

**Walker-Smith, Antoinette**

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**From:** HARDGROVE Tom (AREVA RESOURCES INC) [tom.hardgrove@areva.com]  
**Sent:** Thursday, December 17, 2009 2:56 PM  
**To:** Linton, Ron / /  
**Subject:** Lists of Spills and Excursions for COMIN  
**Attachments:** LISTS OF COMIN SPILLS & EXCURSIONS.pdf

Ron,

Per your request, see attachment. I have added the excursion at CR just reported today.

Tom

C/18

**TABLE 1.1 IRIGARAY PROJECT SPILLS**

See the Irigaray Project - General Location and Spill Map for spill locations sites.

Number	Date	Location	Spill Solution	Volume (Gallons)	Spill Solution (mg/l)		Soil Sample (pCi/g)	
					Uranium as U308	Ra226	Uranium as U	Ra226
1	12/11/1980	South side of plant	Yellowcake slurry	< 55				
2	09/03/87	Unit 5 trunkline	Wellfield	4,200	1.0			
3	12/17/87	Unit 7 trunkline	Wellfield	12,000	0.3			
4	04/20/88	Main wellfield building	Wellfield	1,500	1.2			
5	05/28/88	Unit 6 - 9 trunkline	Wellfield	2,000	1.1			
6	08/06/88	Unit 6 - 9 trunkline	Wellfield	11,000	1.2			
7	08/21/88	Unit 6 - 9 trunkline	Wellfield	6,000	1.5			
8	01/03/89	GI-142	Wellfield	1,000				
9	01/03/89	GI-142	Wellfield	1,000				
1	01/04/89	HI-82	Wellfield	5,000				
11	01/06/89	HI-13	Wellfield	2,500				
12	01/09/89	LP-66	Wellfield	1,600				
13	01/18/89	JL-127	Wellfield	1,000				
14	01/21/89	BI-40	Wellfield	4,000				
15	01/22/89	GI-30	Wellfield	1,600				
16	01/22/89	FI-42	Wellfield	1,000				
17	01/22/89	GI-132	Wellfield	1,500				
18	01/30/89	GP-36	Wellfield	1,000				
19	01/31/89	GI-84	Wellfield	2,500				
20	01/31/89	DI-20	Wellfield	3,000				
21	02/07/89	DI-101	Wellfield	3,000				
22	02/07/89	LP-28	Wellfield	3,000				
23	02/09/89	GP-58	Wellfield	1,500				
24	02/10/89	HI-97	Wellfield	1,000				
25	02/10/89	DI-31	Wellfield	1,400				
26	02/12/89	AI-37	Wellfield	1,000				
27	02/15/89	HI-34	Wellfield	1,000				
28	02/23/89	GP-57	Wellfield	1,500				
29	02/23/89	GI-27	Wellfield	1,120				
30	02/23/89	HI-102	Wellfield	1,000				
31	02/26/89	HP-85	Wellfield	2,000				
32	03/04/89	LP-25	Wellfield	1,000				
33	03/10/89	EI-90	Wellfield	2,000				
34	03/12/89	GI-18	Wellfield	1,000				
35	03/13/89	HP-67	Wellfield	2,000				
36	03/13/89	FI-108	Wellfield	3,000				
37	03/13/89	GI-149	Wellfield	2,500				
38	03/20/89	GP-5	Wellfield	1,250				
39	04/09/89	AI-30	Wellfield	1,000				
40	04/17/89	Unit 8/9 building	Wellfield	2,000				
41	04/25/89	Unit 1 injection	Wellfield	1,000				
42	04/30/89	GI-137	Wellfield	1,000				
43	05/05/89	FI-117	Wellfield	1,500				
44	11/10/89	GP-61	Wellfield	1,000	<15			
45	12/11/89	Unit 7 trunkline	Wellfield	2,000	1.2			
46	12/23/89	Unit 6 Prod. well	Wellfield	1,500	20.0			
47	05/02/90	JP-50	Wellfield	1,000	14.5			
48	05/09/90	Unit 1-5 recovery line	Wellfield	2,000	16.3			
49	05/24/90	S. side of plant	Wellfield	7,000	21.6		1.56	1.8
50	05/31/90	FI-119	Wellfield	1,000	26.2			
51	06/01/90	DP-36	Wellfield	1,000	11.9			
52	06/01/90	CI-17	Wellfield	1,000	15.3			
53	06/04/90	EP-13	Wellfield	1,000	6.8			
54	06/05/90	EP-13	Wellfield	500	6.8			
55	06/29/90	EP-13	Wellfield	350	9.4			
56	05/02/90	JP-50	Wellfield	1,000	14.5			
57	07/08/90	EP-13	Wellfield	200	9.3			
58	08/26/90	Restoration building	Wellfield	3,000	15.9			
59	09/15/90	Restoration building	Process	500	5.3			2.6
60	09/16/90	AP-10	Wellfield	200	18.1			
61	10/04/90	South side of plant	Process	330	4780			
62	11/02/90	Pond D	Pond	1,000	7.1			0.3
63	11/03/91	HP-9	Wellfield	700	17.4			

64	11/10/91	EI-33	Wellfield	2,500	1.3			
65	11/20/91	Between pond A + B	Pond	2,000	15.0			
66	11/22/91	AP-8	Wellfield	3,000	<0.1			
67	12/22/91	DI-86	Wellfield	2,000			26.50	43.9
68	12/30/91	Unit 5	Wellfield	2,000	12.9			23.0
69	01/15/92	FI-97	Wellfield	5,000	8.3			1.6
70	01/18/92	EP-13	Wellfield	1,000			38.70	2.2
71	01/19/92	DI-11	Wellfield	2,000			138.00	12.0
72	01/22/92	BP-8	Wellfield	2,000	3.7			28.10
73	01/25/92	FP-13	Wellfield	6,000			147.00	20.1
74	01/25/92	HP-68	Wellfield	2,500			44.80	9.1
75	02/19/92	EI-90	Wellfield	2,000	0.2		2.60	1.3
76	02/19/92	T42-1	Wellfield	2,500	12.6		7.10	3.5
77	02/22/92	L20-1	Wellfield	1,000	16.1		0.06	17.2
78	06/30/92	DP-14	Wellfield	5,000	3.8		43.50	5.1
79	07/25/92	Restoration building	Pond	5,000	11.6		13.30	1.5
80	08/03/92	CI-20	Wellfield	3,000	3.5			
81	08/05/92	FP-35	Wellfield	5,000	7.4		0.60	0.9
82	09/03/92	DI-64	Wellfield	2,000	8.0			
83	12/23/92	FI-110	Wellfield	1,700	2.6			
84	04/12/93	Trunkline behind plant annex	Pond	5,000	10.0		4.80	1.0
85	05/03/93	Between plant and wellfield	Pond	6,000	16.7		6.00	1.3
86	05/16/93	GI-84	Wellfield	500	5.5			
87	06/15/93	GI-129	Wellfield	750	7.3			
88	07/03/93	FI-119B	Wellfield	1,000	8.2		9.80	7.8
89	07/07/93	LP-49	Wellfield	12,200	18.0		10.30	6.1
90	07/13/93	JL-44	Wellfield	3,000	18.0		94.50	254.0
91	08/05/93	UNIT 7	Wellfield	1,080	16.2			
92	09/12/93	HP-49	Wellfield	8,000	26.3		5.40	1.2
93	11/17/93	LI-68	Wellfield	1,500	0.5			
94	11/22/93	KP-53	Wellfield	1,000	1.8			
95	01/05/94	HI-82	Wellfield	1,250	1.8			
96	01/08/94	JL-38	Wellfield	1,000	1.6			
97	01/15/94	JL-22	Wellfield	2,250	15.1			
98	02/08/94	HI-137	Wellfield	2,000	9.7			
99	02/23/94	JL-80	Wellfield	1,100	7.9			
100	04/29/94	JL-27	Wellfield	1,200	12.7			
101	07/29/94	R.O. feed from pond RA	Pond	3,000	17.8			
102	08/01/94	South side of plant	Yellowcake	509				
103	08/15/94	Plant Annex	Process	1,000	159.4		196.00	5.9
104	10/13/94	Linde Building	Wellfield	6,000	1.5		2.40	1.1
105	11/16/94	JP-60	Wellfield	4,500	10.0			
106	11/30/94	Unit 7 Trunkline	Wellfield	1,000	1.1			
107	12/06/94	Unit 7, Trunkline 16	Wellfield	6,250	1.2			
108	12/10/94	Unit 8 Trunkline 8	Wellfield	5,000	0.2		2.30	2.1
109	12/10/94	JP-64	Wellfield	1,200	12.9		10.60	2.5
110	12/12/94	Unit 7 Trunkline 3	Wellfield	5,000	7.0		2.90	2.3
111	12/15/94	KI-100B	Wellfield	2,500	12.0			
112	01/02/95	LP-41B	Wellfield	1,000	7.5			
113	01/11/95	LI-16	Wellfield	1,000	8.7			
114	01/16/95	Unit 9 Mod.	Wellfield	9,000	1.6			
115	01/17/95	JL-83	Wellfield	200	7.3			
116	01/17/95	JP-44	Wellfield	500	7.3			
117	01/17/95	JL-104	Wellfield	1,000	1.6			
118	01/18/95	KI-113B	Wellfield	1,000	8.7			
119	01/24/95	Unit 7, Recovery line #8	Wellfield	1,000	8.1			
120	02/01/95	Unit 6, Trunkline #8	Wellfield	1,000	2.6			
121	05/17/95	Unit 6 Trunkline	Wellfield	1,000	4.3			
122	07/07/95	Pond B	Process	9,000	17.8			
123	07/27/95	Plant Annex	Process	1,000	26.7		1315.00	4.6
124	08/01/95	Pond B	Process	1,500	8579.0		550.00	5.3
125	08/18/95	KI-96	Wellfield	5,000	8.4			
126	02/09/96	Unit 5 trunkline	Wellfield	3,000	8.8			
127	05/20/96	Unit 7 trunkline	Wellfield	500	10.6			
128	08/06/96	Pond D	Process	3,000	21.8	1730		1.9 - 12.4
129	08/01/96	Pond D	Pond	500	10.1			
130	08/09/96	Pond D	Process	1,000	15.6			
131	12/06/96	Pond RA	Pond	1,000	146.0		13.20	<1.3
132	12/06/96	R.O. Plant feed line.	Wellfield	2,000	<0.2			

133	12/06/96	T3	Wellfield	800	8.4			
134	12/09/96	Rec. Riser	Wellfield	2,000	6.9		8.30	3.5
135	04/22/97	Pond RB	Process	59,400	237.7		38.40	1.4
136	05/21/97	GP-23	Wellfield	1,000	2.0			
137	06/21/97	GI-112	Wellfield	2,000	5.0			
138	06/24/97	Pump House	Wellfield	1,500	<0.4			
139	07/12/97	GI-129	Wellfield	5,000	0.7		3.50	2.0
140	09/13/97	GI-112	Wellfield	2,000	4.5			
141	09/16/97	RA Trans. Line	Pond	2,240	78.5		18.20	3.8
142	10/20/97	GP-11	Wellfield	1,000	<0.4			
143	10/26/97	GI-96B	Wellfield	430	6.2		10.50	6.0
144	10/26/97	GI-141	Wellfield	1,000	3.4		14.70	10.5
145	11/05/97	GI-84	Wellfield	50	6.1		2.15	1.2
146	11/05/97	GI-22	Wellfield	50	5.4		2.71	1.4
147	11/17/97	HP-75	Wellfield	1,000	4.4		19.00	48.7
148	12/26/97	GP-56	Wellfield	2,000	3.2			
149	01/06/98	GI-17	Wellfield	150	5.1			
150	01/06/98	GI-14	Wellfield	300	5.0		0.21	2.7
151	02/18/98	HP-87	Wellfield	3,000	3.2		0.073	1.4
152	04/04/98	GP-30	Wellfield	150	5.6			
153	09/07/98	GP-14	Wellfield	2,000	2.3			
154	09/09/98	GP-44	Wellfield	3,000	2.2			
155	09/10/98	5i7 ponds	Pond	150	159.8			
156	09/16/98	GI-51	Wellfield	4,000	2.2			
157	09/17/98	GI-106	Wellfield	1,700	2.0			
158	09/18/98	LI-123	Wellfield	1,200	2.9			
159	09/19/98	GP-23	Wellfield	2,000	3.0			
160	09/25/98	FP-29	Wellfield	3,000	2.5			
161	12/25/98	LI-59	Wellfield	700	10.5			
162	12/25/98	LP-25	Wellfield	700	8.8			
163	02/12/99	LP-26	Wellfield	1,000	3.6			
164	03/17/99	Unit 7 trunkline	Wellfield	3,000	4.2			2.1
165	04/03/99	Unit 9 Trunkline	Wellfield	13,000	<0.4		6.27	10.3
166	04/08/99	LP-22	Wellfield	1,000	3.8		6.05	1.0
167	04/15/99	KI-34	Wellfield	200	6.2		7.85	4.3
168	04/15/99	LI-84	Wellfield	1,000	.04		7.85	4.6
169	06/14/99	LI-73	Wellfield	1,000	6.7		8.84	2.7
170	08/15/99	KI-88	Wellfield	5,000	2.6		7.11	3.7
171	10/29/99	Pond RB	Pond	200	89.2		16.30	1.2
172	02/08/00	JI-80	Wellfield	1,500	6.9		8.07	21.4
	03/03/00	LI91	Wellfield					
173	03/25/00	KI-156	Wellfield	500	5.0		17.80	40.2
174	04/19/00	KI-62	Wellfield	3,000	7.2			
175	07/19/00	Unit 6 Trunkline	Wellfield	450	6.9			
176	9/10/2001	HI81	Wellfield		2.0			
177	3/4/2004	POND RB		15,000	3.2			
178	5/19/2004	POND B		1,200	989.6			

**TABLE 1.2 CHRISTENSEN RANCH PROJECT SPILLS**

See the Christensen Ranch Project - General Location and Spill Map for spill locations sites.

Number	Date	Location	Spill Solution	Volume (Gallons)	Spill Solution (mg/l)		Soil Sample (pCl/g)	
					Uranium as U308	Ra226	Uranium as U	Ra226
1	04/14/89	Access road between sites. Not shown on spill maps.	Yellowcake Slurry	< 55				
2	06/27/89	Mod. 3-4	Wellfield	2,500				
3	08/04/89	Mod. 3-3	Wellfield	1,500				
4	08/29/89	3C19-1	Wellfield	1,000				
5	03/06/90	R.O. Brine discharge	Process	2,126	2.5			
6	04/23/90	CR-1 pond	Pond	1,000				
7	05/03/91	MU3 Extension	Wellfield	4,500	0.2			
8	09/08/92	Mod. 3-4	Wellfield	1,000				
9	09/29/92	200' north of plant	Wellfield	14,000	1.0		1.90	2.7
10	03/05/93	Mod. 2-1	Wellfield	5,400	0.1			
11	03/24/93	Unit 2 trunkline (MW87)	Wellfield	10,000	1.3		1.09	2.2
12	04/04/93	Mod. 2-2	Wellfield	7,500	0.9		5.40	1.2
13	05/09/93	Mod 2-1	Wellfield	5,400	0.9		2.00	1.3
14	05/15/93	Unit 2-3 trunkline	Wellfield	30,000	1.9		1.50	1.2
15	07/18/93	2AH27-1	Wellfield	1,000	1.2			2.1
16	10/23/93	Mod 3-1	Wellfield	2,000	2.1			
17	01/02/94	2W47-1	Wellfield	1,500	1.3			
18	01/20/94	2AF23-2	Wellfield	7,500	2.1			6.0
19	06/22/94	Unit 4 pump station	Wellfield	1,000	0.5			
20	07/14/94	Mod. 4-2	Wellfield	2,500	235.0		36.10	3.4
21	07/20/94	Pond backwash line	Pond	3,400	21.7			
22	12/04/94	4M34-1	Wellfield	40,000	0.8			
23	04/07/95	Mod. 3-1	Wellfield	400	21.5			
24	04/11/95	Mod. 4-3	Wellfield	12,000	0.5	339.7	0.4 - 1.7	0.9 - 2.3
25	06/26/95	5AK62-2	Wellfield	5,000	50.0		22.00	2.2
26	06/27/95	5AM72-3	Wellfield	500	58.0		14.10	24.0
27	07/07/95	Mod 3-3 Manhole	Wellfield	2,000	2.1			
28	01/01/96	Mod. 5-1 Building	Wellfield	4,000	1.0			
29	01/10/96	Unit 4 pump station	Wellfield	1,000	1.0			
30	01/15/96	5AU57-1	Wellfield	20,000	1.4		2.70	<0.6
31	01/14/96	5BE47-2	Wellfield	7,200	0.5			
32	02/11/96	5AU51-1	Wellfield	1,000	0.5			
33	02/16/96	5AV57-1	Wellfield	1,000	1.0			
34	02/29/96	Mod. 3-1 Building	Wellfield	1,000	36.7		9.40	<0.6
35	03/04/96	5AM69-1	Wellfield	1,000	1.1			
36	03/10/96	5BC53-2	Wellfield	6,350	0.8			
37	03/14/96	5TW-02	Wellfield	1,000	2.0			
38	03/17/96	5AU47-1	Wellfield	6,000	N/A			
39	05/08/96	5BI43-1	Wellfield	1,500	N/A			
40	05/22/96	5BK43-1	Wellfield	1,000	0.7			
41	06/07/96	5BJ61-1	Wellfield	1,000	1.0		2.50	3.1
42	06/18/96	5BK51-2	Wellfield	1,500	30.5		11.7-23.4	2.8-6.3
43	07/28/96	Unit 4 Pump Station	Wellfield	2,000	N/A		0.90	2.3
44	09/01/96	5BH45-1	Wellfield	2,000	2.2		1.90	2.5
45	11/07/96	Mod. 3-3 Manhole	Wellfield	4,600	1.4			
46	12/02/96	5AU57-1	Wellfield	14,600	1.0			
47	01/10/97	Mod. 6-1, Inj. Trunkline	Wellfield	1,900	1.1		4.20	20.1
48	01/27/97	5BK48-2	Wellfield	2,300	30.4		5.40	1.7
49	01/29/97	6 Pump Station Manhole	Wellfield	9,000	0.7		1.20	1.2
50	02/28/97	5BG65-1	Wellfield	6,012	0.2		3.10	3.2
51	05/17/97	Mod.3-2, Manhole	Wellfield	60,000	0.7			8.0
52	05/17/97	5BH64-1	Wellfield	300	13.1		7.90	<1.8
53	07/24/97	Mod. 6-2	Wellfield	700	30.0		3.58	2.0
54	08/19/97	Mod. 6-3	Wellfield	3,280	2.0		0.69	0.7
55	11/19/97	6AO49-2	Wellfield	<400	40.2			
56	01/13/98	6AM47-3	Wellfield	1,000	1.5			
57	05/11/98	6AC38-1	Wellfield	4,125	0.8		1.12	1.1
58	05/14/98	5AV55-1	Wellfield	107,826	1.1	<0.2	1.83	7.4
59	07/08/98	5AV55-1	Wellfield	28,213	2.0		1.73	4.5
60	8/31/98	6AL48-2	Wellfield	3,000	1.7			
61	09/18/98	6AO59-1	Wellfield	1,000	0.8			

**TABLE 1.2 CHRISTENSEN RANCH PROJECT SPILLS**

See the Christensen Ranch Project - General Location and Spill Map for spill locations sites.

					Spill Solution (mg/l)		Soil Sample (pCl/g)	
62	12/14/98	5AM80-1	Wellfield	4,500	20.1			
63	03/26/99	Mod. 3-1 Building	Wellfield	23,520	1.2		3.12	3.8
64	03/29/99	3HI17-1	Wellfield	60,918	<0.4		2.12	46.5
65	04/12/99	6V27-1	Wellfield	32,400	0.9		3.22	2.9
66	05/03/99	5BK82-1	Wellfield	2,650	1.6		28.80	48.8
67	05/07/99	5BD47-1	Wellfield	14,910	1.8		2.28	1.5
68	05/12/99	3L29-1	Wellfield	1,000	<0.4		5.98	32.7
69	07/13/99	5BN162-2	Wellfield	3,780	19.3		8.79	2.9
70	10/04/99	6AI69-3	Wellfield	400	72.2		17.30	2.1
71	05/01/00	DDW#1	Process	2,000	0.6		2.22	1.5
72	7/12/2002	PLANT			11.4			
73	10/16/2002	MOD 43	Wellfield		5.6			
74	4/28/2003	2 PUMP STATION	Wellfield	<1000	<.4			
75	4/30/2003	2 PUMP STATION	Wellfield	1,200				
76	9/24/2003	3MW53D	Wellfield	420	<.4			
77	11/4/2003	2X60-1	Wellfield	325	<.4			
78	11/15/2003	6AL49-1	Wellfield	300	27.6			
79	12/16/2003	DDW#1		420	<.4			
80	12/31/2003	MOD42 TRUNKLINE	MANHOLE	2,300	6.7			
81	1/16/2004	AM12-2	MOD 41	3,179	5.6			
82	4/25/2004	DDW#1 TANK BUILDING		<400	1.1			
83	5/20/2004	POND 3		900	12.5			

## COGEMA Mining, Inc., Christensen Ranch Summary of Excursions

12/17/2009

DATE / YEAR	MINE UNIT#	WELL I.D.	DATE ON EXCURSION		DATE OFF EXCURSION
1992	3	MW 48S	6/16/1992		No Data
1993	3	MW 46S	3/7/1993		No Data
1995	2	MW 108	1/9/1995		2/9/1995
1995	4	MW 15	6/8/1995		No Data
1996	3	MW 46S	1/25/1996		4/8/1996
1997	5	MW 52	1/2/1997		2/7/1997
1997	5	MW 16	3/13/1997		4/15/1997
1997	3	MW 64	5/16/1997		7/9/1997
1997	2	MW 89	5/16/1997		7/9/1997
1998	6	MW 46	3/5/1998		4/1/1998
1998	6	MW 40	12/23/1998		1/12/1999
1998	3	MW 46S	9/2/1998		2/3/1999
1999	2	MW 89	10/8/1999		6/5/2000
1999	6	MW 21	10/28/1999		12/6/1999
2001	5	MW 43	3/22/2001		4/12/2001
2001	5	MW 66	8/21/2001		1/15/2002
2002	5	MW 8	12/16/2002		7/28/2003
2003	2	MW 68S	3/3/2003		4/16/2003
2003	5	MW 54	5/21/2003		9/22/2003
2003	2	MW 68S	12/2/2003		2/3/2004
2004	5	<b>MW 66</b>	7/21/2004		
2005	5	<b>MW 66</b>	7/21/2004		
2006	5	<b>MW 66</b>	7/21/2004		
2007	5	<b>MW 66</b>	7/21/2004		
2007	5	MW 48	4/25/2007		5/23/2007
2007	4	MW 1	9/5/2007		9/27/2007
2008	5	<b>MW 66</b>	7/21/2004		
2008	4	MW 1	3/10/2008		4/3/2008
2008	2	MW 89	3/11/2008		6/10/2008
2008	5	MW 48	4/15/2008		5/15/2008
2009	5	<b>MW 66</b>	7/21/2004		
2009	2	MW 89	3/11/2009		7/27/2009
2009	4	4MW 1	9/15/2009		10/15/2009
2009	2	MW 89	12/16/2009		