METER ERROR REPORT

DRAFT

Reconcile?	Y
Safety Issue?	N
Thesis Report No.	

1. EXECUTIVE SUMMARY

SITE NAME	Ross	
LDZ	SW	
START DATE (actual)	15th December 2009	
LAST GOOD DATE		
END DATE	17th December 2009	
SIZE OF ERROR (No reconciliation required if under 0.1%)	Gas Day 15th December 2009: 3,216scm (equivalent to 1.293 %) Over registration Gas Day 17th December 2009: 1443scm (equivalent to 0.546 %) Over registration	
ESTIMATE – Y/N?		
ROOT CAUSE	The chromatograph mismeasured the composition and an incorrect density was calculated.	
ANALYSIS	HPMIS RBD data	
METER TYPE	Turbine	
AUTHOR	S. Western	
CHECKED BY	C. Stock	
ACCEPTED BY UKD NETWORK		
RECONCILIATION	Distribution	Transportation

2. BACKGROUND

Ross is a twin turbine meter stream with a gas chromatograph for CV determination and PTZ correction.

For a period of 16 minutes during 15th December '09 and 8 minutes during 17th December '09, the chromatograph mismeasured the gas composition and therefore an incorrect density had been calculated.

3. ERROR QUANTIFICATION AND IMPACT

The RBD data was reviewed during the periods of the miscalculated density. The density readings, prior to and after each error period were averaged to estimate the actual density reading during the period of the mismeasurement.

Using the HPMIS RBD data the volume flow for each period was calculated. In each instance, the volume flows for the invalid and estimated density readings were calculated. By comparing these calculated flows over the period of the mismeasured density it was estimated that turbine metering system over-registered 3,216scm and 1443scm of gas on Gas Day's the 15th and 17th of December 2009 respectively.

Using Dvols from HPMIS for the two Gas Day's, the over registration was calculated as 1.293% and 0.546% for the Gas Day's 15th and 17th respectively. See spreadsheet.

4. RECOMMENDATIONS AND LEARNING

A review of the RBD data should be completed where a suspect danalyser alarm has been raised within HPMIS.

REFERENCES

HPMIS database

Remoteware files

VERSION HISTORY

Version	*Changes*	*Author*	*Date*
Rev0	*First Issue*	***S Western***	*18/08/2010*
Rev1	*Updated following comments*	***S Western***	*30/09/2010*