Ras Gas /CPC Correlation Test-2009

Minutes of Meeting / Activities:

RasGas Company Ltd - Laboratory

Feb. 24th & 25th . 2009

Correlation test CPC/RasGas is an annual activity to ensure that all analytical equipments are functional and in compliance with the implementation procedure that is extracted from the SPA.

Introduction:

All participants have introduced themselves with a welcome greeting, followed a pre-set work agenda successfully.

CPC Representatives and RasGas Laboratory Team have agreed to the process of conducting part "A" of the correlation test.

Presents:

Ms. Chen, Hsiao Chi	Laboratory Superintendent	Taichung	CPC
Mr. Hung, Hsien-Jung	Laboratory Superintendent	Yung-An	CPC
Mr. Peter Lin	Supervisor-vaporization Super	erintendent	CPC
Mr. Chuck Chen	In-Country Manager/Taiwan		ExxonMobil
Mr. Darwish Shala	Head of Laboratory		RasGas
Mr. Mohammad Eid	Chief Chemist		RasGas
Mr. Rajagopal	Chemist		RasGas
Mr. Muslim Anif	Lab. Supervisor		RasGas
Mr. Nawaf Ibrahim Al-Bishri	Contract Analyst (East Suez) C&S	RasGas
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Capt. Narinder Bhalla

Manager (Surveyor).

SGS / QATAR

Correlation test sample:

CPC have exercised their right in preparing the test sample and selected a rich LNG sample from one CPC other suppliers, although the composition of which falls within the agreed SPA, it doesn't match any of RasGas supplied or typical products as some components presence is lower/higher than typical (3.78 for Propane and 0.03 mol % for Nitrogen versus typical 2.0 and 0.7 mol % respectively). Both parties took the decision to extend the correlation to include a typical RasGas LNG that is to-date represent typical LNG quality supplied to CPC Taiwan, which is a lean LNG.

Cylinder no. Seal no. Sample -1 **CPC-55**

Pressure

021127

6.0 Barg.

For RasGas

Therefore, three Lean LNG samples were collected from RasGas sampling system, witnessed and sealed by SGS Surveyor in presence of CPC and RasGas representatives to be used to comply with agreed process to ensure that correlation test is carried for the purpose.

One sample is used for correlation test at RasGas laboratory.

Two samples will be shipped to CPC terminals for the second part of the correlation test and considered as an official sample for the test at Taichung and Yung An terminals.

The Correlation Test Samples were sealed after measuring the pressure by SGS Surveyor as follows:



	Cylinder no.	<u>Seal no</u> .	<u>Pressure</u>	
Sample -1	BE 5156	l 0495531	6.0 Barg.	For RasGas
Sample -2	BE 5007	l 0495533	6.0 Barg	Yung An Terminal
Sample -3	BE 5043	l 0495532	6.0 Barg	Taichung Terminal

Gas Chromatographs:

Three Gas Chromatographs were used, Varian GCs system 10, 12&13.

The Calibration Gas Mixture and the test Sample were analyzed in the three GCs.

RasGas / CPC Correlation Test Part "A" was Completed Successfully in RasGas Laboratory on Feb. 25th, 2009.

Details of Gas Chromatographs:

	<u>Model</u>	<u>Serial No.</u>
1- Varian GC system-10	CP-3800	103806
2- Varian GC system-12	CP-3800	104448
3- Varian GC system-13	CP-3800	104447

During the meeting, the two teams have reviewed the produced analytical data and performance in general and found satisfactory.

On completion of analysis, all parties signed the gas chromatograms, the comparison sheet and the correlation report which shows the successive repeatability for the three GCs as per NGPA 2261.

The second part "B" of the correlation test at CPC-Taiwan Yung-An and Taichung receiving terminals respectively, is tentatively scheduled for the first week of April, 2009, awaiting confirmation of samples arrival to CPC terminals

Ms. Chen, Hsiao- Chi For CPC / TAIWAN

Mr. Darwish Shala, For RasGas Co. Ltd.

Capt. Narinder Bhalla, For SGS Streeyor