

APPENDIX C

QUARTERLY

LABORATORY QUALITY CONTROL AND
PERFORMANCE REPORT



QA/QC Summary Report

Client: United Nuclear Corp
Project: Zone 1-Quarterly Long List

Report Date: 08/27/02
Work Order: C02010514

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2320 B							Batch: O-012202-2		
Sample ID: C02010513-001C							01/22/02 14:12		
Bicarbonate as HCO ₃	ND	mg/L		1.00					
pH	3.00	s.u.		0.0100					
Sample ID: C02010513-005C							01/22/02 17:29		
Bicarbonate as HCO ₃	86.6	mg/L		1.00					
pH	6.60	s.u.		0.0100					
Method: A2320 B							Batch: O-012202-3		
Sample ID: C02010514-008C							01/22/02 16:49		
Bicarbonate as HCO ₃	334	mg/L		1.00					
pH	7.20	s.u.		0.0100					

Qualifiers: ND - Not Detected at the Reporting Limit
R - RPD outside of recommended recovery limits

S - Spike Recovery outside of recommended recovery limits

TRACKING NO. PAGE NO.

10514R00014



QA/QC Summary Report

Client: United Nuclear Corp
Project: Zone 1-Quarterly Long List

Report Date: 08/27/02
Work Order: C02010514

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2540 C							Batch: 020121A-SLDS-TDS-W		
Sample ID: C02010478-001CDUP	Sample Duplicate								01/21/02 08 04
Solids, Total Dissolved TDS @ 180 C	200	mg/L	10 0				2.0	10	
Sample ID: C02010494-002BMS	Matrix Spike								01/21/02 08 07
Solids, Total Dissolved TDS @ 180 C	2760	mg/L	10.0	99.9	90	110			
Sample ID: C02010499-002BDUP	Sample Duplicate								01/21/02 08:10
Solids, Total Dissolved TDS @ 180 C	160	mg/L	10 0				1.2	10	H
Sample ID: C02010499-007BMS	Matrix Spike								01/21/02 08.13
Solids, Total Dissolved TDS @ 180 C	2140	mg/L	10 0	99.7	90	110			
Sample ID: C02010508-019BDUP	Sample Duplicate								01/21/02 08:17
Solids, Total Dissolved TDS @ 180 C	268	mg/L	10 0				1.8	10	
Sample ID: C02010510-014CMS	Matrix Spike								01/21/02 08:22
Solids, Total Dissolved TDS @ 180 C	5350	mg/L	10 0	102	90	110			
Sample ID: C02010510-019CDUP	Sample Duplicate								01/21/02 08:24
Solids, Total Dissolved TDS @ 180 C	263	mg/L	10.0				0.5	10	
Sample ID: C02010511-018CMS	Matrix Spike								01/21/02 08:28
Solids, Total Dissolved TDS @ 180 C	5360	mg/L	10.0	102	90	110			
Sample ID: C02010513-003BDUP	Sample Duplicate								01/21/02 15:32
Solids, Total Dissolved TDS @ 180 C	5380	mg/L	10.0				0	10	
Sample ID: C02010514-003BMS	Matrix Spike								01/21/02 15:35
Solids, Total Dissolved TDS @ 180 C	11500	mg/L	10.0	102	90	110			H
Sample ID: C02010514-008BDUP	Sample Duplicate								01/21/02 15:38
Solids, Total Dissolved TDS @ 180 C	2770	mg/L	10.0				0	10	H
Sample ID: C02010526-001AMS	Matrix Spike								01/21/02 15.40
Solids, Total Dissolved TDS @ 180 C	13000	mg/L	10.0	99.5	90	110			

Qualifiers: ND - Not Detected at the Reporting Limit
R - RPD outside of recommended recovery limits

S - Spike Recovery outside of recommended recovery limits

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10514R00015



QA/QC Summary Report

Client: United Nuclear Corp
Project: Zone 1-Quarterly Long List

Report Date: 08/27/02
Work Order: C02010514

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A3114 B									Batch. R6734
Sample ID: C02010514-003A	Matrix Spike								01/23/02 16:27
Arsenic-III	0.0548	mg/L	0.00100	109	85	115			
Sample ID: C02010514-003A	Matrix Spike Duplicate								01/23/02 16:30
Arsenic-III	0.0534	mg/L	0.00100	106	85	115	2.6	10	
Sample ID: C02010514-009A	Matrix Spike								01/23/02 16:54
Arsenic-III	0.0511	mg/L	0.00100	102	85	115			
Sample ID: C02010514-009A	Matrix Spike Duplicate								01/23/02 16:56
Arsenic-III	0.0521	mg/L	0.00100	104	85	115	1.9	10	
Method: A3114 B									Batch R6763
Sample ID: C02010531-009BMS	Matrix Spike								01/24/02 10:32
Selenium-IV	0.0526	mg/L	0.00100	100	85	115			
Sample ID: C02010531-009BMSD	Matrix Spike Duplicate								01/24/02 10:34
Selenium-IV	0.0531	mg/L	0.00100	101	85	115	0.9	10	
Sample ID: C02010514-003AMS	Matrix Spike								01/24/02 11:03
Selenium-IV	0.0505	mg/L	0.00100	101	85	115			
Sample ID: C02010514-003AMSD	Matrix Spike Duplicate								01/24/02 11:05
Selenium-IV	0.0519	mg/L	0.00100	104	85	115	2.7	10	
Sample ID: C02010514-009AMS	Matrix Spike								01/24/02 11:29
Selenium-IV	0.0516	mg/L	0.00100	103	85	115			
Sample ID: C02010514-009AMSD	Matrix Spike Duplicate								01/24/02 11:33
Selenium-IV	0.0516	mg/L	0.00100	103	85	115	0	10	

Qualifiers: ND - Not Detected at the Reporting Limit
R - RPD outside of recommended recovery limits

S - Spike Recovery outside of recommended recovery limits

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10514R00016



QA/QC Summary Report

Client: United Nuclear Corp
Project: Zone 1-Quarterly Long List

Report Date: 08/27/02
Work Order: C02010514

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-NH3 G							Batch: A2002-01-21_1_NH3_01		
Sample ID: C02010406-002BDUP Nitrogen, Ammonia as N	Sample Duplicate 13.8	mg/L	0.100				0		01/21/02 11:27 20
Sample ID: C02010427-010BMS Nitrogen, Ammonia as N	Matrix Spike 1.87	mg/L	0.0500	92	80	120			01/21/02 11:54
Sample ID: C02010429-005BDUP Nitrogen, Ammonia as N	Sample Duplicate ND	mg/L	0.0500				0		01/21/02 12:12 20
Sample ID: C02010428-006BDUP Nitrogen, Ammonia as N	Sample Duplicate 0.0800	mg/L	0.0500				0		01/21/02 12:24 20
Sample ID: C02010429-010BMS Nitrogen, Ammonia as N	Matrix Spike 1.88	mg/L	0.0500	94	80	120			01/21/02 12:28
Sample ID: C02010445-001BDUP Nitrogen, Ammonia as N	Sample Duplicate 10.4	mg/L	0.100				3.8		01/21/02 12:42 20
Sample ID: C02010473-004AMS Nitrogen, Ammonia as N	Matrix Spike 48.4	mg/L	1.00	88.4	80	120			01/21/02 13:00 D
Sample ID: C02010508-020DDUP Nitrogen, Ammonia as N	Sample Duplicate ND	mg/L	0.0500				0		01/21/02 13:14 20
Sample ID: C02010510-015BMS Nitrogen, Ammonia as N	Matrix Spike 1.91	mg/L	0.0500	95.5	80	120			01/21/02 13:32
Sample ID: C02010511-014BDUP Nitrogen, Ammonia as N	Sample Duplicate 0.170	mg/L	0.0500				0		01/21/02 14:00 20
Sample ID: C02010511-020BMS Nitrogen, Ammonia as N	Matrix Spike 2.29	mg/L	0.0500	106	80	120			01/21/02 14:04
Sample ID: C02010513-004DDUP Nitrogen, Ammonia as N	Sample Duplicate 0.550	mg/L	0.0500				0		01/21/02 14:22 20
Sample ID: C02010514-004DMS Nitrogen, Ammonia as N	Matrix Spike 2.76	mg/L	0.0500	114	80	120			01/21/02 14:36
Sample ID: C02010514-009DMS Nitrogen, Ammonia as N	Matrix Spike 1.84	mg/L	0.0500	90.5	80	120			01/21/02 14:54
Sample ID: C02010514-009DMSD Nitrogen, Ammonia as N	Matrix Spike Duplicate 1.94	mg/L	0.0500	95.5	80	120	5.3		01/21/02 14:56 20

Qualifiers: ND - Not Detected at the Reporting Limit
R - RPD outside of recommended recovery limits

S - Spike Recovery outside of recommended recovery limits

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10514R00017



QA/QC Summary Report

Client: United Nuclear Corp
Project: Zone 1-Quarterly Long List

Report Date: 08/27/02
Work Order: C02010514

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7							Batch: ICP012902A		
Sample ID: C02010455-001A	Matrix Spike								01/29/02 08.45
Calcium	79.5	mg/L	1.00	98.9	80	120			
Magnesium	55.6	mg/L	1.00	98.1	80	120			
Potassium	48.5	mg/L	1.00	93.4	80	120			
Sodium	57.0	mg/L	1.00	97.7	80	120			
Sample ID: C02010455-001A	Matrix Spike								01/29/02 08.50
Chloride	95.7	mg/L	1.00	92.3	80	120			
Sulfate	105	mg/L	1.00	94.1	80	120			
Sample ID: C02010455-001A	Matrix Spike Duplicate								01/29/02 08.53
Calcium	84.5	mg/L	1.00	109	80	120	6.1	20	
Magnesium	59.7	mg/L	1.00	106	80	120	7.1	20	
Potassium	52.6	mg/L	1.00	102	80	120	8.1	20	
Sodium	62.3	mg/L	1.00	108	80	120	8.9	20	
Sample ID: C02010455-001A	Matrix Spike Duplicate								01/29/02 08:58
Chloride	94.8	mg/L	1.00	91.4	80	120	0.9	20	
Sulfate	106	mg/L	1.00	94.4	80	120	0.3	20	
Method: E200.8							Batch: ICPMS021302a		
Sample ID: C02010514-006AMS	Matrix Spike								02/13/02 11:17
Aluminum	0.507	mg/L	0.100	98.7	70	130			
Beryllium	0.542	mg/L	0.0100	108	70	130			
Cadmium	0.483	mg/L	0.0100	96.6	70	130			
Cobalt	0.516	mg/L	0.0100	103	70	130			
Lead	0.494	mg/L	0.0500	98.9	70	130			
Manganese	4.12	mg/L	0.0100	105	70	130			
Molybdenum	0.522	mg/L	0.100	104	70	130			
Nickel	0.534	mg/L	0.0500	102	70	130			
Uranium	0.513	mg/L	0.000300	102	70	130			
Vanadium	0.505	mg/L	0.100	101	70	130			

Qualifiers: ND - Not Detected at the Reporting Limit
R - RPD outside of recommended recovery limits

S - Spike Recovery outside of recommended recovery limits

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10514R00018



QA/QC Summary Report

Client: United Nuclear Corp
Project: Zone 1-Quarterly Long List

Report Date: 08/27/02
Work Order: C02010514

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E353.2							Batch: A2002-01-22_1_NO3_02		
Sample ID: C02010510-016BDUP	Sample Duplicate								01/23/02 14:23
Nitrogen, Nitrate+Nitrite as N	1.21	mg/L	0.100				0.8	20	
Sample ID: C02010511-016BMS	Matrix Spike								01/23/02 14:37
Nitrogen, Nitrate+Nitrite as N	3.49	mg/L	0.100	93.5	80	120			
Sample ID: C02010513-001DDUP	Sample Duplicate								01/23/02 14:55
Nitrogen, Nitrate+Nitrite as N	16.0	mg/L	0.300				0	20	D
Sample ID: C02010514-001DMS	Matrix Spike								01/23/02 15:09
Nitrogen, Nitrate+Nitrite as N	163	mg/L	3.00	92.6	80	120			D
Sample ID: C02010514-005DDUP	Sample Duplicate								01/23/02 15:21
Nitrogen, Nitrate+Nitrite as N	32.3	mg/L	0.600				4.1	20	D
Method: E353.2							Batch: A2002-01-22_1_NO3_03		
Sample ID: C02010526-001CMS	Matrix Spike								01/23/02 16:00
Nitrogen, Nitrate+Nitrite as N	2.02	mg/L	0.100	101	80	120			
Sample ID: C02010571-002DMS	Matrix Spike								01/23/02 16:14
Nitrogen, Nitrate+Nitrite as N	2.04	mg/L	0.100	102	80	120			
Sample ID: C02010571-002DMSD	Matrix Spike Duplicate								01/23/02 16:16
Nitrogen, Nitrate+Nitrite as N	2.12	mg/L	0.100	106	80	120	3.8	20	
Sample ID: C02010582-001CDUP	Sample Duplicate								01/23/02 16:42
Nitrogen, Nitrate+Nitrite as N	2.49	mg/L	0.100				0.4	20	
Method: E624							Batch: R6892		
Sample ID: C02010514-001E	Matrix Spike								01/25/02 10:44
Chloroform	1270	ug/L	50.0	104	70	130			
Surr: 1,2-Dichlorobenzene-d4			50.0	97.9	80	120			
Surr: Dibromofluoromethane			50.0	94.5	70	130			
Surr: p-Bromofluorobenzene			50.0	94.4	80	120			
Surr: Toluene-d8			50.0	98.8	80	120			
Sample ID: C02010514-001E	Matrix Spike Duplicate								01/25/02 11:25
Chloroform	1250	ug/L	50.0	102	70	130	1.7	20	
Surr: 1,2-Dichlorobenzene-d4			50.0	100	80	120	0	10	
Surr: Dibromofluoromethane			50.0	97.4	70	130	0	10	
Surr: p-Bromofluorobenzene			50.0	95.6	80	120	0	10	
Surr: Toluene-d8			50.0	99.2	80	120	0	10	

Qualifiers: ND - Not Detected at the Reporting Limit
R - RPD outside of recommended recovery limits

S - Spike Recovery outside of recommended recovery limits

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10514R00019

QA/QC Summary Report

Client: United Nuclear Corp
Project: Zone 1-Quarterly Long List

Report Date: 08/27/02
Work Order: C02010514

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E903.0									Batch: 02RA-27
Sample ID: C02010514-006A	Sample Duplicate								01/30/02 16:30
Radium 226	1.60	pCi/L	0.200	107	70	130			
Sample ID: C02010514-008A	Sample Duplicate								01/30/02 16:30
Radium 226	1.40	pCi/L	0.200	77.8	70	130			
Sample ID: C02010514-009A	Matrix Spike								01/30/02 16:30
Radium 226	123	pCi/L	0.200	102	70	130			
Method: E904.0									Batch: 02228032
Sample ID: C02010514-006A	Sample Duplicate								02/06/02 14:06
Radium 228	8.80	pCi/L	1.00		70	130	57	30	
Radium 228 precision	1.00	±	0						
Sample ID: C02010514-007A	Matrix Spike								02/06/02 14:06
Radium 228	9.70	pCi/L	1.00	107	70	130			
Method: E907.0									Batch: R7495
Sample ID: C02010429-011AMS	Matrix Spike								02/13/02 00:00
Thorium 230	121	pCi/L	0.200	96.8	70	130			
Sample ID: C02010429-011ADUP	Sample Duplicate								02/13/02 00:00
Thorium 230	129	pCi/L	0.200	107					
Method: NERHL-65-4									Batch: R7079
Sample ID: C02010514-008AMS	Matrix Spike								01/31/02 00:00
Lead 210	37	pCi/L	2.7	97.7	0	0			
Sample ID: C02010514-009ADUP	Sample Duplicate								01/31/02 00:00
Lead 210	ND	pCi/L	2.7						

Qualifiers: ND - Not Detected at the Reporting Limit
R - RPD outside of recommended recovery limits

S - Spike Recovery outside of recommended recovery limits

TRACKING NO. PAGE NO.
10514R00020



CLIENT: United Nuclear Corp

Work Order: C02010348

Project: Zone 3 Quarterly Long List - Quote 129

ANALYTICAL QC SUMMARY REPORT

Date: 12-Feb-02

TestNo: A2320 B

Sample ID: C149531BLK	SampType: MBLK	TestCode: ALK-W	Units: mg/L	Prep Date:	Run ID: ORION_020116A						
Client ID:	Batch ID: O-011602-2	TestNo: A2320 B		Analysis Date: 1/16/2002	SeqNo: 106124						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bicarbonate as HCO3	ND	1.00									

Sample ID: C02010348-004C	SampType: DUP	TestCode: ALK-W	Units: mg/L	Prep Date:	Run ID: ORION_020116A						
Client ID: 420	Batch ID: O-011602-2	TestNo: A2320 B		Analysis Date: 1/16/2002	SeqNo: 106145						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bicarbonate as HCO3	508.1	1.00	0	0				507.5	0.118	0	
pH	7.2	0.0100	0	0				7.2	0	0	

TRACKING NO. PAGE NO.
10348R000010

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: United Nuclear Corp
Work Order: C02010348
Project: Zone 3 Quarterly Long List - Quote 129

ANALYTICAL QC SUMMARY REPORT

Date: 12-Feb-02

TestNo: A2540 C

Sample ID: C02010323-011BMS		SampType: MS	TestCode: SLDS-TDS-W		Units: mg/L	Prep Date:			Run ID: SLDS-BALANCE_01011		
Client ID:		Batch ID: 020114A-SLD	TestNo: A2540 C			Analysis Date: 1/14/2002			SeqNo: 105343		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Dissolved TDS @ 180 C	2240	10.0	2041	178.9	101	90	110	0	0	0	

Sample ID: C02010327-008CMS		SampType: MS	TestCode: SLDS-TDS-W		Units: mg/L	Prep Date:			Run ID: SLDS-BALANCE_01011		
Client ID:		Batch ID: 020114A-SLD	TestNo: A2540 C			Analysis Date: 1/14/2002			SeqNo: 105357		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Dissolved TDS @ 180 C	2329	10.0	2041	240.8	102	90	110	0	0	0	

Sample ID: C02010344-004BMS		SampType: MS	TestCode: SLDS-TDS-W		Units: mg/L	Prep Date:			Run ID: SLDS-BALANCE_01011		
Client ID:		Batch ID: 020114A-SLD	TestNo: A2540 C			Analysis Date: 1/14/2002			SeqNo: 105369		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Dissolved TDS @ 180 C	10640	10.0	3846	6806	99.6	90	110	0	0	0	

Sample ID: C02010344-014BMS		SampType: MS	TestCode: SLDS-TDS-W		Units: mg/L	Prep Date:			Run ID: SLDS-BALANCE_01011		
Client ID:		Batch ID: 020114A-SLD	TestNo: A2540 C			Analysis Date: 1/14/2002			SeqNo: 105383		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Dissolved TDS @ 180 C	6257	10.0	2222	4027	100	90	110	0	0	0	

Sample ID: C02010348-005BMS		SampType: MS	TestCode: SLDS-TDS-W		Units: mg/L	Prep Date:			Run ID: SLDS-BALANCE_01011		
Client ID: 717		Batch ID: 020114A-SLD	TestNo: A2540 C			Analysis Date: 1/14/2002			SeqNo: 105395		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Dissolved TDS @ 180 C	5276	10.0	2000	3230	102	90	110	0	0	0	

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

10348R00011
 DRINKING WATER
 PAGE NO.

10348R00012

CLIENT: United Nuclear Corp
Work Order: C02010348
Project: Zone 3 Quarterly Long List - Quote 129

ANALYTICAL QC SUMMARY REPORT

Date: 12-Feb-02

TestNo: A3114 B

Sample ID: MBLK3	SampType: MBLK	TestCode: CVAA-SEIV-3114-	Units: mg/L	Prep Date:	Run ID: HYDRIDE1-C_020115A
Client ID:	Batch ID: R6511	TestNo: A3114 B		Analysis Date: 1/15/2002	SeqNo: 105156
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Selenium-IV	ND	0.00100			

Sample ID: MBLK4	SampType: MBLK	TestCode: CVAA-SEIV-3114-	Units: mg/L	Prep Date:	Run ID: HYDRIDE1-C_020115A
Client ID:	Batch ID: R6511	TestNo: A3114 B		Analysis Date: 1/15/2002	SeqNo: 105166
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Selenium-IV	ND	0.00100			

Sample ID: C02010344-010AMS	SampType: MS	TestCode: CVAA-SEIV-3114-	Units: mg/L	Prep Date:	Run ID: HYDRIDE1-C_020115A
Client ID:	Batch ID: R6511	TestNo: A3114 B		Analysis Date: 1/15/2002	SeqNo: 105135
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Selenium-IV	0 0484	0.00100	0.0476	0	102 85 115 0 0 0

Sample ID: C02010348-003AMS	SampType: MS	TestCode: CVAA-SEIV-3114-	Units: mg/L	Prep Date:	Run ID: HYDRIDE1-C_020115A
Client ID: 719	Batch ID: R6511	TestNo: A3114 B		Analysis Date: 1/15/2002	SeqNo: 105151
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Selenium-IV	0.047	0.00100	0.0476	0	98.7 85 115 0 0 0

Sample ID: C02010348-007AMS	SampType: MS	TestCode: CVAA-SEIV-3114-	Units: mg/L	Prep Date:	Run ID: HYDRIDE1-C_020115A
Client ID: 517	Batch ID: R6511	TestNo: A3114 B		Analysis Date: 1/15/2002	SeqNo: 105161
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Selenium-IV	0.0484	0.00100	0.0476	0	102 85 115 0 0 0

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

10348R00013
 PAGE NO

CLIENT: United Nuclear Corp
Work Order: C02010348
Project: Zone 3 Quarterly Long List - Quote 129

ANALYTICAL QC SUMMARY REPORT

Date: 12-Feb-02

TestNo.: A3114 B

Sample ID: C02010344-010AMS		SampType: MSD	TestCode: CVAA-SEIV-3114- Units: mg/L			Prep Date:			Run ID: HYDRIDE1-C_020115A		
Client ID:		Batch ID: R6511	TestNo: A3114 B			Analysis Date: 1/15/2002			SeqNo 105136		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium-IV	0.0482	0 00100	0 0476	0	101	85	115	0.0484	0.414	10	

Sample ID: C02010348-003AMS		SampType: MSD	TestCode: CVAA-SEIV-3114- Units: mg/L			Prep Date:			Run ID: HYDRIDE1-C_020115A		
Client ID: 719		Batch ID: R6511	TestNo: A3114 B			Analysis Date: 1/15/2002			SeqNo: 105152		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium-IV	0.0478	0 00100	0 0476	0	100	85	115	0.047	1.69	10	

Sample ID: C02010348-007AMS		SampType: MSD	TestCode: CVAA-SEIV-3114- Units: mg/L			Prep Date:			Run ID: HYDRIDE1-C_020115A		
Client ID: 517		Batch ID: R6511	TestNo: A3114 B			Analysis Date: 1/15/2002			SeqNo: 105162		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium-IV	0.0482	0 00100	0 0476	0	101	85	115	0 0484	0.414	10	

Sample ID: 2 C167-47-6		SampType: CCV	TestCode: CVAA-SEIV-3114- Units: mg/L			Prep Date:			Run ID: HYDRIDE1-C_020115A		
Client ID:		Batch ID: R6511	TestNo: A3114 B			Analysis Date: 1/15/2002			SeqNo: 105137		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium-IV	0.0502	0.00100	0 05	0	100	90	110	0	0	0	

Sample ID: 3 C167-47-6		SampType: CCV	TestCode: CVAA-SEIV-3114- Units: mg/L			Prep Date:			Run ID: HYDRIDE1-C_020115A		
Client ID:		Batch ID: R6511	TestNo: A3114 B			Analysis Date: 1/15/2002			SeqNo: 105153		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium-IV	0.05	0.00100	0 05	0	100	90	110	0	0	0	

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Modifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: United Nuclear Corp

Work Order: C02010348

Project: Zone 3 Quarterly Long List - Quote 129

ANALYTICAL QC SUMMARY REPORT

Date: 12-Feb-02

TestNo: A4500-NH3 G

Sample ID: C02010348-006DMS	SampType: MS	TestCode: N-NH3-W	Units: mg/L	Prep Date:	Run ID: TECHNICON_020114A						
Client ID: EPA-14	Batch ID: A2002-01-14_	TestNo: A4500-NH3 G		Analysis Date: 1/14/2002	SeqNo: 104668						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	10.2	0.200	9.9	0.55	97.5	80	120	0	0	0	D

Sample ID: C02010344-008DMS	SampType: MSD	TestCode: N-NH3-W	Units: mg/L	Prep Date:	Run ID: TECHNICON_020114A						
Client ID:	Batch ID: A2002-01-14_	TestNo: A4500-NH3 G		Analysis Date: 1/14/2002	SeqNo: 104644						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	1.93	0.0500	2	0.04	94.5	80	120	1.87	3.16	20	

Sample ID: C02010183-002ADU	SampType: DUP	TestCode: N-NH3-W	Units: mg/L	Prep Date:	Run ID: TECHNICON_020114A						
Client ID:	Batch ID: A2002-01-14_	TestNo: A4500-NH3 G		Analysis Date: 1/14/2002	SeqNo: 104581						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	0.3	0.0500	0	0				0.31	3.28	20	

Sample ID: C02010253-002BDU	SampType: DUP	TestCode: N-NH3-W	Units: mg/L	Prep Date:	Run ID: TECHNICON_020114A						
Client ID:	Batch ID: A2002-01-14_	TestNo: A4500-NH3 G		Analysis Date: 1/14/2002	SeqNo: 104596						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	1.6	0.0500	0	0				1.58	1.26	20	

Sample ID: C02010327-007BDU	SampType: DUP	TestCode: N-NH3-W	Units: mg/L	Prep Date:	Run ID: TECHNICON_020114A						
Client ID:	Batch ID: A2002-01-14_	TestNo: A4500-NH3 G		Analysis Date: 1/14/2002	SeqNo: 104624						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	0.04	0.0500	0	0				0.04	0	20	J

Modifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

10348R000015
TECHNICON. PAGE NO.

CLIENT: United Nuclear Corp
Work Order: C02010348
Project: Zone 3 Quarterly Long List - Quote 129

ANALYTICAL QC SUMMARY REPORT

Date: 12-Feb-02

TestNo: A4500-NH3 G

Sample ID: C02010315-001ADU	SampType: DUP	TestCode: N-NH3-W	Units: mg/L	Prep Date:	Run ID: TECHNICON_020114A						
Client ID:	Batch ID: A2002-01-14_	TestNo: A4500-NH3 G		Analysis Date: 1/14/2002	SeqNo: 104627						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	210	20.0	0	0				190	10.0	20	D

Sample ID: C02010348-001DDU	SampType: DUP	TestCode: N-NH3-W	Units: mg/L	Prep Date:	Run ID: TECHNICON_020114A						
Client ID: NBL-1	Batch ID: A2002-01-14_	TestNo: A4500-NH3 G		Analysis Date: 1/14/2002	SeqNo: 104659						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	0.26	0.0500	0	0				0.26	0	20	

Sample ID: CCV-20	SampType: CCV	TestCode: N-NH3-W	Units: mg/L	Prep Date:	Run ID: TECHNICON_020114A						
Client ID:	Batch ID: A2002-01-14_	TestNo: A4500-NH3 G		Analysis Date: 1/14/2002	SeqNo: 104593						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	13.1	0.200	12.4	0	106	80	120	0	0	0	D

Sample ID: CCV-40	SampType: CCV	TestCode: N-NH3-W	Units: mg/L	Prep Date:	Run ID: TECHNICON_020114A						
Client ID:	Batch ID: A2002-01-14_	TestNo: A4500-NH3 G		Analysis Date: 1/14/2002	SeqNo: 104610						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	13.2	0.200	12.4	0	106	80	120	0	0	0	D

TECHNICON CCV-60	Sample ID: CCV-60	SampType: CCV	TestCode: N-NH3-W		Units: mg/L	Prep Date:			Run ID: TECHNICON_020114A			
	Client ID:	Batch ID: A2002-01-14_	TestNo: A4500-NH3 G			Analysis Date: 1/14/2002			SeqNo: 104633			
	Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
	Nitrogen, Ammonia as N	12.5	0.200	12.4	0	101	80	120	0	0	0	D

Modifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

10348R00016

CLIENT: United Nuclear Corp

Work Order: C02010348

Project: Zone 3 Quarterly Long List - Quote 129

ANALYTICAL QC SUMMARY REPORT

Date: 12-Feb-02

TestNo: E200.7

Sample ID: CA,MG,NA,K ICV/CC		SampType: CCV	TestCode: ICP-200.7-W-D		Units: mg/L		Prep Date:			Run ID: ICP1-C_020116A		
Client ID:		Batch ID: ICP011602A		TestNo: E200.7		Analysis Date: 1/16/2002			SeqNo: 106735			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Calcium	51.21	1.00	50	0	102	90	110	0	0	0		
Magnesium	49.94	1.00	50	0	99.9	90	110	0	0	0		
Potassium	45.06	1.00	50	0	90.1	90	110	0	0	0		
Sodium	46.2	1.00	50	0	92.4	90	110	0	0	0		

Sample ID: CL-SO4 ICV/CCV-04		SampType: CCV	TestCode: ICP-200.7-W-D		Units: mg/L		Prep Date:			Run ID: ICP1-C_020116A		
Client ID:		Batch ID: ICP011602A	TestNo: E200.7		Analysis Date: 1/16/2002			SeqNo: 106747				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Chloride	54.48	1.00	50	0	109	90	110	0	0	0		
Sulfate	51.46	1.00	50	0	103	90	110	0	0	0		

Sample ID: CA,MG,NA,K ICV/CC		SampType: CCV	TestCode: ICP-200.7-W-D		Units: mg/L	Prep Date:			Run ID: ICP1-C_020116A		
Client ID:		Batch ID: ICP011602A	TestNo: E200.7		Analysis Date: 1/16/2002			SeqNo: 106748			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	52.03	1.00	50	0	104	90	110	0	0	0	
Magnesium	50.97	1.00	50	0	102	90	110	0	0	0	
Potassium	45.74	1.00	50	0	91.5	90	110	0	0	0	
Sodium	46.28	1.00	50	0	92.6	90	110	0	0	0	

SAMPLE NO. 001602A	Sample ID: CALIBRATION BLA		SampType: CCB		TestCode: ICP-200.7-W-T		Units: mg/L		Prep Date:		Run ID: ICP1-C_020116A		
	Client ID:		Batch ID: ICP011602A		TestNo: E200.7		Analysis Date: 1/16/2002		SeqNo: 106783				
	Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
	Calcium	0.0023	1.00	0	0				0	0	0		
	Chloride	0.9355	1.00	0	0				0	0	0		
	Magnesium	0.0035	1.00	0	0				0	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

10348R00018

10348R00018

CLIENT: United Nuclear Corp
Work Order: C02010348
Project: Zone 3 Quarterly Long List - Quote 129

ANALYTICAL QC SUMMARY REPORT

Date: 12-Feb-02

TestNo: E200.8

Sample ID: BLK	SampType: MBLK	TestCode: ICPMS-200.8-W-D			Units: mg/L	Prep Date:			Run ID: ICPMS1-C_020116A		
Client ID:	Batch ID: ICPMS01160	TestNo: E200.8				Analysis Date: 1/16/2002			SeqNo: 106410		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	ND	0.100									
Beryllium	ND	0.0100									
Cadmium	ND	0.0100									
Cobalt	ND	0.0100									
Lead	ND	0.0500									
Manganese	ND	0.0100									
Molybdenum	ND	0.100									
Nickel	ND	0.0500									
Uranium	ND	0.000300									
Vanadium	ND	0.100									

Sample ID: C02010312-002CMS	SampType: MS	TestCode: ICPMS-200.8-W-D	Units: mg/L	Prep Date:	Run ID: ICPMS1-C_020116A						
Client ID:	Batch ID: ICPMS01160	TestNo: E200.8		Analysis Date: 1/17/2002	SeqNo: 106499						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.1092	0.100	0.05	0.05169	115	70	130	0	0	0	
Beryllium	0.05518	0.0100	0.05	0.000044	110	70	130	0	0	0	
Cadmium	0.05919	0.0100	0.05	0	118	70	130	0	0	0	
Cobalt	0.05483	0.0100	0.05	0.000138	109	70	130	0	0	0	
Lead	0.05859	0.0500	0.05	0.000063	117	70	130	0	0	0	
Manganese	0.06144	0.0100	0.05	0.006391	110	70	130	0	0	0	
Molybdenum	0.06176	0.100	0.05	0.00225	119	70	130	0	0	0	
Nickel	0.05572	0.0500	0.05	0.000944	110	70	130	0	0	0	
Uranium	0.06787	0.000300	0.05	0.008477	119	70	130	0	0	0	
Vanadium	0.07958	0.100	0.05	0.02399	111	70	130	0	0	0	

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits B - Analyte detected in the associated Method Blank
 J - Analyte detected below quantitation limits R - RPD outside accepted recovery limits

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 ANALYST: NO. PAGE NO.

CLIENT: United Nuclear Corp

Work Order: C02010348

Project: Zone 3 Quarterly Long List - Quote 129

ANALYTICAL QC SUMMARY REPORT

Date: 12-Feb-02

TestNo: E200.8

Sample ID: C02010348-007AMS	SampType: MS	TestCode: ICPMS-200.8-W-D	Units: mg/L	Prep Date:	Run ID: ICPMS1-C_020116A						
Client ID: 517	Batch ID: ICPMS01160	TestNo: E200.8		Analysis Date: 1/17/2002	SeqNo: 106577						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Beryllium	0.4301	0.0100	0.5	0.004044	85.2	70	130	0	0	0	
Cadmium	0.4872	0.0100	0.5	0.00776	95.9	70	130	0	0	0	
Cobalt	0.9857	0.0100	0.5	0.5464	87.9	70	130	0	0	0	
Lead	0.4597	0.0500	0.5	0.00186	91.6	70	130	0	0	0	
Manganese	6.432	0.0100	0.5	6.082	70	70	130	0	0	0	
Molybdenum	0.4722	0.100	0.5	0.001486	94.1	70	130	0	0	0	
Nickel	0.9356	0.0500	0.5	0.4904	89	70	130	0	0	0	
Uranium	0.5317	0.000300	0.5	0.05677	95	70	130	0	0	0	
Vanadium	0.4727	0.100	0.5	0.001708	94.2	70	130	0	0	0	

Sample ID: C02010312-002CMS	SampType: MSD	TestCode: ICPMS-200.8-W-D	Units: mg/L	Prep Date:	Run ID: ICPMS1-C_020116A						
Client ID:	Batch ID: ICPMS01160	TestNo. E200.8		Analysis Date: 1/17/2002	SeqNo: 106500						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Aluminum	0.09818	0.100	0.05	0.05169	93	70	130	0.1092	0	20	
Beryllium	0.04668	0.0100	0.05	0.000044	93.3	70	130	0.05518	16.7	20	
Cadmium	0.04997	0.0100	0.05	0	99.9	70	130	0.05919	16.9	20	
Cobalt	0.05036	0.0100	0.05	0.000138	100	70	130	0.05483	8.50	20	
Lead	0.05306	0.0500	0.05	0.000063	106	70	130	0.05859	9.91	20	
Manganese	0.05693	0.0100	0.05	0.006391	101	70	130	0.06144	7.62	20	
Molybdenum	0.05272	0.100	0.05	0.00225	101	70	130	0.06176	0	20	
Nickel	0.05082	0.0500	0.05	0.000944	99.8	70	130	0.05572	9.20	20	
Uranium	0.06292	0.000300	0.05	0.008477	109	70	130	0.06787	7.57	20	
Vanadium	0.07574	0.100	0.05	0.02399	104	70	130	0.07958	0	20	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

10348R00020
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CLIENT: United Nuclear Corp

Work Order: C02010348

Project: Zone 3 Quarterly Long List - Quote 129

ANALYTICAL QC SUMMARY REPORT

Date: 12-Feb-02

TestNo: E200.8

Sample ID: CCB	SampType: CCB	TestCode: ICPMS-200.8-W-D	Units: mg/L	Prep Date:	Run ID: ICPMS1-C_020116A						
Client ID:	Batch ID: ICPMS01160	TestNo: E200.8		Analysis Date: 1/16/2002	SeqNo: 106484						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.000136	0.100	0	0				0	0	0	
Beryllium	0.000026	0.0100	0	0				0	0	0	
Cadmium	0.000109	0.0100	0	0				0	0	0	
Cobalt	0.000013	0.0100	0	0				0	0	0	
Lead	0.000029	0.0500	0	0				0	0	0	
Manganese	0.000636	0.0100	0	0				0	0	0	
Molybdenum	0.000147	0.100	0	0				0	0	0	
Nickel	-0.00003	0.0500	0	0				0	0	0	
Uranium	0.000019	0.000300	0	0				0	0	0	
Vanadium	0.00003	0.100	0	0				0	0	0	

Sample ID: CCB	SampType: CCB	TestCode: ICPMS-200.8-W-D Units: mg/L			Prep Date:			Run ID: ICPMS1-C_020116A			
Client ID:	Batch ID: ICPMS01160	TestNo: E200.8			Analysis Date: 1/16/2002			SeqNo: 106494			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.002191	0.100	0	0				0	0	0	
Beryllium	0.000011	0.0100	0	0				0	0	0	
Cadmium	0.000099	0.0100	0	0				0	0	0	
Cobalt	0.000011	0.0100	0	0				0	0	0	
Lead	0.000083	0.0500	0	0				0	0	0	
Manganese	0.000749	0.0100	0	0				0	0	0	
Molybdenum	0.000163	0.100	0	0				0	0	0	
Nickel	-0.000001	0.0500	0	0				0	0	0	
Uranium	0.003668	0.000300	0	0				0	0	0	
Vanadium	0.000114	0.100	0	0				0	0	0	

Qualifiers: ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

10348R000021

NO. PAGE NO.

CLIENT: United Nuclear Corp
Work Order: C02010348
Project: Zone 3 Quarterly Long List - Quote 129

ANALYTICAL QC SUMMARY REPORT

Date: 12-Feb-02

TestNo: E200.8

Sample ID: CCV	SampType: CCV	TestCode: ICPMS-200.8-W-D Units: mg/L				Prep Date:			Run ID: ICPMS1-C_020116A		
Client ID:	Batch ID: ICPMS01160	TestNo: E200.8				Analysis Date: 1/16/2002			SeqNo: 106473		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.04981	0.100	0.05	0	99.6	85	115	0	0	0	
Beryllium	0.05459	0.0100	0.05	0	109	85	115	0	0	0	
Cadmium	0.04829	0.0100	0.05	0	96.6	85	115	0	0	0	
Cobalt	0.04972	0.0100	0.05	0	99.4	85	115	0	0	0	
Lead	0.04982	0.0500	0.05	0	99.6	85	115	0	0	0	
Manganese	0.0494	0.0100	0.05	0	98.8	85	115	0	0	0	
Molybdenum	0.05061	0.100	0.05	0	101	85	115	0	0	0	
Nickel	0.0501	0.0500	0.05	0	100	85	115	0	0	0	
Uranium	0.04966	0.000300	0.05	0	99.3	85	115	0	0	0	
Vanadium	0.04843	0.100	0.05	0	96.9	85	115	0	0	0	

Sample ID: CCV	SampType: CCV	TestCode: ICPMS-200.8-W-D Units: mg/L				Prep Date:			Run ID: ICPMS1-C_020116A		
Client ID:	Batch ID: ICPMS01160	TestNo: E200.8				Analysis Date: 1/16/2002			SeqNo: 106475		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.04959	0.100	0.05	0	99.2	85	115	0	0	0	
Beryllium	0.0559	0.0100	0.05	0	112	85	115	0	0	0	
Cadmium	0.04883	0.0100	0.05	0	97.7	85	115	0	0	0	
Cobalt	0.04926	0.0100	0.05	0	98.5	85	115	0	0	0	
Lead	0.05021	0.0500	0.05	0	100	85	115	0	0	0	
Manganese	0.04929	0.0100	0.05	0	98.6	85	115	0	0	0	
Molybdenum	0.05113	0.100	0.05	0	102	85	115	0	0	0	
Nickel	0.04917	0.0500	0.05	0	98.3	85	115	0	0	0	
Uranium	0.04936	0.000300	0.05	0	98.7	85	115	0	0	0	
Vanadium	0.04776	0.100	0.05	0	95.5	85	115	0	0	0	

allifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

10348R000022

Page No.



CLIENT: United Nuclear Corp
Work Order: C02010348
Project: Zone 3 Quarterly Long List - Quote 129

ANALYTICAL QC SUMMARY REPORT

Date: 12-Feb-02

TestNo.: E353.2

Sample ID: C02010405-002BMS	SampType: MS	TestCode: N-NO3+NO2-DW	Units: mg/L	Prep Date:	Run ID: TECHNICON_020116C						
Client ID:	Batch ID: A2002-01-15_	TestNo: E353.2		Analysis Date: 1/16/2002	SeqNo: 106141						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	4.22	0.100	1.99	2.19	102	80	120	0	0	0	

Sample ID: MBLK-3	SampType: MBLK	TestCode: N-NO3+NO2-W	Units: mg/L	Prep Date:	Run ID: TECHNICON_020116B						
Client ID:	Batch ID: A2002-01-15_	TestNo: E353.2		Analysis Date: 1/16/2002	SeqNo: 106081						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	ND	0.100									

Sample ID: MBLK-22	SampType: MBLK	TestCode: N-NO3+NO2-W	Units: mg/L	Prep Date:	Run ID: TECHNICON_020116B						
Client ID:	Batch ID: A2002-01-15_	TestNo: E353.2		Analysis Date: 1/16/2002	SeqNo: 106100						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	ND	0.100									

Sample ID: MBLK-3	SampType: MBLK	TestCode: N-NO3+NO2-W	Units: mg/L	Prep Date:	Run ID: TECHNICON_020116C						
Client ID:	Batch ID: A2002-01-15_	TestNo: E353.2		Analysis Date: 1/16/2002	SeqNo: 106122						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	ND	0.100									

TRC00116B

Sample ID: C02010327-009BMS	SampType: MS	TestCode: N-NO3+NO2-W	Units: mg/L	Prep Date:	Run ID: TECHNICON_020116B						
Client ID:	Batch ID: A2002-01-15_	TestNo: E353.2		Analysis Date: 1/16/2002	SeqNo: 106088						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	2.86	0.100	1.99	0.94	96.5	80	120	0	0	0	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

10348R000023
PAGE NO

CLIENT: United Nuclear Corp
Work Order: C02010348
Project: Zone 3 Quarterly Long List - Quote 129

ANALYTICAL QC SUMMARY REPORT

Date: 12-Feb-02

TestNo: - E353.2

Sample ID: CCV-21	SampType: CCV	TestCode: N-NO3+NO2-W		Units: mg/L		Prep Date:			Run ID: TECHNICON_020116B		
Client ID:	Batch ID: A2002-01-15_	TestNo: E353.2		Analysis Date: 1/16/2002			SeqNo: 106099				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	20.1	0.300	19.4	0	104	80	120	0	0	0	D

Sample ID: CCV-41	SampType: CCV	TestCode: N-NO3+NO2-W		Units: mg/L		Prep Date:			Run ID: TECHNICON_020116B		
Client ID:	Batch ID: A2002-01-15_	TestNo: E353.2		Analysis Date: 1/16/2002			SeqNo: 106119				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	19	0.300	19.4	0	97.9	80	120	0	0	0	D

Sample ID: CCV-18	SampType: CCV	TestCode: N-NO3+NO2-W		Units: mg/L		Prep Date:			Run ID: TECHNICON_020116C		
Client ID:	Batch ID: A2002-01-15_	TestNo: E353.2		Analysis Date: 1/16/2002			SeqNo: 106143				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	19.8	0.300	19.4	0	102	80	120	0	0	0	D

TRACKING NO. PAGE NO.
 10348R000024

Qualifiers:

ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: United Nuclear Corp
Work Order: C02010348
Project: Zone 3 Quarterly Long List - Quote 129

ANALYTICAL QC SUMMARY REPORT

Date: 12-Feb-02

TestNo: E624

Sample ID: Method Blank 2	SampType: MBLK	TestCode: VOC-624-W		Units: ug/L	Prep Date:				Run ID: GCMS2-C_020118C		
Client ID:	Batch ID: R6678	TestNo: E624		Analysis Date: 1/18/2002				SeqNo: 108685			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloroform	ND	1.00									
Surr: 1,2-Dichlorobenzene-d4	10.07	1.00	10	0	101	80	120	0	0	0	
Surr: Dibromofluoromethane	9.86	1.00	10	0	98.6	70	130	0	0	0	
Surr: p-Bromofluorobenzene	9.22	1.00	10	0	92.2	80	120	0	0	0	
Surr: Toluene-d8	9.94	1.00	10	0	99.4	80	120	0	0	0	

Sample ID: Laboratory Con	SampType: LCS	TestCode: VOC-624-W		Units: ug/L	Prep Date:				Run ID: GCMS2-C_020118C		
Client ID:	Batch ID: R6678	TestNo: E624		Analysis Date: 1/18/2002				SeqNo: 108684			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloroform	10.02	1.00	10	0	100	70	130	0	0	0	
Surr: 1,2-Dichlorobenzene-d4	9.88	1.00	10	0	98.8	80	120	0	0	0	
Surr: Dibromofluoromethane	10.19	1.00	10	0	102	70	130	0	0	0	
Surr: p-Bromofluorobenzene	9.81	1.00	10	0	98.1	80	120	0	0	0	
Surr: Toluene-d8	9.9	1.00	10	0	99	80	120	0	0	0	

Sample ID: C02010346-001E	SampType: MS	TestCode: VOC-624-W		Units: ug/L		Prep Date:			Run ID: GCMS2-C_020118C			
Client ID:	Batch ID: R6678	TestNo: E624		Analysis Date: 1/19/2002			SeqNo: 108686					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Chloroform	108.4	5.00	100	0	108	70	130	0	0	0	D	
Surr: 1,2-Dichlorobenzene-d4	100.3	5.00	100	0	100	80	120	0	0	0	D	
Surr: Dibromofluoromethane	106.7	5.00	100	0	107	70	130	0	0	0	D	
Surr: p-Bromofluorobenzene	90.5	5.00	100	0	90.5	80	120	0	0	0	D	
Surr: Toluene-d8	103	5.00	100	0	103	80	120	0	0	0	D	

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

10348R000025
 RECOVERIES
 PAGE NO.

CLIENT: United Nuclear Corp
Work Order: C02010348
Project: Zone 3 Quarterly Long List - Quote 129

ANALYTICAL QC SUMMARY REPORT

Date: 12-Feb-02

TestNo.: E624

Sample ID: C02010346-001E	SampType: MSD	TestCode: VOC-624-W	Units: ug/L	Prep Date:	Run ID: GCMS2-C_020118C						
Client ID:	Batch ID: R6678	TestNo: E624		Analysis Date: 1/19/2002	SeqNo: 108687						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloroform	110.8	5.00	100	0	111	70	130	108.4	2.19	20	D
Surr: 1,2-Dichlorobenzene-d4	99.9	5.00	100	0	99.9	80	120	0	0	10	D
Surr: Dibromofluoromethane	108.8	5.00	100	0	109	70	130	0	0	10	D
Surr: p-Bromofluorobenzene	89.9	5.00	100	0	89.9	80	120	0	0	10	D
Surr: Toluene-d8	103	5.00	100	0	103	80	120	0	0	10	D

Sample ID: Cal. Curve #1	SampType: CCV	TestCode: VOC-624-W	Units: ug/L	Prep Date:	Run ID: GCMS2-C_020118C						
Client ID:	Batch ID: R6678	TestNo: E624		Analysis Date: 1/18/2002	SeqNo: 108682						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloroform	10.18	1.00	10	0	102	80	120	0	0	0	
Surr: 1,2-Dichlorobenzene-d4	10	1.00	10	0	100	80	120	0	0	0	
Surr: Dibromofluoromethane	10.16	1.00	10	0	102	70	130	0	0	0	
Surr: p-Bromofluorobenzene	10.04	1.00	10	0	100	80	120	0	0	0	
Surr: Toluene-d8	10.25	1.00	10	0	103	80	120	0	0	0	

Sample ID: Cal. Curve #1	SampType: CCV	TestCode: VOC-624-W	Units. ug/L	Prep Date:	Run ID: GCMS2-C_020118C						
Client ID:	Batch ID: R6678	TestNo: E624		Analysis Date: 1/19/2002	SeqNo: 108683						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloroform	10.44	1.00	10	0	104	80	120	0	0	0	
Surr: 1,2-Dichlorobenzene-d4	10.07	1.00	10	0	101	80	120	0	0	0	
Surr: Dibromofluoromethane	10.55	1.00	10	0	106	70	130	0	0	0	
Surr: p-Bromofluorobenzene	10.01	1.00	10	0	100	80	120	0	0	0	
Surr: Toluene-d8	10.29	1.00	10	0	103	80	120	0	0	0	

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

10348R000026
 PAGE NO. 1



CLIENT: United Nuclear Corp
Work Order: C02010348
Project: Zone 3 Quarterly Long List - Quote 129

ANALYTICAL QC SUMMARY REPORT

Date: 12-Feb-02

TestNo: E903.0

Sample ID: C02010294-003A	SampType: MS	TestCode: RAD-RA226-W-D	Units: pCi/L	Prep Date:	Run ID: TENNELEC-1_020117A
Client ID:	Batch ID: 02RA-19	TestNo: E903.0		Analysis Date: 1/24/2002	SeqNo: 110305
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Radium 226	131	0.200	121.2	0.7	107 70 130 0 0 0

Sample ID: C02010348-001A	SampType: DUP	TestCode: RAD-RA226-W-D	Units: pCi/L	Prep Date:	Run ID: TENNELEC-1_020117A
Client ID: NBL-1	Batch ID: 02RA-19	TestNo: E903.0		Analysis Date: 1/23/2002	SeqNo: 110286
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Radium 226	5.8	0.200	0	0	70 130 6 3.39 30

Sample ID: C02010294-002A	SampType: DUP	TestCode: RAD-RA226-W-D	Units: pCi/L	Prep Date:	Run ID: TENNELEC-1_020117A
Client ID:	Batch ID: 02RA-19	TestNo: E903.0		Analysis Date: 1/24/2002	SeqNo: 110304
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Radium 226	0.783	0.200	0	0	70 130 0.799 2.02 30

Sample ID: MB	SampType: MBLK	TestCode: RAD-RA226-W-T	Units: pCi/L	Prep Date:	Run ID: TENNELEC-1_020117A
Client ID:	Batch ID: 02RA-19	TestNo: E903.0		Analysis Date: 1/23/2002	SeqNo: 110284
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Radium 226	ND	0.200			

Sample ID: 226	SampType: LCS	TestCode: RAD-RA226-W-T	Units: pCi/L	Prep Date:	Run ID: TENNELEC-1_020117A
Client ID:	Batch ID: 02RA-19	TestNo: E903.0		Analysis Date: 1/24/2002	SeqNo: 110306
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Radium 226	127.9	0.200	121.3	0	105 70 130 0 0 0

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

10348R000027
PAGE NO



CLIENT: United Nuclear Corp
Work Order: C02010348
Project: Zone 3 Quarterly Long List - Quote 129

ANALYTICAL QC SUMMARY REPORT

Date: 12-Feb-02

TestNo: E904.0

Sample ID: C02010348-002A	SampType: MS	TestCode: RAD-RA228-W-D	Units: pCi/L	Prep Date:	Run ID: BERTHOLD 770_02012						
Client ID: 504-B	Batch ID: 02228026	TestNo: E904.0		Analysis Date: 11/29/2001	SeqNo: 111556						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium 228	9.1	1.00	9.12	0	99.8	70	130	0	0	0	

Sample ID: C02010348-001A	SampType: DUP	TestCode: RAD-RA228-W-D	Units: pCi/L	Prep Date:	Run ID: BERTHOLD 770_02012						
Client ID: NBL-1	Batch ID: 02228026	TestNo: E904.0		Analysis Date: 11/29/2001	SeqNo: 111555						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium 228	6.9	1.00	0	0		70	130	4.5	42.1	30	

Sample ID: MB	SampType: MBLK	TestCode: RAD-RA228-W-T	Units: pCi/L	Prep Date:	Run ID: BERTHOLD 770_02012						
Client ID:	Batch ID: 02228026	TestNo: E904.0		Analysis Date: 1/29/2002	SeqNo: 111571						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium 228	ND	1.0									

Sample ID: 228	SampType: LCS	TestCode: RAD-RA228-W-T	Units: pCi/L	Prep Date:	Run ID: BERTHOLD 770_02012						
Client ID:	Batch ID: 02228026	TestNo: E904.0		Analysis Date: 1/29/2002	SeqNo: 111564						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium 228	9	1.0	9.1	0	98.9	70	130	0	0	0	

10348R000028
TRACKING NO. PAGE 10

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank



CLIENT: United Nuclear Corp
Work Order: C02010348
Project: Zone 3 Quarterly Long List - Quote 129

ANALYTICAL QC SUMMARY REPORT

Date: 12-Feb-02

TestNo: E907.0

Sample ID: MB-R6953	SampType: MBLK	TestCode: RAD-TH-ISO-F	Units: pCi/Filter	Prep Date:	Run ID: EGG-ORTEC_020122A
Client ID:	Batch ID: R6953	TestNo: E907.0		Analysis Date: 1/22/2002	SeqNo: 112606
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Thorium 230	ND	0.20			

Sample ID: LCS-R6953	SampType: LCS	TestCode: RAD-TH-ISO-F	Units: pCi/Filter	Prep Date:	Run ID: EGG-ORTEC_020122A
Client ID:	Batch ID: R6953	TestNo: E907.0		Analysis Date: 1/22/2002	SeqNo: 112607
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Thorium 230	25	0.20	25	0	100 0 0 0 0 0

Sample ID: C02010348-007AMS	SampType: MS	TestCode: RAD-TH-ISO-W	Units: pCi/L	Prep Date:	Run ID: EGG-ORTEC_020122A
Client ID: 517	Batch ID: R6953	TestNo: E907.0		Analysis Date: 1/22/2002	SeqNo: 112628
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Thorium 230	121	0.20	125	0	96.8 70 130 0 0 0

Sample ID: C02010348-007ADU	SampType: DUP	TestCode: RAD-TH-ISO-W	Units: pCi/L	Prep Date:	Run ID: EGG-ORTEC_020122A
Client ID: 517	Batch ID: R6953	TestNo: E907.0		Analysis Date: 1/22/2002	SeqNo: 112629
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Thorium 230	130	0.20	122	0	107 70 130 121 7.17 30

10348R000029

TRACKING NO. PAGE NO.

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: United Nuclear Corp
Work Order: C02010348
Project: Zone 3 Quarterly Long List - Quote 129

ANALYTICAL QC SUMMARY REPORT

Date: 12-Feb-02

TestNo: NERHL-65-4

Sample ID: LCS	SampType: LCS	TestCode: RAD-PB210-W-D	Units: pCi/L	Prep Date:	Run ID: BECKMAN 6000_02013						
Client ID:	Batch ID: R7079	TestNo: NERHL-65-4		Analysis Date: 1/31/2002	SeqNo: 113874						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead 210	16.4	2.7	15	0	109	0	0	0	0	0	

Sample ID: C02010514-008AMS	SampType: MS	TestCode: RAD-PB210-W-D	Units: pCi/L	Prep Date:	Run ID: BECKMAN 6000_02013						
Client ID:	Batch ID: R7079	TestNo: NERHL-65-4		Analysis Date: 1/31/2002	SeqNo: 113870						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead 210	36.6	2.7	37.45	0	97.7	0	0	0	0	0	

Sample ID: C02010514-009ADU	SampType: DUP	TestCode: RAD-PB210-W-D	Units: pCi/L	Prep Date:	Run ID: BECKMAN 6000_02013						
Client ID:	Batch ID: R7079	TestNo: NERHL-65-4		Analysis Date: 1/31/2002	SeqNo: 113872						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead 210	ND	2.7	0	0				0	0	0	

TRACKING NO. PAGE NO.
 10348R000030

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank



QA/QC Summary Report

Client: United Nuclear Corp

Project: Alluvium

Report Date: 08/27/02

Work Order: C02010344

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2320 B							Batch: O-011502-3		
Sample ID: C02010344-001C	Sample Duplicate								01/15/02 15:50
pH	6.80	s.u.		0.0100					
Sample ID: C02010344-001C	Sample Duplicate								01/16/02 09:39
Bicarbonate as HCO3	2290	mg/L		1.00					
Method: A2320 B							Batch: O-011602-1		
Sample ID: C02010344-009C	Sample Duplicate								01/16/02 10:06
Bicarbonate as HCO3	990	mg/L		1.00					
pH	7.20	s u.		0.0100					

Qualifiers: ND - Not Detected at the Reporting Limit
R - RPD outside of recommended recovery limits

S - Spike Recovery outside of recommended recovery limits

TRACKING NO. PAGE NO.

10344R00021



QA/QC Summary Report

Client: United Nuclear Corp

Project: Alluvium

Report Date: 08/27/02

Work Order: C02010344

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2540 C							Batch: 020114A-SLDS-TDS-W		
Sample ID: C02010323-003BMS	Matrix Spike								01/14/02 09:23
Solids, Total Dissolved TDS @ 180 C	4580	mg/L	10.0	101	90	110			
Sample ID: C02010323-008BDUP	Sample Duplicate								01/14/02 09:26
Solids, Total Dissolved TDS @ 180 C	648	mg/L	10.0				0	10	
Sample ID: C02010323-011BMS	Matrix Spike								01/14/02 09:30
Solids, Total Dissolved TDS @ 180 C	2240	mg/L	10.0	101	90	110			
Sample ID: C02010327-003CDUP	Sample Duplicate								01/14/02 09:35
Solids, Total Dissolved TDS @ 180 C	208	mg/L	10.0				0	10	
Sample ID: C02010327-008CMS	Matrix Spike								01/14/02 09:44
Solids, Total Dissolved TDS @ 180 C	2330	mg/L	10.0	102	90	110			
Sample ID: C02010334-001CDUP	Sample Duplicate								01/14/02 09:48
Solids, Total Dissolved TDS @ 180 C	1270	mg/L	10.0				0.7	10	
Sample ID: C02010344-004BMS	Matrix Spike								01/14/02 12:19
Solids, Total Dissolved TDS @ 180 C	10600	mg/L	10.0	99.6	90	110			
Sample ID: C02010344-009BDUP	Sample Duplicate								01/14/02 12:23
Solids, Total Dissolved TDS @ 180 C	5300	mg/L	10.0				0.2	10	
Sample ID: C02010344-014BMS	Matrix Spike								01/14/02 12:26
Solids, Total Dissolved TDS @ 180 C	6260	mg/L	10.0	100	90	110			
Sample ID: C02010346-001BDUP	Sample Duplicate								01/14/02 12:29
Solids, Total Dissolved TDS @ 180 C	1060	mg/L	10.0				0.2	10	H
Sample ID: C02010348-005BMS	Matrix Spike								01/14/02 12:42
Solids, Total Dissolved TDS @ 180 C	5280	mg/L	10.0	102	90	110			
Sample ID: C02010348-006BDUP	Sample Duplicate								01/14/02 15:18
Solids, Total Dissolved TDS @ 180 C	4700	mg/L	10.0				0.4	10	
Sample ID: C02010348-007BMS	Matrix Spike								01/14/02 15:19
Solids, Total Dissolved TDS @ 180 C	6890	mg/L	10.0	102	90	110			

Qualifiers: ND - Not Detected at the Reporting Limit
R - RPD outside of recommended recovery limits

S - Spike Recovery outside of recommended recovery limits

TRACKING NO. PAGE NO.

10344R00022



QA/QC Summary Report

Client: United Nuclear Corp

Project: Alluvium

Report Date: 08/27/02

Work Order: C02010344

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A3114 B									Batch: R6511
Sample ID: C02010344-010AMS	Matrix Spike								01/15/02 11:17
Selenium-IV	0.0484	mg/L	0.00100	102	85	115			
Sample ID: C02010344-010AMSD	Matrix Spike Duplicate								01/15/02 11:19
Selenium-IV	0.0482	mg/L	0.00100	101	85	115	0.4	10	
Sample ID: C02010348-003AMS	Matrix Spike								01/15/02 12:00
Selenium-IV	0.0470	mg/L	0.00100	98.7	85	115			
Sample ID: C02010348-003AMSD	Matrix Spike Duplicate								01/15/02 12:03
Selenium-IV	0.0478	mg/L	0.00100	100	85	115	1.7	10	
Sample ID: C02010348-007AMS	Matrix Spike								01/15/02 12:22
Selenium-IV	0.0484	mg/L	0.00100	102	85	115			
Sample ID: C02010348-007AMSD	Matrix Spike Duplicate								01/15/02 12:24
Selenium-IV	0.0482	mg/L	0.00100	101	85	115	0.4	10	
Method: A3114 B									Batch: R6522
Sample ID: C02010344-010AMS	Matrix Spike								01/15/02 14:59
Arsenic-III	0.0440	mg/L	0.00100	92.4	85	115			
Sample ID: C02010344-010AMSD	Matrix Spike Duplicate								01/15/02 15:01
Arsenic-III	0.0441	mg/L	0.00100	92.6	85	115	0.2	10	
Sample ID: C02010348-003AMS	Matrix Spike								01/15/02 15:45
Arsenic-III	0.0537	mg/L	0.00100	90.8	85	115			
Sample ID: C02010348-003AMSD	Matrix Spike Duplicate								01/15/02 15:49
Arsenic-III	0.0529	mg/L	0.00100	89.1	85	115	1.5	10	
Sample ID: C02010348-007AMS	Matrix Spike								01/15/02 16:11
Arsenic-III	0.0452	mg/L	0.00100	95	85	115			
Sample ID: C02010348-007AMSD	Matrix Spike Duplicate								01/15/02 16:13
Arsenic-III	0.0450	mg/L	0.00100	94.5	85	115	0.4	10	

Qualifiers: ND - Not Detected at the Reporting Limit
R - RPD outside of recommended recovery limits

S - Spike Recovery outside of recommended recovery limits

TRACKING NO. PAGE NO.

10344R00023



QA/QC Summary Report

Client: United Nuclear Corp

Project: Alluvium

Report Date: 08/27/02

Work Order: C02010344

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-NH3 G							Batch: A2002-01-14_1_NH3_01		
Sample ID: C02010183-002ADUP Nitrogen, Ammonia as N	Sample Duplicate 0.300	mg/L	0.0500				3.3		01/14/02 11:32 20
Sample ID: C02010251-001AMS Nitrogen, Ammonia as N	Matrix Spike 39.5	mg/L	1.00	92.7	80	120			01/14/02 11:46
Sample ID: C02010253-002BDUP Nitrogen, Ammonia as N	Sample Duplicate 1.60	mg/L	0.0500				1.3		01/14/02 12:04 20
Sample ID: C02010296-001CMS Nitrogen, Ammonia as N	Matrix Spike 13.0	mg/L	0.200	92.8	80	120			01/14/02 12:20 D
Sample ID: C02010327-002BMS Nitrogen, Ammonia as N	Matrix Spike 2.28	mg/L	0.0500	112	80	120			01/14/02 12:52
Sample ID: C02010327-007BDUP Nitrogen, Ammonia as N	Sample Duplicate 0.0400	mg/L	0.0500				0		01/14/02 13:12 20 J
Sample ID: C02010315-001ADUP Nitrogen, Ammonia as N	Sample Duplicate 210	mg/L	20.0				10		01/14/02 13:22 20 D
Sample ID: C02010344-003DMS Nitrogen, Ammonia as N	Matrix Spike 2.64	mg/L	0.0500	105	80	120			01/14/02 13:44
Sample ID: C02010344-008DMS Nitrogen, Ammonia as N	Matrix Spike 1.87	mg/L	0.0500	91.5	80	120			01/14/02 13:58
Sample ID: C02010344-008DMSD Nitrogen, Ammonia as N	Matrix Spike Duplicate 1.93	mg/L	0.0500	94.5	80	120	3.2		01/14/02 14:00 20
Sample ID: C02010348-001DDUP Nitrogen, Ammonia as N	Sample Duplicate 0.260	mg/L	0.0500				0		01/14/02 14:30 20
Sample ID: C02010348-006DMS Nitrogen, Ammonia as N	Matrix Spike 10.2	mg/L	0.200	97.5	80	120			01/14/02 14:58 D

Qualifiers: ND - Not Detected at the Reporting Limit
R - RPD outside of recommended recovery limits

S - Spike Recovery outside of recommended recovery limits

TRACKING NO. PAGE NO.

10344R00024



QA/QC Summary Report

Client: United Nuclear Corp

Project: Alluvium

Report Date: 08/27/02

Work Order: C02010344

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8							Batch: ICPMS011602a		
Sample ID: C02010312-002CMS							01/17/02 00:01		
Matrix Spike									
Aluminum	0.109	mg/L	0.100	115	70	130			
Beryllium	0.0552	mg/L	0.0100	110	70	130			
Cadmium	0.0592	mg/L	0.0100	118	70	130			
Cobalt	0.0548	mg/L	0.0100	109	70	130			
Lead	0.0586	mg/L	0.0500	117	70	130			
Manganese	0.0614	mg/L	0.0100	110	70	130			
Molybdenum	0.0618	mg/L	0.100	119	70	130			
Nickel	0.0557	mg/L	0.0500	110	70	130			
Uranium	0.0679	mg/L	0.000300	119	70	130			
Vanadium	0.0796	mg/L	0.100	111	70	130			
Sample ID: C02010312-002CMSD							01/17/02 00:12		
Matrix Spike Duplicate									
Aluminum	0.0982	mg/L	0.100	93	70	130	0	20	
Beryllium	0.0467	mg/L	0.0100	93.3	70	130	17	20	
Cadmium	0.0500	mg/L	0.0100	99.9	70	130	17	20	
Cobalt	0.0504	mg/L	0.0100	100	70	130	8.5	20	
Lead	0.0531	mg/L	0.0500	106	70	130	9.9	20	
Manganese	0.0569	mg/L	0.0100	101	70	130	7.6	20	
Molybdenum	0.0527	mg/L	0.100	101	70	130	0	20	
Nickel	0.0508	mg/L	0.0500	99.8	70	130	9.2	20	
Uranium	0.0629	mg/L	0.000300	109	70	130	7.6	20	
Vanadium	0.0757	mg/L	0.100	104	70	130	0	20	
Sample ID: C02010344-004AMS							01/17/02 04:31		
Matrix Spike									
Aluminum	0.494	mg/L	0.100	93.5	70	130			
Beryllium	0.475	mg/L	0.0100	94.9	70	130			
Cadmium	0.457	mg/L	0.0100	90.5	70	130			
Cobalt	0.427	mg/L	0.0100	84.4	70	130			
Lead	0.459	mg/L	0.0500	91.2	70	130			
Manganese	1.02	mg/L	0.0100	87.3	70	130			
Molybdenum	0.492	mg/L	0.100	98.3	70	130			
Nickel	0.475	mg/L	0.0500	93.6	70	130			
Uranium	0.616	mg/L	0.000300	95.7	70	130			
Vanadium	0.456	mg/L	0.100	90.9	70	130			
Sample ID: C02010344-004AMSD							01/17/02 04:42		
Matrix Spike Duplicate									
Aluminum	0.478	mg/L	0.100	90.5	70	130	3.1	20	
Beryllium	0.462	mg/L	0.0100	92.3	70	130	2.7	20	
Cadmium	0.445	mg/L	0.0100	88.2	70	130	2.6	20	
Cobalt	0.424	mg/L	0.0100	83.8	70	130	0.7	20	
Lead	0.456	mg/L	0.0500	90.5	70	130	0.7	20	
Manganese	1.03	mg/L	0.0100	87.5	70	130	0	20	
Molybdenum	0.481	mg/L	0.100	96.1	70	130	2.2	20	

Qualifiers: ND - Not Detected at the Reporting Limit
R - RPD outside of recommended recovery limits

S - Spike Recovery outside of recommended recovery limits

TRACKING NO. PAGE NO.

10344R00025

QA/QC Summary Report

Client: United Nuclear Corp
Project: Alluvium

Report Date: 08/27/02
Work Order: C02010344

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8							Batch: ICPMS011602a		
Sample ID: C02010344-004AMSD	Matrix Spike Duplicate								01/17/02 04:42
Nickel	0.474	mg/L	0.0500	93.4	70	130	0.2	20	
Uranium	0.605	mg/L	0.000300	93.4	70	130	1.9	20	
Vanadium	0.455	mg/L	0.100	90.7	70	130	0.2	20	
Sample ID: C02010344-014AMS	Matrix Spike								01/17/02 05:56
Aluminum	0.521	mg/L	0.100	99.3	70	130			
Beryllium	0.502	mg/L	0.0100	100	70	130			
Cadmium	0.468	mg/L	0.0100	93.4	70	130			
Cobalt	0.441	mg/L	0.0100	87.3	70	130			
Lead	0.480	mg/L	0.0500	95.5	70	130			
Molybdenum	0.518	mg/L	0.100	103	70	130			
Nickel	0.502	mg/L	0.0500	98.4	70	130			
Uranium	0.571	mg/L	0.000300	96.8	70	130			
Vanadium	0.472	mg/L	0.100	93.8	70	130			
Sample ID: C02010344-014AMSD	Matrix Spike Duplicate								01/17/02 07:09
Cadmium	0.411	mg/L	0.0100	82	70	130	13	20	
Cobalt	0.403	mg/L	0.0100	79.6	70	130	9.1	20	
Lead	0.407	mg/L	0.0500	80.9	70	130	16	20	
Nickel	0.452	mg/L	0.0500	88.4	70	130	10	20	
Uranium	0.506	mg/L	0.000300	83.7	70	130	12	20	
Vanadium	0.421	mg/L	0.100	83.6	70	130	11	20	
Sample ID: C02010348-007AMS	Matrix Spike								01/17/02 08:23
Beryllium	0.430	mg/L	0.0100	85.2	70	130			
Cadmium	0.487	mg/L	0.0100	95.9	70	130			
Cobalt	0.986	mg/L	0.0100	87.9	70	130			
Lead	0.460	mg/L	0.0500	91.6	70	130			
Manganese	6.43	mg/L	0.0100	70	70	130			
Molybdenum	0.472	mg/L	0.100	94.1	70	130			
Nickel	0.936	mg/L	0.0500	89	70	130			
Uranium	0.532	mg/L	0.000300	95	70	130			
Vanadium	0.473	mg/L	0.100	94.2	70	130			
Sample ID: C02010348-007AMSD	Matrix Spike Duplicate								01/17/02 08:34
Aluminum	10.8	mg/L	0.100	128	70	130	7.1	20	
Beryllium	0.436	mg/L	0.0100	86.3	70	130	1.3	20	
Cadmium	0.483	mg/L	0.0100	95.1	70	130	0.8	20	
Cobalt	0.994	mg/L	0.0100	89.5	70	130	0.8	20	
Lead	0.454	mg/L	0.0500	90.4	70	130	1.2	20	
Manganese	6.56	mg/L	0.0100	95	70	130	1.9	20	
Molybdenum	0.493	mg/L	0.100	98.3	70	130	4.4	20	
Nickel	0.950	mg/L	0.0500	91.8	70	130	1.5	20	
Uranium	0.524	mg/L	0.000300	93.4	70	130	1.5	20	

Qualifiers: ND - Not Detected at the Reporting Limit
 R - RPD outside of recommended recovery limits

S - Spike Recovery outside of recommended recovery limits

TRACKING NO. PAGE NO.

10344R00026



QA/QC Summary Report

Client: United Nuclear Corp

Project: Alluvium

Report Date: 08/27/02

Work Order: C02010344

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8							Batch: ICPMS011602a		
Sample ID: C02010348-007AMSD	Matrix Spike Duplicate							01/17/02 08:34	
Vanadium	0.467	mg/L	0.100	93	70	130	1.2	20	
Method: E353.2							Batch: A2002-01-15_1_NO3_02		
Sample ID: C02010327-009BMS	Matrix Spike							01/16/02 13:31	
Nitrogen, Nitrate+Nitrite as N	2.86	mg/L	0.100	96.5	80	120			
Sample ID: C02010344-005DDUP	Sample Duplicate							01/16/02 13:45	
Nitrogen, Nitrate+Nitrite as N	98.0	mg/L	3.00				0	20	D
Sample ID: C02010344-010DMS	Matrix Spike							01/16/02 14:03	
Nitrogen, Nitrate+Nitrite as N	159	mg/L	3.00	93.4	80	120			D
Sample ID: C02010344-015DDUP	Sample Duplicate							01/16/02 14:17	
Nitrogen, Nitrate+Nitrite as N	133	mg/L	3.00				0.7	20	D
Sample ID: C02010348-001BMS	Matrix Spike							01/16/02 14:31	
Nitrogen, Nitrate+Nitrite as N	2.09	mg/L	0.100	104	80	120			
Method: E624							Batch: R6676		
Sample ID: C02010346-001E	Matrix Spike							01/19/02 01:32	
Chloroform	108	ug/L	5.00	108	70	130			D
Surr: 1,2-Dichlorobenzene-d4			5.00	100	80	120			D
Surr: Dibromofluoromethane			5.00	107	70	130			D
Surr: p-Bromofluorobenzene			5.00	90.5	80	120			D
Surr: Toluene-d8			5.00	103	80	120			D
Sample ID: C02010346-001E	Matrix Spike Duplicate							01/19/02 02:13	
Chloroform	111	ug/L	5.00	111	70	130	2.2	20	D
Surr: 1,2-Dichlorobenzene-d4			5.00	99.9	80	120	0	10	D
Surr: Dibromofluoromethane			5.00	109	70	130	0	10	D
Surr: p-Bromofluorobenzene			5.00	89.9	80	120	0	10	D
Surr: Toluene-d8			5.00	103	80	120	0	10	D

Qualifiers: ND - Not Detected at the Reporting Limit
R - RPD outside of recommended recovery limits

S - Spike Recovery outside of recommended recovery limits

TRACKING NO. PAGE NO.

10344R00027



QA/QC Summary Report

Client: United Nuclear Corp
Project: Alluvium

Report Date: 08/27/02
Work Order: C02010344

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E903.0									Batch: 02RA-16
Sample ID: C02010344-001A	Sample Duplicate								01/21/02 12:25
Radium 226	0.700	pCi/L	0.200		70	130	53	30	
Radium 226 precision	0.200	±	0						
Sample ID: C02010344-003A	Sample Duplicate								01/21/02 16:26
Radium 226	0.500	pCi/L	0.200		70	130	67	30	
Radium 226 precision	0.200	±	0						
Sample ID: C02010344-004A	Matrix Spike								01/21/02 18:02
Radium 226	191	pCi/L	0.200	94.7	70	130			
Method: E904.0									Batch: 02228020
Sample ID: C02010344-001ADUP	Sample Duplicate								01/26/02 10:39
Radium 228	ND	pCi/L	1.00		70	130	0	30	
Sample ID: C02010344-002AMS	Matrix Spike								01/26/02 10:39
Radium 228	13.0	pCi/L	1.00	114	70	130			
Sample ID: C02010344-003ADUP	Sample Duplicate								01/26/02 10:39
Radium 228	ND	pCi/L	1.00		70	130	0	30	
Method: NERHL-65-4									Batch: R6933
Sample ID: C02010346-001AMS	Matrix Spike								01/25/02 00:00
Lead 210	37	pCi/L	2.7	98.5	0	0			
Sample ID: C02010346-002ADUP	Sample Duplicate								01/25/02 00:00
Lead 210	ND	pCi/L	2.7						

Qualifiers: ND - Not Detected at the Reporting Limit
R - RPD outside of recommended recovery limits

S - Spike Recovery outside of recommended recovery limits

TRACKING NO. PAGE NO.

10344R00028



CLIENT: United Nuclear Corp
Work Order: C02040227
Project: Zone 1

ANALYTICAL QC SUMMARY REPORT

Date: 30-Apr-02

TestNo: A2540 C

Sample ID: C02040227-003BMS	SampType: MS	TestCode: SLDS-TDS-W	Units: mg/L	Prep Date:	Run ID: SLDS-BALANCE_02040						
Client ID: Field Blank	Batch ID: 020408A-SLD	TestNo: A2540 C		Analysis Date: 4/8/2002	SeqNo: 146538						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Dissolved TDS @ 180 C	1464	10.0	1429	4.202	102	90	110	0	0	0	

Sample ID: C02040153-004ADU	SampType: DUP	TestCode: SLDS-TDS-W	Units: mg/L	Prep Date:	Run ID: SLDS-BALANCE_02040						
Client ID:	Batch ID: 020408A-SLD	TestNo: A2540 C		Analysis Date: 4/8/2002	SeqNo: 146470						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Dissolved TDS @ 180 C	1614	10.0	0	0				1618	0.208	10	

Sample ID: C02040153-014ADU	SampType: DUP	TestCode: SLDS-TDS-W	Units: mg/L	Prep Date:	Run ID: SLDS-BALANCE_02040						
Client ID:	Batch ID: 020408A-SLD	TestNo: A2540 C		Analysis Date: 4/8/2002	SeqNo: 146482						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Dissolved TDS @ 180 C	6535	10.0	0	0				6580	0.686	10	

Sample ID: C02040161-001BDU	SampType: DUP	TestCode: SLDS-TDS-W	Units: mg/L	Prep Date:	Run ID: SLDS-BALANCE_02040						
Client ID:	Batch ID: 020408A-SLD	TestNo: A2540 C		Analysis Date: 4/8/2002	SeqNo: 146496						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Dissolved TDS @ 180 C	229.4	10.0	0	0				221.3	3.59	10	

Sample ID: C02040203-001BDU	SampType: DUP	TestCode: SLDS-TDS-W	Units: mg/L	Prep Date:	Run ID: SLDS-BALANCE_02040						
Client ID:	Batch ID: 020408A-SLD	TestNo: A2540 C		Analysis Date: 4/8/2002	SeqNo: 146508						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Dissolved TDS @ 180 C	183.6	10.0	0	0				181.8	0.993	10	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: United Nuclear Corp
Work Order: C02040227
Project: Zone 1

ANALYTICAL QC SUMMARY REPORT

Date: 30-Apr-02

TestNo: A3114 B

Sample ID: C02040226-007A	SampType: MS	TestCode: CVAA-ASIII-3114-	Units: mg/L	Prep Date:	Run ID: HYDRIDE1-C_020411A
Client ID:	Batch ID: R8775	TestNo: A3114 B		Analysis Date: 4/11/2002	SeqNo: 148473
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Arsenic-III	0.0578	0.00100	0.05555	0	104 85 115 0 0 0

Sample ID: C02040227-002A	SampType: MS	TestCode: CVAA-ASIII-3114-	Units: mg/L	Prep Date:	Run ID: HYDRIDE1-C_020411A
Client ID: 515-A	Batch ID: R8775	TestNo: A3114 B		Analysis Date: 4/11/2002	SeqNo: 148490
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Arsenic-III	0.0505	0.00100	0.05	0	101 85 115 0 0 0

Sample ID: C02040226-007A	SampType: MSD	TestCode: CVAA-ASIII-3114-	Units: mg/L	Prep Date:	Run ID: HYDRIDE1-C_020411A
Client ID:	Batch ID: R8775	TestNo: A3114 B		Analysis Date: 4/11/2002	SeqNo: 148474
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Arsenic-III	0.0584	0.00100	0.05555	0	105 85 115 0.0578 1.03 10

Sample ID: C02040227-002A	SampType: MSD	TestCode: CVAA-ASIII-3114-	Units: mg/L	Prep Date:	Run ID: HYDRIDE1-C_020411A
Client ID: 515-A	Batch ID: R8775	TestNo: A3114 B		Analysis Date: 4/11/2002	SeqNo: 148489
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Arsenic-III	0.0492	0.00100	0.05	0	98.4 85 115 0.0505 2.61 10

Sample ID: C02040226-007A	SampType: MS	TestCode: CVAA-SEIV-3114-	Units: mg/L	Prep Date:	Run ID: HYDRIDE1-C_020412A
Client ID:	Batch ID: R8832	TestNo: A3114 B		Analysis Date: 4/12/2002	SeqNo: 149717
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Selenium-IV	0.0467	0.00100	0.05	0	93.4 85 115 0 0 0

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

40227R030004

CLIENT: United Nuclear Corp
Work Order: C02040227
Project: Zone 1

ANALYTICAL QC SUMMARY REPORT

Date: 30-Apr-02

TestNo: A3114 B

Sample ID: C02040227-002A		SampType: MS	TestCode: CVAA-SEIV-3114- Units: mg/L			Prep Date:			Run ID: HYDRIDE1-C_020412A		
Client ID: 515-A		Batch ID: R8832	TestNo: A3114 B			Analysis Date: 4/12/2002			SeqNo: 149733		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium-IV	0.0457	0.00100	0.05	0	91.4	85	115	0	0	0	

Sample ID: C02040226-007A		SampType: MSD	TestCode: CVAA-SEIV-3114- Units: mg/L			Prep Date:			Run ID: HYDRIDE1-C_020412A		
Client ID:		Batch ID: R8832	TestNo: A3114 B			Analysis Date: 4/12/2002			SeqNo: 149718		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium-IV	0.0471	0.00100	0.05	0	94.2	85	115	0.0467	0.853	10	

Sample ID: C02040227-002A		SampType: MSD	TestCode: CVAA-SEIV-3114- Units: mg/L			Prep Date:			Run ID: HYDRIDE1-C_020412A		
Client ID: 515-A		Batch ID: R8832	TestNo: A3114 B			Analysis Date: 4/12/2002			SeqNo: 149734		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium-IV	0.0464	0.00100	0.05	0	92.8	85	115	0.0457	1.52	10	

Sample ID: C02040288-001C		SampType: MS	TestCode: CVAA-SEIV-3114- Units: mg/L			Prep Date:			Run ID: HYDRIDE1-C_020412A		
Client ID:		Batch ID: R8832	TestNo: A3114 B			Analysis Date: 4/12/2002			SeqNo: 149701		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium-IV	0.0467	0.00100	0.05	0.0004	92.6	85	115	0	0	0	

Sample ID: C02040288-001C		SampType: MSD	TestCode: CVAA-SEIV-3114- Units: mg/L			Prep Date:			Run ID: HYDRIDE1-C_020412A		
Client ID:		Batch ID: R8832	TestNo: A3114 B			Analysis Date: 4/12/2002			SeqNo: 149702		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium-IV	0.0468	0.00100	0.05	0.0004	92.8	85	115	0.0467	0.214	10	

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

40227R000005

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CLIENT: United Nuclear Corp
Work Order: C02040227
Project: Zone 1

ANALYTICAL QC SUMMARY REPORT

Date: 30-Apr-02

TestNo: A4500-NH3 G

Sample ID: C02040423-001BMS	SampType: MS	TestCode: N-NH3-W	Units: mg/L	Prep Date:	Run ID: TECHNICON_020412A						
Client ID:	Batch ID: A2002-04-12_	TestNo: A4500-NH3 G		Analysis Date: 4/12/2002	SeqNo: 149550						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	3.06	0.100	1.99	1.11	98	80	120	0	0	0	

Sample ID: C02040226-007DMS	SampType: MS	TestCode: N-NH3-W	Units: mg/L	Prep Date:	Run ID: TECHNICON_020412A						
Client ID:	Batch ID: A2002-04-12_	TestNo: A4500-NH3 G		Analysis Date: 4/12/2002	SeqNo: 149565						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	2.58	0.0500	1.99	0.58	101	80	120	0	0	0	

Sample ID: C02040226-012DMS	SampType: MS	TestCode: N-NH3-W	Units: mg/L	Prep Date:	Run ID: TECHNICON_020412A						
Client ID:	Batch ID: A2002-04-12_	TestNo: A4500-NH3 G		Analysis Date: 4/12/2002	SeqNo: 149574						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	2.01	0.0500	2	0.06	97.5	80	120	0	0	0	

Sample ID: C02040423-001BMS	SampType: MSD	TestCode: N-NH3-W	Units: mg/L	Prep Date:	Run ID: TECHNICON_020412A						
Client ID:	Batch ID: A2002-04-12_	TestNo: A4500-NH3 G		Analysis Date: 4/12/2002	SeqNo: 149551						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	3.11	0.100	1.99	1.11	101	80	120	3.06	1.62	20	

Sample ID: C02040226-012DMS		SampType: MSD	TestCode: N-NH3-W		Units: mg/L	Prep Date:			Run ID: TECHNICON_020412A			
Client ID:		Batch ID: A2002-04-12_	TestNo: A4500-NH3 G			Analysis Date: 4/12/2002			SeqNo: 149575			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Nitrogen, Ammonia as N	2	0.0500	2	0.06	97	80	120	2.01	0.499	20	-	

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

40227R00005
TRACING NO.
AGE NO.

CLIENT: United Nuclear Corp
Work Order: C02040227
Project: Zone 1

ANALYTICAL QC SUMMARY REPORT

Date: 30-Apr-02

TestNo: E200.7

Sample ID: C02040133-001C	SampType: MS1	TestCode: ICP-200.7-W-D	Units: mg/L	Prep Date:	Run ID: ICP1-C_020412A						
Client ID:	Batch ID: ICP041202A	TestNo: E200.7		Analysis Date: 4/12/2002	SeqNo: 149302						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Calcium	1601	1.00	500	1143	91.6	80	120	0	0	0	
Magnesium	1262	1.00	500	861	80.2	80	120	0	0	0	
Potassium	655	1.00	500	193.2	92.4	80	120	0	0	0	
Sodium	1537	1.00	500	1062	95	80	120	0	0	0	

Sample ID: C02040133-001C	SampType: MS3	TestCode: ICP-200.7-W-D	Units: mg/L	Prep Date:	Run ID: ICP1-C_020412A						
Client ID:	Batch ID: ICP041202A	TestNo: E200.7		Analysis Date: 4/12/2002	SeqNo: 149304						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chloride	5230	1.00	1000	4471	75.9	80	120	0	0	0	S
Sulfate	3765	6.10	1000	2834	93.1	80	120	0	0	0	

Sample ID: C02040150-001A	SampType: MS1	TestCode: ICP-200.7-W-D	Units: mg/L	Prep Date:	Run ID: ICP1-C_020412A						
Client ID:	Batch ID: ICP041202A	TestNo: E200.7		Analysis Date: 4/12/2002	SeqNo: 149332						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Calcium	616	1.00	500	93.4	105	80	120	0	0	0	
Magnesium	524	1.00	500	20.07	101	80	120	0	0	0	
Potassium	491.3	1.00	500	20.01	94.3	80	120	0	0	0	
Sodium	782	1.00	500	302.5	95.9	80	120	0	0	0	

Sample ID: C02040150-001A	SampType: MS3	TestCode: ICP-200.7-W-D	Units: mg/L	Prep Date:	Run ID: ICP1-C_020412A						
Client ID:	Batch ID: ICP041202A	TestNo: E200.7		Analysis Date: 4/12/2002	SeqNo: 149334						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chloride	1114	1.00	1000	78.9	104	80	120	0	0	0	
Sulfate	1334	6.10	1000	285.6	105	80	120	0	0	0	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

40227R00007

CLIENT: United Nuclear Corp
Work Order: C02040227
Project: Zone 1

ANALYTICAL QC SUMMARY REPORT

Date: 30-Apr-02

TestNo: E200.7

Sample ID: C02040133-001C	SampType: MSD1	TestCode: ICP-200.7-W-D	Units: mg/L	Prep Date:	Run ID: ICP1-C_020412A						
Client ID:	Batch ID: ICP041202A	TestNo: E200.7		Analysis Date: 4/12/2002	SeqNo: 149305						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	1615	1.00	500	1143	94.4	80	120	1601	0.871	20	
Magnesium	1281	1.00	500	861	84	80	120	1262	1.49	20	
Potassium	664	1.00	500	193.2	94.2	80	120	655	1.36	20	
Sodium	1556	1.00	500	1062	98.8	80	120	1537	1.23	20	

Sample ID: C02040133-001C	SampType: MSD3	TestCode: ICP-200.7-W-D	Units: mg/L	Prep Date:	Run ID: ICP1-C_020412A						
Client ID:	Batch ID: ICP041202A	TestNo: E200.7		Analysis Date: 4/12/2002	SeqNo: 149307						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	5290	1.00	1000	4471	81.9	80	120	5230	1.14	20	
Sulfate	3804	6.10	1000	2834	97	80	120	3765	1.03	20	

Sample ID: C02040150-001A	SampType: MSD1	TestCode: ICP-200.7-W-D	Units: mg/L	Prep Date:	Run ID: ICP1-C_020412A						
Client ID:	Batch ID: ICP041202A	TestNo: E200.7		Analysis Date: 4/12/2002	SeqNo: 149335						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	601	1.00	500	93.4	102	80	120	616	2.47	20	
Magnesium	511	1.00	500	20.07	98.2	80	120	524	2.51	20	
Potassium	476.8	1.00	500	20.01	91.4	80	120	491.3	3.00	20	
Sodium	766	1.00	500	302.5	92.7	80	120	782	2.07	20	

Sample ID: C02040150-001A	SampType: MSD3	TestCode: ICP-200.7-W-D	Units: mg/L	Prep Date:	Run ID: ICP1-C_020412A						
Client ID:	Batch ID: ICP041202A	TestNo: E200.7		Analysis Date: 4/12/2002	SeqNo: 149337						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	1061	1.00	1000	78.9	98.2	80	120	1114	4.87	20	
Sulfate	1298	6.10	1000	285.6	101	80	120	1334	2.74	20	

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

40227R000003



CLIENT: United Nuclear Corp
Work Order: C02040227
Project: Zone 1

ANALYTICAL QC SUMMARY REPORT

Date: 30-Apr-02

TestNo: E200.8

Sample ID: C02040339-003AMS	SampType: MS	TestCode: ICPMS-200.8-W-D		Units: mg/L	Prep Date:				Run ID: ICPMS1-C_020416A		
Client ID:	Batch ID: ICPMS04160	TestNo: E200.8			Analysis Date: 4/17/2002				SeqNo: 151629		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.05567	0.100	0.05	0.008185	95	70	130	0	0	0	
Beryllium	0.04964	0.0100	0.05	0	99.3	70	130	0	0	0	
Cadmium	0.04258	0.0100	0.05	0	85.2	70	130	0	0	0	
Cobalt	0.04018	0.0100	0.05	0.000326	79.7	70	130	0	0	0	
Lead	0.0444	0.0500	0.05	0.000256	88.3	70	130	0	0	0	
Manganese	0.06157	0.0100	0.05	0.02122	80.7	70	130	0	0	0	
Molybdenum	0.0439	0.100	0.05	0.001017	85.8	70	130	0	0	0	
Nickel	0.04309	0.0500	0.05	0.003513	79.2	70	130	0	0	0	
Uranium	0.06148	0.000300	0.05	0.01708	88.8	70	130	0	0	0	
Vanadium	0.0427	0.100	0.05	0.000488	84.4	70	130	0	0	0	

Sample ID: C02040227-002AMS		SampType: MSD	TestCode: ICPMS-200.8-W-D			Units: mg/L		Prep Date:		Run ID: ICPMS1-C_020416A		
Client ID: 515-A		Batch ID: ICPMS04160		TestNo: E200.8		Analysis Date: 4/16/2002			SeqNo: 150938			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Aluminum	3.414	0.100	0.5	2.941	94.6	70	130	3.431	0.497	20		
Beryllium	0.448	0.0100	0.5	0.005257	88.5	70	130	0.4586	2.34	20		
Cadmium	0.5011	0.0100	0.5	0.0047	99.3	70	130	0.5064	1.05	20		
Cobalt	0.5566	0.0100	0.5	0.0904	93.2	70	130	0.5541	0.450	20		
Lead	0.5144	0.0500	0.5	0.004044	102	70	130	0.5084	1.17	20		
Manganese	14.74	0.0100	0.5	13.84	180	70	130	14.45	1.99	20	S	
Molybdenum	0.5413	0.100	0.5	0	108	70	130	0.5325	1.64	20		
Nickel	0.6837	0.0500	0.5	0.2299	90.8	70	130	0.6846	0.132	20		
Uranium	0.5599	0.000300	0.5	0.00079	112	70	130	0.5453	2.64	20		
Vanadium	0.5143	0.100	0.5	0.000727	103	70	130	0.5096	0.918	20		

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

40227R000001

CLIENT: United Nuclear Corp
Work Order: C02040227
Project: Zone 1

ANALYTICAL QC SUMMARY REPORT

Date: 30-Apr-02

TestNo: E353.2

Sample ID: C02040289-006AMS	SampType: MS	TestCode: N-NO3+NO2-DW	Units: mg/L	Prep Date:	Run ID: TECHNICON_020410A						
Client ID:	Batch ID: A2002-04-10_	TestNo: E353.2		Analysis Date: 4/10/2002	SeqNo: 147591						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	18.7	0.400	9.82	8.37	105	90	110	0	0	0	

Sample ID: C02040289-012ADU	SampType: DUP	TestCode: N-NO3+NO2-DW	Units: mg/L	Prep Date:	Run ID: TECHNICON_020410A						
Client ID:	Batch ID: A2002-04-10_	TestNo: E353.2		Analysis Date: 4/10/2002	SeqNo: 147599						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	5.56	0.200	0	0				5.51	0.903	10	

Sample ID: C02040226-002DMS	SampType: MS	TestCode: N-NO3+NO2-W	Units: mg/L	Prep Date:	Run ID: TECHNICON_020410A						
Client ID:	Batch ID: A2002-04-10_	TestNo: E353.2		Analysis Date: 4/10/2002	SeqNo: 147564						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	3	0.100	1.99	1.14	93.5	90	110	0	0	0	

Sample ID: C02040226-012DMS	SampType: MS	TestCode: N-NO3+NO2-W	Units: mg/L	Prep Date:	Run ID: TECHNICON_020410A						
Client ID:	Batch ID: A2002-04-10_	TestNo: E353.2		Analysis Date: 4/10/2002	SeqNo: 147574						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	91.3	2.00	54	42.1	91.1	90	110	0	0	0	

Sample ID: C02040204-002ADU	SampType: DUP	TestCode: N-NO3+NO2-W	Units: mg/L	Prep Date:	Run ID: TECHNICON_020410A						
Client ID:	Batch ID: A2002-04-10_	TestNo: E353.2		Analysis Date: 4/10/2002	SeqNo: 147551						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	2.37	0.100	0	0				2.35	0.847	10	-

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

40227R00010

CLIENT: United Nuclear Corp
Work Order: C02040227
Project: Zone 1

ANALYTICAL QC SUMMARY REPORT

Date: 30-Apr-02

TestNo: E624

Sample ID: C02040227-002E	SampType: MS	TestCode: VOC-624-W	Units: ug/L	Prep Date:	Run ID: GCMS2-C_020412B						
Client ID: 515-A	Batch ID: R8849	TestNo: E624		Analysis Date: 4/13/2002	SeqNo: 150105						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloroform	279	10.0	100	161.8	117	70	130	0	0	0	
Surr: 1,2-Dichlorobenzene-d4	205.8	10.0	200	0	103	80	120	0	0	0	
Surr: Dibromofluoromethane	208.6	10.0	200	0	104	70	130	0	0	0	
Surr: p-Bromofluorobenzene	179.4	10.0	200	0	89.7	80	120	0	0	0	
Surr: Toluene-d8	198.8	10.0	200	0	99.4	80	120	0	0	0	

Sample ID: C02040227-002E	SampType: MSD	TestCode: VOC-624-W	Units: ug/L	Prep Date:	Run ID: GCMS2-C_020412B						
Client ID: 515-A	Batch ID: R8849	TestNo: E624		Analysis Date: 4/13/2002	SeqNo: 150106						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloroform	282.8	10.0	100	161.8	121	70	130	279	1.35	20	
Surr: 1,2-Dichlorobenzene-d4	207.6	10.0	200	0	104	80	120	0	0	10	
Surr: Dibromofluoromethane	214.8	10.0	200	0	107	70	130	0	0	10	
Surr: p-Bromofluorobenzene	180.4	10.0	200	0	90.2	80	120	0	0	10	
Surr: Toluene-d8	193.2	10.0	200	0	96.6	80	120	0	0	10	

40227R00011
TRACKING NO. PAGE NO.

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank



CLIENT: United Nuclear Corp
Work Order: C02040227
Project: Zone 1

ANALYTICAL QC SUMMARY REPORT

Date: 30-Apr-02

TestNo: E903.0

Sample ID: C02040226-001A	SampType: MS	TestCode: RAD-RA226-W-D	Units: pCi/L	Prep Date:	Run ID: BERTHOLD 770_02041						
Client ID:	Batch ID: 02RA-109	TestNo: E903.0		Analysis Date: 4/16/2002	SeqNo: 151282						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium 226	168.1	0.200	202.1	0	83.2	70	130	0	0	0	

Sample ID: C02040225-001A	SampType: DUP	TestCode: RAD-RA226-W-D	Units: pCi/L	Prep Date:	Run ID: BERTHOLD 770_02041						
Client ID:	Batch ID: 02RA-109	TestNo: E903.0		Analysis Date: 4/16/2002	SeqNo: 151281						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium 226	19.4	0.200	0	0		70	130	15.1	24.9	30	

Sample ID: C02040227-001A	SampType: DUP	TestCode: RAD-RA226-W-D	Units: pCi/L	Prep Date:	Run ID: BERTHOLD 770_02041						
Client ID: 614	Batch ID: 02RA-109	TestNo: E903.0		Analysis Date: 4/16/2002	SeqNo: 151283						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium 226	1.1	0.200	0	0		70	130	0	200	30	R
Radium 226 precision	0.3		0	0				0	200	0	

40227R00012
TRACKING NO. PAGE NO.

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: United Nuclear Corp
Work Order: C02040227
Project: Zone 1

ANALYTICAL QC SUMMARY REPORT

Date: 30-Apr-02

TestNo: E904.0

Sample ID: C02040225-001ADU		SampType: DUP	TestCode: RAD-RA228-W-D		Units: pCi/L	Prep Date:			Run ID: BERTHOLD 770_02041		
Client ID:		Batch ID: 02228125	TestNo: E904.0			Analysis Date: 4/19/2002			SeqNo: 154485		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium 228	ND	1.00	0	0		70	130	0	0	30	

Sample ID: C02040227-001ADU		SampType: DUP	TestCode: RAD-RA228-W-D		Units: pCi/L	Prep Date:			Run ID: BERTHOLD 770_02041		
Client ID: 614		Batch ID: 02228125	TestNo: E904.0			Analysis Date: 4/19/2002			SeqNo: 154504		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium 228	ND	1.00	0	0		70	130	0	0	30	

Sample ID: C02040262-001AMS		SampType: MS	TestCode: RAD-RA228-W-T		Units: pCi/L	Prep Date:			Run ID: BERTHOLD 770_02041		
Client ID:		Batch ID: 02228125	TestNo: E904.0			Analysis Date: 4/19/2002			SeqNo: 154508		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium 228	7.1	1.0	7.15	0	99.3	70	130	0	0	0	

TRACKING NO. PAGE NO.
 40227R000013

Qualifiers:

ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: United Nuclear Corp
Work Order: C02040227
Project: Zone 1

ANALYTICAL QC SUMMARY REPORT

Date: 30-Apr-02

TestNo: NERHL-65-4

Sample ID: C02040134-006AMS		SampType: MS	TestCode: RAD-PB210-W-D		Units: pCi/L	Prep Date:		Run ID: BECKMAN 6000_02041			
Client ID:		Batch ID: R8877	TestNo: NERHL-65-4			Analysis Date: 4/13/2002		SeqNo: 151186			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead 210	34.1	2.7	37.22	0	91.6	70	130	0	0	0	

Sample ID: C02040227-003ADU		SampType: DUP	TestCode: RAD-PB210-W-D		Units: pCi/L	Prep Date:		Run ID: BECKMAN 6000_02041			
Client ID: Field Blank		Batch ID: R8877	TestNo: NERHL-65-4			Analysis Date: 4/13/2002		SeqNo: 150753			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead 210	ND	2.7	0	0		70	130	0	0	30	

TRACKING NO. 40227R00011
 PAGE NO.

Modifiers:

ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank



ANALYTICAL SUMMARY REPORT

April 29, 2002

Larry Bush
United Nuclear Corp
PO Box 3077
Gallup, NM 87305

Workorder No : C02040227

Quote ID: C129 - Quarterly Long List

Project Name: Zone 1

Energy Laboratories Inc. received the following 3 samples from United Nuclear Corp on 4/8/2002 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C02040227-001	614	04/02/02 14:15	04/08/02	Aqueous	Alkalinity QA Calculations Arsenic-III, Dissolved Selenium-IV, Dissolved Metals by ICP, Dissolved Metals by ICP-MS, Dissolved Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite Gross Alpha minus Rn222 and Uranium Lead 210, Dissolved Radium 226, Dissolved Radium 228, Dissolved Thorium, Isotopic Solids, Total Dissolved E624 Purgeable Organics VOC Preservation Check
C02040227-002	515-A	04/02/02 14:45	04/08/02	Aqueous	Same As Above
C02040227-003	Field Blank	04/03/02 10:30	04/08/02	Aqueous	Same As Above

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative.

If you have any questions regarding these tests results, please feel free to call.

Report Approved By:

TRACKING NO. PAGE NO.

40227R00018



Date: 29-Apr-02

CLIENT: United Nuclear Corp
Project: Zone 1
Sample Delivery Group: C02040227

CASE NARRATIVE

THIS IS THE FINAL PAGE OF THE LABORATORY ANALYTICAL REPORT

eli-b - Energy Laboratories, Inc. - Billings, MT
eli-g - Energy Laboratories, Inc. - Gillette, WY
eli-h - Energy Laboratories, Inc. - Helena, MT
eli-r - Energy Laboratories, Inc. - Rapid City, SD

SAMPLE TEMPERATURE COMPLIANCE: 4°C (±2°C)

Temperature of samples received may not be considered properly preserved by accepted standards. Samples that are hand delivered immediately after collection shall be considered acceptable if there is evidence that the chilling process has begun.

ENERGY LABORATORIES, INC. - CASPER, WY certifies that certain method selections contained in this report meet requirements as set forth by NELAC. Some client specific reporting requirements may not require NELAC reporting protocol.

The total number of pages of this report are indicated by the last four digits of the tracking number located in the lower right corner.



ANALYTICAL SUMMARY REPORT

May 07, 2002

Larry Bush
United Nuclear Corp
PO Box 3077
Gallup, NM 87305

Workorder No.: C02040488

Quote ID: C129 - Quarterly Long List

Project Name: Zone 1

Energy Laboratories Inc. received the following 8 samples from United Nuclear Corp on 4/15/2002 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C02040488-001	TWQ-142	04/08/02 14:00	04/15/02	Aqueous	Alkalinity QA Calculations Arsenic-III, Dissolved Selenium-IV, Dissolved Metals by ICP, Dissolved Metals by ICP-MS, Dissolved Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite Gross Alpha minus Rn222 and Uranium Lead 210, Dissolved Radium 226, Dissolved Radium 228, Dissolved Thorium, Isotopic Solids, Total Dissolved E624 Purgeable Organics VOC Preservation Check
C02040488-002	EPA-2	04/09/02 10:20	04/15/02	Aqueous	Same As Above
C02040488-003	EPA-2 DUPLICATE	04/09/02 10:50	04/15/02	Aqueous	Same As Above
C02040488-004	604	04/09/02 12:30	04/15/02	Aqueous	Same As Above
C02040488-005	EPA-7	04/09/02 13:00	04/15/02	Aqueous	Same As Above
C02040488-006	EPA-5	04/09/02 13:35	04/15/02	Aqueous	Same As Above
C02040488-007	EPA-4	04/09/02 14:15	04/15/02	Aqueous	Same As Above
C02040488-008	Field Blank	04/09/02 15:30	04/15/02	Aqueous	Same As Above

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative or Report.

If you have any questions regarding these tests results, please call.

Report Approved By:

TRACKING NO. PAGE NO.

40488R00012



Date: 07-May-02

CLIENT: United Nuclear Corp
Project: Zone 1
Sample Delivery Group: C02040488

CASE NARRATIVE

THIS IS THE FINAL PAGE OF THE LABORATORY ANALYTICAL REPORT

BRANCH LABORATORY LOCATIONS

eli-b - Energy Laboratories, Inc. - Billings, MT
eli-g - Energy Laboratories, Inc. - Gillette, WY
eli-h - Energy Laboratories, Inc. - Helena, MT
eli-r - Energy Laboratories, Inc. - Rapid City, SD

SAMPLE TEMPERATURE COMPLIANCE: 4°C (±2°C)

Temperature of samples received may not be considered properly preserved by accepted standards. Samples that are hand delivered immediately after collection shall be considered acceptable if there is evidence that the chilling process has begun.

ENERGY LABORATORIES, INC. - CASPER, WY certifies that certain method selections contained in this report meet requirements as set forth by NELAC. Some client specific reporting requirements may not require NELAC reporting protocol.

The total number of pages of this report are indicated by the last four digits of the tracking number located in the lower right corner.

CLIENT: United Nuclear Corp
Work Order: C02040225
Project: Zone 3

ANALYTICAL QC SUMMARY REPORT

Date: 30-Apr-02

TestNo: A2540 C

Sample ID: C02040227-003BMS		SampType: MS	TestCode: SLDS-TDS-W		Units: mg/L	Prep Date:		Run ID: SLDS-BALANCE_02040			
Client ID:		Batch ID: 020408A-SLD		TestNo: A2540 C		Analysis Date: 4/8/2002		SeqNo: 146538			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Dissolved TDS @ 180 C	1464	10.0	1429	4.202	102	90	110	0	0	0	

Sample ID: C02040153-004ADU		SampType: DUP	TestCode: SLDS-TDS-W		Units: mg/L	Prep Date:		Run ID: SLDS-BALANCE_02040			
Client ID:		Batch ID: 020408A-SLD		TestNo: A2540 C		Analysis Date: 4/8/2002		SeqNo: 146470			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Dissolved TDS @ 180 C	1614	10.0	0	0				1618	0.208	10	

Sample ID: C02040153-014ADU		SampType: DUP	TestCode: SLDS-TDS-W		Units: mg/L	Prep Date:		Run ID: SLDS-BALANCE_02040			
Client ID:		Batch ID: 020408A-SLD		TestNo: A2540 C		Analysis Date: 4/8/2002		SeqNo: 146482			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Dissolved TDS @ 180 C	6535	10.0	0	0				6580	0.686	10	

Sample ID: C02040161-001BDU		SampType: DUP	TestCode: SLDS-TDS-W		Units: mg/L	Prep Date:		Run ID: SLDS-BALANCE_02040			
Client ID:		Batch ID: 020408A-SLD		TestNo: A2540 C		Analysis Date: 4/8/2002		SeqNo: 146496			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Dissolved TDS @ 180 C	229.4	10.0	0	0				221.3	3.59	10	

Sample ID: C02040203-001BDU		SampType: DUP	TestCode: SLDS-TDS-W		Units: mg/L	Prep Date:		Run ID: SLDS-BALANCE_02040			
Client ID:		Batch ID: 020408A-SLD		TestNo: A2540 C		Analysis Date: 4/8/2002		SeqNo: 146508			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Dissolved TDS @ 180 C	183.6	10.0	0	0				181.8	0.993	10	

Qualifiers: ND - Not Detected at the Reporting Limit
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B - Analyte detected in the associated Method Blank

40225R00001
 PAGE NO.

CLIENT: United Nuclear Corp
Work Order: C02040225
Project: Zone 3

ANALYTICAL QC SUMMARY REPORT

Date: 30-Apr-02

TestNo: A3114 B

Sample ID: C02040226-007A	SampType: MS	TestCode: CVAA-ASIII-3114-	Units: mg/L	Prep Date:	Run ID: HYDRIDE1-C_020411A						
Client ID:	Batch ID: R8775	TestNo: A3114 B		Analysis Date: 4/11/2002	SeqNo: 148473						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic-III	0.0578	0.00100	0.05555	0	104	85	115	0	0	0	

Sample ID: C02040227-002A	SampType: MS	TestCode: CVAA-ASIII-3114-	Units: mg/L	Prep Date:	Run ID: HYDRIDE1-C_020411A						
Client ID:	Batch ID: R8775	TestNo: A3114 B		Analysis Date: 4/11/2002	SeqNo: 148490						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic-III	0.0505	0.00100	0.05	0	101	85	115	0	0	0	

Sample ID: C02040226-007A	SampType: MSD	TestCode: CVAA-ASIII-3114-	Units: mg/L	Prep Date:	Run ID: HYDRIDE1-C_020411A						
Client ID:	Batch ID: R8775	TestNo: A3114 B		Analysis Date: 4/11/2002	SeqNo: 148474						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic-III	0.0584	0.00100	0.05555	0	105	85	115	0.0578	1.03	10	

Sample ID: C02040227-002A	SampType: MSD	TestCode: CVAA-ASIII-3114-	Units: mg/L	Prep Date:	Run ID: HYDRIDE1-C_020411A						
Client ID:	Batch ID: R8775	TestNo: A3114 B		Analysis Date: 4/11/2002	SeqNo: 148489						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic-III	0.0492	0.00100	0.05	0	98.4	85	115	0.0505	2.61	10	

Sample ID: C02040226-007A	SampType: MS	TestCode: CVAA-SEIV-3114-	Units: mg/L	Prep Date:	Run ID: HYDRIDE1-C_020412A						
Client ID:	Batch ID: R8832	TestNo: A3114 B		Analysis Date: 4/12/2002	SeqNo: 149717						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium-IV	0.0467	0.00100	0.05	0	93.4	85	115	0	0	0	

Qualifiers:

ND - Not Detected at the Reporting Limit

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S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

40225R00005

CLIENT: United Nuclear Corp
Work Order: C02040225
Project: Zone 3

ANALYTICAL QC SUMMARY REPORT

Date: 30-Apr-02

TestNo: A3114 B

Sample ID: C02040227-002A	SampType: MS	TestCode: CVAA-SEIV-3114-	Units: mg/L	Prep Date:	Run ID: HYDRIDE1-C_020412A						
Client ID:	Batch ID: R8832	TestNo: A3114 B		Analysis Date: 4/12/2002	SeqNo: 149733						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium-IV	0.0457	0.00100	0.05	0	91.4	85	115	0	0	0	

Sample ID: C02040226-007A	SampType: MSD	TestCode: CVAA-SEIV-3114-	Units: mg/L	Prep Date:	Run ID: HYDRIDE1-C_020412A						
Client ID:	Batch ID: R8832	TestNo: A3114 B		Analysis Date: 4/12/2002	SeqNo: 149718						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium-IV	0.0471	0.00100	0.05	0	94.2	85	115	0.0467	0.853	10	

Sample ID: C02040227-002A	SampType: MSD	TestCode: CVAA-SEIV-3114-	Units: mg/L	Prep Date:	Run ID: HYDRIDE1-C_020412A						
Client ID:	Batch ID: R8832	TestNo: A3114 B		Analysis Date: 4/12/2002	SeqNo: 149734						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium-IV	0.0464	0.00100	0.05	0	92.8	85	115	0.0457	1.52	10	

Sample ID: C02040288-001C	SampType: MS	TestCode: CVAA-SEIV-3114-	Units: mg/L	Prep Date:	Run ID: HYDRIDE1-C_020412A						
Client ID:	Batch ID: R8832	TestNo: A3114 B		Analysis Date: 4/12/2002	SeqNo: 149701						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium-IV	0.0467	0.00100	0.05	0.0004	92.6	85	115	0	0	0	

Sample ID: C02040288-001C	SampType: MSD	TestCode: CVAA-SEIV-3114-	Units: mg/L	Prep Date:	Run ID: HYDRIDE1-C_020412A						
Client ID:	Batch ID: R8832	TestNo: A3114 B		Analysis Date: 4/12/2002	SeqNo: 149702						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium-IV	0.0468	0.00100	0.05	0.0004	92.8	85	115	0.0467	0.214	10	

Qualifiers: ND - Not Detected at the Reporting Limit
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40225700005
 TRACING NO.
 PAGE NO.

CLIENT: United Nuclear Corp
Work Order: C02040225
Project: Zone 3

ANALYTICAL QC SUMMARY REPORT

Date: 30-Apr-02

TestNo: A4500-NH3 G

Sample ID: C02040423-001BMS	SampType: MS	TestCode: N-NH3-W	Units: mg/L	Prep Date:	Run ID: TECHNICON_020412A						
Client ID:	Batch ID: A2002-04-12_	TestNo: A4500-NH3 G		Analysis Date: 4/12/2002	SeqNo: 149550						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	3.06	0.100	1.99	1.11	98	80	120	0	0	0	

Sample ID: C02040226-007DMS	SampType: MS	TestCode: N-NH3-W	Units: mg/L	Prep Date:	Run ID: TECHNICON_020412A						
Client ID:	Batch ID: A2002-04-12_	TestNo: A4500-NH3 G		Analysis Date: 4/12/2002	SeqNo: 149565						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	2.58	0.0500	1.99	0.58	101	80	120	0	0	0	

Sample ID: C02040226-012DMS	SampType: MS	TestCode: N-NH3-W	Units: mg/L	Prep Date:	Run ID: TECHNICON_020412A						
Client ID:	Batch ID: A2002-04-12_	TestNo: A4500-NH3 G		Analysis Date: 4/12/2002	SeqNo: 149574						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	2.01	0.0500	2	0.06	97.5	80	120	0	0	0	

Sample ID: C02040423-001BMS	SampType: MSD	TestCode: N-NH3-W	Units: mg/L	Prep Date:	Run ID: TECHNICON_020412A						
Client ID:	Batch ID: A2002-04-12_	TestNo: A4500-NH3 G		Analysis Date: 4/12/2002	SeqNo: 149551						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	3.11	0.100	1.99	1.11	101	80	120	3.06	1.62	20	

Sample ID: C02040226-012DMS	SampType: MSD	TestCode: N-NH3-W	Units: mg/L	Prep Date:	Run ID: TECHNICON_020412A						
Client ID:	Batch ID: A2002-04-12_	TestNo: A4500-NH3 G		Analysis Date: 4/12/2002	SeqNo: 149575						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	2	0.0500	2	0.06	97	80	120	2.01	0.499	20	-

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

40225R00007
 TRANSFER NO. PAGE NO.

CLIENT: United Nuclear Corp
Work Order: C02040225
Project: Zone 3

ANALYTICAL QC SUMMARY REPORT

Date: 30-Apr-02

TestNo: E200.7

Sample ID: C02040133-001C	SampType: MSD1	TestCode: ICP-200.7-W-D	Units: mg/L	Prep Date:	Run ID: ICP1-C_020412A						
Client ID:	Batch ID: ICP041202A	TestNo: E200.7		Analysis Date: 4/12/2002	SeqNo: 149305						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	1615	1.00	500	1143	94.4	80	120	1601	0.871	20	
Magnesium	1281	1.00	500	861	84	80	120	1262	1.49	20	
Potassium	664	1.00	500	193.2	94.2	80	120	655	1.36	20	
Sodium	1556	1.00	500	1062	98.8	80	120	1537	1.23	20	

Sample ID: C02040133-001C	SampType: MSD3	TestCode: ICP-200.7-W-D	Units: mg/L	Prep Date:	Run ID: ICP1-C_020412A						
Client ID:	Batch ID: ICP041202A	TestNo: E200.7		Analysis Date: 4/12/2002	SeqNo: 149307						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	5290	1.00	1000	4471	81.9	80	120	5230	1.14	20	
Sulfate	3804	6.10	1000	2834	97	80	120	3765	1.03	20	

Sample ID: C02040150-001A	SampType: MSD1	TestCode: ICP-200.7-W-D	Units: mg/L	Prep Date:	Run ID: ICP1-C_020412A						
Client ID:	Batch ID: ICP041202A	TestNo: E200.7		Analysis Date: 4/12/2002	SeqNo: 149335						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	601	1.00	500	93.4	102	80	120	616	2.47	20	
Magnesium	511	1.00	500	20.07	98.2	80	120	524	2.51	20	
Potassium	476.8	1.00	500	20.01	91.4	80	120	491.3	3.00	20	
Sodium	766	1.00	500	302.5	92.7	80	120	782	2.07	20	

Sample ID: C02040150-001A	SampType: MSD3	TestCode: ICP-200.7-W-D	Units: mg/L	Prep Date:	Run ID: ICP1-C_020412A						
Client ID:	Batch ID: ICP041202A	TestNo: E200.7		Analysis Date: 4/12/2002	SeqNo: 149337						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	1061	1.00	1000	78.9	98.2	80	120	1114	4.87	20	
Sulfate	1298	6.10	1000	285.6	101	80	120	1334	2.74	20	

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

402257000005
 ANALYTICAL QC SUMMARY REPORT
 4/12/2002

CLIENT: United Nuclear Corp
Work Order: C02040225
Project: Zone 3

ANALYTICAL QC SUMMARY REPORT

Date: 30-Apr-02

TestNo: E200.8

Sample ID: C02040595-003AMS	SampType: MS	TestCode: ICPMS-200.8-W-D	Units: mg/L	Prep Date:	Run ID: ICPMS1-C_020424B						
Client ID:	Batch ID: ICPMS04230	TestNo: E200.8		Analysis Date: 4/25/2002	SeqNo: 156337						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Aluminum	0.5022	0.100	0.5	0.03897	92.6	70	130	0	0	0	
Beryllium	0.4324	0.0100	0.5	0	86.5	70	130	0	0	0	
Cadmium	0.4314	0.0100	0.5	0.001059	86.1	70	130	0	0	0	
Cobalt	0.4267	0.0100	0.5	0.000132	85.3	70	130	0	0	0	
Lead	0.4392	0.0500	0.5	0.001014	87.6	70	130	0	0	0	
Manganese	0.4473	0.0100	0.5	0.01135	87.2	70	130	0	0	0	
Molybdenum	0.4146	0.100	0.5	0	82.9	70	130	0	0	0	
Nickel	0.4362	0.0500	0.5	0.002646	86.7	70	130	0	0	0	
Uranium	0.4758	0.000300	0.5	0.01278	92.6	70	130	0	0	0	
Vanadium	0.4382	0.100	0.5	0	87.6	70	130	0	0	0	

Sample ID: C02040181-010AMS	SampType: MSD	TestCode: ICPMS-200.8-W-D	Units: mg/L	Prep Date:	Run ID: ICPMS1-C_020410A						
Client ID:	Batch ID: ICPMS04100	TestNo: E200.8		Analysis Date: 4/10/2002	SeqNo: 148167						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Aluminum	0.05754	0.100	0.05	0.009285	96.5	70	130	0.05517	0	20	
Beryllium	0.05291	0.0100	0.05	0.000072	106	70	130	0.05129	3.11	20	
Cadmium	0.04753	0.0100	0.05	0	95.1	70	130	0.0474	0.274	20	
Cobalt	0.04399	0.0100	0.05	0.000222	87.5	70	130	0.0444	0.928	20	
Lead	0.04884	0.0500	0.05	0.00058	96.5	70	130	0.04895	0	20	
Manganese	0.04777	0.0100	0.05	0.002415	90.7	70	130	0.04721	1.18	20	
Molybdenum	0.05358	0.100	0.05	0.000133	107	70	130	0.05186	0	20	
Nickel	0.04622	0.0500	0.05	0.003241	86	70	130	0.04649	0	20	
Uranium	0.1481	0.000300	0.05	0.1	96.2	70	130	0.1474	0.474	20	
Vanadium	0.04982	0.100	0.05	0.002226	95.2	70	130	0.04967	0	20	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

40225700010

CLIENT: United Nuclear Corp
Work Order: C02040225
Project: Zone 3

ANALYTICAL QC SUMMARY REPORT

Date: 30-Apr-02

TestNo: E353.2

Sample ID: C02040289-006AMS	SampType: MS	TestCode: N-NO3+NO2-DW	Units: mg/L	Prep Date:	Run ID: TECHNICON_020410A						
Client ID:	Batch ID: A2002-04-10_	TestNo: E353.2		Analysis Date: 4/10/2002	SeqNo: 147591						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	18.7	0.400	9.82	8.37	105	90	110	0	0	0	

Sample ID: C02040289-012ADU	SampType: DUP	TestCode: N-NO3+NO2-DW	Units: mg/L	Prep Date:	Run ID: TECHNICON_020410A						
Client ID:	Batch ID: A2002-04-10_	TestNo: E353.2		Analysis Date: 4/10/2002	SeqNo: 147599						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	5.56	0.200	0	0				5.51	0.903	10	

Sample ID: C02040226-002DMS	SampType: MS	TestCode: N-NO3+NO2-W	Units: mg/L	Prep Date:	Run ID: TECHNICON_020410A						
Client ID:	Batch ID: A2002-04-10_	TestNo: E353.2		Analysis Date: 4/10/2002	SeqNo: 147564						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	3	0.100	1.99	1.14	93.5	90	110	0	0	0	

Sample ID: C02040226-012DMS	SampType: MS	TestCode: N-NO3+NO2-W	Units: mg/L	Prep Date:	Run ID: TECHNICON_020410A						
Client ID:	Batch ID: A2002-04-10_	TestNo: E353.2		Analysis Date: 4/10/2002	SeqNo: 147574						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	91.3	2.00	54	42.1	91.1	90	110	0	0	0	

Sample ID: C02040204-002ADU	SampType: DUP	TestCode: N-NO3+NO2-W	Units: mg/L	Prep Date:	Run ID: TECHNICON_020410A						
Client ID:	Batch ID: A2002-04-10_	TestNo: E353.2		Analysis Date: 4/10/2002	SeqNo: 147551						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	2.37	0.100	0	0				2.35	0.847	10	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

40225R00011
TRADING NO.
PAGE NO.

CLIENT: United Nuclear Corp
Work Order: C02040225
Project: Zone 3

ANALYTICAL QC SUMMARY REPORT

Date: 30-Apr-02

TestNo: E624

Sample ID: C02040227-002E	SampType: MS	TestCode: VOC-624-W	Units: ug/L	Prep Date:	Run ID: GCMS2-C_020412A						
Client ID:	Batch ID: R8848	TestNo: E624		Analysis Date: 4/13/2002	SeqNo: 150078						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloroform	279	10.0	100	161.8	117	70	130	0	0	0	
Surr: 1,2-Dichlorobenzene-d4	205.8	10.0	200	0	103	80	120	0	0	0	
Surr: Dibromofluoromethane	208.6	10.0	200	0	104	70	130	0	0	0	
Surr: p-Bromofluorobenzene	179.4	10.0	200	0	89.7	80	120	0	0	0	
Surr: Toluene-d8	198.8	10.0	200	0	99.4	80	120	0	0	0	

Sample ID: C02040227-002E	SampType: MSD	TestCode: VOC-624-W	Units: ug/L	Prep Date:	Run ID: GCMS2-C_020412A						
Client ID:	Batch ID: R8848	TestNo: E624		Analysis Date: 4/13/2002	SeqNo: 150079						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloroform	282.8	10.0	100	161.8	121	70	130	279	1.35	20	
Surr: 1,2-Dichlorobenzene-d4	207.6	10.0	200	0	104	80	120	0	0	10	
Surr: Dibromofluoromethane	214.8	10.0	200	0	107	70	130	0	0	10	
Surr: p-Bromofluorobenzene	180.4	10.0	200	0	90.2	80	120	0	0	10	
Surr: Toluene-d8	193.2	10.0	200	0	96.6	80	120	0	0	10	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

40225R00012
TRACKING NO. PAGE NC

CLIENT: United Nuclear Corp
Work Order: C02040225
Project: Zone 3

ANALYTICAL QC SUMMARY REPORT

Date: 30-Apr-02

TestNo: E903.0

Sample ID: C02040226-001A	SampType: MS	TestCode: RAD-RA226-W-D	Units: pCi/L	Prep Date:	Run ID: BERTHOLD 770_02041						
Client ID:	Batch ID: 02RA-109	TestNo: E903.0		Analysis Date: 4/16/2002	SeqNo: 151282						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium 226	168.1	0.200	202.1	0	83.2	70	130	0	0	0	

Sample ID: C02040225-001A	SampType: DUP	TestCode: RAD-RA226-W-D	Units: pCi/L	Prep Date:	Run ID: BERTHOLD 770_02041						
Client ID: 613	Batch ID: 02RA-109	TestNo: E903.0		Analysis Date: 4/16/2002	SeqNo: 151281						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium 226	19.4	0.200	0	0		70	130	15.1	24.9	30	

Sample ID: C02040227-001A	SampType: DUP	TestCode: RAD-RA226-W-D	Units: pCi/L	Prep Date:	Run ID: BERTHOLD 770_02041						
Client ID:	Batch ID: 02RA-109	TestNo: E903.0		Analysis Date: 4/16/2002	SeqNo: 151283						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium 226	1.1	0.200	0	0		70	130	0	200	30	R
Radium 226 precision	0.3		0	0				0	200	0	

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

40225R00013
TRACKING NO. PAGE 10

CLIENT: United Nuclear Corp
Work Order: C02040225
Project: Zone 3

ANALYTICAL QC SUMMARY REPORT

Date: 30-Apr-02

TestNo: E904.0

Sample ID: C02040225-001ADU		SampType: DUP	TestCode: RAD-RA228-W-D		Units: pCi/L	Prep Date:		Run ID: BERTHOLD 770_02041			
Client ID: 613		Batch ID: 02228125	TestNo: E904.0			Analysis Date: 4/19/2002		SeqNo: 154485			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium 228	ND	1.00	0	0		70	130	0	0	30	

Sample ID: C02040227-001ADU		SampType: DUP	TestCode: RAD-RA228-W-D		Units: pCi/L	Prep Date:		Run ID: BERTHOLD 770_02041			
Client ID:		Batch ID: 02228125	TestNo: E904.0			Analysis Date: 4/19/2002		SeqNo: 154504			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium 228	ND	1.00	0	0		70	130	0	0	30	

Sample ID: C02040262-001AMS		SampType: MS	TestCode: RAD-RA228-W-T		Units: pCi/L	Prep Date:		Run ID: BERTHOLD 770_02041			
Client ID:		Batch ID: 02228125	TestNo: E904.0			Analysis Date: 4/19/2002		SeqNo: 154508			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium 228	7.1	1.0	7.15	0	99.3	70	130	0	0	0	

40225R00016
TRACKING NO.
PAGE NO.

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: United Nuclear Corp
Work Order: C02040225
Project: Zone 3

ANALYTICAL QC SUMMARY REPORT

Date: 30-Apr-02

TestNo: E907.0

Sample ID: C02040226-013AMS		SampType: MS	TestCode: RAD-TH-ISO-W-D			Units: pCi/L	Prep Date:			Run ID: EGG-ORTEC_020412A		
Client ID:		Batch ID: R9010	TestNo: E907.0				Analysis Date: 4/12/2002			SeqNo: 153648		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Thorium 230	124.9	0.200	125	0	99.9	70	130	0	0	0		

Sample ID: C02040226-013AMS		SampType: MSD	TestCode: RAD-TH-ISO-W-D			Units: pCi/L	Prep Date:			Run ID: EGG-ORTEC_020412A		
Client ID:		Batch ID: R9010	TestNo: E907.0				Analysis Date: 4/12/2002			SeqNo: 153649		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Thorium 230	109.5	0.200	124.9	0	87.7	70	130	124.9	13.1	30		

40225R00015
TRACKING NO.
PAGE NO.

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: United Nuclear Corp
Work Order: C02040225
Project: Zone 3

ANALYTICAL QC SUMMARY REPORT

Date: 30-Apr-02

TestNo: NERHL-65-4

Sample ID: C02040134-006AMS		SampType: MS	TestCode: RAD-PB210-W-D		Units: pCi/L	Prep Date:			Run ID: BECKMAN 6000_02041		
Client ID:		Batch ID: R8877	TestNo: NERHL-65-4			Analysis Date: 4/13/2002			SeqNo: 151186		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead 210	34.1	2.7	37.22	0	91.6	70	130	0	0	0	

Sample ID: C02040227-003ADU		SampType: DUP	TestCode: RAD-PB210-W-D		Units: pCi/L	Prep Date:			Run ID: BECKMAN 6000_02041		
Client ID:		Batch ID: R8877	TestNo: NERHL-65-4			Analysis Date: 4/13/2002			SeqNo: 150753		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead 210	ND	2.7	0	0		70	130	0	0	30	

Qualifiers:

ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

TRACKING NO. 40225R00016
 PAGE NO



ANALYTICAL SUMMARY REPORT

April 29, 2002

Larry Bush
United Nuclear Corp
PO Box 3077
Gallup, NM 87305

Workorder No.: C02040225

Quote ID: C129 - Quarterly Long List

Project Name: Zone 3

Energy Laboratories Inc. received the following 3 samples from United Nuclear Corp on 4/8/2002 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C02040225-001	613	04/02/02 13:35	04/08/02	Aqueous	Alkalinity QA Calculations Arsenic-III, Dissolved Selenium-IV, Dissolved Metals by ICP, Dissolved Metals by ICP-MS, Dissolved Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite Gross Alpha minus Rn222 and Uranium Lead 210, Dissolved Radium 226, Dissolved Radium 228, Dissolved Thorium, Isotopic Solids, Total Dissolved E624 Purgeable Organics VOC Preservation Check
C02040225-002	517	04/03/02 8 45	04/08/02	Aqueous	Same As Above
C02040225-003	EPA-14	04/03/02 9:35	04/08/02	Aqueous	Same As Above

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative.

If you have any questions regarding these tests results, please feel free to call.

Report Approved By:

P.A. Larkins
SODAS CARLINO
LABORATORY SUPERVISOR

TRACKING NO. PAGE N
40225R00021



Date: 29-Apr-02

CLIENT: United Nuclear Corp
Project: Zone 3
Sample Delivery Group: C02040225

CASE NARRATIVE

THIS IS THE FINAL PAGE OF THE LABORATORY ANALYTICAL REPORT

eli-b - Energy Laboratories, Inc. - Billings, MT
eli-g - Energy Laboratories, Inc. - Gillette, WY
eli-h - Energy Laboratories, Inc. - Helena, MT
eli-r - Energy Laboratories, Inc. - Rapid City, SD

SAMPLE TEMPERATURE COMPLIANCE: 4°C (±2°C)

Temperature of samples received may not be considered properly preserved by accepted standards. Samples that are hand delivered immediately after collection shall be considered acceptable if there is evidence that the chilling process has begun.

ENERGY LABORATORIES, INC. - CASPER, WY certifies that certain method selections contained in this report meet requirements as set forth by NELAC. Some client specific reporting requirements may not require NELAC reporting protocol.

The total number of pages of this report are indicated by the last four digits of the tracking number located in the lower right corner.

TRACKING NO. PAGE NO.

40225R00021



ANALYTICAL SUMMARY REPORT

May 07, 2002

Larry Bush
United Nuclear Corp
PO Box 3077
Gallup, NM 87305

Workorder No.: C02040485

Quote ID: C129 - Quarterly Long List

Project Name: Zone 3

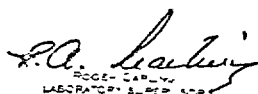
Energy Laboratories Inc. received the following 8 samples from United Nuclear Corp on 4/15/2002 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C02040485-001	708	04/08/02 9:00	04/15/02	Aqueous	Alkalinity QA Calculations Arsenic-III, Dissolved Selenium-IV, Dissolved Metals by ICP, Dissolved Metals by ICP-MS, Dissolved Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite Gross Alpha minus Rn222 and Uranium Lead 210, Dissolved Radium 226, Dissolved Radium 228, Dissolved Thorium, Isotopic Solids, Total Dissolved E624 Purgeable Organics VOC Preservation Check
C02040485-002	711	04/08/02 9:50	04/15/02	Aqueous	Same As Above
C02040485-003	711 Duplicate	04/08/02 10:20	04/15/02	Aqueous	Same As Above
C02040485-004	EPA-13	04/08/02 10:40	04/15/02	Aqueous	Same As Above
C02040485-005	504-B	04/08/02 11:20	04/15/02	Aqueous	Same As Above
C02040485-006	719	04/08/02 13:20	04/15/02	Aqueous	Same As Above
C02040485-007	420	04/08/02 13:50	04/15/02	Aqueous	Same As Above
C02040485-008	717	04/09/02 9:40	04/15/02	Aqueous	Same As Above

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative or Report.

If you have any questions regarding these tests results, please call.

Report Approved By:


R.A. Leary
REGIONAL MANAGER
LABORATORY SUPERVISOR

TRACKING NO. PAGE NO.

40485R00012



Date: 07-May-02

CLIENT: United Nuclear Corp
Project: Zone 3
Sample Delivery Group: C02040485

CASE NARRATIVE

THIS IS THE FINAL PAGE OF THE LABORATORY ANALYTICAL REPORT

BRANCH LABORATORY LOCATIONS

eli-b - Energy Laboratories, Inc. - Billings, MT
eli-g - Energy Laboratories, Inc. - Gillette, WY
eli-h - Energy Laboratories, Inc. - Helena, MT
eli-r - Energy Laboratories, Inc. - Rapid City, SD

SAMPLE TEMPERATURE COMPLIANCE: 4°C (±2°C)

Temperature of samples received may not be considered properly preserved by accepted standards. Samples that are hand delivered immediately after collection shall be considered acceptable if there is evidence that the chilling process has begun.

ENERGY LABORATORIES, INC. - CASPER, WY certifies that certain method selections contained in this report meet requirements as set forth by NELAC. Some client specific reporting requirements may not require NELAC reporting protocol.

The total number of pages of this report are indicated by the last four digits of the tracking number located in the lower right corner.

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40485R00013



ANALYTICAL SUMMARY REPORT

May 14, 2002

Larry Bush
United Nuclear Corp
PO Box 3077
Gallup, NM 87305

Workorder No.: C02040678

Quote ID: C129 - Quarterly Long List

Project Name: Zone 3

Energy Laboratories Inc. received the following 1 sample from United Nuclear Corp on 4/22/2002 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C02040678-001	NBL-1	04/17/02 9.30	04/22/02	Aqueous	Alkalinity QA Calculations Arsenic-III, Dissolved Selenium-IV, Dissolved Metals by ICP, Dissolved Metals by ICP-MS, Dissolved Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite Gross Alpha minus Rn222 and Uranium Lead 210, Dissolved Radium 226, Dissolved Radium 228, Dissolved Thorium, Isotopic Solids, Total Dissolved E624 Purgeable Organics VOC Preservation Check

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative or Report.

If you have any questions regarding these tests results, please call.

Report Approved By:


ROGER G. LASHLEY
LABORATORY S. INC.

TRACKING NO. PAGE NO.

40678R00004



Date: 14-May-02

CLIENT: United Nuclear Corp
Project: Zone 3
Sample Delivery Group: C02040678

CASE NARRATIVE

THIS IS THE FINAL PAGE OF THE LABORATORY ANALYTICAL REPORT

BRANCH LABORATORY LOCATIONS

eli-b - Energy Laboratories, Inc. - Billings, MT
eli-g - Energy Laboratories, Inc. - Gillette, WY
eli-h - Energy Laboratories, Inc. - Helena, MT
eli-r - Energy Laboratories, Inc. - Rapid City, SD

SAMPLE TEMPERATURE COMPLIANCE: 4°C (±2°C)

Temperature of samples received may not be considered properly preserved by accepted standards. Samples that are hand delivered immediately after collection shall be considered acceptable if there is evidence that the chilling process has begun.

ENERGY LABORATORIES, INC. - CASPER, WY certifies that certain method selections contained in this report meet requirements as set forth by NELAC. Some client specific reporting requirements may not require NELAC reporting protocol.

The total number of pages of this report are indicated by the last four digits of the tracking number located in the lower right corner.

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40678R00005



CLIENT: United Nuclear Corp
Work Order: C02040226
Project: Alluvium

ANALYTICAL QC SUMMARY REPORT

Date: 30-Apr-02

TestNo: A2540 C

Sample ID: C02040227-003BMS	SampType: MS	TestCode: SLDS-TDS-W	Units: mg/L	Prep Date:	Run ID: SLDS-BALANCE_02040						
Client ID:	Batch ID: 020408A-SLD	TestNo: A2540 C		Analysis Date: 4/8/2002	SeqNo: 146538						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Dissolved TDS @ 180 C	1464	10.0	1429	4.202	102	90	110	0	0	0	

Sample ID: C02040153-004ADU	SampType: DUP	TestCode: SLDS-TDS-W	Units: mg/L	Prep Date:	Run ID: SLDS-BALANCE_02040						
Client ID:	Batch ID: 020408A-SLD	TestNo: A2540 C		Analysis Date: 4/8/2002	SeqNo: 146470						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Dissolved TDS @ 180 C	1614	10.0	0	0				1618	0.208	10	

Sample ID: C02040153-014ADU	SampType: DUP	TestCode: SLDS-TDS-W	Units: mg/L	Prep Date:	Run ID: SLDS-BALANCE_02040						
Client ID:	Batch ID: 020408A-SLD	TestNo: A2540 C		Analysis Date: 4/8/2002	SeqNo: 146482						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Dissolved TDS @ 180 C	6535	10.0	0	0				6580	0.686	10	

Sample ID: C02040161-001BDU	SampType: DUP	TestCode: SLDS-TDS-W	Units: mg/L	Prep Date:	Run ID: SLDS-BALANCE_02040						
Client ID:	Batch ID: 020408A-SLD	TestNo: A2540 C		Analysis Date: 4/8/2002	SeqNo: 146496						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Dissolved TDS @ 180 C	229.4	10.0	0	0				221.3	3.59	10	

Sample ID: C02040203-001BDU	SampType: DUP	TestCode: SLDS-TDS-W	Units: mg/L	Prep Date:	Run ID: SLDS-BALANCE_02040						
Client ID:	Batch ID: 020408A-SLD	TestNo: A2540 C		Analysis Date: 4/8/2002	SeqNo: 146508						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Dissolved TDS @ 180 C	183.6	10.0	0	0				181.8	0.993	10	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank



CLIENT: United Nuclear Corp
Work Order: C02040226
Project: Alluvium

ANALYTICAL QC SUMMARY REPORT

Date: 30-Apr-02

TestNo: A3114 B

Sample ID: C02040226-007A	SampType: MS	TestCode: CVAA-ASIII-3114-	Units: mg/L	Prep Date:	Run ID: HYDRIDE1-C_020411A						
Client ID: GW-1	Batch ID: R8775	TestNo: A3114 B		Analysis Date: 4/11/2002	SeqNo: 148473						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic-III	0.0578	0.00100	0.05555	0	104	85	115	0	0	0	

Sample ID: C02040227-002A	SampType: MS	TestCode: CVAA-ASIII-3114-	Units: mg/L	Prep Date:	Run ID: HYDRIDE1-C_020411A						
Client ID:	Batch ID: R8775	TestNo: A3114 B		Analysis Date: 4/11/2002	SeqNo: 148490						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic-III	0.0505	0.00100	0.05	0	101	85	115	0	0	0	

Sample ID: C02040226-007A	SampType: MSD	TestCode: CVAA-ASIII-3114-	Units: mg/L	Prep Date:	Run ID: HYDRIDE1-C_020411A						
Client ID: GW-1	Batch ID: R8775	TestNo: A3114 B		Analysis Date: 4/11/2002	SeqNo: 148474						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic-III	0.0584	0.00100	0.05555	0	105	85	115	0.0578	1.03	10	

Sample ID: C02040227-002A	SampType: MSD	TestCode: CVAA-ASIII-3114-	Units: mg/L	Prep Date:	Run ID: HYDRIDE1-C_020411A						
Client ID:	Batch ID: R8775	TestNo: A3114 B		Analysis Date: 4/11/2002	SeqNo: 148489						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic-III	0.0492	0.00100	0.05	0	98.4	85	115	0.0505	2.61	10	

Sample ID: C02040226-007A	SampType: MS	TestCode: CVAA-SEIV-3114-	Units: mg/L	Prep Date:	Run ID: HYDRIDE1-C_020412A						
Client ID: GW-1	Batch ID: R8832	TestNo: A3114 B		Analysis Date: 4/12/2002	SeqNo: 149717						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium-IV	0.0467	0.00100	0.05	0	93.4	85	115	0	0	0	-

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

10225R00013

TRACING NO.

CLIENT: United Nuclear Corp
Work Order: C02040226
Project: Alluvium

ANALYTICAL QC SUMMARY REPORT

Date: 30-Apr-02

TestNo: A3114 B

Sample ID: C02040227-002A	SampType: MS	TestCode: CVAA-SEIV-3114-	Units: mg/L	Prep Date:	Run ID: HYDRIDE1-C_020412A						
Client ID:	Batch ID: R8832	TestNo: A3114 B		Analysis Date: 4/12/2002	SeqNo: 149733						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium-IV	0.0457	0.00100	0.05	0	91.4	85	115	0	0	0	

Sample ID: C02040226-007A	SampType: MSD	TestCode: CVAA-SEIV-3114-	Units: mg/L	Prep Date:	Run ID: HYDRIDE1-C_020412A						
Client ID: GW-1	Batch ID: R8832	TestNo: A3114 B		Analysis Date: 4/12/2002	SeqNo: 149718						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium-IV	0.0471	0.00100	0 05	0	94.2	85	115	0.0467	0.853	10	

Sample ID: C02040227-002A	SampType: MSD	TestCode: CVAA-SEIV-3114-	Units: mg/L	Prep Date:	Run ID: HYDRIDE1-C_020412A						
Client ID:	Batch ID: R8832	TestNo: A3114 B		Analysis Date: 4/12/2002	SeqNo: 149734						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium-IV	0.0464	0.00100	0.05	0	92.8	85	115	0.0457	1.52	10	

Sample ID: C02040288-001C	SampType: MS	TestCode: CVAA-SEIV-3114-	Units: mg/L	Prep Date:	Run ID: HYDRIDE1-C_020412A						
Client ID:	Batch ID: R8832	TestNo: A3114 B		Analysis Date: 4/12/2002	SeqNo: 149701						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium-IV	0 0467	0.00100	0 05	0 0004	92.6	85	115	0	0	0	

Sample ID: C02040288-001C	SampType: MSD	TestCode: CVAA-SEIV-3114-	Units: mg/L	Prep Date:	Run ID: HYDRIDE1-C_020412A						
Client ID:	Batch ID: R8832	TestNo: A3114 B		Analysis Date: 4/12/2002	SeqNo: 149702						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium-IV	0.0468	0.00100	0.05	0.0004	92.8	85	115	0.0467	0.214	10	

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

40225700914

CLIENT: United Nuclear Corp
Work Order: C02040226
Project: Alluvium

ANALYTICAL QC SUMMARY REPORT

Date: 30-Apr-02

TestNo: A4500-NH3 G

Sample ID: C02040423-001BMS	SampType: MS	TestCode: N-NH3-W	Units: mg/L	Prep Date:	Run ID: TECHNICON_020412A						
Client ID:	Batch ID: A2002-04-12_	TestNo: A4500-NH3 G		Analysis Date: 4/12/2002	SeqNo: 149550						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	3.06	0.100	1.99	1.11	98	80	120	0	0	0	

Sample ID: C02040226-007DMS	SampType: MS	TestCode: N-NH3-W	Units: mg/L	Prep Date:	Run ID: TECHNICON_020412A						
Client ID: GW-1	Batch ID: A2002-04-12_	TestNo: A4500-NH3 G		Analysis Date: 4/12/2002	SeqNo: 149565						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	2.58	0.0500	1.99	0.58	101	80	120	0	0	0	

Sample ID: C02040226-012DMS	SampType: MS	TestCode: N-NH3-W	Units: mg/L	Prep Date:	Run ID: TECHNICON_020412A						
Client ID: EPA-28	Batch ID: A2002-04-12_	TestNo: A4500-NH3 G		Analysis Date: 4/12/2002	SeqNo: 149574						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	2.01	0.0500	2	0.06	97.5	80	120	0	0	0	

Sample ID: C02040423-001BMS	SampType: MSD	TestCode: N-NH3-W	Units: mg/L	Prep Date:	Run ID: TECHNICON_020412A						
Client ID:	Batch ID: A2002-04-12_	TestNo: A4500-NH3 G		Analysis Date: 4/12/2002	SeqNo: 149551						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	3.11	0.100	1.99	1.11	101	80	120	3.06	1.62	20	

Sample ID: C02040226-012DMS		SampType: MSD	TestCode: N-NH3-W		Units: mg/L	Prep Date:			Run ID: TECHNICON_020412A		
Client ID: EPA-28		Batch ID: A2002-04-12_	TestNo: A4500-NH3 G		Analysis Date: 4/12/2002			SeqNo: 149575			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	2	0.0500	2	0.06	97	80	120	2.01	0.499	20	-

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

4:0226R00015

TR-001-10. PAGE NO.

CLIENT: United Nuclear Corp
Work Order: C02040226
Project: Alluvium

ANALYTICAL QC SUMMARY REPORT

Date: 30-Apr-02

TestNo: E200.7

Sample ID: C02040133-001C	SampType: MS1	TestCode: ICP-200.7-W-D	Units: mg/L	Prep Date:	Run ID: ICP1-C_020412A						
Client ID:	Batch ID: ICP041202A	TestNo: E200.7		Analysis Date: 4/12/2002	SeqNo: 149302						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	1601	1.00	500	1143	91.6	80	120	0	0	0	
Magnesium	1262	1.00	500	861	80.2	80	120	0	0	0	
Potassium	655	1.00	500	193.2	92.4	80	120	0	0	0	
Sodium	1537	1.00	500	1062	95	80	120	0	0	0	

Sample ID: C02040133-001C	SampType: MS3	TestCode: ICP-200.7-W-D	Units: mg/L	Prep Date:	Run ID: ICP1-C_020412A						
Client ID:	Batch ID: ICP041202A	TestNo: E200.7		Analysis Date: 4/12/2002	SeqNo: 149304						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	5230	1.00	1000	4471	75.9	80	120	0	0	0	S
Sulfate	3765	6.10	1000	2834	93.1	80	120	0	0	0	

Sample ID: C02040150-001A	SampType: MS1	TestCode: ICP-200.7-W-D	Units: mg/L	Prep Date:	Run ID: ICP1-C_020412A						
Client ID:	Batch ID: ICP041202A	TestNo: E200.7		Analysis Date: 4/12/2002	SeqNo: 149332						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	616	1.00	500	93.4	105	80	120	0	0	0	
Magnesium	524	1.00	500	20.07	101	80	120	0	0	0	
Potassium	491.3	1.00	500	20.01	94.3	80	120	0	0	0	
Sodium	782	1.00	500	302.5	95.9	80	120	0	0	0	

Sample ID: C02040150-001A	SampType: MS3	TestCode: ICP-200.7-W-D	Units: mg/L	Prep Date:	Run ID: ICP1-C_020412A						
Client ID:	Batch ID: ICP041202A	TestNo: E200.7		Analysis Date: 4/12/2002	SeqNo: 149334						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	1114	1.00	1000	78.9	104	80	120	0	0	0	
Sulfate	1334	6.10	1000	285.6	105	80	120	0	0	0	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

40225R000016

Page NO.

CLIENT: United Nuclear Corp
Work Order: C02040226
Project: Alluvium

ANALYTICAL QC SUMMARY REPORT

Date: 30-Apr-02

TestNo: E200.7

Sample ID: C02040133-001C	SampType: MSD1	TestCode: ICP-200.7-W-D		Units: mg/L	Prep Date:				Run ID: ICP1-C_020412A		
Client ID:	Batch ID: ICP041202A	TestNo: E200.7		Analysis Date: 4/12/2002				SeqNo: 149305			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	1615	1.00	500	1143	94.4	80	120	1601	0.871	20	
Magnesium	1281	1.00	500	861	84	80	120	1262	1.49	20	
Potassium	664	1.00	500	193.2	94.2	80	120	655	1.36	20	
Sodium	1556	1.00	500	1062	98.8	80	120	1537	1.23	20	

Sample ID: C02040133-001C		SampType: MSD3	TestCode: ICP-200.7-W-D		Units: mg/L	Prep Date:			Run ID: ICP1-C_020412A		
Client ID:		Batch ID: ICP041202A	TestNo: E200.7			Analysis Date: 4/12/2002			SeqNo: 149307		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	5290	1.00	1000	4471	81.9	80	120	5230	1.14	20	
Sulfate	3804	6.10	1000	2834	97	80	120	3765	1.03	20	

Sample ID: C02040150-001A	SampType: MSD1	TestCode: ICP-200.7-W-D	Units: mg/L	Prep Date:	Run ID: ICP1-C_020412A						
Client ID:	Batch ID: ICP041202A	TestNo: E200.7		Analysis Date: 4/12/2002	SeqNo. 149335						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	601	1.00	500	93.4	102	80	120	616	2.47	20	
Magnesium	511	1.00	500	20.07	98.2	80	120	524	2.51	20	
Potassium	476.8	1.00	500	20.01	91.4	80	120	491.3	3.00	20	
Sodium	766	1.00	500	302.5	92.7	80	120	782	2.07	20	

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Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

40226R00017

PAGE NO.

CLIENT: United Nuclear Corp
Work Order: C02040226
Project: Alluvium

ANALYTICAL QC SUMMARY REPORT

Date: 30-Apr-02

TestNo: E200.8

Sample ID: C02040181-010AMS		SampType: MS	TestCode: ICPMS-200.8-W-D			Units: mg/L		Prep Date:		Run ID: ICPMS1-C_020410A	
Client ID:		Batch ID: ICPMS04100		TestNo: E200.8		Analysis Date: 4/10/2002		SeqNo: 148166			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.05517	0.100	0.05	0.009285	91.8	70	130	0	0	0	
Beryllium	0.05129	0.0100	0.05	0.000072	102	70	130	0	0	0	
Cadmium	0.0474	0.0100	0.05	0	94.8	70	130	0	0	0	
Cobalt	0.0444	0.0100	0.05	0.000222	88.4	70	130	0	0	0	
Lead	0.04895	0.0500	0.05	0.00058	96.7	70	130	0	0	0	
Manganese	0.04721	0.0100	0.05	0.002415	89.6	70	130	0	0	0	
Molybdenum	0.05186	0.100	0.05	0.000133	103	70	130	0	0	0	
Nickel	0.04649	0.0500	0.05	0.003241	86.5	70	130	0	0	0	
Uranium	0.1474	0.000300	0.05	0.1	94.8	70	130	0	0	0	
Vanadium	0.04967	0.100	0.05	0.002226	94.9	70	130	0	0	0	

Sample ID: C02040181-010AMS		SampType: MSD	TestCode: ICPMS-200.8-W-D			Units: mg/L		Prep Date:		Run ID: ICPMS1-C_020410A	
Client ID:		Batch ID: ICPMS04100		TestNo: E200.8		Analysis Date: 4/10/2002		SeqNo: 148167			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.05754	0.100	0.05	0.009285	96.5	70	130	0.05517	0	20	
Beryllium	0.05291	0.0100	0.05	0.000072	106	70	130	0.05129	3.11	20	
Cadmium	0.04753	0.0100	0.05	0	95.1	70	130	0.0474	0.274	20	
Cobalt	0.04399	0.0100	0.05	0.000222	87.5	70	130	0.0444	0.928	20	
Lead	0.04884	0.0500	0.05	0.00058	96.5	70	130	0.04895	0	20	
Manganese	0.04777	0.0100	0.05	0.002415	90.7	70	130	0.04721	1.18	20	
Molybdenum	0.05358	0.100	0.05	0.000133	107	70	130	0.05186	0	20	
Nickel	0.04622	0.0500	0.05	0.003241	86	70	130	0.04649	0	20	
Uranium	0.1481	0.000300	0.05	0.1	96.2	70	130	0.1474	0.474	20	
Vanadium	0.04982	0.100	0.05	0.002226	95.2	70	130	0.04967	0	20	

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Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

PAGE NO.



CLIENT: United Nuclear Corp
Work Order: C02040226
Project: Alluvium

ANALYTICAL QC SUMMARY REPORT

Date: 30-Apr-02

TestNo: E353.2

Sample ID: C02040289-006AMS	SampType: MS	TestCode: N-NO3+NO2-DW	Units: mg/L	Prep Date:	Run ID: TECHNICON_020410A						
Client ID:	Batch ID: A2002-04-10_	TestNo: E353.2		Analysis Date: 4/10/2002	SeqNo: 147591						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	18.7	0.400	9.82	8.37	105	90	110	0	0	0	

Sample ID: C02040289-012ADU	SampType: DUP	TestCode: N-NO3+NO2-DW	Units: mg/L	Prep Date:	Run ID: TECHNICON_020410A						
Client ID:	Batch ID: A2002-04-10_	TestNo: E353.2		Analysis Date: 4/10/2002	SeqNo: 147599						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	5.56	0.200	0	0				5.51	0.903	10	

Sample ID: C02040226-002DMS	SampType: MS	TestCode: N-NO3+NO2-W	Units: mg/L	Prep Date:	Run ID: TECHNICON_020410A						
Client ID: EPA-23	Batch ID: A2002-04-10_	TestNo: E353.2		Analysis Date: 4/10/2002	SeqNo: 147564						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	3	0.100	1.99	1.14	93.5	90	110	0	0	0	

Sample ID: C02040226-012DMS	SampType: MS	TestCode: N-NO3+NO2-W	Units: mg/L	Prep Date:	Run ID: TECHNICON_020410A						
Client ID: EPA-28	Batch ID: A2002-04-10_	TestNo: E353.2		Analysis Date: 4/10/2002	SeqNo: 147574						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	91.3	2.00	54	42.1	91.1	90	110	0	0	0	

Sample ID: C02040204-002ADU	SampType: DUP	TestCode: N-NO3+NO2-W	Units: mg/L	Prep Date:	Run ID: TECHNICON_020410A						
Client ID:	Batch ID: A2002-04-10_	TestNo: E353.2		Analysis Date: 4/10/2002	SeqNo: 147551						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	2.37	0.100	0	0				2.35	0.847	10	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

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ENERGY LABORATORIES



CLIENT: United Nuclear Corp
Work Order: C02040226
Project: Alluvium

ANALYTICAL QC SUMMARY REPORT

Date: 30-Apr-02

TestNo: E624

Sample ID: C02040227-002E	SampType: MS	TestCode: VOC-624-W	Units: ug/L	Prep Date:	Run ID: GCMS2-C_020412B						
Client ID:	Batch ID: R8849	TestNo: E624		Analysis Date: 4/13/2002	SeqNo: 150105						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloroform	279	10.0	100	161.8	117	70	130	0	0	0	
Surr: 1,2-Dichlorobenzene-d4	205.8	10.0	200	0	103	80	120	0	0	0	
Surr: Dibromofluoromethane	208.6	10.0	200	0	104	70	130	0	0	0	
Surr: p-Bromofluorobenzene	179.4	10.0	200	0	89.7	80	120	0	0	0	
Surr: Toluene-d8	198.8	10.0	200	0	99.4	80	120	0	0	0	

Sample ID: C02040227-002E	SampType: MSD	TestCode: VOC-624-W	Units: ug/L	Prep Date:	Run ID: GCMS2-C_020412B						
Client ID:	Batch ID: R8849	TestNo: E624		Analysis Date: 4/13/2002	SeqNo: 150106						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloroform	282.8	10.0	100	161.8	121	70	130	279	1.35	20	
Surr: 1,2-Dichlorobenzene-d4	207.6	10.0	200	0	104	80	120	0	0	10	
Surr: Dibromofluoromethane	214.8	10.0	200	0	107	70	130	0	0	10	
Surr: p-Bromofluorobenzene	180.4	10.0	200	0	90.2	80	120	0	0	10	
Surr: Toluene-d8	193.2	10.0	200	0	96.6	80	120	0	0	10	

40226R00020
TRACKING NO. PAF NO.

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: United Nuclear Corp
Work Order: C02040226
Project: Alluvium

ANALYTICAL QC SUMMARY REPORT

Date: 30-Apr-02

TestNo: E903.0

Sample ID: C02040226-001A	SampType: MS	TestCode: RAD-RA226-W-D	Units: pCi/L	Prep Date:	Run ID: BERTHOLD 770_02041						
Client ID: 509-D	Batch ID: 02RA-109	TestNo: E903.0		Analysis Date: 4/16/2002	SeqNo: 151282						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium 226	168.1	0.200	202.1	0	83.2	70	130	0	0	0	

Sample ID: C02040225-001A	SampType: DUP	TestCode: RAD-RA226-W-D	Units: pCi/L	Prep Date:	Run ID: BERTHOLD 770_02041						
Client ID:	Batch ID: 02RA-109	TestNo: E903.0		Analysis Date: 4/16/2002	SeqNo: 151281						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium 226	19.4	0.200	0	0		70	130	15.1	24.9	30	

Sample ID: C02040227-001A	SampType: DUP	TestCode: RAD-RA226-W-D	Units: pCi/L	Prep Date:	Run ID: BERTHOLD 770_02041						
Client ID:	Batch ID: 02RA-109	TestNo: E903.0		Analysis Date: 4/16/2002	SeqNo: 151283						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium 226	1.1	0.200	0	0		70	130	0	200	30	R
Radium 226 precision	0.3		0	0				0	200	0	

TRACKING NO. PAGE NO.
 40226R000021

Qualifiers:

ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank



CLIENT: United Nuclear Corp
Work Order: C02040226
Project: Alluvium

ANALYTICAL QC SUMMARY REPORT

Date: 30-Apr-02

TestNo: E904.0

Sample ID: C02040225-001ADU		SampType: DUP		TestCode: RAD-RA228-W-D		Units: pCi/L		Prep Date:		Run ID: BERTHOLD 770_02041	
Client ID:		Batch ID: 02228125		TestNo: E904.0		Analysis Date: 4/19/2002		SeqNo: 154485			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium 228	ND	1.00	0	0		70	130	0	0	30	

Sample ID: C02040227-001ADU		SampType: DUP		TestCode: RAD-RA228-W-D		Units: pCi/L		Prep Date:		Run ID: BERTHOLD 770_02041	
Client ID:		Batch ID: 02228125		TestNo: E904.0		Analysis Date: 4/19/2002		SeqNo: 154504			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium 228	ND	1.00	0	0		70	130	0	0	30	

Sample ID: C02040262-001AMS		SampType: MS		TestCode: RAD-RA228-W-T		Units: pCi/L		Prep Date:		Run ID: BERTHOLD 770_02041	
Client ID:		Batch ID: 02228125		TestNo: E904.0		Analysis Date: 4/19/2002		SeqNo: 154508			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium 228	7.1	1.0	7.15	0	99.3	70	130	0	0	0	

40226700022
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Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: United Nuclear Corp
Work Order: C02040226
Project: Alluvium

ANALYTICAL QC SUMMARY REPORT

Date: 30-Apr-02

TestNo: E907.0

Sample ID: C02040226-013AMS		SampType: MS	TestCode: RAD-TH-ISO-W-D		Units: pCi/L	Prep Date:				Run ID: EGG-ORTEC_020412A		
Client ID: GW-3		Batch ID: R9010	TestNo: E907.0			Analysis Date: 4/12/2002				SeqNo: 153648		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Thorium 230	124.9	0 200	125	0	99.9	70	130	0	0	0		

Sample ID: C02040226-013AMS		SampType: MSD	TestCode: RAD-TH-ISO-W-D		Units: pCi/L	Prep Date:				Run ID: EGG-ORTEC_020412A		
Client ID: GW-3		Batch ID: R9010	TestNo: E907.0			Analysis Date: 4/12/2002				SeqNo: 153649		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Thorium 230	109.5	0 200	124.9	0	87.7	70	130	124.9	13.1	30		

TRACKING NO. PAGE NO.
 40226700023

Qualifiers:

ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: United Nuclear Corp
Work Order: C02040226
Project: Alluvium

ANALYTICAL QC SUMMARY REPORT

Date: 30-Apr-02

TestNo: NERHL-65-4

Sample ID: C02040134-006AMS		SampType: MS	TestCode: RAD-PB210-W-D		Units: pCi/L	Prep Date:		Run ID: BECKMAN 6000_02041			
Client ID:		Batch ID: R8877	TestNo: NERHL-65-4			Analysis Date: 4/13/2002		SeqNo: 151186			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead 210	34.1	2.7	37.22	0	91.6	70	130	0	0	0	

Sample ID: C02040227-003ADU		SampType: DUP	TestCode: RAD-PB210-W-D		Units: pCi/L	Prep Date:		Run ID: BECKMAN 6000_02041			
Client ID:		Batch ID: R8877	TestNo: NERHL-65-4			Analysis Date: 4/13/2002		SeqNo: 150753			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead 210	ND	2.7	0	0		70	130	0	0	30	

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 40226R00024

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank



ANALYTICAL SUMMARY REPORT

April 29, 2002

Larry Bush
United Nuclear Corp
PO Box 3077
Gallup, NM 87305

Workorder No.: C02040226

Quote ID: C129 - Quarterly Long List

Project Name: Alluvium

Energy Laboratories Inc. received the following 14 samples from United Nuclear Corp on 4/8/2002 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C02040226-001	509-D	04/01/02 9:10	04/08/02	Aqueous	Alkalinity QA Calculations Arsenic-III, Dissolved Selenium-IV, Dissolved Metals by ICP, Dissolved Metals by ICP-MS, Dissolved Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite Gross Alpha minus Rn222 and Uranium Lead 210, Dissolved Radium 226, Dissolved Radium 228, Dissolved Thorium, Isotopic Solids, Total Dissolved E624 Purgeable Organics VOC Preservation Check
C02040226-002	EPA-23	04/01/02 9:50	04/08/02	Aqueous	Same As Above
C02040226-003	803	04/01/02 10:25	04/08/02	Aqueous	Same As Above
C02040226-004	808	04/01/02 11:00	04/08/02	Aqueous	Same As Above
C02040226-005	802	04/01/02 11:35	04/08/02	Aqueous	Same As Above
C02040226-006	GW-2	04/01/02 13:20	04/08/02	Aqueous	Same As Above
C02040226-007	GW-1	04/01/02 13:45	04/08/02	Aqueous	Same As Above
C02040226-008	801	04/01/02 14:25	04/08/02	Aqueous	Same As Above
C02040226-009	632	04/02/02 8:20	04/08/02	Aqueous	Same As Above
C02040226-010	624	04/02/02 9:00	04/08/02	Aqueous	Same As Above
C02040226-011	624 Duplicate	04/02/02 9:25	04/08/02	Aqueous	Same As Above
C02040226-012	EPA-28	04/02/02 9:55	04/08/02	Aqueous	Same As Above
C02040226-013	GW-3	04/02/02 10:45	04/08/02	Aqueous	Same As Above
C02040226-014	EPA-25	04/02/02 11:50	04/08/02	Aqueous	Same As Above

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative.

TRACKING NO. PAGE NO.

40226R00028



ENERGY LABORATORIES, INC. • 2393 Salt Creek Highway (82601) • P.O. Box 3258 • Casper, WY 82602
Toll Free 888.235.0515 • 307.235.0515 • Fax 307.234.1639 • casper@energylab.com • www.energylab.com

If you have any questions regarding these tests results, please feel free to call.

Report Approved By:

P.A. Leasing
POWER CARS AND
LABORATORY SUPERVISOR

TRACKING NO. PAGE NO.
40226R00029



Date: 29-Apr-02

CLIENT: United Nuclear Corp
Project: Alluvium
Sample Delivery Group: C02040226

CASE NARRATIVE

THIS IS THE FINAL PAGE OF THE LABORATORY ANALYTICAL REPORT

eli-b - Energy Laboratories, Inc. - Billings, MT
eli-g - Energy Laboratories, Inc. - Gillette, WY
eli-h - Energy Laboratories, Inc. - Helena, MT
eli-r - Energy Laboratories, Inc. - Rapid City, SD

SAMPLE TEMPERATURE COMPLIANCE: 4°C (±2°C)

Temperature of samples received may not be considered properly preserved by accepted standards. Samples that are hand delivered immediately after collection shall be considered acceptable if there is evidence that the chilling process has begun.

ENERGY LABORATORIES, INC. - CASPER, WY certifies that certain method selections contained in this report meet requirements as set forth by NELAC. Some client specific reporting requirements may not require NELAC reporting protocol.

The total number of pages of this report are indicated by the last four digits of the tracking number located in the lower right corner.

TRACKING NO. PAGE NO.

40226R00030



ANALYTICAL SUMMARY REPORT

May 07, 2002

Larry Bush
United Nuclear Corp
PO Box 3077
Gallup, NM 87305

Workorder No.: C02040490

Quote ID: C129 - Quarterly Long List

Project Name: Alluvium

Energy Laboratories Inc. received the following 1 sample from United Nuclear Corp on 4/15/2002 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C02040490-001	627	04/09/02 8:45	04/15/02	Aqueous	Alkalinity QA Calculations Arsenic-III, Dissolved Selenium-IV, Dissolved Metals by ICP, Dissolved Metals by ICP-MS, Dissolved Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite Gross Alpha minus Rn222 and Uranium Lead 210, Dissolved Radium 226, Dissolved Radium 228, Dissolved Thorium, Isotopic Solids, Total Dissolved E624 Purgeable Organics VOC Preservation Check

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative or Report.

If you have any questions regarding these tests results, please call.

Report Approved By:

TRACKING NO. PAGE NO.

40490R00005

APPENDIX C

MONTHLY

LABORATORY QUALITY CONTROL AND
PERFORMANCE REPORT

CLIENT: United Nuclear Corp
Work Order: C02020198
Project: TE-3-2-2002

ANALYTICAL QC SUMMARY REPORT

Date: 14-Mar-02

TestNo: A2320 B

Sample ID: C02020146-025B	SampType: DUP	TestCode: ALK-W	Units: mg/L	Prep Date:	Run ID: ORION_020212A						
Client ID:	Batch ID: O-021202-3	TestNo: A2320 B		Analysis Date: 2/12/2002	SeqNo: 116714						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bicarbonate as HCO3	170.2	1.00	0	0				169.6	0.353	0	

Sample ID: C02020216-001A	SampType: DUP	TestCode: ALK-W	Units: s.u.	Prep Date:	Run ID: ORION_020213A						
Client ID:	Batch ID: O-021302-1	TestNo: A2320 B		Analysis Date: 2/13/2002	SeqNo: 117126						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
pH	9.7	0.0100	0	0				9.7	0	0	

Sample ID: C02020216-001A	SampType: DUP	TestCode: ALK-W	Units: mg/L	Prep Date:	Run ID: ORION_020213A						
Client ID:	Batch ID: O-021302-1	TestNo: A2320 B		Analysis Date: 2/13/2002	SeqNo: 117503						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bicarbonate as HCO3	1076	1.00	0	0				1049	2.52	0	

Sample ID: C02020198-011C	SampType: DUP	TestCode: ALK-W	Units: mg/L	Prep Date:	Run ID: ORION_020213A						
Client ID: 624 Duplicate	Batch ID: O-021302-2	TestNo: A2320 B		Analysis Date: 2/13/2002	SeqNo: 117507						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bicarbonate as HCO3	1484	1.00	0	0				1473	0.737	0	
pH	7.2	0.0100	0	0				7.2	0	0	

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 20198R00051

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: United Nuclear Corp
Work Order: C02020198
Project: TE-3-2-2002

ANALYTICAL QC SUMMARY REPORT

Date: 14-Mar-02

TestNo: A2540 C

Sample ID: C02020198-009BMS		SampType: MS	TestCode: SLDS-TDS-W		Units: mg/L	Prep Date:			Run ID: SLDS-BALANCE_02021		
Client ID: GW-1		Batch ID: 020210A-SLD		TestNo: A2540 C		Analysis Date: 2/10/2002			SeqNo: 115886		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Solids, Total Dissolved TDS @ 180 C	8762	10 0	3333	5358	102	90	110	0	0	0
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Sample ID: C02020180-001BMS	SampType: MS	TestCode: SLDS-TDS-W	Units: mg/L	Prep Date:	Run ID: SLDS-BALANCE_02021						
Client ID:	Batch ID: 020211A-SLD	TestNo: A2540 C		Analysis Date: 2/11/2002	SeqNo: 117378						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Solids, Total Dissolved TDS @ 180 C	8832	10 0	4000	4736	102	90	110	0	0	0
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Sample ID: C02020198-013BMS		SampType: MS	TestCode: SLDS-TDS-W		Units: mg/L	Prep Date:				Run ID: SLDS-BALANCE_02021		
Client ID: GW-3		Batch ID: 020211A-SLD	TestNo: A2540 C			Analysis Date: 2/11/2002				SeqNo: 117391		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Solids, Total Dissolved TDS @ 180 C	8411	10.0	3333	5112	99	90	110	0	0	0
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Sample ID: C02020223-001BMS	SampType: MS	TestCode: SLDS-TDS-W	Units: mg/L	Prep Date:	Run ID: SLDS-BALANCE_02021						
Client ID:	Batch ID: 020211A-SLD	TestNo: A2540 C		Analysis Date: 2/11/2002	SeqNo: 117405						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Solids, Total Dissolved TDS @ 180 C	2337	10.0	2000	290.9	102	90	110	0	0	0
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Sample ID: C02020180-001BMS	SampType: MSD	TestCode: SLDS-TDS-W	Units: mg/L	Prep Date:	Run ID: SLDS-BALANCE_02021						
Client ID:	Batch ID: 020211A-SLD	TestNo: A2540 C		Analysis Date: 2/11/2002	SeqNo: 117379						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Solids, Total Dissolved TDS @ 180 C	8824	10.0	4000	4736	102	90	110	8832	0.0906	10
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20198R000052

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits B - Analyte detected in the associated Method Blank
 J - Analyte detected below quantitation limits R - RPD outside accepted recovery limits

CLIENT: United Nuclear Corp
Work Order: C02020198
Project: TE-3-2-2002

ANALYTICAL QC SUMMARY REPORT

Date: 14-Mar-02

TestNo: A3114 B

Sample ID: C02020198-010AMS		SampType: MS	TestCode: CVAA-ASIII-3114- Units: mg/L			Prep Date:			Run ID: HYDRIDE1-C_020212A		
Client ID: 624		Batch ID: R7252	TestNo: A3114 B			Analysis Date: 2/12/2002			SeqNo: 116464		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic-III	0.0938	0.00100	0.0909	0	103	85	115	0	0	0	

Sample ID: C02020198-016AMS		SampType: MS	TestCode: CVAA-ASIII-3114- Units: mg/L			Prep Date:			Run ID: HYDRIDE1-C_020212A		
Client ID: Field Blank		Batch ID: R7252	TestNo: A3114 B			Analysis Date: 2/12/2002			SeqNo: 116476		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic-III	0.0511	0.00100	0.05	0	102	85	115	0	0	0	

Sample ID: C02020198-010AMS		SampType: MSD	TestCode: CVAA-ASIII-3114- Units: mg/L			Prep Date:			Run ID: HYDRIDE1-C_020212A		
Client ID: 624		Batch ID: R7252	TestNo: A3114 B			Analysis Date: 2/12/2002			SeqNo: 116465		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic-III	0.094	0.00100	0.0909	0	103	85	115	0.0938	0.213	10	

Sample ID: C02020198-016AMS		SampType: MSD	TestCode: CVAA-ASIII-3114- Units: mg/L			Prep Date:			Run ID: HYDRIDE1-C_020212A		
Client ID: Field Blank		Batch ID: R7252	TestNo: A3114 B			Analysis Date: 2/12/2002			SeqNo: 116477		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic-III	0.051	0.00100	0.05	0	102	85	115	0.0511	0.196	10	

Sample ID: 2 C167-52-2		SampType: CCV	TestCode: CVAA-ASIII-3114- Units: mg/L			Prep Date:			Run ID: HYDRIDE1-C_020212A		
Client ID:		Batch ID: R7252	TestNo: A3114 B			Analysis Date: 2/12/2002			SeqNo: 116467		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic-III	0.0507	0.00100	0.05	0	101	90	110	0	0	10	

201907000053
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Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: United Nuclear Corp
Work Order: C02020198
Project: TE-3-2-2002

ANALYTICAL QC SUMMARY REPORT

Date: 14-Mar-02

TestNo: A3114 B

Sample ID: 1 C167-52-2	SampType: ICV	TestCode: CVAA-ASIII-3114- Units: mg/L				Prep Date:				Run ID: HYDRIDE1-C_020212A		
Client ID.	Batch ID: R7252	TestNo: A3114 B				Analysis Date: 2/12/2002				SeqNo. 116450		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Arsenic-III	0.0508	0.00100	0.05	0	102	90	110	0	0	10		

Sample ID: C02020198-010AMS	SampType: MS	TestCode: CVAA-SEIV-3114- Units: mg/L				Prep Date:				Run ID: HYDRIDE1-C_020212B		
Client ID: 624	Batch ID: R7253	TestNo: A3114 B				Analysis Date: 2/12/2002				SeqNo: 116497		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Selenium-IV	0.0472	0.00100	0.0476	0	99.2	85	115	0	0	0		

Sample ID: C02020198-016AMS	SampType: MS	TestCode: CVAA-SEIV-3114- Units: mg/L				Prep Date:				Run ID: HYDRIDE1-C_020212B		
Client ID: Field Blank	Batch ID: R7253	TestNo: A3114 B				Analysis Date: 2/12/2002				SeqNo: 116514		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Selenium-IV	0.0466	0.00100	0.0476	0	97.9	85	115	0	0	0		

Sample ID: C02020198-010AMS	SampType: MSD	TestCode: CVAA-SEIV-3114- Units: mg/L				Prep Date:				Run ID: HYDRIDE1-C_020212B		
Client ID: 624	Batch ID: R7253	TestNo: A3114 B				Analysis Date: 2/12/2002				SeqNo: 116498		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Selenium-IV	0.0479	0.00100	0.0476	0	101	85	115	0.0472	1.47	10		

Sample ID: C02020198-016AMS	SampType: MSD	TestCode: CVAA-SEIV-3114- Units: mg/L				Prep Date:				Run ID: HYDRIDE1-C_020212B		
Client ID: Field Blank	Batch ID: R7253	TestNo: A3114 B				Analysis Date: 2/12/2002				SeqNo: 116516		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Selenium-IV	0.0465	0.00100	0.0476	0	97.7	85	115	0.0466	0.215	10		

20198R00054

PAGE NO.

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: United Nuclear Corp
Work Order: C02020198
Project: TE-3-2-2002

ANALYTICAL QC SUMMARY REPORT

Date: 14-Mar-02

TestNo: A4500-NH3 G

Sample ID: C02020120-003CMS		SampType: MS	TestCode: N-NH3-W		Units: mg/L		Prep Date:			Run ID: TECHNICON_020211A		
Client ID:		Batch ID: A2002-02-11_	TestNo: A4500-NH3 G		Analysis Date: 2/11/2002			SeqNo: 115789				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Nitrogen, Ammonia as N	3.12	0.0500	1.99	1.1	102	80	120	0	0	0		

Sample ID: C02020198-006DMS		SampType: MS	TestCode: N-NH3-W		Units: mg/L		Prep Date:			Run ID: TECHNICON_020211A		
Client ID: 632		Batch ID: A2002-02-11_	TestNo: A4500-NH3 G		Analysis Date: 2/11/2002			SeqNo: 115850				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Nitrogen, Ammonia as N	2.46	0.0500	2	0.37	104	80	120	0	0	0		

Sample ID: C02020198-011DMS		SampType: MS	TestCode: N-NH3-W		Units: mg/L		Prep Date:			Run ID: TECHNICON_020211A		
Client ID: 624 Duplicate		Batch ID: A2002-02-11_	TestNo: A4500-NH3 G		Analysis Date: 2/11/2002			SeqNo: 115859				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Nitrogen, Ammonia as N	2.02	0.0500	2	0.06	98	80	120	0	0	0		

Sample ID: C02020198-011DMS		SampType: MSD	TestCode: N-NH3-W		Units: mg/L		Prep Date:			Run ID: TECHNICON_020211A		
Client ID: 624 Duplicate		Batch ID: A2002-02-11_	TestNo: A4500-NH3 G		Analysis Date: 2/11/2002			SeqNo: 115860				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Nitrogen, Ammonia as N	1.98	0.0500	2	0.06	96	80	120	2.02	2.00	20		

Sample ID: C02020110-002CDU		SampType: DUP	TestCode: N-NH3-W		Units: mg/L		Prep Date:			Run ID: TECHNICON_020211A		
Client ID:		Batch ID: A2002-02-11_	TestNo: A4500-NH3 G		Analysis Date: 2/11/2002			SeqNo: 115786				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Nitrogen, Ammonia as N	26	0.400	0	0				26.7	2.66	20		

Differs: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

20198700055

CLIENT: United Nuclear Corp
Work Order: C02020198
Project: TE-3-2-2002

ANALYTICAL QC SUMMARY REPORT

Date: 14-Mar-02

TestNo: E200.7

Sample ID: CA,MG,NA,K IGV/CC		SampType: CCV	TestCode: ICP-200.7-W-D		Units: mg/L	Prep Date:		Run ID: ICP1-C_020220A			
Client ID:		Batch ID: ICP022002A	TestNo: E200.7			Analysis Date: 2/20/2002		SeqNo: 120164			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	53.59	1.00	50	0	107	90	110	0	0	0	
Magnesium	50.54	1.00	50	0	101	90	110	0	0	0	
Potassium	45.73	1.00	50	0	91.5	90	110	0	0	0	
Sodium	46.42	1.00	50	0	92.8	90	110	0	0	0	

Sample ID: CA,MG,NA,K IGV/CC		SampType: CCV	TestCode: ICP-200.7-W-D		Units: mg/L	Prep Date:		Run ID: ICP1-C_020220A			
Client ID:		Batch ID: ICP022002A	TestNo: E200.7			Analysis Date: 2/20/2002		SeqNo: 120177			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	54.72	1.00	50	0	109	90	110	0	0	0	
Magnesium	51.06	1.00	50	0	102	90	110	0	0	0	
Potassium	45.03	1.00	50	0	90.1	90	110	0	0	0	
Sodium	47.42	1.00	50	0	94.8	90	110	0	0	0	

Sample ID: C02020407-001C		SampType: MSD1	TestCode: ICP-200.7-W-T		Units: mg/L	Prep Date:		Run ID: ICP1-C_020220A			
Client ID:		Batch ID: ICP022002A	TestNo: E200.7			Analysis Date: 2/20/2002		SeqNo: 120135			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	773	1.00	500	268.9	101	80	120	771	0.259	20	
Magnesium	777	1.00	500	326.5	90.1	80	120	777	0	20	
Potassium	460.1	1.00	500	7.2	90.6	80	120	462.1	0.434	20	
Sodium	1723	1.00	500	1274	89.8	80	120	1702	1.23	20	

Sample ID: C02020407-001C		SampType: MSD3	TestCode: ICP-200.7-W-T		Units: mg/L	Prep Date:		Run ID: ICP1-C_020220A			
Client ID:		Batch ID: ICP022002A	TestNo: E200.7			Analysis Date: 2/20/2002		SeqNo: 120137			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	1016	1.00	1000	108.4	90.8	80	120	1089	6.94	20	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

20198R00056

CLIENT: United Nuclear Corp
Work Order: C02020198
Project: TE-3-2-2002

ANALYTICAL QC SUMMARY REPORT

Date: 14-Mar-02

TestNo: E200.7

Sample ID: C02020407-001C	SampType: MSD3	TestCode: ICP-200.7-W-T	Units: mg/L	Prep Date:	Run ID: ICP1-C_020220A						
Client ID:	Batch ID: ICP022002A	TestNo: E200.7		Analysis Date: 2/20/2002	SeqNo: 120137						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	4823	6.10	1000	3938	88.5	80	120	4848	0.517	20	

Sample ID: CALIBRATION BLA	SampType: CCB	TestCode: ICP-200.7-W-T	Units: mg/L	Prep Date:	Run ID: ICP1-C_020220A						
Client ID:	Batch ID: ICP022002A	TestNo: E200.7		Analysis Date: 2/20/2002	SeqNo: 120125						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	0.0143	1.00	0	0				0	0	0	
Chloride	0.0453	1.00	0	0				0	0	0	
Magnesium	0.0119	1.00	0	0				0	0	0	
Potassium	0.1283	1.00	0	0				0	0	0	
Sodium	0.1144	1.00	0	0				0	0	0	
Sulfate	-0.0744	1.00	0	0				0	0	0	

Sample ID: CALIBRATION BLA	SampType: CCB	TestCode: ICP-200.7-W-T	Units: mg/L	Prep Date:	Run ID: ICP1-C_020220A						
Client ID:	Batch ID: ICP022002A	TestNo: E200.7		Analysis Date: 2/20/2002	SeqNo: 120129						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	0.0154	1.00	0	0				0	0	0	
Chloride	0.5894	1.00	0	0				0	0	0	
Magnesium	0.0123	1.00	0	0				0	0	0	
Potassium	0.1184	1.00	0	0				0	0	0	
Sodium	-0.0297	1.00	0	0				0	0	0	
Sulfate	-0.1892	1.00	0	0				0	0	0	

Sample ID: CALIBRATION BLA	SampType: ICB	TestCode: ICP-200.7-W-T	Units: mg/L	Prep Date:	Run ID: ICP1-C_020220A						
Client ID:	Batch ID: ICP022002A	TestNo: E200.7		Analysis Date: 2/20/2002	SeqNo: 120118						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits B - Analyte detected in the associated Method Blank
 J - Analyte detected below quantitation limits R - RPD outside accepted recovery limits

20198R00057

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CLIENT: United Nuclear Corp
Work Order: C02020198
Project: TE-3-2-2002

ANALYTICAL QC SUMMARY REPORT

Date: 14-Mar-02

TestNo: E200.8

Sample ID: C02020198-003AMS		SampType: MS	TestCode: ICPMS-200.8-W-D			Units: mg/L		Prep Date:		Run ID: ICPMS1-C_020226B		
Client ID: 803		Batch ID: ICPMS02260		TestNo: E200.8		Analysis Date: 2/27/2002			SeqNo: 123886			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Beryllium	0.4211	0 0100	0.5	0	84.2	70	130	0	0	0		
Cadmium	0.4905	0 0100	0 5	0	98.1	70	130	0	0	0		
Cobalt	0.5323	0 0100	0 5	0.004104	106	70	130	0	0	0		
Lead	0.522	0 0500	0.5	0.001522	104	70	130	0	0	0		
Manganese	2.1	0.0100	0.5	1.63	94	70	130	0	0	0		
Molybdenum	0 4865	0.100	0.5	0	97.3	70	130	0	0	0		
Nickel	0.5626	0 0500	0.5	0.04068	104	70	130	0	0	0		
Uranium	0 6781	0.000300	0.5	0.149	106	70	130	0	0	0		
Vanadium	0.4971	0.100	0.5	0	99.4	70	130	0	0	0		

Sample ID: C02020198-013AMS		SampType: MS	TestCode: ICPMS-200.8-W-D			Units: mg/L		Prep Date:		Run ID: ICPMS1-C_020226B		
Client ID: GW-3		Batch ID: ICPMS02260		TestNo: E200.8		Analysis Date: 2/27/2002			SeqNo: 123900			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Aluminum	0.4889	0.100	0.5	0.03036	91.7	70	130	0	0	0		
Beryllium	0.4806	0.0100	0.5	0	96.1	70	130	0	0	0		
Cadmium	0.5078	0.0100	0.5	0	102	70	130	0	0	0		
Cobalt	0.5312	0.0100	0.5	0.008078	105	70	130	0	0	0		
Lead	0.5418	0.0500	0.5	0	108	70	130	0	0	0		
Manganese	2.371	0.0100	0.5	1.888	96.6	70	130	0	0	0		
Molybdenum	0.5178	0.100	0.5	0	104	70	130	0	0	0		
Nickel	0.5697	0.0500	0.5	0.04539	105	70	130	0	0	0		
Uranium	0.6061	0.000300	0.5	0.05861	109	70	130	0	0	0		
Vanadium	0.5212	0.100	0.5	0	104	70	130	0	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: United Nuclear Corp
Work Order: C02020198
Project: TE-3-2-2002

ANALYTICAL QC SUMMARY REPORT

Date: 14-Mar-02

TestNo: E200.8

Sample ID: C02020198-003AMS		SampType: MSD	TestCode: ICPMS-200.8-W-D Units: mg/L			Prep Date:			Run ID: ICPMS1-C_020226B		
Client ID: 803		Batch ID: ICPMS02260	TestNo: E200.8			Analysis Date: 2/27/2002			SeqNo: 123887		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.423	0.100	0.5	0 06768	71.1	70	130	0.4163	1.60	20	
Beryllium	0.4047	0.0100	0.5	0	80.9	70	130	0.4211	3.97	20	
Cadmium	0.4992	0 0100	0.5	0	99.8	70	130	0 4905	1.76	20	
Cobalt	0.5827	0.0100	0.5	0.004104	116	70	130	0.5323	9 04	20	
Lead	0 5434	0 0500	0.5	0 001522	108	70	130	0.522	4 02	20	
Manganese	2.213	0.0100	0.5	1.63	117	70	130	2.1	5 24	20	
Molybdenum	0.489	0.100	0.5	0	97.8	70	130	0 4865	0 513	20	
Nickel	0 6037	0.0500	0.5	0.04068	113	70	130	0.5626	7.05	20	
Uranium	0.7013	0 000300	0.5	0.149	110	70	130	0 6781	3.36	20	
Vanadium	0.5149	0.100	0.5	0	103	70	130	0 4971	3.52	20	

Sample ID: C02020198-013AMS		SampType: MSD	TestCode: ICPMS-200.8-W-D Units: mg/L			Prep Date:			Run ID: ICPMS1-C_020226B		
Client ID: GW-3		Batch ID: ICPMS02260	TestNo: E200.8			Analysis Date: 2/27/2002			SeqNo: 123903		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0 4904	0.100	0.5	0.03036	92	70	130	0 4889	0.306	20	
Beryllium	0 4824	0.0100	0.5	0	96.5	70	130	0.4806	0.374	20	
Cadmium	0.5013	0.0100	0.5	0	100	70	130	0.5078	1.29	20	
Cobalt	0.5312	0 0100	0.5	0.008078	105	70	130	0.5312	0	20	
Lead	0.5174	0.0500	0.5	0	103	70	130	0.5418	4.61	20	
Manganese	2.396	0.0100	0.5	1.888	102	70	130	2.371	1.05	20	
Molybdenum	0.5038	0.100	0.5	0	101	70	130	0.5178	2.74	20	
Nickel	0.5567	0.0500	0.5	0.04539	102	70	130	0.5697	2.31	20	
Uranium	0.5966	0.000300	0.5	0.05861	108	70	130	0.6061	1.58	20	
Vanadium	0.509	0.100	0.5	0	102	70	130	0.5212	2.37	20	

20198R00059

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Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: United Nuclear Corp
Work Order: C02020198
Project: TE-3-2-2002

ANALYTICAL QC SUMMARY REPORT

Date: 14-Mar-02

TestNo: E624

Sample ID: C02020198-015E	SampType: MS	TestCode: VOC-624-W	Units: ug/L	Prep Date:	Run ID: GCMS1-C_020215A						
Client ID: 627	Batch ID: R7388	TestNo: E624		Analysis Date: 2/16/2002	SeqNo: 119535						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloroform	102.2	5.00	100	0	102	70	130	0	0	0	
Surr: 1,2-Dichlorobenzene-d4	100.3	5.00	100	0	100	80	120	0	0	0	
Surr: Dibromofluoromethane	98.3	5.00	100	0	98.3	70	130	0	0	0	
Surr: p-Bromofluorobenzene	96.2	5.00	100	0	96.2	80	120	0	0	0	
Surr: Toluene-d8	101.7	5.00	100	0	102	80	120	0	0	0	

Sample ID: C02020198-015E	SampType: MSD	TestCode: VOC-624-W	Units: ug/L	Prep Date:	Run ID: GCMS1-C_020215A						
Client ID: 627	Batch ID: R7388	TestNo: E624		Analysis Date: 2/16/2002	SeqNo: 119536						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloroform	104.2	5.00	100	0	104	70	130	102.2	1.94	20	
Surr: 1,2-Dichlorobenzene-d4	102.2	5.00	100	0	102	80	120	0	0	10	
Surr: Dibromofluoromethane	98.5	5.00	100	0	98.5	70	130	0	0	10	
Surr: p-Bromofluorobenzene	95.7	5.00	100	0	95.7	80	120	0	0	10	
Surr: Toluene-d8	101.6	5.00	100	0	102	80	120	0	0	10	

Sample ID: Cal Curve 1 @	SampType: CCV	TestCode: VOC-624-W	Units: ug/L	Prep Date:	Run ID: GCMS1-C_020215A						
Client ID:	Batch ID: R7388	TestNo: E624		Analysis Date: 2/16/2002	SeqNo: 119531						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloroform	9.73	1.00	10	0	97.3	80	120	0	0	0	
m,p-Xylenes	20.36	2.00	20	0	102	80	120	0	0	0	
o-Xylene	10.04	1.00	10	0	100	80	120	0	0	0	
Surr: 1,2-Dichlorobenzene-d4	10.01	1.00	10	0	100	80	120	0	0	0	
Surr: Dibromofluoromethane	9.49	1.00	10	0	94.9	70	130	0	0	0	
Surr: p-Bromofluorobenzene	10.48	1.00	10	0	105	80	120	0	0	0	
Surr: Toluene-d8	10.23	1.00	10	0	102	80	120	0	0	0	

Qualifiers: ND - Not Detected at the Reporting Limit
I - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

20198R00061

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CLIENT: United Nuclear Corp
Work Order: C02020198
Project: TE-3-2-2002

ANALYTICAL QC SUMMARY REPORT

Date: 14-Mar-02

TestNo: E903.0

Sample ID: C02020198-005A	SampType: MS	TestCode: RAD-RA226-W-D	Units: pCi/L	Prep Date:	Run ID: TENNELEC-2_020213A						
Client ID: 802	Batch ID: 02RA-49	TestNo: E903.0		Analysis Date: 2/21/2002	SeqNo: 121669						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium 226	91.1	0.200	121.2	0	75.1	70	130	0	0	0	

Sample ID: C02020194-017A	SampType: DUP	TestCode: RAD-RA226-W-D	Units: pCi/L	Prep Date:	Run ID: TENNELEC-2_020213A						
Client ID:	Batch ID: 02RA-49	TestNo: E903.0		Analysis Date: 2/21/2002	SeqNo: 121665						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium 226	ND	0.200	0	0		70	130	0.5	0	30	

Sample ID: C02020198-004A	SampType: DUP	TestCode: RAD-RA226-W-D	Units: pCi/L	Prep Date:	Run ID: TENNELEC-2_020213A						
Client ID: 808	Batch ID: 02RA-49	TestNo: E903.0		Analysis Date: 2/21/2002	SeqNo: 121668						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium 226	ND	0.200	0	0		70	130	0	0	30	

Sample ID: C02020198-014A	SampType: DUP	TestCode: RAD-RA226-W-D	Units: pCi/L	Prep Date:	Run ID: TENNELEC-1_020214A						
Client ID: EPA-25	Batch ID: 02RA-52	TestNo: E903.0		Analysis Date: 2/21/2002	SeqNo: 121685						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium 226	ND	0.200	0	0		70	130	0.4	0	30	

Sample ID: C02020240-001A	SampType: DUP	TestCode: RAD-RA226-W-D	Units: pCi/L	Prep Date:	Run ID: TENNELEC-1_020214A						
Client ID:	Batch ID: 02RA-52	TestNo: E903.0		Analysis Date: 2/22/2002	SeqNo: 121699						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium 226	1.6	0.200	0	0		70	130	1.3	20.7	30	
Radium 226 precision	0.2		0	0				0.2	0	0	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

20198R00062

CLIENT: United Nuclear Corp
Work Order: C02020198
Project: TE-3-2-2002

ANALYTICAL QC SUMMARY REPORT

Date: 14-Mar-02

TestNo: E904.0

Sample ID: C02020194-018AMS		SampType: MS	TestCode: RAD-RA228-W-D			Units: pCi/L	Prep Date: 2/22/2002			Run ID: BERTHOLD 770_02022		
Client ID:		Batch ID: 02228052	TestNo: E904.0				Analysis Date: 2/27/2002			SeqNo: 124592		
Analyte	Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium 228	26.5		1.00	18.08	8.5	99.6	70	130	0	0	0	

Sample ID: C02020198-015AMS		SampType: MS	TestCode: RAD-RA228-W-D			Units: pCi/L	Prep Date:			Run ID: BERTHOLD 770_02022		
Client ID: 627		Batch ID: 02228055	TestNo: E904.0				Analysis Date: 2/27/2002			SeqNo: 124606		
Analyte	Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium 228	6.9		1.00	9.04	0	76.3	70	130	0	0	0	

Sample ID: C02020194-017ADU		SampType: DUP	TestCode: RAD-RA228-W-D			Units: pCi/L	Prep Date: 2/22/2002			Run ID: BERTHOLD 770_02022		
Client ID:		Batch ID: 02228052	TestNo: E904.0				Analysis Date: 2/27/2002			SeqNo: 124590		
Analyte	Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium 228	ND		1.00	2.3	0		70	130	2.3	0	30	S

Sample ID: C02020198-014ADU		SampType: DUP	TestCode: RAD-RA228-W-D			Units: pCi/L	Prep Date:			Run ID: BERTHOLD 770_02022		
Client ID: EPA-25		Batch ID: 02228055	TestNo: E904.0				Analysis Date: 2/27/2002			SeqNo: 124605		
Analyte	Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium 228	ND		1.00	2.4	0		70	130	2.4	0	30	S

TRACKING NO. PAGE NO.
 20198R00063

Modifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: United Nuclear Corp
Work Order: C02020198
Project: Alluvium

ANALYTICAL QC SUMMARY REPORT

Date: 15-Mar-02

TestNo: E907.0

Sample ID: MB-R7788	SampType: MBLK	TestCode: RAD-TH-ISO-W	Units: pCi/L	Prep Date:	Run ID: EGG-ORTEC_020227A
Client ID:	Batch ID: R7788	TestNo: E907.0		Analysis Date: 2/27/2002	SeqNo: 126563
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Thorium 230	ND	0.20			

Sample ID: C02020198-016AMS	SampType: MS	TestCode: RAD-TH-ISO-W	Units: pCi/L	Prep Date:	Run ID: EGG-ORTEC_020227A
Client ID: Field Blank	Batch ID: R7788	TestNo: E907.0		Analysis Date: 2/27/2002	SeqNo: 126584
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Thorium 230	133	0.20	125	0	106 70 130 0 0 0

Sample ID: C02020198-016ADU	SampType: DUP	TestCode: RAD-TH-ISO-W	Units: pCi/L	Prep Date:	Run ID: EGG-ORTEC_020227A
Client ID: Field Blank	Batch ID: R7788	TestNo: E907.0		Analysis Date: 2/27/2002	SeqNo: 126585
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Thorium 230	125.4	0.20	133	0	94.3 70 130 133 5.88 30

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

TRACKING NO. PAGE NO
 20198R000064



QA/QC Summary Report

Client: United Nuclear Corp

Project: Alluvium

Report Date: 08/14/02

Work Order: C02030206

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2320 B									Batch: O-031302-1
Sample ID: C02030206-001C	Sample Duplicate								03/13/02 12:46
Bicarbonate as HCO ₃	2230	mg/L		1.00					
pH	6.90	s u.		0.0100					
Method: A2320 B									Batch: O-031302-2
Sample ID: C02030206-010C	Sample Duplicate								03/13/02 13:20
Bicarbonate as HCO ₃	1530	mg/L		1.00					
pH	7.30	s u.		0.0100					
Method: A2540 C									Batch: 020308A-SLDS-TDS-W
Sample ID: C02030206-002BDUP	Sample Duplicate								03/08/02 15:36
Solids, Total Dissolved TDS @ 180 C	4430	mg/L	10.0				0.1	10	
Sample ID: C02030206-007BMS	Matrix Spike								03/08/02 15:39
Solids, Total Dissolved TDS @ 180 C	11200	mg/L	10.0	102	90	110			
Sample ID: C02030206-012BDUP	Sample Duplicate								03/08/02 15:43
Solids, Total Dissolved TDS @ 180 C	5150	mg/L	10.0				0.2	10	
Sample ID: C02030210-001AMS	Matrix Spike								03/08/02 15:46
Solids, Total Dissolved TDS @ 180 C	7700	mg/L	10.0	97.2	90	110			
Sample ID: C02030210-003ADUP	Sample Duplicate								03/08/02 15:49
Solids, Total Dissolved TDS @ 180 C	3180	mg/L	10.0				0	10	
Sample ID: C02030210-004AMS	Matrix Spike								03/08/02 15:50
Solids, Total Dissolved TDS @ 180 C	6900	mg/L	10.0	101	90	110			
Method: A3114 B									Batch: R7941
Sample ID: C02030206-010AMS	Matrix Spike								03/11/02 13:29
Selenium-IV	0.0484	mg/L	0.00100	96.8	85	115			
Sample ID: C02030206-010AMSD	Matrix Spike Duplicate								03/11/02 13:31
Selenium-IV	0.0489	mg/L	0.00100	97.8	85	115	1.0	10	
Sample ID: C02030206-016AMS	Matrix Spike								03/11/02 13:55
Selenium-IV	0.0499	mg/L	0.00100	99.8	85	115			
Sample ID: C02030206-016AMSD	Matrix Spike Duplicate								03/11/02 13:57
Selenium-IV	0.0503	mg/L	0.00100	101	85	115	0.8	10	

Qualifiers: ND - Not Detected at the Reporting Limit
R - RPD outside of recommended recovery limits

S - Spike Recovery outside of recommended recovery limits

TRACKING NO. PAGE NO.

30206R00021



QA/QC Summary Report

Client: United Nuclear Corp

Project: Alluvium

Report Date: 08/14/02

Work Order: C02030206

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A3114 B									Batch: R7947
Sample ID: C02030206-010AMS	Matrix Spike								03/11/02 16:06
Arsenic-III	0.0479	mg/L	0.00100	101	85	115			
Sample ID: C02030206-010AMS	Matrix Spike Duplicate								03/11/02 16:09
Arsenic-III	0.0472	mg/L	0.00100	99.2	85	115	1.5	10	
Sample ID: C02030206-016AMS	Matrix Spike								03/11/02 16:36
Arsenic-III	0.0424	mg/L	0.00100	89.1	85	115			
Sample ID: C02030206-016AMS	Matrix Spike Duplicate								03/11/02 16:38
Arsenic-III	0.0425	mg/L	0.00100	89.3	85	115	0.2	10	
Method: A4500-NH3 G									Batch: A2002-03-11_1_NH3_01
Sample ID: C02030116-002BDUP	Sample Duplicate								03/11/02 12:25
Nitrogen, Ammonia as N	19.5	mg/L	0.200				1.5	20	
Sample ID: C02030140-001EMS	Matrix Spike								03/11/02 13:10
Nitrogen, Ammonia as N	3.54	mg/L	0.0500	107	80	120			
Sample ID: C02030144-006DDUP	Sample Duplicate								03/11/02 13:16
Nitrogen, Ammonia as N	19.4	mg/L	0.200				0.5	20	
Sample ID: C02030178-003DMS	Matrix Spike								03/11/02 13:30
Nitrogen, Ammonia as N	1.99	mg/L	0.0500	97.5	80	120			
Sample ID: C02030206-001DDUP	Sample Duplicate								03/11/02 13:48
Nitrogen, Ammonia as N	0.880	mg/L	0.0500				2.2	20	
Sample ID: C02030206-006DMS	Matrix Spike								03/11/02 14:06
Nitrogen, Ammonia as N	2.32	mg/L	0.0500	100	80	120			
Sample ID: C02030206-011DMS	Matrix Spike								03/11/02 14:24
Nitrogen, Ammonia as N	1.91	mg/L	0.0500	92.5	80	120			
Sample ID: C02030206-011DMSD	Matrix Spike Duplicate								03/11/02 14:26
Nitrogen, Ammonia as N	1.92	mg/L	0.0500	93	80	120	0.5	20	
Sample ID: C02030210-004EMS	Matrix Spike								03/11/02 14:50
Nitrogen, Ammonia as N	2.24	mg/L	0.0500	104	80	120			
Sample ID: C02030210-004EMSD	Matrix Spike Duplicate								03/11/02 14:52
Nitrogen, Ammonia as N	2.24	mg/L	0.0500	104	80	120	0	20	

Qualifiers: ND - Not Detected at the Reporting Limit
R - RPD outside of recommended recovery limits

S - Spike Recovery outside of recommended recovery limits

TRACKING NO. PAGE NO.

30206R00022



QA/QC Summary Report

Client: United Nuclear Corp
Project: Alluvium

Report Date: 08/14/02
Work Order: C02030206

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7							Batch: ICP032702B		
Sample ID: C02030319-001B	Matrix Spike								03/27/02 10:54
Calcium	505	mg/L	1.00	98.9	80	120			
Magnesium	496	mg/L	1.00	98.3	80	120			
Potassium	475	mg/L	1.00	94.4	80	120			
Sodium	1620	mg/L	1.00	88.2	80	120			
Sample ID: C02030319-001B	Matrix Spike								03/27/02 10:59
Chloride	986	mg/L	1.00	95.1	80	120			
Sulfate	3180	mg/L	6.10	96.3	80	120			
Sample ID: C02030319-001B	Matrix Spike Duplicate								03/27/02 11:10
Chloride	996	mg/L	1.00	96.1	80	120	1.0	20	
Sulfate	3130	mg/L	6.10	91.4	80	120	1.6	20	
Sample ID: C02030255-001A	Matrix Spike								03/27/02 12:25
Calcium	508	mg/L	1.00	102	80	120			
Magnesium	496	mg/L	1.00	99.2	80	120			
Potassium	467	mg/L	1.00	93.4	80	120			
Sodium	481	mg/L	1.00	96.1	80	120			
Sample ID: C02030255-001A	Matrix Spike								03/27/02 12:40
Chloride	937	mg/L	1.00	93.7	80	120			
Sulfate	984	mg/L	6.10	98.4	80	120			
Sample ID: C02030255-001A	Matrix Spike Duplicate								03/27/02 12:42
Calcium	496	mg/L	1.00	99.1	80	120	2.5	20	
Magnesium	482	mg/L	1.00	96.4	80	120	2.8	20	
Potassium	453	mg/L	1.00	90.6	80	120	3.0	20	
Sodium	467	mg/L	1.00	93.3	80	120	3.0	20	
Sample ID: C02030255-001A	Matrix Spike Duplicate								03/27/02 12:47
Chloride	958	mg/L	1.00	95.8	80	120	2.2	20	
Sulfate	969	mg/L	6.10	96.9	80	120	1.5	20	

Qualifiers: ND - Not Detected at the Reporting Limit
R - RPD outside of recommended recovery limits

S - Spike Recovery outside of recommended recovery limits

TRACKING NO. PAGE NO.
30206R00023



QA/QC Summary Report

Client: United Nuclear Corp

Project: Alluvium

Report Date: 08/14/02

Work Order: C02030206

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7							Batch: ICP032802C		
Sample ID: C02030358-001B	Matrix Spike								03/28/02 15:42
Calcium	620	mg/L	0.439	95.1	80	120			
Magnesium	526	mg/L	0.566	93.8	80	120			
Sample ID: C02030358-001B	Matrix Spike								03/28/02 15:47
Sulfate	1780	mg/L	6.10	96.4	80	120			
Sample ID: C02030358-001B	Matrix Spike Duplicate								03/28/02 15:50
Calcium	611	mg/L	0.439	93.3	80	120	1.5	20	
Magnesium	515	mg/L	0.566	91.6	80	120	2.1	20	
Sample ID: C02030358-001B	Matrix Spike Duplicate								03/28/02 15:55
Sulfate	1760	mg/L	6.10	94.3	80	120	1.2	20	

Qualifiers: ND - Not Detected at the Reporting Limit
R - RPD outside of recommended recovery limits

S - Spike Recovery outside of recommended recovery limits

TRACKING NO. PAGE NO.

30206R00024



QA/QC Summary Report

Client: United Nuclear Corp

Project: Alluvium

Report Date: 08/14/02

Work Order: C02030206

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8							Batch: ICPMS031202a		
Sample ID: C02020513-002AMS							03/12/02 15:16		
Matrix Spike									
Beryllium	0.0508	mg/L	0.0100	101	70	130			
Cadmium	0.0538	mg/L	0.0100	107	70	130			
Cobalt	0.0511	mg/L	0.0100	101	70	130			
Lead	0.0548	mg/L	0.0500	109	70	130			
Manganese	0.118	mg/L	0.0100	95.2	70	130			
Molybdenum	0.0562	mg/L	0.100	109	70	130			
Nickel	0.0526	mg/L	0.0500	99.7	70	130			
Uranium	0.109	mg/L	0.000300	91.8	70	130			
Vanadium	0.0535	mg/L	0.100	106	70	130			
Sample ID: C02020513-002AMSD							03/12/02 15:26		
Matrix Spike Duplicate									
Beryllium	0.0469	mg/L	0.0100	93.6	70	130	8.0	20	
Cadmium	0.0498	mg/L	0.0100	99.2	70	130	7.7	20	
Cobalt	0.0480	mg/L	0.0100	94.7	70	130	6.4	20	
Lead	0.0510	mg/L	0.0500	102	70	130	7.0	20	
Manganese	0.115	mg/L	0.0100	89	70	130	2.7	20	
Molybdenum	0.0520	mg/L	0.100	101	70	130	0	20	
Nickel	0.0499	mg/L	0.0500	94.3	70	130	0	20	
Uranium	0.0985	mg/L	0.000300	71.1	70	130	10	20	
Vanadium	0.0495	mg/L	0.100	98.4	70	130	0	20	
Sample ID: C02020592-001AMS							03/12/02 16:40		
Matrix Spike									
Beryllium	0.0468	mg/L	0.00100	93.5	70	130			
Cadmium	0.0478	mg/L	0.00100	95.5	70	130			
Lead	0.0470	mg/L	0.00100	93.9	70	130			
Nickel	0.0447	mg/L	0.00100	89.4	70	130			
Sample ID: C02020592-001AMSD							03/12/02 17:07		
Matrix Spike Duplicate									
Beryllium	0.0474	mg/L	0.00100	94.8	70	130			
Cadmium	0.0502	mg/L	0.00100	100	70	130			
Lead	0.0497	mg/L	0.00100	99.2	70	130			
Nickel	0.0485	mg/L	0.00100	97	70	130			
Sample ID: C02030178-001AMS							03/13/02 01:43		
Matrix Spike									
Aluminum	0.578	mg/L	0.100	114	70	130			
Beryllium	0.560	mg/L	0.0100	112	70	130			
Cadmium	0.515	mg/L	0.0100	103	70	130			
Cobalt	0.550	mg/L	0.0100	110	70	130			
Lead	0.538	mg/L	0.0500	107	70	130			
Manganese	0.593	mg/L	0.0100	118	70	130			
Molybdenum	0.526	mg/L	0.100	105	70	130			
Nickel	0.534	mg/L	0.0500	107	70	130			
Uranium	0.611	mg/L	0.000300	118	70	130			
Vanadium	0.593	mg/L	0.100	117	70	130			

Qualifiers: ND - Not Detected at the Reporting Limit
R - RPD outside of recommended recovery limits

S - Spike Recovery outside of recommended recovery limits

TRACKING NO. PAGE NO.

30206R00025



QA/QC Summary Report

Client: United Nuclear Corp

Project: Alluvium

Report Date: 08/14/02

Work Order: C02030206

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8							Batch: ICPMS031202a		
Sample ID: C02030178-001AMS Matrix Spike							03/13/02 01:43		
Sample ID: C02030178-001AMSD Matrix Spike Duplicate							03/13/02 02:10		
Aluminum	0.589	mg/L	0.100	117	70	130	2.0	20	
Beryllium	0.576	mg/L	0.0100	115	70	130	2.9	20	
Cadmium	0.522	mg/L	0.0100	104	70	130	1.4	20	
Cobalt	0.565	mg/L	0.0100	113	70	130	2.7	20	
Lead	0.543	mg/L	0.0500	108	70	130	1.0	20	
Manganese	0.606	mg/L	0.0100	120	70	130	2.1	20	
Molybdenum	0.526	mg/L	0.100	105	70	130	0.1	20	
Nickel	0.543	mg/L	0.0500	109	70	130	1.6	20	
Uranium	0.610	mg/L	0.000300	118	70	130	0.1	20	
Vanadium	0.605	mg/L	0.100	119	70	130	1.9	20	
Sample ID: C02030206-006AMS Matrix Spike							03/13/02 03:24		
Aluminum	0.554	mg/L	0.100	108	70	130			
Beryllium	0.490	mg/L	0.0100	97.9	70	130			
Cadmium	0.508	mg/L	0.0100	101	70	130			
Cobalt	0.501	mg/L	0.0100	99.7	70	130			
Lead	0.537	mg/L	0.0500	107	70	130			
Manganese	1.61	mg/L	0.0100	107	70	130			
Molybdenum	0.544	mg/L	0.100	109	70	130			
Nickel	0.507	mg/L	0.0500	96.1	70	130			
Uranium	0.656	mg/L	0.000300	118	70	130			
Vanadium	0.580	mg/L	0.100	116	70	130			
Sample ID: C02030206-006AMSD Matrix Spike Duplicate							03/13/02 03:35		
Aluminum	0.580	mg/L	0.100	113	70	130	4.7	20	
Beryllium	0.516	mg/L	0.0100	103	70	130	5.3	20	
Cadmium	0.534	mg/L	0.0100	107	70	130	4.9	20	
Cobalt	0.521	mg/L	0.0100	104	70	130	3.9	20	
Lead	0.567	mg/L	0.0500	113	70	130	5.5	20	
Manganese	1.61	mg/L	0.0100	106	70	130	0	20	
Molybdenum	0.594	mg/L	0.100	119	70	130	8.7	20	
Nickel	0.524	mg/L	0.0500	99.6	70	130	3.4	20	
Uranium	0.695	mg/L	0.000300	126	70	130	5.8	20	
Vanadium	0.610	mg/L	0.100	122	70	130	5.1	20	

Qualifiers: ND - Not Detected at the Reporting Limit
R - RPD outside of recommended recovery limits

S - Spike Recovery outside of recommended recovery limits

TRACKING NO. PAGE NO.

30206R00026



QA/QC Summary Report

Client: United Nuclear Corp

Project: Alluvium

Report Date: 08/14/02

Work Order: C02030206

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8							Batch: ICPMS031902b		
Sample ID: C02030255-007AMS Matrix Spike							03/19/02 19 58		
Aluminum	0.503	mg/L	0.100	95.9	70	130			
Beryllium	0.477	mg/L	0.0100	95.4	70	130			
Cadmium	0.487	mg/L	0.0100	97.3	70	130			
Cobalt	0.466	mg/L	0.0100	93.2	70	130			
Lead	0.509	mg/L	0.0500	98.6	70	130			
Manganese	0.485	mg/L	0.0100	94.2	70	130			
Molybdenum	0.439	mg/L	0.100	87.6	70	130			
Nickel	0.468	mg/L	0.0500	92.5	70	130			
Uranium	0.561	mg/L	0.000300	111	70	130			
Vanadium	0.498	mg/L	0.100	99.5	70	130			
Sample ID: C02030255-007AMSD Matrix Spike Duplicate							03/19/02 20:09		
Aluminum	0.490	mg/L	0.100	93.3	70	130	2.6	20	
Beryllium	0.471	mg/L	0.0100	94.2	70	130	1.3	20	
Cadmium	0.476	mg/L	0.0100	95.1	70	130	2.3	20	
Cobalt	0.458	mg/L	0.0100	91.6	70	130	1.7	20	
Lead	0.504	mg/L	0.0500	97.5	70	130	1.1	20	
Manganese	0.479	mg/L	0.0100	93	70	130	1.2	20	
Molybdenum	0.426	mg/L	0.100	85	70	130	3.0	20	
Nickel	0.458	mg/L	0.0500	90.5	70	130	2.2	20	
Uranium	0.552	mg/L	0.000300	109	70	130	1.7	20	
Vanadium	0.487	mg/L	0.100	97.1	70	130	2.4	20	
Sample ID: C02030255-017AMS Matrix Spike							03/19/02 21:22		
Aluminum	0.495	mg/L	0.100	98.5	70	130			
Beryllium	0.477	mg/L	0.0100	95.4	70	130			
Cadmium	0.468	mg/L	0.0100	93.5	70	130			
Cobalt	0.465	mg/L	0.0100	92.9	70	130			
Lead	0.492	mg/L	0.0500	98.4	70	130			
Manganese	0.490	mg/L	0.0100	94.9	70	130			
Molybdenum	0.415	mg/L	0.100	82.7	70	130			
Nickel	0.461	mg/L	0.0500	92.2	70	130			
Uranium	0.547	mg/L	0.000300	109	70	130			
Vanadium	0.496	mg/L	0.100	99.1	70	130			
Sample ID: C02030255-017AMSD Matrix Spike Duplicate							03/19/02 21:33		
Aluminum	0.481	mg/L	0.100	95.7	70	130	2.9	20	
Beryllium	0.485	mg/L	0.0100	97	70	130	1.7	20	
Cadmium	0.462	mg/L	0.0100	92.4	70	130	1.1	20	
Cobalt	0.463	mg/L	0.0100	92.5	70	130	0.4	20	
Lead	0.487	mg/L	0.0500	97.5	70	130	0.9	20	
Molybdenum	0.422	mg/L	0.100	84.2	70	130	1.8	20	
Nickel	0.465	mg/L	0.0500	93	70	130	0.8	20	

Qualifiers: ND - Not Detected at the Reporting Limit
R - RPD outside of recommended recovery limits

S - Spike Recovery outside of recommended recovery limits

TRACKING NO. PAGE NO.

30206R00027



QA/QC Summary Report

Client: United Nuclear Corp

Project: Alluvium

Report Date: 08/14/02

Work Order: C02030206

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8							Batch: ICPMS031902b		
Sample ID: C02030255-017AMSD	Matrix Spike Duplicate								03/19/02 21:33
Uranium	0.548	mg/L	0.000300	109	70	130	0.1	20	
Vanadium	0.502	mg/L	0.100	100	70	130	1.1	20	
Sample ID: C02030261-002AMS	Matrix Spike								03/19/02 23:03
Aluminum	0.477	mg/L	0.100	94	70	130			
Beryllium	0.457	mg/L	0.0100	91.4	70	130			
Cadmium	0.458	mg/L	0.0100	91.5	70	130			
Cobalt	0.485	mg/L	0.0100	89	70	130			
Lead	0.484	mg/L	0.0500	96.8	70	130			
Manganese	0.744	mg/L	0.0100	94.2	70	130			
Molybdenum	0.432	mg/L	0.100	85.8	70	130			
Nickel	0.512	mg/L	0.0500	88.1	70	130			
Vanadium	0.554	mg/L	0.100	100	70	130			
Sample ID: C02030261-002AMSD	Matrix Spike Duplicate								03/19/02 23:14
Aluminum	0.452	mg/L	0.100	89	70	130	5.3	20	
Beryllium	0.445	mg/L	0.0100	88.9	70	130	2.8	20	
Cadmium	0.439	mg/L	0.0100	87.7	70	130	4.3	20	
Cobalt	0.476	mg/L	0.0100	87.2	70	130	1.9	20	
Lead	0.472	mg/L	0.0500	94.4	70	130	2.5	20	
Manganese	0.728	mg/L	0.0100	91.1	70	130	2.1	20	
Molybdenum	0.412	mg/L	0.100	81.7	70	130	4.9	20	
Nickel	0.499	mg/L	0.0500	85.5	70	130	2.6	20	
Vanadium	0.535	mg/L	0.100	96.3	70	130	3.5	20	
Sample ID: C02030321-001BMS	Matrix Spike								03/20/02 01:54
Aluminum	0.0564	mg/L	0.100	105	70	130			
Beryllium	0.0531	mg/L	0.0100	106	70	130			
Cadmium	0.0460	mg/L	0.0100	92	70	130			
Cobalt	0.0498	mg/L	0.0100	99.2	70	130			
Lead	0.0484	mg/L	0.0500	96.7	70	130			
Manganese	0.0556	mg/L	0.0100	106	70	130			
Molybdenum	0.0825	mg/L	0.100	96.8	70	130			
Nickel	0.0495	mg/L	0.0500	95.7	70	130			
Uranium	0.138	mg/L	0.000300	94.3	70	130			
Vanadium	0.0536	mg/L	0.100	106	70	130			
Sample ID: C02030321-001BMSD	Matrix Spike Duplicate								03/20/02 02:05
Aluminum	0.0562	mg/L	0.100	105	70	130	0	20	
Beryllium	0.0540	mg/L	0.0100	108	70	130	1.7	20	
Cadmium	0.0456	mg/L	0.0100	91.2	70	130	0.9	20	
Cobalt	0.0497	mg/L	0.0100	99.1	70	130	0	20	
Lead	0.0489	mg/L	0.0500	97.7	70	130	0	20	
Manganese	0.0551	mg/L	0.0100	105	70	130	0.8	20	

Qualifiers: ND - Not Detected at the Reporting Limit
R - RPD outside of recommended recovery limits

S - Spike Recovery outside of recommended recovery limits

TRACKING NO. PAGE NO.

30206R00028



QA/QC Summary Report

Client: United Nuclear Corp

Project: Alluvium

Report Date: 08/14/02

Work Order: C02030206

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method. E200.8							Batch ICPMS031902b		
Sample ID: C02030321-001BMSD	Matrix Spike Duplicate								03/20/02 02:05
Molybdenum	0.0820	mg/L	0.100	95.6	70	130	0	20	
Nickel	0.0495	mg/L	0.0500	95.9	70	130	0	20	
Uranium	0.136	mg/L	0.000300	90.7	70	130	1.3	20	
Vanadium	0.0538	mg/L	0.100	107	70	130	0	20	
Sample ID: C02030362-004CMS	Matrix Spike								03/20/02 06:26
Aluminum	0.0725	mg/L	0.100	117	70	130			
Beryllium	0.0601	mg/L	0.0100	120	70	130			
Cadmium	0.0468	mg/L	0.0100	93.6	70	130			
Cobalt	0.0541	mg/L	0.0100	108	70	130			
Lead	0.0480	mg/L	0.0500	95.7	70	130			
Manganese	0.0569	mg/L	0.0100	113	70	130			
Molybdenum	0.0528	mg/L	0.100	101	70	130			
Nickel	0.0527	mg/L	0.0500	105	70	130			
Uranium	0.0621	mg/L	0.000300	111	70	130			
Vanadium	0.0866	mg/L	0.100	108	70	130			
Sample ID: C02030362-004CMSD	Matrix Spike Duplicate								03/20/02 06:36
Aluminum	0.0723	mg/L	0.100	117	70	130	0	20	
Beryllium	0.0604	mg/L	0.0100	121	70	130	0.6	20	
Cadmium	0.0473	mg/L	0.0100	94.6	70	130	1.1	20	
Cobalt	0.0543	mg/L	0.0100	109	70	130	0.4	20	
Lead	0.0488	mg/L	0.0500	97.5	70	130	0	20	
Manganese	0.0574	mg/L	0.0100	114	70	130	0.9	20	
Molybdenum	0.0526	mg/L	0.100	100	70	130	0	20	
Nickel	0.0523	mg/L	0.0500	104	70	130	0.8	20	
Uranium	0.0617	mg/L	0.000300	110	70	130	0.7	20	
Vanadium	0.0870	mg/L	0.100	108	70	130	0	20	

Qualifiers: ND - Not Detected at the Reporting Limit
R - RPD outside of recommended recovery limits

S - Spike Recovery outside of recommended recovery limits

TRACKING NO. PAGE NO.

30206R00029



QA/QC Summary Report

Client: United Nuclear Corp

Project: Alluvium

Report Date: 08/14/02

Work Order: C02030206

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E353.2			Batch: A2002-03-12_1_NO3_01						
Sample ID: C02030151-001BMSD Nitrogen, Nitrate+Nitrite as N	Matrix Spike Duplicate 2.03	mg/L	0.100	102	90	110	3.5	10	03/13/02 11:44
Sample ID: C02030151-001BMS Nitrogen, Nitrate+Nitrite as N	Matrix Spike 1.96	mg/L	0.100	98	90	110			03/13/02 11:52
Sample ID: C02030206-002DDUP Nitrogen, Nitrate+Nitrite as N	Sample Duplicate 1.16	mg/L	0.100				0	10	03/13/02 12:18
Sample ID: C02030206-007DMS Nitrogen, Nitrate+Nitrite as N	Matrix Spike 6.34	mg/L	0.150	99	90	110			03/13/02 12:32
Sample ID: C02030206-012DDUP Nitrogen, Nitrate+Nitrite as N	Sample Duplicate 47.7	mg/L	0.600				3.8	10	03/13/02 12:46
Sample ID: C02030289-006AMS Nitrogen, Nitrate+Nitrite as N	Matrix Spike 17.9	mg/L	0.300	91.5	90	110			03/13/02 13:14
Sample ID: C02030289-012ADUP Nitrogen, Nitrate+Nitrite as N	Sample Duplicate 5.90	mg/L	0.150				0	10	03/13/02 13:24
Method: E353.2			Batch: A2002-03-12_1_NO3_02						
Sample ID: C02030237-002AMS Nitrogen, Nitrate+Nitrite as N	Matrix Spike 1.86	mg/L	0.100	93	90	110			03/13/02 14:34
Sample ID: C02030237-002AMSD Nitrogen, Nitrate+Nitrite as N	Matrix Spike Duplicate 1.81	mg/L	0.100	90.5	90	110	2.7	10	03/13/02 14:36
Sample ID: C02030255-009CMS Nitrogen, Nitrate+Nitrite as N	Matrix Spike 2.05	mg/L	0.100	103	90	110			03/13/02 15:04
Sample ID: C02030255-009CMSD Nitrogen, Nitrate+Nitrite as N	Matrix Spike Duplicate 2.04	mg/L	0.100	102	90	110	0.5	10	03/13/02 15:06
Sample ID: C02030255-015CMS Nitrogen, Nitrate+Nitrite as N	Matrix Spike 1.99	mg/L	0.100	99.5	90	110			03/13/02 15:20

Qualifiers: ND - Not Detected at the Reporting Limit
R - RPD outside of recommended recovery limits

S - Spike Recovery outside of recommended recovery limits

TRACKING NO. PAGE NO.
30206R00030

QA/QC Summary Report

Client: United Nuclear Corp
Project: Alluvium

Report Date: 08/14/02
Work Order: C02030206

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E624									Batch: R7964
Sample ID: C02030206-015E	Matrix Spike								03/12/02 13:51
Chloroform	98.8	ug/L	5.00	98.8	70	130			
Surr: 1,2-Dichlorobenzene-d4			5.00	98.5	80	120			
Surr: Dibromofluoromethane			5.00	100	70	130			
Surr: p-Bromofluorobenzene			5.00	98.6	80	120			
Surr: Toluene-d8			5.00	98.8	80	120			
Sample ID: C02030206-015E									03/12/02 14:32
Chloroform	103	ug/L	5.00	103	70	130	4.4	20	
Surr: 1,2-Dichlorobenzene-d4			5.00	100	80	120	0	10	
Surr: Dibromofluoromethane			5.00	101	70	130	0	10	
Surr: p-Bromofluorobenzene			5.00	99.2	80	120	0	10	
Surr: Toluene-d8			5.00	98.6	80	120	0	10	
Method: E900.1									Batch: R8111
Sample ID: C02030255-005AMS	Matrix Spike								03/19/02 21:37
Gross Alpha	288	pCi/L	1.00	95.1	70	130			
Sample ID: C02030255-005AMSD									03/19/02 21:37
Gross Alpha	288	pCi/L	1.00	103	70	130	3.0	30	
Method: E903.0									Batch: 02RA-73
Sample ID: C02030206-003A	Sample Duplicate								03/17/02 13:35
Radium 226	ND	pCi/L	0.200		70	130	0	30	
Sample ID: C02030220-002C									03/18/02 10:37
Radium 226	ND	pCi/L	0.200				0	30	
Sample ID: C02030220-003C									03/18/02 11:10
Radium 226	198	pCi/L	0.200	97.8	70	130			
Method: E904.0									Batch: 02228082
Sample ID: C02030206-003ADUP	Sample Duplicate								03/22/02 13:41
Radium 228	2.00	pCi/L	1.00	80	70	130	22	30	
Sample ID: C02030206-004AMS									03/22/02 13:41
Radium 228	9.80	pCi/L	1.00	109	70	130			
Sample ID: C02030220-002CDUP									03/22/02 17:41
Radium 228	ND	pCi/L	1.0		70	130	0	30	

Qualifiers: ND - Not Detected at the Reporting Limit
R - RPD outside of recommended recovery limits

S - Spike Recovery outside of recommended recovery limits

TRACKING NO. PAGE NO.

30206R00031



QA/QC Summary Report

Client: United Nuclear Corp

Project: Alluvium

Report Date: 08/14/02

Work Order: C02030206

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E907.0									Batch: R8316
Sample ID: C02030206-016AMS	Matrix Spike								03/14/02 10:30
Thorium 230	129	pCi/L	0.200	103	70	130			
Sample ID: C02030206-016AMSD	Matrix Spike Duplicate								03/14/02 10:30
Thorium 230	129	pCi/L	0.200	99.8	70	130	0.2		30
Method: NERHL-65-4									Batch: R8218
Sample ID: C02030206-014AMS	Matrix Spike								03/21/02 13:53
Lead 210	42	pCi/L	2.7	89	70	130			
Sample ID: C02030206-015ADUP	Sample Duplicate								03/21/02 13:53
Lead 210	ND	pCi/L	2.7		70	130	0		30

Qualifiers: ND - Not Detected at the Reporting Limit
R - RPD outside of recommended recovery limits

S - Spike Recovery outside of recommended recovery limits

TRACKING NO. PAGE NO.

30206R00032



Date: 14-Aug-02

CLIENT: United Nuclear Corp
Project: Alluvium
Sample Delivery Group: C02030206

CASE NARRATIVE

THIS IS THE FINAL PAGE OF THE LABORATORY ANALYTICAL REPORT

BRANCH LABORATORY LOCATIONS

eli-b - Energy Laboratories, Inc. - Billings, MT
eli-g - Energy Laboratories, Inc. - Gillette, WY
eli-h - Energy Laboratories, Inc. - Helena, MT
eli-r - Energy Laboratories, Inc. - Rapid City, SD

SUBCONTRACTING ANALYSIS

Subcontracting of sample analyses to an outside laboratory may be required. If so, ENERGY LABORATORIES will utilize its branch laboratories or qualified contract laboratories for this service. Any such laboratories will be indicated within the Laboratory Analytical Report.

SAMPLE TEMPERATURE COMPLIANCE: 4°C (±2°C)

Temperature of samples received may not be considered properly preserved by accepted standards. Samples that are hand delivered immediately after collection shall be considered acceptable if there is evidence that the chilling process has begun.

ENERGY LABORATORIES, INC. - CASPER, WY certifies that certain method selections contained in this report meet requirements as set forth by NELAC. Some client specific reporting requirements may not require NELAC reporting protocol.

ELI appreciates the opportunity to provide you with this analytical service. For additional information and services visit our web page www.energylab.com.

The total number of pages of this report are indicated by the last four digits of the tracking number located in the lower right corner.

TRACKING NO. PAGE NO.

30206R00033



QA/QC Summary Report

Client: United Nuclear Corp
Project: Alluvium

Report Date: 06/05/02
Work Order: C02050336

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2320 B							Batch: O-051502-2		
Sample ID: C02050336-014C	Sample Duplicate								05/15/02 13:08
Bicarbonate as HCO ₃	819.8	mg/L	1.00				1.04	10	
pH	7.64	s.u	0.0100						
Method: A2540 C							Batch: 020512A-SLDS-TDS-W		
Sample ID: C02050306-004CDUP	Sample Duplicate								05/12/02 15:26
Solids, Total Dissolved TDS @ 180 C	1509	mg/L	10.0				0.472	10	
Sample ID: C02050306-009CMS	Matrix Spike								05/12/02 15:28
Solids, Total Dissolved TDS @ 180 C	72500	mg/L	10.0	103	90	110			
Sample ID: C02050306-014CDUP	Sample Duplicate								05/12/02 15:31
Solids, Total Dissolved TDS @ 180 C	10120	mg/L	10.0				0.394	10	
Sample ID: C02050307-003AMS	Matrix Spike								05/12/02 15:34
Solids, Total Dissolved TDS @ 180 C	2518	mg/L	10.0	97.9	90	110			
Sample ID: C02050336-004BDUP	Sample Duplicate								05/12/02 15:37
Solids, Total Dissolved TDS @ 180 C	6893	mg/L	10.0				0.140	10	
Sample ID: C02050336-009BMS	Matrix Spike								05/12/02 15:41
Solids, Total Dissolved TDS @ 180 C	9842	mg/L	10.0	100	90	110			
Sample ID: C02050336-014BDUP	Sample Duplicate								05/12/02 15:43
Solids, Total Dissolved TDS @ 180 C	4024	mg/L	10.0				0.205	10	
Sample ID: C02050339-003EMS	Matrix Spike								05/12/02 15:46
Solids, Total Dissolved TDS @ 180 C	2491	mg/L	10.0	96.7	90	110			
Sample ID: C02050339-008EDUP	Sample Duplicate								05/12/02 15:50
Solids, Total Dissolved TDS @ 180 C	143.5	mg/L	10.0				1.69	10	
Sample ID: C02050339-013EMS	Matrix Spike								05/12/02 15:53
Solids, Total Dissolved TDS @ 180 C	2502	mg/L	10.0	102	90	110			

Qualifiers: ND - Not Detected at the Reporting Limit
R - RPD outside accepted recovery limits

S - Spike Recovery outside accepted recovery limits

TRACKING NO. PAGE NO.

50336R00017



QA/QC Summary Report

Client: United Nuclear Corp

Project: Alluvium

Report Date: 06/05/02

Work Order: C02050336

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A3114 B									Batch: R9648
Sample ID: C02050281-006B	Matrix Spike								05/13/02 14:09
Selenium-IV	0.0493	mg/L	0.00100	98.6	85	115			
Sample ID: C02050281-006B	Matrix Spike Duplicate								05/13/02 14:11
Selenium-IV	0.0496	mg/L	0.00100	99.2	85	115	0.607		10
Sample ID: C02050281-019B	Matrix Spike								05/13/02 14:46
Selenium-IV	0.0542	mg/L	0.00100	98.8	85	115			
Sample ID: C02050281-019B	Matrix Spike Duplicate								05/13/02 14:48
Selenium-IV	0.0553	mg/L	0.00100	101	85	115	2.01		10
Sample ID: C02050336-010A	Matrix Spike								05/13/02 15:21
Selenium-IV	0.0502	mg/L	0.00100	100	85	115			
Sample ID: C02050336-010A	Matrix Spike Duplicate								05/13/02 15:23
Selenium-IV	0.0517	mg/L	0.00100	103	85	115	2.94		10
Sample ID: C02050336-015A	Matrix Spike								05/13/02 15:49
Selenium-IV	0.0513	mg/L	0.00100	100	85	115			
Sample ID: C02050336-015A	Matrix Spike Duplicate								05/13/02 15:51
Selenium-IV	0.0523	mg/L	0.00100	102	85	115	1.93		10
Method: A3114 B									Batch: R9671
Sample ID: C02050336-010A	Matrix Spike								05/14/02 13:59
Arsenic-III	0.0453	mg/L	0.00100	95.2	85	115			
Sample ID: C02050336-010A	Matrix Spike Duplicate								05/14/02 14:01
Arsenic-III	0.0434	mg/L	0.00100	91.2	85	115	4.28		10
Sample ID: C02050336-015A	Matrix Spike								05/14/02 14:34
Arsenic-III	0.0473	mg/L	0.00100	94.6	85	115			
Sample ID: C02050336-015A	Matrix Spike Duplicate								05/14/02 14:36
Arsenic-III	0.0458	mg/L	0.00100	91.6	85	115	3.22		10

Qualifiers: ND - Not Detected at the Reporting Limit
R - RPD outside accepted recovery limits

S - Spike Recovery outside accepted recovery limits

TRACKING NO. PAGE NO.

50336R00018



QA/QC Summary Report

Client: United Nuclear Corp

Project: Alluvium

Report Date: 06/05/02

Work Order: C02050336

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-NH3 G							Batch: A2002-05-13_1_NH3_01		
Sample ID: C02050205-002BDUP Nitrogen, Ammonia as N	Sample Duplicate 2.35	mg/L	0.100				7.05		05/13/02 11:23 20
Sample ID: C02050304-002BMS Nitrogen, Ammonia as N	Matrix Spike 2.54	mg/L	0.0500	100	80	120			05/13/02 11:27
Sample ID: C02050321-001ADUP Nitrogen, Ammonia as N	Sample Duplicate 2.63	mg/L	0.100				3.00		05/13/02 11:55 20
Sample ID: C02050336-005DMS Nitrogen, Ammonia as N	Matrix Spike 2	mg/L	0.0500	97.5	80	120			05/13/02 11:59
Sample ID: C02050336-010DDUP Nitrogen, Ammonia as N	Sample Duplicate 0.45	mg/L	0.0500				2.20		05/13/02 12:17 20
Sample ID: C02050336-015DMS Nitrogen, Ammonia as N	Matrix Spike 2.2	mg/L	0.0500	106	80	120			05/13/02 12:32
Sample ID: C02050339-004GMS Nitrogen, Ammonia as N	Matrix Spike 2.05	mg/L	0.0500	101	80	120			05/13/02 12:45
Sample ID: C02050339-004GMSD Nitrogen, Ammonia as N	Matrix Spike Duplicate 2.18	mg/L	0.0500	108	80	120	6.15		05/13/02 12:48 20
Sample ID: C02050347-005DMS Nitrogen, Ammonia as N	Matrix Spike 2.28	mg/L	0.0500	107	80	120			05/13/02 13:31
Sample ID: C02050347-005DMSD Nitrogen, Ammonia as N	Matrix Spike Duplicate 2.25	mg/L	0.0500	106	80	120	1.32		05/13/02 13:34 20
Sample ID: C02050350-004DMS Nitrogen, Ammonia as N	Matrix Spike 2.3	mg/L	0.0500	96.5	80	120			05/13/02 13:51
Sample ID: C02050350-004DMSD Nitrogen, Ammonia as N	Matrix Spike Duplicate 2.31	mg/L	0.0500	97	80	120	0.434		05/13/02 13:54 20

Qualifiers: ND - Not Detected at the Reporting Limit
R - RPD outside accepted recovery limits

S - Spike Recovery outside accepted recovery limits

TRACKING NO. PAGE NO.
50336R00019



QA/QC Summary Report

Client: United Nuclear Corp

Project: Alluvium

Report Date: 06/05/02

Work Order: C02050336

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7							Batch: ICP051602A		
Sample ID: C02050417-001C	Matrix Spike								05/16/02 08:28
Magnesium	68.4	mg/L	1.0	96.2	80	120			
Potassium	53.2	mg/L	1.0	97	80	120			
Sodium	88.4	mg/L	1.0	97.5	80	120			
Sample ID: C02050417-001C	Matrix Spike								05/16/02 08:33
Chloride	100.1	mg/L	1.0	88.8	80	120			
Sulfate	210.6	mg/L	1.0	91.3	80	120			
Sample ID: C02050417-001C	Matrix Spike Duplicate								05/16/02 08:35
Calcium	125.4	mg/L	1.0	95	80	120	0.239	20	
Magnesium	67.2	mg/L	1.0	93.8	80	120	1.77	20	
Potassium	51.6	mg/L	1.0	93.8	80	120	3.05	20	
Sodium	87.1	mg/L	1.0	94.9	80	120	1.48	20	

Qualifiers: ND - Not Detected at the Reporting Limit
R - RPD outside accepted recovery limits

S - Spike Recovery outside accepted recovery limits

TRACKING NO. PAGE NO.

50336R00020



QA/QC Summary Report

Client: United Nuclear Corp

Project: Alluvium

Report Date: 06/05/02

Work Order: C02050336

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8							Batch: ICPMS051702a		
Sample ID: C02050296-008AMS Matrix Spike							05/17/02 16.51		
Aluminum	0.04319	mg/L	0.100	86.4	70	130			
Beryllium	0.05612	mg/L	0.0100	112	70	130			
Cadmium	0.05685	mg/L	0.0100	114	70	130			
Cobalt	0.05281	mg/L	0.0100	105	70	130			
Lead	0.05617	mg/L	0.0500	112	70	130			
Manganese	0.06133	mg/L	0.0100	105	70	130			
Molybdenum	0.05778	mg/L	0.100	113	70	130			
Nickel	0.05486	mg/L	0.0500	106	70	130			
Uranium	0.0647	mg/L	0.000300	118	70	130			
Vanadium	0.05573	mg/L	0.100	111	70	130			
Sample ID: C02050296-008AMSD Matrix Spike Duplicate							05/17/02 17.01		
Aluminum	0.03677	mg/L	0.100	73.5	70	130	0	20	
Beryllium	0.04914	mg/L	0.0100	98.3	70	130	13.3	20	
Cadmium	0.04831	mg/L	0.0100	96.6	70	130	16.2	20	
Cobalt	0.04523	mg/L	0.0100	90.1	70	130	15.5	20	
Lead	0.04814	mg/L	0.0500	96.1	70	130	0	20	
Manganese	0.05356	mg/L	0.0100	89.4	70	130	13.5	20	
Molybdenum	0.05081	mg/L	0.100	99.2	70	130	0	20	
Nickel	0.04782	mg/L	0.0500	92.3	70	130	0	20	
Uranium	0.0571	mg/L	0.000300	103	70	130	12.5	20	
Vanadium	0.0474	mg/L	0.100	94.1	70	130	0	20	
Sample ID: C02050336-006AMS Matrix Spike							05/17/02 22:07		
Beryllium	0.4025	mg/L	0.0100	80.5	70	130			
Cadmium	0.449	mg/L	0.0100	89.6	70	130			
Cobalt	0.4478	mg/L	0.0100	88.8	70	130			
Lead	0.4669	mg/L	0.0500	92.1	70	130			
Manganese	1.53	mg/L	0.0100	81	70	130			
Molybdenum	0.4851	mg/L	0.100	96.9	70	130			
Nickel	0.5043	mg/L	0.0500	86.6	70	130			
Uranium	0.5534	mg/L	0.000300	98	70	130			
Vanadium	0.4722	mg/L	0.100	93.7	70	130			
Sample ID: C02050336-006AMSD Matrix Spike Duplicate							05/17/02 22:18		
Beryllium	0.4329	mg/L	0.0100	86.6	70	130	7.28	20	
Cadmium	0.4795	mg/L	0.0100	95.7	70	130	6.57	20	
Cobalt	0.4757	mg/L	0.0100	94.4	70	130	6.04	20	
Lead	0.5037	mg/L	0.0500	99.4	70	130	7.58	20	
Manganese	1.551	mg/L	0.0100	85.2	70	130	1.36	20	
Molybdenum	0.5295	mg/L	0.100	106	70	130	8.75	20	
Nickel	0.5483	mg/L	0.0500	95.4	70	130	8.36	20	
Uranium	0.6063	mg/L	0.000300	109	70	130	9.12	20	

Qualifiers: ND - Not Detected at the Reporting Limit
R - RPD outside accepted recovery limits

S - Spike Recovery outside accepted recovery limits

TRACKING NO. PAGE NO.

50336R00021



QA/QC Summary Report

Client: United Nuclear Corp

Project: Alluvium

Report Date: 06/05/02

Work Order: C02050336

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E353.2							Batch: A2002-05-15_1_NO3_01		
Sample ID: C02050336-005DDUP	Sample Duplicate								05/15/02 11:49
Nitrogen, Nitrate+Nitrite as N	105	mg/L	2.00				1.89	10	
Sample ID: C02050336-010DMS	Matrix Spike								05/15/02 12:03
Nitrogen, Nitrate+Nitrite as N	167	mg/L	4.00	90.6	90	110			
Sample ID: C02050336-015DDUP	Sample Duplicate								05/15/02 12:25
Nitrogen, Nitrate+Nitrite as N	138	mg/L	4.00				0.727	10	
Sample ID: C02050339-004GMS	Matrix Spike								05/15/02 12:39
Nitrogen, Nitrate+Nitrite as N	2.02	mg/L	0.100	101	90	110			
Sample ID: C02050341-001AMS	Matrix Spike								05/15/02 12:53
Nitrogen, Nitrate+Nitrite as N	3.37	mg/L	0.100	106	90	110			
Sample ID: C02050446-006ADUP	Sample Duplicate								05/15/02 13:12
Nitrogen, Nitrate+Nitrite as N	8.3	mg/L	0.200				3.32	10	
Sample ID: C02050446-012AMS	Matrix Spike								05/15/02 13:28
Nitrogen, Nitrate+Nitrite as N	15.4	mg/L	0.400	100	90	110			
Method: E624							Batch: R9777		
Sample ID: C02050336-015E	Matrix Spike								05/17/02 02:49
Chloroform	101.9	ug/L	5.00	102	70	130			
Surr: 1,2-Dichlorobenzene-d4			5.00	101	80	120			
Surr: Dibromofluoromethane			5.00	99.4	70	130			
Surr: p-Bromofluorobenzene			5.00	98.4	80	120			
Surr: Toluene-d8			5.00	98.7	80	120			
Sample ID: C02050336-015E	Matrix Spike Duplicate								05/17/02 03:26
Chloroform	103.6	ug/L	5.00	104	70	130	1.65	20	
Surr: 1,2-Dichlorobenzene-d4			5.00	101	80	120	0	10	
Surr: Dibromofluoromethane			5.00	101	70	130	0	10	
Surr: p-Bromofluorobenzene			5.00	98.1	80	120	0	10	
Surr: Toluene-d8			5.00	98.7	80	120	0	10	
Method: E903.0							Batch: 02RA-160		
Sample ID: C02050336-001A	Sample Duplicate								05/22/02 03:56
Radium 226	ND	pCi/L	0.200				0	30	
Sample ID: C02050336-015A	Sample Duplicate								05/22/02 12:01
Radium 226	ND	pCi/L	0.200				0	30	
Sample ID: C02050395-001A	Matrix Spike								05/22/02 12:34
Radium 226	135.5	pCi/L	0.200	112	70	130			

Qualifiers: ND - Not Detected at the Reporting Limit
R - RPD outside accepted recovery limits

S - Spike Recovery outside accepted recovery limits

TRACKING NO. PAGE NO.

50336R00022



QA/QC Summary Report

Client: United Nuclear Corp

Project: Alluvium

Report Date: 06/05/02

Work Order: C02050336

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E904.0									Batch: 02228186
Sample ID: C02050336-001ADUP	Sample Duplicate								05/29/02 13:57
Radium 228	ND	pCi/L	1.00				0	30	
Sample ID: C02050336-008AMS									05/29/02 13:57
Radium 228	Matrix Spike								
	5.2	pCi/L	1.00	73.7	70	130			
Method: E907.0									Batch: R9870
Sample ID: C02050394-002ADUP	Sample Duplicate								05/15/02 10:30
Thorium 230	85.4	pCi/L	0.200						
Sample ID: C02050394-002AMS									05/15/02 10:30
Thorium 230	Matrix Spike								
	81.6	pCi/L	0.200	98	70	130			
Method: NERHL-65-4									Batch: R10018
Sample ID: C02050336-015ADUP	Sample Duplicate								05/21/02 16:01
Lead 210	ND	pCi/L	2.7		70	130	0	30	
Sample ID: C02050336-016AMS									05/21/02 16:01
Lead 210	Matrix Spike								
	51.9	pCi/L	2.7	112	70	130			

Qualifiers: ND - Not Detected at the Reporting Limit
R - RPD outside accepted recovery limits

S - Spike Recovery outside accepted recovery limits

TRACKING NO. PAGE NO.

50336R00023



ANALYTICAL SUMMARY REPORT

June 04, 2002

Larry Bush

United Nuclear Corp

PO Box 3077

Gallup, NM 87305

Workorder No.: C02050336

Quote ID: C129 - Quarterly Long List

Project Name: Alluvium

Energy Laboratories Inc. received the following 16 samples from United Nuclear Corp on 5/10/2002 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C02050336-001	509-D	05/06/02 9:00	05/10/02	Aqueous	Alkalinity QA Calculations Arsenic-III, Dissolved Selenium-IV, Dissolved Metals by ICP, Dissolved Metals by ICP-MS, Dissolved Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite Gross Alpha minus Rn222 and Uranium Lead 210, Dissolved Radium 226, Dissolved Radium 228, Dissolved Thorium, Isotopic Solids, Total Dissolved E624 Purgeable Organics VOC Preservation Check
C02050336-002	EPA-23	05/06/02 9:40	05/10/02	Aqueous	Same As Above
C02050336-003	803	05/06/02 10:10	05/10/02	Aqueous	Same As Above
C02050336-004	808	05/06/02 10:45	05/10/02	Aqueous	Same As Above
C02050336-005	802	05/06/02 11:10	05/10/02	Aqueous	Same As Above
C02050336-006	632	05/06/02 11:40	05/10/02	Aqueous	Same As Above
C02050336-007	801	05/06/02 13:40	05/10/02	Aqueous	Same As Above
C02050336-008	GW-2	05/06/02 14:15	05/10/02	Aqueous	Same As Above
C02050336-009	GW-1	05/06/02 14:50	05/10/02	Aqueous	Same As Above
C02050336-010	GW-1 DUPLICATE	05/06/02 15:10	05/10/02	Aqueous	Same As Above
C02050336-011	624	05/07/02 8:45	05/10/02	Aqueous	Same As Above
C02050336-012	EPA-28	05/07/02 9:50	05/10/02	Aqueous	Same As Above
C02050336-013	GW-3	05/07/02 10:40	05/10/02	Aqueous	Same As Above
C02050336-014	EPA-25	05/07/02 11:30	05/10/02	Aqueous	Same As Above
C02050336-015	627	05/07/02 13:00	05/10/02	Aqueous	Same As Above
C02050336-016	FIELD BLANK	05/07/02 13:50	05/10/02	Aqueous	Same As Above

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50336R00026



There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative or Report.

If you have any questions regarding these tests results, please call.

Report Approved By:

R.A. Larkin
ROGER GARLAND
LABORATORY SUPERVISOR



Date: 04-Jun-02

CLIENT: United Nuclear Corp
Project: Alluvium
Sample Delivery Group: C02050336

CASE NARRATIVE

THIS IS THE FINAL PAGE OF THE LABORATORY ANALYTICAL REPORT

BRANCH LABORATORY LOCATIONS

eli-b - Energy Laboratories, Inc. - Billings, MT
eli-g - Energy Laboratories, Inc. - Gillette, WY
eli-h - Energy Laboratories, Inc. - Helena, MT
eli-r - Energy Laboratories, Inc. - Rapid City, SD

SAMPLE TEMPERATURE COMPLIANCE: 4°C (±2°C)

Temperature of samples received may not be considered properly preserved by accepted standards. Samples that are hand delivered immediately after collection shall be considered acceptable if there is evidence that the chilling process has begun.

ENERGY LABORATORIES, INC. - CASPER, WY certifies that certain method selections contained in this report meet requirements as set forth by NELAC. Some client specific reporting requirements may not require NELAC reporting protocol.

The total number of pages of this report are indicated by the last four digits of the tracking number located in the lower right corner.



QA/QC Summary Report

Client: United Nuclear Corp

Project: Alluvium

Report Date: 08/14/02

Work Order: C02060276

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2320 B							Batch: O-061202-1		
Sample ID: C02060276-003C	Sample Duplicate							06/12/02 10:44	
Bicarbonate as HCO ₃	1910	mg/L	1.00				0	10	
pH	7.51	s u	0 0100						
Method: A2320 B							Batch: O-061202-2		
Sample ID: C02060276-006C	Sample Duplicate							06/12/02 12:39	
Bicarbonate as HCO ₃	1570	mg/L	1.00				0.1	10	
pH	7.48	s u	0 0100						
Method: A2320 B							Batch: O-061202-3		
Sample ID: C02060292-001C	Sample Duplicate							06/12/02 16:21	
Bicarbonate as HCO ₃	245	mg/L	1.00				0.5	10	
pH	7.96	s u	0 0100						
Method: A2540 C							Batch: 020611A-SLDS-TDS-W		
Sample ID: C02060276-004BDUP	Sample Duplicate							06/11/02 14:24	
Solids, Total Dissolved TDS @ 180 C	6890	mg/L	10.0				1.3	10	
Sample ID: C02060276-009BMS	Matrix Spike							06/11/02 14:27	
Solids, Total Dissolved TDS @ 180 C	27900	mg/L	10.0	104	90	110			
Sample ID: C02060276-014BDUP	Sample Duplicate							06/11/02 14:30	
Solids, Total Dissolved TDS @ 180 C	4020	mg/L	10.0				0.6	10	
Sample ID: C02060292-003BMS	Matrix Spike							06/11/02 14:33	
Solids, Total Dissolved TDS @ 180 C	2960	mg/L	10.0	103	90	110			
Sample ID: C02060294-001BDUP	Sample Duplicate							06/11/02 14:36	
Solids, Total Dissolved TDS @ 180 C	1610	mg/L	10.0				0.5	10	
Sample ID: C02060305-001BMS	Matrix Spike							06/11/02 14:37	
Solids, Total Dissolved TDS @ 180 C	2830	mg/L	10.0	105	90	110			

Qualifiers: ND - Not Detected at the Reporting Limit
R - RPD outside of recommended recovery limits

S - Spike Recovery outside of recommended recovery limits

TRACKING NO. PAGE NO.
60276R00019



QA/QC Summary Report

Client: United Nuclear Corp
Project: Alluvium

Report Date: 08/14/02
Work Order: C02060276

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A3114 B									Batch: R10541
Sample ID: C02060285-007B Selenium-IV	Matrix Spike 0.0486	mg/L	0.00100	97.2	85	115			06/12/02 12:53
Sample ID: C02060285-007B Selenium-IV	Matrix Spike Duplicate 0.0494	mg/L	0.00100	98.8	85	115	1.6	10	06/12/02 12:55
Sample ID: C02060285-014B Selenium-IV	Matrix Spike 0.0514	mg/L	0.00100	102	85	115			06/12/02 13:21
Sample ID: C02060285-014B Selenium-IV	Matrix Spike Duplicate 0.0515	mg/L	0.00100	102	85	115	0.2	10	06/12/02 13:23
Sample ID: C02060285-017B Selenium-IV	Matrix Spike 0.0554	mg/L	0.00100	101	85	115			06/12/02 13:57
Sample ID: C02060285-017B Selenium-IV	Matrix Spike Duplicate 0.0551	mg/L	0.00100	101	85	115	0.5	10	06/12/02 13:59
Sample ID: C02060276-010A Selenium-IV	Matrix Spike 0.0505	mg/L	0.00100	100	85	115			06/12/02 14:32
Sample ID: C02060276-010A Selenium-IV	Matrix Spike Duplicate 0.0514	mg/L	0.00100	102	85	115	1.8	10	06/12/02 14:34
Sample ID: C02060276-015A Selenium-IV	Matrix Spike 0.0513	mg/L	0.00100	100	85	115			06/12/02 14:58
Sample ID: C02060276-015A Selenium-IV	Matrix Spike Duplicate 0.0527	mg/L	0.00100	103	85	115	2.7	10	06/12/02 15:00
Method: A3114 B									Batch: R10585
Sample ID: C02060276-010A Arsenic-III	Matrix Spike 0.0469	mg/L	0.00100	98.5	85	115			06/13/02 10:30
Sample ID: C02060276-010A Arsenic-III	Matrix Spike Duplicate 0.0474	mg/L	0.00100	99.6	85	115	1.1	10	06/13/02 10:32
Sample ID: C02060276-015A Arsenic-III	Matrix Spike 0.0472	mg/L	0.00100	99.2	85	115			06/13/02 11:06
Sample ID: C02060276-015A Arsenic-III	Matrix Spike Duplicate 0.0458	mg/L	0.00100	96.2	85	115	3.0	10	06/13/02 11:08

Qualifiers: ND - Not Detected at the Reporting Limit
R - RPD outside of recommended recovery limits

S - Spike Recovery outside of recommended recovery limits

TRACKING NO. PAGE NO.
60276R00020



QA/QC Summary Report

Client: United Nuclear Corp

Project: Alluvium

Report Date: 08/14/02

Work Order: C02060276

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-NH3 G							Batch: A2002-06-17_1_NH3_01		
Sample ID: C02060276-005DMS	Matrix Spike								06/17/02 11:37
Nitrogen, Ammonia as N	2.10	mg/L	0.0500	101	80	120			
Sample ID: C02060276-005DMSD	Matrix Spike Duplicate								06/17/02 11:39
Nitrogen, Ammonia as N	2.12	mg/L	0.0500	102	80	120	0.9	20	
Sample ID: C02060276-015DMS	Matrix Spike								06/17/02 12:11
Nitrogen, Ammonia as N	2.24	mg/L	0.0500	106	80	120			
Sample ID: C02060276-015DMSD	Matrix Spike Duplicate								06/17/02 12:13
Nitrogen, Ammonia as N	2.27	mg/L	0.0500	108	80	120	1.3	20	
Method: E200.7							Batch: ICP061202A		
Sample ID: C02060217-001C	Matrix Spike								06/12/02 06:41
Calcium	511	mg/L	1.00	93.7	80	120			
Magnesium	497	mg/L	1.00	92.1	80	120			
Potassium	493	mg/L	1.00	89.3	80	120			
Sodium	1370	mg/L	1.00	81	80	120			

Qualifiers: ND - Not Detected at the Reporting Limit
R - RPD outside of recommended recovery limits

S - Spike Recovery outside of recommended recovery limits

TRACKING NO. PAGE NO.

60276R00021



QA/QC Summary Report

Client: United Nuclear Corp

Project: Alluvium

Report Date: 08/14/02

Work Order: C02060276

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8							Batch: ICPMS061302b		
Sample ID: C02060215-006AMS	Matrix Spike								06/13/02 23:18
Lead	0.0503	mg/L	0.00100	101	70	130			
Sample ID: C02060215-006AMSD	Matrix Spike Duplicate								06/13/02 23:29
Lead	0.0480	mg/L	0.00100	96.1	70	130	4.6	20	
Sample ID: C02060273-005AMS	Matrix Spike								06/14/02 00:43
Lead	0.0521	mg/L	0.00100	102	70	130			
Sample ID: C02060273-005AMSD	Matrix Spike Duplicate								06/14/02 00:54
Lead	0.0494	mg/L	0.00100	96.3	70	130	5.4	20	
Sample ID: C02060276-004AMS	Matrix Spike								06/14/02 02:07
Aluminum	0.546	mg/L	0.100	109	70	130			
Beryllium	0.443	mg/L	0.0100	88.6	70	130			
Cadmium	0.498	mg/L	0.0100	99.6	70	130			
Cobalt	0.478	mg/L	0.0100	94.8	70	130			
Lead	0.492	mg/L	0.0500	97.9	70	130			
Manganese	1.15	mg/L	0.0100	99.3	70	130			
Molybdenum	0.497	mg/L	0.100	99.2	70	130			
Nickel	0.523	mg/L	0.0500	96.3	70	130			
Uranium	0.647	mg/L	0.000300	101	70	130			
Vanadium	0.510	mg/L	0.100	102	70	130			
Sample ID: C02060276-004AMSD	Matrix Spike Duplicate								06/14/02 02:34
Aluminum	0.518	mg/L	0.100	104	70	130	5.2	20	
Beryllium	0.464	mg/L	0.0100	92.8	70	130	4.6	20	
Cadmium	0.465	mg/L	0.0100	92.9	70	130	7.0	20	
Cobalt	0.453	mg/L	0.0100	89.9	70	130	5.3	20	
Lead	0.453	mg/L	0.0500	90.2	70	130	8.2	20	
Manganese	1.14	mg/L	0.0100	96.5	70	130	1.2	20	
Molybdenum	0.467	mg/L	0.100	93.3	70	130	6.1	20	
Nickel	0.543	mg/L	0.0500	100	70	130	3.6	20	
Uranium	0.653	mg/L	0.000300	102	70	130	0.9	20	
Vanadium	0.507	mg/L	0.100	101	70	130	0.6	20	
Sample ID: C02060276-014AMSD	Matrix Spike Duplicate								06/14/02 03:59
Cadmium	0.528	mg/L	0.0100	106	70	130	2.2	20	
Cobalt	0.525	mg/L	0.0100	104	70	130	2.8	20	
Lead	0.498	mg/L	0.0500	99.4	70	130	7.7	20	
Manganese	2.12	mg/L	0.0100	127	70	130	5.3	20	
Molybdenum	0.538	mg/L	0.100	107	70	130	12	20	
Nickel	0.598	mg/L	0.0500	120	70	130	11	20	
Vanadium	0.539	mg/L	0.100	107	70	130	7.0	20	

Qualifiers: ND - Not Detected at the Reporting Limit
R - RPD outside of recommended recovery limits

S - Spike Recovery outside of recommended recovery limits

TRACKING NO. PAGE NO.

60276R00022



QA/QC Summary Report

Client: United Nuclear Corp

Project: Alluvium

Report Date: 08/14/02

Work Order: C02060276

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E353.2							Batch: A2002-06-11_1_NO3_01		
Sample ID: C02060233-002BMS	Matrix Spike								06/12/02 10:46
Nitrogen, Nitrate+Nitrite as N	5.76	mg/L	0.100	96.5	90	110			
Sample ID: C02060233-002BMSD	Matrix Spike Duplicate								06/12/02 10:48
Nitrogen, Nitrate+Nitrite as N	5.82	mg/L	0.100	99.5	90	110	1.0		10
Sample ID: C02060266-009DDUP	Sample Duplicate								06/12/02 11:14
Nitrogen, Nitrate+Nitrite as N	787	mg/L	10.0				3.9		10
Sample ID: C02060276-005DMS	Matrix Spike								06/12/02 11:28
Nitrogen, Nitrate+Nitrite as N	182	mg/L	4.00	97.2	90	110			
Sample ID: C02060276-010DDUP	Sample Duplicate								06/12/02 11:46
Nitrogen, Nitrate+Nitrite as N	96.0	mg/L	2.00				0.3		10
Sample ID: C02060345-004AMS	Matrix Spike								06/12/02 12:00
Nitrogen, Nitrate+Nitrite as N	23.5	mg/L	0.400	104	90	110			
Sample ID: C02060345-009ADUP	Sample Duplicate								06/12/02 12:14
Nitrogen, Nitrate+Nitrite as N	6.11	mg/L	0.200				0.5		10
Sample ID: C02060346-002AMS	Matrix Spike								06/12/02 12:28
Nitrogen, Nitrate+Nitrite as N	15.3	mg/L	0.400	100	90	110			
Method: E353.2							Batch: A2002-06-11_1_NO3_02		
Sample ID: C02060276-015DDUP	Sample Duplicate								06/12/02 13:09
Nitrogen, Nitrate+Nitrite as N	129	mg/L	4.00				5.6		10
Sample ID: C02060282-007DMS	Matrix Spike								06/12/02 13:25
Nitrogen, Nitrate+Nitrite as N	2.02	mg/L	0.100	101	90	110			
Sample ID: C02060282-012DMS	Matrix Spike								06/12/02 13:39
Nitrogen, Nitrate+Nitrite as N	2.05	mg/L	0.100	103	90	110			
Sample ID: C02060282-012DMSD	Matrix Spike Duplicate								06/12/02 13:41
Nitrogen, Nitrate+Nitrite as N	2.08	mg/L	0.100	104	90	110	1.5		10

Qualifiers: ND - Not Detected at the Reporting Limit
R - RPD outside of recommended recovery limits

S - Spike Recovery outside of recommended recovery limits

TRACKING NO. PAGE NO.

60276R00023

QA/QC Summary Report

Client: United Nuclear Corp
Project: Alluvium

Report Date: 08/14/02
Work Order: C02060276

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E624									Batch: R10664
Sample ID: C02060276-015E	Matrix Spike								06/13/02 04:10
Chloroform	116	ug/L	5.00	116	70	130			
Surr: 1,2-Dichlorobenzene-d4			5.00	101	80	120			
Surr: Dibromofluoromethane			5.00	112	70	130			
Surr: p-Bromofluorobenzene			5.00	103	80	120			
Surr: Toluene-d8			5.00	99.9	80	120			
Sample ID: C02060276-015E									06/13/02 04:51
Chloroform	122	ug/L	5.00	122	70	130	5.5	20	
Surr: 1,2-Dichlorobenzene-d4			5.00	102	80	120	0	10	
Surr: Dibromofluoromethane			5.00	113	70	130	0	10	
Surr: p-Bromofluorobenzene			5.00	104	80	120	0	10	
Surr: Toluene-d8			5.00	101	80	120	0	10	
Method: E900.1									Batch: R10801
Sample ID: C02060276-001ADUP	Sample Duplicate								06/14/02 10:40
Gross Alpha minus Rn & U	ND	pCi/L	1.00				0	30	
Sample ID: C02060276-002AMS									06/14/02 10:40
Gross Alpha minus Rn & U	294	pCi/L	1.00	96.9	70	130			
Method: E903.0									Batch: 02RA-199
Sample ID: C02060276-003A	Sample Duplicate								06/19/02 15:43
Radium 226	ND	pCi/L	0.200				0	30	
Sample ID: C02060276-006A									06/19/02 15:43
Radium 226	95.1	pCi/L	0.200	78.4	70	130			
Sample ID: C02060276-009A									06/19/02 15:43
Radium 226	ND	pCi/L	0.200				0	30	
Method: E903.0									Batch: 02RA-201
Sample ID: C02060342-001A	Sample Duplicate								06/20/02 00:23
Radium 226	1.50	pCi/L	2.50				0	30	
Radium 226 precision	0.400	±	0						
Sample ID: C02060284-012H									06/20/02 15:28
Radium 226	ND	pCi/L	0.200				0	30	
Sample ID: C02060284-013H									06/20/02 16:13
Radium 226	207	pCi/L	0.200	102	70	130			

Qualifiers: ND - Not Detected at the Reporting Limit
R - RPD outside of recommended recovery limits

S - Spike Recovery outside of recommended recovery limits

TRACKING NO. PAGE NO.

60276R00024



QA/QC Summary Report

Client: United Nuclear Corp

Project: Alluvium

Report Date: 08/14/02

Work Order: C02060276

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E904.0									Batch: R10943
Sample ID: C02060342-001ADUP	Sample Duplicate								06/22/02 12:00
Radium 228	ND	pCi/L	2.50		70	130	0	30	
Sample ID: C02060343-001AMS	Matrix Spike								06/22/02 12:00
Radium 228	5 70	pCi/L	2.50	81.5	70	130			
Method: E904.0									Batch: R10987
Sample ID: C02060276-003ADUP	Sample Duplicate								06/20/02 17:10
Radium 228	ND	pCi/L	1.00				0	30	
Sample ID: C02060276-009ADUP	Sample Duplicate								06/20/02 17:10
Radium 228	ND	pCi/L	1.00				0	30	
Method: E907.0									Batch: R10720
Sample ID: C02060276-016AMS	Matrix Spike								06/12/02 10:30
Thorium 230	83 3	pCi/L	0.200	100	70	130			
Sample ID: C02060276-016AMSD	Matrix Spike Duplicate								06/12/02 10:30
Thorium 230	86 9	pCi/L	0.200	104	70	130	4.2	30	
Method: NERHL-65-4									Batch: R10844
Sample ID: C02060427-001ADUP	Sample Duplicate								06/20/02 15:54
Lead 210	ND	pCi/L	2 7		70	130			
Sample ID: C02060427-002AMS	Matrix Spike								06/20/02 15:54
Lead 210	29	pCi/L	2 7	97.2	70	130			

Qualifiers: ND - Not Detected at the Reporting Limit
R - RPD outside of recommended recovery limits

S - Spike Recovery outside of recommended recovery limits

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60276R00025



Date: 14-Aug-02

CLIENT: United Nuclear Corp
Project: Alluvium
Sample Delivery Group: C02060276

CASE NARRATIVE

THIS IS THE FINAL PAGE OF THE LABORATORY ANALYTICAL REPORT

BRANCH LABORATORY LOCATIONS

eli-b - Energy Laboratories, Inc. - Billings, MT
eli-g - Energy Laboratories, Inc. - Gillette, WY
eli-h - Energy Laboratories, Inc. - Helena, MT
eli-r - Energy Laboratories, Inc. - Rapid City, SD

SAMPLE TEMPERATURE COMPLIANCE: 4°C (±2°C)

Temperature of samples received may not be considered properly preserved by accepted standards. Samples that are hand delivered immediately after collection shall be considered acceptable if there is evidence that the chilling process has begun.

ENERGY LABORATORIES, INC. - CASPER, WY certifies that certain method selections contained in this report meet requirements as set forth by NELAC. Some client specific reporting requirements may not require NELAC reporting protocol.

ELI appreciates the opportunity to provide you with this analytical service. For additional information and services visit our web page www.energylab.com.

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TRACKING NO. PAGE NO.

60276R00026



ANALYTICAL SUMMARY REPORT

June 27, 2002

Larry Bush
United Nuclear Corp
PO Box 3077
Gallup, NM 87305

Workorder No.: C02060276

Quote ID: C129 - Quarterly Long List

Project Name: Alluvium

Energy Laboratories Inc. received the following 16 samples from United Nuclear Corp on 6/10/2002 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C02060276-001	509-D	06/03/02 9:15	06/10/02	Aqueous	Alkalinity QA Calculations Arsenic-III, Dissolved Selenium-IV, Dissolved Metals by ICP, Dissolved Metals by ICP-MS, Dissolved Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite Gross Alpha minus Rn222 and Uranium Lead 210, Dissolved Radium 226, Dissolved Radium 228, Dissolved Thorium, Isotopic Solids, Total Dissolved E624 Purgeable Organics VOC Preservation Check
C02060276-002	EPA-23	06/03/02 10:00	06/10/02	Aqueous	Same As Above
C02060276-003	803	06/03/02 10:35	06/10/02	Aqueous	Same As Above
C02060276-004	808	06/03/02 11:05	06/10/02	Aqueous	Same As Above
C02060276-005	802	06/03/02 11:35	06/10/02	Aqueous	Same As Above
C02060276-006	801	06/03/02 13:10	06/10/02	Aqueous	Same As Above
C02060276-007	GW-2	06/03/02 13:45	06/10/02	Aqueous	Same As Above
C02060276-008	GW-1	06/03/02 14:15	06/10/02	Aqueous	Same As Above
C02060276-009	632	06/03/02 14:50	06/10/02	Aqueous	Same As Above
C02060276-010	624	06/04/02 9:00	06/10/02	Aqueous	Same As Above
C02060276-011	624 Duplicate	06/04/02 9 30	06/10/02	Aqueous	Same As Above
C02060276-012	EPA-28	06/04/02 9.55	06/10/02	Aqueous	Same As Above
C02060276-013	GW-3	06/04/02 10:45	06/10/02	Aqueous	Same As Above
C02060276-014	EPA-25	06/04/02 11:30	06/10/02	Aqueous	Same As Above
C02060276-015	627	06/04/02 13:10	06/10/02	Aqueous	Same As Above
C02060276-016	Field Blank	06/04/02 13:50	06/10/02	Aqueous	Same As Above

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60276R00019



There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative or Report.

If you have any questions regarding these tests results, please call.

Report Approved By:

R.A. Garpino
ROGER GARPINO
LABORATORY SUPERVISOR



Date: 27-Jun-02

CLIENT: United Nuclear Corp
Project: Alluvium
Sample Delivery Group: C02060276

CASE NARRATIVE

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BRANCH LABORATORY LOCATIONS

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eli-r - Energy Laboratories, Inc. - Rapid City, SD

SAMPLE TEMPERATURE COMPLIANCE: 4°C (±2°C)

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Date: 23-Jul-02

CLIENT: United Nuclear Corp
Project: Alluvium
Sample Delivery Group: C02040226

CASE NARRATIVE

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REVISED REPORT

The following report(s) have been revised from a previous submittal due to rechecks on the Nickel concentrations on the belows listed samples:

C02060276-001
C02050336-001, 003, 007, 013
C02040226-013
01-31400-011

All values for Nickel were revised to reflect a concentration of <0.05 mg/L except one. 01-31400-011 remains at the original concentration of 0.07 mg/L with no revision included.

eli-b - Energy Laboratories, Inc. - Billings, MT
eli-g - Energy Laboratories, Inc - Gillette, WY
eli-h - Energy Laboratories, Inc - Helena, MT
eli-r - Energy Laboratories, Inc - Rapid City, SD

SAMPLE TEMPERATURE COMPLIANCE: 4°C (±2°C)

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Date: 07-May-02

CLIENT: United Nuclear Corp
Project: Alluvium
Sample Delivery Group: C02040490

CASE NARRATIVE

THIS IS THE FINAL PAGE OF THE LABORATORY ANALYTICAL REPORT

BRANCH LABORATORY LOCATIONS

eli-b - Energy Laboratories, Inc. - Billings, MT
eli-g - Energy Laboratories, Inc. - Gillette, WY
eli-h - Energy Laboratories, Inc. - Helena, MT
eli-r - Energy Laboratories, Inc. - Rapid City, SD

SAMPLE TEMPERATURE COMPLIANCE: 4°C (±2°C)

Temperature of samples received may not be considered properly preserved by accepted standards. Samples that are hand delivered immediately after collection shall be considered acceptable if there is evidence that the chilling process has begun.

ENERGY LABORATORIES, INC. - CASPER, WY certifies that certain method selections contained in this report meet requirements as set forth by NELAC. Some client specific reporting requirements may not require NELAC reporting protocol.

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FOR 627 REVISION

Date: 21-Jun-02

CLIENT: United Nuclear Corp
Project: Alluvium
Sample Delivery Group: C02040490

CASE NARRATIVE

THIS IS THE FINAL PAGE OF THE LABORATORY ANALYTICAL REPORT

REVISED REPORT

The attached analytical report(s) has been revised from a previously submitted report due to analytical recheck: C02040490-001 recheck on 200.8 metals.

BRANCH LABORATORY LOCATIONS

eli-b - Energy Laboratories, Inc. - Billings, MT
eli-g - Energy Laboratories, Inc. - Gillette, WY
eli-h - Energy Laboratories, Inc. - Helena, MT
eli-r - Energy Laboratories, Inc. - Rapid City, SD

SAMPLE TEMPERATURE COMPLIANCE: 4°C (±2°C)

Temperature of samples received may not be considered properly preserved by accepted standards. Samples that are hand delivered immediately after collection shall be considered acceptable if there is evidence that the chilling process has begun.

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40490R10004