Chevron LubeWatch®

FLUID ANALYSIS PROGRAM USER GUIDE

LUBEWATCH®

Serviced by POLARIS Laboratories

Quality Fluid Analysis Can Help Extend Equipment Life

The LubeWatch Fluid Analysis Program is a diagnostic, preventive maintenance tool that uses fluid analysis to monitor and evaluate lubricant and equipment condition in all types of mobile and industrial applications.

Lubricants are the "lifeblood" of machines and equipment. Routine testing and analysis can show you how the condition of the lubricant can affect equipment performance and reliability. Imagine being able to see exactly what's happening inside an engine, a gearbox or hydraulic system. Problems can be found before they become failures, and less unscheduled downtime means increased production and profitability.

What the LubeWatch Fluid Analysis Program Can Do For You

- **Identify minor problems before they become major failures** by monitoring trends in wear and contamination to prevent catastrophic failure
- **Reduce labor costs** by only performing fluid changes when test results require it
- **Extend equipment** life by monitoring system cleanliness helps reduce repair and replacement costs and helps enable you to keep equipment longer
- **Maximize asset reliability** by scheduling downtime according to your schedule to eliminate unforeseen decreased production

LUBEWATCH CAN HELP INCREASE THE LIFE OF YOUR EQUIPMENT

Reach a new level of reliability with the LubeWatch Fluid Analysis Program User Guide. The combination of using LubeWatch with our targeted services, allows our Chevron specialists to design a lubrication plan that works in sync to help your equipment continue to operate under demanding conditions.

To learn more, contact your marketer.

LubeWatch® Testing and Analysis

High Quality Testing

The LubeWatch Fluid Analysis Program utilizes an independent ISO 17025 accredited laboratory. This is the highest level of quality attainable by a testing laboratory which is backed by the most stringent accrediting body in the industry. You can be confident that the results you receive are accurate, repeatable and traceable to a recognized industry standard and that the Fluid Analysis program is supported by a documented quality system.

Innovative Data Management Solutions

LubeWatch test results are accessible through LubeWatch HORIZON®, a web-based software application serviced by POLARIS Laboratories®, that will show you how to get the most from your testing results and analysis. After the sample processing is complete, the test results are FREE and available within a 24 to 48-hour turnaround. Management reports are available that allow you to use the data to affect positive change in your daily maintenance practices by:

- Keeping sampling schedules on track
- Identifying bottlenecks in turnaround time
- Influencing future purchasing decisions

DataConnect, a service that will allow you to automatically import your HORIZON® sample data into your own data system, provides a convenient, easy solution to integrating data management and telematics capabilities.

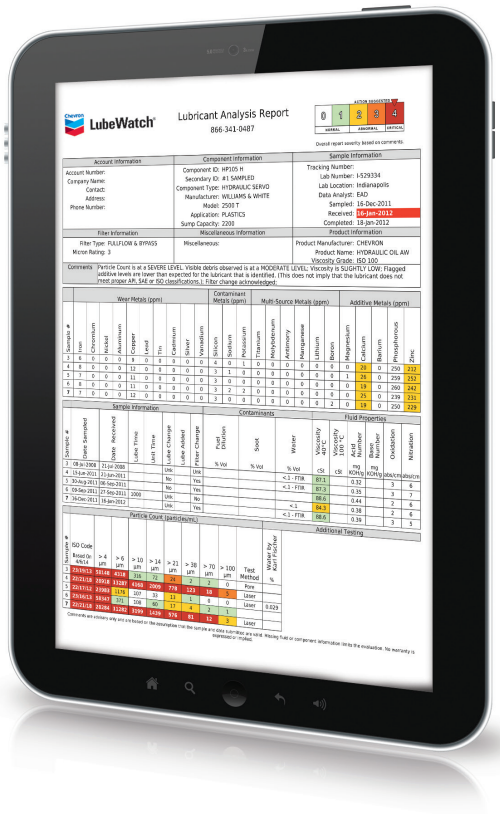
Submitting samples, evaluating sample results and maintenance recommendations all in one place allows you to leverage your sample data in order to:

- Increase visibility of your maintenance program
- Reduce the costs of staff training
- Quickly react to fluid analysis sample results
- Eliminate the need for multiple systems
- Increase ROI
- Prove your program's value to your leadership
- Instantly update your equipment, and add new components

Test Results On the Go

View test results and maintenance recommendations on the LubeWatch HORIZON app when you are in the field or on the maintenance floor. Alerts notify you when new results are ready. Customize alerts by fluid type and severity. Download the free app from Google Play for Android devices and the App Store for iOS devices.

Quality testing, analysis and maintenance recommendations can dramatically extend equipment life and dependability – saving you valuable time and money.



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Taking Samples

The LubeWatch® Fluid Analysis Program shows you how regular sampling and TREND ANALYSIS – monitoring test data over an extended period of time – will provide the information you need to continually maximize asset reliability and, ultimately, help increase company profits.

Samples should be taken while equipment is operating or immediately after shutdown while the system is still at operating temperature so that wear metals and contaminants don't have an opportunity to settle. How critical a piece of equipment is to production is a major consideration for determining sampling frequency as well as environmental factors (such as hot, dirty operating conditions) and short trips with heavy loads and excessive idle times.

Whether you are a seasoned veteran or a first-time fluid sampler, a well-designed fluid analysis program helps put you on track for well-managed, cost-effective equipment maintenance program.

Implement a sampling process for every piece of equipment in your LubeWatch Fluid Analysis Program that can be followed consistently each time the fluid is sampled in the unit.

ON- AND OFF-HIGHWAY: AGRICULTURE, AUTOMOBILE, CONSTRUCTION, FORESTRY, MASS TRANSIT, MINING & QUARRY, RAILROAD, TRUCKING

Equipment Type	Suggested Sampling Frequency		Sampling Location
	Hours	Miles	
Diesel Engines	250-500 hours	10,000-20,000 miles (16,000 - 32,000 km)	Through Sample Port Valve Installed Prior To Filter or Dipstick Retaining Tube
Gasoline Engines	-	5,000 miles (8,000 km)	Through Fluid Level Checkpoint, Dipstick Retaining Tube or Fluid Level Plug
Transmissions	500-1,000 hours	20,000-40,000 miles (32,000 - 64,000 km)	Through Fluid Level Plug or Dipstick Retaining Tube
Gears, Differentials and Final Drives	500-1,000 hours	20,000-40,000 miles (32,000 - 64,000 km)	Through Fluid Level Plug or Dipstick Retaining Tube
Hydraulics	1,000 hours	40,000 miles (64,000 km)	Through Sample Port Valve Installed Prior To Filter or Fluid Fill Port of System Reservoir at Mid-Level

Always confirm that the sampling frequency is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.

MANUFACTURING & PROCESSING AND INLAND MARINE: CEMENT, FOOD & BEVERAGE, MARINE EQUIPMENT, NATURAL GAS DISTRIBUTION, OIL & GAS EXPLORATION, POWER GENERATION, PULP & PAPER, SUGAR MILLS

Equipment Type	Suggested Sampling Frequency		Sampling Location
	Normal Use	Intermittent Use	
Diesel Engines	Monthly, 500 hours	Quarterly	Through Sample Port Valve Installed Prior To Filter or Dipstick Retaining Tube
Natural Gas Engines	Monthly, 500 hours	Quarterly	Through Sample Port Valve Installed Prior To Filter or Dipstick Retaining Tube
Gas Turbines	Monthly, 500 hours	Quarterly	Through Sample Valve Installed Upstream of the Filter on the Return Line or out of the System Reservoir
Steam Turbines	Bi-monthly	Quarterly	Through Sample Valve Installed Upstream of the Filter on the Return Line or out of the System Reservoir
Air, Gas Compressors	Monthly, 500 hours	Quarterly	Through Sample Valve Installed Upstream of the Filter on the Return Line or Out of the System Reservoir
Refrigeration Compressors	Bi-monthly	Quarterly	Through Sample Valve Installed Upstream of the Filter on the Return Line or Out of the System Reservoir
Gears, Bearings	Bi-monthly	Quarterly	Through Sample Valve Installed Upstream of the Filter on the Return Line or Out of the System Reservoir
Hydraulics	Bi-monthly	Quarterly	Through Sample Port Valve Installed Prior To Filter or Fluid Fill Port of System Reservoir at Mid-Level

The LubeWatch® Fluid Analysis Program provides advanced diagnostic, preventative maintenance testing designed to evaluate fluid condition, component wear and contamination in engines, hydraulic systems, transmissions, differentials, gear boxes and turbines.

To order kits, sampling equipment or supplies, see Sample Kit Directions on page 12 for more information.

BASIC & DIESEL ENGINE TEST PACKAGES

Test Description	Test Method	C1 Basic Lubrication	C2 Diesel Crankcase	C2AN Diesel Crankcase	Delo 600 ADF Diesel Crankcase
Viscosity @ 40 C or 100 C	D445	• 40 C or 100 C	• 100 C	• 100 C	• 100 C Plus VI
Elemental Metals by ICP	D5185	•	•	•	•
% Water by Crackle	Crackle Test	•	•	•	•
Water by Karl Fischer	D6304C				
% Fuel Dilution	D7593/D3524		•	•	•
% Fuel Soot	E2412		•	•	•
Oxidation	E2412		•	•	•
Nitration	E2412		•	•	•
Acid Number (AN)	D664			•	•
Base Number (BN)	D4739/D664		•		
Particle Count w/ ISO Rating	ISO4406/11171	Optional Add-On	Opt Add-On Unused	Opt Add-On Unused	Opt Add-On Unused
Initial pH	D7946				•
Water Separability	D1401	Optional Add-On			
Foam (Seq I, II, III)	D892	Optional Add-On	Optional Add-On	Optional Add-On	Optional Add-On
Oxidation Stability by Rotating Pressure Vessel (RPVOT)	D2272	Optional Add-On			
Micro Patch Photo		Optional Add-On	Optional Add-On	Optional Add-On	Optional Add-On
Membrane Patch Colorimetry	D7843	Optional Add-On			
Analytical Ferrography	D7690	Optional Add-On	Optional Add-On	Optional Add-On	Optional Add-On
Particle Quantifier		Optional Add-On	Optional Add-On	Optional Add-On	Optional Add-On
Applications & Notes		Not recommended for engine applications or critical industrial systems. Limited data for trending analysis	Diesel, Dual Fuel & Gasoline Engines. Not recommended for drive train components, hydraulics or industrial applications. Particle count only available on new lubricant	Diesel, Dual Fuel & Gasoline Engines using CK-4/ FA4 Oils. Not recommended for drive train components, hydraulics or industrial applications. Particle count only available on new lubricant	Diesel Engines on **Delo 600 ADF Only.** Not recommended for drive train components, hydraulics or industrial applications. Particle count only available on new lubricant

ADVANCED NATURAL GAS ENGINE FLUID AND INDUSTRIAL FLUID PACKAGES

Test Description	Test Method	C3 Natural Gas Engines & Comp	C4 & C4PC Industrial & Drive Trains	C5 Metal Working	C6 Turbines
Viscosity @ 40 C or 100 C	D445	• 40 C or 100 C	• 40 C	• 40 C	• 40 C
Elemental Metals by ICP	D5185	•	•	•	•
% Water by Crackle	Crackle Test	•	•		
Water by Karl Fischer	D6304C	If H2O Detected	If H2O Detected	•	•
% Fuel Dilution	D7593/D3524				
% Fuel Soot	E2412				
Oxidation	E2412	•	•		•
Nitration	E2412	•			•
Acid Number (AN)	D664	•	•		•
Base Number (BN)	D4739/D664				
Particle Count w/ ISO Rating	ISO4406/ 11171	Optional Add-On	Included on C4PC		•
Initial pH	D7946	•			
Water Separability	D1401		Optional Add-On		•
Foam (Seq I, II, III)	D892		Optional Add-On		Optional Add-On
Oxidation Stability by Rotating Pressure Vessel (RPVOT)	D2272		Optional Add-On		•
Micro Patch Photo		Optional Add-On	Optional Add-On		Optional Add-On
Membrane Patch Colorimetry	D7843		Optional Add-On		Optional Add-On
Analytical Ferrography	D7690	Optional Add-On	Optional Add-On		Optional Add-On
Particle Quantifier		Optional Add-On	Optional Add-On		Optional Add-On
Chlorine	D5384			•	
Sulfur	D4951			•	
Fat%	E2412			•	
Applications & Notes		Natural Gas Engines and Associated Compressors	Industrial applications including hydraulics, gearboxes, circulating systems, compressors, pumps and drive train components, transmissions, axles, differentials	Metal Working Only	Steam and Gas Turbines

ENGINE COOLANT ANALYSIS TEST PACKAGES

Test Description	Test Method	C7 Coolant Basic Conventional	C8 Coolant Basic Extended Life	C9 Coolant Advanced Extended Life
pH	D1287	•	•	•
Freeze Point	D3321	•	•	•
% Glycol	D3321	•	•	•
Boiling Point	In-house		•	•
Total Dissolve Solids (TDS)	D1125	•		
% Nitrite	D5827	•	•	•
Caboxylate Acid	Test Kit		•	•
Chloride, Sulfate, Nitrate, Glycolate, Acetate, Formate, Oxylate	D664			•
Elemental Metals (Corrosive, Contaminant & Additive by ICP)	D4739/D664			•
Applications & Notes		Diesel or Gasoline Engines with conventional coolant	Diesel Engine Cooling systems with Extended Life Coolant. Basic Test	Diesel Engine Cooling systems with Extended Life Coolant. Recommend testing once per year

GREASE AND OTHER TEST PACKAGES

Test Description	Test Method	C10 Basic Grease	C11 Advanced Grease	C12 Filter Debris Analysis	C13 Photo Patch Test
Elemental Metals by ICP or RDE Spectroscopy*	D5185 or D6595	•	•	•	
FTIR Scan	D7418	•	•		
Ferrous Debris	D7918	•	•		
Grease Colorimeter	D7918	•	•		
Water (Crackle/Karl Fisher)*	Varies	•	•		
Consistency/Die Extrusion	D7918		•		
Ruler	D6971		•		
Analytical Ferrography*	D7690		•	•	
Micro Patch Photo					•
Applications & Notes		Testing of in-service grease. Recommend using grease thief to pull proper sample. *Test procedures can vary by lab	Testing of in-service grease. Recommend using grease thief to pull proper sample. *Test procedures can vary by lab	Analysis of component filter element. Recommend also sending in sample of lubricant for separate analysis	Provides a visual of the cleanliness and particles in a lubricants. Standard patch test which includes a photo of the patch on the report

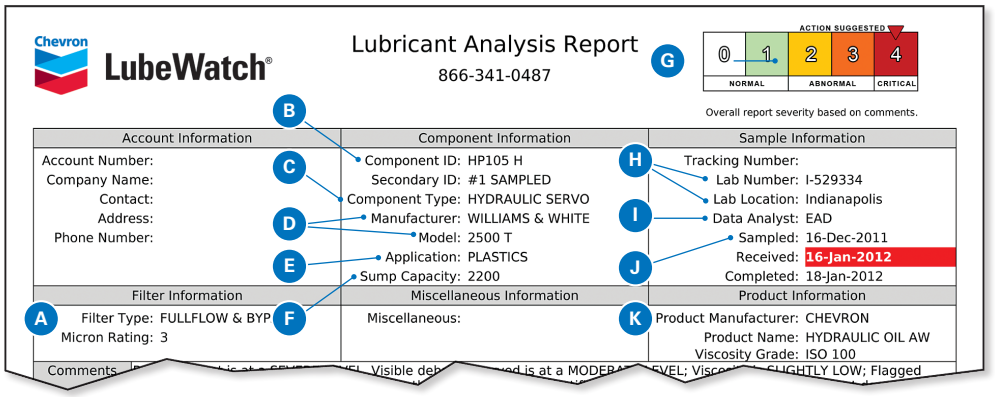
DIESEL FUEL TEST PACKAGES

Test Description	Test Method	C14 Diesel Fuel Basic	C15 Diesel Fuel Advanced	C16 - Diesel Fuel Cleanliness
Viscosity @ 40 C or 100 C	D445		• 40 C	
Elemental Metals by ICP	D5185		•	•
Water by Karl Fischer	D6304C	•	•	•
Appearance	Visual	•	•	
Particulate Contamination/Count*	D6217/5452 ISO4406	•		•
Cloud Point	D7689		•	
Flash Point	D3828		•	
Pour Point	D7346		•	
API Gravity	D7777		•	
Cetane Index	D4737/D976		•	
Distillation	D7345		•	
Sulfur	D5453/D7220		•	
Stability	D6468		•	
Microbial Growth	In-house	•	•	
Water & Sediment	D2709	•	•	
Applications & Notes		Use for basic properties of diesel fuel. *Test procedures can vary by lab	Comprehensive package for advanced storage as well performance properties of diesel fuel	Measurement of diesel fuel cleanliness level, water content, and metals

How to Read the LubeWatch® Fluid Analysis Report

The information that is submitted with a fluid sample is as important to who is reading the report as it is to the analyst interpreting the test results and making recommendations. **Properly document your equipment and share this knowledge with your laboratory.**

LubeWatch® Analysis Report



A **Filter Type** and its **Micron Rating** is important in analyzing the particle count — the lower the micron rating, the better the particle count results should be.

B **Component ID** is the customer's opportunity to uniquely identify units being tested and their location.

C **Component Type** should provide as much detail as possible. The type of unit (compressor, gearbox, engine, etc.) can influence flagging parameters and the depth of analysis. Different metallurgies require different lubrication and can have great impact on how the results are interpreted.

D **Manufacturer and Model** can also identify metallurgies involved, as well as, the original equipment manufacturer (OEM) standard maintenance guidelines and possible wear patterns to expect.

E **Application** identifies the type of environment in which the equipment operates. This information is useful in determining exposure to possible contaminants.

F **Sump Capacity** identifies the total volume of fluid (in gallons) in which wear metals are suspended. This information is critical to trending wear metal concentrations.

G **Severity Status Levels:**

0 — Normal.

1 — At least one or more items have violated initial flagging points, yet are considered minor.

2 — A trend is developing.

3 — Simple maintenance and/or diagnostics are recommended.

4 — Failure is imminent if maintenance is not performed.

H **Lab Location** indicates the laboratory at which the testing was completed. A **Lab Number** is assigned to the sample upon entry for processing and should be the reference number used when contacting the lab with questions, concerns or feedback.

I **Data Analyst's Initials**

J **Sampled, Received** and **Completed** are the dates that indicate the date the fluid sample was taken, the date the sample was received by the laboratory and the date the analysis was completed. Turnaround issues may point to storing samples too long before shipping or shipping service problems.

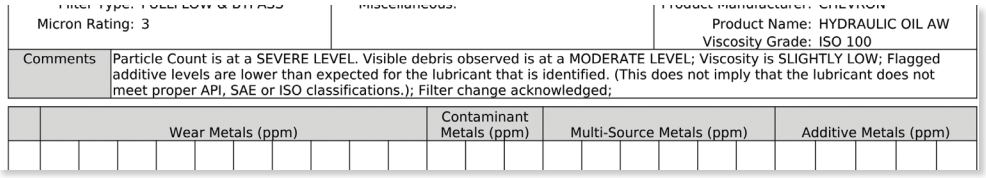
K **Product Manufacturer, Product Name and Viscosity Grade** identify a product's properties and its viscosity. This information is critical in determining if the right product is being used.

Fluid Time *is how long the fluid has been used.* ***Unit Time*** *is the age of the equipment and* ***Product Added*** *is how much fluid has been added since the last sample was taken.*

Recommended Actions

A data analyst's job is to explain test results and, if necessary, recommend actions for rectifying significant changes in the lubricant or the unit's condition. Reviewing comments before looking at the actual test results will provide a road map to the report's most important information. Any actions that need to be taken are listed first in order of severity. Justifications for recommending those actions immediately follow.

The laboratory will request additional unit and product information if a sample information form is incomplete.



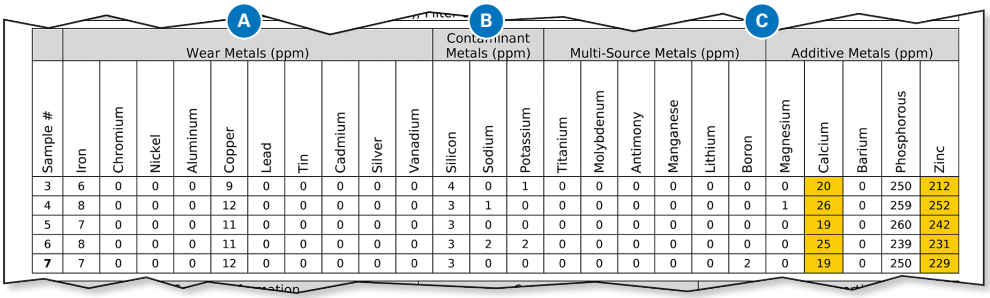
Micron Rating: 3		Product Name: HYDRAULIC OIL AW Viscosity Grade: ISO 100

Comments	Particle Count is at a SEVERE LEVEL. Visible debris observed is at a MODERATE LEVEL; Viscosity is SLIGHTLY LOW; Flagged additive levels are lower than expected for the lubricant that is identified. (This does not imply that the lubricant does not meet proper API, SAE or ISO classifications.); Filter change acknowledged;

	Wear Metals (ppm)											Contaminant Metals (ppm)			Multi-Source Metals (ppm)						Additive Metals (ppm)				

Elemental Analysis

Elemental Analysis, or Spectroscopy, identifies the type and amount of wear particles, contamination and fluid 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).



	Wear Metals (ppm)										Contaminant Metals (ppm)			Multi-Source Metals (ppm)						Additive Metals (ppm)				
Sample #	Iron	Chromium	Nickel	Aluminum	Copper	Lead	Tin	Cadmium	Silver	Vanadium	Silicon	Sodium	Potassium	Titanium	Molybdenum	Antimony	Manganese	Lithium	Boron	Magnesium	Calcium	Barium	Phosphorous	Zinc
3	6	0	0	0	9	0	0	0	0	0	4	0	1	0	0	0	0	0	0	0	20	0	250	212
4	8	0	0	0	12	0	0	0	0	0	3	1	0	0	0	0	0	0	0	1	26	0	259	252
5	7	0	0	0	11	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	19	0	260	242
6	8	0	0	0	11	0	0	0	0	0	3	2	2	0	0	0	0	0	0	0	25	0	239	231
7	7	0	0	0	12	0	0	0	0	0	3	0	0	0	0	0	0	0	2	0	19	0	250	229

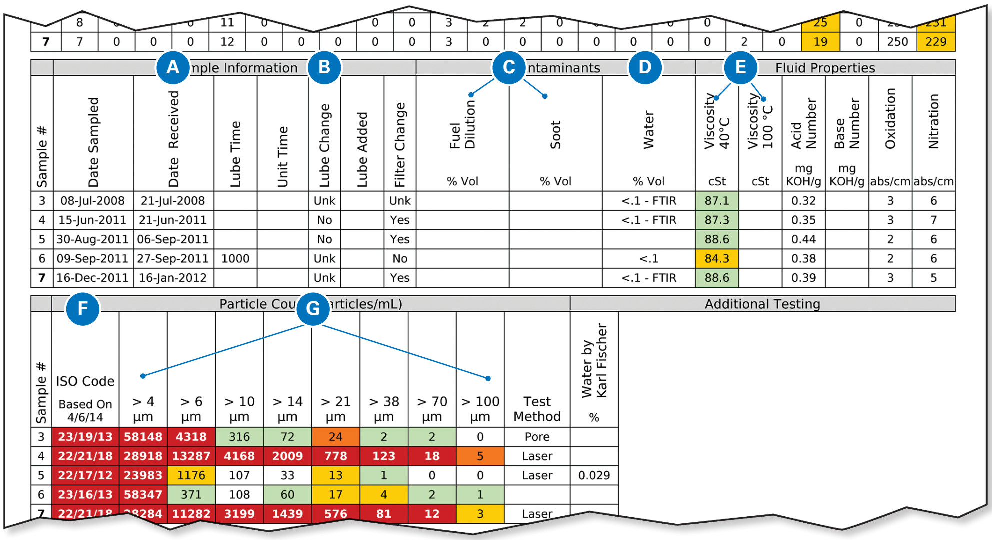
A Combinations of these **Wear Metals** can identify components within the equipment that are wearing. Knowing what metal a unit is made of can greatly influence an analyst's recommendations and determine the value of elemental analysis.

B Knowledge of the environmental conditions under which a unit operates can explain varying levels of **Contaminant Metals**. Excessive levels of dust and dirt can be abrasive and accelerate wear.

C **Multi-Source Metals** and **Additive Metals** may appear in test results for a variety of reasons. Molybdenum, antimony and boron are additives in some fluids. Magnesium, calcium and barium are often used in detergent/dispersant additives. Phosphorous is used as an extreme pressure additive in gear fluids. Phosphorous, along with zinc, are used in anti-wear additives (ZDDP).

Test Data

Test results are listed according to the age of the sample – oldest to most recent and top to bottom – so that trends are apparent. Significant changes are flagged and printed in the gray areas of the report.



7	7	0	0	0	12	0	0	0	0	0	3	0	0	0	0	0	0	0	2	0	19	0	250	229

	Sample Information							Contaminants			Fluid Properties					
Sample #	Date Sampled	Date Received	Lube Time	Unit Time	Lube Change	Lube Added	Filter Change	Fuel Dilution % Vol	Soot % Vol	Water % Vol	Viscosity 40°C cSt	Viscosity 100 °C cSt	Acid Number mg KOH/g	Base Number mg KOH/g	Oxidation abs/cm	Nitration abs/cm
3	08-Jul-2008	21-Jul-2008			Unk		Unk			<.1 - FTIR	87.1		0.32		3	6
4	15-Jun-2011	21-Jun-2011			No		Yes			<.1 - FTIR	87.3		0.35		3	7
5	30-Aug-2011	06-Sep-2011			No		Yes				88.6		0.44		2	6
6	09-Sep-2011	27-Sep-2011	1000		Unk		No			<.1	84.3		0.38		2	6
7	16-Dec-2011	16-Jan-2012			Unk		Yes			<.1 - FTIR	88.6		0.39		3	5

	Particle Count (Particles/mL)										Additional Testing
Sample #	ISO Code Based On 4/6/14	> 4 µm	> 6 µm	> 10 µm	> 14 µm	> 21 µm	> 38 µm	> 70 µm	> 100 µm	Test Method	Water by Karl Fischer %
3	23/19/13	58148	4318	316	72	24	2	2	0	Pore	
4	22/21/18	28918	13287	4168	2009	778	123	18	5	Laser	
5	22/17/12	23983	1176	107	33	13	1	0	0	Laser	0.029
6	23/16/13	58347	371	108	60	17	4	2	1		
7	22/21/18	28284	11282	3199	1439	576	81	12	3	Laser	

A Samples are listed by **Date Received** in the lab — oldest first. They are also assigned a **Lab Number** for easy internal tracking.

B Important to note is whether or not a **Lube Change** has occurred since the last sample was taken.

C **Fuel Dilution** and **Soot** are reported in % of volume. High fuel dilution decreases unit load capacity. Excessive soot is a sign of reduced combustion efficiency (engine samples only).

D **Water** in fluid decreases lubricity, prevents additives from working and furthers oxidation. Its presence can be determined by crackle or FTIR and is reported in % of volume. Water by Karl Fischer ASTM D6304C determines the amount of water present. These results appear in the Special Testing section of your report.

E **Viscosity** measures a lubricant's resistance to flow at temperature and is considered its most important physical property. Depending on product grade, it is tested at 40°C and/or 100°C and reported in Centistokes.

F The **ISO Code** is an index number that represents a range of particles within a specific micron range, i.e., 4, 6, 14. Each class designates a range of measured particles per one mL of sample.

G The **Particle Count** is a cumulative range between 4 and 100 microns. This test is valuable in determining large particle wear in filtered systems.

Log on at **WWW.EOILREPORTS.COM**

SAMPLE KIT DIRECTIONS

Step A

Sample Information Form

First-time users need to establish a LubeWatch HORIZON® account, and new components (sample point) need to be added to your account.

Next, fill out the **QR** (quick response) **code label** with the corresponding **Component ID** and **Sample Date**. Attach the label to the sample jar and retain the other label for your records.

To improve accuracy and ensure faster processing, use the **Sample Submission** feature in LubeWatch HORIZON to send the sample information to the laboratory. Once the information is submitted online, the QR code will be linked to the required sample information needed for processing.

00000A00000

C2 DIESEL CRANKCASE

1–866–341–0487 | www.eoilreports.com

C2P | Oil/Coolant Samples Only

ONLINE SUBMISSION INSTRUCTIONS

APPLY TO SAMPLE

00000A00000

Date Taken

Component ID

RETAIN FOR YOUR RECORDS

Date Taken

Component ID

00000A00000

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

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

Submit — 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

LUBEWATCH LABORATORY
7451 WINTON DRIVE
P.O. BOX 68983
INDIANAPOLIS, IN 46268

LUBEWATCH LABORATORY
10910 W. SAM HOUSTON PKWY N
STE 700
HOUSTON, TX 77064–9903

LUBEWATCH LABORATORY
5140 75 STREET NW
EDMONTON, AB T6E 6W2
CANADA

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

0 0 0 0 0 A 0 0 0 0 0

Chevron LubeWatch®

*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:** LUB000–0000–0000)

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 ❑ Diesel ❑ Natural Gas ❑ Other
Transmission ❑ Auto ❑ Manual
❑ Differential ❑ Final Drive ❑ Hydraulic
❑ Planetary ❑ Coolant

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

Date Taken

Fluid Time ❑ km ❑ mi ❑ hr ❑ day ❑ mo ❑ yr ❑ kt

Component Time ❑ km ❑ mi ❑ hr ❑ day ❑ mo ❑ 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

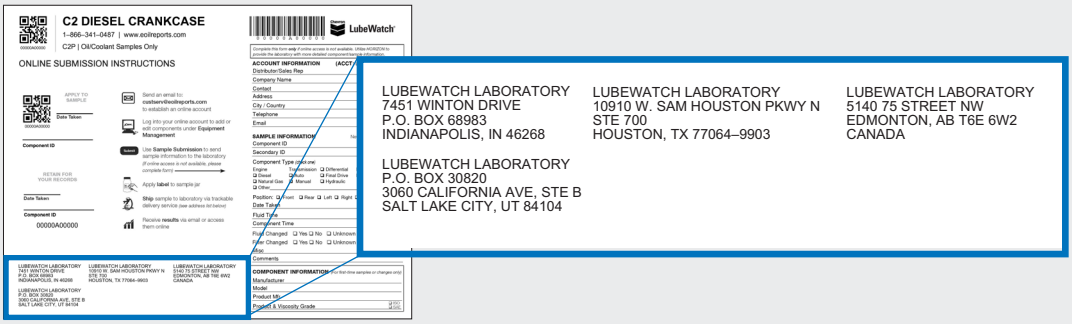
NOTE: Provide the laboratory with as much detailed equipment and fluid information as possible. More in-depth analysis is possible when the analyst knows the time on both the unit and fluid and whether the fluid and/or filter have been changed since last sampled.

To order kits, sampling equipment or supplies, contact your Chevron Lubricants representative for more information.

Step B

LABORATORY LOCATIONS

A list of available **laboratory locations** is included on the form. Ship your package to the laboratory address of your choice and use a trackable shipping service, such as UPS or FedEx.



The laboratory will request additional unit and product information if sample information is incomplete.

Step C

ONLINE ACCESS

If the sample information cannot be submitted online, **complete the simple form** on the right of the label, detach the form and submit it to the laboratory with the sample.

IMPORTANT: Samples will be placed on hold if the component ID does not match an ID in your account and no component information is included on the paper form. An email notification is sent when samples go on hold. Components can be added to your account online via LubeWatch HORIZON or by contacting Customer Service. Samples placed on hold for more than 30 days will be disposed.

Sample Jar

Our high density, polyethylene sample jar holds 3 oz. of fluid. This jar accommodates our standard vacuum pump, and has a break-resistant lid designed to prevent damage and leaking during shipment.

Faster Sample Preparation

We've simplified the sample jar label. Just fill out the date and component ID and attach it to the sample bottle. This will allow all sample information submitted to be able to be viewed in LubeWatch HORIZON®.

Fast Sample Turnaround Time

To ensure samples go through the laboratory faster, log the samples online. This will alleviate the need to fill out the Sample Information Form.

Soft envelope mailer

LubeWatch® Account Set-Up Form

NOTE: **Complete and accurate** account set-up information is essential for POLARIS Laboratories to provide you with **complete and accurate** testing, data analysis and report distribution on each sample you submit for processing.

Your Chevron Business Consultant or Lubrication Marketer (please print): _____

Primary Laboratory

☐ Indianapolis ☐ Houston ☐ Mexico
☐ Salt Lake City ☐ Edmonton ☐ Guatemala
☐ Colombia

Billing Options

You must select one of the following to establish an account:

☐ Pre-Paid (Invoiced for testing when kits are ordered)

☐ Invoiced (Invoiced monthly when testing is completed)

Comments/Special Instructions _____

Test Kits

Please order in increments of 10.

Place requests for additional supplies in the Comments/Special Instructions section at left.

Select what mailer you prefer:

☐ Soft Mailer ☐ Hard Mailer ($0.25 per kit difference)

Kit	Quantity
C1 - Basic Lubrication	
C2 - Diesel Crankcase	
C2AN - Diesel Crankcase	
Delo 600 ADF Diesel Crankcase	
C3 - Natural Gas Engines & Comp	
C4 & C4PC - Industrial & Drive Trains	
C5 - Metal Working	
C6 - Turbines	
C7 - Coolant Basic Conventional	
C8 - Coolant Basic Extended Life	
C9 - Coolant Advanced Extended Life	
C10 - Basic Grease	
C11 - Advanced Grease	
C12 - Filter Debris Analysis	
C13 - Photo Patch Test	
C14 - Diesel Fuel Basic	
C15 - Diesel Fuel Advanced	
C16 - Diesel Fuel Cleanliness	

Billing Address

Company _____
Attention _____
Address _____
City _____
State _____ Zip _____
Phone _____ Fax _____
Email _____

Shipping Address ☐ Check if same as billing

Company _____
Attention _____
Address _____
City _____ Zip _____
State _____ Fax _____
Phone _____
Email _____

Report Recipient #1

Company _____
Attention _____
Address _____
City _____
State _____ Zip _____
Phone _____ Fax _____
Email _____
☐ Email all reports ☐ Email only critical reports

Report Recipient #2

Company _____
Attention _____
Address _____
City _____
State _____ Zip _____
Phone _____ Fax _____
Email _____
☐ Email all reports ☐ Email only critical reports

Report Recipient #3

Company _____
Attention _____
Address _____
City _____
State _____ Zip _____
Phone _____ Fax _____
Email _____
☐ Email all reports ☐ Email only critical reports

Delivery Options

You will receive an email to activate your LubeWatch HORIZON account and set a password. This allows you to view test results and submit sample information on LubeWatch HORIZON (WWW.EOILREPORTS.COM) or the LubeWatch HORIZON Fluid Analysis app (free to download on Android and iOS devices). Select a default email setting to receive sample reports. You can adjust this setting in LubeWatch HORIZON and customize mobile alerts in the LubeWatch HORIZON app.*

**Email subscription settings can be adjusted in Lubewatch HORIZON. Customize mobile alerts in the Lubewatch HORIZON App.*

To set up your LubeWatch account today, print this form, complete it and email it to custserv@eoilreports.com

For questions, call **1.866.341.0487** or **1.317.808.0948**

A **Chevron** company product

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