EZY Chek Systems

CERTIFICATION EXAM COVER SHEET

Systems & Training for the Petroleum Industry

PLEASE CHECK ALL METHODS THAT APPLY

- ❒ EZY 3 LOCATOR PLUS
- ❒ PRODUCT LINE TESTING
- ❒ LEAK DETECTOR TESTING

Contact Name: _____

Company Name: _____

Technician Name: _____

Company Address: _____

_____

_____

Company Phone: _____

Company Fax: _____

E-Mail Address _____

Technician SSN: _____

(Last 6 digits - ONLY!)

INITIAL

_____ **I agree to completely and without deviation follow the protocol set forth by Estabrook's, Inc. regarding the procedures and practices instructed by and certified by Brad Estabrook when using the Estabrook's, Inc. EZY Chek Systems.**

_____ **I agree to follow Estabrook's, Inc. protocol regarding certification and calibration.**

_____ **I agree to renew my certification biannually; I understand that it is my responsibility to contact Estabrook's, Inc. to arrange my recertification prior to my certification expiration date.**

_____ **I agree to calibrate my equipment annually; I understand that "equipment" is defined as the Acoustic Signal Processor, In-Tank Microphone, Pressure Sensor, Water Sensor Display, Water Sensor Probe and Negative Pressure Gauge. I understand that it is my responsibility to contact Estabrook's, Inc. to arrange the annual calibration of my equipment prior to the expiration date.**

_____ **I have read the above requirements and agree to the terms and conditions there to.**

_____ _____

Technician Signature Date

ESTABROOK'S
Systems & Training for the Petroleum Industry

EZY Chek Systems
EZY 3 LOCATOR PLUS
CERTIFICATION
EXAM

Read each question; write the letter to the answer you chose in the space provided next to the question number.

1) _____ What is the PSI (weight) of water?
   a. .036
   b. .032
   c. .026
   d. .033

2) _____ What is the PSI (weight) of gas?
   a. .036
   b. .032
   c. .026
   d. .033

3) _____ What is the PSI (weight) of diesel?
   a. .036
   b. .031
   c. .026
   d. .049

4) _____ What is the PSI (weight) of kerosene?
   a. .033
   b. .031
   c. .028
   d. .029

5) _____ What is the PSI (weight) of transmission fluid?
   a. .036
   b. .033
   c. .049
   d. .029

6) _____ What is the PSI (weight) of motor oil?
   a. .036
   b. .031
   c. .022
   d. .033

7) _____ What is the PSI (weight) of brine?
   a. .049
   b. .029
   c. .028
   d. .034

8) _____ Tank capacity shall not exceed what size?
   a. 20,000 gallons
   b. 30,000 gallons
   c. 50,000 gallons
   d. 100,000 gallons

9) _____ What is the *"maximum"* pressure place on the tank top and shall never be exceeded?
   a. 2.00 psi of vacuum
   b. 4.00 psi of vacuum
   c. 6.00 psi of vacuum
   d. 8.00 psi of vacuum

10) _____ What is the *"minimum"* amount of ullage space required to conduct a test on a tank?
   a. 1% total tank volume *-or-* 50 gallons whichever is less
   b. 2% total tank volume
   c. 50 gallons
   d. 1% total tank volume *-or-* 50 gallons, whichever is greater

11) _____ What is the *"maximum"* amount of ullage space required to conduct a test on a tank?
   a. 10,000 gallons
   b. 20,000 gallons
   c. 30,000 gallons
   d. 99% total tank capacity

12) _____ Before pulling vacuum on a tank and running an acoustic test, the microphone should always be checked for proper operation?
   a. True
   b. False

13) _____ After the tank is completely sealed off, what must be done *"before"* turning on the motor blower to pull vacuum on the tank?
   a. All safety precautions shall be made to area.
   b. The calculation must be completed to determine vacuum that shall be applied to the tank.
   c. A background base line test must be taken of the sound in the tank with no vacuum applied.
   d. All of the above.

14) _____ At a *"minimum"*, how long should the motor blower run and circulate once the proper amount of vacuum has been applied to the tank?
   a. 1-2 minutes
   b. 3-5 minutes
   c. 5-7 minutes
   d. 7-9 minutes

15) _____ At a "minimum", how long must the technician run the acoustic portion of the test *(with the exception of Rockland County)*?
   a. 4 minutes
   b. 1 minutes
   c. 2 minutes
   d. 3 minutes

16) _____ If the acoustic equipment reveals a *"hiss"*, what portion of the tank may be leaking?
- a. Below the liquid level
- b. Above the liquid level
- c. The tank interstitial space
- d. It can only be a vent or stage II line that causes this

17) _____ If the acoustic equipment reveals a *"bubble"*, what portion of the tank may be leaking?
- a. Below the liquid level
- b. Above the liquid level
- c. The tank interstitial space
- d. It can only be a vent or stage II line that causes this

18) _____ If the acoustic equipment reveals "no" sound and there is no ground water around the tank, the tank is tight?
- a. True
- b. False

19) _____ On the digital pressure sensor; where should the switches be set to monitor the tank's vacuum level?
- a. Slow/Fast and PSI
- b. Slow/Fast and H2O
- c. Slow/Fast and HG
- d. Slow/Fast and KPA

20) _____ calculate the following *"minimum test length"* for running a water intrusion test when your average calibration is ***50mL*** *(round to the nearest minute)*:
- a. 12 minutes
- b. 16 minutes
- c. 24 minutes
- d. 32 minutes

21) _____ calculate the following *"minimum test length"* for running a water intrusion test when your average calibration is ***75mL*** *(round to the nearest minute)*:
- a. 12 minutes
- b. 16 minutes
- c. 24 minutes
- d. 32 minutes

22) _____ calculate the following *"minimum test length"* for running a water intrusion test when your average calibration is ***125mL*** *(round to the nearest minute)*:
- a. 30 minutes
- b. 32 minutes
- c. 40 minutes
- d. 48 minutes

23) _____ calculate the following *"minimum test length"* for running a water intrusion test when your average calibration is ***150mL*** *(round to the nearest minute)*:
- a. 30 minutes
- b. 32 minutes
- c. 40 minutes
- d. 48 minutes

24) _____ What is the leak threshold for water intrusion?
- a. .05 inches
- b. 0 gallons
- c. .0140 inches
- d. .05 gallons

25) _____ If .0100 gallons of water did intrude into the tank during a test, does the tank pass or fail?
- a. Pass
- b. Fail

26) _____ What is the *"minimum"* amount of calibrations that must be preformed prior to setting your water intrusion sensor and conducting a water intrusion test?
- a. None
- b. 1 calibration
- c. 2 calibrations
- d. 3 calibrations

27) _____ Estabrook's recommends what test solution when calibrating your conductive water sensor?
- a. A water/antifreeze mix
- b. A water/biocide mix
- c. A antifreeze/biocide mix
- d. Straight water

28) _____ It is critically important to accurately determine water table prior to conducting a tank tightness test?
- a. True
- b. False

29) _____ All tank testing equipment is required to be calibrated annually by the manufacturer, Estabrook's, Inc.?
- a. True
- b. False

30) _____ How often shall a technician recertify with the manufacturer of the EZY 3 Locator Plus test equipment?
- a. Every 2 years
- b. Every 4 years
- c. Every 5 years
- d. Certification does not need to be renewed

ESTABROOK'S
Systems & Training for the Petroleum Industry

EZY Chek Systems
EZY 3 LOCATOR PLUS CERTIFICATION EXAM

Data Sheet Instructions

On the following pages you will find three Estabrook's, Inc. EZY 3 Locator Plus Pressure Calculation Data Sheets.

We have provided you with the necessary information on the Data Sheet to complete the Pressure Calculations ***and*** the Calculation for the Test Period.

Product Information:

- Using the data provided in the "Product Type" located at the top left of the Pressure Calculation Sheet, enter the "WEIGHT OF PRODUCT" into the coorosponding space provided in the Pressure Sensor Calculation box.
- Use this data to complete the Pressure Calculations along with the other Data provided.

Pressure Calculations:

- Data is provided on the Tank Diagram located on the bottom right of the Pressure Calculation Sheet.
- Enter this data into the corresponding space in the "PRESSURE SENSOR CALCULATION" box.
- Complete all calculations; 1-7 to achieve the "TEST PRESSURE".

Water Sensor Calibration:

- Data is provided in the "WATER SENSOR CALIBRATION" box located on the bottom left of the Pressure Calculation sheet.
- Average the three Water Sensor Calibrations and enter it in to the corresponding space marked "Average".
- Complete the "Calculations for Test Period" to achieve the "Time of Test".

PRESSURE CALCULATION & WATER SENSOR CALIBRATION

DATA SHEET

Test Date

MANUFACTURED BY: ESTABROOK'S INC. 1-877-368-7215

TOTAL TANK VOL.		Location	
PRODUCT VOL.		Address	
ULLAGE VOL.		City/State/Zip	
PRODUCT TYPE	DIESEL OR #2 OIL	Location Contact	
PBS # (NEW YORK)		Location Phone	
TANK #	TEST #1	Depth of Groundwater Determined:	
		By:	
		Where:	

PRESSURE SENSOR CALCULATION

INCHES OF PRODUCT	x	WEIGHT OF PRODUCT	=	PSI (1)
INCHES OF WATER IN TANK	x		=	PSI (2)
Line 1 + Line 2 = Total Positive Head Pressure In Tank			=	PSI (3)
INCHES OF WATER OUTSIDE TANK	x		=	PSI (4)
Total Head Pressure Minus Outside Water Pressure			=	+/-PSI (5)
Always add .5 PSI			+	PSI (6)
NOTE: If Line 6 is Less Than .5 PSI Line 7 Shall be .5 PSI				
TEST PRESSURE			=	+/-PSI (7)

ACOUSTIC TEST TIME

	Time	Pressure
Baseline Background:		
Blower Started:		
Test Pressure Reached:		
Blower Turned Off:		
Test Began:		
Test Ended:		

Equipment Calibration due date and serial numbers

	Serial Number	Callibration Due Date
In-Tank Microphone		
Acoustic Signal Processor		
Pressure Sensor		
Water Sensor Display		
Water Sensor Probe		

WATER SENSOR CALIBRATION

	Cal #1	Cal #2	Cal #3
Added:	30	30	30
Average:			

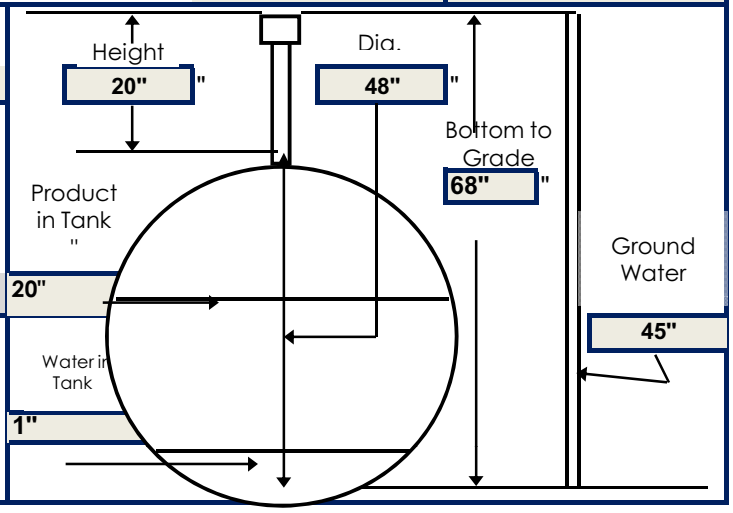
Calculation for Test Period:

Avg. Cal.	÷ 3780 =	"A" Factor	÷ .05		x 60 =	Min.	Time of Test

Water Intrusion Test Period

Began:

Ended:



PRESSURE CALCULATION & WATER SENSOR CALIBRATION

Systems & Training for the Petroleum Industry

DATA SHEET

Test Date

MANUFACTURED BY: ESTABROOK'S INC. 1-877-368-7215

TOTAL TANK VOL.		Location	
PRODUCT VOL.		Address	
ULLAGE VOL.		City/State/Zip	
PRODUCT TYPE	GASOLINE	Location Contact	
PBS # (NEW YORK)		Location Phone	
TANK #	TEST #2	Depth of Groundwater Determined:	
		By:	
		Where:	

PRESSURE SENSOR CALCULATION

INCHES OF PRODUCT	x WEIGHT OF PRODUCT	=		PSI (1)
INCHES OF WATER IN TANK	x	=		PSI (2)
Line 1 + Line 2 = Total Positive Head Pressure In Tank		=		PSI (3)
INCHES OF WATER OUTSIDE TANK	x	=		PSI (4)
Total Head Pressure Minus Outside Water Pressure		=		+/-PSI (5)
Always add .5 PSI		+		PSI (6)
NOTE: If Line 6 is Less Than .5 PSI Line 7 Shall be .5 PSI				
TEST PRESSURE		=		+/-PSI (7)

ACOUSTIC TEST TIME

	Time	Pressure
Baseline Background:		
Blower Started:		
Test Pressure Reached:		
Blower Turned Off:		
Test Began:		
Test Ended:		

Equipment Calibration due date and serial numbers

	Serial Number	Callibration Due Date
In-Tank Microphone		
Acoustic Signal Processor		
Pressure Sensor		
Water Sensor Display		
Water Sensor Probe		

WATER SENSOR CALIBRATION

	Cal #1	Cal #2	Cal #3
Added:	0	0	0
Average:			

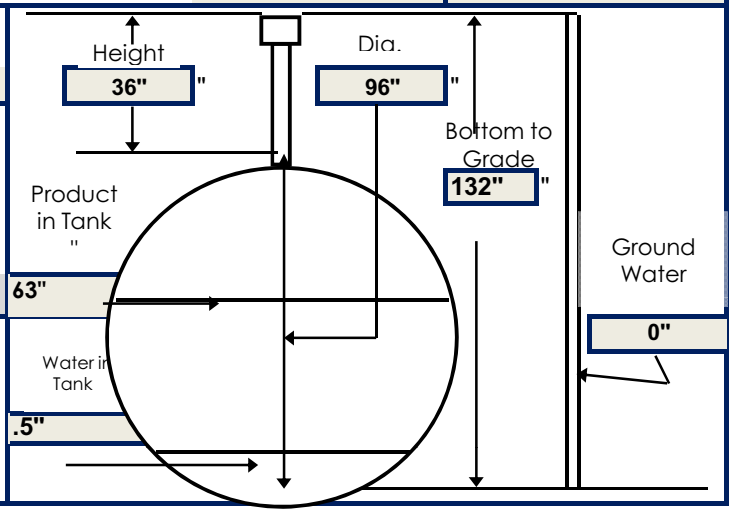
Calculation for Test Period:

Avg. Cal.	÷ 3780 =	"A" Factor	÷ .05		x 60 = Min.	Time of Test

Water Intrusion Test Period

Began:

Ended:



PRESSURE CALCULATION & WATER SENSOR CALIBRATION

DATA SHEET

Test Date

MANUFACTURED BY: ESTABROOK'S INC. 1-877-368-7215

TOTAL TANK VOL.		Location	
PRODUCT VOL.		Address	
ULLAGE VOL.		City/State/Zip	
PRODUCT TYPE	GASOLINE	Location Contact	
PBS # (NEW YORK)		Location Phone	
TANK #	TEST #3	Depth of Groundwater Determined: By:	
		Where:	

PRESSURE SENSOR CALCULATION

INCHES OF PRODUCT	x	WEIGHT OF PRODUCT	=	PSI (1)
INCHES OF WATER IN TANK	x		=	PSI (2)
Line 1 + Line 2 = Total Positive Head Pressure In Tank			=	PSI (3)
INCHES OF WATER OUTSIDE TANK	x		=	PSI (4)
Total Head Pressure Minus Outside Water Pressure			=	+/-PSI (5)
Always add .5 PSI			+	PSI (6)
NOTE: If Line 6 is Less Than .5 PSI Line 7 Shall be .5 PSI				
TEST PRESSURE			=	+/-PSI (7)

ACOUSTIC TEST TIME

	Time	Pressure
Baseline Background:		
Blower Started:		
Test Pressure Reached:		
Blower Turned Off:		
Test Began:		
Test Ended:		

Equipment Calibration due date and serial numbers

	Serial Number	Callibration Due Date
In-Tank Microphone		
Acoustic Signal Processor		
Pressure Sensor		
Water Sensor Display		
Water Sensor Probe		

WATER SENSOR CALIBRATION

	Cal #1	Cal #2	Cal #3
Added:	75	75	75
Average:			

Calculation for Test Period:

Avg. Cal.	÷ 3780 =	"A" Factor	÷ .05		x 60 = Min.	Time of Test

Water Intrusion Test Period

Began:

Ended: