

## **Department of Energy**

Washington, DC 20585

QA: QA

APR 04 2002

P. R. Dixon Bechtel SAIC Company, LLC 1180 Town Center Drive, M/S 423 Las Vegas, NV 89144

ISSUANCE OF DEFICIENCY REPORT (DR) LBNL-02-D-079 RESULTING FROM AN OBSERVATION BY CHARLES D. BEACH

Enclosed is DR LBNL-02-D-079 generated as a result of an observation. Included as enclosures are Document Identification and Referrals (DIR) 02-5 and 02-6 that are referring conditions adverse to quality from DRs LBNL-02-D-078 and LBNL-02-D-080 to DR LBNL-02-D-079.

Please provide a response to this deficiency that meets the applicable requirements of Administrative Procedure (AP) 16.1Q, *Management of Conditions Adverse to Quality*. Send the original of your response to Deborah G. Opielowski, Navarro Quality Services, P.O. Box 364629, Mail Stop 455, North Las Vegas, Nevada 89036-8629. Initial response to the DR is due ten working days from the date of this letter. Any extensions to this due date must be requested in accordance with AP-16.1Q.

If you have any questions, please contact either James Blaylock at (702) 794-1420 or James V. Voigt at (702) 794-1487.

James Blaylore +

Ram Murthy, Acting Director Office of Quality Assurance

OQA:JB-0902

Enclosures: 1. DR LBNL-02-D-079

- 2. DIR 02-5
- 3. DIR 02-6

NM15507



P. R. Dixon

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# APR 04 2002

cc w/encls: N. K. Stablein, NRC, Rockville, MD Robert Latta, NRC, Las Vegas, NV S. W. Lynch, State of Nevada, Carson City, NV Engelbrecht von Tiesenhausen, Clark County, Las Vegas, NV Nancy Aden-Gleason, BSC/LBNL, Berkeley, CA Gerald Nieder-Westermann, BSC/LBNL, Berkeley, CA Robert Terberg, BSC/LBNL, Berkeley, CA C. D. Beach, BSC, Las Vegas, NV S. H. Horton, BSC, Las Vegas, NV R. P. Keele, BSC, Las Vegas, NV, M/S 280 D. T. Krisha, BSC, Las Vegas, NV D. M. Kunihiro, BSC, Las Vegas, NV W. J. Glasser, NQS, Las Vegas, NV D. G. Opielowski, NQS, Las Vegas, NV J. V. Voigt, NQS, Las Vegas, NV J. R. Dyer, DOE/YMSCO, Las Vegas, NV C. E. Hampton, DOE/YMSCO, Las Vegas, NV D. G. Horton, DOE/YMSCO, Las Vegas, NV J. M. Replogle, DOE/YMSCO, Las Vegas, NV B. M. Terrell, DOE/YMSCO, Las Vegas, NV

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OFFICE OF C RADIOACTIVE WASTE U.S. DEPARTMENT O WASHINGTON	IVILIAN MANAGEMENT DF ENERGY , D.C.	8. BEP STAND 8. DEFICIENCY REPORT CORRECTIVE ACTION REPORT NO LBNL-02-D-079 PAGE 1 OF QA: QA		
DEFICIENCY/CORRECT	IVE ACTION REPO	RT		
1. Controlling Document:2. RelateQuality Assurance Requirements and Description, Revision 10DTN LE		2. Related Report No.: DTN LB00090012213U.001		
3. Responsible Organization: LBNL	. Responsible Organization: 4. Discussed With: BNL Gerald Neider-Westerman			
<ul> <li>5. Requirement:</li> <li>Supplement III section III.2.3.A Data shall be identified in</li> <li>6. Description of Condition: Contrary to the above the following</li> </ul>	n a manner that facilitating problems were found i	es traceability to associated documentation n verifying traceability and accuracy of data		
<ul> <li>from a Post PVAR AP-3.15Q review of a <u>submitted</u> DTN. Review was a response to findings in self assessment SA-DQP-2001-001.</li> <li>Contrary to above bullet one, raw data (MOL. 20001122.0132) is not included in the raw data CD, and the duplicate TDMS data (MOL. 20001122.0131) is not on the Data CD files. The RIS documents used as a reference for the DTN do not contain the proper files to establish a document traceability trail.</li> <li>MOL. 20001122.0132 indicates it contains the raw data files, however those files are not on this CD (It actually contains the files that should be in MOL. 20001122.0131). The notebook YMP-LBNL-JSW-YWT-1 (MOL.20001016.0017) RISweb page 30 indicates raw data files are labeled "systematic raw dataxxx.csv." And then the data is reduced to a file labeled "sytematic converted dataxxx.csv". The final product that duplicates TDMS and should be included in the data CD (MOL. 20001122.0131) is labeled air permeability May 10, 2000.csv. Data CD (MOL. 20001122.0131) contains interim files. "sytematic converted dataxxx.csv" which do correspond to TDMS data.</li> <li>MOL. 20001122.0131 should contain files "air permeability May 10, 2000.csv. MOL. 20001122.0132 should contain files "systematic raw dataxxx.csv" and any other needed interim files for data reduction.</li> </ul>				
7. Initiator: Anles P. Beach Charles D. Beach Date 2-26-0	9. Does a stop w Yes 2 If Yes Check (	ork condition exist? (Not required for a DR) ↓ No Dne: □ A □ B □ C □ D		
10. Recommended Actions: NONE.	12. Response Du	ue Date:		
QAR James V. VOIGT Date 21 March 20	ゥッニ 10 Working Da	ys From Issuance		
13. DOQA Issuance Approval: Printed Name Ram Murthy	Signature Jan	- Blaylord for Date 4/3/02		
22. Corrective Actions Verified:	23. Closure Approv	ed by:		
QAR Date	DOQA	Date		
Exhibit AP-16.1Q.1		Rev 12/20:1999		

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Enclosure 1

Submittal Page of OFFICE OF CIVILIAN	DR/CAR/QO
U.S. DEPARTMENT OF ENERGY WASHINGTON, D.C.	NO. LBNL -02-D-079 PAGE <b>2</b> OF

## QA: QA

## CONDITION ADVERSE TO QUALITY CONTINUATION PAGE

Two additional adverse conditions (1) LBNL-02-D-078 and (2) LBNL-02-D-080 were defined in addition to this deficiency and addressed similar adverse conditions concerning data traceability and accuracy deficiencies. Upon review of this condition the QAR decided to attach DRs (1) LBNL-02-D-078 and (2) LBNL-02-D-080 using the Deficiency Identification and Referral system. These DIRs (1) DIR 02-5 and (2) DIR 02-6 are attached to this DR for corrective action consideration.

Ames Ulbergt

\_\_\_\_\_ 28 March 2002

ØAR Signature: James V. Voigt

RADIOACTIVE WASTE MANAGEMENT U.S. DEPARTMENT OF ENERGY WASHINGTON, D.C.		PAGE 1 OF QA:	
	DEFICIENCY IDEN	ITIFICATION AND REFERRAL	
Date:	· · · · · · · · · · · · · · · · · · ·	DR/CAR Referred to:	
20 March 2002		LBNL-02-D-079	
DTN (LB0010NICH4LIQ.0 contained data traceability a	01) submitted for Project Offic ind data accuracy errors. This	ce acceptance by Lawrence Berkeley Nation DTN is a Post PVAR submittal.	al Laboratory (LBNL)
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			<i>†</i> 3
How Identified: Deficient condition was ider SA-DOP-2001-001, Post P	ntified as a result of follow-up VAR DTN submittals were sei	actions to an investigation initiated by Self lected for review, a significant proportion w	-Assessment ere found to exhibit sim
data traceability and accurac	cy deficiencies as the Pre-PVA	R DTNs identified in the Self-Assessment.	
	ly identified in DR LBNL-02-	D-078 which is being DIR'd to DR LBNL-0	2-D-079.
This condition was original			
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Existing Open DR/CAR: DR LBNL-02-D-079			
Existing Open DR/CAR: DR LBNL-02-D-079 Open DR/CAR QAR's Concurrer	ICE: Willford	Date:	

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OFFICE OF CIVILIAN RADIOACTIVE WASTE MANAGEMENT U.S. DEPARTMENT OF ENERGY WASHINGTON, D.C.		8. CORRECTIVE CORRECTIVE REPORT NO. LBNL-02-D PAGE 1 OF QA:	ACTION -078	
DEFICIENCY/CORRECTIVE	ACTION REPO	RT		
1. Controlling Document: Quality Assurance Requirements and Description, Revision 10	2. Related Report No.: DTN LB0010NICH4LIQ.001			
3. Responsible Organization: LBNL	3. Responsible Organization: 4. Discussed With: LBNL Gerald Neider-Westermann/		/Robert Terberg	
<ul> <li>5. Requirement:</li> <li>Supplement III section III.2.3.A Data shall be identified in a m</li> <li>Supplement III section III.2.4.A Data reduction shall be describindividual.</li> </ul>	anner that facilitate bed to permit indep	s traceability to associated docume endent reproducibility by another q	ntation Jualified	
<ul> <li>6. Description of Condition: Contrary to the above the following prob from a Post PVAR AP-3.15Q review of a <u>submitted</u> DTN. Review v 001.</li> <li>Contrary to bullet one above, Videotapes were not in Records the</li> </ul>	blems were found in vas a response to fi at were used to ver	a verifying traceability and accurac adings in self assessment SA-DQP- ify wetting front arrival times. The	y of data 2001- tapes	
<ul> <li>have since been added to RIS as a result of this review.</li> <li>Contrary to bullet one above, there are discrepancies between TDMS data and the Scientific notebook <ul> <li>a) 01/24/00 - Final mass end of recovery, YMP-LBNL-RCT-RH-1 (MOL.20001128.0063) RISweb page 18 is 6.4771. TDMS S00429_003 says 6.7719. Note in TDMS says end of recovery estimated using line storage. Calculated using end of test mass of 6477.1 from notebook minus 294.8. Notebook end of test mass is 6477.1 (RISweb page 18) and data disk file Niche 4788 seepage data summary.xls does perform this subtraction to get TDMS value. Line storage from 4 s00429_001 does not contain this 294.8 number.</li> <li>b) 3/14/00 - Initial Mass start of test, YMP-LBNL-JSW-L-J-1 (MOL.20001128.0064) RISweb page 28 is stated as 9608.3, however, TDMS S00429_003 and data disk used start of test mass from 3-10-00 test 11.7428.</li> </ul> </li> </ul>				
7. Initiator:       Jarle R. bench       9. Does a stop work condition exist? (Not required for a DR)         Charles D. Beach       Date 2-26-02       If Yes, Check One: $\Box A \Box B \Box C \Box D$			or a DR)	
10. Recommended Actions: DIR-02-5 70 DR LBNL-02-0-079 ves. 4/2/02				
11. QA Review:	12. Response Du	e Date:		
QAR NA Date	10 Working Day	s From Issuance		
Printed Name Robert W. Clark NA Signature		Date		
22. Corrective Actions Verified: QAR William J. Glam for Jim Voigr Date 4/2/02 DOQA Jame Blayford for Date Exhibit AP-16.1Q.1			юг. 12/20/1999	

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DR/C	AR	
Stop	Work	Order

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NOLBNL-02-D-078

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### DEFICIENCY/CORRECTIVE ACTION REPORT/STOP WORK ORDER CONTINUATION PAGE

Continuation page 1 of block 6

- c) 06/08/00 Final mass end of recovery, YMP-LBNL-JSW-L-J-1 (MOL.20001128.0064) RISweb page 51 is 10.0004. but TDMS S00429\_003 says 10.0611. Notebook entry (6/26/00) accounts for note in TDMS that says end of recovery adjusted for not blowing line down on 6/21/00). Data disk file balance entries end before blowing down lines is complete; therefore no reference to data file is possible.
- d) 3/14/00 Pump stop, YMP-LBNL-JSW-L-J-1 (MOL.20001128.0064) RISweb page 38 corrected to 10:46:00 in notebook, TDMS S00429\_004 says uncorrected value of 9:46:00.
- e) 6/08/00 Pump stop, notebook YMP-LBNL-JSW-L-J-1 (MOL.20001128.0064) RISweb page 49, says 6/21/00 11:35:00, TDMS S00429\_004 says value is 6/15/00 17:43:21. This is almost a six day error.
- f) 6/08/00 Start recovery, notebook YMP-LBNL-JSW-L-J-1 (MOL.20001128.0064) RISweb page 49, says 6/21/00 11:40:40, TDMS S00429\_004 says value is 6/21/00 11:35:00.
- g) 6/08/00 Stop recovery, notebook YMP-LBNL-JSW-L-J-1 (MOL.20001128.0064) RISweb page 49, says 6/21/00 11:49:30, TDMS S00429\_004 says value is 6/21/00 12:00:00.
- h) 12/7/99 Error in Second pump stop time TDMS S00429\_004says 12/09/1999 10:13:59 and notebook YMP-LBNL-RCT-2 (MOL.20000817.0007) RISweb page 143 says 12/09/1999 10:13:55. 4 second difference.
- i) 11/3/99 Pumped mass notebook YMP-LBNL-RCT-2 (MOL.20000817.0007) RISweb page 114 vs. TDMS S00429\_003 (9.2454/9.2444) 1 gram difference.
- j) 11/30/99 Pumped mass notebook YMP-LBNL-RCT-2 (MOL.20000817.0007) RISweb page 136 vs. TDMS S00429\_003 (8.5430/8.8542), 311.2 gram difference.
- k) 01/24/00 Pumped mass notebook YMP-LBNL-RCT-RH-1 (MOL.20001128.0063) RISweb page 15, vs. TDMS S00429\_003 (11.0034/10.7293) 274.1 gram difference.
- 11/16/99 Pumped mass notebook YMP-LBNL-RCT-2 (MOL.20000817.0007) RISweb page 126, vs. TDMS S00429\_003 (23.195/23.1868) 8.2 gram difference.
- m) 12/7/99 Pumped mass notebook YMP-LBNL-RCT-2 (MOL.20000817.0007, RISweb page 144, vs. TDMS S00429\_003 (22.8387/23.0231) 184.4 gram difference.
- n) 1/5/00 Pumped mass notebook YMP-LBNL-RCT-3 (MOL.20010201.0425) RISweb page 24, vs. TDMS S00429\_003 (26.6803/27.2875) 607.2 gram difference.
- Contrary to bullet one above, there are discrepancy between TDMS data and the Data CD(MOL.20010622.0274)
  - a) 6/26/00 Initial Mass start of test, from file Niche 4788 UL 7.62-7.93m 6-26-00.csv corresponding to just prior to filling line storage 6/26/00 14:48:00 states 12.015, however, TDMS S00429\_003 says 12.0152. This would be a rounding problem if it were reversed.
  - b) 3/10/00 TDMS S00429\_003 value 9.6083 is not in the notebook, and file (Niche 4788 UM 6.10-6.40 m 03-10-00.csv (MOL.20010622.0274)) value corresponding to end of release s00429\_004 (9:04:04) is 9.6122
  - c) 11/16/99 Discrepancy in Dripping ends time. TDMS S00429\_004 and data disk indicates time is from file, however. Dripping ends is 11/19/1999 14:52:08 from Niche 4788 UM 6.10-6.40 m 11-16-99.csv (MOL.20010622.0274). TDMS is 11/19/1999 14:42:10. Difference is 9 minutes 58 seconds.
  - d) 12/7/99 Dripping ends is 12/10/99 11:01:40 by file Niche 4788 UR 5.18-5.48m 12-7-99.csv not 12/10/99 10:51:40 as stated in TDMS S00429 004. Final capture weight verifies this time in the file.
  - e) 02/14/00 TDMS S00429\_004 in comments says Dripping begins unknown, but gives a value of 02/16/00 08:27:00 in column dripping begins. Review of file Niche 4788 UR 5.18-5.48m 02-14-00.csv (MOL.20010622.0274) indicates 02/16/00 10:39:26 to be better choice.
  - f) For test 2/9/00 the data disk (MOL.20010622.0274) has a note that they used pumping rate in lieu of released rate. This note is not in TDMS \$00420\_006.

Continued on second continuation page

Continuation page 2 of block 6

8. XDR/CAR Stop Work Order

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## DEFICIENCY/CORRECTIVE ACTION REPORT/STOP WORK ORDER CONTINUATION PAGE

- g) 6/26/00 From SN YMP-LBNL-JSW-L-J-1 (MOL.20001128.0064) (Capture mass empty weight, RISweb page 52), (before and after first emptying Captured mass from SN YMP-LBNL-RCT-3 (MOL.20010201.0425), RISweb page 99), (before and after second emptying Captured mass from SN YMP-LBNL-JSW-L-J-1 (MOL.20001128.0064) RISweb page 60) (final capture mass from file Niche 4788 UL 7.62-7.93m 6-26-00 #2.csv (MOL.20010622.0274), however, dripping ends time of 07/20/00 16:18:31 corresponds to 3175.6 not 3175.8, which makes final captured mass 5.7092 versus 5.7094 in TDMS S00420\_006.
- Contrary to bullet one above, there are the following notebook problems
  - a) 3/14/00 YMP-LBNL-JSW-L-J-1 (MOL.20001128.0064) Pumped mass was not calculated on RISweb page 39, but notebook used values in summary that were a mixture of 3-10-00 and 3-14-00 values.
  - b) 01/24/00 YMP-LBNL-RCT-RH-1 (MOL.20001128.0063) RISweb page has a .1 gram math error in the Start mass minus mass before filling reservoir calculation, 11910.1-9268.4 should be 2641.7 not 2641.6.
  - c) 1/5/00 YMP-LBNL-RCT-3 (MOL.20010201.0425) also calculates returned mass but uses the capture empty weight instead of the return empty weight on RISweb page 24. The data disk and TDMS calculation are correct.
- Contrary to bullet one above, there is the following TDMS problem
  - a) Table S00429\_006 actually substituted Pump stop time for the start recovery time on tests 3/10/2000, 3/14/2000, and 6/08/2000. According to the data disk table there was a power outage during the 2/9/2000 and 3/10/2000 tests. Therefore, this substitution makes sense for the 3/10/2000 and 3/14/2000 tests but not for the 6/8/2000 tests. The correction to the 6/8/2000 test is .04433 days or 3830 seconds
- Contrary to bullet two above, there are the following Data Reduction problems. These are data reduction problems that may be caused by the previous (above) discrepancies.
  - (a) Data Reduction Problem Pumped mass (S00429\_003) calculated two different ways. In the notebooks pumped mass = Initial mass start of test minus final mass end of recovery plus mass of water added during test. In TDMS and the Data CD (MOL.20010622.0274) file Niche 4788 seepage data summary.xls, pumped mass = Initial mass start of release minus final mass end of release plus mass of water added during test. Tests affected are 11/3/99, 11/30/99, 01/24/00, 11/16/99, 12/7/99, and 1/5/00.
  - (b) TDMS Table S00429\_002 Pumping rate = Pumped mass from s00429\_003 divided by Pumping time from s00429\_002. Data reduction method shown in Table 2-3 of file Niche 4788 seepage data summary.xls on Data CD (MOL.20010622.0274). Affected by potential discrepancy in how pumped mass calculated for tests 11/03/99, 11/30/99, 01/24/99, 11/16/99, 03/10/00, 12/7/99, and 1/5/00. Affected by possible error in pumping time for tests 3/14/00 and 6/08/00. Affected by possible error in fill time for tests 12/7/99.
  - (c) TDMS Table S00429\_002 Pumping Time = Pumping time from s00429\_005 minus fill time from s00429\_005. Data reduction method shown in Table 2-3 of file Niche 4788 seepage data summary.xls on Data CD (MOL.20010622.0274). Affected by possible error in pumping time for tests 3/14/00 and 6/08/00. Affected by possible error in fill time for test 12/7/99.
  - (d) TDMS Table S00429\_002 Liquid release rate = Released mass from s00429\_003 divided by Liquid release time from s00429\_002. Data reduction method shown in Table 2-3 of file Niche 4788 seepage data summary.xls on Data CD (MOL.20010622.0274). Affected by possible error in released mass for test 01/24/99, 6/26/00, 03/14/00, and 6/08/00. Affected by possible error in Liquid release time for test 11/03/99, 11/30/99, 01/24/99, 11/16/99, 03/14/00, 6/08/00, 12/7/99, and 1/5/00.
  - (e) TDMS Table S00429\_002 Time (Time to fill line storage) = Line storage deficit from s00429\_001 converted to kg times the pumping rate from s00429\_002. Data reduction method shown in Table 2-3 of file Niche 4788 seepage data summary.xls on Data CD (MOL.20010622.0274). Affected by potential discrepancy in how pumped mass calculated for tests 11/03/99, 11/30/99, 01/24/99, 11/16/99, 03/10/00. 12/7/99, and 1/5/00. Affected by possible error in pumping time for tests 3/14/00 and 6/08/00. Affected by possible error in till time for test 12/7/99.
  - (f) TDMS Table S00429\_002 Liquid release time = Pumping time from s00429\_002 minus time to fill line storage, both from s00429\_002. Data reduction method shown in Table 2-3 of file Niche 4788 seepage data summary.xls on Data CD (MOL.20010622.0274). Affected by possible error in Liquid release time for tests 11/03/99, 11/30/99, 01/24 99, 11/16/99, 03/14/00, 6/08/00, 12/7/99, and 1/5/00.

Continued on third continuation page

Continuation page 3 of block 6

(g) TDMS Table S00429 003 - Released mass = Initial mass start of test minus final mass end of recovery minus return mass

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## DEFICIENCY/CORRECTIVE ACTION REPORT/STOP WORK ORDER CONTINUATION PAGE

plus mass of water added during test. Data reduction method shown in Table 2-4 of file Niche 4788 seepage data summary.xls on Data CD (MOL.20010622.0274). Affected by possible error in mass start of test for tests 6/26/00, 3/14/00. Affected by possible error in mass end of recovery for tests 1/24/00, 6/08/00.

- (h) TDMS Table S00429\_003 Pumped mass = Calculated two different ways. In the notebook pumped mass = Initial mass start of test minus final mass end of recovery plus mass of water added during test. In TDMS and the Data CD (MOL.20010622.0274) file Niche 4788 seepage data summary.xls, pumped mass = Initial mass start of release minus final mass end of release plus mass of water added during test. Data reduction method shown in Table 2-4 of file Niche 4788 seepage data summary.xls on Data CD (MOL.20010622.0274). Affected by possible errors in end of release mass for test 3/10/00.
- (i) TDMS Table S00429\_005 Pumping time = Pump stop time minus Pump start time from s00429\_004. Affected by possible errors in Tests 3/14/00 and 6/08/00.
- (j) TDMS Table S00429\_005 Time standby = Start of recovery time minus Pump stop time from s00429\_004. Affected by possible errors in Tests 3/14/00 and 6/08/00.
- (k) TDMS Table S00429\_005 Recovery time = Stop recovery time minus start recovery time from s00429\_004. Affected by possible errors in Test 6/08/00.
- (1) TDMS Table S00429\_005 Fill time = standby to fill reservoir end minus standby to fill reservoir begin (may be several fills) from s00429\_004. Affected by 4-second error in test 12/7/99.
- (m) TDMS Table S00429\_005 Test duration begins = elapsed time from pump start to dripping begins from s00429\_004. Affected by possible errors in Test 2/14/00.
- (n) TDMS Table S00429\_005 Test duration ends = elapsed time from pump stop to dripping ends from s00429\_004.
   Affected by possible errors in Tests 11/16/99, 12/7/99, 3/14/00 and 6/08/00.
- (o) TDMS Table S00429\_005 Dripping duration = dripping ends minus dripping begins from s00429\_004. Affected by possible errors in Tests 11/16/99, 12/7/99 and 2/14/00.
- (p) TDMS Table S00429\_006 Mass captured = Captured mass minus Captured mass empty weight. NOTE: These values are not in the TDMS table, but are found in the notebook. There also may be more than one filling. Data reduction shown in segment of YMP-LBNL-RCT-4 (MOL.20001121.0082) RISweb page 44. Affected by possible error for test 06/26/00
- (q) TDMS Table S00429\_006 Seepage percent = Mass captured divided mass released times 100 from s00429\_006. Affected by possible error for test 06/26/00

Please note that most of these problems are already resolved.

Recommendations (1) Put videotapes in Records. (Already accomplished) (2) Resolve problems, discrepancies. Revise or supersede documents, TDMS as necessary.

Exhibit AP-16.1Q.2

Rev. 06/01/1999

OFFICE OF CIVILIAN RADIOACTIVE WASTE MANAGEMENT U.S. DEPARTMENT OF ENERGY WASHINGTON, D.C.		DIR 02-6 PAGE I OF QA: KQA	
-	DEFICIENCY IDENT	IFICATION AND REFERRA	L 3-20-02
Date:		DR/CAR Referred to:	
20 March 2002		LBNL-02-D-079	
DTN (LB00090012213U contained data traceabilit	.002) submitted for Project Office y and data accuracy errors. This I	acceptance by Lawrence Berkeley Na DTN is a Post PVAR submittal.	tional Laboratory (LBNL)
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Deficient condition was in SA-DQP-2001-001. Post data traceability and accu This condition was origin	dentified as a result of follow-up at PVAR DTN submittals were selec racy deficiencies as the Pre-PVAR ally identified in DR LBNL-02-D	ctions to an investigation initiated by tred for review, a significant proporti DTNs identified in the Self-Assessm 080 which is being DIR'd to DR LB1	Self-Assessment on were found to exhibit similar tent. NL-02-D-079.
Existing Open DR/CAR:			<u></u>
DR LBNL-02-D-079			
Open DR/CAR QAR's Concur	rence:	Date:	
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OFFICE OF CIVILIAN
<b>RADIOACTIVE WASTE MANAGEMENT</b>
U.S. DEPARTMENT OF ENERGY
WASHINGTON, D.C.

8. X CORRECTIVE ACTION REPORT NO. LBNL-02-D-080

PAGE 1 OF QA: QA

DEFICIENCY/C	ORRECTIVE	ACTION F	FPORT
	ONIVED HAF	ACTION 1	

1. Controlling Document: Quality Assurance Requirements and Description, Revision 10 2. Related Report No .: DTN LB00090012213U.002

3. Responsible Organization:	4. Discussed With:
LBNL	Gerald Neider-Westermann/Robert Terberg

#### 5. Requirement:

- Supplement III section III.2.3.A Data shall be identified in a manner that facilitates traceability to associated documentation.
- Supplement III section III.2.4.A Data reduction shall be described to permit independent reproducibility by another qualified • individual.

6. Description of Condition: Contrary to the above the following problems were found in verifying traceability and accuracy of data
from a Post PVAR AP-3.15Q review of a submitted DTN. Review was a response to findings in self assessment SA-DQP-2001-
001.

Contrary to bullet one above, raw data (MOL. 20001122.0132) is not included in the raw data CD, and the duplicate TDMS data (MOL. 20001122.0131) is not on the Data CD. The RIS documents used as a reference for the DTN do not contain the proper files to establish a document traceability trail.

MOL. 20001122.0132 indicates it contains the raw data files, however those files are not on this CD (It actually contains the files that should be in MOL. 20001122.0131). The notebook YMP-LBNL-JSW-YWT-1 (MOL.20001016.0017) RISweb page 30 indicates raw data files are labeled "systematic raw dataxxxx.csv." and then the data is reduced to a file labeled "sytematic converted dataxxx.csv". The final product that duplicates TDMS and should be included in the data CD (MOL. 20001122.0131) is labeled "annotate Zone x xxxx.csv". Data CD (MOL. 20001122.0131) contains interim files. "sytematic converted dataxxx.csv" which do correspond to the TDMS data...

MOL. 20001122.0131 should contain files "annotate Zone x xxxx.csv". MOL. 20001122.0132 should contain files "systematic raw dataxxxx.csv.", "sytematic converted dataxxx.csv" and any interim files to show complete data reduction

Contrary to bullet two above, rows of data in TDMS linked to DTN LB00090012213U.002 have the same day and time to the • minute. The seconds are truncated from the data. This is due to a quirk in EXCEL when date and time to the second appear in the same cell. The data is in a ".csv" file. When brought into EXCEL the seconds do not show (or copy or print) in the cell, unless highlighted and then only in the data window. However, if the same file is viewed in word as text the times appear to the second. NOTE: The duplicate file in RIS indicates the submitted data has truncated seconds. It does not appear to be a TDMS translation problem.

Continued on continuation page

7. Initiator: Karley Deach Charles D. Beach	Date 2-26-02	9. Does a stop work condition exist? (N	ot required for a DR)
10. Recommended Actions:			
DIROZ-6 Processed to	DR LBNL-0	2-D-079 Wez 4/2/02	
11. QA Review:		12. Response Due Date:	
QAR N/A	Date	10 Working Days From Issuance	
13. DOQA Issuance Approval:	NIA		
Printed Name Ram Murthy		Signature	Date
22. Corrective Actions Verified:		23. Closure Approved by:	
QAR William J. Ham Jim Voigt	Date 4/2/02	DOQA James Blayfulton	Date 4/2/02
Evhibit AP-16 10 1		Rev 12/20/10	99

8.	DR/CAR
	Stop Work Order

NO LBNL-02-D-080 PAGE 2 OF

QA: QA

## DEFICIENCY/CORRECTIVE ACTION REPORT/STOP WORK ORDER CONTINUATION PAGE

Continuation of block 6

• Contrary to bullet two above, there is a discrepancy in collector diameter. The notebook YMP-LBNL-JSW-YWT-1 (MOL.20001016.0017) RISweb page 15 gives the diameter of this collector as 17.84 cm; but the software routine report included in the notebook on RISweb page 31 gives the diameter of the collector as 20 cm (radius 10 cm). The 21999 conversion is based on a diameter of 20 cm.

Please note that all of these problems are already resolved.

<u>Recommendations</u>: (1) Revise raw data and data CD submittals to contain the proper files, including files necessary to show data reduction. (2) Revise TDMS to show data to the second. (3) Resolve collector diameter discrepancy. If diameter is not 20 cm, revise data accordingly.