

UNITED NUCLEAR CORPORATION



P.O. Box 3077
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CERTIFIED – RETURN RECEIPT REQUEST

August 15, 2005

Mr. Jack Whitten, Branch Chief
U.S. Nuclear Regulatory Commission, Region VI
Division of Radiation Safety & Safeguards
611 Ryan Plaza Drive, Suite # 400
Dallas, TX 76011-4351

Re: Semi-Annual Effluent and Environmental Monitoring Report from
January to June 30, 2005

Dear Mr. Whitten:

In compliance with our Nuclear Regulatory Commission Radioactive Material License No. SUA-1475, Amendment No. 34, Condition 12 and 30; the attached Effluent and Environmental Monitoring Report is described and presented as listed below. The applicable and available data will specify the concentration of each principle radionuclide released to unrestricted areas in water effluent during the period of January 01, 2005 through June 30, 2005. The data is also reported on the format required in Regulatory Guide 4.14.

Available monitoring data in this report are in order as listed below:

- Environmental Inspection Report (continued this procedure to show and maintain the integrity of the restricted tailings area).
- Ground Water Result (available data on GW-3 Well).
- Samples Location Maps



Presented our environmental monitoring program is at a greatly reduced level and the above reported items are solely based on available data only. The required radiation monitoring program will be under an RWP (Radiation Work Permit) and no RWP was issued during this semi-annual period.

Additionally, our active radiation monitoring instruments are routinely calibrated and the radiation monitoring program is still in effect, but is in standby status awaiting the final pond closure reclamation activity.

Sincerely,

A handwritten signature in cursive script that reads "Max Chischilly, Jr.".

Max Chischilly, Jr.
Radiation Safety Officer

MC:drb

Enclosure

Cc: Gary Jonosko, NRC
Bill Von Till, NRC
Roy Blickwedel, GE
Steve Hill, GE

ENVIRONMENTAL INSPECTION REPORTS

ENVIRONMENTAL INSPECTION

DATE: 1-28-05

TIME START: 1408

INSPECTOR: Max Chiodly Jr.

TIME END: 1513

<u>TAILINGS AREA:</u>	<u>OKAY</u>	<u>PROBLEM:</u>	<u>COMMENTS</u>
1. Fences	<u>✓</u>	<u> </u>	<u> </u>
2. Air Monitors	<u>- NA</u>	<u>-</u>	<u>ONLY UNDER AN RWP IF NEEDED</u>
3. Radiation Warning Signs	<u>✓</u>	<u> </u>	<u> </u>
4. Locked Gates	<u>✓</u>	<u> </u>	<u> </u>

OTHER IMPORTANT NOTE:

ACTION TAKEN: Commencing on 1-10-05, five RW wells are continually
pumping the Zone 3 plume area water and discharging into the
tailings North Pond.

ENVIRONMENTAL INSPECTION

DATE: 2-28-05

TIME START: 0908

INSPECTOR: Max Chivalley J.

TIME END: 1006

TAILINGS AREA:

	<u>OKAY</u>	<u>PROBLEM</u>	<u>COMMENTS</u>
1. Fences	<u>✓</u>	<u> </u>	<u> </u>
2. Air Monitors	<u>—</u>	<u>NA</u>	<u>ONLY UNDER AN RWP</u> <u>IF NEEDED</u>
3. Radiation Warning Signs	<u>✓</u>	<u> </u>	<u> </u>
4. Locked Gates	<u>✓</u>	<u> </u>	<u> </u>

ACTION TAKEN: _____

ENVIRONMENTAL INSPECTION

DATE: 3-31-05

TIME START: 0920

INSPECTOR: Map Chindilly J.

TIME END: 0923

<u>TAILINGS AREA:</u>	<u>OKAY</u>	<u>PROBLEM</u>	<u>COMMENTS</u>
1. Fences	<u>✓</u>	<u> </u>	<u> </u>
2. Air Monitors	<u>—</u>	<u>NA</u>	<u>—</u>
3. Radiation Warning Signs	<u>✓</u>	<u> </u>	<u> </u>
4. Locked Gates	<u>✓</u>	<u> </u>	<u> </u>

ACTION TAKEN: _____

ENVIRONMENTAL INSPECTION

DATE: 5-26-05

TIME START: 1054

INSPECTOR: Max Chischilly J.

TIME END: 1156

<u>TAILINGS AREA:</u>	<u>OKAY</u>	<u>PROBLEM</u>	<u>COMMENTS</u>
1. Fences	<u>✓</u>	<u>_____</u>	<u>_____</u>
2. Air Monitors	<u>—</u>	<u>NA —</u>	<u>ONLY UNDER AN RWP IF NEEDED</u>
3. Radiation Warning Signs	<u>✓</u>	<u>_____</u>	<u>_____</u>
4. Locked Gates	<u>_____</u>	<u>✓</u>	<u>SEE BELOW</u>

ACTION TAKEN: RELOCKED FENCE GATE WHICH IS LOCATED IN THE SW
PORTION OF TAILINGS PERIMETER FENCELINE AND ALONG THE STATE
ROAD 566 RIGHT OF WAY FENCELINE.

ENVIRONMENTAL INSPECTION

DATE: 6-28-05

TIME START: 1045

INSPECTOR: Maq Churchill Jr.

TIME END: 1208

TAILINGS AREA:

	<u>OKAY</u>	<u>PROBLEM</u>	<u>COMMENTS</u>
1. Fences	<u>✓</u>	<u> </u>	<u>DID NOT OBSERVE ANY DOWN OR DAMAGED FENCELINE</u>
2. Air Monitors	<u>—</u>	<u>NA —</u>	<u>ONLY UNDER AN RWP IF NEEDED</u>
3. Radiation Warning Signs	<u>✓</u>	<u> </u>	<u> </u>
4. Locked Gates	<u>✓</u>	<u> </u>	<u> </u>

ACTION TAKEN: CHASED ONE HORSE OUT OF THE NORTHEAST CORNER

PERIMETER FENCELINE AREA NEAR THE COLLECTION TANK,

GROUNDWATER RESULTS

QUARTERLY LIQUID SAMPLES

<u>Date/Qr.</u>	<u>Location</u>	<u>Type</u>	<u>Radionuclide</u>	<u>Concentration</u>		<u>Error Est.</u>	<u>LLD</u>
				<u>Mg/l</u>	<u>µci/ml</u>	<u>µci/ml</u>	<u>µci/ml</u>
<u>01/04/05</u>	<u>GW-3</u>	<u>GROUND</u>	U-Nat (dissolved) or total		<u>7.85E⁻⁰⁸</u>		<u>2.00E-10</u>
<u>1ST QR.</u>		<u>WATER WELL</u>	Th-230 (dissolved) or total		<u>2.00E⁻¹⁰</u>		<u>2.00E-10</u>
UNC Field Data:	PH (STD. Units) = 6.68		Ra-266 (dissolved) or total		<u>2.00E⁻¹⁰</u>	<u>2.00E⁻¹⁰</u>	<u>2.00E-10</u>
	Cond. (µ MHOS) = 6,100		Pb-210 (dissolved) or total		<u>1.00E⁻⁰⁹</u>		<u>1.00E-09</u>
	Water Depth (Ft.) = 50.55		Po-210 (dissolved) or total				<u>1.00E-09</u>
	Temp. (°C) = 10.2						

COMMENTS:

QUARTERLY LIQUID SAMPLES

<u>Date/Qr.</u>	<u>Location</u>	<u>Type</u>	<u>Radionuclide</u>	<u>Concentration</u>		<u>Error Est.</u> <u>µcl/ml</u>	<u>LLD</u> <u>µcl/ml</u>
				<u>Mg/l</u>	<u>µcl/ml</u>		
<u>04/05/05</u>	<u>GW-3</u>	<u>GROUND</u>	U-Nat (dissolved) or total		<u>7.58E⁻⁰⁸</u>		<u>2.00E-10</u>
<u>2ND QR.</u>		<u>WATER WELL</u>	Th-230 (dissolved) or total		<u>2.00E⁻¹⁰</u>		<u>2.00E-10</u>
			Ra-266 (dissolved) or total		<u>2.00E⁻¹⁰</u>		<u>2.00E-10</u>
UNC Field Data:	PH (STD. Units) = 6.68		Pb-210 (dissolved) or total		<u>1.00E⁻⁰⁹</u>		<u>1.00E-09</u>
	Cond. (µ MHOS) = 5,540		Po-210 (dissolved) or total				<u>1.00E-09</u>
	Water Depth (Ft.) = 50.67						
	Temp. (°C) = 13.0						

COMMENTS:



LABORATORY ANALYTICAL REPORT

Client: United Nuclear Corp
 Project: Alluvium
 Lab ID: C05010240-013
 Client Sample ID: GW-3

Report Date: 01/28/05
 Collection Date: 01/04/05 13:45
 Date Received: 01/07/05
 Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
MAJOR IONS							
Bicarbonate as HCO ₃	1730	mg/L		1		A2320 B	01/12/05 09:36 / nlm
Calcium	960	mg/L	D	1		E200.7	01/11/05 16:52 / ts
Chloride	171	mg/L		1		E200.7	01/11/05 16:49 / ts
Magnesium	316	mg/L	D	1		E200.7	01/11/05 16:52 / ts
Nitrogen, Ammonia as N	0.17	mg/L		0.05		A4500-NH3 G	01/11/05 11:17 / jal
Nitrogen, Nitrate+Nitrite as N	86	mg/L	D	2		E353.2	01/12/05 13:24 / jal
Potassium	8.9	mg/L		0.5		E200.7	01/11/05 16:49 / ts
Sodium	281	mg/L		0.5		E200.7	01/11/05 16:49 / ts
Sulfate	2050	mg/L	D	20		E200.7	01/11/05 16:52 / ts
PHYSICAL PROPERTIES							
pH	7.05	s.u.		0.01		A4500-H B	01/10/05 15:22 / dd
Solids, Total Dissolved TDS @ 180 C	5560	mg/L		10		A2540 C	01/10/05 16:31 / dd
METALS - TOTAL							
Aluminum	0.4	mg/L		0.1		E200.7	01/11/05 16:49 / ts
Beryllium	ND	mg/L		0.01		E200.7	01/11/05 16:49 / ts
Cadmium	ND	mg/L		0.005		E200.8	01/24/05 21:14 / bws
Cobalt	ND	mg/L		0.01		E200.7	01/11/05 16:49 / ts
Lead	ND	mg/L		0.05		E200.8	01/24/05 21:14 / bws
Manganese	1.88	mg/L		0.01		E200.7	01/11/05 16:49 / ts
Molybdenum	ND	mg/L		0.1		E200.7	01/11/05 16:49 / ts
Nickel	ND	mg/L		0.05		E200.8	01/24/05 21:14 / bws
Uranium	0.116	mg/L		0.0003		E200.8	01/24/05 21:14 / bws
Vanadium	ND	mg/L		0.1		E200.7	01/11/05 16:49 / ts
METALS - SPECIATED							
Arsenic-III	ND	mg/L		0.001		A3114 B	01/11/05 16:36 / sml
Selenium-IV	ND	mg/L		0.001		A3114 B	01/13/05 10:16 / sml
RADIONUCLIDES - TOTAL							
Lead 210	ND	pCi/L		1.0		NERHL-65-4	01/12/05 17:48 / trs
Gross Alpha minus Rn & U	2.6	pCi/L		1.0		E900.1	01/12/05 11:10 / rs
Gross Alpha minus Rn & U Precision (±)	1.6	pCi/L				E900.1	01/12/05 11:10 / rs
Radium 226	0.2	pCi/L		0.2		E903.0	01/10/05 14:35 / trs
Radium 226 precision (±)	0.2	pCi/L				E903.0	01/10/05 14:35 / trs
Radium 228	ND	pCi/L		1.0		E904.0	01/10/05 14:35 / pj
Thorium 230	ND	pCi/L		0.2		E907.0	01/11/05 10:30 / ph

Report Definitions: RL - Analyte reporting limit.
 QCL - Quality control limit.
 D - RL increased due to sample matrix interference.

MCL - Maximum contaminant level.
 ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Client: United Nuclear Corp
 Project: Alluvium
 Lab ID: C05010240-013
 Client Sample ID: GW-3

Report Date: 01/28/05
 Collection Date: 01/04/05 13:45
 Date Received: 01/07/05
 Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
DATA QUALITY							
A/C Balance (± 5)	2.75	%				Calculation	01/12/05 15:03 / smd
Anions	81.9	meq/L				Calculation	01/12/05 15:03 / smd
Cations	86.6	meq/L				Calculation	01/12/05 15:03 / smd
Solids, Total Dissolved Calculated	5030	mg/L				Calculation	01/12/05 15:03 / smd
TDS Balance (0.80 - 1.20)	1.11	dec. %				Calculation	01/12/05 15:03 / smd
VOLATILE ORGANIC COMPOUNDS							
Chloroform	ND	ug/L		1.0		E624	01/13/05 08:30 / rh
Surr: 1,2-Dichlorobenzene-d4	93.2	%REC			80-120	E624	01/13/05 08:30 / rh
Surr: Dibromofluoromethane	88.0	%REC			70-130	E624	01/13/05 08:30 / rh
Surr: p-Bromofluorobenzene	88.0	%REC			75-125	E624	01/13/05 08:30 / rh
Surr: Toluene-d8	99.2	%REC			80-120	E624	01/13/05 08:30 / rh

Report RL - Analyte reporting limit.
 Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
 ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Client: United Nuclear Corp
 Project: Alluvium
 Lab ID: C05040333-014
 Client Sample ID: GW-3

Report Date: 04/29/05
 Collection Date: 04/05/05 13:15
 Date Received: 04/08/05
 Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
MAJOR IONS							
Bicarbonate as HCO ₃	1550	mg/L		1		A2320 B	04/14/05 17:33 / slb
Calcium	968	mg/L	D	0.6		E200.7	04/13/05 14:30 / ts
Chloride	168	mg/L		1		E200.7	04/13/05 14:26 / ts
Magnesium	328	mg/L	D	0.5		E200.7	04/13/05 14:30 / ts
Nitrogen, Ammonia as N	0.09	mg/L		0.05		A4500-NH ₃ G	04/12/05 08:53 / jal
Nitrogen, Nitrate+Nitrite as N	71	mg/L	D	2		E353.2	04/13/05 12:09 / jal
Potassium	8.2	mg/L		0.5		E200.7	04/13/05 14:26 / ts
Sodium	283	mg/L		0.5		E200.7	04/13/05 14:26 / ts
Sulfate	2130	mg/L	D	8		E200.7	04/13/05 14:30 / ts
PHYSICAL PROPERTIES							
pH	7.10	s.u.		0.01		A4500-H B	04/12/05 14:31 / sl
Solids, Total Dissolved TDS @ 180 C	5270	mg/L		10		A2540 C	04/11/05 14:54 / sl
METALS - TOTAL							
Aluminum	ND	mg/L		0.1		E200.8	04/12/05 00:17 / bws
Beryllium	ND	mg/L		0.01		E200.8	04/12/05 15:13 / bws
Cadmium	ND	mg/L		0.005		E200.8	04/12/05 00:17 / bws
Cobalt	ND	mg/L		0.01		E200.8	04/12/05 00:17 / bws
Lead	ND	mg/L		0.05		E200.8	04/12/05 00:17 / bws
Manganese	1.84	mg/L		0.01		E200.8	04/12/05 00:17 / bws
Molybdenum	ND	mg/L		0.1		E200.8	04/12/05 00:17 / bws
Nickel	ND	mg/L		0.05		E200.8	04/12/05 00:17 / bws
Uranium	0.112	mg/L		0.0003		E200.8	04/12/05 00:17 / bws
Vanadium	ND	mg/L		0.1		E200.8	04/12/05 00:17 / bws
METALS - SPECIATED							
Arsenic-III	ND	mg/L		0.001		A3114 B	04/11/05 11:29 / sml
Selenium-IV	ND	mg/L		0.001		A3114 B	04/13/05 10:17 / sml
RADIONUCLIDES - TOTAL							
Gross Alpha minus Rn & U	ND	pCi/L		1.0		E900.1	04/13/05 16:50 / rs
Lead 210	ND	pCi/L		1.0		NERHL-65-4	04/12/05 09:17 / trs
Radium 226	ND	pCi/L		0.2		E903.0	04/18/05 14:30 / trs
Radium 228	ND	pCi/L		1.0		E904.0	04/18/05 14:30 / pj
Thorium 230	ND	pCi/L		0.2		E907.0	04/20/05 10:30 / ph

Report RL - Analyte reporting limit.

Definitions: QCL - Quality control limit.

D - RL increased due to sample matrix interference.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Client: United Nuclear Corp
 Project: Alluvium
 Lab ID: C05040333-014
 Client Sample ID: GW-3

Report Date: 04/29/05
 Collection Date: 04/05/05 13:15
 Date Received: 04/08/05
 Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
DATA QUALITY							
A/C Balance (± 5)	5.00	%				Calculation	04/22/05 11:18 / smd
Anions	79.5	meq/L				Calculation	04/22/05 11:18 / smd
Cations	87.9	meq/L				Calculation	04/22/05 11:18 / smd
Solids, Total Dissolved Calculated	4980	mg/L				Calculation	04/22/05 11:18 / smd
TDS Balance (0.80 - 1.20)	1.06	dec. %				Calculation	04/22/05 11:18 / smd
VOLATILE ORGANIC COMPOUNDS							
Chloroform	ND	ug/L		1.0		E624	04/11/05 22:34 / rlo
Surr: 1,2-Dichlorobenzene-d4	104	%REC			80-120	E624	04/11/05 22:34 / rlo
Surr: Dibromofluoromethane	110	%REC			70-130	E624	04/11/05 22:34 / rlo
Surr: p-Bromofluorobenzene	100	%REC			75-125	E624	04/11/05 22:34 / rlo
Surr: Toluene-d8	96.8	%REC			80-120	E624	04/11/05 22:34 / rlo

Report Definitions: RL - Analyte reporting limit.
 QCL - Quality control limit.

MCL - Maximum contaminant level.
 ND - Not detected at the reporting limit.

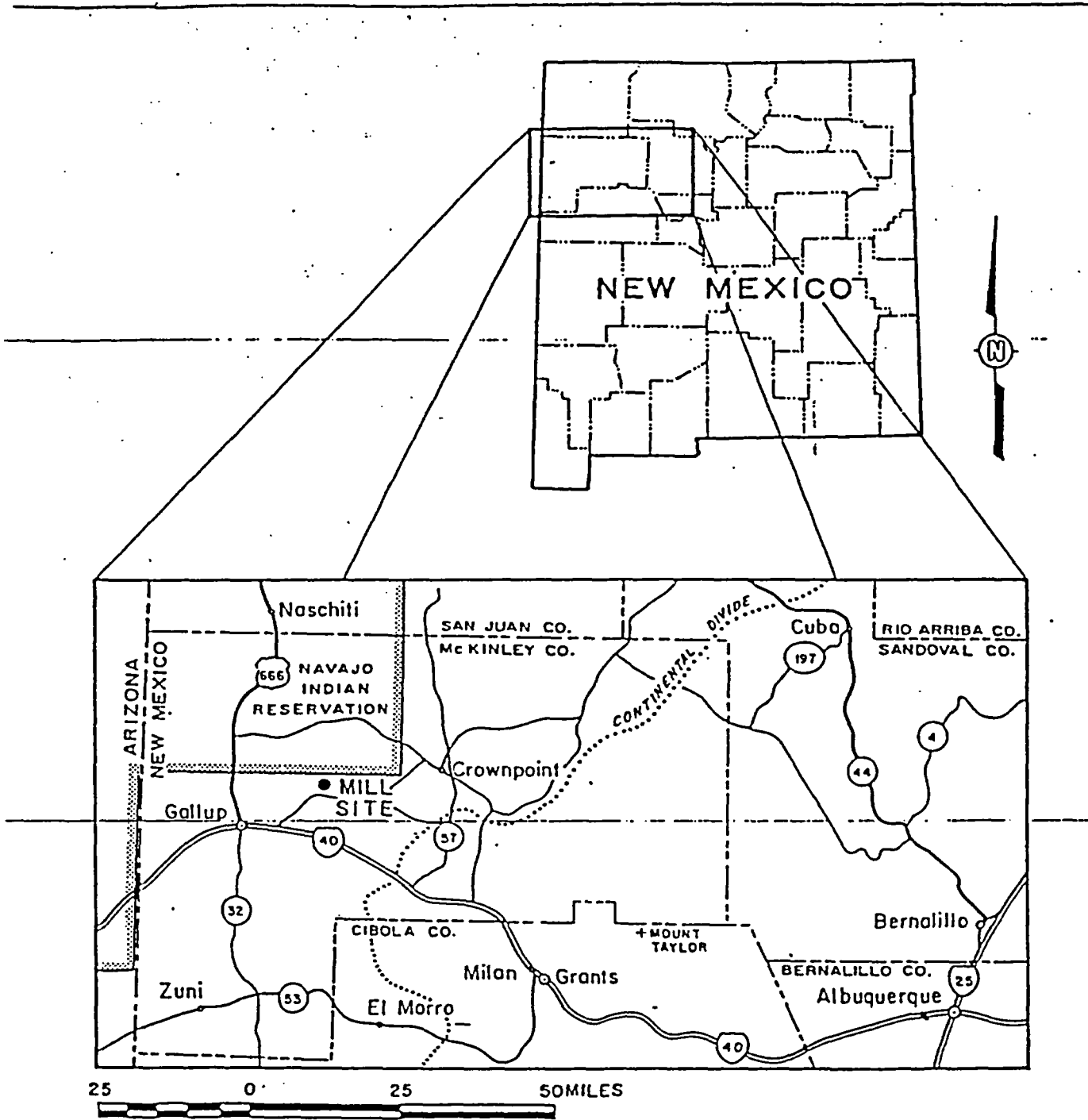


UNC Mining and Milling ChurchRock Operations					
GroundWater Monitoring Summary: Alluvium Monitor Wells					
Well ID:		GW-3	GW-3	GW-3	GW-3
Collection Date:		4/5/2005	1/4/2005	10/5/2004	7/13/2004
Receive Date:		4/6/2005	1/7/2005	10/8/2004	7/16/2004
Report Date:		4/29/2005	1/28/2005	11/10/2004	8/11/2004
Analyte	Units	C05040333-0124	C05010240-013	C04100398-013	C04070643-013
Bicarbonate as HCO3	mg/L	1550	1730	1680	1720
Calcium	mg/L	968	960	935	968
Chloride	mg/L	168	171	165	172
Magnesium	mg/L	328	316	315	316
Nitrogen, Ammonia as N	mg/L	0.09	0.17	0.06	0.24
Nitrogen, Nitrate+Nitrite as N	mg/L	71	86	80.0	82.6
Potassium	mg/L	8.2	8.9	8.0	9.8
Sodium	mg/L	283	281	272	278
Sulfate	mg/L	2130	2050	2080	2110
pH	s.u.	7.10	7.05	7.07	6.80
Solids, Total Dissolved TDS @ 180 C	mg/L	5270	5560	5720	5580
Aluminum	mg/L	ND(0.1)	0.4	ND(0.1)	ND(0.1)
Beryllium	mg/L	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Cadmium	mg/L	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Cobalt	mg/L	ND(0.01)	ND(0.01)	ND(0.01)	0.01
Lead	mg/L	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)
Manganese	mg/L	1.84	1.88	1.76	1.74
Molybdenum	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Nickel	mg/L	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)
Uranium	mg/L	0.112	0.116	0.107	0.104
Vanadium	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Arsenic-III	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Selenium-IV	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Gross Alpha minus Rn & U	pCi/L	ND(1.0)	2.6	ND(1.0)	ND(1.0)
Gross Alpha minus Rn & U Precision (±)	pCi/L		1.6		
Lead 210	pCi/L	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)
Lead 210 precision (±)	pCi/L				
Radium 226	pCi/L	ND(0.2)	0.2	ND(0.2)	0.3
Radium 226 precision (±)	pCi/L		0.2		0.3
Radium 228	pCi/L	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)
Radium 228 precision (±)	pCi/L				
Thorium 230	pCi/L	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)
Thorium 230 precision (±)	pCi/L				
A/C Balance (± 5)		5.00	2.75	2.12	2.38
Anions		79.5	81.9	81.2	82.7
Cations		87.9	86.6	84.7	86.8
Solids, Total Dissolved Calculated		4980	5030	4970	5070
TDS Balance (0.80 - 1.20)		1.06	1.11	1.15	1.10
Chloroform	ug/L	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)

**Note: The data presented on this form is intended for summary purposes only. Laboratory approved data is contained within the attached database reports.

kls: r:\clients\2005\unc_mining\unc_gallup-2nd2005_final.xls

SAMPLING LOCATION MAPS



SOURCE:
 URANIUM MILL LICENSE
 RENEWAL APPLICATION-
 ENVIRONMENTAL REPORT.
 LICENSE NO. NM-UNC-ML.
 JNC 1981

SKETCH I-1
 CHURCH ROCK PROJECT
 SITE LOCATION PLAN
 16674-000

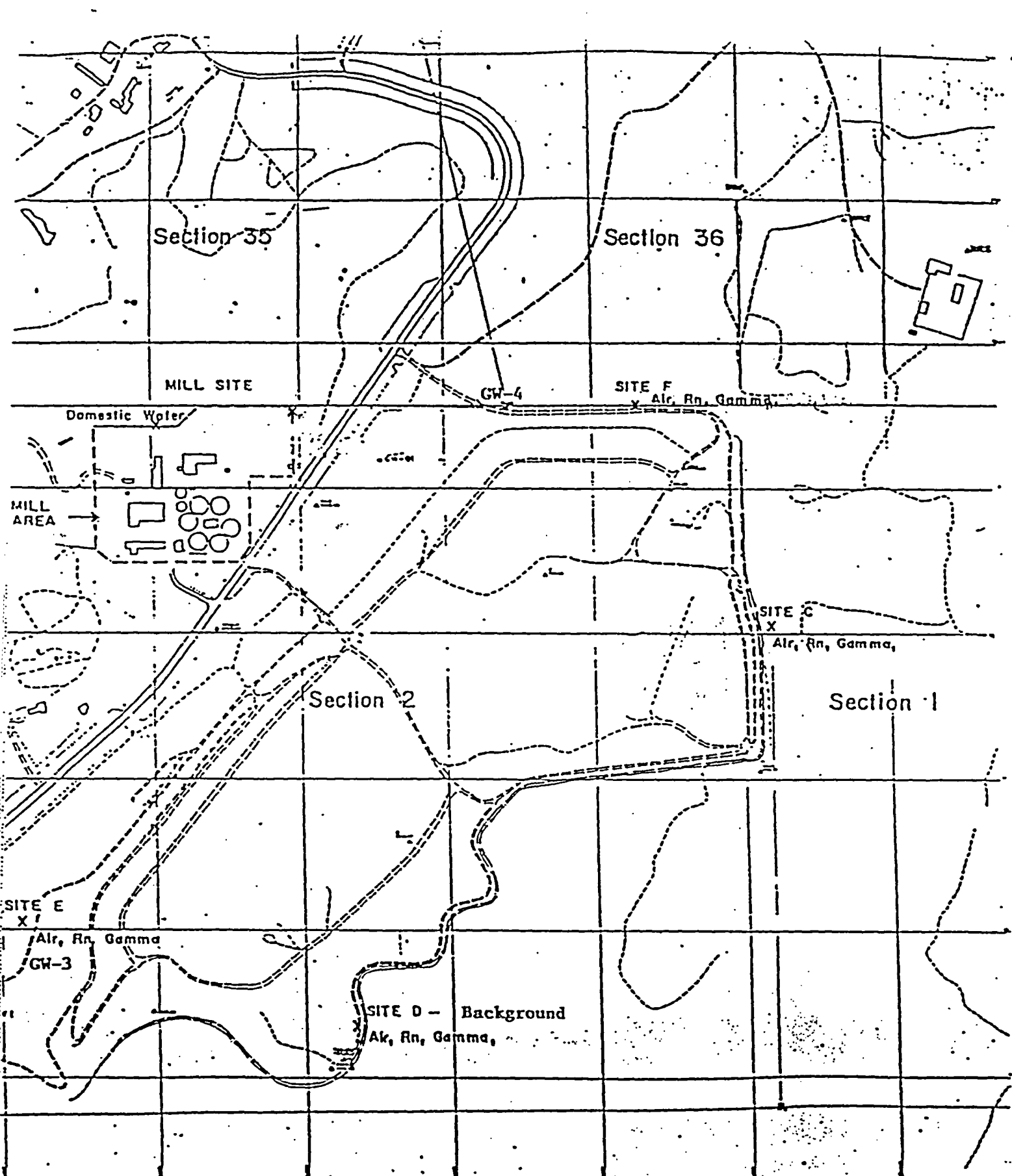
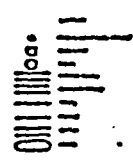


FIGURE 2



UNITED NUCLEAR CORPORATION	
PLANNING MAP	
SAC. E. CHAS. A. H. BARR	
3 NORTH	