VY AIR EMISSIONS RECORDKEEPING-2001

Grand[illegible]al Tons
7.01

House Heating Boilers

Period	Gallons Used	% Sulfur	lb/kgal, S	lb/kgal, Otl	Total Tons
1/1-1/31/2001	50000	0.0689	9.92	27.29	0.93
2/1-2/29/2001	50000	0.0689	9.92	27.29	0.93
2/23/2001	4000	0.041	5.90	27.29	0.65
3/1-3/31/2001	39000	0.09324	13.43	27.29	0.79
3/1-3/31/2001	7500	0.10216	14.71	27.29	0.82
3/1-3/31/2001	4500	0.12	17.28	27.29	0.17
4/1-4/30/2001	21000	0.12	17.28	27.29	0.47
5/1-5/31/2001	6700	0.12	17.28	27.29	0.15
6/1-6/30/2001	0	0	0.00	27.29	0.00
7/1-7/31/2001	0	0	0.00	27.29	0.00
8/1-8/31/2001	0	0	0.00	27.29	0.00
9/1-9/30/2001	0	0	0.00	27.29	0.00
10/1-10/31/2001	14501	0.1	14.40	27.29	0.30
11/1-11/30/2001	34000	0.1	14.40	27.29	0.71
12/1-12/31/2001	34500	0.05	7.20	27.29	0.59
12/1-12/31/2001	5500	0.0292	4.20	27.29	0.09
Totals	271201				6.60
Average		0.06			

HHB Emission factors from EPA AP-42 Section 1.3	
	lb/1000 gal
SO2	142*%S
SO3	2*%S
NOx	20
Part.	2
CO	5
VOC	0.252
Trace Metals	0.038

Note: Started using 70/30 #2/Kerosene December 2000

Waste Oil Burner

Period	Gallons Used	% Sulfur	lb/kgal, S	lb/kgal, Otl	Total Tons
2/1-2/28/2001	399.7	1.31	188.64	60.43	0.05
7/3/2001	1.62	1.31	188.64	60.43	0.0002
11/1-11/30/2001	1431.26	1.31	188.64	60.43	0.18
12/1-12/31/2001	1431.26	1.31	188.64	60.43	0.18
			0	60.43	0.00
			0	60.43	0.00
			0	60.43	0.00
			0	60.43	0.00
Totals	3263.84				0.41

Waste oil Emission factors from EPA AP-42 Section 1.11	
	lb/1000 gal
SOx	107*%S
NOx	16
Part.	41.6
CO	2.1
	0.1
Trace Metals	0.63

VYAPF 0150.01 1/1/2001 Emergency Desiel Tank Vol= 38,500 gal
1/25/2001 Delivery of 4000 gal
2/1/2001 Delivery of 4000 gal
2/22/2001 Delivery of 7500 gal
2/23/2001 Delivery of 3500 gal
2/23/2001 Delivery of 7500 gal
9/4/2001 Delivery of 18000 gal
VYAPF 0150.01 12/31/2001 Emergency Desiel Tank Vol= 52,500 gal

OPT OUT PROVISION DIESEL HOUR METER READINGS

JOHN DEERE	Date	A EDG	Date	B EDG	Date
1042.1	12/11/2000	3743.1	12/18/2000	409.5	12/19/2000
1043.4	1/10/2001	3747.6	1/24/2001	416.4	1/22/2001
1048.6	2/14/2001	3758.9	2/21/2001	425.1	2/22/2001
1050	3/14/2001	3763.4	3/16/2001	429.6	3/17/2001
1051.3	4/11/2001	3768	4/26/2001	434.2	4/23/2001
1192.5	6/7/2001	3782.4	5/23/2001	443.7	5/18/2001
1194.4	6/28/2001	3786.9	6/24/2001	448.3	6/24/2001
1195.7	7/11/2001	3791.4	7/23/2001	452.8	7/24/2001
1197.1	8/15/2001	3795.8	8/20/2001	458.9	8/21/2001
1199.9	9/24/2001	3800.5	9/24/2001	463.5	9/25/2001
1201.3	10/11/2001	3826.5	10/28/2001	468.1	10/22/2001
1202.7	11/9/2001	3830.9	11/19/2001	472.5	11/19/2001
1205.3	12/13/2001	3835.9	12/26/2001	477	12/26/2001
163.2		92.8		67.5	YR TOT

VY AIR EMISSIONS RECORDKEEPING-2002

Grand Total Tons
8.08

House Heating Boilers

Period	Gallons Used	% Sulfur	lb/kgal, S	lb/kgal, Ott	Total Tons
1/1-1/31/2002*	53303	0.15	21.6	27.29	1.30
2/1-2/29/2002*	43000	0.15	21.6	27.29	1.05
3/1-3/31/2002*	14500	0.15	21.6	27.29	0.35
3/1-3/31/2002**	25700	0.20	28.8	27.29	0.41
3/1-3/31/2002	6600	0.27	38.88	27.29	0.85
4/1-4/30/2002	24400	0.27	38.88	27.29	0.81
5/1-5/31/2002	18600	0.27	38.88	27.29	0.62
6/1-6/30/2002 (LS)	2800	0.1	14.4	27.29	0.06
7/1-7/31/2002	0		0	27.29	0.00
8/1-8/31/2002	0		0	27.29	0.00
9/1-9/30/2002	0		0	27.29	0.00
10/1-10/31/2002	20979	0.23	33.12	27.29	0.63
11/1-11/30/2002	46124	0.23	33.12	27.29	1.39
12/4/02 & 12/27/02**	12804	0.20	28.8	27.29	0.36
12/1-12/31/2002	43852	0.23	33.12	27.29	1.32
Totals	312662				9.16
Total with average %Sulfur	312662	0.20	23.52	27.29	7.94

HHB Emission factors from EPA AP-42 Section 1.3	lb/1000 gal
SO2	142*%S
SO3	2*%S
NOx	20
Part.	2
CO	5
VOC	0.252
Trace Metals	0.038

(LS) indicates Low sulfur diesel was delivered
(*) indicates a 50/50 #2/Kerosene mix was delivered
(**) indicates a 70/30 #2/Kerosene mix was delivered

Used Oil Burner

Period	Gallons Used	% Sulfur	lb/kgal, S	lb/kgal, Ott	Total Tons
01/01/02-01/31/02	325.2	1.31	188.64	60.43	0.04
11/01-11/30/2002	406.2	1.31	188.64	60.43	0.05
12/01-12/31/2002	409.2	1.31	188.64	60.43	0.05
			0	60.43	0.00
			0	60.43	0.00
			0	60.43	0.00
			0	60.43	0.00
Totals	1140.6				0.14

Waste oil Emission factors from EPA AP-42 Section 1.11	lb/1000 gal
SOx	107*%S
NOx	16
Part.	41.6
CO	2.1
	0.1
Trace Metals	0.63

VYAPF 0150.01 1/1/2002 Emergency Diesel Tank Vol= 52,500 gal

6/4/2002 Delivery of 7500 gallons
6/10/2002 Delivery of 9500 gallons

VYAPF 0150.01 12/31/2002 Emergency Diesel Tank Volume= 49,250

OPT OUT PROVISION DIESEL HOUR METER READINGS

JOHN DEERE	Date	A EDG	Date	B EDG	Date
1205.3	12/13/2001	3835.9	12/26/2001	477	12/26/2001
1206.5	1/16/2002	3840.5	1/21/2002	481.7	1/22/2002
1207.9	2/13/2002	3845.1	2/20/2002	486.4	2/22/2002
1209.2	3/12/2002	3849.5	3/16/2002	491.3	3/22/2002
1211.2	4/10/2002	3852.2	4/18/2002	493.8	4/18/2002
1212.5	5/15/2002	3854.6	5/18/2002	496.4	5/17/2002
1214.4	6/11/2002	3857.2	6/21/2002	498.9	6/21/2002
1217.1	7/10/2002	3861.4	7/25/2002	510.2	7/24/2002
1218.5	8/14/2002	3870.3	8/18/2002	518.9	8/20/2002
1220.3	9/11/2002	3872.8	9/24/2002	523.1	9/23/2002
1221.7	10/31/2002	3881.3	10/21/2002	528.2	10/21/2002
1222.9	11/14/2002	3883.8	11/12/2002	530.8	11/12/2002
1224.2	12/11/2002	3886.3	12/18/2002	533.3	12/18/2002
18.9		50.4		56.3	YR TOT

Total

VY AIR EMISSIONS RECORDKEEPING-2003

Grand Total Tons
7.84

House Heating Boilers

Period	Gallons Used	% Sulfur	lb/kgal, S	lb/kgal, Ott	Total Tons
1/1-1/31/2003**	55517	0.03	4.32	27.29	0.88
1/17/2003	6500	0.04	5.76	27.29	0.11
2/3/2003	6750	0.04	5.76	27.29	0.11
02/01/03-02/28/03**	43500	0.03	4.32	27.29	0.69
3/1-3/31/2003**	40900	0.03	4.32	27.29	0.69
3/ 8&31/2003	15007	0.04	5.76	27.29	0.68
4/1-4/30/2003	33800	0.04	5.76	27.29	0.56
5/1-5/31/2003	12500	0.04	5.76	27.29	0.21
6/1-6/30/2003	0		0	27.29	0.00
7/1-7/31/2003	0		0	27.29	0.00
8/1-8/31/2003	0		0	27.29	0.00
9/1-9/30/2003	0		0	27.29	0.00
10/1-10/31/2003	25402	0.256	36.864	27.29	0.81
11/1-11/30/2003	33904	0.261	37.584	27.29	1.10
12/1-12/31/2003	51411	0.268	38.592	27.29	1.69
Totals	325191				7.52
Average		0.10	10.32	27.29	

HHB Emission factors from EPA AP-42 Section 1.3

	lb/1000 gal
SO2	142*%S
SO3	2*%S
NOx	20
Part.	2
CO	5
VOC	0.252
Trace Metals	0.038

(*) indicates a 50/50 #2/Kerosene mix was delivered
(**) indicates a 70/30 #2/Kerosene mix was delivered

Waste Oil Burners

Period	Gallons Used	% Sulfur	lb/kgal, S	lb/kgal, Ott	Total Tons
2/8-25/03	421	1.31	140.17	60.43	0.04
2/10/03-3/21/03	686	1.31	188.64	60.43	0.09
3/13-28/03	379	1.31	188.64	60.43	0.05
10/20/03-12/31/03	1106	1.31	188.64	60.43	0.14
Totals	2592				0.32

Waste oil Emission factors from EPA AP-42 Section 1.11

	lb/1000 gal
SOx	107*%S
NOx	16
Part.	41.6
CO	2.1
	0.1
Trace Metals	0.63

OPT OUT PROVISION DIESEL HOUR METER READINGS

JOHN DEERE	Date	A EDG	Date	B EDG	Date
1224.2	12/11/2002	3886.3	12/18/2002	533.3	12/18/2002
1225.4	1/15/2003	3888.8	1/16/2003	535.8	1/16/2003
1226.7	2/13/2003	3891.6	2/20/2003	538.6	2/20/2003
1227.9	3/12/2003	3895.4	3/28/2003	541.3	3/23/2003
1229.2	4/16/2003	3898	4/21/2003	543.9	4/22/2003
1230.6	5/14/2003	3900.6	5/20/2003	546.6	5/20/2003
1231.8	6/11/2003	3903.5	6/23/2003	551	6/25/2003
1233.2	7/16/2003	3906.2	7/21/2003	553.7	7/22/2003
1234.5	8/14/2003	3909.4	8/18/2003	556.5	8/19/2003
1235.9	9/10/2003	3912	9/21/2003	561.8	9/25/2003
1237.4	10/15/2003	3914.7	10/20/2003	564.3	10/21/2003
1238.7	11/12/2003	3917.3	11/23/2003	566.8	11/23/2003
1240	12/10/2003	3920.1	12/18/2003	569.5	12/18/2003
15.8		33.8		36.2	YR TOT

VYAPF 0150.01 1/1/2003 Emergency Desiel Tank Vol= 49,000 gal

5/7/2003 Delivery of 17000 gallons

VYAPF 0150.01 12/31/2003 Emergency Diesel Tank Volume= 53,000

53000-49000+17000

VY AIR EMISSIONS RECORDKEEPING-2004

Grand Total Tons
7.43

House Heating Boilers

Period	Gallons Used	% Sulfur	lb/kgal, Sulfur	lb/kgal, Other	Total Tons
1/1-1/31/2004	13506	0.167	24.048	27.29	0.35
01/10-31/2004**	50509	0.121	17.424	27.29	1.13
02/01-20/2004**	35300	0.118	16.992	27.29	0.78
2/26/2004	7500	0.163	23.472	27.29	0.19
03/01-31/2004	39301	0.139	20.016	27.29	0.18
04/01-30/2004	26301	0.264	38.016	27.29	1.28
05/01-30/2004	4501	0.166	23.904	27.29	0.12
06/01-30/2004	0		0	27.29	0.00
07/01-31/2004	0		0	27.29	0.00
08/01-31/2004	0		0	27.29	0.00
09/01-30/2004	3000	0.166	23.904	27.29	0.08
10/01-31/2004	20106	0.196	28.224	27.29	0.56
11/01-30/2004	33,805	0.175	25.2	27.29	0.89
12/01-31/2004	53,014	0.243	34.992	27.29	1.65
Total	286,843				7.20

HHB Emission factors from EPA AP-42 Section 1.3

	lb/1000 gal
SO2	142*%S
SO3	2*%S
NOx	20
Part.	2
CO	5
VOC	0.252
Trace Metals	0.038

(*) indicates a 50/50 #2/Kerosene mix was delivered
(**) indicates a 70/30 #2/Kerosene mix was delivered

Waste Oil Burner

Period	Gallons Used	% Sulfur	lb/kgal, S	lb/kgal, Other	Total Tons
1/1/04 - 1/31/04	114.9	1.31	188.64	60.43	0.01
2/6/04 - 2/27/04	366.2	1.31	188.64	60.43	0.05
11/10/04 - 12/28/04	1,419.66	1.31	188.64	60.43	0.18
Totals	1,900.76				0.24

Waste oil Emission factors from EPA AP-42 Section 1.11

	lb/1000 gal
SOx	107*%S
NOx	16
Part.	41.6
CO	2.1
	0.1
Trace Metals	0.63

VYAPF 0150.01 1/1/2004 Emergency Desiel Tank Volume 53,000
VYAPF 0150.01 12/31/2004 Emergency Diesel Tank Volume 52,000

Fuel Delivery Dates	Gallons delivered
7/1/2004	19,002

Total estimated fuel consumption for 2004 20,002

OPT OUT PROVISION DIESEL HOUR METER READINGS

JDD	Date	A EDG	Date	B EDG	Date
1240	12/10/2003	3920.1	12/18/2003	569.5	12/18/2003
1241.3	1/14/2004	3922.9	1/19/2004	571.9	1/21/2004
1242.7	2/11/2004	3931.8	2/17/2004	580.8	2/19/2004
1244.1	3/10/2004	3934.2	3/23/2004	583.4	3/22/2004
1245.4	4/17/2004	3941.7	4/28/2004	590.6	4/27/2004
1246.7	5/12/2004	3944.3	5/23/2004	593.1	5/23/2004
1249.9	6/16/2004	3946.9	6/21/2004	595.8	6/22/2004
1253.8	7/23/2004	3949.5	7/17/2004	598.2	7/17/2004
1255.1	8/11/2004	3952	8/21/2004	602.4	8/21/2004
1256	9/15/2004	3945	9/24/2004	604.9	9/19/2004
1258	10/13/2004	3958	10/12/2004	607.4	10/13/2004
1259	11/14/2004	3960	11/14/2004	610	11/15/2004
1260	12/15/2004	3962.6	12/19/2004	613	12/19/2004
20		42.5		43.5	YR TOT

VY AIR EMISSIONS RECORDKEEPING-2005

Grand Total Tons
9.07

House Heating Boilers

Period	Gallons Used	% Sulfur	lb/kgal, Sulfur	lb/kgal, Other	Total Tons
1/1/05 - 1/31/05	48115	0.176	25.344	27.29	1.27
2/1/05 - 2/28/05	48407	0.194	27.936	27.29	1.34
3/1/05 - 3/31/05	41514	0.243	34.992	27.29	1.29
4/1/05 - 4/30/05	19200	0.243	34.992	27.29	0.60
5/1/05 - 5/31/05	19301	0.243	34.992	27.29	0.60
6/1/05 - 6/30/05	0	0.243	34.992	27.29	0.00
7/1/05 - 7/30/05	0	0.197	28.368	27.29	0.00
8/1/05 - 8/31/05	0	0.040	5.76	27.29	0.00
9/1/05 - 9/30/05	0	0.237	34.128	27.29	0.00
10/1/05 - 10/31/05	13302	0.270	38.88	27.29	0.44
11/1/05 - 11/30/05	32805	0.275	39.6	27.29	1.10
12/1/05 - 12/31/05	61709	0.277	39.888	27.29	2.07
average		**0.220**			
Total	284,353				**8.70**

HHB Emission factors from EPA AP-42 Section 1.3

	lb/1000 gal
SO2	142*%S
SO3	2*%S
NOx	20
Part.	2
CO	5
VOC	0.252
Trace Metals	0.038

(*) indicates a 50/50 #2/Kerosene mix was delivered
(**) indicates a 70/30 #2/Kerosene mix was delivered

Waste Oil Burner

Period	Gallons Used	% Sulfur	lb/kgal, S	lb/kgal, Other	Total Tons
2/12/2005-2/28/2005	2952.26	1.31	188.64	60.43	0.37
6/15/2005	1.36	1.31	188.64	44.43	0.00
Totals	2,953.62				**0.37**

Waste oil Emission factors from EPA AP-42 Section 1.11

	lb/1000 gal
SOx	107*%S
NOx	16
Part.	41.6
CO	2.1
	0.1
Trace Metals	0.63

VYAPF 0150.01 1/1/2005 Emergency Desiel Tank Volume 53,000
VYAPF 0150.01 12/31/2005 Emergency Diesel Tank Volume 55,979

Fuel Delivery Dates	Gallons delivered
6/29/2005	7,502
11/30/2005	15,001

Total estimated fuel consumption for 2005 19,524 gallons

OPT OUT PROVISION DIESEL HOUR METER READINGS

JDD	Date	A EDG	Date	B EDG	Date
1260.4	12/15/2004	3962.6	12/19/2004	613	12/19/2004
1261.7	1/12/2005	3965.15	1/17/2005	616.7	1/17/2005
1263.1	2/15/2005	3968.1	2/23/2005	619.3	2/23/2005
1265.2	3/16/2005	3973	3/21/2005	621.3	3/26/2005
1266.6	4/13/2005	3975.8	4/18/2005	626.6	4/19/2005
1268.3	5/11/2005	3978.4	5/22/2005	629.2	5/22/2005
1269.8	6/7/2005	3981.2	6/19/2005	631.9	6/19/2005
1271.2	7/13/2005	3984.1	7/18/2005	634.2	7/18/2005
1272.6	8/10/2005	3994.9	8/22/2005	644.8	8/24/2005
1273.9	9/14/2005	3997.6	9/19/2005	647.3	9/20/2005
1275.4	10/12/2005	3999.4	10/19/2005	650.1	10/19/2005
1286.2	11/16/2005	4007.3	11/20/2005	654.9	11/20/2005
1290.4	12/14/2005	4010.2	12/18/2005	659.5	12/21/2005
30		47.6		46.5	YR TOT

LIONVILLE LABORATORY INC.

Analytical Report

Client: TELEDYNE-VERMONT YANKEE
LVL#: 0203L244

W.O.#: 11699-600-005-9999-00
Date Received: 03-22-02

INORGANIC NARRATIVE

1. This narrative covers the analyses of 2 oil samples.

2. The samples were prepared and analyzed in accordance with the methods indicated on the attached glossary.

3. All results presented in this report are derived from samples that met LvLI's sample acceptance policy with the exception the cooler temperature and the label discrepancies noted on the Sample Receipt Checklist.

4. Sample holding times as required by the method and/or contract were met.

5. The method blanks were within the method criteria.

6. The Laboratory Control Samples (LCS) were within the laboratory control limits.

7. The matrix spike recoveries were within the 75-125% control limits.

8. The replicate analysis for Total Halides was within the 20% Relative Percent Difference (RPD) control limit, however replicate analysis for Chloride was outside the control limit that may be attributed to sample inhomogeneity.

9. Results for oil samples are reported on a wet weight basis.

Iain Daniels
Laboratory Manager
Lionville Laboratory Incorporated

03-29-02
Date

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By

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The results presented in this report relate to the analytical testing and conditions of the samples upon receipt and during storage. All pages of this report are integral parts of the analytical data. Therefore, this report should only be reproduced in its entirety of 11 pages.

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Lionville Laboratory Incorporated

WET CHEMISTRY

METHODS GLOSSARY FOR SOIL/SOLIDS* SAMPLE ANALYSIS

	ASTM	SW846	OTHER
% Ash	__ D2216-80		
% Moisture	__ D2216-80		__ ILMO4.0 (e)
% Solids	__ D2216-80		__ ILMO4.0 (e)
% Volatile Solids	__ D2216-80		
ASTM Extraction in Water	__ D3987-81/85		
BTU	__ D240-87		
CEC		__ 9081	__ c
Chromium VI		__ 3060A/7196A	
Corrosivity ___ by coupon ___ by pH		__ 1110(mod) __ 9045C	
Cyanide, Total		__ 9010B	__ ILMO4.0 (e)
Cyanide, Reactive		__ Section 7.3/9014	
Halides, Extractable Organic		__ 9020B	__ EPA 600/4/84-008
Halides, Total		✓ 9020B	✓ EPA 600/4/84-008
EP Toxicity		__ 1310A	
Flash Point		__ 1010	
Ignitability		__ 1010	
Oil & Grease		__ 9071A	
Carbon, Total Organic		__ 9060	__ Lloyd Kahn (mod)
Oxygen Bomb Prep for Anions	__ D240-87(mod)	__ 5050	
Petroleum Hydrocarbons, Total Recoverable		__ 9071	__ EPA 418.1
pH, Soil		__ 9045C	
Sulfide, Reactive		__ Section 7.3/9030B	
Sulfide		__ 9030B(mod)	
Specific Gravity	__ D1429-76C/	__ D5057-90	
Sulfur, Total		__ 9056	
Synthetic Preparation Leach		__ 1312	
Paint Filter		__ 9095A	

Other: Chloride Method: EPA 300.0 (modified)

Other: Method

L-WI-034/B-01/01

*Oil samples

Lionville Laboratory Incorporated

METHOD REFERENCES AND DATA QUALIFIERS

DATA QUALIFIERS

U = Indicates that the parameter was not detected at or above the reported limit. The associated numerical value is the sample detection limit.

* = Indicates that the original sample result is greater than 4x the spike amount added.

ABBREVIATIONS

MB = Method or Preparation Blank.
MS = Matrix Spike.
MSD = Matrix Spike Duplicate.
REP = Sample Replicate
LC = Laboratory Control Sample.
NC = Not calculated.

A suffix of -R, -S, or -T following these codes indicate a replicate, spike or sample duplicate analysis respectively.

ANALYTICAL WET CHEMISTRY METHODS

1. ASTM Standard Methods.

2. USEPA Methods for Chemical Analysis of Water and Wastes (USEPA 600/4-79-020).

3. Test Methods for Evaluating Solid Waste (USEPA SW-846).

a. Standard Methods for the Examination of Water and Waste, 16 ed, (1983).

b. Standard Methods for the Examination of Water and Waste, 17 ed, (1989)/18ed (1992).

c. Method of Soil Analysis, Part 1, Physical and Mineralogical Methods, 2nd ed, (1986).

d. Method of Soil Analysis, Part 2, Chemical and Microbiological Properties, Am. Soc. Agron., Madison, WI (1965).

e. USEPA Contract Laboratory Program, Statement of Work for Inorganic Analysis.

f. Code of Federal Regulations.

Lionville Laboratory, Inc.

INORGANICS DATA SUMMARY REPORT 03/27/02

CLIENT: TELEDYNE-VERMONT YANKEE

LVL LOT #: 0203L244

WORK ORDER: 11699-600-005-9999-00

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT	DILUTION FACTOR
-001	1	Chloride by IC	3.3		MG/KG	1.2	1.0
		Total Halides	137	u	MG/KG	137	1.0
-002	2	Chloride by IC	5.0		MG/KG	1.2	1.0
		Total Halides	197		MG/KG	136	1.0

Lionville Laboratory, Inc.

INORGANICS METHOD BLANK DATA SUMMARY PAGE 03/27/02

CLIENT: TELEDYNE-VERMONT YANKEE

LVL LOT #: 0203L244

WORK ORDER: 11699-600-005-9999-00

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT	DILUTION FACTOR
BLANK10	02LICB23-MB1	Chloride by IC	1.2	u	MG/KG	1.2	1.0
BLANK1	02LE004-MB1	Total Halides	20.0	u	MG/KG	20.0	1.0
BLANK2	02LE004-MB2	Total Halides	20.0	u	MG/KG	20.0	1.0

Lionville Laboratory, Inc.

INORGANICS ACCURACY REPORT 03/27/02

CLIENT: TELEDYNE-VERMONT YANKEE

LVL LOT #: 0203L244

WORK ORDER: 11699-600-005-9999-00

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	INITIAL RESULT	SPIKED AMOUNT	%RECOV	DILUTION FACTOR(SPK)
-001	1	Total Halides	3200	28.9	3420	92.6	1.0
-002	2	Chloride by IC	30.8	5.0	25.0	102.9	1.0
BLANK10	02LICB23-MB1	Chloride by IC	24.8	1.2 u	25.0	99.0	1.0
LCS1	02LE004-LC1	Total Halides	477	20.0 u	500	95.5	1.0
LCS2	02LE004-LC2	Total Halides	490	20.0 u	500	97.9	1.0

Lionville Laboratory, Inc.

INORGANICS PRECISION REPORT 03/27/02

CLIENT: TELEDYNE-VERMONT YANKEE LVL LOT #: 0203L244

WORK ORDER: 11699-600-005-9999-00

SAMPLE	SITE ID	ANALYTE	INITIAL RESULT	REPLICATE		RPD	DILUTION FACTOR(REP)
-001REP	1	Total Halides	137 u	137	u	NC	1.0
-002REP	2	Chloride by IC	5.0	3.5		34.8	1.0

Lionville Laboratory, Inc.
INORGANIC ANALYTICAL DATA PACKAGE FOR
TELEDYNE-VERMONT YANKEE

DATE RECEIVED: 03/22/02 LVL LOT # :0203L244

CLIENT ID /ANALYSIS	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
1						
CHLORIDE BY IC	001	OI	02LICB23	03/18/02	03/23/02	03/23/02
TOTAL HALIDES	001	OI	02LE004	03/18/02	03/26/02	03/26/02
TOTAL HALIDES	001 REP	OI	02LE004	03/18/02	03/26/02	03/26/02
TOTAL HALIDES	001 MS	OI	02LE004	03/18/02	03/26/02	03/26/02
2						
CHLORIDE BY IC	002	OI	02LICB23	03/18/02	03/23/02	03/23/02
CHLORIDE BY IC	002 REP	OI	02LICB23	03/18/02	03/23/02	03/23/02
CHLORIDE BY IC	002 MS	OI	02LICB23	03/18/02	03/23/02	03/23/02
TOTAL HALIDES	002	OI	02LE004	03/18/02	03/26/02	03/26/02

LAB QC:

CHLORIDE BY IC	MB1	S	02LICB23	N/A	03/23/02	03/23/02
CHLORIDE BY IC	MB1 BS	S	02LICB23	N/A	03/23/02	03/23/02
TOTAL HALIDES	LC1 BS	W	02LE004	N/A	03/26/02	03/26/02
TOTAL HALIDES	LC2 BS	W	02LE004	N/A	03/26/02	03/26/02
TOTAL HALIDES	MB1	W	02LE004	N/A	03/26/02	03/26/02
TOTAL HALIDES	MB2	W	02LE004	N/A	03/26/02	03/26/02

Lionville Laboratory Use Only

02031244

Custody Transfer Record/Lab Work Request

Page 1 of 1

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

LVLI LIONVILLE LABORATORY INC.

Client: Teledyne - Vermont Yankee

Est. Final Proj. Sampling Date:

Project #: 11699-600-005-9999-00

Project Contact/Phone #:

Lionville Laboratory Project Manager: MH

QC: STD Del: STD TAT: 5 days

Date Rec'd: 3-22-02 Date Due: 3-27-02

Refrigerator #				A																
#/Type Container	Liquid			4																
	Solid			1PL																
Volume	Liquid																			
	Solid			L																
Preservatives				—																
ANALYSES REQUESTED →					ORGANIC								INORG							
					VOA	BNA	Pest/PCB	Herb	Tot Halogen	Tot Inorg Chloride			Metal	CN						
					Lionville Laboratory Use Only															
							OPCB		ITX	ICCL										

MATRIX CODES:
S - Soil
SE - Sediment
SO - Solid
SL - Sludge
W - Water
O - Oil
A - Air
DS - Drum Solids
DL - Drum Liquids
L - EP/TCLP Leachate
WI - Wipe
X - Other
F - Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	OPCB	ITX	ICCL
001	1			O	3-18-02	1030	1	✓	✓
002	2			1	1	1	1	✓	✓

Special Instructions:

DATE/REVISIONS:

1.
2.
3.
4.
5.
6.

Lionville Laboratory Use Only

Samples were: 1) Shipped ___ or Hand Delivered ___
Airbill # See Below
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) Samples Properly Preserved Y or N
5) Received Within Holding Times Y or N

Tamper Resistant Seal was:
1) Present on Outer Package Y or N
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N

COC Record Present Upon Sample Rec't Y or N

Temp. 13.5 °C

Discrepancies Between Samples Labels and COC Record? Y or N

NOTES:

1ZA25W630140385778

Relinquished by	Received by	Date	Time
UPS	[illegible] Fr. VH	3-22-02	0900

Relinquished by	Received by	Date	Time
COMPOSITE WASTE	ORIGINAL REWRITTEN		

.02036244

VERMONT YANKEE CHAIN OF CUSTODY

Shipment Number: 2002-09
Date of Shipment: 3/19/02
Vermont Yankee Nuclear Power Station

Shipping Method: _____UPS
_____FEDERAL EXPRESS
_____COURIER
____xxxxx___COMMON

From: *Tim McCarthy- Radwaste / Hazwaste Supervisor*
Vermont Nuclear Power Station
P.O. Box 157 Governor Hunt Road
Vernon, VT 05354 (Phone: 802-258-5476)
(Fax: 802-258-5489)

Requested Turnaround Time____Standard *__x_ Rush ____Working Days(specify #)*

ANALYSIS TO BE PERFORMED

Sample No.	Sample Type		Waste Oil From Designated Locations Sample Type / Description / Comments	Collection Period Start M	Start D	Start HR	Stop M	Stop D	Stop HR	Sample Amount Volume or Weight (MKS Units)	Sulfur	Calorific Value	Arsenic	Cadmium	Lead	Chromium	PCB's	Total Halogens	Total Inorganic Chlorides	FP- Closed Cup Method	Ash			OTHER
1	L		Oil Composite - RCA	10	30		10	30		1000 mls							x	x	x					
2	L		Oil Composite	10	30		10	30		1000 mls							x	x	x					

Collected By: DCH
Relinquished B Tim McCarthy
Received at laboratory by: [illegible]
Date received: 3-22-02

COMMENTS or SPECIAL INSTRUCTIONS

PROVIDE TWO COPIES OF THE LAB REPORT

Temp: 13.5

Relinquished by: Fed Ex
Received by: [illegible]
Date Received: 3-22-02

LIONVILLE LABORATORY INCORPORATED
SAMPLE RECEIPT CHECKLIST

CLIENT: Vermont Yankee

Purchase Order/Project:

DATE: 3-22-02

SAF# / SOW# / Release #:

Laboratory SDG #: 02031244

NOTE: ALL ENTRIES MARKED "NO" MUST BE EXPLAINED IN THE COMMENT SECTION

1. Custody seals on coolers or shipping container intact, signed and dated?	☐ Yes	☑ No	☐ N/A	☑ see Comment #
2. Outside of coolers or shipping containers are free from damage?	☑ Yes	☐ No	☐ N/A	☐ see Comment #
3. Airbill # recorded?	☑ Yes	☐ No	☐ N/A	☐ see Comment #
4. All expected paperwork received (coc and other client specific: historical data, alpha/beta or other screening data as applicable)? (paperwork sealed in plastic bag and taped to inside lid)	☑ Yes	☐ No	☐ N/A	☐ see Comment #
5. Sample containers are intact?	☑ Yes	☐ No	☐ N/A	☐ see Comment #
6. Custody seals on sample containers intact, signed and dated?	☐ Yes	☐ No	☑ N/A	☐ see Comment #
7. All samples on coc received?	☑ Yes	☐ No	☐ N/A	☐ see Comment #
8. All sample label information matches coc?	☑ Yes	☐ No	☐ N/A	☐ see Comment #
9. Laboratory QC samples designated on coc? (QC stickers placed on bottles?)	☐ Yes	☐ No	☑ N/A	☐ see Comment #
10. Shipment meets LvLI Sample Acceptance Policy? (identify all bottles not within policy. See reverse side for policy)	☐ Yes	☑ No	☐ N/A	☐ see Comment #
11. Where applicable, bar code labels are affixed to coc?	☐ Yes	☐ No	☑ N/A	☐ see Comment #
12. coc signed and dated?	☑ Yes	☐ No	☐ N/A	☐ see Comment #
13. coc faxed or emailed to client?	☐ Yes	☐ No	☐ N/A	☐ see Comment #
14. Project Manager/Client contacted concerning discrepancies? (name/date)	☐ Yes	☐ No	☐ N/A	☐ see Comment #

Cooler # / temp and Comments: No COC Tape on Coolers or Samples.
13.5°C
(acceptable range 2°C-6°C)

Laboratory Sample Custodian: [signature]

Laboratory Project Manager:

LIONVILLE LABORATORY INC.

Analytical Report

Client: TELEDYNE-VERMONT YANKEE
LVL#: 0203L244

W.O.#: 11699-600-005-9999-00
Date Received: 03-22-02

INORGANIC NARRATIVE

1. This narrative covers the analyses of 2 oil samples.

2. The samples were prepared and analyzed in accordance with the methods indicated on the attached glossary.

3. All results presented in this report are derived from samples that met LvLI's sample acceptance policy with the exception the cooler temperature and the label discrepancies noted on the Sample Receipt Checklist.

4. Sample holding times as required by the method and/or contract were met.

5. The method blanks were within the method criteria.

6. The Laboratory Control Samples (LCS) were within the laboratory control limits.

7. The matrix spike recoveries were within the 75-125% control limits.

8. The replicate analysis for Total Halides was within the 20% Relative Percent Difference (RPD) control limit, however replicate analysis for Chloride was outside the control limit that may be attributed to sample inhomogeneity.

9. Results for oil samples are reported on a wet weight basis.

Iain Daniels
Laboratory Manager
Lionville Laboratory Incorporated

03-29-02
Date

RECEIVED
APR 04 2002
By

njp\i03-244

The results presented in this report relate to the analytical testing and conditions of the samples upon receipt and during storage. All pages of this report are integral parts of the analytical data. Therefore, this report should only be reproduced in its entirety of 11 pages.

208 Welsh Pool Road • Lionville, PA 19341-1333 • (610) 280-3000 • Fax (610) 280-3041

Lionville Laboratory Incorporated

WET CHEMISTRY

METHODS GLOSSARY FOR SOIL/SOLIDS* SAMPLE ANALYSIS

	ASTM	SW846	OTHER
% Ash	__ D2216-80		
% Moisture	__ D2216-80		__ ILMO4.0 (e)
% Solids	__ D2216-80		__ ILMO4.0 (e)
% Volatile Solids	__ D2216-80		
ASTM Extraction in Water	__ D3987-81/85		
BTU	__ D240-87		
CEC		__ 9081	__ c
Chromium VI		__ 3060A/7196A	
Corrosivity ___ by coupon ___ by pH		__ 1110(mod) __ 9045C	
Cyanide, Total		__ 9010B	__ ILMO4.0 (e)
Cyanide, Reactive		__ Section 7.3/9014	
Halides, Extractable Organic		__ 9020B	__ EPA 600/4/84-008
Halides, Total		✓ 9020B	✓ EPA 600/4/84-008
EP Toxicity		__ 1310A	
Flash Point		__ 1010	
Ignitability		__ 1010	
Oil & Grease		__ 9071A	
Carbon, Total Organic		__ 9060	__ Lloyd Kahn (mod)
Oxygen Bomb Prep for Anions	__ D240-87(mod)	__ 5050	
Petroleum Hydrocarbons, Total Recoverable		__ 9071	__ EPA 418.1
pH, Soil		__ 9045C	
Sulfide, Reactive		__ Section 7.3/9030B	
Sulfide		__ 9030B(mod)	
Specific Gravity	__ D1429-76C/	__ D5057-90	
Sulfur, Total		__ 9056	
Synthetic Preparation Leach		__ 1312	
Paint Filter		__ 9095A	

Other: Chloride **Method:** EPA 300.0 (modified)

Other: **Method**

L-WI-034/B-01/01

* Oil samples

Lionville Laboratory Incorporated

METHOD REFERENCES AND DATA QUALIFIERS

DATA QUALIFIERS

U = Indicates that the parameter was not detected at or above the reported limit. The associated numerical value is the sample detection limit.

* = Indicates that the original sample result is greater than 4x the spike amount added.

ABBREVIATIONS

MB = Method or Preparation Blank.
MS = Matrix Spike.
MSD = Matrix Spike Duplicate.
REP = Sample Replicate
LC = Laboratory Control Sample.
NC = Not calculated.

A suffix of -R, -S, or -T following these codes indicate a replicate, spike or sample duplicate analysis respectively.

ANALYTICAL WET CHEMISTRY METHODS

1. ASTM Standard Methods.

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3. Test Methods for Evaluating Solid Waste (USEPA SW-846).

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d. Method of Soil Analysis, Part 2, Chemical and Microbiological Properties, Am. Soc. Agron., Madison, WI (1965).

e. USEPA Contract Laboratory Program, Statement of Work for Inorganic Analysis.

f. Code of Federal Regulations.

Lionville Laboratory, Inc.

INORGANICS DATA SUMMARY REPORT 03/27/02

CLIENT: TELEDYNE-VERMONT YANKEE

LVL LOT #: 0203L244

WORK ORDER: 11699-600-005-9999-00

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT	DILUTION FACTOR
-001	1	Chloride by IC	3.3		MG/KG	1.2	1.0
		Total Halides	137	u	MG/KG	137	1.0
-002	2	Chloride by IC	5.0		MG/KG	1.2	1.0
		Total Halides	197		MG/KG	136	1.0

Lionville Laboratory, Inc.

INORGANICS METHOD BLANK DATA SUMMARY PAGE 03/27/02

CLIENT: TELEDYNE-VERMONT YANKEE

LVL LOT #: 0203L244

WORK ORDER: 11699-600-005-9999-00

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT	DILUTION FACTOR
BLANK10	02LICB23-MB1	Chloride by IC	1.2	u	MG/KG	1.2	1.0
BLANK1	02LE004-MB1	Total Halides	20.0	u	MG/KG	20.0	1.0
BLANK2	02LE004-MB2	Total Halides	20.0	u	MG/KG	20.0	1.0

Lionville Laboratory, Inc.

INORGANICS ACCURACY REPORT 03/27/02

CLIENT: TELEDYNE-VERMONT YANKEE

LVL LOT #: 0203L244

WORK ORDER: 11699-600-005-9999-00

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	INITIAL RESULT	SPIKED AMOUNT	%RECOV	DILUTION FACTOR(SPK)
-001	1	Total Halides	3200	28.9	3420	92.6	1.0
-002	2	Chloride by IC	30.8	5.0	25.0	102.9	1.0
BLANK10	02LICB23-MB1	Chloride by IC	24.8	1.2 u	25.0	99.0	1.0
LCS1	02LE004-LC1	Total Halides	477	20.0 u	500	95.5	1.0
LCS2	02LE004-LC2	Total Halides	490	20.0 u	500	97.9	1.0

Lionville Laboratory, Inc.

INORGANICS PRECISION REPORT 03/27/02

CLIENT: TELEDYNE-VERMONT YANKEE LVL LOT #: 0203L244

WORK ORDER: 11699-600-005-9999-00

SAMPLE	SITE ID	ANALYTE	INITIAL RESULT	REPLICATE	RPD	DILUTION FACTOR(REP)
-001REP	1	Total Halides	137 u	137 u	NC	1.0
-002REP	2	Chloride by IC	5.0	3.5	34.8	1.0

Lionville Laboratory, Inc.
INORGANIC ANALYTICAL DATA PACKAGE FOR
TELEDYNE-VERMONT YANKEE

DATE RECEIVED: 03/22/02 LVL LOT # :0203L244

CLIENT ID /ANALYSIS	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
1						
CHLORIDE BY IC	001	OI	02LICB23	03/18/02	03/23/02	03/23/02
TOTAL HALIDES	001	OI	02LE004	03/18/02	03/26/02	03/26/02
TOTAL HALIDES	001 REP	OI	02LE004	03/18/02	03/26/02	03/26/02
TOTAL HALIDES	001 MS	OI	02LE004	03/18/02	03/26/02	03/26/02
2						
CHLORIDE BY IC	002	OI	02LICB23	03/18/02	03/23/02	03/23/02
CHLORIDE BY IC	002 REP	OI	02LICB23	03/18/02	03/23/02	03/23/02
CHLORIDE BY IC	002 MS	OI	02LICB23	03/18/02	03/23/02	03/23/02
TOTAL HALIDES	002	OI	02LE004	03/18/02	03/26/02	03/26/02

LAB QC:

CHLORIDE BY IC	MB1	S	02LICB23	N/A	03/23/02	03/23/02
CHLORIDE BY IC	MB1 BS	S	02LICB23	N/A	03/23/02	03/23/02
TOTAL HALIDES	LC1 BS	W	02LE004	N/A	03/26/02	03/26/02
TOTAL HALIDES	LC2 BS	W	02LE004	N/A	03/26/02	03/26/02
TOTAL HALIDES	MB1	W	02LE004	N/A	03/26/02	03/26/02
TOTAL HALIDES	MB2	W	02LE004	N/A	03/26/02	03/26/02

Lionville Laboratory Use Only

0203L244

Custody Transfer Record/Lab Work Request

Page 1 of 1

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

LVLI Lionville Laboratory Inc.

Client: Teledyne - Vermont Yankee

Est. Final Proj. Sampling Date:

Project #: 11699-600-005-9999-00

Project Contact/Phone #:

Lionville Laboratory Project Manager: MH

QC: STD Del: STD TAT: 5 days

Date Rec'd: 3-22-02 Date Due: 3-27-02

Refrigerator #				A														
#/Type Container	Liquid			4														
	Solid			1PL														
Volume	Liquid																	
	Solid			L														
Preservatives				1														
ANALYSES REQUESTED →					ORGANIC								INORG					
					VOA	BNA	Pest/PCB	Herb	Tot Halogen	Tot Inorg Chloride			Metal	CN				
							Lionville Laboratory Use Only											
							OPCB		ITX	ICCL								

MATRIX CODES:
S - Soil
SE - Sediment
SO - Solid
SL - Sludge
W - Water
O - Oil
A - Air
DS - Drum Solids
DL - Drum Liquids
L - EP/TCLP Leachate
WI - Wipe
X - Other
F - Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	OPCB	ITX	ICCL
001	1			O	3-18-02	1030	1	✓	✓
002	2			⊥	⊥	⊥	1	✓	✓

Special Instructions:

DATE/REVISIONS:
1.
2.
3.
4.
5.
6.

Lionville Laboratory Use Only

Samples were: 1) Shipped ___ or Hand Delivered ___
Airbill # See Below
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) Samples Properly Preserved Y or N
5) Received Within Holding Times Y or N

Tamper Resistant Seal was:
1) Present on Outer Package Y or N
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N
COC Record Present Upon Sample Rec't Y or N
Cooler 13.5 °C

Discrepancies Between Samples Labels and COC Record? Y or N
NOTES:
1ZA25W630140385778

Relinquished by	Received by	Date	Time
UPS	[illegible] Fr. VH	3-22-02	0900

Relinquished by	Received by	Date	Time
COMPOSITE WASTE	ORIGINAL REWRITTEN		

.02036244

VERMONT YANKEE CHAIN OF CUSTODY

Shipment Number: 2002-09
Date of Shipment: 3/19/02
Vermont Yankee Nuclear Power Station

Shipping Method: _____UPS
_____FEDERAL EXPRESS
_____COURIER
____xxxxx___COMMON

From: *Tim McCarthy- Radwaste / Hazwaste Supervisor*
Vermont Nuclear Power Station
P.O. Box 157 Governor Hunt Road
Vernon, VT 05354 (Phone: 802-258-5476)
(Fax: 802-258-5489)

Requested Turnaround Time____Standard *__x_ Rush ____Working Days(specify #)*

ANALYSIS TO BE PERFORMED

Sample No.	Sample Type		Waste Oil From Designated Locations / Sample Type / Description / Comments	Collection Period Start M	Start D	Start HR	Stop M	Stop D	Stop HR	Sample Amount Volume or Weight (MKS Units)	Sulfur	Calorific Value	Arsenic	Cadmium	Lead	Chromium	PCB's	Total Halogens	Total Inorganic Chlorides	FP- Closed Cup Method	Ash			OTHER
1	L		Oil Composite - RCA	10	30		10	30		1000 mls							x	x	x					
2	L		Oil Composite	10	30		10	30		1000 mls							x	x	x					

Collected By: DCH
Relinquished B Tim McCarthy
Received at laboratory by: Kevin Hennessy
Date received: 3-22-02

COMMENTS or SPECIAL INSTRUCTIONS

PROVIDE TWO COPIES OF THE LAB REPORT

Temp. 13.5

Relinquished by: Fed Ex
Received by: Kevin Hennessy
Date Received: 3-22-02

LIONVILLE LABORATORY INCORPORATED
SAMPLE RECEIPT CHECKLIST

CLIENT: Vermont Yankee

DATE: 3-22-02

Purchase Order/Project:

SAF# / SOW# / Release #:

Laboratory SDG #: 02031244

NOTE: ALL ENTRIES MARKED "NO" MUST BE EXPLAINED IN THE COMMENT SECTION

1. Custody seals on coolers or shipping container intact, signed and dated?	☐ Yes	☑ No	☐ N/A	☑ see Comment #
2. Outside of coolers or shipping containers are free from damage?	☑ Yes	☐ No	☐ N/A	☐ see Comment #
3. Airbill # recorded?	☑ Yes	☐ No	☐ N/A	☐ see Comment #
4. All expected paperwork received (coc and other client specific: historical data, alpha/beta or other screening data as applicable)? (paperwork sealed in plastic bag and taped to inside lid)	☑ Yes	☐ No	☐ N/A	☐ see Comment #
5. Sample containers are intact?	☑ Yes	☐ No	☐ N/A	☐ see Comment #
6. Custody seals on sample containers intact, signed and dated?	☐ Yes	☐ No	☑ N/A	☐ see Comment #
All samples on coc received?	☑ Yes	☐ No	☐ N/A	☐ see Comment #
8. All sample label information matches coc?	☑ Yes	☐ No	☐ N/A	☐ see Comment #
9. Laboratory QC samples designated on coc? (QC stickers placed on bottles?)	☐ Yes	☐ No	☑ N/A	☐ see Comment #
10. Shipment meets LvLI Sample Acceptance Policy? (identify all bottles not within policy. See reverse side for policy)	☐ Yes	☑ No	☐ N/A	☐ see Comment #
11. Where applicable, bar code labels are affixed to coc?	☐ Yes	☐ No	☑ N/A	☐ see Comment #
12. coc signed and dated?	☑ Yes	☐ No	☐ N/A	☐ see Comment #
13. coc faxed or emailed to client?	☐ Yes	☐ No	☐ N/A	☐ see Comment #
14. Project Manager/Client contacted concerning discrepancies? (name/date)	☐ Yes	☐ No	☐ N/A	☐ see Comment #

Cooler # / temp and Comments: No COC Tape on Coolers or Samples.
13.5 °C
(acceptable range 2°C-6°C)

Laboratory Sample Custodian: [signature]

Laboratory Project Manager:

LvLI
LIONVILLE LABORATORY INC.

January 19, 2005

Ms. Lynn DeWald
Entergy Nuclear Northeast, Vermont Yankee
322 Governor Hunt Rd
Vernon, VT 05354

RECEIVED
FEB 08 2005
By Lynn DeWald

RE: Analytical Data
0411L176

Dear Lynn,

Lionville Laboratory Incorporated (LvLI) is pleased to deliver the following analytical data reports:

RFW Batch #	Date Received	Fraction
0411L176	11.17.04	Metals
0411L176	11.17.04	General Chemistry
0411L176	11.17.04	PCB

If you have any questions, please do not hesitate to contact me at 610.280.3076 or haslettm@lionvillelab.com.

REVIEWED
FEB 10 2005
By_____

Sincerely,

Lionville Laboratory Incorporated

Mark D. Haslett
Project Manager

Enclosure

208 Welsh Pool Road • Exton, PA 19341- 1313 • (610) 280-3000 • Fax (610) 280-3041

Lionville Laboratory, Inc.
PCB ANALYTICAL DATA PACKAGE FOR
TELEDYNE-VERMONT YANKEE

DATE RECEIVED: 11/17/04 LVL LOT # :0411L176

CLIENT ID	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
COMP OIL PLANT SYSTE	001	OI	04LE1405	11/08/04	11/19/04	11/24/04
COMP NWH OIL RESERVO	002	OI	04LE1405	11/08/04	11/19/04	11/24/04
COMP CAB OIL RESERVO	003	OI	04LE1405	11/08/04	11/19/04	11/24/04
TRANSFORMER OIL	004	OI	04LE1405	11/08/04	11/19/04	11/24/04
CRANK CASE OIL	005	OI	04LE1405	11/08/04	11/19/04	11/24/04

LAB QC:

PBLKAS	MB1	S	04LE1405	N/A	11/19/04	11/24/04
PBLKAS	MB1 BS	S	04LE1405	N/A	11/19/04	11/24/04
PBLKAS	MB1 BSD	S	04LE1405	N/A	11/19/04	11/24/04

12/7/04

LIONVILLE LABORATORY INC.

Case Narrative

Client: TELEDYNE-VERMONT YANKEE
LVL#: 0411L176

W.O.#: 11699-600-005-9999-00
Date Received: 11-17-2004

PCB

Five (5) oil samples were collected on 11-08-2004.

The samples and their associated QC samples were extracted on 11-19-2004 and analyzed according to Lionville Laboratory SOPs on 11-24-2004. The extraction procedure was based on method 3580A (waste dilution-1g into 10mL of Hexane) and the extracts were analyzed based on method 8082.

The following is a summary of the QC results accompanying the sample results and a description of any problems encountered during their analyses:

1. All results presented in this report are derived from samples that met LVLI's sample acceptance policy.

2. The required holding time for extraction and analysis was met.

3. Samples and their associated QC samples received a Sulfuric Acid cleanup according to Lionville Laboratory SOPs based on SW 846 method 3665A.

4. The method blank was below the reporting limits for all target compounds.

5. One (1) of six (6) obtainable surrogate recoveries was outside acceptance criteria. However, the surrogate recovery criteria were met (i.e., no more than one outlier per sample).

6. All blank spike recoveries were within acceptance criteria.

7. All samples required a 20-fold dilution due to the matrix interferences. The reporting limits were adjusted to reflect the necessary dilution.

8. All initial calibrations associated with this data set were within acceptance criteria.

9. All continuing calibration standards analyzed prior to sample extracts were within acceptance criteria.

Iain Daniels
Laboratory Manager
Lionville Laboratory Incorporated

11/19/05
Date

som\r:\group\data\pest\Teledyne vermont-yankee\0411-176.pcb

The results presented in this report relate only to the analytical testing and conditions of the samples at receipt and during storage. All pages of this report are integral parts of the analytical data. Therefore, this report should only be reproduced in its entirety of 7 pages.

GLOSSARY OF DATA

DATA QUALIFIERS

U	=	Indicates that the compound was analyzed for but not detected. The minimum detection limit for the sample (not the method detection limit) is reported with the U (e.g., 10U).
J	=	Indicates an estimated value. This flag is used in cases where a target analyte is detected at a level less than the lower quantification level. If the limit of quantification is 10 ug/L and a concentration of 3 ug/L is calculated, it is reported as 3J.
B	=	This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination.
E	=	Indicates that the compound was detected beyond the calibration range and was subsequently analyzed at a dilution.
I	=	Interference.
.1	=	Indicates an interference on one analytical column only. Result is reported from remaining analytical column.

ABBREVIATIONS

BS	=	Indicates blank spike in which reagent grade water is spiked with the CLP matrix spiking solutions and carried through all the steps in the method. Spike recoveries are reported.
BSD	=	Indicates blank spike duplicate.
MS	=	Indicates matrix spike.
MSD	=	Indicates matrix spike duplicate.
DL	=	Indicates that recoveries were not obtained because the extract had to be diluted for analysis.
NA	=	Not Applicable.
DF	=	Dilution Factor.
NR	=	Not Required.
NS	=	Not Spiked.
SP	=	Indicates Spiked Compound.
P	=	This flag is used for an PESTICIDE/PCB target analyte when there is greater than 25% difference for detected concentrations between the two GC columns (see Form X). The lower of the two values is reported on Form I and flagged with a "P".
D	=	This flag identifies all compounds identified in an analysis at a secondary dilution factor.
C	=	This flag applies to a compound that has been confirmed by GC/MS.
NPM	=	No pattern match for multi-component target analytes.

Lionville Laboratory, Inc.

PCBs by GC

Report Date: 11/30/04 19:02

RFW Batch Number: 0411L176 Client: TELEDYNE-VERMONT YANKEE Work Order: 11699600005 Page: 1

Sample Information	Cust ID:	COMP OIL PLANT SYSTE	COMP NWH OIL RESERVO	COMP CAB OIL RESERVO	TRANSFORMER OIL	CRANK CASE OIL	PBLKAS
	RFW#:	001	002	003	004	005	04LE1405-MB1
	Matrix:	OIL	OIL	OIL	OIL	OIL	SOIL
	D.F.:	20.0	20.0	20.0	20.0	20.0	1.00
	Units:	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
Surrogate:	Tetrachloro-m-xylene	D %	D %	D %	D %	D %	116 %
	Decachlorobiphenyl	D %	D %	D %	D %	D %	106 %
Aroclor-1016		8000 U	8000 U	8000 U	8000 U	8000 U	400 U
Aroclor-1221		8000 U	8000 U	8000 U	8000 U	8000 U	400 U
Aroclor-1232		8000 U	8000 U	8000 U	8000 U	8000 U	400 U
Aroclor-1242		8000 U	8000 U	8000 U	8000 U	8000 U	400 U
Aroclor-1248		8000 U	8000 U	8000 U	8000 U	8000 U	400 U
Aroclor-1254		8000 U	8000 U	8000 U	8000 U	8000 U	400 U
Aroclor-1260		8000 U	8000 U	8000 U	8000 U	8000 U	400 U

Sample Information	Cust ID:	PBLKAS BS	PBLKAS BSD
	RFW#:	04LE1405-MB1	04LE1405-MB1
	Matrix:	SOIL	SOIL
	D.F.:	1.00	1.00
	Units:	UG/KG	UG/KG
Surrogate:	Tetrachloro-m-xylene	124 * %	118 %
	Decachlorobiphenyl	114 %	110 %
Aroclor-1016		124 %	120 %
Aroclor-1221		400 U	400 U
Aroclor-1232		400 U	400 U
Aroclor-1242		400 U	400 U
Aroclor-1248		400 U	400 U
Aroclor-1254		400 U	400 U
Aroclor-1260		119 %	117 %

U= Analyzed, not detected. J= Present below detection limit. B= Present in blank. NR= Not reported. NS= Not spiked.
%= Percent recovery. D= Diluted out. I= Interference. NA= Not Applicable. *= Outside of EPA CLP QC

12/1/04

Lionville Laboratory Use Only

0411L176

Custody Transfer Record/Lab Work Request

Page 1 of 1

VLI

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

See SRC

Client: Vermont Yankee - Vernon, VT Yankee

Est. Final Proj. Sampling Date:

Project #: 116997-600-025-C9999-00

Project Contact/Phone #:

Lionville Laboratory Project Manager: M. Hall

QC: Std Del: Std TAT: 14 Days

Date Rec'd: 11/17/04 Date Due: 12/1/04

Refrigerator #: A 3

#/Type Container: Liquid / Solid

Volume: Liquid / Solid

Preservatives

ANALYSES REQUESTED →

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	ORGANIC: VOA	BNA	Pest/PCB	Sulfur Lab	Volatile Halides	TX	TC	INORG: Metal	#	TSS	Ash	Sp. Grav.	
001	COMPOSITE OIL PLANT SYSTEMS (RAD)			O	11-5-04	N/A			OPCB	BOMB	IBTU	ITX	ITIC	METAL①		IFLSH	I%ASH		ICS04
002	Composite NNPP OIL RESERVOIR (RAD)																		
003	COMPOSITE CARBON RESERVOIR																		
004	TRANSFORMER OIL																		
005	CRANKCASE OIL																		
006	COMPOSITE PLANT SYSTEM BOMB OIL																		
007	COMP. NNPP OIL RESERVOIR	002																	
008	COMP. CARBON RESERVOIR	003																	
009	COMP. TRANSFORMER OIL	004																	
010	CRANKCASE OIL	005																	

MATRIX CODES: S - Soil, SE - Sediment, SO - Solid, SL - Sludge, W - Water, O - Oil, A - Air, DS - Drum Solids, DL - Drum Liquids, L - SP/TCLP Leachate, WI - Wipe, X - Other, F - Fish

Special Instructions: Return to Client after Test are completed.

*See Lab chron

METAL① = Sb, As, Cd, Pb, Cr

OPCB R

DATE/REVISIONS:

1.
2.
3.
4.
5.
6.

Relinquished by	Received by	Date	Time
[illegible]	[illegible]	11/17/04	0925

Relinquished by	Received by	Date	Time

Relinquished by	Received by	Time

*COMPOSITE

ORIGINAL

0411L176

VERMONT YANKEE CHAIN OF CUSTODY

Shipment Number: 2004-114
Date of Shipment: 11/9/04

Lionville Laboratory Inc.
208 Welsh Pool Road
Lionville, PA 19341-1333

Shipping Method: _____UPS
_____FEDERAL EXPRESS
_____COURIER
___xxxxx___COMMON

From: *Tim McCarthy- Radwaste / Hazwaste Supervisor*
Vermont Nuclear Power Station
P.O. Box 157 Governor Hunt Road
Vernon, VT 05354 (Phone: 802-258-5476)
(Fax: 802-258-5489)

Requested Turnaround Time__X__Standard *___Rush ___Working Days(specify #)*

ANALYSIS TO BE PERFORMED

Waste Oil From Designated Locations

Sample No.	Sample Type			Sample Type / Description / Comments	Collection Period Start M	D	HR	Stop M	D	HR	Sample Amount Volume or Weight (MKS Units)	Sulfur	Calorific Values	Arsenic	Cadmium	Lead	Chromium	PCB's	Total Halogens	Total Inorganic Chlorides	FP- Closed Cup Method	Ash			OTHER
1	L			Composite Oil Plant Systems (Rad)	11	8		11	8		1000 MLS	x	x	x	x	x	x	x	x	x	x	x			
2	L			Composite NWH Oil Reservoir (Rad)	11	8		11	8		1000 MLS	x	x	x	x	x	x	x	x	x	x	x			
3	L			Composite CAB Oil Reservoir	11	8		11	8		1000 MLS	x	x	x	x	x	x	x	x	x	x	x			
4	L			Transformer Oil	11	8		11	8		1000 MLS	x	x	x	x	x	x	x	x	x	x	x			
5	L			Crank Case Oil	11	8		11	8		1000 MLS	x	x	x	x	x	x	x	x	x	x	x			
6	L																								
7	L																								
8	L																								
9	L																								
10	L																								

Collected By: DCH
Relinquished By: Tim McCarthy

Receiv[illegible]t laboratory by: [illegible]
Date r[illegible]ed: 11/17/04

COMMENTS or SPECIAL INSTRUCTIONS

PROVIDE TWO [illegible]IES OF THE LAB REPORT

Send back unused quantities of sample to VY

Lionville Laboratory Incorporated

SAMPLE RECEIPT CHECKLIST (SRC)

CLIENT: Vermont Yankee **Date:** 11/17/04

Purchase Order / Project# /

SAF# / SOW# / Release #:

LvLI Batch # : 0411L176 **Sample Custodian:** [illegible]

NOTE: EXPLAIN ALL DISCREPANCIES

1.	Samples Hand Delivered or Shipped	Carrier Fed Ex		Airbill# 848877768 0014
2.	Custody seals on coolers or shipping container intact, signed and dated?	☐ Yes	☐ No	☑ No Seals Comments
3.	Outside of coolers or shipping containers are free from damage?	☑ Yes	☐ No	
4.	All expected paperwork received (coc and other client specific information) sealed in plastic bag and easily accessible?	☑ Yes	☐ No	
5.	Samples received cooled or ambient?	Temp 15.4 °C		Cooler # Box + Pail
6.	Custody seals on sample containers intact, signed and dated?	☐ Yes	☐ No	☑ No Seals
7.	coc signed and dated?	☑ Yes	☐ No	
8.	Sample containers are intact?	☑ Yes	☐ No	
9.	All samples on coc received? All samples received on coc?	☑ Yes	☐ No	
10.	All sample label information matches coc?	☑ Yes	☐ No	
11.	Samples properly preserved?	☑ Yes	☐ No	
12.	Samples received within hold times? Short holds taken to wet lab?	☑ Yes	☐ No	
13.	VOA, TOC, TOX free of headspace?	☐ Yes	☐ No	☑ N/A
14.	QC stickers placed on bottles designated by client?	☐ Yes	☐ No	☑ N/A
15.	Shipment meets LvLI Sample Acceptance Policy? (Identify all bottles not within policy. See reverse side for policy)	☑ Yes	☐ No	
16.	Project Manager contacted concerning discrepancies? name/date (or samples outside criteria)	☐ Yes	☐ No	☑ No Discrepancies

SR-002-B

RECEIVED
FEB 08 2005
By Lynn Dewald

Lionville Laboratory, Inc.
INORGANIC ANALYTICAL DATA PACKAGE FOR
TELEDYNE-VERMONT YANKEE

DATE RECEIVED: 11/17/04 LVL LOT # :0411L176

CLIENT ID /ANALYSIS	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
COMP OIL PLANT SYSTE						
% ASH	001	OI	04L%A016	11/08/04	11/26/04	11/26/04
% ASH	001 REP	OI	04L%A016	11/08/04	11/26/04	11/26/04
CALORIMETER BOMB PRE	001	OI	04BOMB22	11/08/04	12/01/04	12/02/04
BRITISH THERMAL UNIT	001	OI	04LRR024	11/08/04	11/22/04	11/22/04
FLASH POINT	001	OI	04LFP026	11/08/04	11/23/04	11/23/04
TOTAL HALIDES	001	OI	04LE017	11/08/04	11/29/04	11/29/04
COMP NWH OIL RESERVO						
% ASH	002	OI	04L%A016	11/08/04	11/26/04	11/26/04
CALORIMETER BOMB PRE	002	OI	04BOMB22	11/08/04	12/01/04	12/02/04
BRITISH THERMAL UNIT	002	OI	04LRR024	11/08/04	11/22/04	11/22/04
FLASH POINT	002	OI	04LFP026	11/08/04	11/23/04	11/23/04
TAL HALIDES	002	OI	04LE017	11/08/04	11/29/04	11/29/04
COMP CAB OIL RESERVO						
% ASH	003	OI	04L%A016	11/08/04	11/26/04	11/26/04
CALORIMETER BOMB PRE	003	OI	04BOMB22	11/08/04	12/01/04	12/02/04
BRITISH THERMAL UNIT	003	OI	04LRR024	11/08/04	11/22/04	11/22/04
FLASH POINT	003	OI	04LFP026	11/08/04	11/23/04	11/23/04
TOTAL HALIDES	003	OI	04LE017	11/08/04	11/29/04	11/29/04
TRANSFORMER OIL						
% ASH	004	OI	04L%A016	11/08/04	11/26/04	11/26/04
CALORIMETER BOMB PRE	004	OI	04BOMB22	11/08/04	12/01/04	12/02/04
BRITISH THERMAL UNIT	004	OI	04LRR024	11/08/04	11/22/04	11/22/04
FLASH POINT	004	OI	04LFP026	11/08/04	11/23/04	11/23/04
TOTAL HALIDES	004	OI	04LE017	11/08/04	11/29/04	11/29/04
CRANK CASE OIL						
% ASH	005	OI	04L%A016	11/08/04	11/26/04	11/26/04
CALORIMETER BOMB PRE	005	OI	04BOMB22	11/08/04	12/01/04	12/02/04

REVIEWED
FEB 10 2005
By_____

Lionville Laboratory, Inc.
INORGANIC ANALYTICAL DATA PACKAGE FOR
TELEDYNE-VERMONT YANKEE

DATE RECEIVED: 11/17/04 LVL LOT # :0411L176

CLIENT ID /ANALYSIS	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
BRITISH THERMAL UNIT	005	OI	04LRR024	11/08/04	11/22/04	11/22/04
FLASH POINT	005	OI	04LFP026	11/08/04	11/23/04	11/23/04
TOTAL HALIDES	005	OI	04LE017	11/08/04	11/29/04	11/29/04
TOTAL HALIDES	005 REP	OI	04LE017	11/08/04	11/29/04	11/29/04
TOTAL HALIDES	005 MS	OI	04LE017	11/08/04	11/29/04	11/29/04
COMP OIL PLANT SYSTE						
CHLORIDE BY IC	006	W	04LICA71	11/08/04	12/02/04	12/02/04
CHLORIDE BY IC	006 REP	W	04LICA71	11/08/04	12/02/04	12/02/04
CHLORIDE BY IC	006 MS	W	04LICA71	11/08/04	12/02/04	12/02/04
SULFATE BY IC	006	W	04LICA71	11/08/04	12/02/04	12/02/04
SULFATE BY IC	006 REP	W	04LICA71	11/08/04	12/02/04	12/02/04
SULFATE BY IC	006 MS	W	04LICA71	11/08/04	12/02/04	12/02/04
COMP NWH OIL RESERVO						
CHLORIDE BY IC	007	W	04LICA71	11/08/04	12/02/04	12/02/04
SULFATE BY IC	007	W	04LICA71	11/08/04	12/02/04	12/02/04
P CAB OIL RESERVO						
CHLORIDE BY IC	008	W	04LICA71	11/08/04	12/02/04	12/02/04
SULFATE BY IC	008	W	04LICA71	11/08/04	12/02/04	12/02/04
TRANSFORMER OIL						
CHLORIDE BY IC	009	W	04LICA71	11/08/04	12/02/04	12/02/04
SULFATE BY IC	009	W	04LICA71	11/08/04	12/02/04	12/02/04
CRANK CASE OIL						
CHLORIDE BY IC	010	W	04LICA71	11/08/04	12/02/04	12/02/04
SULFATE BY IC	010	W	04LICA71	11/08/04	12/02/04	12/02/04

LAB QC:

% ASH	MB1	W	04L%A016	N/A	11/26/04	11/26/04

Lionville Laboratory, Inc.
INORGANIC ANALYTICAL DATA PACKAGE FOR
TELEDYNE-VERMONT YANKEE

DATE RECEIVED: 11/17/04 LVL LOT # :0411L176

CLIENT ID /ANALYSIS	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
BRITISH THERMAL UNIT	MB1 BS	W	04LRR024	N/A	11/22/04	11/22/04
TOTAL HALIDES	MB1	W	04LE017	N/A	11/29/04	11/29/04
TOTAL HALIDES	MB1 BS	W	04LE017	N/A	11/29/04	11/29/04
CHLORIDE BY IC	MB1	W	04LICA71	N/A	12/02/04	12/02/04
CHLORIDE BY IC	MB1 BS	W	04LICA71	N/A	12/02/04	12/02/04
CHLORIDE BY IC	MB2	W	04LICA71	N/A	12/02/04	12/02/04
SULFATE BY IC	MB1	W	04LICA71	N/A	12/02/04	12/02/04
SULFATE BY IC	MB1 BS	W	04LICA71	N/A	12/02/04	12/02/04
SULFATE BY IC	MB2	W	04LICA71	N/A	12/02/04	12/02/04

12-30-04

~~02~~ 03

LIONVILLE LABORATORY INC.

Analytical Report

Client: TELEDYNE-VERMONT YANKEE
LVL#: 0411L176

W.O.#: 11699-600-005-9999-00
Date Received: 11-17-04

INORGANIC NARRATIVE

1. This narrative covers the analyses of 5 oil samples.

2. The samples were prepared and analyzed in accordance with the methods indicated on the attached glossary. The Sulfate by IC results obtained from the oxygen bomb preparation represent the requested Sulfur analysis (Total Sulfate results were converted to Sulfur). The requested Total Inorganic Chloride is reported as total Chloride by IC from the oxygen bomb preparation due to the nature of the sample matrix.

3. Sample holding times as required by the method and/or contract were met.

4. The results presented in this report are derived from samples that did not meet LvLI's sample acceptance policy as noted on the Sample Receipt Checklist.

5. The method blanks were within the method criteria: MB 04LICA71-MB2 represents the oxygen bomb preparation blank.

6. The Laboratory Control Samples (LCS) were within the laboratory control limits.

7. The matrix spike recoveries for Total Halides, Chloride and Sulfate were within the 75-125% control limits.

8. The replicate analyses for Percent Ash, Chloride and Sulfate were within the 20% Relative Percent Difference (RPD) control limit however replicate analysis for Total Halides was outside the control limit that may be attributed to sample inhomogeneity.

9. Results for oil samples are reported on a wet weight basis.

Judy Stone
Iain Daniels
Laboratory Manager
Lionville Laboratory Incorporated

1/4/05
Date

njp\i11-176

The results presented in this report relate to the analytical testing and conditions of the samples upon receipt and during storage. All pages of this report are integral parts of the analytical data. Therefore, this report should only be reproduced in its entirety of 15 pages.

208 Welsh Pool Road • Exton, PA 19341- 1313 • (610) 280-3000 • Fax (610) 280-3041

Lionville Laboratory Sample Discrepancy Report (SDR)

SDR #: 04WC027

Initiator: Nicki Perrone
Date: 12-8-04
Client: Teledyne-VT Yankee

Batch: 04112176
Samples: 001 → 005
Method: SW846/MCAWW/CLP/

Parameter: ITIC
Matrix: oil
Prep Batch: —

1. Reason for SDR

a. COC Discrepancy
__ Tech Profile Error
__ Transcription Error
X Client Request
__ Wrong Test Code
__ Sampler Error on C-O-C
__ Other _____

b. General Discrepancy
__ Missing Sample/Extract*
__ Hold Time Exceeded
__ Improper Bottle Type
__ Container Broken
__ Insufficient Sample*
__ Not Amenable to Analysis
__ Wrong Sample Pulled
__ Preservation Wrong
__ Label ID's Illegible
__ Received Past Hold

Note*: Verified by [Log-In] or [Prep Group] (circle)...signature/date: _____

c. Problem (Include all relevant specific results; attach data if necessary)

Client did not request Total Inorganic Carbon-

2. Known or Probable Causes(s)

Client requested Total Inorganic Chloride

3. Discussion and Proposed Action

__ Re-log
__ Entire Batch
__ Following Samples: _____
__ Re-leach
__ Re-extract
__ Re-digest
__ Revise EDD
__ Change Test Code to _____
__ Place On/Take Off Hold (circle)

Other Description:

Please cancel ~~TIC~~ ITIC on samples -001 → 005 AND add ICCL to samples -006 → -010.

4. Project Manager Instructions...signature/date: 12.08.04

(A) Concur with Proposed Action
__ Disagree with Proposed Action; See Instruction
(B) Include in Case Narrative
__ Client Contacted:
Date/Person _____
__ Add
__ Cancel

5. Final Action...signature/date: JPerry 12/8/04

__ Verified re-[log][leach][extract][digest][analysis] (circle)
✓ Included in Case Narrative JP 12-30-04
__ Hard Copy COC Revised
__ Electronic COC Revised
__ EDD Corrections Completed

Other Explanation:

ITIC cancelled for 001-005
ICCL added for 006-010
in LIMS
Revisions noted on COC.

When Final Action has been recorded, forward original to QA Specialist for distribution and filing.

Route	Distribution of Completed SDR	Route	Distribution of Completed SDR
__	X Initiator	__	__ Metals: Beegle
__	X Lab General Manager: M. Taylor	(3)	__ Inorganic: Perrone
(1)	X Project Mgr: Stone/Johnson/Haslett	__	__ GC/LC: Kiger
__	X Technical Mgr: Wesson/Daniels	__	__ MS: Rychlak/Layman
(4)	X QA (file): ~~Alberts~~ Schrenkel JP 12-30-04	(2)	__ Log-in: ~~Melnic~~ Perry jsp 12-8-04
__	__ Data Management: Feldman	__	__ Admin: Soos
__	__ Sample Prep: Beegle/Kiger	__	__ Other: _____

JP 12-8-04

QA-105-A-0801

Lionville Laboratory Incorporated

WET CHEMISTRY

METHODS GLOSSARY FOR SOIL/SOLIDS SAMPLE ANALYSIS

	ASTM	SW846	OTHER
% Ash	✓ ~~D2216-80~~ 482 rsp 12-30-04		
% Moisture	__ D2216-80		__ ILMO4.0 (e)
% Solids	__ D2216-80		__ ILMO4.0 (e)
% Volatile Solids	__ D2216-80		
ASTM Extraction in Water	__ D3987-81/85		
BTU	✓ D240-87		
CEC		__ 9081	__ c
Chromium VI		__ 3060A/7196A	
Corrosivity ___ by coupon ___ by pH		__ 1110(mod) __ 9045C	
Cyanide, Total		__ 9010B	__ ILMO4.0 (e)
Cyanide, Reactive		__ Section 7.3/9014	
Halides, Extractable Organic		__ 9020B	__ EPA 600/4/84-008
Halides, Total		✓ 90~~20B~~23 (mod.) rsp 12-30-04	__ EPA 600/4/84-008
Toxicity		__ 1310A	
Flash Point		✓ 1010	
Ignitability		__ 1010	
Oil & Grease		__ 9071A	
Carbon, Total Organic		__ 9060	__ Lloyd Kahn (mod)
Oxygen Bomb Prep for Anions	__ D240-87(mod)	✓ 5050	
Petroleum Hydrocarbons, Total Recoverable		__ 9071	__ EPA 418.1
pH, Soil		__ 9045C	
Sulfide, Reactive		__ Section 7.3/9030B	
Sulfide		__ 9030B(mod)	
Specific Gravity	__ D1429-76C/	__ D5057-90	
Sulfur, Total		__ 9056	
Synthetic Preparation Leach		__ 1312	
Paint Filter		__ 9095A	

Other: Sulfur as Sulfate by IC Method: } SW9056 (mod)

Other: Total Chloride by IC Method }

L-WI-034/B-01/01

Lionville Laboratory Incorporated

METHOD REFERENCES AND DATA QUALIFIERS

DATA QUALIFIERS

U = Indicates that the parameter was not detected at or above the reported limit. The associated numerical value is the sample detection limit.

* = Indicates that the original sample result is greater than 4x the spike amount added.

ABBREVIATIONS

MB = Method or Preparation Blank.
MS = Matrix Spike.
MSD = Matrix Spike Duplicate.
REP = Sample Replicate
LC = Laboratory Control Sample.
NC = Not calculated.

A suffix of -R, -S, or -T following these codes indicate a replicate, spike or sample duplicate analysis respectively.

ANALYTICAL WET CHEMISTRY METHODS

1. ASTM Standard Methods.

2. USEPA Methods for Chemical Analysis of Water and Wastes (USEPA 600/4-79-020).

3. Test Methods for Evaluating Solid Waste (USEPA SW-846).

a. Standard Methods for the Examination of Water and Waste, 16 ed, (1983).

b. Standard Methods for the Examination of Water and Waste, 17 ed, (1989)/18ed (1992).

c. Method of Soil Analysis, Part 1, Physical and Mineralogical Methods, 2nd ed, (1986).

d. Method of Soil Analysis, Part 2, Chemical and Microbiological Properties, Am. Soc. Agron., Madison, WI (1965).

e. USEPA Contract Laboratory Program, Statement of Work for Inorganic Analysis.

f. Code of Federal Regulations.

Inorganic Data Summary Report
Physical Testing Observation

Client: TELEDYNE-VERMONT YANKEE
LVL#: 0411L176

W.O.#: 11699-600-005-9999-00
Date Received: 11-17-04

Analyte:	**Observation:**
Flash Point	No Flash Points observed for samples COMP OIL PLANT SYSTEM, COMP NWH OIL RESERVOIR, COMP CAB OIL RESERVOIR, TRANSFORMER OIL and CRANK CASE OIL. The samples were heated to approximately 200°F. p-Xylene was used to determined the accuracy of the flash point apparatus. The p-Xylene will flash at 81°F +/- 1°F. For this test, the p-Xylene flashed at 81°F.

njp\11-176.pt2

LVLI
LIONVILLE LABORATORY INC.

Lionville Laboratory, Inc.

INORGANICS DATA SUMMARY REPORT 12/08/04

CLIENT: TELEDYNE-VERMONT YANKEE

LVL LOT #: 0411L176

WORK ORDER: 11699-600-005-9999-00

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
-001	COMP OIL PLANT SYSTE	% Ash	0.16	%	0.01	1.0
		British Thermal Units	5740	BTU/LB	205	1.0
		Total Halides	98.8 u	MG/KG	98.8	1.0
-002	COMP NWH OIL RESERVO	% Ash	0.01 u	%	0.01	1.0
		British Thermal Units	15700	BTU/LB	182	1.0
		Total Halides	442	MG/KG	81.4	1.0
-003	COMP CAB OIL RESERVO	% Ash	0.01 u	%	0.01	1.0
		British Thermal Units	15300	BTU/LB	215	1.0
		Total Halides	487	MG/KG	95.9	1.0
-004	TRANSFORMER OIL	% Ash	0.01	%	0.01	1.0
		British Thermal Units	14900	BTU/LB	182	1.0
		Total Halides	114	MG/KG	94.0	1.0
-005	CRANK CASE OIL	% Ash	0.42	%	0.01	1.0
		British Thermal Units	17000	BTU/LB	174	1.0
		Total Halides	111 u	MG/KG	111	1.0
-006	COMP OIL PLANT SYSTE	Chloride by IC	360	MG/KG	141	10.0
		Sulfate by IC	3370	MG/KG	235	50.0
-007	COMP NWH OIL RESERVO	Chloride by IC	312	MG/KG	167	10.0
		Sulfate by IC	1090	MG/KG	55.7	10.0
-008	COMP CAB OIL RESERVO	Chloride by IC	277	MG/KG	195	10.0
		Sulfate by IC	1390	MG/KG	65.2	10.0
-009	TRANSFORMER OIL	Chloride by IC	248	MG/KG	223	10.0
		Sulfate by IC	763	MG/KG	74.6	10.0
-010	CRANK CASE OIL	Chloride by IC	317	MG/KG	216	10.0
		Sulfate by IC	3630	MG/KG	360	50.0

Lionville Laboratory, Inc.

INORGANICS METHOD BLANK DATA SUMMARY PAGE 12/08/04

CLIENT: TELEDYNE-VERMONT YANKEE LVL LOT #: 0411L176

WORK ORDER: 11699-600-005-9999-00

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT	DILUTION FACTOR
BLANK10	04L%A016-MB1	% Ash	0.01	u	%	0.01	50.0
BLANK1	04LE017-MB1	Total Halides	20.0	u	MG/KG	20.0	1.0
BLANK10	04LICA71-MB1	Chloride by IC	12.5	u	MG/KG	12.5	1.0
		Sulfate by IC	4.2	u	MG/KG	4.2	1.0
BLANK20	04LICA71-MB2	Chloride by IC	71.4		MG/KG	24.3	2.0
		Sulfate by IC	209		MG/KG	8.1	2.0

Lionville Laboratory, Inc.

INORGANICS ACCURACY REPORT 12/08/04

CLIENT: TELEDYNE-VERMONT YANKEE

LVL LOT #: 0411L176

WORK ORDER: 11699-600-005-9999-00

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	INITIAL RESULT	SPIKED AMOUNT	%RECOV	DILUTION FACTOR(SPK)
-005	CRANK CASE OIL	Total Halides	2220	109	2350	89.5	1.0
-006	COMP OIL PLANT SYSTE	Chloride by IC	6400	360	5630	107.2	20.0
		Sulfate by IC	14400	3370	9410	117.2	100
BLANK10	04LRR024-MB1	British Thermal Units	10900	0.0	11400	95.5	50.0
BLANK1	04LE017-MB1	Total Halides	537	20.0 u	500	107.3	1.0
BLANK10	04LICA71-MB1	Chloride by IC	232	12.5 u	250	92.7	1.0
		Sulfate by IC	80.0	4.2 u	83.5	95.8	1.0

Lionville Laboratory, Inc.

INORGANICS PRECISION REPORT 12/08/04

CLIENT: TELEDYNE-VERMONT YANKEE

LVL LOT #: 0411L176

WORK ORDER: 11699-600-005-9999-00

SAMPLE	SITE ID	ANALYTE	INITIAL RESULT	REPLICATE	RPD	DILUTION FACTOR(REP)
-001REP	COMP OIL PLANT SYSTE	% Ash	0.16	0.18	11.8 MP12-30-04	1.0
-005REP	CRANK CASE OIL	Total Halides	111 u	156	~~NC~~ 35.D	1.0
-006REP	COMP OIL PLANT SYSTE	Chloride by IC	360	298	18.8	10.0
		Sulfate by IC	3370	3490	3.6	50.0

met, dig (6) pl/pcb tran, nicki

Lionville Laboratory Use Only

04111L176

Custody Transfer Record / Lab Work Request

Page 1 of 1

CVLI

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

See SRC

Client: Vermont Yankee - Teledyne - VY Yankee

Est. Final Proj. Sampling Date

Project #: 211899-600-085-19999-00

Project Contact/Phone #

Lionville Laboratory Project Manager: MH

QC: Std Del: Std TAT: 12 Days

Date Rec'd: 11/17/04 Date Due: 12/1/04

Refrigerator #		A 3												
#/Type Container	Liquid / Solid	P												
Volume	Liquid / Solid	L												
Preservatives														
ANALYSES REQUESTED →		ORGANIC: VOA	BNA	Pest/PCB	Sulfur Hb	Aromatic Volatiles	TX	ETC	INORG: Metal	#	FP	ASH	BOMB	BOMB
Lionville Laboratory Use Only				OPCB	FBOMB	IBTU	ITX	ITIC	METALO		IFLSH	I%ASH		ICSO4	ICCL

MATRIX CODES: S - Soil; SE - Sediment; SOL - Solids; SL - Sludge; W - Water; O - Oil; A - Air; DS - Drum Solids; DL - Drum Liquids; L - EP/TCLP Leachate; WI - Wipe; X - Other; F - Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected														
001	Composite Oil Plant Systems (RAD)			O	11-8-04	N/A			1	✓	✓	✓	✓	✓		✓	✓			
002	Composite NNH Oil Reservoir (RAD)								1	✓	✓	✓	✓	✓		✓	✓			
003	Composite CAB Oil Reservoir								1	✓	✓	✓	✓	✓		✓	✓			
004	Transformer Oil								1	✓	✓	✓	✓	✓		✓	✓			
005	Crank Case Oil								1	✓	✓	✓	✓	✓		✓	✓			
006	Comp. Oil Plant System Bomb Fuel																	✓	✓	
007	Comp. NNH Oil Reservoir	002																✓	✓	
008	Comp. CAB Oil Reservoir	003																✓	✓	
009	Crank Case Transformer Oil	004																✓	✓	
010	Crank Case Oil	005																✓	✓	

Special Instructions: Return to Client after Test are completed.

*See Labchron

METALO = Sb, As, Cd, Pb, Cr
Sb/Ni/Cr

DATE/REVISIONS:

12/8/04 1. ITIC cancelled / ICCL added per SDR # 04WC027

2.

3.

4.

5.

6.

Relinquished by	Received by	Date	Time
[signature]	[signature]	11/17/04	0925

Relinquished by	Received by	Date	Time

Relinquished by	Received by	Date	Time
"COMPOSITE WASTE"			

ORIGINAL REWRITTEN

04/11LIF

VERMONT YANKEE CHAIN OF CUSTODY

14

Shipment Number: 2004-114
Date of Shipment: 11/9/04

Lionville Laboratory Inc.
208 Welsh Pool Road
Lionville, PA 19341-1333

Shipping Method: _____UPS
_____FEDERAL EXPRESS
_____COURIER
___xxxxx___COMMON

From: *Tim McCarthy- Radwaste / Hazwaste Supervisor*
Vermont Nuclear Power Station
P.O. Box 157 Governor Hunt Road
Vernon, VT 05354 (Phone: 802-258-5476)
(Fax: 802-258-5489)

Requested Turnaround Time__X__Standard *___Rush ___Working Days(specify #)*

ANALYSIS TO BE PERFORMED

Waste Oil From Designated Locations

Sample No.	Sample Type			Sample Type / Description / Comments	Collection Period Start M	D	HR	Stop M	D	HR	Sample Amount Volume or Weight (MKS Units)	Sulfur	Calorific Values	Arsenic	Cadmium	Lead	Chromium	PCB's	Total Halogens	Total Inorganic Chlorides	FP- Closed Cup Method	Ash			OTHER
1	L			Composite Oil Plant Systems (Rad)	11	8		11	8		1000 MLS	x	x	x	x	x	x	x	x	x	x	x			
2	L			Composite NWH Oil Reservoir (Rad)	11	8		11	8		1000 MLS	x	x	x	x	x	x	x	x	x	x	x			
3	L			Composite CAB Oil Reservoir	11	8		11	8		1000 MLS	x	x	x	x	x	x	x	x	x	x	x			
4	L			Transformer Oil	11	8		11	8		1000 MLS	x	x	x	x	x	x	x	x	x	x	x			
5	L			Crank Case Oil	11	8		11	8		1000 MLS	x	x	x	x	x	x	x	x	x	x	x			
6	L																								
7	L																								
8	L																								
9	L																								
10	L																								

Collected By: DCH
Relinquished By: Tim McCarthy
Received at laboratory by: J. Kiernan
Date received: 11/17/04

COMMENTS or SPECIAL INSTRUCTIONS

PROVIDE TWO COPIES OF THE LAB REPORT

Send back unused quantities of sample to VY

Lionville Laboratory Incorporated

SAMPLE RECEIPT CHECKLIST (SRC)

CLIENT: Vermont Yankee **Date:** 11/17/04

Purchase Order / Project# /
SAF# / SOW# / Release #:

LvLI Batch #: 0411C176 **Sample Custodian:** V. Hernandez

NOTE: EXPLAIN ALL DISCREPANCIES

1. Samples Hand Delivered or Shipped — Carrier Fed Ex — Airbill# 848877768 0014

2. Custody seals on coolers or shipping container intact, signed and dated?	☐ Yes	☐ No	☑ No Seals	Comments
3. Outside of coolers or shipping containers are free from damage?	☑ Yes	☐ No		
4. All expected paperwork received (coc and other client specific information) sealed in plastic bag and easily accessible?	☑ Yes	☐ No		
5. Samples received cooled or ambient?	Temp 15.4 °C		Cooler # Box w Pail	
6. Custody seals on sample containers intact, signed and dated?	☐ Yes	☐ No	☑ No Seals	
7. coc signed and dated?	☑ Yes	☐ No		
8. Sample containers are intact?	☑ Yes	☐ No		
9. All samples on coc received? All samples received on coc?	☑ Yes	☐ No		
10. All sample label information matches coc?	☑ Yes	☐ No		
11. Samples properly preserved?	☑ Yes	☐ No		
12. Samples received within hold times? Short holds taken to wet lab?	☑ Yes	☐ No		
13. VOA, TOC, TOX free of headspace?	☐ Yes	☐ No	☑ N/A	
14. QC stickers placed on bottles designated by client?	☐ Yes	☐ No	☑ N/A	
15. Shipment meets LvLI Sample Acceptance Policy? (Identify all bottles not within policy. See reverse side for policy)	☑ Yes	☑ No	See #5 above range (0-6°C)	
16. Project Manager contacted concerning discrepancies? name/date (or samples outside criteria)	☐ Yes	☐ No	☑ No Discrepancies	

MP 12-3-04

SR-002-B

VERMONT YANKEE CHAIN OF CUSTODY

Shipment Number: 2004-114
Date of Shipment: 11/9/04

Lionville Laboratory Inc.
208 Welsh Pool Road
Lionville, PA 19341-1333

Shipping Method: _____UPS
_____FEDERAL EXPRESS
_____COURIER
____xxxxx___COMMON

From: *Tim McCarthy- Radwaste / Hazwaste Supervisor*
Vermont Nuclear Power Station
P.O. Box 157 Governor Hunt Road
Vernon, VT 05354 *(Phone: 802-258-5476)*
(Fax: 802-258-5489)

Requested Turnaround Time__X__Standard ___ *Rush* ____*Working Days(specify #)*

ANALYSIS TO BE PERFORMED

Waste Oil From Designated Locations

Sample No.	Sample Type			Sample Type / Description / Comments	Collection Period Start M	D	HR	Stop M	D	HR	Sample Amount Volume or Weight (MKS Units)	Sulfur	Calorific Values	Arsenic	Cadmium	Lead	Chromium	PCB's	Total Halogens	Total Inorganic Chlorides	FP- Closed Cup Method	Ash			OTHER
1	L			Composite Oil Plant Systems (Rad)	11	8		11	8		1000 MLS	x	x	x	x	x	x	x	x	x	x	x			
2	L			Composite NWH Oil Reservoir (Rad)	11	8		11	8		1000 MLS	x	x	x	x	x	x	x	x	x	x	x			
3	L			Composite CAB Oil Reservoir	11	8		11	8		1000 MLS	x	x	x	x	x	x	x	x	x	x	x			
4	L			Transformer Oil	11	8		11	8		1000 MLS	x	x	x	x	x	x	x	x	x	x	x			
5	L			Crank Case Oil	11	8		11	8		1000 MLS	x	x	x	x	x	x	x	x	x	x	x			
6	L																								
7	L																								
8	L																								
9	L																								
10	L																								

Collected By: DCH
Relinquished By: Tim McCarthy

Received at laboratory by:_____
Date received:_____

COMMENTS or SPECIAL INSTRUCTIONS

PROVIDE TWO COPIES OF THE LAB REPORT

VERMONT YANKEE CHAIN OF CUSTODY

Shipment Number: 2004-114
Date of Shipment: 11/9/04

Lionville Laboratory Inc.
208 Welsh Pool Road
Lionville, PA 19341-1333

Shipping Method: _____UPS
_____FEDERAL EXPRESS
_____COURIER
____xxxxx___COMMON

From: *Tim McCarthy- Radwaste / Hazwaste Supervisor*
Vermont Nuclear Power Station
P.O. Box 157 Governor Hunt Road
Vernon, VT 05354 *(Phone: 802-258-5476)*
(Fax: 802-258-5489)

Requested Turnaround Time__X__Standard ___ *Rush* ____*Working Days(specify #)*

ANALYSIS TO BE PERFORMED

Waste Oil From Designated Locations

Sample No.	Sample Type			Sample Type / Description / Comments	Collection Period Start M	Start D	Start HR	Stop M	Stop D	Stop HR	Sample Amount Volume or Weight (MKS Units)	Sulfur	Calorific Values	Arsenic	Cadmium	Lead	Chromium	PCB's	Total Halogens	Total Inorganic Chlorides	FP- Closed Cup Method	Ash			OTHER
1	L			Composite Oil Plant Systems (Rad)	11	8		11	8		1000 MLS	x	x	x	x	x	x	x	x	x	x	x			
2	L			Composite NWH Oil Reservoir (Rad)	11	8		11	8		1000 MLS	x	x	x	x	x	x	x	x	x	x	x			
3	L			Composite CAB Oil Reservoir	11	8		11	8		1000 MLS	x	x	x	x	x	x	x	x	x	x	x			
4	L			Transformer Oil	11	8		11	8		1000 MLS	x	x	x	x	x	x	x	x	x	x	x			
5	L			Crank Case Oil	11	8		11	8		1000 MLS	x	x	x	x	x	x	x	x	x	x	x			
6	L																								
7	L																								
8	L																								
9	L																								
10	L																								

Collected By: DCH
Relinquished By: Tim McCarthy

Received at laboratory by:_____
Date received:_____

COMMENTS or SPECIAL INSTRUCTIONS

PROVIDE TWO COPIES OF THE LAB REPORT

REVIEWED

FEB 10 2005

By_____

RECEIVED
FEB 08 2005
By Lynn Deuald

Lionville Laboratory, Inc.
INORGANIC ANALYTICAL DATA PACKAGE FOR
TELEDYNE-VERMONT YANKEE

DATE RECEIVED: 11/17/04 LVL LOT # :0411L176

CLIENT ID /ANALYSIS	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
COMP OIL PLANT SYSTE						
ARSENIC, TOTAL	001	OI	04L0701	11/08/04	11/19/04	11/20/04
ARSENIC, TOTAL	001 REP	OI	04L0701	11/08/04	11/19/04	11/20/04
ARSENIC, TOTAL	001 MS	OI	04L0701	11/08/04	11/19/04	11/20/04
CADMIUM, TOTAL	001	OI	04L0701	11/08/04	11/19/04	11/20/04
CADMIUM, TOTAL	001 REP	OI	04L0701	11/08/04	11/19/04	11/20/04
CADMIUM, TOTAL	001 MS	OI	04L0701	11/08/04	11/19/04	11/20/04
CHROMIUM, TOTAL	001	OI	04L0701	11/08/04	11/19/04	11/20/04
CHROMIUM, TOTAL	001 REP	OI	04L0701	11/08/04	11/19/04	11/20/04
CHROMIUM, TOTAL	001 MS	OI	04L0701	11/08/04	11/19/04	11/20/04
LEAD, TOTAL	001	OI	04L0701	11/08/04	11/19/04	11/20/04
L[illegible], TOTAL	001 REP	OI	04L0701	11/08/04	11/19/04	11/20/04
L[illegible], TOTAL	001 MS	OI	04L0701	11/08/04	11/19/04	11/20/04
COMP NWH OIL RESERVO						
ARSENIC, TOTAL	002	OI	04L0701	11/08/04	11/19/04	11/20/04
CADMIUM, TOTAL	002	OI	04L0701	11/08/04	11/19/04	11/20/04
CHROMIUM, TOTAL	002	OI	04L0701	11/08/04	11/19/04	11/20/04
LEAD, TOTAL	002	OI	04L0701	11/08/04	11/19/04	11/20/04
COMP CAB OIL RESERVO						
ARSENIC, TOTAL	003	OI	04L0701	11/08/04	11/19/04	11/20/04
CADMIUM, TOTAL	003	OI	04L0701	11/08/04	11/19/04	11/20/04
CHROMIUM, TOTAL	003	OI	04L0701	11/08/04	11/19/04	11/20/04
LEAD, TOTAL	003	OI	04L0701	11/08/04	11/19/04	11/20/04
TRANSFORMER OIL						
ARSENIC, TOTAL	004	OI	04L0701	11/08/04	11/19/04	11/20/04
CADMIUM, TOTAL	004	OI	04L0701	11/08/04	11/19/04	11/20/04
CHROMIUM, TOTAL	004	OI	04L0701	11/08/04	11/19/04	11/20/04
LEAD, TOTAL	004	OI	04L0701	11/08/04	11/19/04	11/20/04
CRANK CASE OIL						
A[illegible]NIC, TOTAL	005	OI	04L0701	11/08/04	11/19/04	11/20/04

Lionville Laboratory, Inc.
INORGANIC ANALYTICAL DATA PACKAGE FOR
TELEDYNE-VERMONT YANKEE

DATE RECEIVED: 11/17/04 LVL LOT # :0411L176

CLIENT ID /ANALYSIS	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
CADMIUM, TOTAL	005	OI	04L0701	11/08/04	11/19/04	11/20/04
CHROMIUM, TOTAL	005	OI	04L0701	11/08/04	11/19/04	11/20/04
LEAD, TOTAL	005	OI	04L0701	11/08/04	11/19/04	11/20/04

LAB QC:

ARSENIC LABORATORY	LC1 BS	S	04L0701	N/A	11/19/04	11/20/04
ARSENIC, TOTAL	MB1	S	04L0701	N/A	11/19/04	11/20/04
CADMIUM LABORATORY	LC1 BS	S	04L0701	N/A	11/19/04	11/20/04
CADMIUM, TOTAL	MB1	S	04L0701	N/A	11/19/04	11/20/04
CHROMIUM LABORATORY	LC1 BS	S	04L0701	N/A	11/19/04	11/20/04
CHROMIUM, TOTAL	MB1	S	04L0701	N/A	11/19/04	11/20/04
LEAD LABORATORY	LC1 BS	S	04L0701	N/A	11/19/04	11/20/04
LEAD, TOTAL	MB1	S	04L0701	N/A	11/19/04	11/20/04

LIONVILLE LABORATORY INC.

Analytical Report

Client : TELEDYNE VERMONT-YANKEE
LVL# : 0411L176

W.O.# : 11699-600-005-9999-00
Date Received: 11-17-04

METALS CASE NARRATIVE

1. This narrative covers the analyses of 5 oil samples.

2. The samples were prepared and analyzed in accordance with methods checked on the attached glossary.

3. All analyses were performed within the required holding times.

4. All results presented in this report are derived from samples that met LvLI's sample acceptance policy.

5. All Initial and Continuing Calibration Verifications (ICV/CCVs) were within control limits.

6. All Initial and Continuing Calibration Blanks (ICB/CCBs) were within control limits.

7. All preparation/method blanks were within method criteria. Refer to the Inorganics Method Blank Data Summary.

8. All ICP Interference Check Standards were within control limits.

9. All laboratory control samples (LCS) were within the 80-120% control limits. Refer to the Inorganics Laboratory Control Standards Report.

10. All matrix spike (MS) recoveries were within the 75-125% control limits. Refer to the Inorganics Accuracy Report.

11. The duplicate analysis for 1 analyte was outside the 20% Relative Percent Difference (RPD) control limits. Refer to the Inorganics Precision Report.

12. For the purposes of this report, the data has been reported to the Instrument Detection Limit (IDL). Values between the IDL and the Practical Quantitation Limit (PQL) are acquired in a region of less-certain quantification.

Iain Daniels
Laboratory Manager
Lionville Laboratory Incorporated

12/13/04
Date

gmb/m11-176

The results presented in this report relate only to the analytical testing and conditions of the samples at receipt and during storage. All pages of this report are integral parts of the analytical data. Therefore, this report should only be reproduced in its entirety of 13 pages.

METALS METHOD GLOSSARY

The following methods are used as reference for the digestion and analysis of samples contained within this Lot: 04LL176

Leaching Procedure: __1310 __1311 __1312 __Other:_____

CLP Metals __ Digestion and __ Analysis Methods: __ILM03.0 __ILM04.0

Metals Digestion Methods: __3005A __3010A __3015 __3020A ✓3050B __3051 __200.7 __SS17
__Other:_____

Metals Analysis Methods

	SW846		EPA		STD MTD	EPA OSWR	USATHAMA
Aluminum	__6010B		__200.7				__99
Antimony	__6010B	__7041 [5]	__200.7	__204.2			__99
Arsenic	✓6010B	__7060A [5]	__200.7	__206.2	__3113B		__99
Barium	__6010B		__200.7				__99
Beryllium	__6010B		__200.7				__99
Bismuth	__6010B [1]		__200.7 [1]			__1620	__99
Boron	__6010B		__200.7				__99
Cadmium	✓6010B	__7131A [5]	__200.7	__213.2			__99
Calcium	__6010B		__200.7				__99
Chromium	✓6010B	__7191 [5]	__200.7	__218.2			__SS17
Cobalt	__6010B		__200.7				__99
Copper	__6010B	__7211 [5]	__200.7	__220.2			__99
Iron	__6010B		__200.7				__99
Lead	✓6010B	__7421 [5]	__200.7	__239.2	__3113B		__99
Lithium	__6010B	__7430 [4]	__200.7			__1620	__99
Magnesium	__6010B		__200.7				__99
Manganese	__6010B		__200.7				__99
Mercury	__7470A [3]	__7471A [3]	__245.1 [2]	__245.5 [2]			__99
Molybdenum	__6010B		__200.7				__99
Nickel	__6010B		__200.7				__99
Potassium	__6010B	__7610 [4]	__200.7	__258.1 [4]			__99
Rare Earths	__6010B [1]		__200.7 [1]			__1620	__99
Selenium	__6010B	__7740 [5]	__200.7	__270.2	__3113B		__99
Silicon	__6010B [1]		__200.7			__1620	__99
Silica	__6010B		__200.7			__1620	__99
Silver	__6010B	__7761 [5]	__200.7	__272.2			__99
Sodium	__6010B	__7770 [4]	__200.7	__273.1 [4]			__99
Strontium	__6010B		__200.7				__99
Thallium	__6010B	__7841 [5]	__200.7	__279.2 __200.9			__99
Tin	__6010B		__200.7				__99
Titanium	__6010B		__200.7				__99
Uranium	__6010B [1]		__200.7 [1]			__1620	__99
Vanadium	__6010B		__200.7				__99
Zinc	__6010B		__200.7				__99
Zirconium	__6010B [1]		__200.7 [1]			__1620	__99

Other:_____ Method:_____

L-WI-033/M-03/01

METHOD REFERENCES AND DATA QUALIFIERS

DATA QUALIFIERS

U = Indicates that the parameter was not detected at or above the reported limit. The associated numerical value is the sample detection limit.

* = Indicates that the original sample result is greater than 4x the spike amount added.

ABBREVIATIONS

MB = Method or Preparation Blank.
MS = Matrix Spike.
MSD = Matrix Spike Duplicate.
REP = Sample Replicate
LCS = Laboratory Control Sample.
NC = Not calculated.

ANALYTICAL METAL METHODS

1. Not included in the method element list.

2. Modified Hg: Hg1 and Hg2 require less total volume of digestate due to the autosampler analysis. Sample volumes and reagents for mercury determinations in water and soil have been proportionately scaled down to adapt to this semi-automated technique. The sample volume used for water analysis is 33 mL. For soils, approximately 0.3 grams of sample is taken to a final volume of 50 mL (including all reagents).

3. Flame AA.

4. Graphite Furnace AA.

L-WI-033/N-04/98

Lionville Laboratory, Inc.

INORGANICS DATA SUMMARY REPORT 11/30/04

CLIENT: TELEDYNE-VERMONT YANKEE LVL LOT #: 0411L176

WORK ORDER: 11699-600-005-9999-00

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
-001	COMP OIL PLANT SYSTE	Arsenic, Total	0.24 u	MG/KG	0.24	1.0
		Cadmium, Total	0.03	MG/KG	0.03	1.0
		Chromium, Total	0.13	MG/KG	0.07	1.0
		Lead, Total	0.92	MG/KG	0.21	1.0
-002	COMP NWH OIL RESERVO	Arsenic, Total	0.25 u	MG/KG	0.25	1.0
		Cadmium, Total	0.31	MG/KG	0.03	1.0
		Chromium, Total	0.24	MG/KG	0.08	1.0
		Lead, Total	14.7	MG/KG	0.21	1.0
-003	COMP CAB OIL RESERVO	Arsenic, Total	0.32	MG/KG	0.23	1.0
		Cadmium, Total	0.03 u	MG/KG	0.03	1.0
		Chromium, Total	0.17	MG/KG	0.07	1.0
		Lead, Total	11.0	MG/KG	0.19	1.0
-0	TRANSFORMER OIL	Arsenic, Total	0.25	MG/KG	0.24	1.0
		Cadmium, Total	0.03 u	MG/KG	0.03	1.0
		Chromium, Total	0.15	MG/KG	0.07	1.0
		Lead, Total	0.20 u	MG/KG	0.20	1.0
-005	CRANK CASE OIL	Arsenic, Total	0.25 u	MG/KG	0.25	1.0
		Cadmium, Total	0.07	MG/KG	0.03	1.0
		Chromium, Total	0.25	MG/KG	0.08	1.0
		Lead, Total	2.9	MG/KG	0.21	1.0

Lionville Laboratory, Inc.

INORGANICS METHOD BLANK DATA SUMMARY PAGE 11/30/04

CLIENT: TELEDYNE-VERMONT YANKEE

LVL LOT #: 0411L176

WORK ORDER: 11699-600-005-9999-00

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
BLANK1	04L0701-MB1	Arsenic, Total	0.26 u	MG/KG	0.26	1.0
		Cadmium, Total	0.03 u	MG/KG	0.03	1.0
		Chromium, Total	0.1	MG/KG	0.08	1.0
		Lead, Total	0.22 u	MG/KG	0.22	1.0

Lionville Laboratory, Inc.

INORGANICS ACCURACY REPORT 11/30/04

CLIENT: TELEDYNE-VERMONT YANKEE

LVL LOT #: 0411L176

WORK ORDER: 11699-600-005-9999-00

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	INITIAL RESULT	SPIKED AMOUNT	%RECOV	DILUTION FACTOR(SPK)
-001	COMP OIL PLANT SYSTE	Arsenic, Total	164	0.24u	194	84.5	1.0
		Cadmium, Total	4.3	0.03	4.9	87.1	1.0
		Chromium, Total	17.1	0.13	19.4	87.5	1.0
		Lead, Total	43.0	0.92	48.6	86.6	1.0

Lionville Laboratory, Inc.

INORGANICS PRECISION REPORT 11/30/04

CLIENT: TELEDYNE-VERMONT YANKEE LVL LOT #: 0411L176

WORK ORDER: 11699-600-005-9999-00

SAMPLE	SITE ID	ANALYTE	INITIAL RESULT	REPLICATE	RPD	DILUTION FACTOR(REP)
-001REP	COMP OIL PLANT SYSTE	Arsenic, Total	0.24u	0.25u	NC	1.0
		Cadmium, Total	0.03	0.03	8.6	1.0
		Chromium, Total	0.13	0.23	56.1	1.0
		Lead, Total	0.92	1.1	17.5	1.0

Lionville Laboratory, Inc.

INORGANICS LABORATORY CONTROL STANDARDS REPORT 11/30/04

CLIENT: TELEDYNE-VERMONT YANKEE

LVL LOT #: 0411L176

WORK ORDER: 11699-600-005-9999-00

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	SPIKED AMOUNT	UNITS	%RECOV
LCS1	04L0701-LC1	Arsenic, LCS	914	1000	MG/KG	91.4
		Cadmium, LCS	23.8	25.0	MG/KG	95.2
		Chromium, LCS	48.7	50.0	MG/KG	97.4
		Lead, LCS	241	250	MG/KG	96.3

Lionville Laboratory Use Only

0411L176

Custody Transfer Record/Lab Work Request

Page 1 of 1

LVLI

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

See SRC

Client: Niagara Mohawk - Hickling Inc - N.T. Yankee

Est. Final Proj. Sampling Date:

Project #: 11699-600-025-9999-00

Project Contact/Phone #:

Lionville Laboratory Project Manager: DMH

QC: Std Del: Std TAT: 14 Days

Date Rec'd: 11/17/04 Date Due: 12/1/04

Refrigerator #: A 3

#/Type Container (Liquid/Solid): 2 L

Volume (Liquid/Solid): 1 L

Preservatives:

ANALYSES REQUESTED: VOA, BNA, Pest/PCB, Sulfur Hab, Metals Volatile, TX, GC, Metal, #, IP, ASH, BTU

Lionville Laboratory Use Only: OPCB, IBOMB, IBTU, IT-X, ITIC, METALO, IFLSH, I%ASH, ICSO4

MATRIX CODES: S - Soil; SE - Sediment; SO - Solid; SL - Sludge; W - Water; O - Oil; A - Air; DS - Drum Solids; DL - Drum Liquids; L - EP/TCLP Leachate; WI - Wipe; X - Other; F - Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	OPCB	IBOMB	IBTU	IT-X	ITIC	METALO	IFLSH	I%ASH	ICSO4
001	COMPOSITE OIL PLANT SYSTEMS (LAD)			O	11/5/04	1211	✓	✓	✓	✓	✓	✓	✓	✓	
002	COMPOSITE NH4 OIL RESERVOIR (LAD)						✓	✓	✓	✓	✓	✓	✓	✓	
003	COMPOSITE CARBON RESERVOIR						✓	✓	✓	✓	✓	✓	✓	✓	
004	TRANSFORMER OIL						✓	✓	✓	✓	✓	✓	✓	✓	
005	CRANK CASE OIL						✓	✓	✓	✓	✓	✓	✓	✓	
006	COMPOSITE PLANT SYSTEM BOMB OIL											✓			
007	COMPOSITE HYDRAULIC OIL	002													
008	COMPOSITE CARBON RESERVOIR	003													
009	CONTAC TRANSFORMER OIL	NOA													
010	CRANK CASE OIL	005													

Special Instructions: Return to Client after Test are completed -

* See Lab Chron

METALO = Sb, As, Cd, Pb, Cr

Spilling by.

DATE/REVISIONS:

1.
2.
3.
4.
5.
6.

Relinquished by	Received by	Date	Time
[illegible]	[illegible]	11/17/04	0925

Relinquished by	Received by	Date	Time

Relinquished by	Received by	Date	Time

"COMPOSITE

ORIGINAL

0411L176

VERMONT YANKEE CHAIN OF CUSTODY

Shipment Number: 2004-114
Date of Shipment: 11/9/04

Lionville Laboratory Inc.
208 Welsh Pool Road
Lionville, PA 19341-1333

Shipping Method: _____UPS
_____FEDERAL EXPRESS
_____COURIER
____xxxxx___COMMON

From: Tim McCarthy- Radwaste / Hazwaste Supervisor
Vermont Nuclear Power Station
P.O. Box 157 Governor Hunt Road
Vernon, VT 05354 (Phone: 802-258-5476)
(Fax: 802-258-5489)

Requested Turnaround Time__X__Standard ___Rush ___Working Days(specify #)

ANALYSIS TO BE PERFORMED

Waste Oil From Designated Locations

Sample No.	Sample Type			Sample Type / Description / Comments	Collection Period Start M	D	HR	Stop M	D	HR	Sample Amount Volume or Weight (MKS Units)	Sulfur	Calorific Values	Arsenic	Cadmium	Lead	Chromium	PCB's	Total Halogens	Total Inorganic Chlorides	FP- Closed Cup Method	Ash			OTHER
1	L			Composite Oil Plant Systems (Rad)	11	8		11	8		1000 MLS	x	x	x	x	x	x	x	x	x	x	x			
2	L			Composite NWH Oil Reservoir (Rad)	11	8		11	8		1000 MLS	x	x	x	x	x	x	x	x	x	x	x			
3	L			Composite CAB Oil Reservoir	11	8		11	8		1000 MLS	x	x	x	x	x	x	x	x	x	x	x			
4	L			Transformer Oil	11	8		11	8		1000 MLS	x	x	x	x	x	x	x	x	x	x	x			
5	L			Crank Case Oil	11	8		11	8		1000 MLS	x	x	x	x	x	x	x	x	x	x	x			
6	L																								
7	L																								
8	L																								
9	L																								
10	L																								

Collected By: DCH
Relinquished By: Tim McCarthy

Received at Laboratory by: [signature]
Date received: 11/17/04

COMMENTS or SPECIAL INSTRUCTIONS

PROVIDE TWO COPIES OF THE LAB REPORT

Send back unused quantities of sample to VY

Lionville Laboratory Incorporated

SAMPLE RECEIPT CHECKLIST (SRC)

CLIENT: Vermont Yankee **Date:** 11/17/04

Purchase Order / Project# /
SAF# / SOW# / Release #:

LvLI Batch #: 0411L176 **Sample Custodian:** V. Kennedy

NOTE: EXPLAIN ALL DISCREPANCIES

1.	Samples Hand Delivered or Shipped	Carrier Fed Ex		Airbill# 848877680014
2.	Custody seals on coolers or shipping container intact, signed and dated?	☐ Yes	☐ No	☑ No Seals Comments
3.	Outside of coolers or shipping containers are free from damage?	☑ Yes	☐ No	
4.	All expected paperwork received (coc and other client specific information) sealed in plastic bag and easily accessible?	☑ Yes	☐ No	
5.	Samples received cooled or ambient?	Temp 15.4 °C		Cooler # Box & Pail
6.	Custody seals on sample containers intact, signed and dated?	☐ Yes	☐ No	☑ No Seals
7.	coc signed and dated?	☑ Yes	☐ No	
8.	Sample containers are intact?	☑ Yes	☐ No	
9.	All samples on coc received? All samples received on coc?	☑ Yes	☐ No	
10.	All sample label information matches coc?	☑ Yes	☐ No	
11.	Samples properly preserved?	☑ Yes	☐ No	
12.	Samples received within hold times? Short holds taken to wet lab?	☑ Yes	☐ No	
13.	VOA, TOC, TOX free of headspace?	☐ Yes	☐ No	☑ N/A
14.	QC stickers placed on bottles designated by client?	☐ Yes	☐ No	☑ N/A
15.	Shipment meets LvLI Sample Acceptance Policy? (Identify all bottles not within policy. See reverse side for policy)	☑ Yes	☐ No	
16.	Project Manager contacted concerning discrepancies? name/date (or samples outside criteria)	☐ Yes	☐ No	☑ No Discrepancies

SR-002-B

Lionville Laboratory, Inc.

INORGANICS DATA SUMMARY REPORT 12/08/04

CLIENT: TELEDYNE-VERMONT YANKEE

LVL LOT #: 0411L176

WORK ORDER: 11699-600-005-9999-00

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
-001	COMP OIL PLANT SYSTE	% Ash	0.16	%	0.01	1.0
		British Thermal Units	5740	BTU/LB	205	1.0
		Total Halides	98.8 u	MG/KG	98.8	1.0
-002	COMP NWH OIL RESERVO	% Ash	0.01 u	%	0.01	1.0
		British Thermal Units	15700	BTU/LB	182	1.0
		Total Halides	442	MG/KG	81.4	1.0
-003	COMP CAB OIL RESERVO	% Ash	0.01 u	%	0.01	1.0
		British Thermal Units	15300	BTU/LB	215	1.0
		Total Halides	487	MG/KG	95.9	1.0
-004	TRANSFORMER OIL	% Ash	0.01	%	0.01	1.0
		British Thermal Units	14900	BTU/LB	182	1.0
		Total Halides	114	MG/KG	94.0	1.0
-005	CRANK CASE OIL	% Ash	0.42	%	0.01	1.0
		British Thermal Units	17000	BTU/LB	174	1.0
		Total Halides	111 u	MG/KG	111	1.0
-006	COMP OIL PLANT SYSTE	Chloride by IC	360	MG/KG	141	10.0
		Sulfate by IC	3370	MG/KG	235	50.0
-007	COMP NWH OIL RESERVO	Chloride by IC	312	MG/KG	167	10.0
		Sulfate by IC	1090	MG/KG	55.7	10.0
-008	COMP CAB OIL RESERVO	Chloride by IC	277	MG/KG	195	10.0
		Sulfate by IC	1390	MG/KG	65.2	10.0
-009	TRANSFORMER OIL	Chloride by IC	248	MG/KG	223	10.0
		Sulfate by IC	763	MG/KG	74.6	10.0
-010	CRANK CASE OIL	Chloride by IC	317	MG/KG	216	10.0
		Sulfate by IC	3630	MG/KG	360	50.0

Flash Point analysis -
No flash points observed.
MJO
12-8-04

Lionville Laboratory, Inc.

INORGANICS METHOD BLANK DATA SUMMARY PAGE 12/08/04

CLIENT: TELEDYNE-VERMONT YANKEE

LVL LOT #: 0411L176

WORK ORDER: 11699-600-005-9999-00

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT	DILUTION FACTOR
BLANK10	04L%A016-MB1	% Ash	0.01	u	%	0.01	50.0
BLANK1	04LE017-MB1	Total Halides	20.0	u	MG/KG	20.0	1.0
BLANK10	04LICA71-MB1	Chloride by IC	12.5	u	MG/KG	12.5	1.0
		Sulfate by IC	4.2	u	MG/KG	4.2	1.0
BLANK20	04LICA71-MB2	Chloride by IC	71.4		MG/KG	24.3	2.0
		Sulfate by IC	209		MG/KG	8.1	2.0

Lionville Laboratory, Inc.

INORGANICS ACCURACY REPORT 12/08/04

CLIENT: TELEDYNE-VERMONT YANKEE

LVL LOT #: 0411L176

WORK ORDER: 11699-600-005-9999-00

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	INITIAL RESULT	SPIKED AMOUNT	%RECOV	DILUTION FACTOR(SPK)
-005	CRANK CASE OIL	Total Halides	2220	109	2350	89.5	1.0
-006	COMP OIL PLANT SYSTE	Chloride by IC	6400	360	5630	107.2	20.0
		Sulfate by IC	14400	3370	9410	117.2	100
BLANK10	04LRR024-MB1	British Thermal Units	10900	0.0	11400	95.5	50.0
BLANK1	04LE017-MB1	Total Halides	537	20.0 u	500	107.3	1.0
BLANK10	04LICA71-MB1	Chloride by IC	232	12.5 u	250	92.7	1.0
		Sulfate by IC	80.0	4.2 u	83.5	95.8	1.0

Lionville Laboratory, Inc.

INORGANICS PRECISION REPORT 12/08/04

CLIENT: TELEDYNE-VERMONT YANKEE

LVL LOT #: 0411L176

WORK ORDER: 11699-600-005-9999-00

SAMPLE	SITE ID	ANALYTE	INITIAL RESULT	REPLICATE	RPD	DILUTION FACTOR(REP)
-001REP	COMP OIL PLANT SYSTE	% Ash	0.16	0.18	11.8	1.0
-005REP	CRANK CASE OIL	Total Halides	111 u	156	NC	1.0
-006REP	COMP OIL PLANT SYSTE	Chloride by IC	360	298	18.8	10.0
		Sulfate by IC	3370	3490	3.6	50.0

Lionville Laboratory, Inc.

INORGANICS DATA SUMMARY REPORT 11/30/04

CLIENT: TELEDYNE-VERMONT YANKEE

LVL LOT #: 0411L176

WORK ORDER: 11699-600-005-9999-00

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
-001	COMP OIL PLANT SYSTE	Arsenic, Total	0.24 u	MG/KG	0.24	1.0
		Cadmium, Total	0.03	MG/KG	0.03	1.0
		Chromium, Total	0.13	MG/KG	0.07	1.0
		Lead, Total	0.92	MG/KG	0.21	1.0
-002	COMP NWH OIL RESERVO	Arsenic, Total	0.25 u	MG/KG	0.25	1.0
		Cadmium, Total	0.31	MG/KG	0.03	1.0
		Chromium, Total	0.24	MG/KG	0.08	1.0
		Lead, Total	14.7	MG/KG	0.21	1.0
-003	COMP CAB OIL RESERVO	Arsenic, Total	0.32	MG/KG	0.23	1.0
		Cadmium, Total	0.03 u	MG/KG	0.03	1.0
		Chromium, Total	0.17	MG/KG	0.07	1.0
		Lead, Total	11.0	MG/KG	0.19	1.0
	TRANSFORMER OIL	Arsenic, Total	0.25	MG/KG	0.24	1.0
		Cadmium, Total	0.03 u	MG/KG	0.03	1.0
		Chromium, Total	0.15	MG/KG	0.07	1.0
		Lead, Total	0.20 u	MG/KG	0.20	1.0
-005	CRANK CASE OIL	Arsenic, Total	0.25 u	MG/KG	0.25	1.0
		Cadmium, Total	0.07	MG/KG	0.03	1.0
		Chromium, Total	0.25	MG/KG	0.08	1.0
		Lead, Total	2.9	MG/KG	0.21	1.0

Lionville Laboratory, Inc.

INORGANICS METHOD BLANK DATA SUMMARY PAGE 11/30/04

CLIENT: TELEDYNE-VERMONT YANKEE

LVL LOT #: 0411L176

WORK ORDER: 11699-600-005-9999-00

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
BLANK1	04L0701-MB1	Arsenic, Total	0.26 u	MG/KG	0.26	1.0
		Cadmium, Total	0.03 u	MG/KG	0.03	1.0
		Chromium, Total	0.1	MG/KG	0.08	1.0
		Lead, Total	0.22 u	MG/KG	0.22	1.0

Lionville Laboratory, Inc.

INORGANICS ACCURACY REPORT 11/30/04

CLIENT: TELEDYNE-VERMONT YANKEE

LVL LOT #: 0411L176

WORK ORDER: 11699-600-005-9999-00

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	INITIAL RESULT	SPIKED AMOUNT	%RECOV	DILUTION FACTOR(SPK)
-001	COMP OIL PLANT SYSTE	Arsenic, Total	164	0.24u	194	84.5	1.0
		Cadmium, Total	4.3	0.03	4.9	87.1	1.0
		Chromium, Total	17.1	0.13	19.4	87.5	1.0
		Lead, Total	43.0	0.92	48.6	86.6	1.0

Lionville Laboratory, Inc.

INORGANICS PRECISION REPORT 11/30/04

CLIENT: TELEDYNE-VERMONT YANKEE

LVL LOT #: 0411L176

WORK ORDER: 11699-600-005-9999-00

SAMPLE	SITE ID	ANALYTE	INITIAL RESULT	REPLICATE	RPD	DILUTION FACTOR(REP)
-001REP	COMP OIL PLANT SYSTE	Arsenic, Total	0.24u	0.25u	NC	1.0
		Cadmium, Total	0.03	0.03	8.6	1.0
		Chromium, Total	0.13	0.23	56.1	1.0
		Lead, Total	0.92	1.1	17.5	1.0

Lionville Laboratory, Inc.

INORGANICS LABORATORY CONTROL STANDARDS REPORT 11/30/04

CLIENT: TELEDYNE-VERMONT YANKEE

LVL LOT #: 0411L176

WORK ORDER: 11699-600-005-9999-00

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	SPIKED AMOUNT	UNITS	%RECOV
LCS1	04L0701-LC1	Arsenic, LCS	914	1000	MG/KG	91.4
		Cadmium, LCS	23.8	25.0	MG/KG	95.2
		Chromium, LCS	48.7	50.0	MG/KG	97.4
		Lead, LCS	241	250	MG/KG	96.3

Lionville Laboratory, Inc.
PCB by GC

Report Date: 11/30/04 35

RFW Batch Number: 0411L176 Client: TELEDYNE-VERMONT YANKEE Work Order: 11699600005 Page: 1

	Cust ID:	COMP OIL PLANT SYSTE	COMP NWH OIL RESERVO	COMP CAB OIL RESERVO	TRANSFORMER OIL	CRANK CASE OIL	PBLKAS
Sample Information	RFW#:	001	002	003	004	005	04LE1405-MB1
	Matrix:	OIL	OIL	OIL	OIL	OIL	SOIL
	D.F.:	20.0	20.0	20.0	20.0	20.0	1.00
	Units:	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
Surrogate: Tetrachloro-m-xylene		D %	D %	D %	D %	D %	116 %
Decachlorobiphenyl		D %	D %	D %	D %	D %	106 %
Aroclor-1016		8000 U	8000 U	8000 U	8000 U	8000 U	400 U
Aroclor-1221		8000 U	8000 U	8000 U	8000 U	8000 U	400 U
Aroclor-1232		8000 U	8000 U	8000 U	8000 U	8000 U	400 U
Aroclor-1242		8000 U	8000 U	8000 U	8000 U	8000 U	400 U
Aroclor-1248		8000 U	8000 U	8000 U	8000 U	8000 U	400 U
Aroclor-1254		8000 U	8000 U	8000 U	8000 U	8000 U	400 U
Aroclor-1260		8000 U	8000 U	8000 U	8000 U	8000 U	400 U

	Cust ID:	PBLKAS BS	PBLKAS BSD
Sample Information	RFW#:	04LE1405-MB1	04LE1405-MB1
	Matrix:	SOIL	SOIL
	D.F.:	1.00	1.00
	Units:	UG/KG	UG/KG
Surrogate: Tetrachloro-m-xylene		124 * %	118 %
Decachlorobiphenyl		114 %	110 %
Aroclor-1016		124 %	120 %
Aroclor-1221		400 U	400 U
Aroclor-1232		400 U	400 U
Aroclor-1242		400 U	400 U
Aroclor-1248		400 U	400 U
Aroclor-1254		400 U	400 U
Aroclor-1260		119 %	117 %

U= Analyzed, not detected. J= Present below detection limit. B= Present in blank. NR= Not reported. NS= Not spiked.
%= Percent recovery. D= Diluted out. I= Interference. NA= Not Applicable. *= Outside of EPA CLP QC

VERMONT YANKEE CHAIN OF CUSTODY

Shipment Number: 2004-114
Date of Shipment: 11/9/04

Lionville Laboratory Inc.
208 Welsh Pool Road
Lionville, PA 19341-1333

Shipping Method: _____UPS
_____FEDERAL EXPRESS
_____COURIER
____xxxxx___COMMON

From: *Tim McCarthy- Radwaste / Hazwaste Supervisor*
Vermont Nuclear Power Station
P.O. Box 157 Governor Hunt Road
Vernon, VT 05354 (Phone: 802-258-5476)
(Fax: 802-258-5489)

Requested Turnaround Time__X__Standard ___*Rush* ____*Working Days(specify #)*

ANALYSIS TO BE PERFORMED

Waste Oil From Designated Locations

Sample No.	Sample Type			Sample Type / Description / Comments	Collection Period Start M	D	HR	Stop M	D	HR	Sample Amount Volume or Weight (MKS Units)	Sulfur	Calorific Values	Arsenic	Cadmium	Lead	Chromium	PCB's	Total Halogens	Total Inorganic Chlorides	FP- Closed Cup Method	Ash			OTHER
1	L			Composite Oil Plant Systems (Rad)	11	8		11	8		1000 MLS	x	x	x	x	x	x	x	x	x	x	x			
2	L			Composite NWH Oil Reservoir (Rad)	11	8		11	8		1000 MLS	x	x	x	x	x	x	x	x	x	x	x			
3	L			Composite CAB Oil Reservoir	11	8		11	8		1000 MLS	x	x	x	x	x	x	x	x	x	x	x			
4	L			Transformer Oil	11	8		11	8		1000 MLS	x	x	x	x	x	x	x	x	x	x	x			
5	L			Crank Case Oil	11	8		11	8		1000 MLS	x	x	x	x	x	x	x	x	x	x	x			
6	L																								
7	L																								
8	L																								
9	L																								
10	L																								

Collected By: DCH
Relinquished By: Tim McCarthy

Received at laboratory by:_____
Date received:_____

COMMENTS or SPECIAL INSTRUCTIONS

PROVIDE TWO COPIES OF THE LAB REPORT

Send back unused quantities of sample to VY