM D6217-08** 4 33 Sulfur 15 ppm maximum ASTM D5453-09 Visual ASTM D4176-04

Visual AppearanceVisualASTM D4176-04Clear, Trace ParticlesWater and Sediment0.05 maximum (% volume)ASTM D27090.001Water by Karl Fischerreport in ppmASTM D6304-1673

#### Comments

High Sulfur: Too much sulfur can cause wear in dieset engines as a result of the corrosive nature of its combustion by-products. It also increases the amount of deposits in the combustion chamber and on the pistons. ASTM sets limits at 15ppm ULSD, 500ppm LSD & 5,000 High Sulfur.



GROUP INFO: MUSC Health	1	DATE: 7-24-2019
CUSTOMER: MUSC	Established I	NFO-OTHER: University Tanks
FACILITY: Building 700 (CHRP BI		
ADDRESS: 123 Jonathan Lucas Si		
- Control of the Cont		
CONTACT: Rick Burt, Matthew Lo		43-323-0437
MAIL burtd@musc.edu, Longmat@	@musc.edu CELL: (84	13) 792-3536
Jnit Id: 700-01-AADT	Type: AST Capacity: 350	Material: Dsl
ast Tank Service: 2018		
UEL SAMPLE TAKEN:		Total and a second
Annual/Pre-Clean Post Clean		
None	10-10-10-10-10-10-10-10-10-10-10-10-10-1	
ERVICES PERFORMED:		
Maintenance		Property Service ()
STI 001 Inspection		
Tank Cleaning		
Bottom Sweep	and the state of t	10 10 10 10 10 10 10 10 10 10 10 10 10 1
Pre-clean Lab Analysis	a right of the state of the sta	
Post-clean Lab Analysis		
✓ HydroClean		
ILFC 1032		
Biocide Predator 6000		THE RESERVE OF THE PARTY OF THE
None	10000	
		A CONTRACTOR OF THE PARTY OF TH
erior Tank Condition:		
Good Bad		
Recommend Inspection		
TE CONDITION.	CONTAMINANTS FOUND:	
TS CONDITION:		VISUAL FUEL RATING:
pod Bad N/A -Fill Cap	Pre-Clean Post Clean	Pre-Clean Post Clean
ood Bad N/A -Fill Cap	Pre-Clean Post Clean None	Pre-Clean Post Clean Refinery Fresh
ood Bad N/A -Fill Cap ood Bad N/A - Vent ood Bad N/A -Fill Port	✓ Pre-Clean Post Clean ✓ NoneBulk Water	✓ Pre-Clean Post Clean Refinery Fresh ✓ Good
bood Bad N/A -Fill Cap bood Bad N/A - Vent bood Bad N/A -Fill Port bood Bad N/A -Sump	Pre-Clean Post Clean None Bulk Water Suspended Water	✓ Pre-Clean Post Clean Refinery Fresh ✓ Good Watch Closely
bood Bad N/A -Fill Cap bood Bad N/A - Vent bood Bad N/A - Fill Port bood Bad N/A - Spill Bucket	Pre-Clean Post Clean None Bulk Water Suspended Water Micro-organisms	✓ Pre-Clean Post Clean Refinery Fresh ✓ Good
bood Bad N/A -Fill Cap bood Bad N/A - Vent bood Bad N/A - Fill Port bood Bad N/A - Spill Bucket bood Bad N/A - Gauge	Pre-Clean Post Clean None Bulk Water Suspended Water Micro-organisms Sediments	✓ Pre-Clean Post Clean Refinery Fresh ✓ Good Watch Closely
bood Bad N/A -Fill Cap bood Bad N/A - Vent bood Bad N/A - Fill Port bood Bad N/A - Spill Bucket bood Bad N/A - Gauge	Pre-Clean Post Clean None Bulk Water Suspended Water Micro-organisms	✓ Pre-Clean Post Clean Refinery Fresh ✓ Good Watch Closely Advanced Aging
bood Bad N/A -Fill Cap bood Bad N/A - Vent bood Bad N/A - Fill Port bood Bad N/A - Spill Bucket bood Bad N/A - Gauge bood Bad N/A - Gaskets	Pre-Clean Post Clean  None Bulk Water Suspended Water Micro-organisms Sediments Rust Sludge	Pre-Clean Post Clean Refinery Fresh Good Watch Closely Advanced Aging Bad-Not Recommended Severe-Do Not Use
bood Bad N/A -Fill Cap bood Bad N/A - Vent bood Bad N/A - Fill Port bood Bad N/A - Spill Bucket bood Bad N/A - Spill Bucket bood Bad N/A - Gauge bood Bad N/A - Gaskets  TANK DOES NOT PASS ASTM D975 "C	Pre-Clean Post Clean None Bulk Water Suspended Water Micro-organisms Sediments Rust Sludge CLEAR & BRIGHT" THIS TA	Pre-Clean Post Clean Refinery Fresh Good Watch Closely Advanced Aging Bad-Not Recommended Severe-Do Not Use  ANK PASSES THE ASTM D975 "CLEAR
bood Bad N/A -Fill Cap bood Bad N/A - Vent bood Bad N/A - Fill Port bood Bad N/A - Spill Bucket bood Bad N/A - Gauge bood Bad N/A - Gaskets	Pre-Clean Post Clean None Bulk Water Suspended Water Micro-organisms Sediments Rust Sludge CLEAR & BRIGHT" THIS TABRIGHT	Pre-Clean Post Clean Refinery Fresh Good Watch Closely Advanced Aging Bad-Not Recommended Severe-Do Not Use  ANK PASSES THE ASTM D975 "CLEAR F" VISUAL INSPECTION.
Dood Bad N/A -Fill Cap Dood Bad N/A - Vent Dood Bad N/A - Vent Dood Bad N/A - Fill Port Dood Bad N/A - Spill Bucket Dood Bad N/A - Gauge Dood Bad N/A - Gaskets  TANK DOES NOT PASS ASTM D975 "CAL INSPECTION	Pre-Clean Post Clean  None Bulk Water Suspended Water Micro-organisms Sediments Rust Sludge  CLEAR & BRIGHT"  Ispection ONLY. Lab Report  THIS TABRIGHT *Lab Rep	Pre-Clean Post Clean Refinery Fresh Good Watch Closely Advanced Aging Bad-Not Recommended Severe-Do Not Use  ANK PASSES THE ASTM D975 "CLEAR F" VISUAL INSPECTION.
bood Bad N/A -Fill Cap bood Bad N/A - Vent bood Bad N/A - Fill Port bood Bad N/A - Spill Bucket bood Bad N/A - Spill Bucket bood Bad N/A - Gauge bood Bad N/A - Gaskets  TANK DOES NOT PASS ASTM D975 "CAL INSPECTION cleaning is recommended based on Visual Fuel In crimine fuel parameters based on ASTM D975 Sp	Pre-Clean Post Clean  None Bulk Water Suspended Water Micro-organisms Sediments Rust Sludge  CLEAR & BRIGHT"  Ispection ONLY Lab Report  Strain Post Clean  Post Clean  Post Clean  Post Clean  Post Clean  Fust Suspended Water  Micro-organisms  Sediments Rust Sludge  THIS TA  BRIGHT  *Lab Report  ASTM Dispection	Pre-Clean Post Clean Refinery Fresh Good Watch Closely Advanced Aging Bad-Not Recommended Severe-Do Not Use  ANK PASSES THE ASTM D975 "CLEAR T" VISUAL INSPECTION. bort will determine fuel parameters based on
Bad N/A -Fill Cap Bad N/A - Vent Bad N/A - Vent Bad N/A - Fill Port Bad N/A - Spill Bucket Bad N/A - Spill Bucket Bad N/A - Gauge Bad N/A - Gaskets  TANK DOES NOT PASS ASTM D975 "CAL INSPECTION Steaning is recommended based on Visual Fuel In	Pre-Clean Post Clean  None Bulk Water Suspended Water Micro-organisms Sediments Rust Sludge  CLEAR & BRIGHT"  Ispection ONLY Lab Report  Strain Post Clean  Post Clean  Post Clean  Post Clean  Post Clean  Fust Suspended Water  Micro-organisms  Sediments Rust Sludge  THIS TA  BRIGHT  *Lab Report  ASTM Dispection	Pre-Clean Post Clean Refinery Fresh Good Watch Closely Advanced Aging Bad-Not Recommended Severe-Do Not Use  ANK PASSES THE ASTM D975 "CLEAR T" VISUAL INSPECTION. bort will determine fuel parameters based on
bood Bad N/A -Fill Cap bood Bad N/A - Vent bood Bad N/A - Fill Port bood Bad N/A - Spill Bucket bood Bad N/A - Spill Bucket bood Bad N/A - Gauge bood Bad N/A - Gaskets  TANK DOES NOT PASS ASTM D975 "CAL INSPECTION cleaning is recommended based on Visual Fuel In crimine fuel parameters based on ASTM D975 Sp	Pre-Clean Post Clean  None Bulk Water Suspended Water Micro-organisms Sediments Rust Sludge  CLEAR & BRIGHT"  Ispection ONLY Lab Report  Strain Post Clean  Post Clean  Post Clean  Post Clean  Post Clean  Fust Suspended Water  Micro-organisms  Sediments Rust Sludge  THIS TA  BRIGHT  *Lab Report  ASTM Dispection	Pre-Clean Post Clean Refinery Fresh Good Watch Closely Advanced Aging Bad-Not Recommended Severe-Do Not Use  ANK PASSES THE ASTM D975 "CLEAR T" VISUAL INSPECTION. bort will determine fuel parameters based on





Loretta Shaw Petroleum Recovery Services 4310 Amsterdam St. North Charleston, SC 29418

843-225-1777

Sample Taken From:

Sample ID:

PO: WO: 700-01-AADT 700-01-AADT

632502

MUSC - University - Pre

Sample Collection Date:

Date Received: Date Released:

Component Make:

Component Model: Tank Capacity:

Quantity in Tank:

Test Package:

Type of Fuel:

Serial Number:

07/24/2019 08/2/2019

08/7/2019

AST

350 g

**PRS Package** 

ULSD

Test	Limits	Methods	Result
API Gravity by Hydrometer	report	ASTM D1298-99	37
Cetane Index	40 minimum	ASTM D976-01	44
Cloud Point	report °C	ASTM D2500-99	-11
Copper Strip Corrosion	3 maximum	ASTM D130-04	1a
Distillation, 50%	report °C	ASTM D86-08a	241.11
Distillation, 90%	282 - 338 °C	ASTM D86-08a	307.78
Flash Point	52 °C minimum	ASTM D93-10	85.56
Microbial Growth	report	Micro/Culture Medium	Negative
Particulate Contamination	report in milligrams/liter	ASTM D6217-08	3.3
Sulfur	15 ppm maximum	ASTM D5453-09	7
Visual Appearance	Visual	ASTM D4176-04	Slightly Cloudy, Trace Particles
Water and Sediment	0.05 maximum (% volume)	ASTM D2709	0.001
Water by Karl Fischer	report in ppm	ASTM D6304-16	85

### Comments



GROUP INFO: MUSC Healt	h	DATE: 7-2-19
CUSTOMER: MUSC		INFO-OTHER: University Tanks
FACILITY: Building 700 (CHRP B	Ildg - Main Tank)	
ADDRESS: 124 Jonathan Lucas S		5
CONTACT: Rick Burt, Matthew L		843-323-0438
EMAIL burtd@musc.edu, Longmat	@musc.edu CELL: (8	843) 792-3537
Unit Id: 700-FT-14	_ Type :AST_ Capacity : _5,0	000 Material: Dsl
Last Tank Service: 2018		
FUEL SAMPLE TAKEN:  Annual/Pre-Clean Post Clean None  SERVICES PERFORMED:  Maintenance STI 001 Inspection Tank Cleaning Bottom Sweep Pre-clean Lab Analysis Post-clean Lab Analysis Fuel Treatment:  HydroClean ILFC 1032 Biocide Predator 6000 None  Exterior Tank Condition:  Good Bad Recommend Inspection	The BAS	eet, North Charleston, South Carolina 28/1 225-IPRS (1777) Fax: 843-377-0412 etoleumrecoveryservicea.com  1/8  Equipment #: 700 Ft#
ARTS CONDITION:	CONTAMINANTS FOUND:	VISUAL FUEL RATING:
Good Bad N/A -Fill Cap	✓ Pre-Clean Post Clean	Pre-Clean Post Clean
Good Bad N/A - Vent	None	Refinery Fresh
Good Bad N/A -Fill Port	Bulk Water Suspended Water	Good
Good Bad N/A - Sump Good Bad N/A - Spill Bucket	Micro-organisms	Watch Closely
Good Bad N/A - Spill Bucket N/A - Gauge	<b>✓</b> Sediments	Advanced Aging
Good Bad N/A - Gaskets	Rust	Bad-Not Recommended
	Sludge	Severe-Do Not Use
IS TANK DOES NOT PASS ASTM D975 "O UAL INSPECTION ik cleaning is recommended based on Visual Fuel I determine fuel parameters based on ASTM D975 S	Inspection ONLY, Lab Report BRIG	TANK PASSES THE ASTM D975 "CLEAR & HT" VISUAL INSPECTION. Report will determine fuel parameters based on D975 Specifications
MMENTS: Picture of the before clean		
SERVICE TECHNICIAN	- Ron and Steven	DATE: 7-2-19

877-252-6396 (Toll Free) • 843-225-1777 • 843-377-0412 (Fax)
4310 Amsterdam St., N. Charleston, SC 29418
www.petroleumrecoveryservices.com





Loretta Shaw Petroleum Recovery Services

4310 Amsterdam St. North Charleston, SC 29418

843-225-1777

Sample Taken From:

Sample ID: PO:

WO:

700-FT-14 700-FT-14

632488

MUSC-University - Pre

Sample Collection Date:

Date Received: Date Released:

Component Make:

Component Model: Tank Capacity:

Quantity in Tank:

Test Package:

Type of Fuel:

Serial Number:

Petroleum Recovery Pkg.

ULŞD

AST

5,000 g

07/2/2019

07/16/2019

07/19/2019

Test	Limits	Methods	Result
API Gravity by Hydrometer	report	ASTM D1298-99	36
Cetane Index	40 minimum	ASTM D976-01	42.8
Cloud Point	report °C	ASTM D2500-99	-11
Copper Strip Corrosion	3 maximum	ASTM D130-04	1a
Distillation, 50%	report °C	ASTM D86-08a	242,22
Distillation, 90%	282 - 338 °C	ASTM D86-08a	306.67
Flash Point	52 °C minimum	ASTM D93-10	74.44
Microbial Growth	report	Micro/Culture Medium	Negative
Particulate Contamination	report in milligrams/liter	ASTM D6217-08	2
Sulfur	15 ppm maximum	ASTM D5453-09	8
Visual Appearance	Visual	ASTM D4176-04	Clear, Few Particles
Water and Sediment	0.05 maximum (% volume)	ASTM D2709	0.001
Water by Karl Fischer	report in ppm	ASTM D6304-16	106

#### Comments



CUSTOMER: MUSC FACILITY: Building 750 (Psychiate ADDRESS: 125 Jonathan Lucas S		NFO-OTHER: University Tanks
ADDRESS: 125 Jonathan Lucas S	ry Institute-Day 1)	
	t. MSC 190, Charleston, SC 29425	
CONTACT: Rick Burt, Matthew Le	ong PHONE: 843	3-323-0439
EMAILburtd@musc.edu, Longmat@	@musc.edu CELL: (843	3) 792-3538
Unit Id: 750-01-220DT	Type: AST Capacity: 1,250	Material: Dsl
ast Tank Service: 2018		
Annual/Pre-Clean  Post Clean None  ERVICES PERFORMED:  Maintenance  STI 001 Inspection  Tank Cleaning Bottom Sweep Pre-clean Lab Analysis  Post-clean Lab Analysis  Hydro Clean ILFC 1032 Biocide Predator 6000 None  Perior Tank Condition:  Good Bad  Recommend Inspection		Parameter Elevany Inc.
RTS CONDITION:  ood Bad N/A -Fill Cap  ood Bad N/A - Vent  ood Bad N/A - Fill Port  ood Bad N/A - Spill Bucket  ood Bad N/A - Spill Bucket  ood Bad N/A - Gauge  ood Bad N/A - Gaskets  TANK DOES NOT PASS ASTM D975 "C  AL INSPECTION  cleaning is recommended based on Visual Fuel In  termine fuel parameters based on ASTAI D975 Sp  MENTS: The before cleaning sample	nspection ONLY, Lab Report *Lab Report *Lab Report	VISUAL FUEL RATING:  Pre-Clean





Loretta Shaw Petroleum Recovery Services 4310 Amsterdam St. North Charleston, SC 29418

843-225-1777

Sample Taken From:

PO:

Sample ID:

WO:

750-01-220DT 750-01-220DT

632504

MUSC - University - Post

Sample Collection Date: Date Received:

07/24/2019 08/2/2019 08/7/2019

Component Make:

Date Released:

Component Model: **AST** Tank Capacity: 1,250 g

Quantity in Tank:

Test Package:

PRS Package **ULSD** 

Type of Fuel: Serial Number:

Methods Result Test Limits API Gravity by Hydrometer ASTM D1298-99 38 report 40 minimum 46 Cetane Index ASTM D976-01 **Cloud Point** report "C **ASTM D2500-99** -9 Copper Strip Corrosion 3 maximum **ASTM D130-04** 1a 241.67 Distillation, 50% report °C **ASTM D86-08a** 282 - 338 °C **ASTM D86-08a** 307.78 Distillation, 90% 52 °C minimum 73.33 Flash Point **ASTM D93-10** Microbial Growth report Micro/Culture Medium Negative report in milligrams/liter 2 Particulate Contamination ASTM D7321-08 6 Sulfur 15 ppm maximum **ASTM D5453-09** Visual Appearance Visual ASTM D4176-04 Clear, Trace Particles 0.001 Water and Sediment 0.05 maximum (% volume) ASTM D2709 Water by Karl Fischer report in ppm ASTM D6304-16 67

### Comments



GROUP INFO: MUSC Healt	h	DATE: 7-24-2019
CUSTOMER: MUSC		INFO-OTHER: University Tanks
FACILITY: Building 750 (Psychia	try Institute-Day 2)	
ADDRESS: 126 Jonathan Lucas S		25
CONTACT: Rick Burt, Matthew I		
		843-323-0440
EMAILburtd@musc.edu, Longmat		843) 792-3539
Unit Id: 750-01-221DT	Type :AST_ Capacity : _1,	250 Material: Dsl
Last Tank Service: 2018		
<b>FUEL SAMPLE TAKEN:</b>		Total Indian
Annual/Pre-Clean		
Post Clean None		
SERVICES PERFORMED:		
Maintenance		
STI 001 Inspection		Bendan Nacovery Service
✓ Tank Cleaning		
Bottom Sweep		6-
Pre-clean Lab Analysis		the country of the leaker
Post-clean Lab Analysis		
Fuel Treatment:  HydroClean		
ILFC 1032		
Biocide Predator 6000		
None		
		THE RESIDENCE OF THE RE
xterior Tank Condition:		
Good Bad		
Recommend Inspection		
RTS CONDITION:	CONTAMINANTS FOUND:  Pre-Clean Post Clean	VISUAL FUEL RATING: Pre-Clean Post Clean
Good Bad N/A -Fill Cap	The state of the s	
Good Bad N/A - Vent	None Bulk Water	Refinery Fresh
Good Bad N/A -Fill Port	Suspended Water	<u>✓</u> Good
Good Bad N/A -Sump	Micro-organisms	Watch Closely
Good Bad N/A - Spill Bucket	✓ Sediments	Advanced Aging
Good Bad N/A - Gauge Good Bad N/A - Gaskets	Rust	Bad-Not Recommended
Good Bad N/A - Gaskets	Sludge	Severe-Do Not Use
S TANK DOES NOT PASS ASTM D975 "(		TANK PASSES THE ASTM D975 "CLEAR &
UAL INSPECTION k cleaning is recommended based on Visual Fuel I		GHT" VISUAL INSPECTION. Report will determine fuel parameters based on
letermine fuel parameters based on ASTM D975 S	• -	1 D975 Specifications
MMENTS: The before cleaning sample	e is on the left and the after cleani	
AIIAICIA I 2:		
SERVICE TECHNICIAN	<sub>V:</sub> Mike & Tommie	DATE: 7-24-2019



106



Laboratory Number: 80219536

Loretta Shaw Petroleum Recovery Services 4310 Amsterdam St.

North Charleston, SC 29418

843-225-1777

Sample Taken From:

Sample ID:

PO: WO: 750-01-221DT 750-01-221DT

632504

MUSC - University - Post

Sample Collection Date:

Date Received:

07/24/2019 08/2/2019 08/7/2019

Component Make:

Date Released:

Component Model: Tank Capacity: AST 1,250 g

ULSD

Quantity in Tank:

Test Package:

PRS Package

Type of Fuel:

Serial Number:

ASTM D6304-16

Test	Limits	Methods	Result
API Gravity by Hydrometer	report	ASTM D1298-99	38
Cetane Index	40 minimum	ASTM D976-01	46.3
Cloud Point	report °C	ASTM D2500-99	-9
Copper Strip Corrosion	3 maximum	ASTM D130-04	1a
Distillation, 50%	report °C	ASTM D86-08a	242.78
Distillation, 90%	282 - 338 °C	ASTM D86-08a	308.33
Flash Point	52 °C minimum	ASTM D93-10	66.11
Microbial Growth	report	Micro/Culture Medium	Negative
Particulate Contamination	report in milligrams/liter	ASTM D6217-08	5.3
Sulfur	15 ppm maximum	ASTM D5453-09	5
Visual Appearance	Visual	ASTM D4176-04	Clear, Trace Particles
Water and Sediment	0.05 maximum (% volume)	ASTM D2709	0.001

### Comments

Water by Karl Fischer

Limits for Particulate Contamination are 10 mg/L in Marine diesel fuel; Petroleum Recovery Services recommends fuel maintenance/filtration on any fuel with 200 ppm or higher of water present.

report in ppm



GROUP INFO: MUSC Health		DATE: 7-15-19
CUSTOMER: MUSC		NFO-OTHER: University Tanks
ACILITY: Building 750 (Psychiat		
	it. MSC 190, Charleston, SC 29425	The state of the s
CONTACT: Rick Burt, Matthew L		[3_333_NAA1
Committee of the Commit		
MAILburtd@musc.edu, Longmat		3) 792-3540
Jnit Id: 750-FT-42	_ Type :AST_ Capacity : 10,00	00 Material: Dsl
ast Tank Service: 2018		
UEL SAMPLE TAKEN:		= 1
Annual/Pre-Clean	-	
Post Clean		Perform Recovery Services  and hard Creatment, Brief Cases Services  and 50-325 1995 (3777) Fax 343-327-427
None ERVICES PERFORMED:	AND THE PERSON NAMED IN	
Maintenance	Studenty Fla now flant, Socyo Ye (20,27%, socyo	Continuent Board Company and Continuent Board Company and Continuent Company and Continuent Company and Company
STI 001 Inspection	TEMPORE A	
Tank Cleaning	ALL MAN BOND BOND BOND BOND BOND BOND BOND BON	9 Julio source 75glvs
Bottom Sweep	75	The second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a section in the second section in the section is a section in the section in the section is a section in the section in the section is a section in the section in the section is a section in the section in the section in the section is a section in the section in the section in the section in the section is a section in the secti
Pre-clean Lab Analysis		Eastprove or 78.0 FT.9
Post-clean Lab Analysis	1 (10) 84	
/ HydroClean		
ILFC 1032	A STATE OF THE STA	
Biocide Predator 6000	177	The second second
		NAME OF TAXABLE PARTY.
None	NAME OF TAXABLE PARTY OF TAXABLE PARTY.	
	denoted the second	
erior Tank Condition:		
erior Tank Condition:		
erior Tank Condition:		
erior Tank Condition: lood Bad Recommend Inspection	CONTAMINANTS FOUND:	VISUAL FUEL RATING:
erior Tank Condition:  ood Bad Recommend Inspection TS CONDITION:	CONTAMINANTS FOUND: Pre-Clean Post Clean	Pre-Clean Post Clean
erior Tank Condition:  food Bad  Recommend Inspection  TS CONDITION:  food Bad N/A -Fill Cap	Pre-Clean Post Clean None	Pre-Clean Post Clean Refinery Fresh
Recommend Inspection  TS CONDITION:  DOI Bad N/A -Fill Cap  Bad N/A - Vent	Pre-Clean Post Clean None Bulk Water	Pre-Clean Post Clean Refinery Fresh Good
Recommend Inspection  TS CONDITION:  TO Bad N/A - Fill Cap  TO Bad N/A - Vent  TO Bad N/A - Fill Port  TO Bad N/A - Sump	Pre-Clean Post Clean None Bulk Water Suspended Water	
rior Tank Condition:  TS CONDITION:	Pre-Clean Post Clean None Bulk Water Suspended Water Micro-organisms	Pre-Clean Post Clean Refinery Fresh Good
rior Tank Condition:  TS CONDITION:	Pre-Clean Post Clean None Bulk Water Suspended Water Micro-organisms Sediments	
rior Tank Condition:  ood Bad  Recommend Inspection  TS CONDITION:  ood Bad N/A - Fill Cap  ood Bad N/A - Vent  ood Bad N/A - Spill Port  ood Bad N/A - Spill Bucket  ood Bad N/A - Gauge	Pre-Clean Post Clean None Bulk Water Suspended Water Micro-organisms	Pre-Clean Post Clean Refinery Fresh Good Watch Closely Advanced Aging
Recommend Inspection  TS CONDITION:  Dod Bad N/A - Fill Cap  Dod Bad N/A - Vent  Dod Bad N/A - Fill Port  Dod Bad N/A - Spill Bucket  Dod Bad N/A - Spill Bucket  Dod Bad N/A - Gaskets	Pre-Clean Post Clean None Bulk Water Suspended Water Micro-organisms Sediments Rust Sludge	Pre-Clean Post Clean Refinery Fresh Good Watch Closely Advanced Aging Bad-Not Recommended Severe-Do Not Use
Recommend Inspection  TS CONDITION:  Dod Bad N/A - Fill Cap  Dod Bad N/A - Vent  Dod Bad N/A - Fill Port  Dod Bad N/A - Spill Bucket  Dod Bad N/A - Gauge  Dod Bad N/A - Gaskets  TANK DOES NOT PASS ASTM D975 "Control of the control	Pre-Clean Post Clean None Bulk Water Suspended Water Micro-organisms Sediments Rust Sludge  CLEAR & BRIGHT" THIS TA	Pre-Clean Post Clean Refinery Fresh Good Watch Closely Advanced Aging Bad-Not Recommended Severe-Do Not Use
Recommend Inspection  TS CONDITION:  Dod Bad N/A - Fill Cap  Dod Bad N/A - Vent  Dod Bad N/A - Fill Port  Dod Bad N/A - Spill Bucket  Dod Bad N/A - Gauge  Dod Bad N/A - Gaskets  TANK DOES NOT PASS ASTM D975 "CAL INSPECTION	Pre-Clean Post Clean None Bulk Water Suspended Water Micro-organisms Sediments Rust Sludge CLEAR & BRIGHT" THIS TA	Pre-Clean Post Clean Refinery Fresh Good Watch Closely Advanced Aging Bad-Not Recommended Severe-Do Not Use  NK PASSES THE ASTM D975 "CLEAR" VISUAL INSPECTION.
Prior Tank Condition:  Frood Bad  Recommend Inspection  TS CONDITION:  Frood Bad N/A - Fill Cap  Frood Bad N/A - Fill Port  Frood Bad N/A - Spill Bucket  Frood Bad N/A - Gauge  Frood Bad N/A - Gaskets  FROM BAD N/A - Gaskets	Pre-Clean Post Clean None Bulk Water Suspended Water Micro-organisms Sediments Rust Sludge CLEAR & BRIGHT" THIS TA BRIGHT *Lab Report	Pre-Clean Post Clean Refinery Fresh Good Watch Closely Advanced Aging Bad-Not Recommended Severe-Do Not Use
Recommend Inspection  TS CONDITION:  Dod Bad N/A - Fill Cap  Dod Bad N/A - Fill Port  Dod Bad N/A - Spill Bucket  Dod Bad N/A - Spill Bucket  Dod Bad N/A - Gauge  Dod Bad N/A - Gauge  Dod Bad N/A - Gaskets  TANK DOES NOT PASS ASTM D975 "On the Inspection of Language of	Pre-Clean Post Clean None Bulk Water Suspended Water Micro-organisms Sediments Rust Sludge CLEAR & BRIGHT" THIS TA BRIGHT *Lab Report	Pre-Clean Post Clean Refinery Fresh Good Watch Closely Advanced Aging Bad-Not Recommended Severe-Do Not Use  NK PASSES THE ASTM D975 "CLEAR" VISUAL INSPECTION. ort will determine fuel parameters based on [75 Specifications]
Recommend Inspection  TS CONDITION:	Pre-Clean Post Clean  None Bulk Water Suspended Water Micro-organisms Sediments Rust Sludge  CLEAR & BRIGHT"  Inspection ONLY. Lab Report  *Lab Report ASTM D9	Pre-Clean Post Clean Refinery Fresh Good Watch Closely Advanced Aging Bad-Not Recommended Severe-Do Not Use  NK PASSES THE ASTM D975 "CLEAR" VISUAL INSPECTION. ort will determine fuel parameters based on [75 Specifications]
Recommend Inspection  TS CONDITION:  Dod Bad N/A - Fill Cap  Dod Bad N/A - Fill Port  Dod Bad N/A - Spill Bucket  Dod Bad N/A - Spill Bucket  Dod Bad N/A - Gauge  Dod Bad N/A - Gauge  Dod Bad N/A - Gaskets  TANK DOES NOT PASS ASTM D975 "On the Inspection of Language of	Pre-Clean Post Clean  None Bulk Water Suspended Water Micro-organisms Sediments Rust Sludge  CLEAR & BRIGHT"  Inspection ONLY. Lab Report  *Lab Report ASTM D9	Pre-Clean Post Clean Refinery Fresh Good Watch Closely Advanced Aging Bad-Not Recommended Severe-Do Not Use  NK PASSES THE ASTM D975 "CLEAR" VISUAL INSPECTION. ort will determine fuel parameters based on [75 Specifications]
Recommend Inspection  TS CONDITION:  DOD BAD N/A - Fill Cap  DOD BAD N/A - Vent  DOD BAD N/A - Spill Port  DOD BAD N/A - Spill Bucket  DOD BAD N/A - Gauge  DOD BAD N/A - Gauge  DOD BAD N/A - Gaskets  TANK DOES NOT PASS ASTM D975 "O  AL INSPECTION  Cleaning is recommended based on Visual Fuel In  Dord BAD DY Sylvanian Control of the Co	Pre-Clean Post Clean  None Bulk Water Suspended Water Micro-organisms Sediments Rust Sludge  CLEAR & BRIGHT"  Inspection ONLY. Lab Report  *Lab Report ASTM D9	Pre-Clean Post Clean Refinery Fresh Good Watch Closely Advanced Aging Bad-Not Recommended Severe-Do Not Use  NK PASSES THE ASTM D975 "CLEAR" VISUAL INSPECTION. ort will determine fuel parameters based on [75 Specifications]





Loretta ShawSample Collection Date:07/15/2019Petroleum Recovery ServicesDate Received:07/31/20194310 Amsterdam St.Date Released:08/5/2019

North Charleston, SC 29418 Component Make:

 843-225-1777
 Component Model:
 AST

 Sample Taken From:
 750-FT-42
 Tank Capacity:
 10,000 g

Sample ID: 750-FT-42 Quantity in Tank:

PO: 632499 Test Package: PRS Package

WO: MUSC - University - Post Type of Fuel: ULSD

Serial Number:

Test	Limits	Methods	Result
API Gravity by Hydrometer	report	ASTM D1298-99	38
Cetane Index	40 minimum	ASTM D976-01	46.1
Cloud Point	report °C	ASTM D2500-99	-8
Copper Strip Corrosion	3 maximum	ASTM D130-04	1a
Distillation, 50%	report *C	ASTM D86-08a	242.22
Distillation, 90%	282 - 338 °C	ASTM D86-08a	307.22
Flash Point	52 °C minimum	ASTM D93-10	63.89
Microbial Growth	report	Micro/Culture Medium	Negative
Particulate Contamination	report in milligrams/liter	ASTM D6217-08	4.7
Sulfur	15 ppm maximum	ASTM D5453-09	5
Visual Appearance	Visual	ASTM D4176-04	Clear, Trace Particles
Water and Sediment	0.05 maximum (% volume)	ASTM D2709	0.001
Water by Karl Fischer	report in ppm	ASTM D6304-16	75

### Comments



CUSTOMER: MUSC	IN	FO-OTHER: University Tanks
FACILITY: Building 770 (ONAN D	Pay Tank)	34
ADDRESS: 128 Jonathan Lucas S	St. MSC 190, Charleston, SC 29425	
CONTACT: Rick Burt, Matthew L	ong PHONE: 843	3-323-0442
EMAILburtd@musc.edu, Longmat		
Unit Id: 770-01-20DT	Type: AST Capacity: 150	
Last Tank Service: 2018		The state of the s
Annual/Pre-Clean  Post Clean None  ERVICES PERFORMED:  Maintenance STI 001 Inspection  Tank Cleaning Bottom Sweep Pre-clean Lab Analysis  Post-clean Lab Analysis  Include Treatment:  HydroClean ILFC 1032 Biocide Predator 6000 None  Mone  Merior Tank Condition:  Good Bad  Recommend Inspection	moleum Racuvuy	
RTS CONDITION:  ood Bad N/A -Fill Cap  ood Bad N/A - Vent  ood Bad N/A - Fill Port  ood Bad N/A - Sump  ood Bad N/A - Spill Bucket  ood Bad N/A - Gauge  ood Bad N/A - Gaskets	CONTAMINANTS FOUND: Pre-Clean _ ✓ Post Clean NoneBulk WaterSuspended WaterMicro-organismsSedimentsRustSludge	VISUAL FUEL RATING:  Pre-Clean   Post Clean  Refinery Fresh  ✓ Good  Watch Closely  Advanced Aging  Bad-Not Recommended  Severe-Do Not Use
TANK DOES NOT PASS ASTM D975 "C AL INSPECTION	CLEAR & BRIGHT" THIS TAN BRIGHT"	IK PASSES THE ASTM D975 "CLEAR VISUAL INSPECTION. It will determine fuel parameters based on

877-252-6396 (Toll Free) • 843-225-1777 • 843-377-0412 (Fax)
4310 Amsterdam St., N. Charleston, SC 29418
www.petroleumrecoveryservices.com

SERVICE TECHNICIAN: Mike & Tommie

\_DATE:\_8/15/19





Loretta Shaw Petroleum Recovery Services 4310 Amsterdam St.

North Charleston, SC 29418

843-225-1777

Sample Taken From: 770-01-20DT Sample ID: 770-01-20DT PO: 632519

WO:

MUSC - University - Post

Sample Collection Date: 08/15/2019 08/23/2019 Date Received: Date Released: 08/30/2019

Component Make:

Component Model: **AST** Tank Capacity: 150 g

Quantity in Tank:

Test Package: PRS Package

Type of Fuel: ULSD

Serial Number:

Test	Limits	Methods	Result
API Gravity by Hydrometer	report	ASTM D1298-99	37
Cetane Index	40 minimum	ASTM D976-01	44.7
Cloud Point	report °C	ASTM D2500-99	-15
Copper Strip Corrosion	3 maximum	ASTM D130-04	1a
Distillation, 50%	report °C	ASTM D86-08a	242.78
Distillation, 90%	282 - 338 °C	ASTM D86-08a	307.22
Flash Point	52 °C minimum	ASTM D93-10	70,56
Microbial Growth	report	Micro/Culture Medium	Negative
Particulate Contamination	report in milligrams/liter	ASTM D6217-08	4.7
Sulfur	15 ppm maximum	ASTM D5453-09	30
Visual Appearance	Visual	ASTM D4176-04	Clear, Few Particles
Water and Sediment	0.05 maximum (% volume)	ASTM D2709	0.001
Water by Karl Fischer	report in ppm	ASTM D6304-16	65

### Comments

High Sulfur: Too much sulfur can cause wear in diesel engines as a result of the corrosive nature of its combustion by-products. It also increases the amount of deposits in the combustion chamber and on the pistons. ASTM sets limits at 15ppm ULSD, 500ppm LSD & 5,000 High Sulfur.



GROUP INFO: MUSC Healt	h	DATE: 7-1-19
CUSTOMER: MUSC	THE RESERVE	NFO-OTHER: University Tanks
FACILITY: Building 770 (Caterpil		
ADDRESS: 129 Jonathan Lucas S	St. MSC 190, Charleston, SC 29425	
CONTACT: Rick Burt, Matthew L	ong PHONE: 8	43-323-0443
EMAIL burtd@musc.edu, Longmat		3) 792-3542
Unit Id: 770-01-24DT	Type: AST Capacity: 200	Material: Dsl
Last Tank Service: 2018		
FUEL SAMPLE TAKEN:  Annual/Pre-Clean Post Clean None  SERVICES PERFORMED:  Maintenance STI 001 Inspection Tank Cleaning Bottom Sweep Pre-clean Lab Analysis Post-clean Lab Analysis Fuel Treatment:  Hydro Clean ILFC 1032 Biocide Predator 6000 None  sterior Tank Condition:  Good Bad  Recommend Inspection	225-1PRS	COVERY Services Charleston, South Carolina 2941 i (1777) Fax: 843-377-0412 pooveryservices.com 17  Cot Day Race Equipment #: 770-01348
RTS CONDITION:  Good Bad N/A - Fill Cap Good Bad N/A - Vent Good Bad N/A - Spill Port Good Bad N/A - Spill Bucket Good Bad N/A - Spill Bucket Good Bad N/A - Gauge Good Bad N/A - Gaskets  S TANK DOES NOT PASS ASTM D975 "O JAL INSPECTION R cleaning is recommended based on Visual Fuel I letermine fuel parameters based on ASTM D975 SI MMENTS: Picture of the before cleaning	Inspection ONLY. Lab Report *Lab Report *Lab Report ASTM De	VISUAL FUEL RATING:  ✓ Pre-Clean Post Clean  Refinery Fresh  ✓ Good  Watch Closely  Advanced Aging  Bad-Not Recommended  Severe-Do Not Use  ANK PASSES THE ASTM D975 "CLEAR of VISUAL INSPECTION.  Foort will determine fuel parameters based on 1975 Specifications





Loretta Shaw

Petroleum Recovery Services

4310 Amsterdam St.

North Charleston, SC 29418

843-225-1777

Sample Taken From:

Sample ID:

PO:

WO:

770-01-24DT 200 GAL 770-01-24DT 200 GAL

632488

MUSC-University - Pre

Sample Collection Date:

07/1/2019 07/16/2019

Date Received: Date Released:

07/19/2019

Component Make:

Component Model:

AST 200 g

Tank Capacity: Quantity in Tank:

Test Package:

Petroleum Recovery Pkg.

Type of Fuel: Serial Number: ULSD

Test	Limits	Methods	Result
API Gravity by Hydrometer	report	ASTM D1298-99	36
Cetane Index	40 minimum	ASTM D976-01	42.9
Cloud Point	report °C	ASTM D2500-99	-8
Copper Strip Corrosion	3 maximum	ASTM D130-04	1a
Distillation, 50%	report °C	ASTM D86-08a	242.78

Distillation, 50% Distillation, 90% Flash Point

Microbial Growth Particulate Contamination

Sulfur

Visual Appearance Water and Sediment

Water by Karl Fischer

report °C 282 - 338 °C 52 °C minimum

report report in milligrams/liter

Visual 0.05 maximum (% volume) report in ppm

15 ppm maximum

ASTM D86-08a **ASTM D86-08a ASTM D93-10** Micro/Culture Medium ASTM D6217-08 ASTM D5453-09 **ASTM D4176-04 ASTM D2709** 

ASTM D6304-16

307.78 Negative

70.56

0

39

Clear, Few Particles 0.001 104

### Comments

High Sulfur: Too much sulfur can cause wear in diesel engines as a result of the corrosive nature of its combustion by-products. It also increases the amount of deposits in the combustion chamber and on the pistons. ASTM sets limits at 15ppm ULSD, 500ppm LSD & 5,000 High Sulfur.



GROUP INFO: MUSC Healt	th	DATE: 7-1-19
CUSTOMER: MUSC	THE RESERVE	INFO-OTHER: University Tanks
FACILITY: Building 770 Boiler	De com	
ADDRESS: 130 Jonathan Lucas S	St MSC 100 Charleston St	C 20405
CONTACT: Rick Burt, Matthew I		HONE: 843-323-0444
EMAILburtd@musc.edu, Longmat	@musc.edu CE	ELL: (843) 792-3543
Unit Id: 770-FT-23	Type :UST_ Capacit	ty: 10,000 Material: Dsl
Last Tank Service: 2018		
FUEL SAMPLE TAKEN:		
✓ Annual/Pre-Clean		
Post Clean None	-10x21000	
SERVICES PERFORMED:	Description of the second	Recovery Services PAS
Maintenance	A CHARLES AND A	mein Recovery Ser Carolina 29418
STI 001 Inspection		10 10 100 100 11777 FEE 843:377-04 12
Tank Cleaning		estimate overview ces.com
Bottom Sweep	and the state of t	1 19
✓ Pre-clean Lab Analysis  Post-clean Lab Analysis	ALLEGO NEED	
Fuel Treatment:		122 21 (26)
✓ HydroClean	TOTAL STREET	Bolt Octated
ILFC 1032	THE RESERVE OF THE PARTY OF THE	Equipment # >26=FT-23
Biocide Predator 6000	BOTT DOMESTS	
None	Supremurb 2	
xterior Tank Condition:	Street Liver	
Good Bad		
Recommend Inspection		
Recommend Inspection		
ARTS CONDITION:	CONTAMINANTS FOL	
Good Bad N/A -Fill Cap	None Pre-Clean Post Cl	Refinery Fresh
Good Bad N/A - Vent	Bulk Water	✓ Good
Good Bad N/A -Fill Port	Suspended Wat	
Good Bad N/A -Sump Good Bad N/A - Spill Bucket	Micro-organism	watch closely
Good Bad N/A - Gauge	<b>✓</b> Sediments	Advanced Aging
Good Bad N/A - Gaskets	Rust	Bad-Not Recommended
	Sludge	Severe-Do Not Use
IS TANK DOES NOT PASS ASTM D975 "	CLEAR & BRIGHT"	THIS TANK PASSES THE ASTM D975 "CLEAR &
UAL INSPECTION		BRIGHT" VISUAL INSPECTION.
nk cleaning is recommended based on Visual Fuel i determine fuel parameters based on ASTM 19975 S		*Lab Report will determine fuel parameters based on ASTM D975 Specifications
MMENTS: Picture of the before clean	- 30000000	поставрения поставления
MINIE (413.		
	Pon and Stoven	DATE: 7-1-19
SERVICE TECHNICIAN	A: I IOH AHA SIBYELL	DATE: 7-1-19

877-252-6396 (Toll Free) • 843-225-1777 • 843-377-0412 (Fax)
4310 Amsterdam St., N. Charleston, SC 29418
www.petroleumrecoveryservices.com





Loretta Shaw Petroleum Recovery Services 4310 Amsterdam St. North Charleston, SC 29418

843-225-1777

 Sample Taken From:
 770-FT-23

 Sample ID:
 770-FT-23

 PO:
 632488

WO:

MUSC-University - Pre

Sample Collection Date:
Date Received:

07/1/2019 07/16/2019 07/19/2019

Date Released: Component Make:

Component Model: UST
Tank Capacity: 10,000 g

Quantity in Tank:

Test Package: Petroleum Recovery Pkg.

Type of Fuel: ULSD

Serial Number:

Test	Limits	Methods	Result
API Gravity by Hydrometer	report	ASTM D1298-99	37
Cetane Index	40 minimum	ASTM D976-01	46.9
Cloud Point	report °C	ASTM D2500-99	-11
Copper Strip Corrosion	3 maximum	ASTM D130-04	1a
Distillation, 50%	report *C	ASTM D86-08a	251.11
Distillation, 90%	282 - 338 °C	ASTM D86-08a	307.78
Flash Point	52 °C minimum	ASTM D93-10	72.22
Microbial Growth	report	Micro/Culture Medium	Negative
Particulate Contamination	report in milligrams/liter	ASTM D6217-08	0
Sulfur	15 ppm maximum	ASTM D5453-09	4
Visual Appearance	Visual	ASTM D4176-04	Clear, Few Particles
Water and Sediment	0.05 maximum (% volume)	ASTM D2709	0.001
Water by Karl Fischer	report in ppm	ASTM D6304-16	63

### Comments



GROUP INFO: MUSC Health	1	DATE: 8/8/19
CUSTOMER: MUSC		INFO-OTHER: University Tanks
FACILITY: Building 770 Generato	r	
ADDRESS: 131 Jonathan Lucas S	t. MSC 190, Charleston, SC	29425
CONTACT: Rick Burt, Matthew L	ong PH	ONE: 843-323-0445
EMAIL burtd@musc.edu, Longmat		LL: (843) 792-3544
Unit Id: 770-FT-24		y: 10,000 Material: Dsl
Last Tank Service: 2018	THE STATE OF	
FUEL SAMPLE TAKEN:  Annual/Pre-Clean  Post Clean None  SERVICES PERFORMED:  Maintenance  STI 001 Inspection  Tank Cleaning  Bottom Sweep  Pre-clean Lab Analysis  Post-clean Lab Analysis  Fuel Treatment:  HydroClean  ILFC 1032  Biocide Predator 6000  None  xterior Tank Condition:  Good Bad  Recommend Inspection	A SECOND	
Good Bad N/A -Fill Cap Good Bad N/A - Vent Good Bad N/A - Fill Port Good Bad N/A - Spill Bucket Good Bad N/A - Spill Bucket Good Bad N/A - Gauge Good Bad N/A - Gaskets  IS TANK DOES NOT PASS ASTM D975 "Count of the Cleaning is recommended based on Visual Fuel Inductional Englance of the Country of the Cleaning is recommended based on ASTAI D975 Spin MMENTS:  This is your after cleaning second and second s	sspection ONLY, Lab Report	Refinery Fresh Good  Good  Watch Closely
SERVICE TECHNICIAN	Mike & Tommie	DATE: 8/8/19

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4310 Amsterdam St., N. Charleston, SC 29418
www.petroleumrecoveryservices.com





Loretta Shaw Petroleum Recovery Services 4310 Amsterdam St. North Charleston, SC 29418

843-225-1777

Sample Taken From: Sample ID: PO: 632519

WO:

770-FT-24 770-FT-24

MUSC - University - Post

Sample Collection Date: 08/8/2019 Date Received: 08/23/2019 Date Released: 08/30/2019

Component Make:

UST Component Model: Tank Capacity: 10,000 g

Quantity in Tank:

Test Package: **PRS Package** 

**ULSD** Type of Fuel:

Serial Number:

Test	Limits	Methods	Result
API Gravity by Hydrometer	report	ASTM D1298-99	36
Cetane Index	40 minimum	ASTM D976-01	42.9
Cloud Point	report °C	ASTM D2500-99	-7
Copper Strip Corrosion	3 maximum	ASTM D130-04	1a
Distillation, 50%	report °C	ASTM D86-08a	242.78
Distillation, 90%	282 - 338 °C	ASTM D86-08a	307.22
Flash Point	52 °C minimum	ASTM D93-10	73.33
Microbial Growth	report	Micro/Culture Medium	Negative
Particulate Contamination	report in milligrams/liter	ASTM D6217-08	1.3
Sulfur	15 ppm maximum	ASTM D5453-09	32
Visual Appearance	Visual	ASTM D4176-04	Clear, Trace Particles
Water and Sediment	0.05 maximum (% volume)	ASTM D2709	0.001
Water by Karl Fischer	report in ppm	ASTM D6304-16	69

### Comments

High Sulfur: Too much sulfur can cause wear in diesel engines as a result of the corrosive nature of its combustion by-products. It also increases the amount of deposits in the combustion chamber and on the pistons. ASTM sets limits at 15ppm ULSD, 500ppm LSD & 5,000 High Sulfur.



GROUP INFO: MUSC Health	h		DATE: 7-3-19
CUSTOMER: MUSC		INF	O-OTHER: University Tanks
FACILITY: Building 810 (Harborvi	iew FT-15) (810-FT-15		
ADDRESS: 132 Jonathan Lucas S	it. MSC 190, Charlesto	on, SC 29425	The same
CONTACT: Rick Burt, Matthew L		PHONE: 843-	323-0446
EMAILburtd@musc.edu, Longmato		CELL: (843)	
		_	100
Unit Id: 810-01-12DT	_ Type :AST_ Ca	pacity: 395	Material: Dsl
Last Tank Service: 2018			
FUEL SAMPLE TAKEN:  Annual/Pre-Clean Post Clean None  SERVICES PERFORMED: Maintenance STI 001 Inspection Tank Cleaning Bottom Sweep Pre-clean Lab Analysis Post-clean Lab Analysis Fuel Treatment:  HydroClean ILFC 1032 Biocide Predator 6000 None  xterior Tank Condition:  Good Bad Recommend Inspection		Sret. North Charles 19-225-1PRS (1777) meschuleumrecove 3 / /9	
ARTS CONDITION:  Good Bad N/A - Fill Cap Good Bad N/A - Vent Good Bad N/A - Fill Port Good Bad N/A - Spill Bucket Good Bad N/A - Spill Bucket Good Bad N/A - Gauge Good Bad N/A - Gaskets  IS TANK DOES NOT PASS ASTM D975 "COULL INSPECTION and cleaning is recommended based on Visual Fuel In determine fuel parameters based on ASTM D973 Sp  MMENTS: Picture of the before cleaning	None Bulk Wate Suspendee Micro-org Sediments Rust Sludge  CLEAR & BRIGHT"  Aspection ONLY. Lab Report secifications	Post Clean  er  I Water  anisms  THIS TANK  BRIGHT" \ *Lab Report	VISUAL FUEL RATING:  ✓ Pre-Clean Post Clean  Refinery Fresh  ✓ Good  Watch Closely  Advanced Aging  Bad-Not Recommended  Severe-Do Not Use  CPASSES THE ASTM D975 "CLEAR & "ISUAL INSPECTION.  will determine fuel parameters based on Specifications
SERVICE TECHNICIAN	- Ron and Steven		DATE: 7-3-19

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www.petroleumrecoveryservices.com





Loretta Shaw Petroleum Recovery Services 4310 Amsterdam St.

North Charleston, SC 29418

843-225-1777

 Sample Taken From:
 810-01-12DT

 Sample ID:
 810-01-12DT

 PO:
 632488

WO: MUSC-University - Pre

 Sample Collection Date:
 07/3/2019

 Date Received:
 07/16/2019

 Date Released:
 07/19/2019

Component Make:

Component Model: AST
Tank Capacity: 395 g

Quantity in Tank:

Test Package: Petroleum Recovery Pkg.

Type of Fuel: ULSD

Serial Number:

Test	Limits	Methods	Result
API Gravity by Hydrometer	report	ASTM D1298-99	37
Cetane Index	40 minimum	ASTM D976-01	45.7
Cloud Point	report *C	ASTM D2500-99	-8
Copper Strip Corrosion	3 maximum	ASTM D130-04	1a
Distillation, 50%	report °C	ASTM D86-08a	246.67
Distillation, 90%	282 - 338 °C	ASTM D86-08a	307.78
Flash Point	52 °C minimum	ASTM D93-10	73.33
Microbial Growth	report	Micro/Culture Medium	Negative
Particulate Contamination	report in milligrams/liter	ASTM D6217-08	1.3
Sulfur	15 ppm maximum	ASTM D5453-09	32
Visual Appearance	Visual	ASTM D4176-04	Clear, Few Particles
Water and Sediment	0.05 maximum (% volume)	ASTM D2709	0.005
Water by Karl Fischer	report in ppm	ASTM D6304-16	52

#### Comments

High Sulfur: Too much sulfur can cause wear in diesel engines as a result of the corrosive nature of its combustion by-products. It also increases the amount of deposits in the combustion chamber and on the pistons. ASTM sets limits at 15ppm ULSD, 500ppm LSD & 5,000 High Sulfur.



GROUP INFO: MUSC Healt	h	DATE: 7-2-19
CUSTOMER: MUSC	HEA-may September	NFO-OTHER: University Tanks
FACILITY: Building 830 Day Tanl		
	St. MSC 190, Charleston, SC 29425	The second
CONTACT: Rick Burt, Matthew I		43-323-0447
EMAIL burtd@musc.edu, Longmat	@musc.edu CELL: (84	13) 792-3546
Unit Id: 830-01-116-DT	Type :AST_ Capacity : _25_	Material: Dsl
ast Tank Service: 2018		
FUEL SAMPLE TAKEN:		
✓ Annual/Pre-Clean	/	A STATE OF THE REAL PROPERTY.
Post Clean	Theoretical Control of the Control o	A PROPERTY OF
None ERVICES PERFORMED:	(1)	D 50 (51 91 00)
Maintenance	Control of the Law Control of th	The rest of the section
STI 001 Inspection		
Tank Cleaning		Meum Recovery Services
Bottom Sweep		Street, North Charleston, South Carolina 29419 143/25-IPRS (1777) Fax: 843-377-0412
✓ Pre-clean Lab Analysis		mecoveryservices.com
Post-clean Lab Analysis		2 19 (Btr)
uel Treatment:		
HydroClean		110
ILFC 1032	Section 11	830 Day
Biocide Predator 6000 None	- The state of the	Equipment #: 530-el-list
IAORIC	ALEHI, HIGH	
erior Tank Condition:	100	
Good Bad		
Recommend Inspection	_	
TS CONDITION:	<b>CONTAMINANTS FOUND:</b>	VISUAL FUEL RATING:
ood Bad N/A -Fill Cap	✔ Pre-Clean Post Clean	✓ Pre-Clean Post Clean
ood Bad N/A - Vent	None	Refinery Fresh
ood Bad N/A -Fill Port	Bulk Water	✓ Good
ood Bad N/A -Sump	Suspended Water	Watch Closely
ood Bad N/A - Spill Bucket	Micro-organisms	Advanced Aging
ood Bad N/A - Gauge	Sediments	Bad-Not Recommended
ood Bad N/A - Gaskets	Rust	Severe-Do Not Use
	Sludge	Severe-Do Not Use
TANK DOES NOT PASS ASTM D975 "	THIS T	ANK PASSES THE ASTM D975 "CLEAR
AL INSPECTION		T" VISUAL INSPECTION.
cleaning is recommended hased on Visual Fuel i	Inspection ONLY. Lub Report *Lab Rep	
· ·	Inspection ONLY. Lub Report *Lab Rep	ort will determine fuel parameters based on 975 Specifications
cleaning is recommended hased on Visual Fuel i	Inspection ONLY, Lub Report *Lab Report ASTM D	
cleaning is recommended based on Visual Fuel is crimine fuel parameters based on ASTAI D975 S	Inspection ONLY, Lub Report *Lab Report ASTM D	
cleaning is recommended based on Visual Fuel is crimine fuel parameters based on ASTAI D975 S	Inspection ONLY, Lub Report *Lab Report ASTM D	
cleaning is recommended based on Visual Fuel is crimine fuel parameters based on ASTAI D975 S	Inspection ONLY, Lub Report *Lab Report ASTM D	oort will determine fuel parameters based on 975 Specifications

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Loretta ShawSample Collection Date:07/2/2019Petroleum Recovery ServicesDate Received:07/16/20194310 Amsterdam St.Date Released:07/19/2019

North Charleston, SC 29418 Component Make:

843-225-1777 Component Model: AST Sample Taken From: 830-01-116DT Tank Capacity: 25 g

Sample ID: 830-01-116DT Quantity in Tank:

PO: 632488 Test Package; Petroleum Recovery Pkg.

WO: MUSC-University - Pre Type of Fuel: ULSD

Serial Number:

Test	Limits	Methods	Result
API Gravity by Hydrometer	report	ASTM D1298-99	36
Cetane Index	40 minimum	ASTM D976-01	42.9
Cloud Point	report °C	ASTM D2500-99	-10
Copper Strip Corrosion	3 maximum	ASTM D130-04	1a
Distillation, 50%	report °C	ASTM D86-08a	242,78
Distillation, 90%	282 - 338 °C	ASTM D86-08a	307.22
Flash Point	52 °C minimum	ASTM D93-10	67.22
Microbial Growth	report	Micro/Culture Medium	Negative
Particulate Contamination	report in milligrams/liter	ASTM D6217-08	1.3
Sulfur	15 ppm maximum	ASTM D5453-09	95
Visual Appearance	Visual	ASTM D4176-04	Clear, Few Particles
Water and Sediment	0.05 maximum (% volume)	ASTM D2709	0.005
Water by Karl Fischer	report in ppm	ASTM D6304-16	75

### Comments

High Sulfur: Too much sulfur can cause wear in diesel engines as a result of the corrosive nature of its combustion by-products. It also increases the amount of deposits in the combustion chamber and on the pistons. ASTM sets limits at 15ppm ULSD, 500ppm LSD & 5,000 High Sulfur.



GROUP INFO: MUSC Health	DATE: 7-2-19
CUSTOMER: MUSC	INFO-OTHER: University Tanks
EACILITY Building 830	The state of the s
ADDRESS: 134 Jonathan Lucas St. MSC 190, Cha	arleston, SC 29425
CONTACT: Rick Burt, Matthew Long	PHONE: 843-323-0448
CONTACT: HICK BUILT, Manufacturer adult	CELL: (843) 792-3547
EMAIL.burtd@musc.edu, Longmat@musc.edu	
	Capacity: 500 Material: DSI
Last Tank Service: 2018	
FUEL SAMPLE TAKEN:	
✓ Annual/Pre-Clean Post Clean	
None	A OR MAN STEEL OF THE PARTY OF
SERVICES PERFORMED: Maintenance	Passyany Camelan PRS
STI 001 Inspection	Three Charleston South Coast
Tank Cleaning	PRS (1777) Fair: 843-377-0412
Botton Sweep	19
Pre-clean Lab Analysis Post-clean Lab Analysis	(n)
Fuel Treatment:	(Detare)
✓ HydroClean	Re
ILFC 1032	Engl
Biocide Predator 6000	Equipment #: 830-97-11
Tione	
Exterior ank Condition:	
<b>God</b> Bad Bad	
Rarmend Inspection	
PARTONDITION: CONTAMIN	ANTS FOUND: VISUAL FUEL RATING:
God Bad N/A -Fill Cap	n Post Clean Pre-Clean Post Clean
God Bad N/A - VentNo	
God Dati N/A -Fill Folt	Ik Water Good
- Lad IVA -Sump	spended Water Watch Closely cro-organisms
So Tale INA - Spill Bucket	liments Advanced Aging
	stBad-Not Recommended
Sh	dgeSevere-Do Not Use
THIS TES NOT PASS ASTM D975 "CLEAR & BRIGHT	THIS TANK PASSES THE ASTM D975 "CLEAR &
VISUATTION	BRIGHT" VISUAL INSPECTION.
*Tank el commended hased on Visual Fuel Inspection ONLY. Lab will dete rameters based on ASTM D975 Specifications	*Lab Report will determine fuel parameters based on
COMpeture of the before cleaning sample	ASTM D975 Specifications
COMMITTEE OF the before cleaning sample	
ERVICE TECHNICIAN: Ron and Steve	on DATE: 7-2-19
THE ILEMATORAL TOTAL	DATE

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72





Loretta Shaw

Petroleum Recovery Services

4310 Amsterdam St.

North Charleston, SC 29418

843-225-1777

Sample Taken From:

Sample ID:

PO:

WO:

830-FT-11 830-FT-11

632488

MUSC-University - Pre

Sample Collection Date:

Date Received:

Date Released:

Component Make:

Component Model: Tank Capacity:

Quantity in Tank:

Test Package:

Type of Fuel:

Serial Number:

07/2/2019

07/16/2019

07/19/2019

**AST** 

500 g

Petroleum Recovery Pkg.

ULSD

Test	Limits	Methods	Result
API Gravity by Hydrometer	report	ASTM D1298-99	37
Cetane Index	40 minimum	ASTM D976-01	44.5
Cloud Point	report °C	ASTM D2500-99	-12
Copper Strip Corrosion	3 maximum	ASTM D130-04	1a
Distillation, 50%	report °C	ASTM D86-08a	242.78
Distillation, 90%	282 - 338 °C	ASTM D86-08a	306.67
Flash Point	52 °C minimum	ASTM D93-10	75.56
Microbial Growth	report	Micro/Culture Medium	Negative
Particulate Contamination	report in milligrams/liter	ASTM D6217-08	8
Sulfur	15 ppm maximum	ASTM D5453-09	97
Visual Appearance	Visual	ASTM D4176-04	Clear, Light Solment, Some Particles
Water and Sediment	0.05 maximum (% volume)	ASTM D2709	0.01
Water by Karl Fischer	report in ppm	ASTM D6304-16	72

#### Comments

High Sulfur: Too much sulfur can cause wear in diesel engines as a result of the corrosive nature of its combustion by-production increases the amount of deposits in the combustion chamber and on the pistons. ASTM sets limits at 15ppm ULSD, 500ppm U5,000 High Sulfur.

Limits for Particulate Contamination are 10 mg/L in Marine diesel fuel; Petroleum Recovery Services recommends fuel maintenance/filtration on any fuel with 200 ppm or higher of water present.

These results are submitted pursuant to our terms, conditions and limitations and laboratory pricing policy. No respo assumed for the manner in which these results are used or interpreted.



GROUP INFO: MUSC Healt	h	DATE: 7-24-2019
CUSTOMER: MUSC		VFO-OTHER: University Tanks
ACILITY: Building 925 (Boiler D		I - sufficie II -
ADDRESS: 135 Jonathan Lucas S	St. MSC 190, Charleston, SC 29425	
CONTACT: Rick Burt, Matthew L		3-323-0449
MAIL burtd@musc.edu, Longmat		3) 792-3548
Init Id: 925-01-DT1	Type: AST Capacity: 200	
	_ Type:Capacity: 200	Waterial:
ast Tank Service: 2018	To Charles	
UEL SAMPLE TAKEN: Annual/Pre-Clean		
Post Clean	HET-/T	
None	KKULOKT .	A A
RVICES PERFORMED: Maintenance	E PROPERTY OF THE PROPERTY OF	12.10
STI 001 Inspection	Allegyani A.	
/ Tank Cleaning		
Bottom Sweep	13	
Pre-clean Lab Analysis		
Post-clean Lab Analysis		
el Treatment:		
HydroClean ILFC 1032		
Biocide Predator 6000	AND DESCRIPTION OF THE PARTY OF	
None	Annual Control of the	Tender Indiana
rior Tank Condition:		
ood Bad		
Recommend Inspection		
TS CONDITION:	CONTAMINANTS FOUND:	VISUAL FUEL RATING:
od Bad N/A -Fill Cap	Pre-Clean Post Clean	Pre-Clean Post Clean
od Bad N/A - Vent	None	Refinery Fresh
od Bad N/A -Fill Port	Bulk Water	✓ Good
od Bad N/A -Sump	Suspended Water	Watch Closely
od Bad N/A - Spill Bucket	Micro-organisms	Advanced Aging
	Sediments	Bad-Not Recommended
od Bad N/A - Gauge		
od Bad N/A - Gauge od Bad N/A - Gaskets	Rust	
	Rust Sludge	Severe-Do Not Use
	Sludge	Severe-Do Not Use
od Bad N/A - Gaskets  FANK DOES NOT PASS ASTM D975 "C L INSPECTION	Sludge  CLEAR & BRIGHT"  THIS TAY  BRIGHT	Severe-Do Not Use  NK PASSES THE ASTM D975 "CLEAR & ' VISUAL INSPECTION.
od Bad N/A - Gaskets  FANK DOES NOT PASS ASTM D975 "C L INSPECTION  leaning is recommended based on Usual Fuel l	Sludge  CLEAR & BRIGHT"  THIS TAY BRIGHT* *Lab Report	Severe-Do Not Use  NK PASSES THE ASTM D975 "CLEAR & ' VISUAL INSPECTION. ort will determine fuel parameters based on
DAME DOES NOT PASS ASTM D975 "CLINSPECTION leaning is recommended based on Visual Fuel I remine fuel parameters based on ASTM D975 Specific parameters based on ASTM D975 Spec	Sludge  CLEAR & BRIGHT"  DISPOSITION ONLY, Lab Report  *Lab Report  ASTM D97	Severe-Do Not Use  NK PASSES THE ASTM D975 "CLEAR & 'VISUAL INSPECTION. ort will determine fuel parameters based on the control of the contro
DAME DOES NOT PASS ASTM D975 "CLINSPECTION leaning is recommended based on Visual Fuel I runine fuel parameters based on ASTM D975 S.	Sludge  CLEAR & BRIGHT"  THIS TAY BRIGHT* *Lab Report	Severe-Do Not Use  NK PASSES THE ASTM D975 "CLEAR & 'VISUAL INSPECTION. ort will determine fuel parameters based on the control of the contro
DAME DOES NOT PASS ASTM D975 "CLINSPECTION leaning is recommended based on Visual Fuel I remine fuel parameters based on ASTM D975 Specific parameters based on ASTM D975 Spec	Sludge  CLEAR & BRIGHT"  DISPOSITION ONLY, Lab Report  *Lab Report  ASTM D97	Severe-Do Not Use  NK PASSES THE ASTM D975 "CLEAR & 'VISUAL INSPECTION. ort will determine fuel parameters based on the control of the contro
DAME DOES NOT PASS ASTM D975 "CLINSPECTION leaning is recommended based on Visual Fuel I remine fuel parameters based on ASTM D975 Specific parameters based on ASTM D975 Spec	Sludge  CLEAR & BRIGHT"  DISPOSITION ONLY, Lab Report  *Lab Report  ASTM D97	Severe-Do Not Use  NK PASSES THE ASTM D975 "CLEAR & 'VISUAL INSPECTION. ort will determine fuel parameters based on the control of the contro





Loretta Shaw Petroleum Recovery Services 4310 Amsterdam St. North Charleston, SC 29418

843-225-1777

Sample Taken From:

PO: WO:

Sample ID:

MUSC - University - Post

925-01-DT1 925-01-DT1

632504

Sample Collection Date: Date Received: Date Released:

07/24/2019 08/2/2019 08/7/2019

Component Make:

AST Component Model: Tank Capacity: 200 g

Quantity in Tank:

Test Package:

PRS Package

ULSD

Type of Fuel: Serial Number:

Test	Limits	Methods	Result
API Gravity by Hydrometer	report	ASTM D1298-99	38
Cetane Index	40 minimum	ASTM D976-01	46.6
Cloud Point	report °C	ASTM D2500-99	-8
Copper Strip Corrosion	3 maximum	ASTM D130-04	1a
Distillation, 50%	report °C	ASTM D86-08a	243.89
Distillation, 90%	282 - 338 °C	ASTM D86-08a	308.33
Flash Point	52 °C minimum	ASTM D93-10	74.44
Microbial Growth	report	Micro/Culture Medium	Negative
Particulate Contamination	report in milligrams/liter	ASTM D6217-08	0
Sulfur	15 ppm maximum	ASTM D5453-09	5
Visual Appearance	Visual	ASTM D4176-04	Clear, Trace Particles
Water and Sediment	0.05 maximum (% volume)	ASTM D2709	0.001
Water by Karl Fischer	report in ppm	ASTM D6304-16	55

### Comments



GROUP INFO: MUSC Healt CUSTOMER: MUSC		DATE: 7-24-2019 INFO-OTHER: University Tanks
	a molecular	INFO-OTHER: Othersity fails
FACILITY: Building 925 Day #3		
ADDRESS: 136 Jonathan Lucas S	St. MSC 190, Charleston, SC 2	9425
CONTACT: Rick Burt, Matthew L		NE: 843-323-0450
EMAIL burtd@musc.edu, Longmat	@musc.edu CELL	(843) 792-3549
Unit Id: 925-01-DT2	_ Type :AST_ Capacity :	300 Material: Dsl
Last Tank Service: 2018		
FUEL SAMPLE TAKEN: Annual/Pre-Clean Post Clean None ERVICES PERFORMED: Maintenance STI 001 Inspection Tank Cleaning Bottom Sweep Pre-clean Lab Analysis Post-clean Lab Analysis HydroClean ILFC 1032 Biocide Predator 6000 None  terior Tank Condition: Good Bad  Recommend Inspection		
RTS CONDITION:  ood Bad N/A - Fill Cap  ood Bad N/A - Vent  ood Bad N/A - Fill Port  ood Bad N/A - Sump  ood Bad N/A - Spill Bucket  ood Bad N/A - Gauge  ood Bad N/A - Gaskets  TANK DOES NOT PASS ASTM D975 "CAL INSPECTION  cleaning is recommended based on Visual Fuel It  termine fuel parameters based on ASTAI D975 Sp  MENTS: The before cleaning sample	rispection ONLY. Lab Report *	Pre-Clean Post Clean Refinery Fresh Good Watch Closely Advanced Aging Bad-Not Recommended Severe-Do Not Use  HIS TANK PASSES THE ASTM D975 "CLEAR RIGHT" VISUAL INSPECTION. Lab Report will determine fuel parameters based on STM D975 Specifications





Loretta Shaw Petroleum Recovery Services 4310 Amsterdam St. North Charleston, SC 29418

843-225-1777

Sample Taken From:

Sample ID: PO:

WO:

925-01-DT2 925-01-DT2

632504

MUSC - University - Post

Sample Collection Date:

07/24/2019 08/2/2019 08/7/2019

AST

300 g

PRS Package

Date Released: Component Make:

Date Received:

Component Model: Tank Capacity:

Quantity in Tank:

Test Package:

Type of Fuel: ULSD

Serial Number:

Test	Limits	Methods	Result
API Gravity by Hydrometer	report	ASTM D1298-99	38
Cetane Index	40 minimum	ASTM D976-01	46.5
Cloud Point	report °C	ASTM D2500-99	-11
Copper Strip Corrosion	3 maximum	ASTM D130-04	1a
Distillation, 50%	report °C	ASTM D86-08a	243.33
Distillation, 90%	282 - 338 °C	ASTM D86-08a	307.78
Flash Point	52 °C minimum	ASTM D93-10	64.44
Microbial Growth	report	Micro/Culture Medium	Negative
Particulate Contamination	report in milligrams/liter	ASTM D6217-08	4.7
Sulfur	15 ppm maximum	ASTM D5453-09	5
Visual Appearance	Visual	ASTM D4176-04	Clear, Trace Particles
Water and Sediment	0.05 maximum (% volume)	ASTM D2709	0.001
Water by Karl Fischer	report in ppm	ASTM D6304-16	68

### Comments



GROUP INFO: MUSC Heal	th	DATE: 7-24-19		
CUSTOMER: MUSC		INFO-OTHER: University Tanks		
FACILITY: Building 925 (Roof Ta				
	St. MSC 190, Charleston, SC 29425			
		(7-2)		
CONTACT: Rick Burt, Matthew				
EMAIL burld@musc.edu, Longma	t@musc.edu CELL: (843	3) 792-3550		
Unit Id: 925-01-DT3	Type : AST Capacity : 100	Material: Dsl		
Last Tank Service: 2018				
FUEL SAMPLE TAKEN:				
Annual/Pre-Clean				
Post Clean None				
SERVICES PERFORMED:		Consumer Recovery & in		
Maintenance	MENTALL LANGE	The second secon		
STI 001 Inspection	(3)			
✓ Tank Cleaning	4	Samuel 22		
Bottom Sweep				
Pre-clean Lab Analysis				
Post-clean Lab Analysis				
Fuel Treatment:				
✓ HydroClean				
ILFC 1032				
Di-aid- Dd-+ 6000				
Biocide Predator 6000	Superintus in the			
Biocide Predator 6000 None	Superintial Annual Manager			
	Supervision of the second control of the sec			
None	Supplied to the second of the			
None  sterior Tank Condition:  Good Bad	Augustinia Daniel Marie III. Augustinia			
None sterior Tank Condition:	Augustinia Daniel Mari Mariana Augustinia			
None  sterior Tank Condition:  Good Bad  Recommend Inspection	CONTAMINANTS FOUND:	VISUAL FUEL RATING:		
None  Sterior Tank Condition:  Good Bad  Recommend Inspection  RTS CONDITION:	CONTAMINANTS FOUND:  _✓_Pre-CleanPost Clean	VISUAL FUEL RATING: Pre-Clean Post Clean		
None  Sterior Tank Condition:  Good Bad  Recommend Inspection  RTS CONDITION:  Good Bad N/A -Fill Cap		VISUAL FUEL RATING:Pre-Clean		
None  Sterior Tank Condition:  Good Bad  Recommend Inspection  RTS CONDITION: Good Bad N/A -Fill Cap Good Bad N/A - Vent	Pre-Clean Post Clean	Pre-Clean Post Clean		
None    Condition:   Condition:	Pre-Clean Post Clean None Bulk Water ✓ Suspended Water	Pre-Clean Post Clean Refinery Fresh Good		
None    Sterior Tank Condition:   Good   Bad   Recommend Inspection	✓ Pre-Clean Post Clean None Bulk Water ✓ Suspended Water ✓ Micro-organisms	Pre-Clean Post Clean Refinery Fresh Good Watch Closely		
None    Continuity   Continuity	Pre-Clean Post Clean None Bulk Water ✓ Suspended Water ✓ Micro-organisms ✓ Sediments	Pre-Clean Post Clean Refinery Fresh Good Watch Closely Advanced Aging		
None    Sterior Tank Condition:   Good   Bad   Recommend Inspection	Pre-Clean Post Clean  None Bulk Water  Suspended Water  Micro-organisms  Sediments Rust	Pre-Clean Post Clean Refinery Fresh Good Watch Closely Advanced Aging Bad-Not Recommended		
None    Sterior Tank Condition:   Good   Bad   Recommend Inspection	Pre-Clean Post Clean None Bulk Water ✓ Suspended Water ✓ Micro-organisms ✓ Sediments	Pre-Clean Post Clean Refinery Fresh Good Watch Closely Advanced Aging		
None    Sterior Tank Condition:   Good   Bad   Recommend Inspection	None Bulk Water Suspended Water Micro-organisms Sediments Rust Sludge	Pre-Clean Post Clean Refinery Fresh Good Watch Closely Advanced Aging Bad-Not Recommended Severe-Do Not Use		
None    Sterior Tank Condition:   Good   Bad   Recommend Inspection	None  Bulk Water  Suspended Water  Micro-organisms  Sediments  Rust  Sludge  CLEAR & BRIGHT"  THIS TAI	Pre-Clean Post Clean Refinery Fresh Good Watch Closely Advanced Aging Bad-Not Recommended Severe-Do Not Use		
None    Continue	Pre-Clean Post Clean  None Bulk Water Suspended Water ✓ Micro-organisms ✓ Sediments Rust Sludge  CLEAR & BRIGHT" THIS TAI BRIGHT	Pre-Clean Post Clean Refinery Fresh Good Watch Closely Advanced Aging Bad-Not Recommended Severe-Do Not Use  NK PASSES THE ASTM D975 "CLEAR &		
None    Continue	None  Bulk Water  Suspended Water  Micro-organisms  Sediments  Rust  Sludge  CLEAR & BRIGHT"  Inspection ONLY, Lab Report  Post Clean  Post Clean  Post Clean  THIS TAI  BRIGHT'  *Lab Report	Pre-Clean Post Clean Refinery Fresh Good Watch Closely Advanced Aging Bad-Not Recommended Severe-Do Not Use  NK PASSES THE ASTM D975 "CLEAR & 'VISUAL INSPECTION.		
Recommend Inspection  RTS CONDITION: Good Bad N/A - Fill Cap Good Bad N/A - Vent Good Bad N/A - Spill Port Good Bad N/A - Spill Bucket Good Bad N/A - Gauge Good Bad N/A - Gauge Good Bad N/A - Gaskets  STANK DOES NOT PASS ASTM D975 " JAL INSPECTION k cleaning is recommended based on Visual Fuel letermine fuel parameters based on ASTM D975 2	None  Bulk Water  Suspended Water  Micro-organisms  Sediments  Rust  Sludge  CLEAR & BRIGHT"  Inspection ONLY, Lab Report  Post Clean  Post Clean  Post Clean  THIS TAI  BRIGHT'  *Lab Report	Pre-Clean Post Clean Refinery Fresh Good Watch Closely Advanced Aging Bad-Not Recommended Severe-Do Not Use  NK PASSES THE ASTM D975 "CLEAR & 'VISUAL INSPECTION. Int will determine fuel parameters based on 'S Specifications		
Recommend Inspection  RTS CONDITION: Good Bad N/A - Fill Cap Good Bad N/A - Fill Port Good Bad N/A - Spill Bucket Good Bad N/A - Spill Bucket Good Bad N/A - Gauge Good Bad N/A - Gauge Good Bad N/A - Gauge Good Bad N/A - Gaskets  STANK DOES NOT PASS ASTM D975 " JAL INSPECTION k cleaning is recommended based on Visual Fuel fetermine fuel parameters based on ASTAI D975 5	Pre-Clean Post Clean None Bulk Water Suspended Water ✓ Micro-organisms ✓ Sediments Rust Sludge  CLEAR & BRIGHT"  Inspection ONLY, Lab Report Specifications  Post Clean Post Clean Post Clean Post Clean ASTM D97	Pre-Clean Post Clean Refinery Fresh Good Watch Closely Advanced Aging Bad-Not Recommended Severe-Do Not Use  NK PASSES THE ASTM D975 "CLEAR & 'VISUAL INSPECTION. Int will determine fuel parameters based on 'S Specifications		
Recommend Inspection  RTS CONDITION: Good Bad N/A - Fill Cap Good Bad N/A - Vent Good Bad N/A - Spill Port Good Bad N/A - Spill Bucket Good Bad N/A - Gauge Good Bad N/A - Gauge Good Bad N/A - Gaskets  STANK DOES NOT PASS ASTM D975 " JAL INSPECTION k cleaning is recommended based on Visual Fuel letermine fuel parameters based on ASTM D975 2	Pre-Clean Post Clean None Bulk Water Suspended Water ✓ Micro-organisms ✓ Sediments Rust Sludge  CLEAR & BRIGHT"  Inspection ONLY, Lab Report Specifications  Post Clean Post Clean Post Clean Post Clean ASTM D97	Pre-Clean Post Clean Refinery Fresh Good Watch Closely Advanced Aging Bad-Not Recommended Severe-Do Not Use  NK PASSES THE ASTM D975 "CLEAR & 'VISUAL INSPECTION.  Int will determine fuel parameters based on 'S Specifications		
Recommend Inspection  RTS CONDITION: Good Bad N/A - Fill Cap Good Bad N/A - Vent Good Bad N/A - Spill Port Good Bad N/A - Spill Bucket Good Bad N/A - Gauge Good Bad N/A - Gauge Good Bad N/A - Gaskets  STANK DOES NOT PASS ASTM D975 " JAL INSPECTION k cleaning is recommended based on Visual Fuel letermine fuel parameters based on ASTM D975 2	Pre-Clean Post Clean None Bulk Water Suspended Water ✓ Micro-organisms ✓ Sediments Rust Sludge  CLEAR & BRIGHT"  Inspection ONLY, Lab Report Specifications  Post Clean Post Clean Post Clean Post Clean ASTM D97	Pre-Clean Post Clean Refinery Fresh Good Watch Closely Advanced Aging Bad-Not Recommended Severe-Do Not Use  NK PASSES THE ASTM D975 "CLEAR & 'VISUAL INSPECTION. Int will determine fuel parameters based on 'S Specifications		





Loretta Shaw Petroleum Recovery Services 4310 Amsterdam St.

North Charleston, SC 29418

843-225-1777

 Sample Taken From:
 925-01-DT3

 Sample ID:
 925-01-DT3

 PO:
 632504

WO: MUSC - University - Post

 Sample Collection Date:
 07/24/2019

 Date Received:
 08/2/2019

 Date Released:
 08/7/2019

Component Make:

Component Model: AST Tank Capacity: 100 g

Quantity in Tank:

Test Package: PRS Package

Type of Fuel: ULSD

Serial Number:

Test	Limits	Methods	Result
API Gravity by Hydrometer	report	ASTM D1298-99	38
Cetane Index	40 minimum	ASTM D976-01	46
Cloud Point	report °C	ASTM D2500-99	-10
Copper Strip Corrosion	3 maximum	ASTM D130-04	1a
Distillation, 50%	report °C	ASTM D86-08a	241.67
Distillation, 90%	282 - 338 °C	ASTM D86-08a	307.78
Flash Point	52 °C minimum	ASTM D93-10	76.67
Microbial Growth	report	Micro/Culture Medium	Negative
Particulate Contamination	report in milligrams/liter	ASTM D6217-08	6
Sulfur	15 ppm maximum	ASTM D5453-09	6
Visual Appearance	Visual	ASTM D4176-04	Clear, Trace Particles
Water and Sediment	0.05 maximum (% volume)	ASTM D2709	0.001
Water by Karl Fischer	report in ppm	ASTM D6304-16	62

#### Comments



GROUP INFO: MUSC Healt	h	DATE: 7-11-19		
CUSTOMER: MUSC	The state of the s	INFO-OTHER: University Tanks		
FACILITY: Building 925 (Hollings	Cancer Ctr)			
ADDRESS: 138 Jonathan Lucas S	St. MSC 190, Charleston, SC 2942	25		
CONTACT: Rick Burt, Matthew L		843-323-0452		
EMAILburtd@musc.edu, Longmat		843) 792-3551		
Unit Id: 925-FT-34	Type: UST Capacity: 20			
Last Tank Service: 2018	_ type t cupacity			
FUEL SAMPLE TAKEN:	MATERIAL PROPERTY.			
Annual/Pre-Clean		Recovery Services PAS  We Common South Carolina 28418		
Post Clean		the Carriery Social Control of		
None SERVICES PERFORMED:	Peroleum Re	Occupy Service 15 A. (LAB)		
Maintenance				
STI 001 Inspection	2-21	and the second s		
✓ Tank Cleaning	100	(AE) (AE)		
Bottom Sweep	EU 535	Hallings		
Pre-clean Lab Analysis	Act of the second	Equipment # 921, 17-11		
Post-clean Lab Analysis				
Fuel Treatment:				
✓ HydroClean ILFC 1032				
Biocide Predator 6000				
None None				
	The second secon			
xteriorTank Condition:				
Good Bad	No. of Contrast			
Recommend Inspection				
ARTS CONDITION:	CONTAMINANTS FOUND:	VISUAL FUEL RATING:		
Good Bad N/A -Fill Cap	Pre-Clean Post Clean	Pre-Clean Post Clean		
Good Bad N/A - Vent	<u> ✓</u> None	Refinery Fresh		
Good Bad N/A -Fill Port	Bulk Water	<b>✓</b> Good		
Good Bad N/A -Sump	Suspended Water	Watch Closely		
Good Bad N/A - Spill Bucket	Micro-organisms	Advanced Aging		
Good Bad N/A - Gauge	Sediments	Bad-Not Recommended		
Good Bad N/A - Gaskets	Rust	Severe-Do Not Use		
	Sludge	Severe-Do Not Ose		
IS TANK DOES NOT PASS ASTM D975 "G	CLEAR & BRIGHT" THIS	TANK PASSES THE ASTM D975 "CLEAR &		
UAL INSPECTION ik cleaning is recommended hased on Visual Fuel I		HT" VISUAL INSPECTION.		
determine fuel parameters based on ASTM D975 S		Report will determine fuel parameters based on  1 D975 Specifications		
	- 10111	ter cleaning sample is on the right.		
MINIEN 15: THE STATE STATE	and the second s			
SERVICE TECHNICIAN		DATE: 7-11-19		

877-252-6396 (Toll Free) • 843-225-1777 • 843-377-0412 (Fax)
4310 Amsterdam St., N. Charleston, SC 29418
www.petroleumrecoveryservices.com





Loretta Shaw
Petroleum Recovery Services
4310 Amsterdam St.
North Charleston, SC 29418

843-225-1777

Sample Taken From:

Sample ID: PO:

WO:

925-FT-34 925-FT-34 632499

MUSC - University - Post

Sample Collection Date:

07/11/2019 07/31/2019 08/5/2019

Component Make:

Date Received:

Date Released:

Component Model: Tank Capacity:

20,000 g

UST

Quantity in Tank:

Test Package:

PRS Package ULSD

Type of Fuel: Serial Number:

Test	Limits	Methods	Result
API Gravity by Hydrometer	report	ASTM D1298-99	38
Cetane Index	40 minimum	ASTM D976-01	46.2
Cloud Point	report °C	ASTM D2500-99	-11
Copper Strip Corrosion	3 maximum	ASTM D130-04	□ 1a
Distillation, 50%	report *C	ASTM D86-08a	242.22
Distillation, 90%	282 - 338 °C	ASTM D86-08a	307.78
Flash Point	52 °C minimum	ASTM D93-10	71.11
Microbial Growth	report	Micro/Culture Medium	Negative
Particulate Contamination	report in milligrams/liter	ASTM D6217-08	0.7
Sulfur	15 ppm maximum	ASTM D5453-09	5
Visual Appearance	Visual	ASTM D4176-04	Clear, Trace Particles
Water and Sediment	0.05 maximum (% volume)	ASTM D2709	0.001
Water by Karl Fischer	report in ppm	ASTM D6304-16	63

#### Comments