

LubeAlert Oil Condition Monitoring Service



The webinar will begin in less than 10 minutes.



LubeAlert Oil Condition Monitoring Service



The webinar will begin in
less than 5 minutes.



LubeAlert Oil Condition Monitoring Service



A Guide to Equipment Health



Frank Hayes - CLS, OMA-I, MLA-I, MLT-I, CLGS & CRC



- CITGO Product Specialist
- B.S. Mechanical Engineering
- 25+ Years Experience in Lubricants, including with
 - Petro-Canada Lubricants, Sr. Technical Services Advisor
 - Conoco, Lubrication Engineer



Jamie Morford



- CITGO Senior Account Manager
- 20 Years of Lubricants Industry Experience
- Background in Operations and Sales Management



Agenda



Why use LubeAlert

How to use LubeAlert

Leveraging LubeAlert

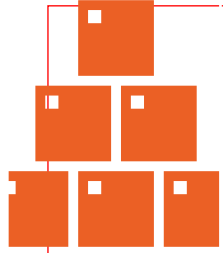


Questions as we go?

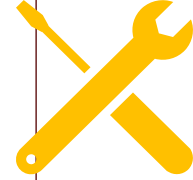


Please post your
questions using the
Q&A function.

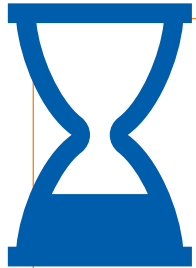
Benefits



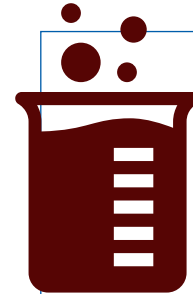
Increase Operational Efficiency and Production



Decrease Maintenance Costs



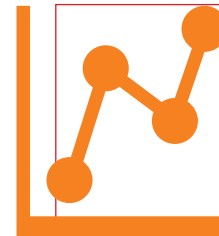
Decrease Unexpected Downtime



Optimize Lubricant Useable Life



Increase Equipment Resale Value



Track Equipment Condition Trends



User Guide





LubeAlert.

**LUBEALERT
FLUID CONDITION
MONITORING SERVICE**



Mystik
LUBRICANTS



clarion.
LUBRICANTS



CITGO
LUBRICANTS

What is LubeAlert?

LubeAlert® is a state-of-the-art fluid condition monitoring service used for predictive and preventative equipment maintenance. With decades of collected data, LubeAlert identifies trends in a variety of equipment, provides valuable insight into equipment condition and can help plan maintenance activities.

- Performed and evaluated by highly qualified lubricant professionals
- Results available on PC or mobile devices
- Applicable for most equipment used in a variety of industries
- Customizable reporting tools help identify and analyze data trends

Test Packages

LubeAlert makes fluid analysis simple. Collect the sample, log it online and ship it the same day to have the results back as quickly as possible.

Engines, Gear Boxes, Transmissions, Hydraulics, and Compressors

	ICE Internal Engines			Industrial Gas Turbine Engines / Fluid Hydraulics			Gas Engines / GPP			LPG	Fugitive	Particle Count and Soot
	Report	with TDS and TDS	with TDS or TDS	Report	with TDS and TDS	with TDS	Report	with TDS and TDS				
Frequency of Oils (ASTM D1561)	•	•	•	•	•	•	•	•	•	•	•	•
Frequency of Oils (ASTM D1561)	•	•	•	•	•	•	•	•	•	•	•	•
Basic Elements and Additives (ASTM D2280)	•	•	•	•	•	•	•	•	•	•	•	•
Water Soluble Corrosion (ASTM D1561)	•	•	•	•	•	•	•	•	•	•	•	•
Fluid Viscosity (ASTM D1561)	•	•	•	•	•	•	•	•	•	•	•	•
Fluid Soot (ASTM D1561)	•	•	•	•	•	•	•	•	•	•	•	•
Acid Number (ASTM D664)	•	•	•	•	•	•	•	•	•	•	•	•
Base Number (ASTM D664)	•	•	•	•	•	•	•	•	•	•	•	•
Distillation Residue (ASTM D1561)	•	•	•	•	•	•	•	•	•	•	•	•
Particle Count (ASTM D664)	•	•	•	•	•	•	•	•	•	•	•	•
pH (ASTM D1561)	•	•	•	•	•	•	•	•	•	•	•	•
Cloud (ASTM D1561)	•	•	•	•	•	•	•	•	•	•	•	•

* All test packages will provide test results to include ISO/ASTM 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Agenda



Why use LubeAlert

How to use LubeAlert

Leveraging LubeAlert



How to Enroll



LubeAlert®



New LubeAlert Onboarding information sheet

Email the completed form to : custserv@eoilreports.com

CITGO Sales Account Mgr Name*:

Marketer Accounts Only

		Name	Phone	Email	Marketer User Orders Kits?
Marketer:	_____	Marketer Sales Rep:	_____	_____	Choose One
Marketer Address:	_____	Other Marketer User 2:	_____	_____	Choose One
	_____	Other Marketer User 3:	_____	_____	Choose One
Marketer Phone:	_____	Other Marketer User 4:	_____	_____	Choose One
Marketer Key Contact:	_____	Other Marketer User 5:	_____	_____	Choose One
Marketer Email:	_____	Other Marketer User 6:	_____	_____	Choose One
Who will order sample kits?:					Choose one

All Accounts (Including National Accounts)

		Name	Phone	Email	Customer User Orders Kits?
Customer*:	_____	Key Contact*:	_____	_____	Choose One
Customer Address*:	_____	Customer User 2:	_____	_____	Choose One
	_____	Customer User 3:	_____	_____	Choose One
Phone*:	_____	Customer User 4:	_____	_____	Choose One
Email*:	_____	Customer User 5:	_____	_____	Choose One

Other Required Information

Kit Bill To Company*:
Contact*:
Address*:

Phone*:
Email*:

Import history?: Choose One
Previous Company Lab: _____

Taking & Submitting Samples



LubeAlert Test Packages



Engines, Gear Boxes, Transmissions, Hydraulics, and Compressors

Sample kit Includes:
3 oz. sample jar, soft
mailer, label/form

Sampling Interval:
At manufacturer's
service interval.

	HD Diesel Engine			Industrial Gear Box Transmission Fluid Hydraulics	Gas Engine Oil*			Gas Compressors	WGF
	Regular	with TAN and TBN	with TAN or TBN		with TAN	with TAN and TBN	with LFG	Regular	Particle Count and TAN
	HREG	HTT	HTAN or HTBN		GTPW	GTPPW		GREG	Industrial Gear Box Water Glycol Hydraulic Fluid
Viscosity at 100C (mod.ASTM D445)	●	●	●	●	●	●	●	●	●
Viscosity at 40C (mod.ASTM D445)				●			●		●
Trace Elements and Additives (mod. ASTM D5185)	●	●	●	●	●	●	●	●	●
Water % by Crackle (internal method)	●	●	●	●	●	●	●	●	●
Fuel Dilution (ASTM D7593)	●	●	●						
Fuel Soot (ASTM E2412)	●	●	●						
Acid Number (mod. ASTM D664)		●	●	●	●	●	●		●
Base Number (mod. ASTM D4739)		●				●	●		
Oxidation/ Nitration (ASTM E2412)					●	●	●		
Particle Count (ISO 4406 calibration ISO 11171)									●
i-pH (mod. ASTM D7946)							●		
Glycol (mod. ASTM D2982)							●		

* All gas engine oil test packages will provide test results to evaluate NESHAP ZZZZ (Quad Z) requirements. Contact customer service to apply Quad Z.

LubeAlert Kits



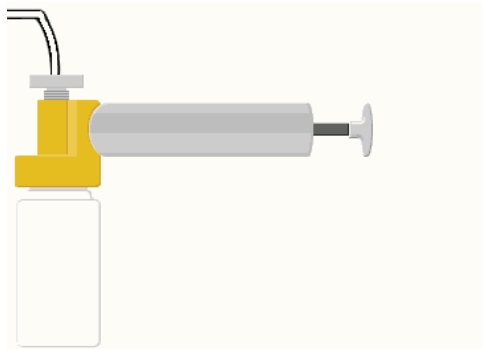
Taking an Oil Sample



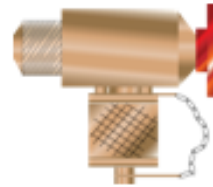
Drain Catch Method



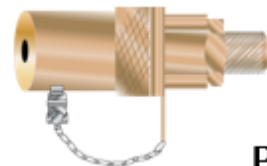
Vacuum Pump Method



Sample Valve Methods



Push Button

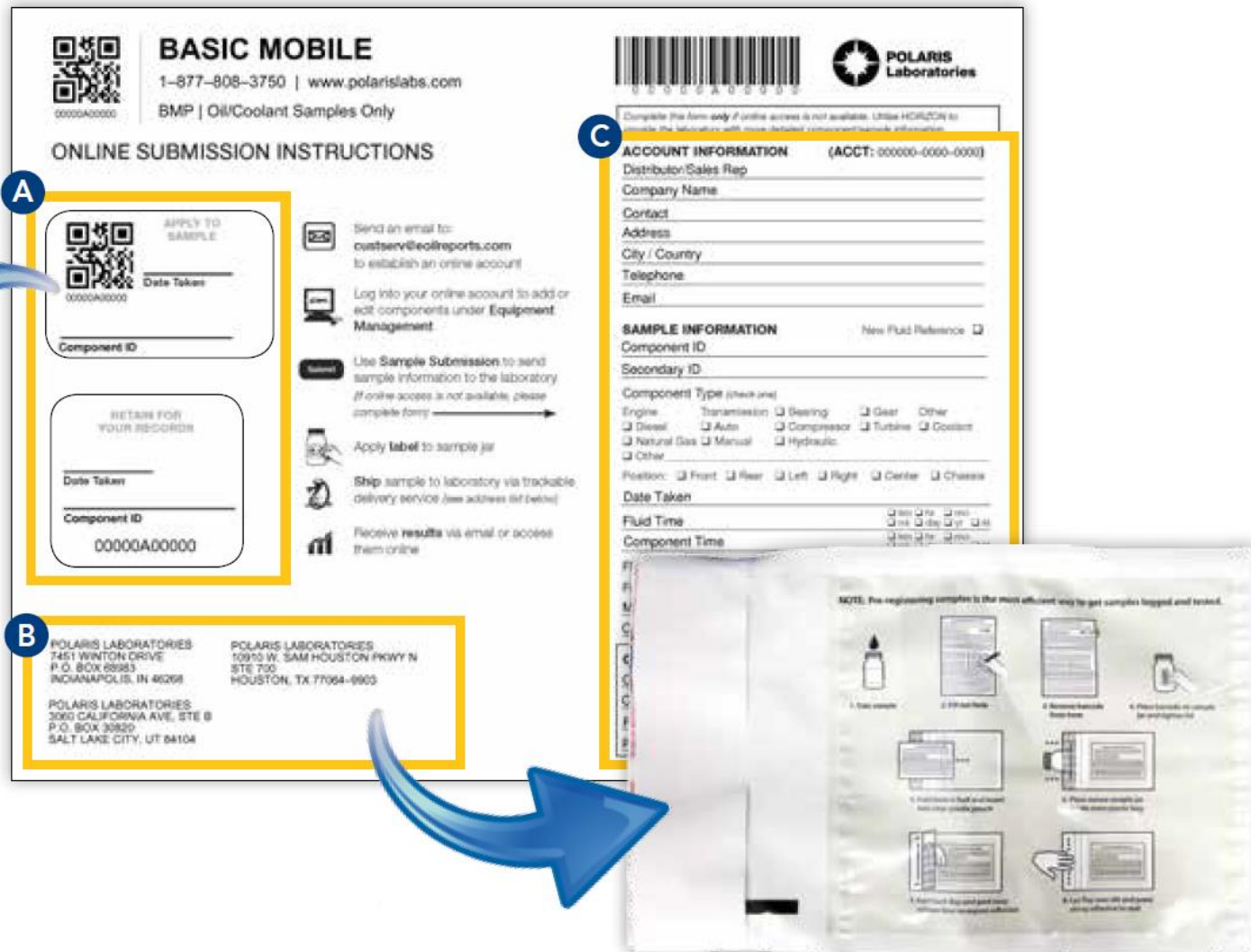


Push Pin

- Stay consistent with sampling technique and location.
- Never reuse disposable tubing.
- Purge stagnant oil from installed devices and tubing before collecting samples.
- Make sure the sample bottle is clean and free of contaminants.

Submitting Your Samples

SUBMITTING YOUR LUBRICANT, COOLANT AND FUEL SAMPLES



BASIC MOBILE
1-877-808-3750 | www.polarislabs.com
BMP | Oil/Coolant Samples Only

00000A00000

ONLINE SUBMISSION INSTRUCTIONS

A

APPLY TO SAMPLE

Date Taken

00000A00000

Component ID

RETURN FOR YOUR RECORD

Date Taken

Component ID

00000A00000

B

POLARIS LABORATORIES
7451 WINTON DRIVE
P.O. BOX 68953
INDIANAPOLIS, IN 46268

POLARIS LABORATORIES
10915 W. SAM HOUSTON PKWY N
STE 700
HOUSTON, TX 77064-6905

POLARIS LABORATORIES
3060 CALIFORNIA AVE, STE B
P.O. BOX 30820
SALT LAKE CITY, UT 84104

C

Complete this form *only if* online access is not available. Utilize HORIZON to submit the laboratory with more detailed component/sample information

ACCOUNT INFORMATION (ACCT: 000000-0000-0000)

Distributor/Sales Rep
Company Name
Contact
Address
City / Country
Telephone
Email

SAMPLE INFORMATION New Fluid Reference ☐

Component ID
Secondary ID

Component Type (check one)
☐ Engine ☐ Transmission ☐ Bearing ☐ Gear ☐ Other
☐ Diesel ☐ Auto ☐ Compressor ☐ Turbine ☐ Coolant
☐ Natural Gas ☐ Manual ☐ Hydraulic
☐ Other

Position: ☐ Front ☐ Rear ☐ Left ☐ Right ☐ Center ☐ Chassis

Date Taken
Fluid Time
Component Time

NOTE: Pre-registering samples is the most efficient way to get samples logged and tested.

1. Fill sample
2. Fill out form
3. Attach sample to form
4. Place sample in sample bag
5. Place sample in bag and seal
6. Place sample in bag and seal
7. Place sample in bag and seal
8. Place sample in bag and seal

Shipping Samples

- A. Affix bar code label to clean jar.
- B. Affix shipping address label to clean envelope
- C. Fill out all equipment and fluid information in the HORIZON® web or mobile app to eliminate:
 - Oil spills on paperwork
 - Handwriting errors
 - Duplicate equipment
 - Holds due to missing information
 - Sending paperwork with the sample
- Send the sample to the lab immediately using a trackable mail service

Using EZ Label



HD OIL BRONZE

1-XXX-XXX-XXXX | www.lubealert.com

HDBRONZE | Oil Samples Only

ONLINE SUBMISSION INSTRUCTIONS



APPLY TO
SAMPLE

Date Taken

Component ID

RETAIN FOR
YOUR RECORDS

Date Taken

Component ID

00000A00000

LUBEALERT LAB
7451 WINTON DRIVE
P.O. BOX 68983
INDIANAPOLIS, IN 46268

LUBEALERT LAB
10910 W. SAM HOUSTON PKWY N
STE 700
HOUSTON, TX 77064-9903

LUBEALERT LAB
P.O. BOX 30820
3060 CALIFORNIA AVE, STE B
SALT LAKE CITY, UT 84104



Send an email to:
custserv@oilreports.com
to establish an online account



Log into your online account to add or
edit components under **Equipment
Management**



Use **Sample Submission** to send
sample information to the laboratory
(If online access is not available, please
complete form) →



Apply **label** to sample jar



Ship sample to laboratory via trackable
delivery service (see address list below)



Receive **results** via email or access
them online



Complete this form **only** if online access is not available. Utilize HORIZON to
provide the laboratory with more detailed component/sample information.

ACCOUNT INFORMATION (ACCT: CITGOA)

Distributor/Sales Rep _____
Company Name _____
Contact _____
Address _____
City / Country _____
Telephone _____
Email _____

SAMPLE INFORMATION New Fluid Reference ☐

Component ID _____
Secondary ID _____
Component Type (check one)
Engine ☐ Diesel ☐ Natural Gas ☐ Other _____
Transmission ☐ Auto ☐ Manual _____
☐ Bearing ☐ Gear ☐ Compressor ☐ Turbine ☐ Hydraulic

Position: ☐ Front ☐ Rear ☐ Left ☐ Right ☐ Center ☐ Chassis

Date Taken _____

Fluid Time _____ ☐ km ☐ hr ☐ mo ☐ mi ☐ day ☐ yr ☐ lt

Component Time _____ ☐ km ☐ hr ☐ mo ☐ mi ☐ day ☐ yr ☐ lt

Fluid Changed ☐ Yes ☐ No ☐ Unknown

Filter Changed ☐ Yes ☐ No ☐ Unknown

Misc _____

Comments _____

COMPONENT INFORMATION (For first-time samples or changes only)

Manufacturer _____

Model _____

Product Mfr _____

Product & Viscosity Grade _____ ☐ ISO ☐ SAE

Combined with online
sample submission,
this label reduces:

- Paperwork
- Minimizes errors
- Moves your samples
to the laboratory
floor quicker



Sample Submission

Auto Fill Values: ▼

Collapse All Expand All

✖ Component ID: 165 E ✎

Component Information

Account Number CITGON00430000
Company Name BEST CARTAGE
Component ID 165 E
Secondary ID
Component Type DIESEL ENGINE
Component Manufacturer CUMMINS
Component Model M11
Application O-T-R TRUCKING
Hydraulic System Pressure 0
Sump Capacity 11
Filter Type
Filter Micron Rating 0
Product Manufacturer CITGO
Product Name CITGARD 700 SYNTHETIC BLEND
Product Grade SAE 10W30
Wildcard 1
Wildcard 2
Wildcard 3

Lubricant

Sample Information ?

Tracking Number

Sample Date *

Fluid Time Miles ▼

Component Time Miles ▼

Calculate Fluid Time ?

Fluid Changed * Choose One ▼

Filter Changed * Choose One ▼

Amount Fluid Added 0 Gallons ▼

Kit * Choose One ▼

Rush ☐

Purchase Order

Misc.

Additional Testing For additional testing requests only

Notes To Analyst Equipment Issues, Questions, etc.



Online Submission

Component Tags Simplify Submission



Submitting sample information
has never been easier

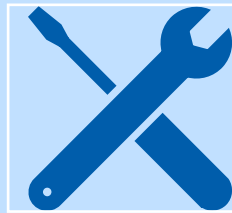
TAG EQUIPMENT WITH QR CODES



Print QR codes directly
from **HC RIZON[®]**



Save Time



Save Labor



Save Costs

SUSTAINABILITY INITIATIVE



More than 1.9M paper registration forms are distributed around the world and only 50% are used resulting in an ever-growing amount of waste.

As part of our green initiative to help protect the planet, customers now have the opportunity to order QR code-only sample jar labels.

These labels are small 2"x1" labels that function similarly to the sample jar label found on your program's Sample Information Form today.

HD OIL BRONZE
ADVANCED MOBILE t.com
1-877-808-3750 | www.oilreports.com
ONLINE AMP | Oil/Coolant Samples Only S

ACCOUNT INFORMATION (ACCT: CITGOA)
Distributor/Sales Rep _____
Company Name _____
Contact _____
Address _____
City / Country _____
Telephone _____
Email _____

SAMPLE INFORMATION New Fluid Reference ☐
Component ID _____
Secondary ID _____
Component Type (check one)
Engine ☐ Diesel ☐ Natural Gas ☐ Other _____
Transmission ☐ Auto ☐ Manual ☐ Bearing ☐ Compressor ☐ Hydraulic ☐ Gear ☐ Turbine
Position: ☐ Front ☐ Rear ☐ Left ☐ Right ☐ Center ☐ Chassis
Date Taken _____
Fluid Time ☐ km ☐ hr ☐ mo ☐ mi ☐ day ☐ yr ☐ kt
Component Time ☐ km ☐ hr ☐ mo ☐ mi ☐ day ☐ yr ☐ kt
Fluid Changed ☐ Yes ☐ No ☐ Unknown
Filter Changed ☐ Yes ☐ No ☐ Unknown
Misc _____
Comments _____

COMPONENT INFORMATION (For first-time samples or changes only)
Manufacturer _____
Model _____
Product Mfr _____
Product & Viscosity Grade _____ ☐ ISO ☐ SAE

SEND AN EMAIL TO:
custserv@oilreports.com
to establish an online account

LOG INTO YOUR ONLINE ACCOUNT TO ADD OR EDIT COMPONENTS UNDER EQUIPMENT MANAGEMENT

USE SAMPLE SUBMISSION TO SEND SAMPLE INFORMATION TO THE LABORATORY (If online access is not available, please complete form)

APPLY LABEL TO SAMPLE JAR

SHIP SAMPLE TO LABORATORY VIA TRACKABLE DELIVERY SERVICE (see address list below)

RECEIVE RESULTS VIA EMAIL OR ACCESS THEM ONLINE

APPLY TO SAMPLE
Date Taken _____
Component ID _____
RETAIN FOR YOUR RECORDS
Date Taken _____
Component ID _____
00000A00000

LUBEALERT LAB
7451 WINTON DRIVE
P.O. BOX 68983
INDIANAPOLIS, IN 46268

LUBEALERT LAB
10910 W. SAM HOUSTON PKWY N
STE 700
HOUSTON, TX 77064-9903

LUBEALERT LAB
P.O. BOX 30820
3060 CALIFORNIA AVE, STE B
SALT LAKE CITY, UT 84104

As of July 1, 2022: all orders for full-sized
Sample Information Forms are invoiced \$0.10/label.

Updating to the New QR Code Label



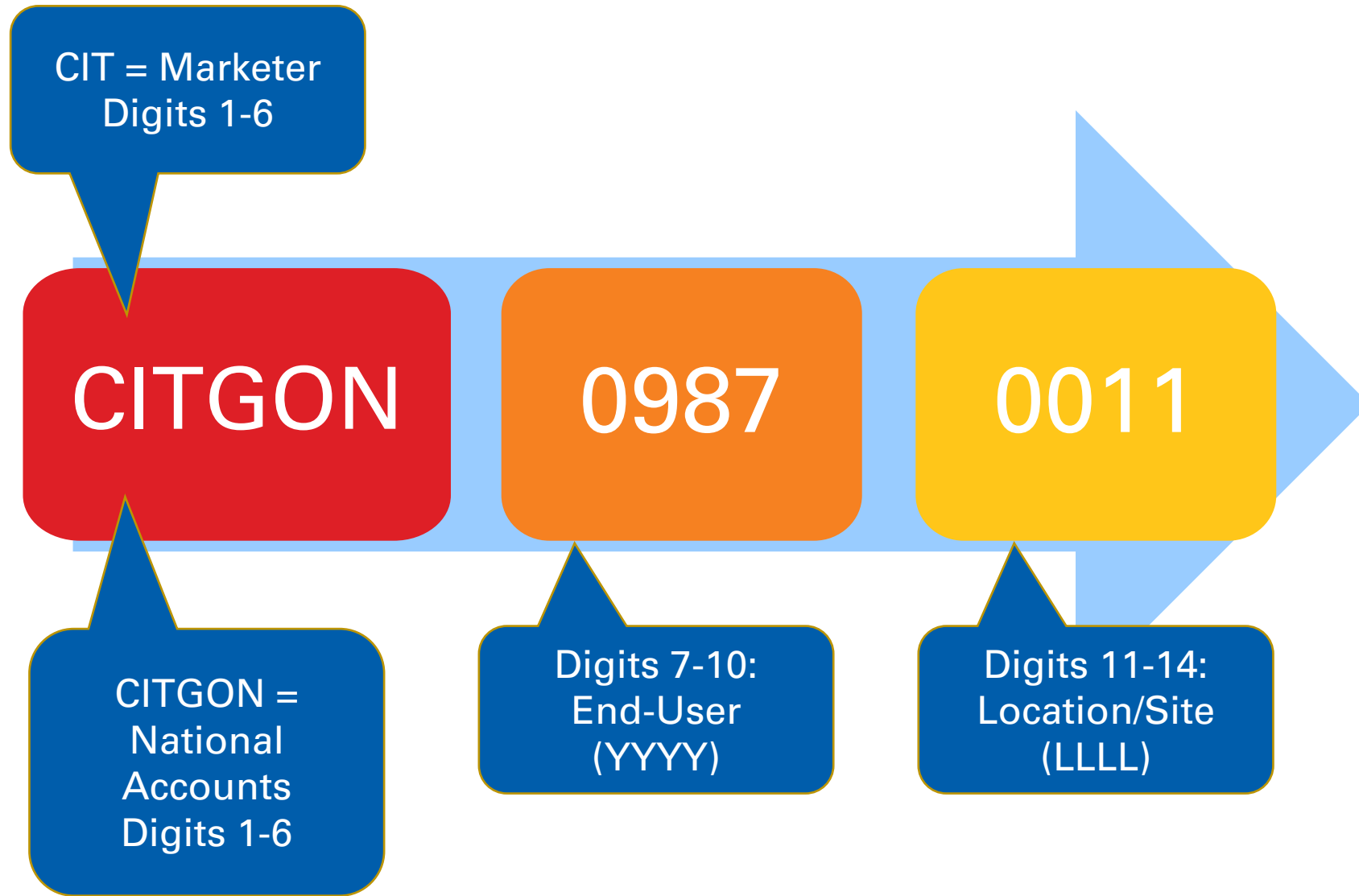
**DRIVING
EFFICIENCIES
TOGETHER**

**SUSTAINABILITY
INITIATIVE**



LubeAlert Reports





Getting Reports to the Right People

HOW TO READ A REPORT



Lubricant Analysis Report
North America: +1-877-808-3750

Account Information
Account Number: 000000-0000-0000
Company Name: ABC COMPANY
Address: 1234 Main Street
City: Anytown
State: LA US
Postal Code: 11111

Component Information
Component ID: K088 A ENGINE
Secondary ID: TRACTOR HYD-III GORILLA
Component Type: DIESEL ENGINE
Manufacturer: MISSING INFORMATION
Model: MISSING INFORMATION
Application: GAS-OIL FIELD
Sump Capacity: 12

Sample Information
Tracking Number: 00000A0000
Lab Number: H000000
Lab Location: Houston
Data Analyst: AHB
Sampled: 05-Apr-2010
Submitted: 06-Apr-2010
Received: 07-Apr-2010
Completed: 09-Apr-2010

Filter Information
Filter Type: FULLFLOW & BYPASS
Filter Rating: 15

Miscellaneous Information
Miscellaneous:

Product Information
Product Manufacturer: CHEVRON
Product Name: DELO 400 LE
Viscosity Grade: SAE 15W40

Comments
SUGGEST INSPECTING this unit for excessive bearing wear. Bearing metal has increased and is now at a SEVERE LEVEL. Suggest inspecting cooling system (head gasket, heads, seals, EGR system, etc) for leaks. Coolant indicators (Sodium, Potassium) PERFORMED. Resample at full interval.

Sample #	Wear Metals (ppm)										Contaminant Metals (ppm)		Multi-Source Metals (ppm)					Additive Metals (ppm)						
	Iron	Chromium	Nickel	Aluminum	Copper	Lead	Tin	Cadmium	Silver	Vanadium	Silicon	Sodium	Potassium	Titanium	Molybdenum	Antimony	Manganese	Lithium	Boron	Magnesium	Calcium	Barium	Phosphorus	Zinc
NL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	26	0	0	51	118	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	10	0	0	31	47	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	15	0	0	36	215	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	23	0	0	52	240	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	13	0	0	26	133	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Sample #	Sample Information				Contaminants				Fluid Properties				
	Date Sampled	Date Received	Lube Time	Unit Time	Fuel Dilution	Soot	Water	Viscosity 40°C	Viscosity 100°C	Acid Number	Base Number	Oxidation	Viscosity 100°C
NL	17 May 2013	21 May 2013	0	0	Link	6	Seal	<1	FTIR	11.5	6.75	8	5
1	03 May 2013	07 May 2013	1000	6180	Yes	6	Yes	<1	H	<1	H	<1	H
2	24 Jul 2013	26 Jul 2013	325	6647	Yes	6	Yes	<1	H	<1	H	<1	H
3	04 Dec 2013	06 Dec 2013	556	7497	Yes	6	Yes	<1	H	<1	H	<1	H

Sample #	Particle Count (particles/mL)								Test Method
	ISO Code	> 4 µm	> 6 µm	> 10 µm	> 14 µm	> 21 µm	> 38 µm	> 70 µm	
NL	40/14								
5									
6									
7									
8									
9									

Remarks
Data flagged for observation only. MODERATE POTASSIUM level could be a coolant indicator. Coolant leaks at this level will most likely not be detectable through normal diagnostics. Suggest MONITORING COOLANT LEVEL closely between samples. Flagged data has been checked and confirmed. Lubricant and filter change recommended.

Comments
SUGGEST INSPECTING this unit for excessive bearing wear. Bearing metal has increased and is now at a SEVERE LEVEL. Suggest inspecting cooling system (head gasket, heads, seals, EGR system, etc) for leaks. Coolant indicators (Sodium, Potassium) are at a SEVERE LEVEL. Suggest flushing system. FUEL DILUTION is at a MINOR LEVEL. FUEL DILUTION possibly caused by excessive idling. Data flagged indicates that risk of FAILURE IS HIGH for this unit if MAINTENANCE IS NOT PERFORMED. Resample at full interval.

Posted Messages
Pull this tractor out of service; we need to have a service tech open this unit up and find the coolant leak. While the unit is down, change the main bearings out.

- Compare shipping and processing dates to evaluate turnaround time.
- Determine the analyst making recommendations.
- Update missing information and request an immediate re-evaluation.
- Track sample-specific information using the Miscellaneous field such as “who took the sample” or “work order number”.



HOW TO READ A REPORT

LubeAlert
North America: +1-877-808-3750

Overall report severity based on comments: 0 1 2 3 4

Account Information
Account Number: 000000-0000-0000
Company Name: ABC COMPANY
Address: 1234 Main Street
City: Anytown
State: CA
Postal Code: 91111

Component Information
Component ID: K088 A ENGINE
Secondary ID: TRACTOR HYDRA GORILLA
Component Type: DIESEL ENGINE
Manufacturer: MISSING INFORMATION
Model: MISSING INFORMATION
Application: GAS-OIL FIELD
Sump Capacity: 12

Sample Information
Tracking Number: 0000000000
Lab Number: H000000
Lab Location: Houston
Data Analyst: AHB
Sampled: 05-Apr-2010
Submitted: 06-Apr-2010
Received: 07-Apr-2010
Completed: 09-Apr-2010

Filter Information
Filter Type: FULL FLOW CROSS

Miscellaneous Information
Product Manufacturer: CHRYSLER

Comments
SUGGEST INSPECTING this unit for excessive bearing wear. Bearing metal has increased and is now at a SEVERE LEVEL. Suggest inspecting cooling system (head gasket, heads, seals, EGR system, etc.) for leaks. Coolant indicators (Sodium, Potassium) are at a SEVERE LEVEL. Suggest flushing system. FUEL DILUTION is at a MINOR LEVEL. FUEL DILUTION possibly caused by excessive idling. Data flagged indicates that risk of FAILURE IS HIGH for this unit if MAINTENANCE IS NOT PERFORMED. Resample at half interval.

Sample #
1 26 3 10 3 15 4 23 6 13

Iron
0 0 0 0 0 0 0 0 0 0

Chromium
0 0 0 0 0 0 0 0 0 0

Nickel
0 0 0 0 0 0 0 0 0 0

Aluminum
0 0 0 0 0 0 0 0 0 0

Copper
0 0 0 0 0 0 0 0 0 0

Lead
0 0 0 0 0 0 0 0 0 0

Tin
0 0 0 0 0 0 0 0 0 0

Cadmium
0 0 0 0 0 0 0 0 0 0

Silver
0 0 0 0 0 0 0 0 0 0

Vanadium
0 0 0 0 0 0 0 0 0 0

Silicon
0 0 0 0 0 0 0 0 0 0

Selenium
0 0 0 0 0 0 0 0 0 0

Barium
0 0 0 0 0 0 0 0 0 0

Titanium
0 0 0 0 0 0 0 0 0 0

Molybdenum
0 0 0 0 0 0 0 0 0 0

Antimony
0 0 0 0 0 0 0 0 0 0

Manganese
0 0 0 0 0 0 0 0 0 0

Lithium
0 0 0 0 0 0 0 0 0 0

Boron
0 0 0 0 0 0 0 0 0 0

Magnesium
0 0 0 0 0 0 0 0 0 0

Calcium
0 0 0 0 0 0 0 0 0 0

Barium
0 0 0 0 0 0 0 0 0 0

Phosphorus
0 0 0 0 0 0 0 0 0 0

Zinc
0 0 0 0 0 0 0 0 0 0

Sample Information
Sample # Date Sampled Date Received Date Analyzed Unit Type Lube Change Lube Added Lube Filter Change Fuel Dilution Soot Water Viscosity 40 °C Viscosity 100 °C Acid Number Base Number Oxidation Nitration

Sample #
1 2 3 4

Date Sampled
17 May 2013 03 May 2013 24 Jul 2013 04 Dec 2013

Date Received
21 May 2013 07 May 2013 26 Jul 2013 06 Dec 2013

Date Analyzed
1600 1225 556

Unit Type
Link 6 6 6 6

Lube Change
No No Yes No

Lube Added
No No Yes No

Lube Filter Change
No No Yes No

Fuel Dilution
% Vol % Vol % Vol % Vol

Soot
% Vol % Vol % Vol % Vol

Water
% Vol % Vol % Vol % Vol

Viscosity 40 °C
cSt cSt cSt cSt

Viscosity 100 °C
cSt cSt cSt cSt

Acid Number
mg KOH/g mg KOH/g mg KOH/g mg KOH/g

Base Number
mg KOH/g mg KOH/g mg KOH/g mg KOH/g

Oxidation
ppm ppm ppm ppm

Nitration
ppm ppm ppm ppm

Particle Count (particles/mL)
Sample # ISO Code Based On: 40/14

Sample #
1 2 3 4

ISO Code
40/14 40/14 40/14 40/14

Based On
40/14 40/14 40/14 40/14

Particle Count
> 4 µm > 6 µm > 10 µm > 14 µm > 21 µm > 38 µm > 70 µm > 100 µm

Test Method
Test Method Test Method Test Method Test Method

Comments
Data flagged for observation only. MODERATE POTASSIUM level could be a coolant indicator. Coolant leaks at this level will most likely not be detectable through normal diagnostics. Suggest MONITORING COOLANT LEVEL closely between samples. Flagged data has been rechecked and confirmed. Lubricant and filter change acknowledged.

Postcard Messages
Pull this tractor out of service; we need to have a service tech open this unit up and find the coolant leak. While the unit is down, change the main bearings out.

- Explains significant changes.
- Recommends actions for rectifying any issues.
- Provides a roadmap to the most important information.
- Lists any actions that need to be taken in order of severity.
- Justifications for recommending those actions immediately follow.

HOW TO READ A REPORT



LubeAlert

Lubricant Analysis Report
North America: +1-877-808-3750

Overall report severity based on comments: 0 1 2 3 4

Account Information		Component Information		Sample Information	
Account Number: 000000-0000-0000	Company Name: ABC COMPANY	Component ID: K088 A ENGINE	Secondary ID: TRACTOR HYDRA GORILLA	Tracking Number: 0000000000	Lab Number: H0000000
Address: 1234 Main Street	City: Anytown	Component Type: DIESEL ENGINE	Manufacturer: MISSING INFORMATION	Lab Location: Houston	Lab Analyst: AHB
State: TX	Postal Code: 11111	Model: MISSING INFORMATION	Application: GAS-OIL FIELD	Sampled: 05-Apr-2010	Submitted: 06-Apr-2010
		Sump Capacity: 12		Received: 07-Apr-2010	Completed: 09-Apr-2010

Filter Information		Miscellaneous Information		Product Information	
Filter Type: FULLFLOW & BYPASS	Filter Rating: 15			Product Manufacturer: CHEVRON	Product Name: DELO 400 LE
				Viscosity Grade: SAE 15W40	

Comments: SUGGEST INSPECTING this unit for excessive bearing wear. Bearing metal has increased and is now at a SEVERE LEVEL. Suggest inspecting cooling system (head gasket, heads, seals, EGR system, etc.) for leaks. Coolant indicators (Sodium, Potassium) are at a SEVERE LEVEL. Suggest flushing system. FUEL DILUTION is at a MINOR LEVEL. FUEL DILUTION possibly

Sample #	Wear Metals (ppm)										Contaminant Metals (ppm)		Multi-Source Metals (ppm)					Additive Metals (ppm)							
	Iron	Chromium	Nickel	Aluminum	Copper	Lead	Tin	Cadmium	Silver	Vanadium	Silicon	Sodium	Potassium	Titanium	Molybdenum	Antimony	Manganese	Lithium	Boron	Magnesium	Calcium	Barium	Phosphorus	Zinc	
1	26	0	0	51	118	1	0	0	0	3	4	436	8	0	0	0	0	0	0	3	13	1464	0	720	831
3	10	0	0	31	47	1	0	0	0	3	384	6	0	1	0	0	0	0	13	14	1363	0	640	667	
3	15	0	0	3	26	215	0	0	0	3	373	5	0	1	0	0	0	11	14	1472	0	715	722		
4	23	0	0	0	52	240	2	0	0	3	370	3	0	1	0	0	0	11	15	1402	0	664	762		
4	13	0	0	0	36	133	0	0	0	1	118	3	0	0	0	0	0	4	14	1066	0	617	864		

Sample #	Date Sampled	Date Received	Lube Type	Unit Type	Lube Change	Lube Added	Filter Change	Fuel Dilution	Soot	Water	Viscosity	Acid Number	Base Number	Oxidation	Titration
1	17 May 2013	21 May 2013	0	0	Link	6	0	0	0	0	11.5	6.75	8	5	
3	03 May 2013	07 May 2013	1000	6480	Ne	6	Ne	0	0	0	0	0	0	0	
2	24 Jul 2013	26 Jul 2013	325	6647	Yes	6	Yes	0	0	0	0	0	0	0	
3	04 Dec 2013	06 Dec 2013	556	7497	Ne	6	Yes	0	0	0	0	0	0	0	

Sample #	ISO Code	Particle Count (particles/mL)								Test Method
		> 4 µm	> 6 µm	> 10 µm	> 14 µm	> 21 µm	> 38 µm	> 70 µm	> 100 µm	
1	40/14									
5										
6										
7										
8										
9										

Remarks: Data flagged for observation only. MODERATE POTASSIUM level could be a coolant indicator. Coolant leaks at this level will most likely not be detectable through normal diagnostics. Suggest MONITORING COOLANT LEVEL closely between samples. Flagged data has been rechecked and confirmed. Lubricant and filter change acknowledged.

Comments: SUGGEST INSPECTING this unit for excessive bearing wear. Bearing metal has increased and is now at a SEVERE LEVEL. Suggest inspecting cooling system (head gasket, heads, seals, EGR system, etc.) for leaks. Coolant indicators (Sodium, Potassium) are at a SEVERE LEVEL. Suggest flushing system. FUEL DILUTION is at a MINOR LEVEL. FUEL DILUTION possibly caused by excessive idling. Data flagged indicates that risk of FAILURE IS HIGH for this unit if MAINTENANCE IS NOT PERFORMED. Resample at full interval.

Posted Messages: Pull this tractor out of service; we need to have a service tech open this unit up and find the coolant leak. While the unit is down, change the main bearings out.

- Elemental Analysis, or Spectroscopy, identifies the type and amount of wear particles, contamination and additives.
- Determining metal content can alert you to the type and severity of wear occurring in the unit.
- Measurements are expressed in parts per million (ppm).



HOW TO READ A REPORT




A

B

C

D



Lubricant Analysis Report

North America: +1-877-808-3750

0

1

2

3

4

Warning

Information

Severe

Overall report severity based on comments.

Account Information		Component Information		Sample Information	
Account Number: 000000-0000-0000	Component ID: K088 A ENGINE	Tracking Number: 00000A0000			
Company Name: ABC COMPANY	Secondary ID: TRACTOR HYD-M GORILLA	Lab Number: H400000			
Address: 1234 Main Street	Component Type: DIESEL ENGINE	Lab Location: Houston			
City: Anytown	Manufacturer: MISSING INFORMATION	Data Analyst: AKB			
State: LA US	Model: MISSING INFORMATION	Sampled: 05-Apr-2010			
Postal Code: 11111	Application: GAS-OIL FIELD	Submitted: 06-Apr-2010			
	Sump Capacity: 12	Received: 07-Apr-2010			
		Completed: 09-Apr-2010			

Filter Information		Miscellaneous Information		Product Information	
Filter Type: FULLFLOW & BYPASS	Miscellaneous:	Product Manufacturer: CHEVRON			
Filter Rating: 15		Product Name: DELO 400 LE			
		Viscosity Grade: SAE 15W40			

Comments: SUGGEST INSPECTING this unit for excessive bearing wear. Bearing metal has increased and is now at a SEVERE LEVEL. Suggest inspecting cooling system (head gasket, heads, seals, EGR system, etc) for leaks. Coolant indicators (Sodium, Potassium) are at a SEVERE LEVEL. Suggest flushing system. FUEL DILUTION is at a MINOR LEVEL. FUEL DILUTION possibly caused by excessive idling. Data flagged indicates that risk of FAILURE IS HIGH for this unit if MAINTENANCE IS NOT PERFORMED. Resample at half interval.

Sample #	Wear Metals (ppm)										Contaminant Metals (ppm)		Multi-Source Metals (ppm)				Additive Metals (ppm)								
	Iron	Chromium	Nickel	Aluminum	Copper	Lead	Tin	Cadmium	Silver	Vanadium	Silicon	Sodium	Potassium	Titanium	Molybdenum	Antimony	Manganese	Lithium	Boron	Magnesium	Calcium	Barium	Phosphorus	Zinc	
1	26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	58	0	13	1664	0	720	831
2	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	58	0	13	1664	0	720	831
3	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	58	0	13	1664	0	720	831
4	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	58	0	13	1664	0	720	831

Sample #	Sample Information				Contaminants				Fluid Properties							
	Date Sampled	Date Received	Lube Time	Unit Time	Lube Change	Lube Added	Filter Change	Fuel Dilution	Soot	Water	Viscosity 40 °C	Viscosity 100 °C	Acid Number	Base Number	Oxidation	Titration
1	17 May 2013	21 May 2013	0	0	Link	6	0	0	0	0	11.5	6.75	8	5		
2	03 May 2013	07 May 2013	1000	6800	Yes	6	Yes	0	0	0	11.5	6.75	8	5		
3	24 Jul 2013	26 Jul 2013	325	6647	Yes	6	Yes	0	0	0	11.5	6.75	8	5		
4	04 Dec 2013	06 Dec 2013	556	7497	Yes	6	Yes	0	0	0	11.5	6.75	8	5		

Sample #	Particle Count (particles/mL)										Test Method
	ISO Code	> 4 µm	> 6 µm	> 10 µm	> 14 µm	> 21 µm	> 38 µm	> 70 µm	> 100 µm		
1	4004										
2											
3											
4											
5											
6											
7											
8											
9											

Notes: Data flagged for observation only. MODERATE POTASSIUM level could be a coolant indicator. Coolant leaks at this level will most likely not be detectable through normal diagnostics. Suggest MONITORING COOLANT LEVEL closely between samples. Flagged data has been rechecked and confirmed. Lubricant and filter change acknowledged.

Comments: SUGGEST INSPECTING this unit for excessive bearing wear. Bearing metal has increased and is now at a SEVERE LEVEL. Suggest inspecting cooling system (head gasket, heads, seals, EGR system, etc) for leaks. Coolant indicators (Sodium, Potassium) are at a SEVERE LEVEL. Suggest flushing system. FUEL DILUTION is at a MINOR LEVEL. FUEL DILUTION possibly caused by excessive idling. Data flagged indicates that risk of FAILURE IS HIGH for this unit if MAINTENANCE IS NOT PERFORMED. Resample at half interval.

Posted Messages: Pull this tractor out of service; we need to have a service tech open this unit up and find the coolant leak. While the unit is down, change the main bearings out.



- New lube results are listed first for a point of reference.
- Fluid analysis program test results are listed according to age of the sample, so trends are apparent.
- Significant changes are flagged and documented in the comments section.

HOW TO READ A REPORT



LubeAlert

Lubricant Analysis Report
North America: +1-877-808-3750

Overall report severity based on comments: 0 1 2 3 4

Account Information		Component Information		Sample Information	
Account Number: 000000-0000-0000	Company Name: ABC COMPANY	Component ID: K088 A ENGINE	Secondary ID: TRACTOR HYD-III GORILLA	Tracking Number: 0000000000	Lab Number: H000000
Address: 1234 Main Street	City: Anytown	Component Type: DIESEL ENGINE	Manufacturer: MISSING INFORMATION	Lab Location: Houston	Sampled: 05-Apr-2010
State: LA US	Postal Code: 11111	Model: MISSING INFORMATION	Application: GAS-OIL FIELD	Data Analyst: AIB	Submitted: 06-Apr-2010
		Sump Capacity: 12		Received: 07-Apr-2010	Completed: 09-Apr-2010

Filter Information		Miscellaneous Information		Product Information	
Filter Type: FULLFLOW & BYPASS	Filter Rating: 15	Miscellaneous:		Product Manufacturer: CHEVRON	Product Name: DELO 400 LE
				Viscosity Grade: SAE 15W40	

Comments: SUGGEST INSPECTING this unit for excessive bearing wear. Bearing metal has increased and is now at a SEVERE LEVEL. Suggest inspecting cooling system (head gasket, heads, seals, EGR system, etc.) for leaks. Coolant indicators (Sodium, Potassium) are at a SEVERE LEVEL. Suggest flushing system. FUEL DILUTION is at a MINOR LEVEL. FUEL DILUTION possibly caused by excessive idling. Data flagged indicates that risk of FAILURE IS HIGH for this unit if MAINTENANCE IS NOT PERFORMED. Resample at half interval.

Sample #	Wear Metals (ppm)										Contaminant Metals (ppm)					Multi-Source Metals (ppm)					Additive Metals (ppm)				
	Iron	Chromium	Nickel	Aluminum	Copper	Lead	Tin	Cadmium	Silver	Vanadium	Silicon	Sodium	Potassium	Titanium	Molybdenum	Antimony	Manganese	Lithium	Boron	Magnesium	Calcium	Barium	Phosphorus	Zinc	
1	26	0	0	51	118	1	0	0	0	3	4	436	8	0	3	0	0	0	0	3	13	1664	0	720	831
2	10	0	0	31	47	1	0	0	0	3	5	3	0	0	0	0	0	0	0	56	0	342	25		
3	15	0	0	3	24	215	2	0	0	3	3	373	5	0	1	0	0	0	13	14	1363	0	640	567	
4	23	0	0	52	240	2	0	0	0	3	3	373	3	0	1	0	0	0	13	15	1402	0	664	762	
5	13	0	0	26	133	0	0	0	0	1	3	118	3	0	23	0	0	0	4	14	1966	0	477	864	

Sample Information		Contaminants		Fluid Properties	
Sample #	Date Sampled	Date Received	Lube Time	Unit Time	Lube Change
1	17 May 2013	21 May 2013	0	0	Link
2	01 May 2013	07 May 2013	1000	6180	Yes
3	24 Jul 2013	26 Jul 2013	325	6647	Yes
4	04 Dec 2013	06 Dec 2013	556	7497	Yes

Sample #	ISO Code	Particle Count (particles/mL)								Test Method
		> 4 µm	> 6 µm	> 10 µm	> 14 µm	> 21 µm	> 38 µm	> 70 µm	> 100 µm	
1	4004									
2										
3										
4										
5										

Remarks: Data flagged for observation only. MODERATE POTASSIUM level could be a concern. Most likely not be detectable through normal diagnostics. Suggest MONITORING POTASSIUM level closely between samples. Flagged data has been rechecked and confirmed. Lubricant and filter change acknowledged.

Comments: SUGGEST INSPECTING this unit for excessive bearing wear. Bearing metal has increased and is now at a SEVERE LEVEL. Suggest inspecting cooling system (head gasket, heads, seals, EGR system, etc.) for leaks. Coolant indicators (Sodium, Potassium) are at a SEVERE LEVEL. Suggest flushing system. FUEL DILUTION is at a MINOR LEVEL. FUEL DILUTION possibly caused by excessive idling. Data flagged indicates that risk of FAILURE IS HIGH for this unit if MAINTENANCE IS NOT PERFORMED. Resample at half interval.

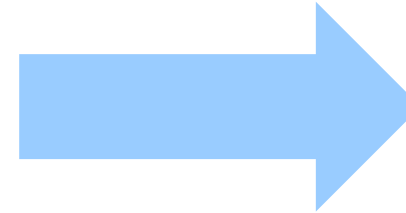
Posted Messages: Pull this tractor out of service; we need to have a service tech open this unit up and find the coolant leak. While the unit is down, change the main bearings out.

- There are ten customizable graphs available
- Help you pinpoint developing trends To turn on graphs
 - log into LubeAlert Horizon
 - go to My Settings > Sample Report Display.



Logging In to LubeAlert Horizon

www.lubealert.com



Email Address

Password



Remember Username ☒

[Forgot Password](#)


LOOKING FOR HISTORICAL LUBEALERT DATA? [CLICK HERE](#)

WELCOME TO THE NEW LUBEALERT WEBSITE

IF YOU ARE HAVING TROUBLE LOGGING INTO THE NEW LUBEALERT WEBSITE, PLEASE CALL 1-855-820-9561 OR EMAIL CUSTSERV@EOILREPORTS.COM



Dashboard




Email Address

FHAYES@citgo.com

Password

Remember Username ☐


[Forgot Password](#)



LOOKING FOR HISTORICAL LUBEALERT DATA? [CLICK HERE](#)

WELCOME TO THE NEW LUBEALERT WEBSITE

IF YOU ARE HAVING TROUBLE LOGGING INTO THE NEW LUBEALERT WEBSITE, PLEASE CALL 1-855-820-9561 OR EMAIL CUSTSERV@OILREPORTS.COM



COMMERCIAL TRUCKING
Fluid Condition Monitoring Service

WHAT IS LUBEALERT?

LubeAlert is a state-of-the-art fluid condition monitoring service used for predictive and preventative equipment maintenance. With decades of collected data, LubeAlert documents trends in a variety of equipment, provides valuable insight into equipment condition and can help plan maintenance activities.

TALK TO A LUBEALERT EXPERT TODAY!

- Tests performed and evaluated by highly qualified lubricant professionals.
- Results available on any PC or mobile device.
- Applicable for most equipment used in a variety of industries.
- Customizable query reporting tools help identify & analyze data trends.

Sample Reports



Sample Reports

Management Reports

Equipment Management

Sample Submission

Store

Technical Library

> Sample Reports

Sample Report Selection Wizard

Select By Account > Component > Sample

Use * for wildcard searches in filters

Show 50 entries

Select

Account Number

Sample Information ?

Tracking Number

Sample Date *

06/01/2023

Fluid Time

524 Hours

Component Time

10786 Hours

[Calculate Fluid Time ?](#)

Fluid Changed *

No

Filter Changed *

No

Amount Fluid Added

5 Gallons

Kit *

GTPW - NG ADVANCED

Rush



Purchase Order

Misc.

Additional Testing

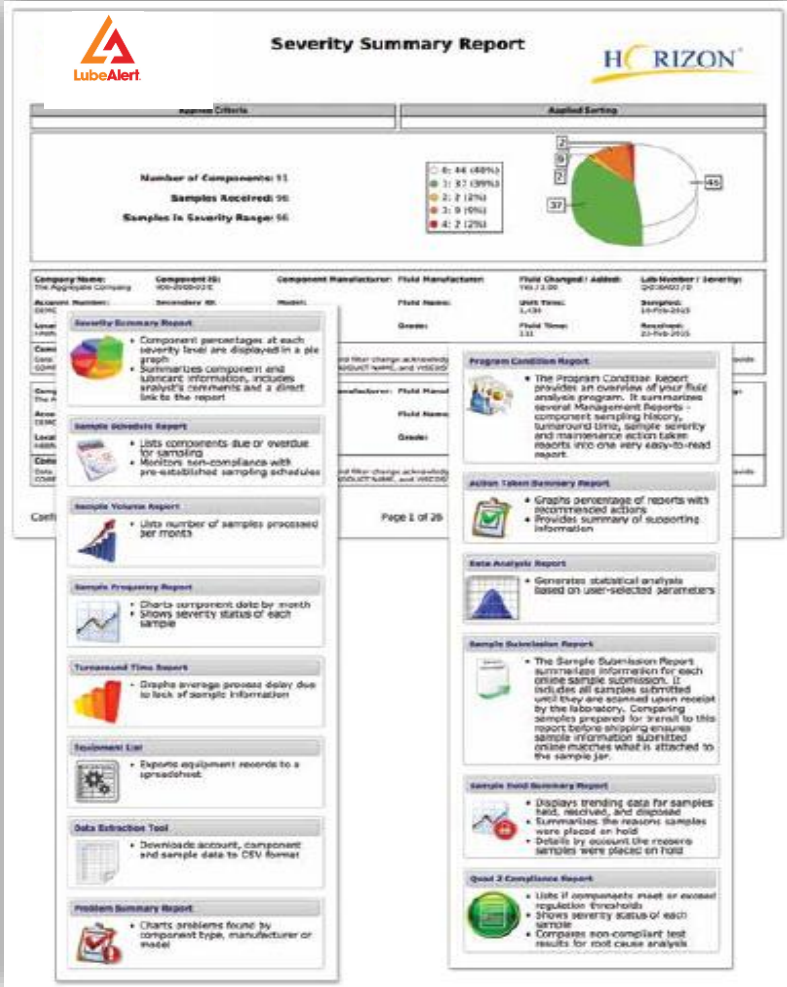
For additional testing requests only

Notes To Analyst

Equipment Issues, Questions, etc.



Management Reports



Severity Summary Report

- Component percentages at each severity level are displayed in a pie graph
- Summarizes component and lubricant information, includes analyst's comments and a direct link to the report



Sample Schedule Report

- Lists components due or overdue for sampling
- Monitors non-compliance with pre-established sampling schedules



Sample Volume Report

- Lists number of samples processed per month



Sample Frequency Report

- Charts component data by month
- Shows severity status of each sample



Turnaround Time Report

- Graphs average process delay due to lack of sample information



Sample Submission Report

- Summarizes information for each online sample submission
- Includes all samples submitted until they are scanned upon receipt by the laboratory
- Comparing samples prepared for transit to this report before shipping ensures sample information submitted online matches what is attached to the sample jar



Data Extraction Tool

- Downloads account, component and sample data to CSV format



Problem Summary Report

- Charts problems found by component type, manufacturer or model



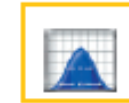
Program Condition Report

- Provides an overview of your fluid analysis program
- Summarizes several Management Reports – component sampling history, turnaround time, sample severity and maintenance action taken reports into one very easy-to-read report



Action Taken Summary Report

- Graphs percentage of reports with recommended actions
- Provides summary of supporting information



Data Analysis Report

- Generates statistical analysis based on user-selected parameters



Equipment List

- Exports equipment records to a spreadsheet



Sample Hold Summary Report

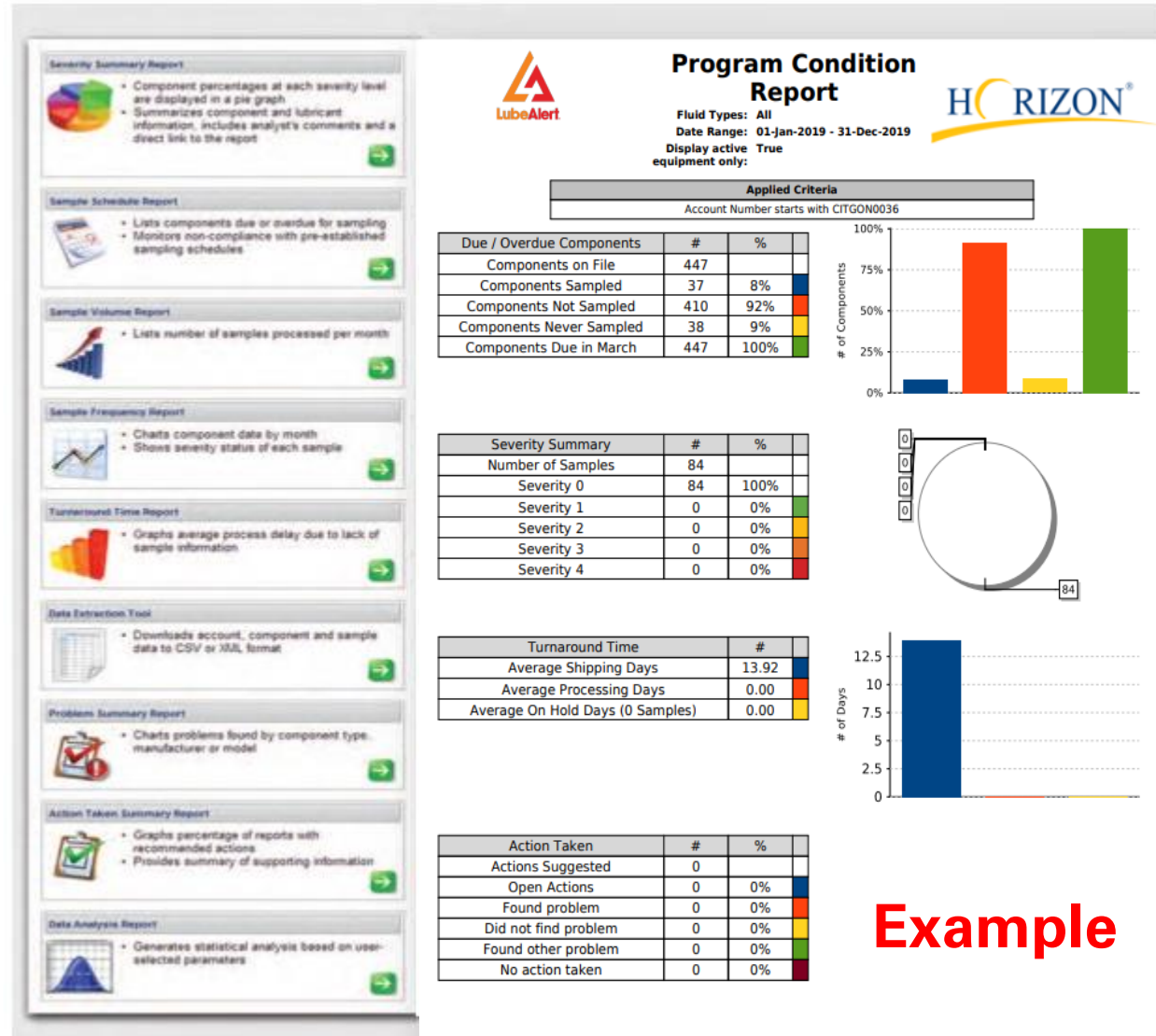
- Displays trending data for samples held, resolved, and disposed
- Summarizes the reasons samples were placed on hold
- Details by account the reasons samples were placed on hold



Quad Z Compliance Report

- Lists if components meet or exceed regulation thresholds
- Shows severity status of each sample
- Compares non-compliant test results for root cause analysis

Keep Program on Track



Identify Biggest Problems



Problem Summary Report

https://www.eoilreports.com/reports/management/report/PROBLEM_SUMMARY_REPORT

My Dashboard | My Settings | Program Admin | Contact Us | Logout

LubeAlert

Sample Reports | Management Reports | Equipment Management | Sample Submission | Store | Technical Library

> Management Reports > Management Reports

Welcome frayer@citgo.com

Problem Summary Report

Select your information

Report Type: Component Type

Time Period: Last Number of Days: 3

03-Jun-2023 - 06-Jun-2023

Fluid Types: ☒ Lubricant ☐ Fuel ☐ Coolant ☐ Grease

Applied Criteria			
Company Name	is equal to	DGOC	X
And	Component Manufact	is equal to	CATERPILLAR
Field	Equals	Click + to add criteria	+

Cancel Save As Run

Questions? | Terms of Service | Privacy Policy

8:54 AM 6/6/2023

Equipment Management





Sample Submission

My Dashb



Sample Reports

Management Reports

Equipment Management

Sample Submission

Store

Technical Library

> Sample Submission

Sample Submission

Additional Actions



Sample Submission Selection Wizard

Select By Account > Components

Use * for wildcard searches in filters

Show 50 entries

Select

Account Number

Sample Information

Tracking Number

Sample Date *

06/01/2023

Fluid Time

524

Hours

Component Time

10786

Hours

Calculate Fluid Time

Fluid Changed *

No

Filter Changed *

No

Amount Fluid Added

5

Gallons

Kit *

GTPW - NG ADVANCED

Rush



Purchase Order

Misc.

Please rush analysis

Additional Testing

Particle Count

Notes To Analyst

Equipment Issues, Questions, etc.





LubeAlert Store



Sample Reports Management Reports Equipment Management Sample Submission Store Technical Library

Welcome thayer@oigo.com

Fluid Alert - Action Required

16 Samples on Hold - Information Needed

Menu Shortcuts

- 652 Unviewed Sample Reports - Severities 3, 4
- 5855 Recent Sample Reports - Last 60 Days
- 0 Recent Sample Reports with Messages
- 587 Samples with Open Actions

Sample Report Lookup

Lab Number

I-123456

Account Name

Track My Sample

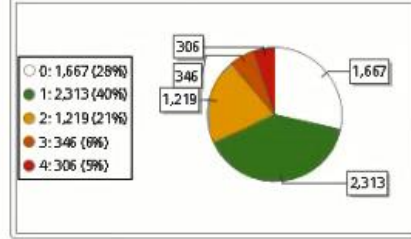
12345A54321

Component ID

Use * for wildcard searches in filters

HORIZON® News and Updates

Unviewed Results by Severity - Past 60 Days



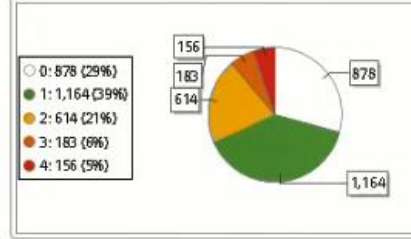
Top Repeat Severities - Last 12 Months

Component ID	Secondary ID	Total
WAYNE #5 COMPRESSOR		19
00009718695		18
MANILLA CREEK ENGINE #1	1212428	15
BEAR CREEK ENGINE #1	1212453	13
BREEDON C	1212147	13
197294 MAIN E	M-54	11
197296 MAIN E	M-57	11
198418 MAIN E	M-31	11
MANILLA CREEK ENGINE #2	1212429	11
197292 MAIN E	M-52	11
197295 MAIN E	M-55	11
197293 MAIN E	M-56	10
198420 MAIN E	M-34	10

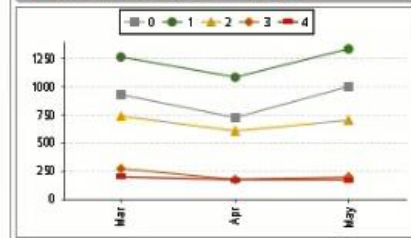
Components Due or Overdue

Component ID	Secondary ID	Last Sample	Severity
PM-1011A	ISOBUTANE PIPELINE PUMP	21-Jul-2020	4
2346 E	1 GNS KBK C3R104346	15-Feb-2021	4
CM-1002B	COMPRESSOR	11-May-2023	4
PM1008B LOWER MOTOR BEARING	PM1008B Lower Motor Bearing	28-May-2021	4
5-515 E	5153SLC	16-Jun-2021	4
PM1007B DE BEARING	Ethane Pump Inboard Bearing	21-Oct-2021	4
19903 FE	FRT LNR	17-Feb-2022	4
NOVA UNIT #R11Q2	PM 1640	14-Mar-2022	4
WEWOKA AIR		03-Mar-2022	4

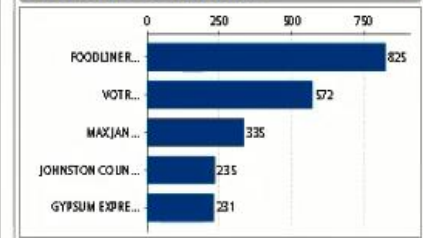
Severity Summary Pie Chart - Last Month



Severity Summary Trend - Last 3 Months



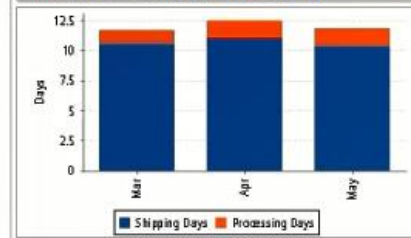
Top 5 Accounts by Sample Volume



Components on Asset Watch

No components on Asset Watch

Shipping & Processing Time - Last 3 Months



Samples Submitted / Not Yet Received

Component ID	Secondary ID	Date Submitted
219194	49015	14-Apr-2023
223158		17-Apr-2023
220018	513	17-Apr-2023
219082	69	19-Apr-2023
220023	513	19-Apr-2023
220020	513	19-Apr-2023
217037	23	19-Apr-2023
AVONDALE C	1038204	23-Apr-2023
240 E	778961	24-Apr-2023
ST2014 E		27-Apr-2023
ST1801 E	770323	27-Apr-2023
ST2211 E		27-Apr-2023
ST2015 E		27-Apr-2023

SUBMITTING A SAMPLE? SUBMIT IT ONLINE!

ELIMINATE ERRORS FASTER SUBMISSION GET RESULTS QUICKER

Download on the App Store

GET IT ON Google Play

LubeAlert Store Items

Kits Jars/Mailers Prepaid Postage Supplies

Kits

All

Coolant

Diesel Fuel

Mobile and Industrial

Coolant

Item Number	Description	Kit Contents
CL2P	CL2P COOLANT LEVEL 2 PREPAID TESTING WITH KITE3	3 oz Sample Jar and SOFT Mailer Sample Information Form

Diesel Fuel

Item Number	Description	Kit Contents
DFAP	DFAP ADV. DIESEL FUEL PREPAID TESTING W/KITFC	16 oz Diesel Fuel Kit Sample Information Form
DFCLP	DFCLP DF CLEANLINESS PREPAID TESTING W/KITFC	16 oz Diesel Fuel Kit Sample Information Form

Mobile and Industrial

Item Number	Description	Kit Contents
BASIC	BASIC BASIC INDUSTRIAL PREPAID TESTING	3 oz Sample Jar and SOFT Mailer Sample Information Form

Kits Jars/Mailers Prepaid Postage Supplies

Prepaid Postage

All

Prepaid Postage

Prepaid Postage

Item Number	Description
PPOST	USPS Prepaid Return Envelope Mailer/Closest Lab
PPOSTHOU	USPS Prepaid Return Envelope Mailer / HOUSTON (Orange Mailer)
PPOSTIND	USPS Prepaid Return Envelope Mailer / INDY (Blue Mailer)
PPOSTSLC	USPS Prepaid Return Envelope Mailer / SLC (Green Mailer)
PPUPS	Prepaid UPS Return Label / 10 Samples
PUPSND	Prepaid UPS Next Day Return Label
SHIPMX	Mexico Shipping Point

Kits Jars/Mailers Prepaid Postage Supplies

Jars/Mailers

All

Jars/Mailers

Jars/Mailers

Item Number	Description
JAR16	16 oz Sample Jar
JAR3	3 oz Sample Jar
JAR32	32 oz Opaque HDPE Sample Jar
JAR64HDPE	64 oz Opaque HDPE Sample Jar
JAR8	8 oz PET Certified CLEAN Sample Jar
JAR8HDPE	8 oz Opaque HDPE Sample Jar
JARC	4 oz Clear PET Sample Jar
JARC8	8 oz Clear PET Sample Jar
JARHSO	4 oz HDPE Certified CLEAN Sample Jar
JARISO	4 oz PET Certified CLEAN Sample Jar

Kits Jars/Mailers Prepaid Postage Supplies

Supplies

All

Other

Tubing

Vacuum

Valves

Other

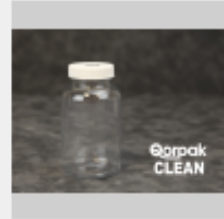
Item Number	Description
BOX10P	Box 10 Pack
FRACTM	Refractometer
JL6SSL	6 in. Silicone Jar Lid Seal
LBLCTAG	Component Tag Label Paper w/Instruction Sheet
QDCAP	Cap and Needle Valve
QDCAP10	Cap and Needle Valve (10-PK)
SCANR1	UPC Barcode Scanner Black w/USB Port
TESCOL	Coolant 4 way test strips
TESELC	Coolant test strips - 40240

Tubing

LubeAlert Store Cart



Description



JAR8

8 oz PET Certified CLEAN Sample Jar

(1) 8 oz PET Certified CLEAN Sample Jar



PUPSND

Prepaid UPS Next Day Return Label

(1) Prepaid UPS Next Day Return Label



TR1000

1000 ft. Length 1/4 in. Plastic Tubing

(1) 1000 ft. Length 1/4 in. Plastic Tubing



DRIVE TRAIN

HNE

(10) HNE | IND GEAR BOX, HYD, AND TRANS FLUID W/ TAN

(10) 3 oz Sample Jar and SOFT Mailer

(10) Sample Information Form



LubeAlert Technical Library



Sample Reports | Management Reports | Equipment Management | Sample Submission | Store | Technical Library

Welcome thayas@oilgo.com

Fluid Alert - Action Required

16 Samples on Hold - Information Needed

Menu Shortcuts

- 652 Unviewed Sample Reports - Severities 3, 4
- 5855 Recent Sample Reports - Last 60 Days
- Recent Sample Reports with Messages
- 7 Samples with Open Actions

Sample Report Lookup

Number

Sample

Sample ID

* for wildcard searches in filters

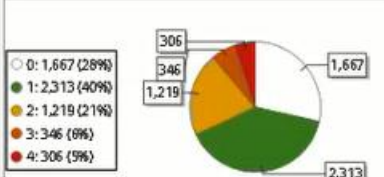
HORIZON® News and Updates

SUBMITTING A SAMPLE? SUBMIT IT ONLINE!

- ELIMINATE ERRORS
- FASTER SUBMISSION
- GET RESULTS QUICKER



Unviewed Results by Severity - Past 60 Days



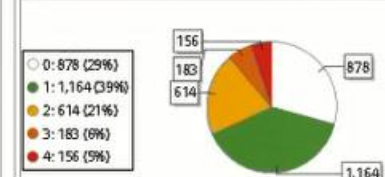
Top Repeat Severities - Last 12 Months

Component ID	Secondary ID	Total
WAYNE #5 COMPRESSOR		19
0000971 8695		18
MANILLA CREEK ENGINE #1	1212428	15
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197292 MAIN E	M-52	11
197295 MAIN E	M-55	11
197293 MAIN E	M-56	10
198420 MAIN E	M-34	10

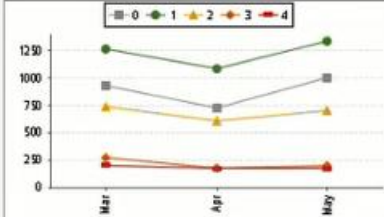
Components Due or Overdue

Component ID	Secondary ID	Last Sample	Severity
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2-346 E	1 GNS KBKC3R104346	15-Feb-2021	4
CM-1002B	COMPRESSOR	11-May-2023	4
PM1008B LOWER MOTOR BEARING	PM1008B Lower Motor Bearing	28-May-2021	4
5-515 E	51535LC	16-Jun-2021	4
PM1007B DE BEARING	Ethane Pump Inboard Bearing	21-Oct-2021	4
19303 FE	1RUHPDVSKLK2327 FRT LNR	17-Feb-2022	4
NOVA UNIT # R1102	PM 1640	14-Mar-2022	4
WEWOKA AJR		03-Mar-2022	4

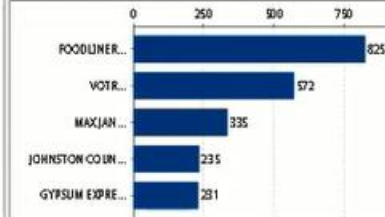
Severity Summary Pie Chart - Last Month



Severity Summary Trend - Last 3 Months



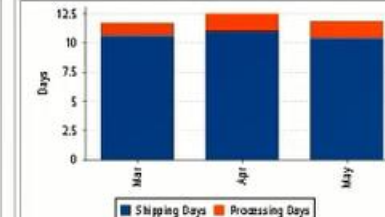
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Components on Asset Watch

No components on Asset Watch

Shipping & Processing Time - Last 3 Months



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220020	513	19-Apr-2023
217097	23	19-Apr-2023
RVONDALE C	1038204	23-Apr-2023
240 E	778961	24-Apr-2023
ST2014 E		27-Apr-2023
ST1801 E	770323	27-Apr-2023
ST2211 E		27-Apr-2023
ST2015 E		27-Apr-2023

IT Solutions to Save Your Equipment



- LubeAlert Mobile App
- DATACONNECT
- LubeAlert Maintenance Tracking



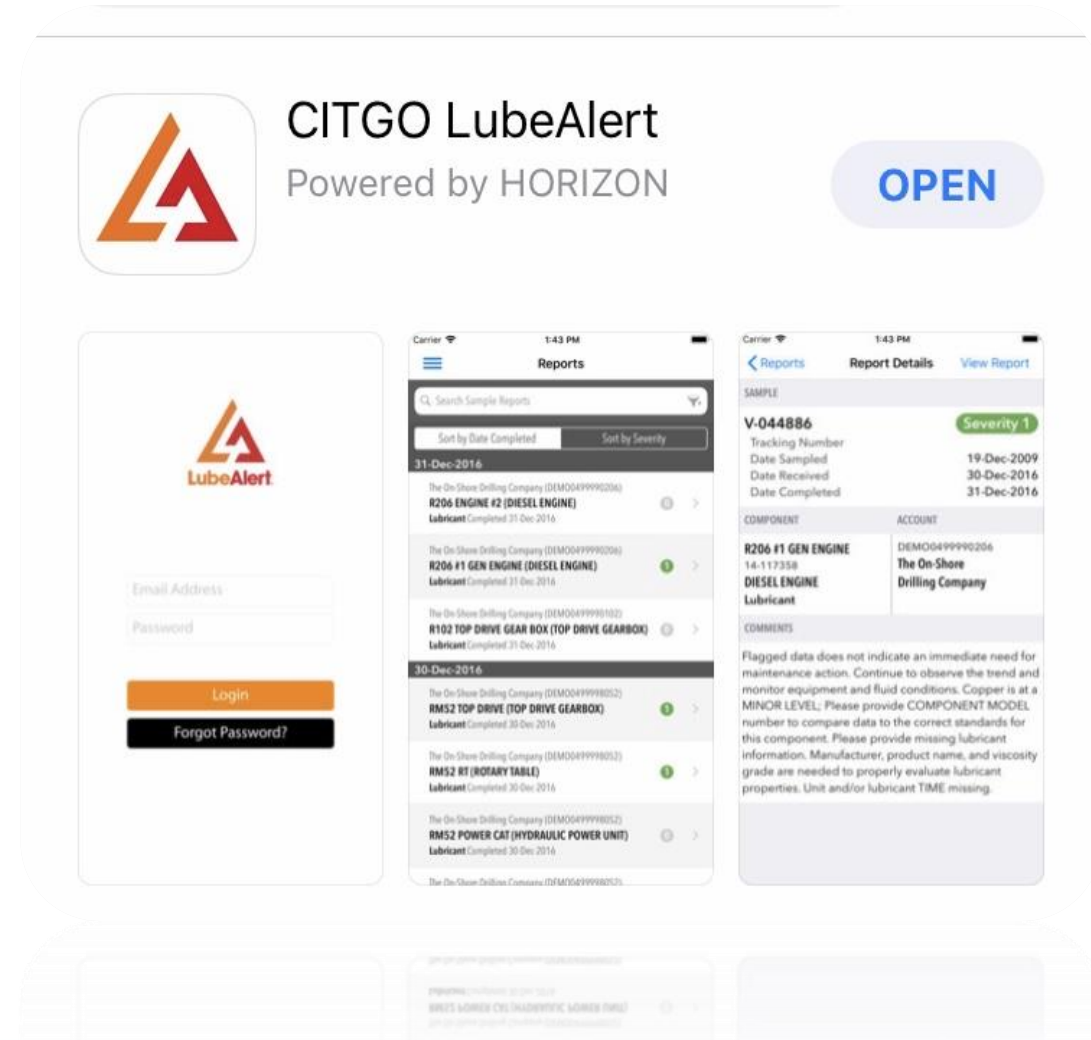
Mobile App

The power of LubeAlert®
is at your fingertips!

Take Action.
Anytime.
Anywhere.

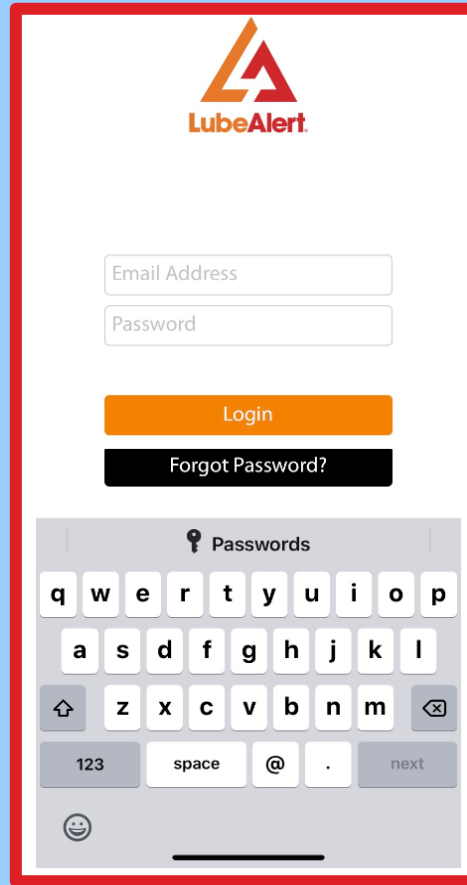
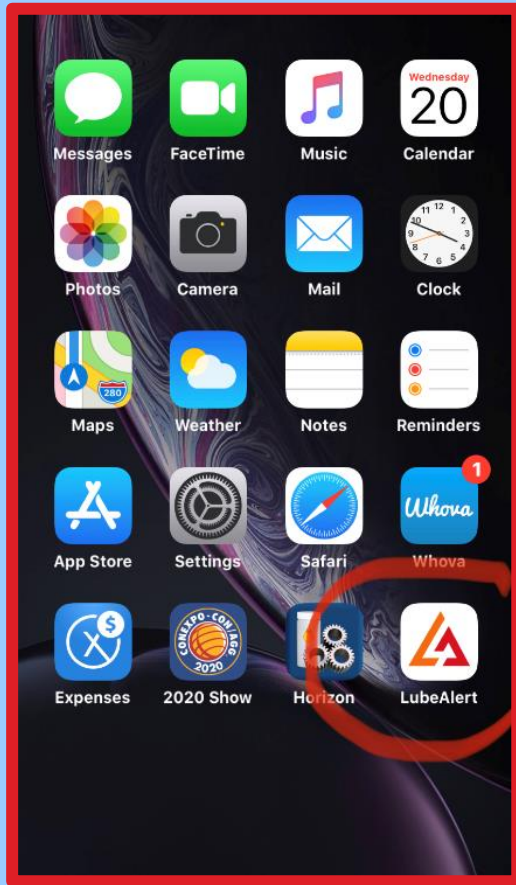


Save five minutes per sample with electronic submission and report alerts



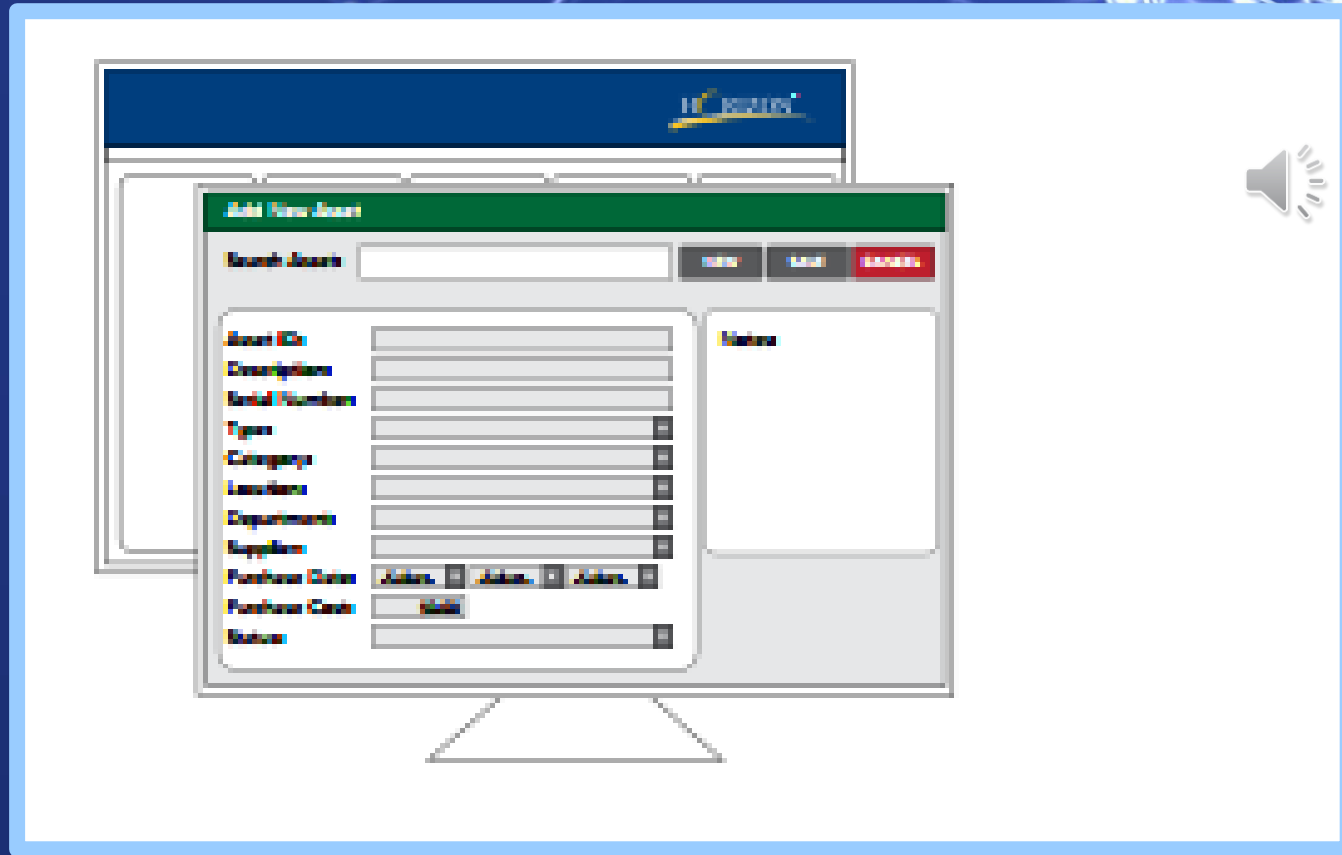
MOBILE APP

SAMPLE SUBMISSION



- Tap on the **LubeAlert®** icon on your phone.
- Just like the online page, **Login** using your email address and password





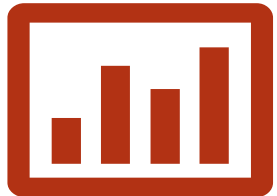
With DataConnect, you can manage oil analysis samples and results through your own maintenance system.

Maintenance Tracking

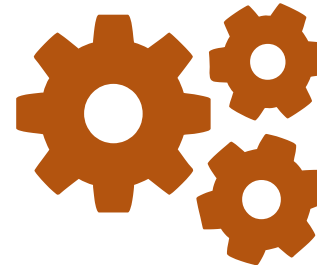


See elevated wear particles as a result of break-in wear of new or rebuilt components

Confirm your maintenance action corrected the problem of high-severity trending



Quickly associate how oil changes impact testing results



**Monitor
Maintenance
Services,
Repairs and
Rebuilds in
LubeAlert
HORIZON®**

Agenda



Why use LubeAlert

How to use LubeAlert

Leveraging LubeAlert



Lubricant Performance Demonstration

- Proof of product performance
- Competitive comparison
- Data source for savings calculations

CURRENT	CITGO PRODUCT	OIL CHANGE INFO
Oil Price (\$/gal) 10	Oil Price (\$/gal) 10.75	Miles 80000
Miles (per change) 30000	Miles (per change) 80000	Hours 100000
Oil Analysis (\$/sample) 10	Oil Analysis (\$/sample) 3	Operating Miles (per unit/year) 100000
Oil Analysis (samples/unit/year) 5	Oil Analysis (samples/unit/year) 3	Add Oil (gallons) 100000
Energy (cents/kwh) 0	Energy (cents/kwh) 0	Sump Capacity (gallons) 100000
Fuel Cost (\$) 3.5	Fuel Savings % 0.5	Filter Cost (\$) 100000
Fuel Consumption (MPG) 5		Labor Cost (\$/hour) 100000
Estimated ROI: 1.9 Days		Oil Change Hours 100000
		Out of Service Cost (\$/hr) 100000
		Energy Usage (hours per day) 100000
		Energy Usage (days per year) 100000

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IOT Applications



With DataConnect, we can share critical data (properties and contaminants) via the Internet of Things (IOT) with maintenance software to trigger maintenance activities.

Critical Data include:

- Viscosity
- Oxidation
- Acid Number
- Base Number
- Water Content
- Wear Metals
- Contaminant Metals



Maintaining Warranty



- Extended Drain Intervals
- Extended Warranties



OEM Oil Change Interval Recommendations

OEM Diesel Engine Oil Drain Recommendation Summary

	Service	API CK-4
Cummins	Light (>7.0 MPG)	75,000 (up to 100,000 with Cummins Oil Guard Program)
	Normal (6.0 – 6.9 MPG)	50,000
	Short Haul (<5.0 – 5.9 MPG)	40,000
	Severe	25,000
Detroit Diesel	Efficient Long Haul (>7.0 MPG)	75,000 (DD15) / 65,000 (DD13)
	Long Haul (>6.0 MPG)	60,000 (DD15) / 55,000 (DD13)
	Short Haul (5.1-5.9 MPG)	45,000 (DD15) / 40,000 (DD13)
	Severe (<5 MPG)	35,000
Mack/ Volvo	Line Haul / Normal Duty (>6 MPG)	60,000**
	Regional Haul / Heavy Duty (>5 MPG)	45,000**
	Heavy Haul / Severe Duty (<5 MPG)	35,000**
Caterpillar		Application Specific
Navistar	Light (> 6.5 MPG)	50,000 (up to 70,000 with oil analysis)
	Moderate (5.5 – 6.5 MPG)	30,000
	Severe (<5.5 MPG)	20,000
PACCAR	On Highway Light, <20% Idle	up to 75,000 with oil analysis
	On Highway Standard, > 20% Idle	50,000
	Vocational/Severe	30,000
GM (Duramax 6.6L)		7,500***
Ford (Powerstroke Diesel)		2,500 – 10,000***

* For API category comparison purposes only; refer to OEM service literature for official oil drain details. Chart used with permission from Infir

Resale Value of Equipment



Resale Value of truck affected by:

- Market Conditions
- General Vehicle Condition
- Engine and Drivetrain Mileage
- Frame Mileage
- Idle Time
- Maintenance History
- Oil Analysis History



Support



- RICE NESHAP monitoring for Natural Gas Engines
- CITGO National Account Support
- CITGARD Testimonies
 - Extended ODI
 - Fuel Efficiency



Foodliner/Quest Liner Increased Oil Drain Intervals by 24.3% After Transitioning to CITGARD 700 MFE Synthetic Blend Heavy Duty Engine Oil SAE 10W-30

One of the largest bulk food grade and specialty chemical carriers in the United States – Foodliner/Quest Liner – operates a fleet consisting of older and newer diesel and multi-fuel engines transiting varying temperature ranges across North America. Extending engine oil drain intervals and reducing annual fuel costs are top business priorities.

Always looking to deliver better results, CITGO presented tools and resources to help Foodliner/Quest Liner analyze their fleet to gain insights on how low viscosity engine oils, specifically formulated to extend oil drain intervals and improve fuel economy, could exceed their expectations.

Following consultations with CITGO technical experts and utilizing CITGO LubeAlert Fluid Condition Monitoring Service, Foodliner/Quest Liner doubled their oil drain interval to 48,000 miles with CITGARD 800 and then increased to 72,000 miles with CITGARD 700 SAE 10W-30. After evaluating fleet performance, Foodliner/Quest Liner transitioned to CITGARD 700 MFE Synthetic Blend Heavy Duty Engine Oil SAE 10W-30, extending their oil drain interval to 86,000 miles. The data proved that switching to CITGARD 700 MFE Synthetic Blend Heavy Duty Engine Oil 10W-30 increased their oil drain interval by 24.3%.

In 2021, Foodliner/Quest Liner acquired another fleet. The acquisition came with a new set of challenges, including new engine technology that utilized compressed natural gas (CNG) fuel. After consultation with the CITGO team, Foodliner/Quest Liner, began using Multi-Fuel CITGARD 800 Synthetic Blend Heavy Duty Engine Oil (formerly CITGARD CNG/LNG Engine Oil).

provide excellent lubrication recommendations. Doing so gave the maintenance team the confidence to prolong oil drain intervals, extend dry preventive maintenance and drop several wet maintenance schedules. For Foodliner/Quest Liner, these changes translated to lower cost per mile, increased driver uptime, lower maintenance costs and improvement in delivery timelines.

"When we first joined the CITGO team, we were at 24,000 mile oil drain intervals. We thought we took a great big leap when we went to 48,000. And it was with the help of the whole CITGO team that we were able to extend that to where we're at now at 90,000 miles."

– Kyle Neumann
Vice President of Maintenance
at Foodliner/Quest Liner



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426K views • 3 months ago

CITGO Lubricants

CITGARD Heavy Duty

4K



CITGARD Can Grow with Your Fleet and its Diverse Needs

306 views • 8 months ago

CITGO Lubricants

Foodliner/Quest Liner relies on CITGARD for improved engine protection and performance

4K

Questions?



Please post your
questions using the
Q&A function.

Contact LubeAlert

855-820-9561

Open Monday to Friday
Until 7 PM Eastern

custserv@eoilreports.com



Future Webinars

July 28: CITGARD® On Road

August 25: CITGARD Off Road
including Heavy Duty Grease

September 22: Clarion® Food Grade

October 20: Steel Industry Portfolio

December 1: Grease Fundamentals



Thank You!



See you next time!

