

**CITYCOUNCIL
COMMUNICATION:**

02-464

AGENDA:

SEPTEMBER 9, 2002

SUBJECT:

PURCHASE OF
TRIVECTOR OIL
ANALYZER

TYPE:

RESOLUTION
ORDINANCE
RECEIVE/FILE

SUBMITTED BY:

WILLIAM STOWE
WRF MANAGER,
PUBLIC WORKS
DIRECTOR

ITEM51A

**OFFICE OF THE CITY MANAGER
CITY OF DES MOINES, IOWA**

SYNOPSIS —

The Operation and maintenance of the equipment at the Wastewater Reclamation Facility (WRF) requires the use, analysis, and timely replacement of a wide range of lubricants to reduce breakdowns and overall maintenance time. Rather than continue to send out oil samples for analysis, staff recommends the purchase of an in-house oil analyzer. The unit recommended is the only one compatible with existing software and is available from CSI of Kansas City, MO only.

FISCAL IMPACT—

The estimated cost of an oil analyzer is \$46,000, including set up and training. Funding is budgeted for the current year PWK 770110.

RECOMMENDATION —

Approve purchase of CSI Trivector oil analyzer.

BACKGROUND —

The WRF currently utilizes ultrasonic, vibration, and thermography analysis in a predictive maintenance program. To be more effective in maintaining WRF equipment efficiently and economically, an oil analysis system is needed. Oils such as motor oils and specialty oils lubricate process blowers, varied types of compressors, drive gearboxes, and engine generators.

WRF currently purchases sample bottles from the oil supplier, mails the sample, and then receives a report back in the mail. When a priority analysis is needed, it is mailed out, and WRF gets the results in 48 hours and is charged \$25. Random reviews of 1,000 of these reports indicate that 2/3 of them are of no value. Often the reports have the statement “flagged for observation only” or “invalid due to water”.

The CSI Trivector uses the same software as the WRF vibration analysis, and the needed reports are generated through that software. This is the only oil analysis unit that would use the WRF’s existing software and give reports of contamination, wear, chemistry, and a particle count with a report of water percentage in the sample.

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| | Samples can be analyzed in 7 minutes with costs of \$1 to replace consumables used in analysis. |
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