



The tests, calibrations or measurements covered by this document have been performed in accordance with NATA requirements which include the requirements of ISO/IEC 17025 and are traceable to national standards of measurement. This document shall not be reproduced, except in full.



No. 13542

NATA is Australia's government-endorsed laboratory accreditor, and a leader in accreditation internationally. NATA is a signatory to the international mutual recognition agreement of the International Laboratory Accreditation Cooperative (ILAC), and the Asian Pacific Laboratory Accreditation Cooperative (APLAC).



CUSTOMER CENTRIC - ANALYTICAL CHEMISTS

FINAL CERTIFICATE OF ANALYSIS

Laboratory Report No: 015589	Cover Page 1 of 3
Client Name: RFP Manufacturing Pty Ltd	plus Sample Results
Client Reference: Recoverit	
Contact Name: Sean Robertson	
Chain of Custody No: na	Date: 1/10/03
Sample Matrix: WATER	Date Reported: 1/10/03

This Final Certificate of Analysis consists of sample results, DQI's, method descriptions, laboratory definitions, and internationally recognised NATA accreditation and endorsement. The DQO compliance relates specifically to QA/QC results as performed as part of the sample analysis, and may provide an indication of sample result quality.

QUALITY ASSURANCE CRITERIA

Accuracy:	matrix spike: 1 in first 5-20, then 1 every 20 samples
	lcs, crm, method: 1 per analytical batch
	surrogate spike: addition per target organic method
Precision:	laboratory duplicate: 1 in first 5-10, then 1 every 10 samples
	laboratory triplicate: re-extracted & reported when duplicate RPD values exceed acceptance criteria
Holding Times:	soils, waters: Refer to LabMark Preservation & THT table VOC's 14 days water / soil VAC's 7 days water or 14 days acidified VAC's 14 days soil SVOC's 7 days water, 14 days soil Pesticides 7 days water, 14 days soil Metals 6 months general elements Mercury 28 days
Confirmation:	target organic analysis: GC/MS, or confirmatory column
Sensitivity:	EQL: Typically 2-5 x Method Detection Limit (MDL)

QUALITY CONTROL GLOBAL ACCEPTANCE CRITERIA (GAC)

Accuracy:	spike, lcs, crm surrogate:	general analytes 70% - 130% recovery phenol analytes 50% - 130% recovery organophosphorous pesticide analytes 60% - 130% recovery
Precision:	method blank:	not detected >95% of the reported EQL
	duplicate lab RPD (metals):	0-30% (>10xEQL), 0-75% (5-10xEQL) 0-100% (<5xEQL)
	duplicate lab RPD:	0-50% (>10xEQL), 0-75% (5-10xEQL) 0-100% (<5xEQL)

QUALITY CONTROL ANALYTE SPECIFIC ACCEPTANCE CRITERIA (ASAC)

Accuracy:	spike, lcs, crm surrogate:	analyte specific recovery data <3xstd of historical mean
Uncertainty:	spike, lcs:	measurement calculated from historical analyte specific control charts

RESULT ANNOTATION

DQO: Data Quality Objective	s: matrix spike recovery	p: pending
DQI: Data Quality Indicator	d: laboratory duplicate	lcs: laboratory control sample
EQL: Estimated Quantitation Limit	t: laboratory triplicate	crm: certified reference material
- : not applicable	r: RPD relative % difference	mb: method blank

David Burns
Quality Control (Report signatory)
david.burns@labmark.com.au

Geoff Weir
Authorising Chemist (NATA signatory)
geoff.weir@labmark.com.au

Simon Mills
Authorising Chemist (NATA signatory)
simon.mills@labmark.com.au



NEPC GUIDELINE COMPLIANCE - DQO

1. GENERAL

- A. Results relate specifically to samples as received. Sample results are not corrected for matrix spike, lcs, or surrogate recovery data.
- B. EQL's are matrix dependant and may be increased due to sample dilution or matrix interference.
- C. Laboratory QA/QC samples are specific to this project.
- D. Inter-laboratory proficiency results are available upon request. NATA accreditation details available at www.nata.asn.au.
- E. VOC spikes & surrogates added to samples during extraction, SVOC spikes & surrogates added prior to extraction.
- F. Recovery data outside GAC limits shall be investigated and compared to ASAC (historical mean +/- 3sd). If recovery data <20%, then the relevant results for that compound are considered not reliable.
- G. Recovery data (ms, surrogate, crm, lcs) outside ASAC limits shall initiate an investigative remedial action. Anomalous QC data is examined in conjunction with other QC samples and a final decision whether to accept or reject results is provided by the professional judgement of the senior analyst. The USEPA-CLP National Functional Guidelines are referred to for specific recommendations.

2. CHAIN OF CUSTODY (COC) & SAMPLE RECEIPT NOTICE (SRN) REQUIREMENTS

- A. SRN issued to client upon sample receipt & login verification.
- B. Preservation & sampling date details specified on COC and SRN, unless noted.
- C. Sample Integrity & Validated Time of Sample Receipt (VTSR) Holding Times verified (preservation may extend holding time, refer to preservation chart).

3. NATA ACCREDITED METHODS

- A. NATA accreditation held for each method and sample matrix type reported, unless noted below.
- B. NATA accredited in-house laboratory methods are referenced from NEPC, ASTM, modified USEPA / APHA documents.
- C. Subcontracted analyses:



CUSTOMER CENTRIC - ANALYTICAL CHEMISTS

Laboratory Report: 015589

Cover Page 3 of 3

4. ADDITIONAL COMMENTS SPECIFIC TO THIS REPORT

Sample "Recoverit" was prepared by measuring 1L laboratory grade water with 2ul neat trichloroethene. The analyst then added 20g of RECOVERIT product, and the sample mixture mixed by hand for 5 minutes, and then left to stand for 3 hours.

The laboratory control sample (LCS) was prepared by measuring 1L laboratory grade water with 2ul neat trichloroethene. The analyst then mixed the sample by hand for 5 minutes, and then left to stand for 3 hours.

The method blank (MB) was prepared by measuring 1L laboratory grade water with 20g of RECOVERIT product, The analyst then mixed the sample by hand for 5 minutes, and then left to stand for 3 hours.

Sample "Recoverit" and the LCS were both spiked with an initial trichloroethene concentration of 2000ug/l.

Laboratory QA/QC Self Assessment data shall relate specifically to this report, and may only provide an indication of sample result quality. Acceptance of this Self Assessment certificate does not preclude any requirement for a QA/QC review by a accredited contaminated site EPA auditor, when and wherever necessary. Laboratory QA/QC Self Assessment references available upon request.



Laboratory Report No: 015589
Client Name: RFP Manufacturing Pty Ltd
Contact Name: Sean Robertson
Client Reference: Recoverit

Page: 1 of 1
 plus cover page
Date: 1/10/03

Final
Certificate
 of Analysis



This report supercedes reports issued on: N/A

Laboratory Identification			25564	lcs	mb						
Sample Identification			Recoverit	QC	QC						
Depth (m)			--	--	--						
Sampling Date recorded on COC			18/9/03	--	--						
Laboratory Extraction Date			19/9/03	19/9/03	19/9/03						
Laboratory Analysis Date			19/9/03	19/9/03	19/9/03						
Method	Volatilized Halogenated Compounds (VHC)	EQL									
E010.1	Trichloroethene	5	610	99%	<5						
	1,2-DCE-d4 (Surr @ 100ug/l)	--	91%	99%	102%						
	Toluene-d8 (Surr @ 100ug/l)	--	105%	105%	113%						
	4-BFB (Surr @ 100ug/l)	--	94%	99%	87%						

Results expressed in ug/L (ppb) unless otherwise specified

Comments:

VHC E010.1: Direct injection into P&T/GC/MS. (NB) Dichloromethane not reported unless requested.