February 14, 2008

Subject: Dresden Station
Radiological Groundwater Protection Program (RGPP)
Status Report – 4th Quarter 2007

To: Timothy K. Hanley
Dresden Plant Manager

The purpose of this letter is to provide a status of the Dresden Radiological Groundwater Protection Program. There have been no new leaks or spills from contaminated systems that have impacted groundwater.

The RGPP provides information on groundwater movement and groundwater contamination. Trending of this data is helpful in predicting potential off-site dose and groundwater contamination consequences. The RGPP may, in some instances, identify a leak in a piping system. It is important to note that other leak detection methodologies such as pressure testing, the use of tracer gases, and G-Scan (guided-wave ultrasonic examinations) are better for leak detection.

The most notable result from the 4th quarter corporate sampling is the elevated tritium concentration found in the cooling pond. The previous three samples showed tritium concentrations at LLD. Tritium in the cooling pond was measured at 1,300 pCi/L in November of 2007. This tritium comes from Braidwood radwaste discharges.

Background:
The Dresden RGPP consists of two parts: (1) The corporate sponsored program consisting of groundwater samples taken every six months, and, the station's supplemental RGPP consisting of groundwater sampling once per month.

Corporate RGPP:
The corporate program samples 39 developed wells within the Protected Area (P.A.), 26 developed wells outside the P.A., and 6 surface water samples of the canals and cooling pond. Water levels are also taken to determine groundwater hydrology and trend groundwater movement. The sampling methodology follows a time consuming sampling standard where the wells are purged and the samples drawn at a slow rate. Samples are sent to an off-site lab and analyzed using a long count (2-hours) for improved Lower Level of Detectability (LLD).

Supplemental RGPP:
After identifying that the HPCI suction piping was leaking in 2004, the Dresden Chemistry groundwater-monitoring program was enhanced to include sentinel wells, sewers and trenches in the vicinity of this leak to assess changing conditions. The program continued to monitor other areas of historic leaks/spills and piping systems known to carry contaminated water. 'Tritium Maps' were developed to provide a tool to trend the analytical results. Grab samples are used to minimize the time required to collect the samples and analysis is performed in the counting room lab for 30 minutes. This is a flexible program that is also used to sample and analyze water from locations requested by different departments as well as regulators.

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Corporate RGPP Results:

Results are from samples taken in November of 2007. These results are included in the ODCM Annual Environmental Radiological Operating Report (AEROR) submitted to the NRC. Trends of the results are provided in **Attachment 1**.

The results of the 39 samples taken from within the P.A. show about 2/3rds of the wells have measurable tritium contamination. The contaminated groundwater is located in areas of historic leaks and/or spills that have occurred over the last 40 years of operation.

The wells outside the P.A. form a ring around the site. In general, the results of these samples show no measurable tritium contamination with the exception of the well near the radwaste discharge line and the wells near the hot canal.

Supplemental RGPP Results:

Results are from samples taken in January of 2008. Trends of the results are provided in **Attachment 2**. There are no significant changes in this data.

Specific Results:

1. Cribhouse Electrical Penetration:

On September 3rd, 2007, following heavy rains; water started flowing into the Cribhouse basement through one electrical penetration. Samples of this water showed an elevated tritium concentration. The tritium concentration increased over the next few days suggesting a leak in a nearby piping system. Further monitoring showed the tritium concentration and the flow dropping off (indicative of groundwater in-leakage that had picked up tritium from a historic spill). CRA and Associates, an independent environmental consultant, was asked to evaluate this situation. CRA is suggesting additional groundwater monitoring wells to help quantify the local conditions (IR 668190 & 732919).

2. HRSS Ventilation duct

On October 22nd, 2007, Water was found internal to the ductwork of an HRSS air conditioning unit. The water contained a measurable tritium concentration. An investigation identified that the most probable source of the contamination was a leaking valve on the HRSS hold tank. The water was transferred to a radwaste drain in the Unit 2 Turbine Building (IR 687732).

3. Sample Well DSP-122

This sample well is located north of the Radwaste Tank farm. This well has showed a slowly increasing trend in tritium concentration. Chemistry continues to monitor this data.

4. Sample Well DSP-124

This well is just south of the Floor Drain Surge Tank south of the Unit 3 Reactor Building. This well shows a steady to increasing trend of tritium contamination. Chemistry continues to monitor this data (IR 619751).

5. Sample Wells MW-DN-124-S & I

These wells are located just south of the liquid nitrogen tanks. They were installed to intercept the plume created by the leak of the 2004 HPCI suction piping. These wells show the highest concentration of tritium contamination on site (~100,000 pCi/L). For comparison, the tritium concentration in the 2/3 CST is about two orders of magnitude higher (~8,000,000 pCi/L). The concentration of tritium in these wells has been steady for the last year. Chemistry continues to monitor this data.

6. DSP-131 & DSP-132

The storm sewers on the Unit 1 side of the plant (east side) route through DSP-132 then discharge into the Unit Intake Canal. The sewers on the Unit 2/3 side of the plant (west side) route through DSP-131, then through an oil separator, then discharge into the Unit 2/3 Hot Canal. Results of samples taken from these storm sewers show trace amounts of tritium contamination, usually after a heavy rain. Chemistry continues to monitor this data.

7. Unit 2/3 Electrical Cable Tunnel

There is groundwater leaking into the Unit 2/3 electrical cable tunnel. RP has mopped up this groundwater from time to time. The water shows measurable tritium whose source is unknown. The tritium could be coming from the groundwater leaking in or from the plugged drain line that connects to radwaste. Engineering has determined that groundwater is leaking into the building rather than the water in the cable tunnel leaking out; therefore, there is low risk of contaminating groundwater from this source (IR 732915).

8. Condensate Pump Room

From time to time there have been discoveries of standing water in the condensate pump room. If there is tritium in the water the most probable source is leakage from the Condensate/Condensate Booster pumps. The water in this room routes to a sump that routes to radwaste. Engineering has determined that groundwater is leaking into the building rather than the water in the Condensate Pump Room leaking out; therefore, there is low risk of contaminating groundwater from this source.

Joe Strmec
Dresden Chemistry Manager

CC: D. Wozniak
J. Sipek
B. Rybak
P. Mankoo
C. Phillips
J. Ellis
R. Sisk
R. Kalb
B. Schultz

Dresden Station - Cribhouse Leak - Map 1 of 4

Miscellaneous Sample

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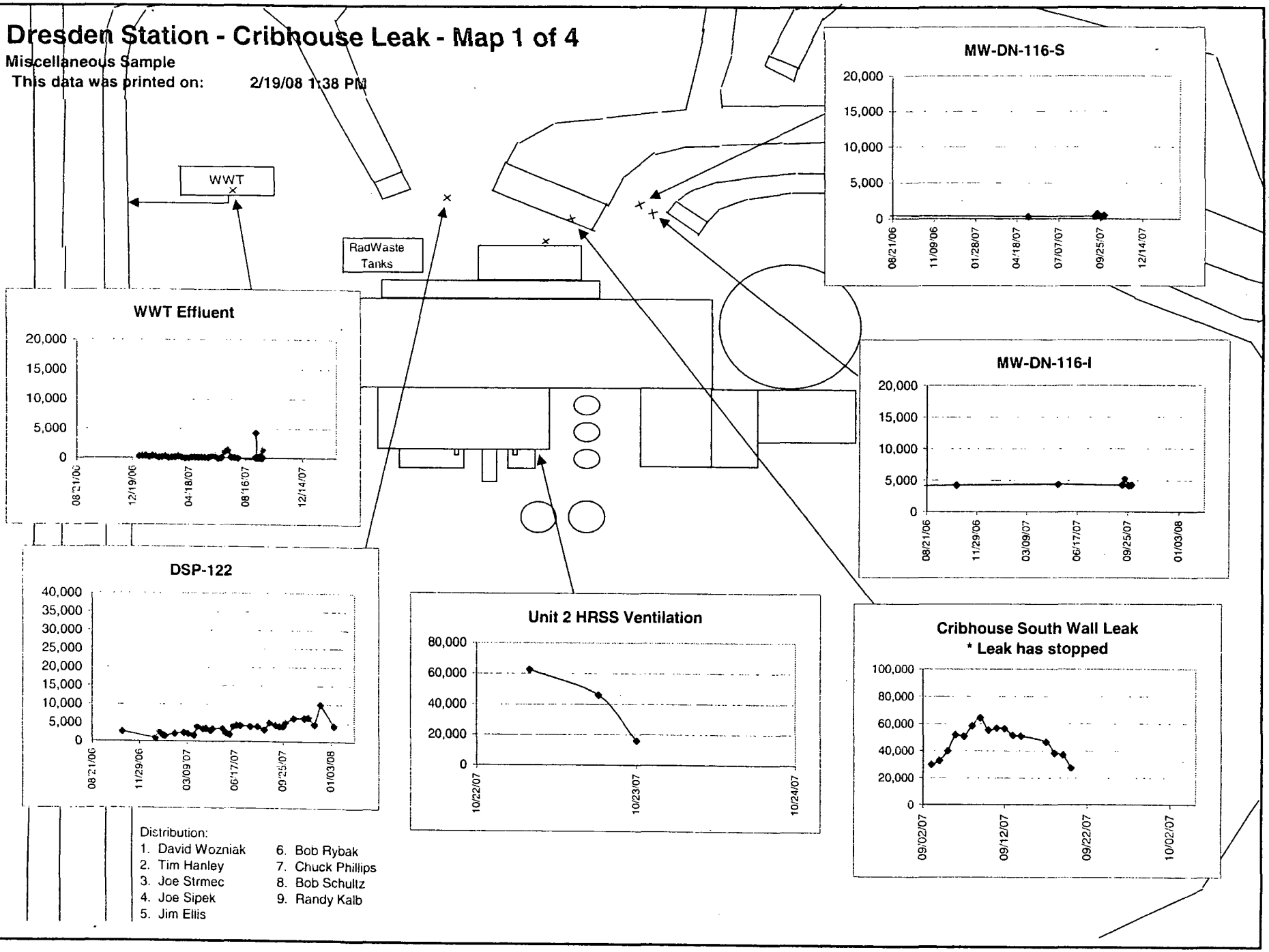

Distribution:

1. David Wozniak
2. Tim Hanley
3. Joe Strmec
4. Joe Sipek
5. Jim Ellis
6. Bob Rybak
7. Chuck Phillips
8. Bob Schultz
9. Randy Kalb

Dresden Station - Groundwater Monitoring - Map 2 of 4

Developed Wells

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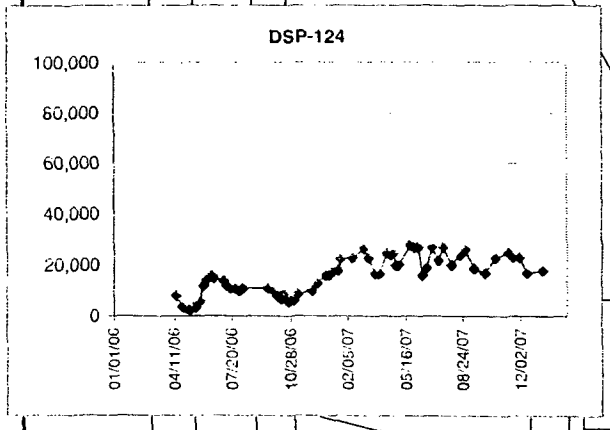

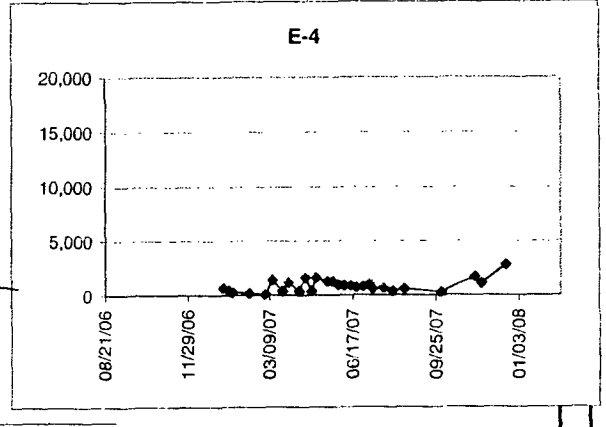

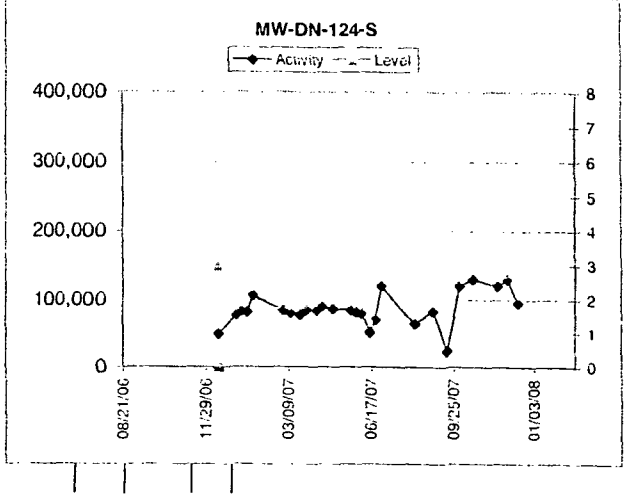

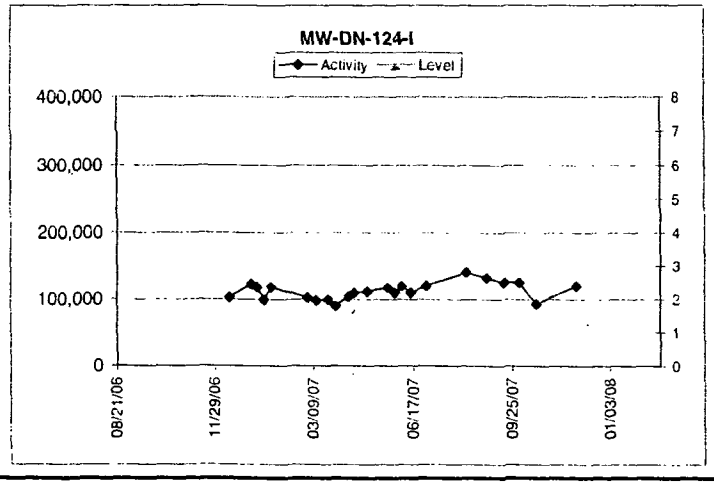

Dresden Station - Sewers - Map 3 of 4

Sewer Samples

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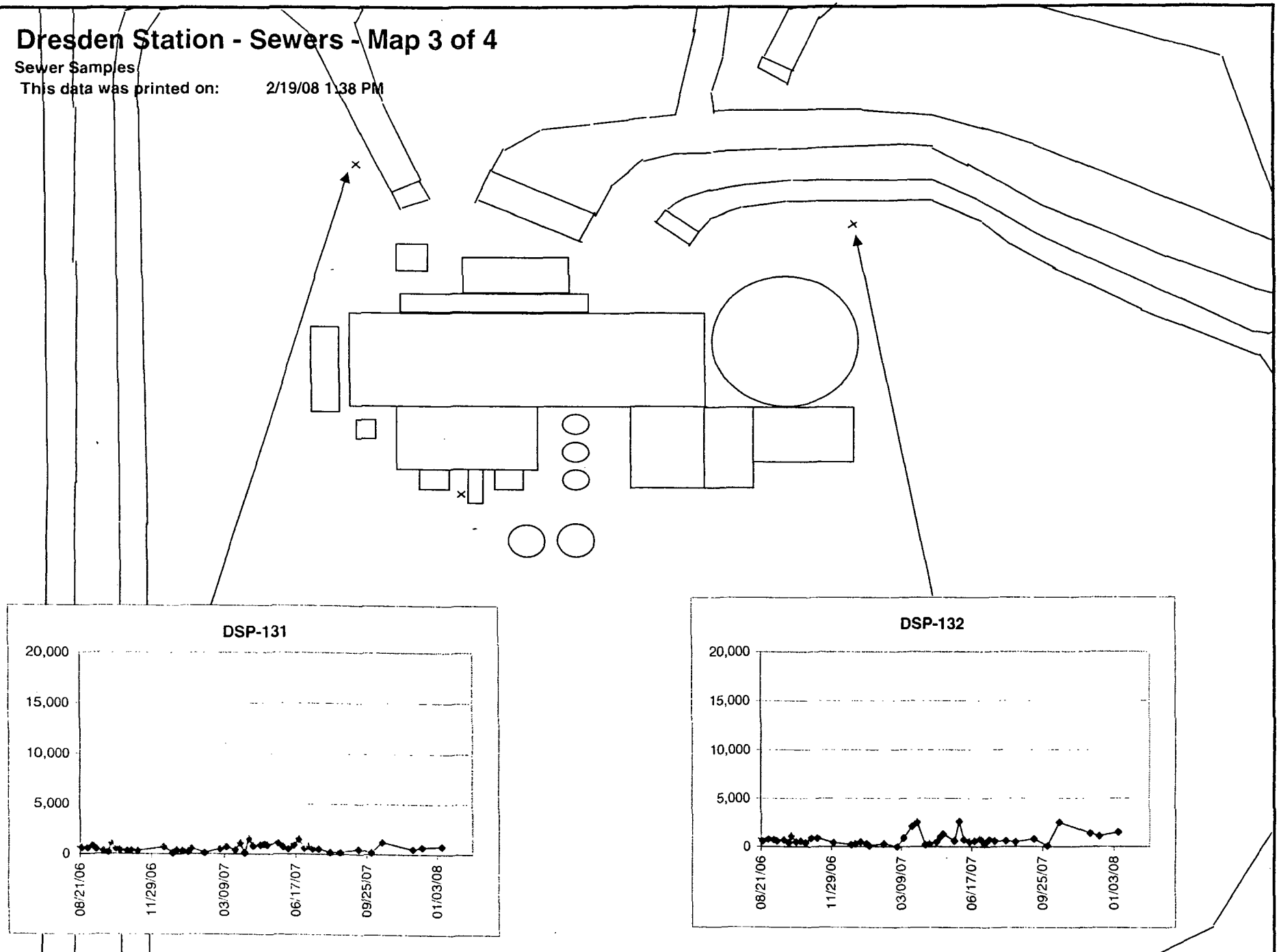

Dresden Station - Sentinel Wells - Map 4 of 4

Shallow Sentinel Wells

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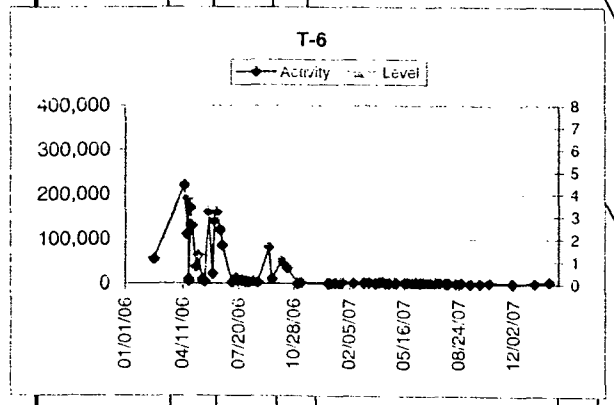
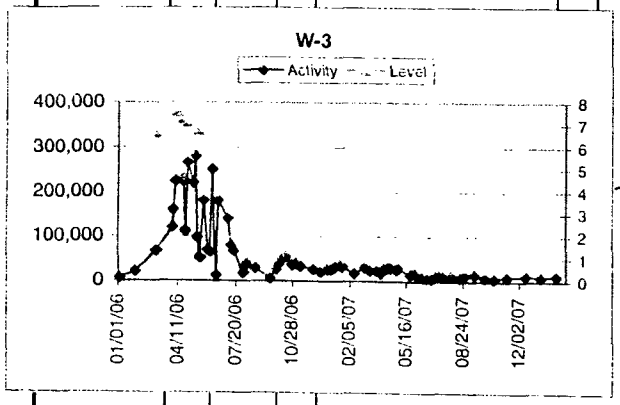
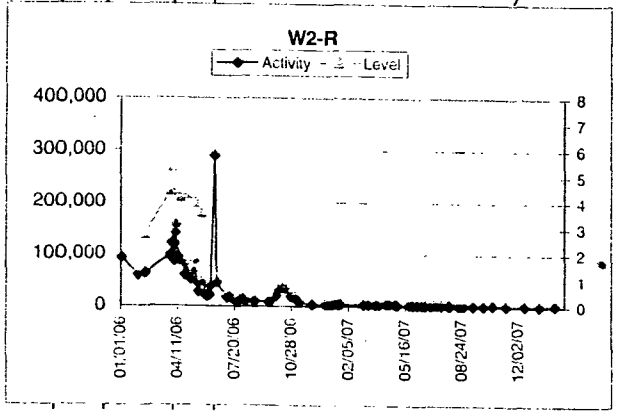
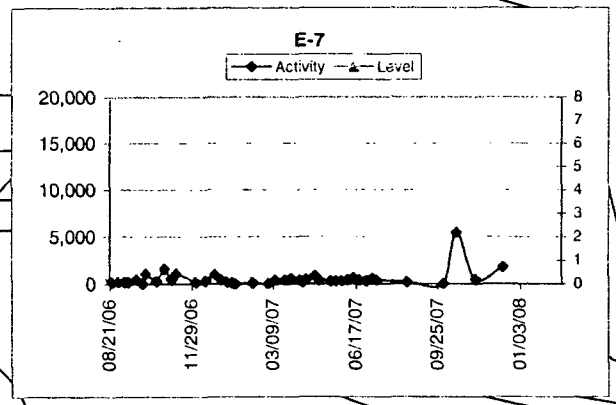
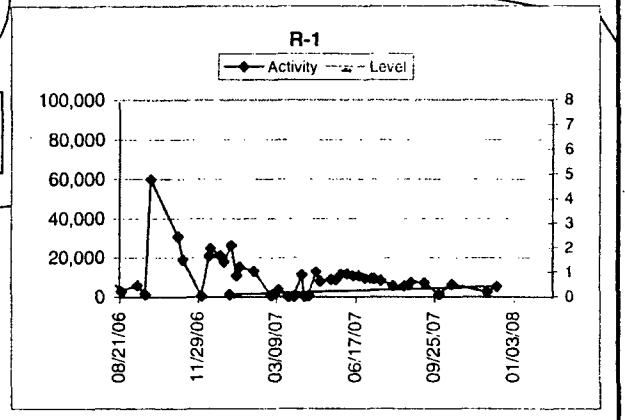
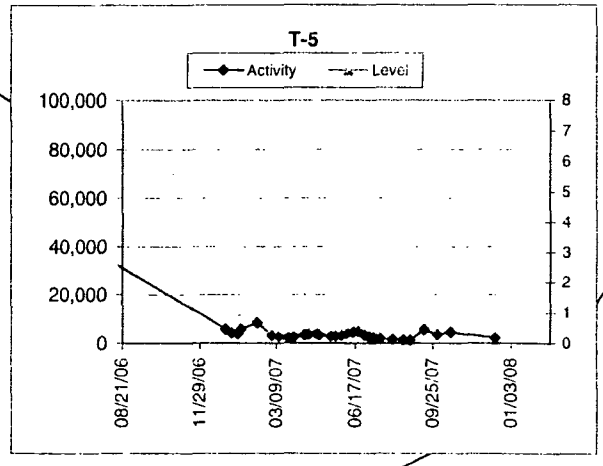


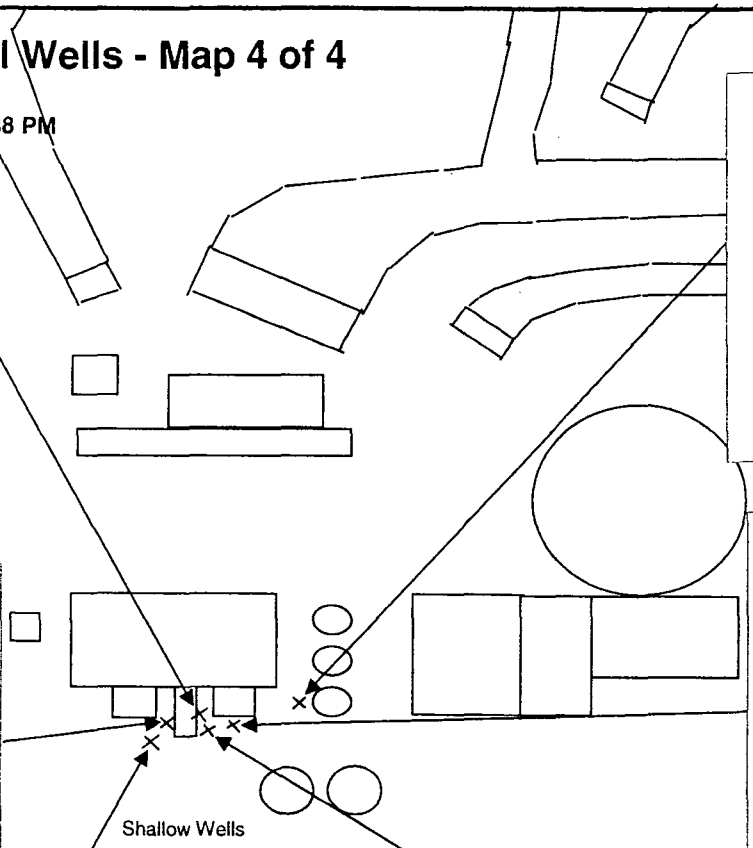












Cribhouse Leak - Map 1

Sample 1 of 6		Sample 2 of 6		Sample 2 of 6		Sample 3 of 6		Sample 4 of 6		Sample 5 of 6	
WWT Effluent		DSP-122		Sewer "X"		Cribhouse Leak		MW-DN-116-S		MW-DN-116-I	
Date	Activity	Date	Activity	Date	Activity	Date	Activity	Date	Activity	Date	Activity
01/02/07	346	10/24/06	2,600	09/29/04	8,000	09/03/07	30,000	08/09/06	431	08/09/06	4,150
01/09/07	422	01/02/07	900	09/05/07	900	09/04/07	33,000	05/10/07	345	10/20/06	4,220
01/16/07	409	01/10/07	2,700	09/07/07	4,200	09/05/07	40,000	09/14/07	400	05/10/07	4,390
01/23/07	245	01/18/07	1,600	09/07/07	1,500	09/06/07	52,000	09/19/07	300	09/14/07	4,300
01/30/07	444	01/22/07	1,500	09/19/07	5,300	09/07/07	50,900	09/27/07	300	09/19/07	5,300
02/06/07	362	02/12/07	2,100	09/26/07	700	09/08/07	58,600	10/02/07	500	09/27/07	4,200
02/13/07	200	03/03/07	2,300			09/09/07	64,400			10/02/07	4,300
02/20/07	218	03/12/07	2,000			09/10/07	55,400				
02/27/07	366	03/24/07	1,600			09/11/07	56,900				
03/06/07	124	03/31/07	4,000			09/12/07	56,600				
03/13/07	169	04/12/07	3,400			09/13/07	51,500				
03/20/07	213	04/19/07	3,500			09/14/07	51,000				
03/27/07	372	04/28/07	3,000			09/17/07	46,600				
04/03/07	209	05/02/07	3,400			09/18/07	38,400				
04/10/07	33	05/23/07	3,600			09/19/07	37,100				
04/17/07	120	05/30/07	2,400			09/20/07	27,500				
04/24/07	170	06/06/07	1,900								
05/01/07	197	06/14/07	4,200								
05/08/07	132	06/21/07	4,500								
05/15/07	201	06/29/07	4,400								
05/22/07	189	07/20/07	4,100								
05/29/07	102	08/04/07	4,100								
06/05/07	386	08/18/07	3,200								
06/12/07	459	08/29/07	5,100								
06/19/07	54	09/11/07	4,500								
06/26/07	136	09/18/07	4,100								
07/03/07	1,150	09/26/07	4,200								
07/10/07	1,400	10/01/07	5,200								
07/17/07	186	10/18/07	6,300								
07/24/07	165	11/10/07	6,300								
07/31/07	37	11/18/07	6,500								
09/06/07	100	11/30/07	4,600								
09/07/07	4,300	12/13/07	10,000								
09/08/07	200	01/10/08	4,200								
09/11/07	100										
09/13/07	100										
09/14/07	200										
09/17/07	300										
09/18/07	300										
09/19/07	0										
09/20/07	100										
09/21/07	1,400										

Groundwater Monitoring - Map 2

Sample 1 of 5				Sample 2 of 5				Sample 3 of 5		Sample 5 of 5	
MW-DN-124-S				MW-DN-124-I				DSP-124		E-4	
Date	Activity	Level	Level	Date	Activity	Level	Level	Date	Activity		Activity
12/14/06	49,400	3.00	3.00	12/14/06	103,200			04/13/06	8,000	01/11/07	700
01/05/07	77,000			01/05/07	123,000			04/14/06	8,200	01/18/07	500
01/11/07	83,100			01/11/07	118,100			04/24/06	3,700	01/22/07	300
01/18/07	81,700			1/18/2007	99,300			04/27/06	3,500	02/12/07	200
01/25/07	106,200			01/25/07	118,400			05/04/06	3,000	03/03/07	100
03/03/07	84,400			03/03/07	102,800			05/08/06	2,400	03/12/07	1,400
03/12/07	80,000			03/12/07	98,200			05/11/06	3,500	03/24/07	400
03/24/07	77,000			03/24/07	99,900			05/15/06	3,700	03/31/07	1,200
03/31/07	84,600			03/31/07	90,200			05/18/06	3,300	04/13/07	400
04/13/07	84,100			04/13/07	104,000			05/25/06	5,300	04/20/07	1,600
04/19/07	90,000			04/19/07	110,000			06/01/06	12,000	04/28/07	400
05/02/07	86,700			05/02/07	111,800			06/05/06	14,000	05/03/07	1,600
05/23/07	84,200			05/23/07	117,700			06/16/06	16,000	05/17/07	1,300
05/30/07	82,000			05/30/07	110,000			06/19/06	15,000	05/23/07	1,300
06/06/07	79,000			06/06/07	120,000			07/06/06	14,000	05/30/07	1,000
06/15/07	51,000			06/15/07	110,000			07/11/06	12,000	06/06/07	900
06/27/07	70,000			06/30/07	120,000			07/17/06	11,000	06/14/07	900
06/30/07	120,000			08/09/07	141,200			07/25/06	11,000	06/21/07	700
08/09/07	63,800			08/30/07	132,200			07/31/06	10,000	06/29/07	800
08/31/07	82,800			09/17/07	125,000			08/07/06	11,000	07/07/07	1,100
09/17/07	23,700			10/02/07	125,000			09/18/06	11,000	07/11/07	600
10/02/07	120,000			10/19/07	93,000			09/29/06	9,400	07/24/07	700
10/18/07	130,000			11/29/07	120,000			10/04/06	8,000	08/04/07	400
11/18/07	120,000							10/10/06	6,900	08/18/07	600
11/30/07	130,000							10/16/06	9,300	10/01/07	300
12/14/07	95,000							10/23/06	5,600	11/10/07	1,700
								10/27/06	6,100	11/18/07	1,100
								11/02/06	6,300	12/18/07	2,800
								11/09/06	8,867		
								12/03/06	10,000		
								12/13/06	13,000		
								12/27/06	16,000		
								01/02/07	16,000		
								01/10/07	17,600		
								01/18/07	17,800		
								01/22/07	22,300		
								02/12/07	22,900		
								03/03/07	26,500		
								03/12/07	22,900		
								03/24/07	16,800		
								03/31/07	16,700		
								04/12/07	24,600		
								04/19/07	24,000		
								04/24/07	24,600		
								04/28/07	20,000		
								05/02/07	20,100		
								05/23/07	27,700		
								05/30/07	27,000		
								06/06/07	27,000		
								06/14/07	16,000		
								06/21/07	19,000		
								06/30/07	27,000		
								07/12/07	22,000		
								07/20/07	27,000		
								08/04/07	20,000		
								08/18/07	24,000		
								08/27/07	26,000		
								09/12/07	18,700		
								10/01/07	17,000		
								10/18/07	23,000		
								11/10/07	25,000		
								11/18/07	23,000		
								11/30/07	23,000		
								12/13/07	17,000		
								01/10/08	17,800		

Sewers - Map 3

Sample 1 of 2		Sample 2 of 2	
DSP-131		DSP-132	
Date	Activity	Date	Activity
04/13/06	800	03/03/06	710
04/17/06	1,000	04/13/06	700
04/24/06	800	04/17/06	1,000
04/27/06	600	04/24/06	600
05/04/06	1,100	04/27/06	1,100
05/08/06	500	05/04/06	1,100
05/11/06	1,200	05/08/06	600
05/15/06	460	05/11/06	300
05/18/06	500	05/15/06	460
05/25/06	1,100	05/18/06	300
06/01/06	900	05/25/06	500
06/05/06	700	06/01/06	600
06/08/06	900	06/05/06	500
06/15/06	700	06/08/06	700
06/19/06	700	06/15/06	700
07/06/06	500	06/19/06	600
07/11/06	700	07/06/06	1,700
07/17/06	700	07/11/06	700
07/25/06	1,100	07/17/06	1,100
07/31/06	900	07/25/06	1,100
07/31/06	800	07/31/06	750
08/07/06	1,000	08/03/06	500
08/15/06	700	08/07/06	1,000
08/23/06	600	08/15/06	900
08/31/06	600	08/23/06	600
09/07/06	900	08/31/06	800
09/12/06	500	09/07/06	700
09/22/06	300	09/12/06	600
09/29/06	200	09/22/06	700
10/03/06	1,100	09/29/06	400
10/10/06	500	10/03/06	1,100
10/16/06	400	10/10/06	500
10/26/06	300	10/16/06	600
10/31/06	400	10/23/06	400
11/09/06	300	10/31/06	900
12/15/06	700	11/09/06	900
12/27/06	100	12/02/06	400
01/02/07	400	12/27/06	200
01/10/07	300	01/02/07	300
01/18/07	200	01/10/07	500
01/22/07	600	01/18/07	300
02/09/07	100	01/22/07	100
03/03/07	500	02/12/07	300
03/12/07	700	03/03/07	0
03/24/07	400	03/12/07	900
03/31/07	1,100	03/24/07	2,100
04/06/07	100	03/31/07	2,500
04/12/07	1,500	04/12/07	200
04/18/07	800	04/18/07	300
04/28/07	900	04/28/07	500
05/03/07	1,000	05/03/07	1,000
05/07/07	900	05/07/07	1,300
05/23/07	1,100	05/23/07	600
05/30/07	700	05/30/07	2,600
06/06/07	500	06/06/07	700
06/14/07	900	06/14/07	500
06/21/07	1,500	06/21/07	600
06/29/07	600	06/29/07	800
07/05/07	800	07/05/07	300
07/11/07	500	07/11/07	700
07/19/07	500	07/19/07	600
08/04/07	200	08/04/07	600
08/18/07	200	08/18/07	500
09/13/07	500	09/13/07	800
10/01/07	200	10/01/07	100
10/17/07	1,200	10/17/07	2,500
11/30/07	500	11/30/07	1,400
12/13/07	700	12/13/07	1,100
01/09/08	800	01/09/08	1,500

Conversion to picoCi / L from uCi/L is multiply uCi/L result form DCP 3220-01, Data Sheet 2 times 1E9.

Sentinel Wells - Map 4

Sample 1 of 6				Sample 2 of 6				Sample 3 of 6				Sample 4 of 6				Sample 5 of 6				Sample 6 of 6			
E-7				R-1				T-5				T-6				W-3				W-2R			
Date	Activity	Level	Level	Date	Activity	Level	Level	Date	Activity	Level	Level	Date	Activity	Level	Level	Date	Activity	Level	Level	Date	Activity	Level	Level
04/10/06	1,800			07/14/06	9,300			04/17/06	55,000			02/20/06	56,000			01/03/06	7,000			01/03/06	93,000		
04/14/06	300			07/17/06	12,000			01/02/07	5,900			04/13/06	220,000			01/31/06	21,000			01/31/06	60,000		
04/24/06	400			07/25/06	19,000			01/10/07	4,300			04/14/06	220,000			03/08/06	66,800		6.65	02/13/06	63,800	7.22	2.78
05/04/06	1,100			07/31/06	2,650			01/18/07	4,000			04/17/06	110,000			04/03/06	120,600			03/30/06	99,400	5.53	4.47
05/08/06	900			08/07/06	1,700			01/22/07	5,900			04/19/06	190,000			04/04/06	159,200			03/31/06	97,100	5.54	4.46
05/11/06	700			08/15/06	6,500			02/12/07	8,400			04/21/06	9,800			04/07/06	224,200		7.58	04/01/06	123,400	5.32	4.68
05/15/06	500			08/23/06	3,000			03/03/07	3,400			04/21/06	5,800			04/20/06	224,500		7.30	04/02/06	121,200	5.30	4.70
05/18/06	900			09/12/06	6,100			03/12/07	3,000			04/24/06	170,000			04/21/06	228,700		7.83	04/03/06	121,400		
05/25/06	700			09/22/06	1,500			03/24/07	2,300			04/27/06	130,000			04/24/06	113,100		7.76	04/04/06	104,300	4.62	5.38
06/02/06	300			09/29/06	60,000			03/31/07	2,700			05/04/06	39,000			04/24/06	110,000		7.87	04/05/06	105,800	5.50	4.50
06/05/06	300			11/03/06	31,000			04/13/07	3,500			05/08/06	64,000			04/27/06	265,000		7.13	04/06/06	88,200	5.48	4.52
06/08/06	1,200			11/09/06	19,000			04/18/07	3,700			05/15/06	9,100			05/08/06	220,000		7.64	04/07/06	120,600	5.44	4.56
06/15/06	300			12/03/06	600			04/28/07	4,100			05/18/06	5,100			05/11/06	280,000			04/08/06	141,100	5.25	4.75
06/19/06	400			12/13/06	21,000			05/02/07	3,500			05/25/06	160,000			05/15/06	98,000		6.79	04/09/06	155,600	5.15	4.85
07/06/06	500			12/15/06	25,000			05/17/07	3,000			06/02/06	22,000			05/18/06	52,000		6.92	04/10/06	103,500		
07/11/06	800			12/27/06	21,200			05/23/07	3,100			06/05/06	140,000			05/25/06	180,000			04/14/06	91,000	5.00	5.00
07/25/06	1,100			01/02/07	17,900			05/30/07	3,400			06/08/06	160,000			06/01/06	70,000			04/17/06	88,000	5.79	4.21
07/31/06	1,950			01/11/07	26,400			06/06/07	4,200			06/15/06	120,000			06/05/06	65,000			04/19/06	93,000		
08/07/06	1,000			01/18/07	10,800			06/14/07	4,600			06/19/06	86,000			06/08/06	250,000			04/24/06	61,000	5.60	4.40
08/23/06	200			01/22/07	15,300			06/21/07	5,000			07/06/06	3,900			06/15/06	13,000			04/27/06	84,000	5.30	4.70
08/31/06	200			02/09/07	13,300			06/29/07	3,300			07/14/06	13,000			06/19/06	180,000			05/04/06	53,000	5.22	4.78
09/07/06	200			03/03/07	900			07/05/07	2,700			07/17/06	7,300			07/06/06	140,000			05/08/06	67,000	5.66	4.34
09/12/06	200			03/12/07	3,800			07/11/07	2,400			07/25/06	7,000			07/11/06	80,000			05/11/06	87,000	5.45	4.55
09/22/06	500			03/24/07	200			07/19/07	2,000			07/31/06	5,150			07/17/06	66,000			05/15/06	47,000		
09/29/06	0			03/31/07	300			08/04/07	1,600			08/03/06	5,800			07/31/06	18,000			05/18/06	28,000		4.00
10/03/06	1,100			04/10/07	11,300			08/18/07	1,500			08/07/06	4,700			08/02/06	19,000			05/25/06	49,000		3.62
10/16/06	300			04/13/07	400			08/27/07	1,300			08/15/06	5,000			08/03/06	31,000			06/01/06	20,000		
10/26/06	1,600			04/18/07	600			09/14/07	5,600			08/23/06	3,800			08/07/06	41,000			06/06/06	22,000		
11/03/06	500			04/28/07	13,000			10/01/07	3,600			09/12/06	81,000			08/23/06	29,000			06/08/06	39,000		
11/09/06	1,100			05/03/07	8,100			10/17/07	4,600			09/18/06	11,000			09/18/06	6,300			06/15/06	290,000		
12/03/06	200			05/17/07	9,100			12/13/07	2,300			10/06/06	52,000			09/29/06	26,000			06/19/06	46,000		
12/15/06	300			05/23/07	8,800							10/16/06	36,000			10/04/06	38,000			07/06/06	17,000		
12/27/06	1,000			05/30/07	12,000							11/03/06	1,700			10/10/06	49,000			07/11/06	19,000		
01/03/07	500			06/06/07	12,000							11/09/06	2,800			10/16/06	54,000			07/17/06	14,000		
01/11/07	200			06/14/07	11,000							12/27/06	1,700			10/27/06	36,000			07/25/06	8,300		
01/18/07	100			06/21/07	11,000							01/02/07	1,300			11/02/06	39,000			07/31/06	16,000		
01/22/07	0			06/29/07	9,700							01/10/07	2,600			11/10/06	34,000			08/02/06	16,000		
02/12/07	100			07/07/07	9,600							01/18/07	2,300			12/03/06	27,000			08/03/06	15,000		
3/3/2007	0			07/11/07	9,300							01/22/07	2,900			12/15/06	21,000			08/07/06	11,000		
03/12/07	400			07/19/07	8,600							02/12/07	2,100			12/27/06	27,000			08/23/06	9,800		
03/24/07	400			08/04/07	5,700							03/03/07	2,700			01/02/07	27,000			09/18/06	9,000		
03/31/07	600			08/18/07	5,700							03/12/07	3,900			01/10/07	32,300			09/29/06	20,000		
04/10/07	400			08/27/07	7,800							03/24/07	2,500			01/18/07	36,900			10/04/06	33,000		
04/13/07	200			09/13/07	7,400							03/31/07	3,400			01/22/07	33,100			10/10/06	36,000		
04/18/07	500			10/01/07	1,300							04/06/07	5,900			02/12/07	17,100			10/16/06	35,000		
04/28/07	900			10/17/07	6,600							04/12/07	2,100			03/03/07	30,900			10/27/06	19,000		
05/03/07	400			11/30/07	2,400							04/18/07	2,400			03/12/07	23,500			11/02/06	17,000		
05/17/07	300			12/13/07	5,400							04/28/07	2,900			03/24/07	23,700			11/10/06	8,800		
05/23/07	300			01/09/07	1,300							05/02/07	2,800			03/31/07	17,800			12/03/06	3,600		
05/30/07	300											05/17/07	3,300			04/06/07	29,000			12/27/06	3,900		
06/06/07	400											05/23/07	3,300			04/12/07	30,100			01/02/07	3,600		
06/14/07	700											05/30/07	3,300			04/18/07	30,000			01/10/07	4,100		
06/21/07	400											06/06/07	3,300			04/28/07	27,000			01/18/07	3,400		
06/29/07	300											06/14/07	3,200			05/02/07	29,800			01/22/07	4,600		
07/07/07	600											06/21/07	3,500			05/23/07	14,800			03/03/07	3,400		
07/12/07	400											06/29/07	4,600			05/30/07	17,000			03/12/07	4,000		
08/18/07	200											07/05/07	4,100			06/06/07	9,900			03/24/07	3,200		
10/01/07	0											07/11/07	3,000			06/14/07	10,000			03/31/07	3,600		
10/17/07	5,500											07/19/07	2,800			06/21/07	7,600			04/12/07	4,200		
11/10/07	460											07/31/07	2,000			06/30/07	7,100			04/18/07	4,400		
12/13/07	1,800											08/04/07	1,900			07/05/07	11,000			04/28/07	3,600		
												08/18/07	1,900			07/11/07	14,000			05/02/07	3,400		
												08/27/07	2,600			07/19/07	11,000			05/23/07	2,800		
												09/13/07	1,700			07/31/07	11,000			05/30/07	2,500		
												10/01/07	1,800			08/04/07	12,000			06/06/07	2,200		
												10/17/07	3,300			08/18/07	8,300			06/14/07	2,500		
												11/30/07	1,800			08/27/07	13,000			06/21/07	1,800		
												01/09/08	2,200			09/13/07	14,800			06/30/07	1,400		
												02/05/08	5,600			10/01/07	2,400			07/05/07	3,000		
																10/17/07	6,700			07/11/07	2,200		
																11/10/07	10,350			07/19/07	1,600		
																12/13/07	12,000			07/31/07	1,500		
																01/09/08	3,700			08/04/07	1,800		
																02/05/08	12,000			08/18/07	1,300		
																				08/27/07	1,200		
																				09/13/07	1,400		
																				10/01/07	1,000		
																				10/17/07	2,700		
																				11/10/07	1,333		
																				12/13/07	1,400		
																				01/09/08	1,200		
																				02/05/08	2,500		

Additional Wells

1.00E-06 1.E+09 1000

Sample 1 of 5		Sample 2 of 5		Sample 3 of 5		Sample 4 of 5		Sample 5 of 5	
Unit 2 IsoCondenser		Unit 3 IsoCondenser		2/3 Cable Tunnel		CST Tank		HBSS Ventilation	
Date	Activity	Date	Activity	Date	Activity	Date	Activity	Date	Activity
05/26/06	8,500	05/26/06	4,000	06/13/06	767,000	02/14/06	7,380,800	10/22/07	62,600
05/30/06	11,000	05/30/06	4,100	07/10/06	40,000	02/15/06	7,359,800	10/22/07	45,900
06/02/06	10,000	06/02/06	3,900	07/28/06	28,000			10/23/07	16,100
06/07/06	4,400	06/07/06	4,400	01/03/07	21,000				
06/15/06	8,300	06/15/06	2,500	06/22/07	17,000				
06/22/06	9,400	06/22/06	2,000	09/10/07	4,500				
07/05/06	400	07/07/06	2,100	01/30/08	110,000				
07/07/06	1,900	07/20/06	2,200						
07/10/06	2,500	08/15/06	2,100						
07/14/06	2,900	09/15/06	2,400						
07/20/06	3,100	10/18/06	2,700						
07/28/06	2,400	11/19/06	300						
08/04/06	1,400	11/24/06	800						
08/15/06	1,800	12/19/06	460						
08/25/06	1,100	02/13/07	1,000						
09/08/06	1,400	03/20/07	750						
09/15/06	1,600	04/17/07	1,100						
09/19/06	1,000	05/15/07	400						
09/27/06	2,150	06/19/07	400						
10/18/06	1,500	07/17/07	100						
11/19/06	1,200	08/14/07	600						
12/19/06	460	09/18/07	500						
01/16/07	1,100	10/16/07	1,000						
02/13/07	1,400	11/13/07	700						
03/20/07	2,300	12/18/07	700						
04/17/07	1,700	01/15/08	400						
05/09/07	1,400								
05/10/07	400								
05/15/07	200								
06/19/07	200								
07/17/07	1,500								
08/14/07	2,700								
09/18/07	2,700								
10/16/07	2,400								
11/13/07	1,400								
12/18/07	1,300								
01/15/08	550								

Dresden Radiological Groundwater Protection Program (RGPP)

S = Shallow Depth Screened Well (20 to 25 ft)

I = Intermediate Depth Screened Well (35 to 55 ft)
M = Medium Depth Screened Well (35 to 55 ft)

I. Groundwater Wells - Inside the Protected Area

Total Wells: 39

A. East-side of the Plant:

		Well #	Type	Casing Size	Well Depth	Depth to Water	* Tritium (pCi/L)	
1	1	DSP-105	1 ft stand	4"	51.53	10.26	300	30 ft east of the East wall of the EM Shop
2	2	DSP-106	2 ft stand	4"	50.76	9.48	2,500	65 ft E of East wall of EM Shop
3	3	MW-DN-118-S	Flush Mount	2"	31.13	6.8	3,200	SE Corner of the Unit 1 Fuel Pool
4	4	DSP-151	4 ft Stand	2"	51.61	7.73	< 200	65 ft North of the NE Corner of the Storeroom
5	5	MW-DN-105-S	Flush Mount	2"	19.76	4.91	< 200	65 ft North of the NE Corner of the Storeroom
6	6	DSP-150	3 ft Stand	2"	51.22	10.62	< 200	85 ft E of NE corner of U1 Spent Fuel Pad
7	7	DSP-107	2 ft Stand	4"	51.81	13.25	7,500	9 ft E of the E Unit 1 Fuel Pool wall
8	8	DSP-108	2 ft Stand	4"	51.8	13.01	2,200	40 ft E of the Unit 1 Sphere
9	9	MW-DN-119-I	Flush Mount	2"	42.3	11.37	1,800	20 ft E by NE of the Unit 1 Sewage Ejector Building
10	10	MW-DN-119-S	Flush Mount	2"	20.68	9.88	< 200	21 ft E by NE of the Unit 1 Sewage Ejector Building

B. South-side of the Plant:

		Well #	Type	Casing Size	Well Depth	Depth to Water	* Tritium (pCi/L)	
11	1	MW-DN-124-I	Flush Mount	2"	50.29	3.14	120,000	11 ft S of Liquid Nitrogen Tank
12	2	MW-DN-124-S	Flush Mount	2"	31.1	2.8	120,000	12 ft S of Liquid Nitrogen Tank
13	3	MW-DN-102-I	Flush Mount	2"	48.66	1.78	< 200	12 ft S of the SE corner of the MUDS Bld
14	4	MW-DN-102-S	Flush Mount	2"	14.66	3.18	250	13 ft S of the SE corner of the MUDS Bld
15	5	MW-DN-113-I	Flush Mount	2"	47.26	3.91	< 200	90 ft W of the SW corner of the Administration Bld
16	6	MW-DN-113-S	Flush Mount	2"	11.00	2.53	< 200	91 ft W of the SW corner of the Administration Bld
17	7	MW-DN-107-S	Flush Mount	2"	6.08	5.23	300	15 ft W by SW of Unit 1 CST
18	8	DSP-125	3 ft Stand	2"	37.34	7.07	300	NE corner of the Unit 2/3A CST
19	9	MW-DN-114-I	Flush Mount	2"	52.76	8.32	7,900	50 ft E of the Unit 1 Clean Demin Tank
20	10	MW-DN-114-S	Flush Mount	2"	40.88	8.98	1,100	8 ft SW of the RP West access doors
21	11	MW-DN-115-I	Flush Mount	2"	55.6	7.66	< 200	11 ft South of IM Shop
22	12	MW-DN-115-S	Flush Mount	2"	29.88	7.37	< 200	12 ft South of IM Shop

C. West-side of the Plant:

		Well #	Type	Casing Size	Well Depth	Depth to Water	* Tritium (pCi/L)	
23	1	MW-DN-110-I	Flush Mount	2"	51.27	7.76	400	25 ft W of WWT Building
24	2	MW-DN-110-S	Flush Mount	2"	20.14	5.84	< 200	25 ft W of WWT Building
25	3	MW-DN-109-I	Flush Mount	2"	50.15	6.4	1,100	8 ft N of Chemistry Building
26	4	MW-DN-109-S	Flush Mount	2"	20.18	9.09	300	8 ft N of Chemistry Building
27	5	DSP-124	3 ft Stand	2"	37.09	6.71	20,000	9 ft S of Floor Drain Collector Tank
28	6	MW-DN-111-S	Flush Mount	2"	20.14	4.62	800	9 ft E of Floor Drain Collector Tank
29	7	MW-DN-112-I	Flush Mount	2"	42.34	4.98	1,400	100 Ft S of Chemistry Bld
30	8	MW-DN-112-S	Flush Mount	2"	11.67	3.12	< 200	100 Ft S of the Chemistry Bld

D. North-side of the Plant:

		Well #	Type	Casing Size	Well Depth	Depth to Water	* Tritium (pCi/L)	
31	1	MW-DN-101-I	4 ft Stand	2"	53.5	15.83	2,400	60 ft N of the Unit 1 Diesel Fuel Storage
32	2	MW-DN-101-S	4 ft Stand	2"	23.65	4.59	< 200	60 ft N of the Unit 1 Diesel Fuel Storage
33	3	DSP-123	3 ft Stand	2"	52.4	14.8	12,200	NE corner of the Unit 1 Off-gas Bld
34	4	MW-DN-117-I	Flush Mount	2"	47.21	13.02	300	35 ft E by NE of the Unit 1 Stack
35	5	MW-DN-108-I	Flush Mount	1"	49.9	12.52	< 200	7 ft SW of the SW Corner of the Unit 1 Cribhouse
36	6	MW-DN-116-I	Flush Mount	2"	45.51	12.43	4,400	75 ft S of Calgon Bld Roll-up door
37	7	MW-DN-116-S	Flush Mount	2"	27.65	12.43	300	76 ft S of Calgon Bld Roll-up door
38	8	DSP-122	3 ft Stand	2"	37.06	10.61	4,100	N of Radwaste Tank Farm
39	9	MW-DN-104-S	Flush Mount	2"	19.81	7.54	300	N of Radwaste Tank Farm

* Result within the last three months

Dresden Radiological Groundwater Protection Program (RGPP)

S = Shallow Depth Screened Well (20 to 25 ft)
I = Intermediate Depth Screened Well (35 to 55 ft)
M = Medium Depth Screened Well (35 to 55 ft)

II. Groundwater Wells - Outside the Protected Area

Total Wells: 26

A. East-side of the Plant:

		Well #	Type	Casing Size	Well Depth	Depth to Water	* Tritium (pCi/L)	
1	1	DSP-152	4 ft Stand	2"	52.66	6.36	< 200	210 ft S by SE of SE Corner of Maint. Garage

B. South-side of the Plant:

		Well #	Type	Casing Size	Well Depth	Depth to Water	* Tritium (pCi/L)	
2	1	DSP 158-I (M)	4 ft Stand	2"	59.28	5.85	< 200	53 ft W of Kankakee; 33 ft W of cinder track
3	2	DSP 158-S	4 ft Stand	2"	15.26	6.29	< 200	50 ft W of Kankakee; 30 ft W of cinder track
4	3	DSP-154	4 ft Stand	2"	52.09	7.1	< 200	33 ft W of track; 165 ft E of Security Check point
5	4	DSP-153	3 ft Stand	2"	52.25	9.71	< 200	150 ft E of SE corner of liquid H2 fence
6	5	DSP 157-I (M)	4 ft Stand	2"	50.54	13.49	< 200	25 ft S of S edge of Employee Parking lot
7	6	DSP 157-S	4 ft Stand	2"	15.75	6.23	< 200	25 ft S of S edge of Employee Parking lot
8	7	DSP 159-I (M)	4 ft Stand	2"	61.47	11.8	600	250 ft W of Thorsen; 450 ft S of access gate
9	8	DSP 159-S	4 ft Stand	2"	18.3	10.62	< 200	251 ft W of Thorsen; 450 ft S of access gate
10	9	MW-DN-123-I	3 ft Stand	2"	46.34	6.11	< 200	400 ft W of Thorsen; W of Cold Canal
11	10	MW-DN-123-S	3 ft Stand	2"	20.85	13.67	< 200	400 ft W of Thorsen; W of Cold Canal

D. West-side of the Plant:

		Well #	Type	Casing Size	Well Depth	Depth to Water	* Tritium (pCi/L)	
12	1	MW-DN-121-S	4 ft Stand	2"	26.82	8.2	< 200	7 ft W of dirt road; 42 ft E of 345KV fence
13	2	MW-DN-103-I	4 ft Stand	2"	44.11	12	400	280 ft W of NW corner of N-GET Bld
14	3	MW-DN-103-S	4 ft Stand	2"	23.6	12.72	< 200	281 ft W of NW corner of N-GET Bld
15	4	DSP-126	2 ft Stand	2"	55.89	14.15	< 200	21 ft NW of NW bend in road behind training Bld
16	5	MW-DN-122-I	3 ft Stand	2"	45.95	12.71	< 200	NE of G.E. Facility; 150 ft N of Heineke Road
17	6	MW-DN-122-S	3 ft Stand	2"	14.31	5.72	< 200	NE of G.E. Facility; 150 ft N of Heineke Road

E. North-side of the Plant:

		Well #	Type	Casing Size	Well Depth	Depth to Water	* Tritium (pCi/L)	
18	1	MW-DN-120-I	3 ft Stand	2"	60.52	6.25	< 200	45 ft N by NE of Ross Bridge railing
19	2	MW-DN-120-S	3 ft Stand	2"	40.33	6.05	< 200	46 ft N by NE of Ross Bridge railing
20	3	DSP-117	2 ft Stand	4"	51.77	11.67	< 200	NE of Unit 1 Sphere; 825 ft W of Ross Bridge
21	4	MW-DN-106-S	4 ft Stand	2"	23.22	11.35	< 200	75 ft N of 2/3 Intake Canal fence
22	5	DSP-121	3 ft Stand	2"	52.18	11.4	< 200	72 ft N of 2/3 Intake Canal fence
23	6	DSP-149 (R)	3 ft Stand	2"	52.2	12.91	500	35 ft S by SW of the 138 KV yard fence
24	7	DSP-156	3 ft Stand	2"	52.56	12.76	< 200	70 ft E by NE of NW corner of 138 KV fence
25	8	DSP-148	3 ft Stand	2"	51.45	12.42	300	130 ft SE of the Flow Reg Station Breaker Bld
26	9	DSP-147	3 ft Stand	2"	51.95	18.42	< 200	325 ft W of Telemetry Bridge

III. Surface Water - Outside the Protected Area

Total Wells: 6

A. North-side of the Plant:

		Surface Water #	Type	Casing Size	Well Depth	Depth to Water	* Tritium (pCi/L)	
1	1	SW-DN-101	N/A	N/A	N/A	N/A	< 200	Unit 2/3 Intake (DSP50) - Ross Bridge
2	2	SW-DN-102	N/A	N/A	N/A	N/A	< 200	Unit 2/3 Discharge (DSP20) - Telemetry Bridge
3	3	SW-DN-103	N/A	N/A	N/A	N/A	< 200	Unit 2/3 Return Canal [From Discharge to Intake]

D. West-side of the Plant:

		Surface Water #	Type	Casing Size	Well Depth	Depth to Water	* Tritium (pCi/L)	
4	1	SW-DN-104	N/A	N/A	N/A	N/A	< 200	Cold Canal (DSP34A) - Cooling Tower Walkway
5	2	SW-DN-105	N/A	N/A	N/A	N/A	250	Hot Canal (DSP34B) - Cooling Tower Walkway

B. South-side of the Plant:

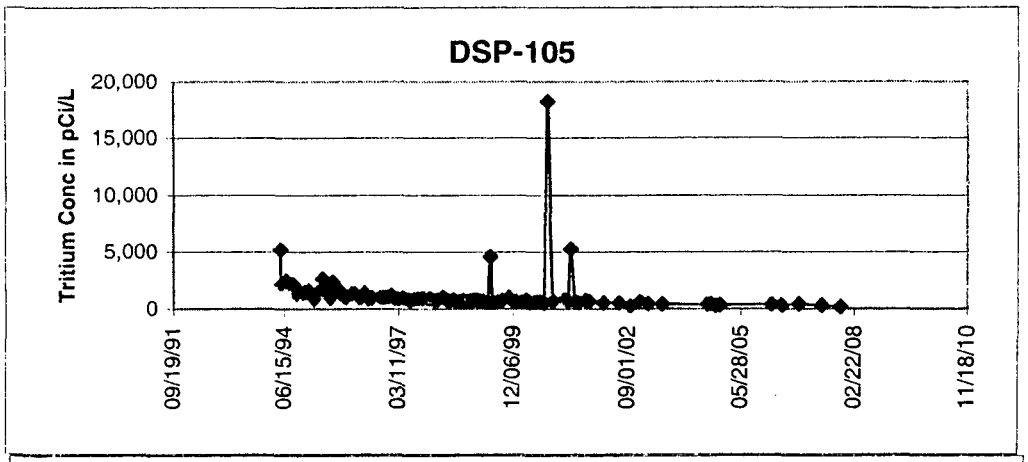
		Surface Water #	Type	Casing Size	Well Depth	Depth to Water	Tritium (pCi/L)	
6	1	SW-DN-106	N/A	N/A	N/A	N/A	< 200	Cooling Pond - Pool II - E side of Covered Bridge

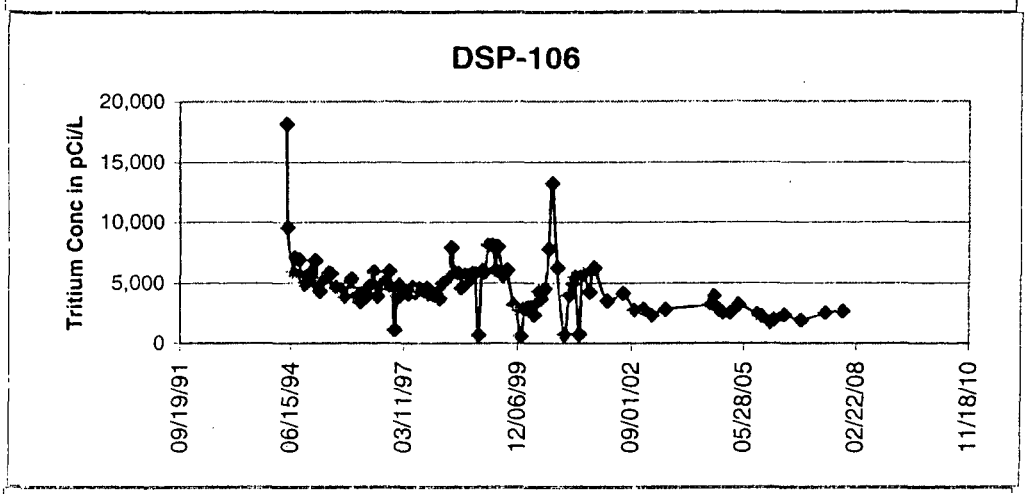
* Result within the last three months

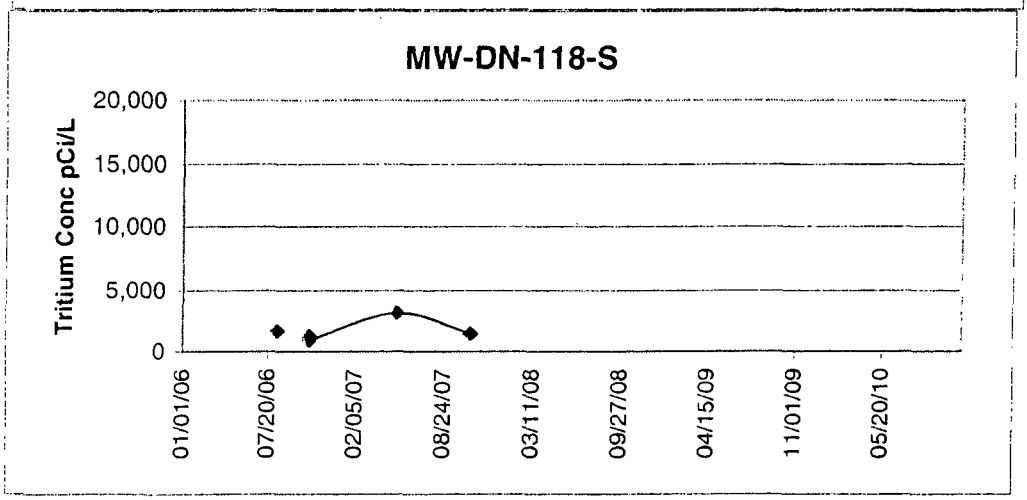
Radioactive Groundwater Protection Program (RGPP)

Wells Inside P.A. - East-side of Plant

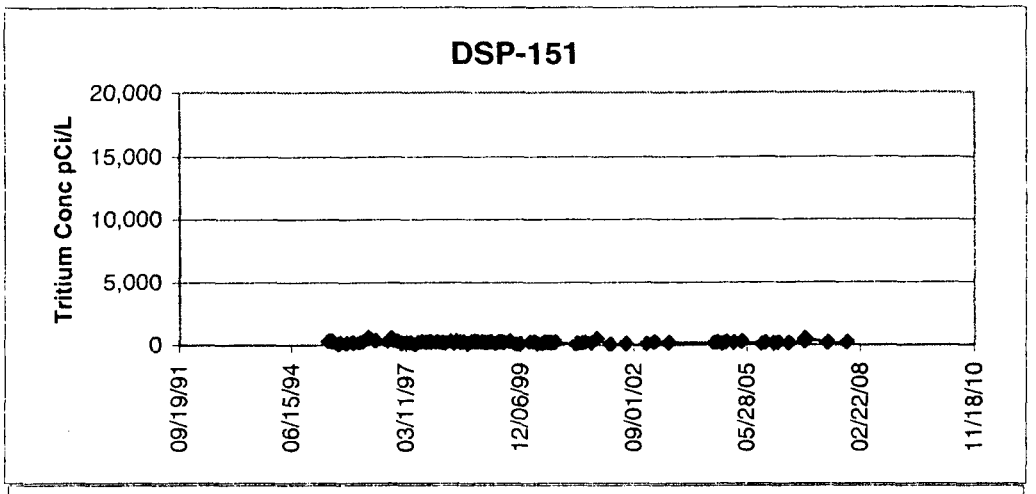
1 DSP-105
2 DSP-106
3 MW-DN-118-S
4 DSP-151
5 MW-DN-105-S
6 DSP-150
7 DSP-107
8 DSP-108
9 MW-DN-119-I
10 MW-DN-119-S

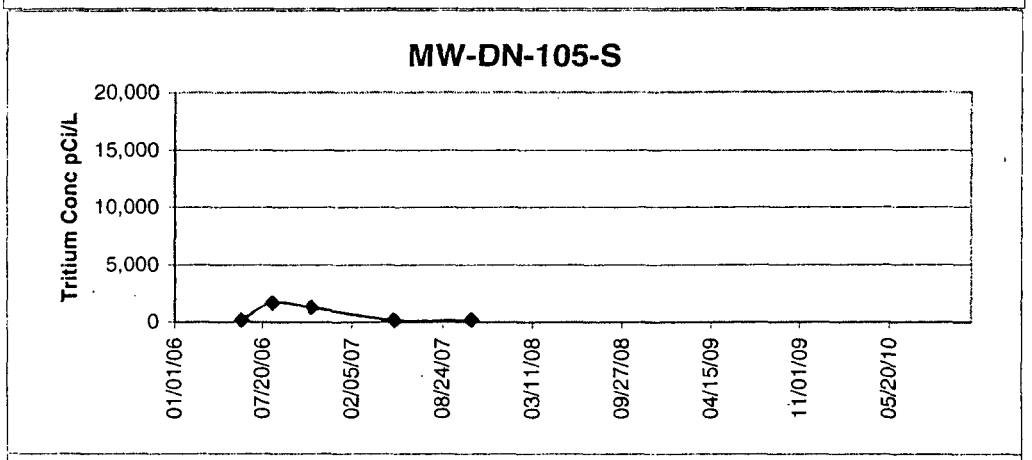


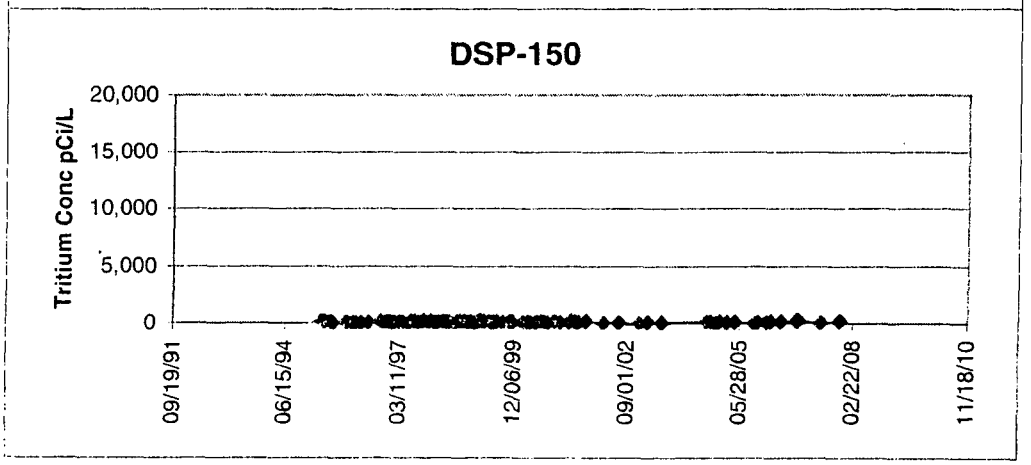




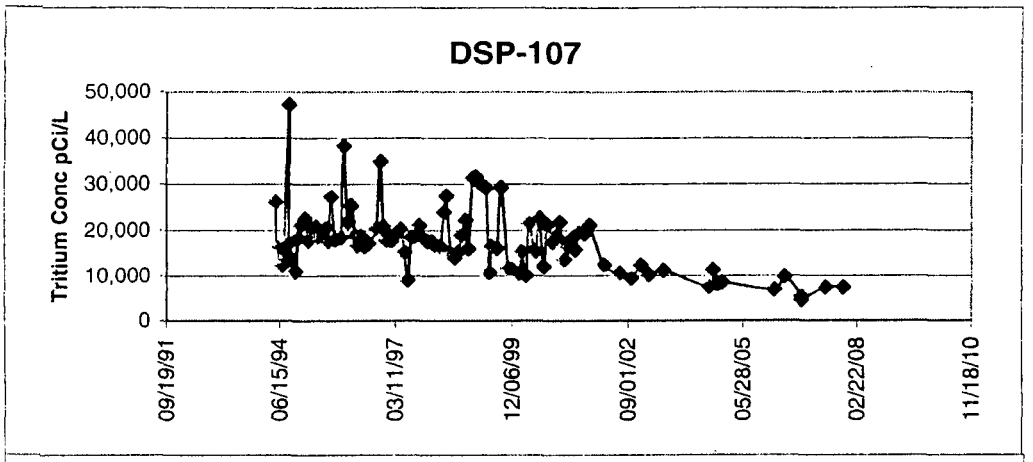
Radioactive Groundwater Protection Program (RGPP) - (continued)
Wells Inside P.A. - East-side of Plant

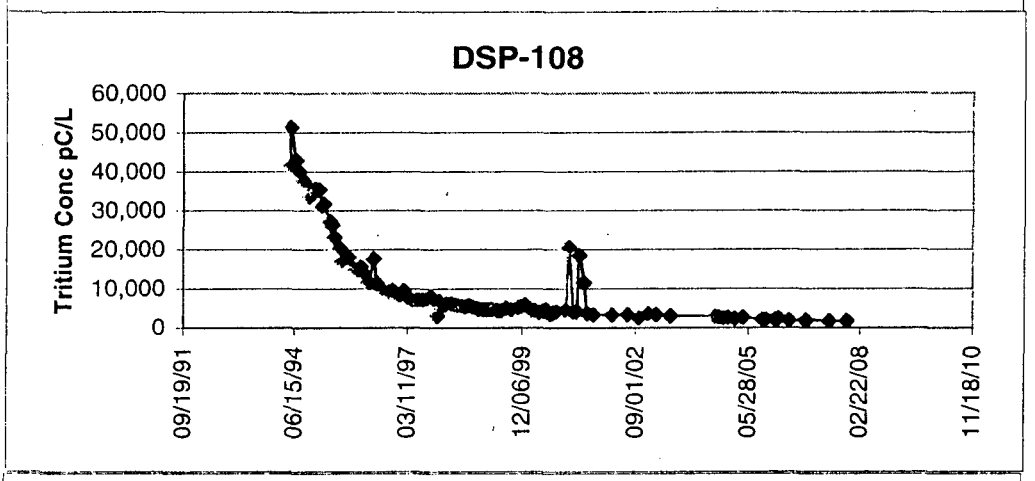


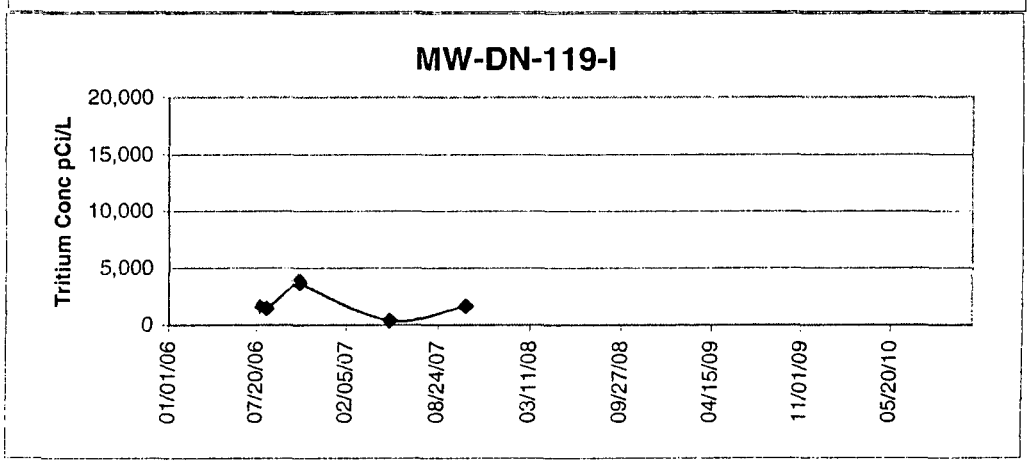




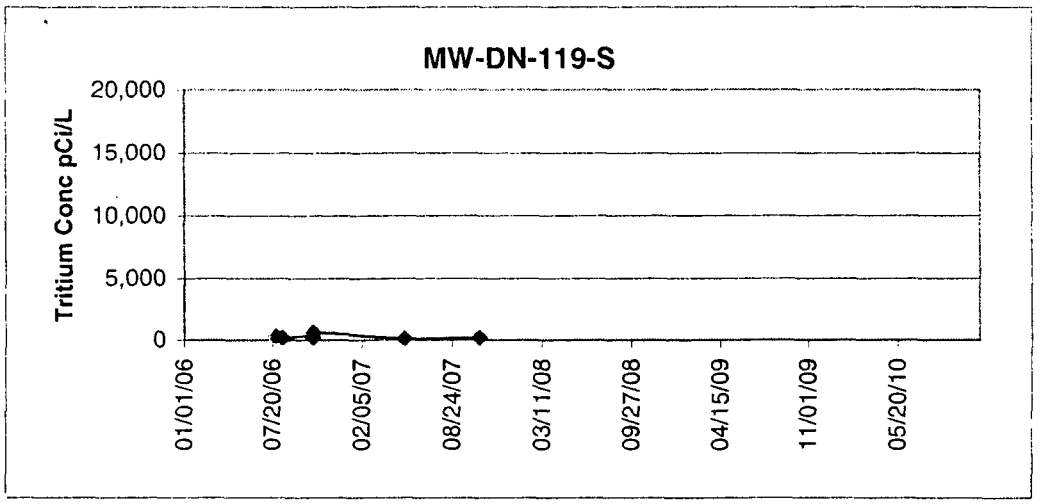
Radioactive Groundwater Protection Program (RGPP) - (continued)
Wells Inside P.A. - East-side of Plant







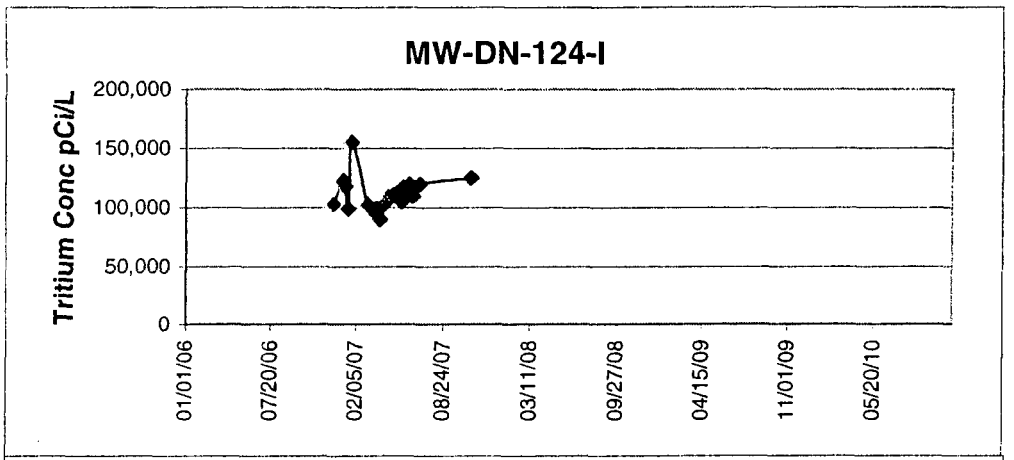
Radioactive Groundwater Protection Program (RGPP) - (continued)
Wells Inside P.A. - East-side of Plant

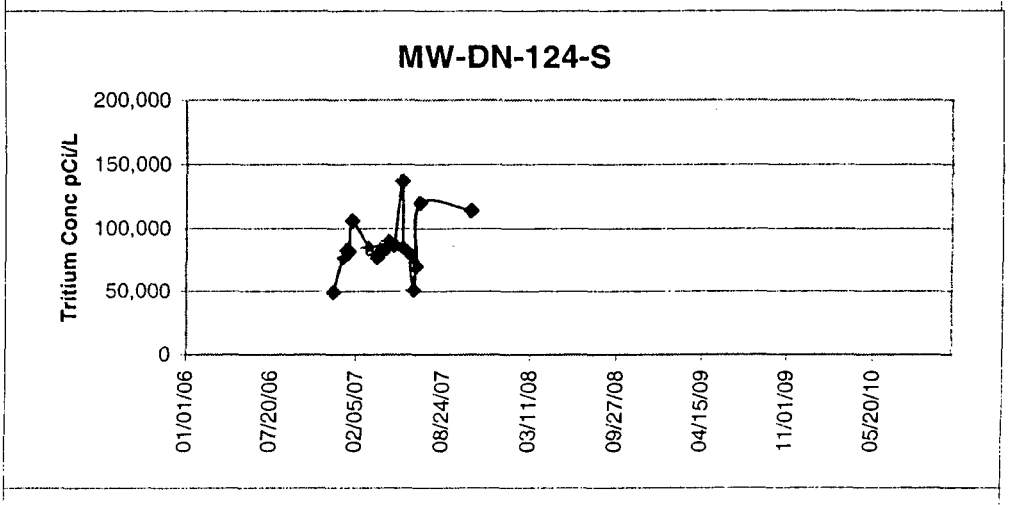


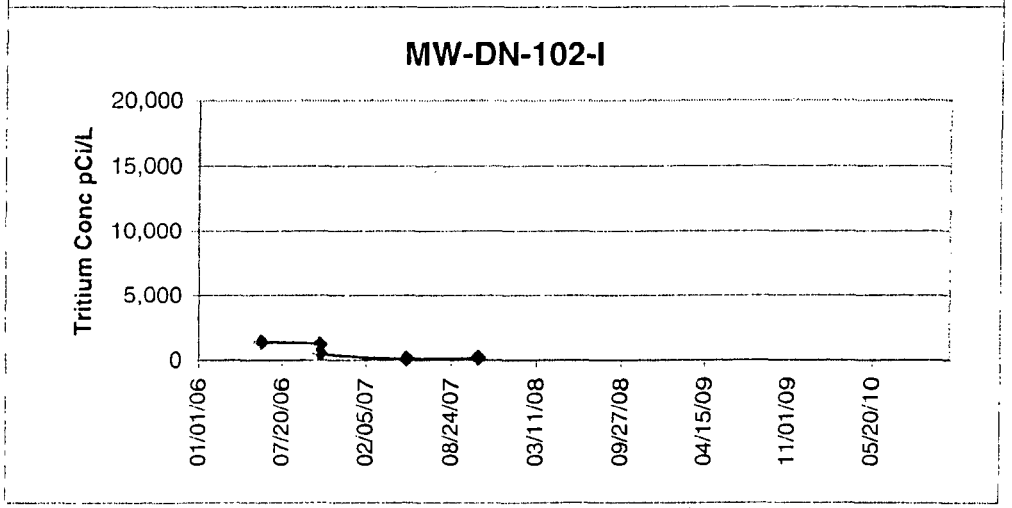
Radioactive Groundwater Protection Program (RGPP)

Wells Inside P.A. - South-side of Plant

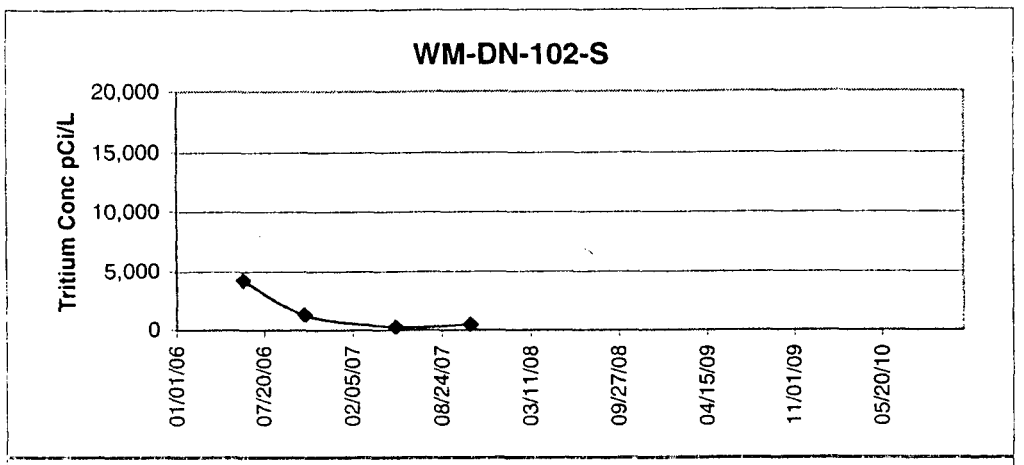
1 MW-DN-124-I
2 MW-DN-124-S
3 MW-DN-102-I
4 MW-DN-102-S
5 MW-DN-113-I
6 MW-DN-113-S
7 MW-DN-107-S
8 DSP-125
9 MW-DN-114-I
10 MW-DN-114-S
11 MW-DN-115-I
12 MW-DN-115-S

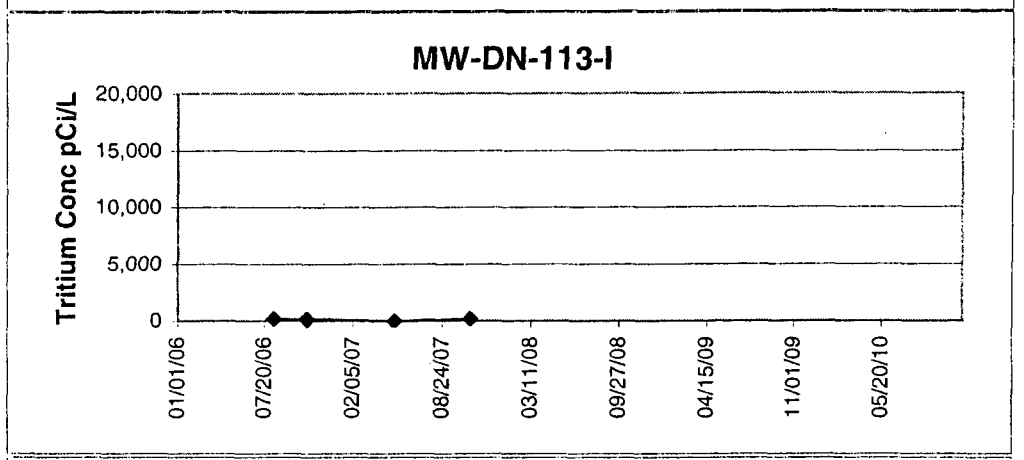


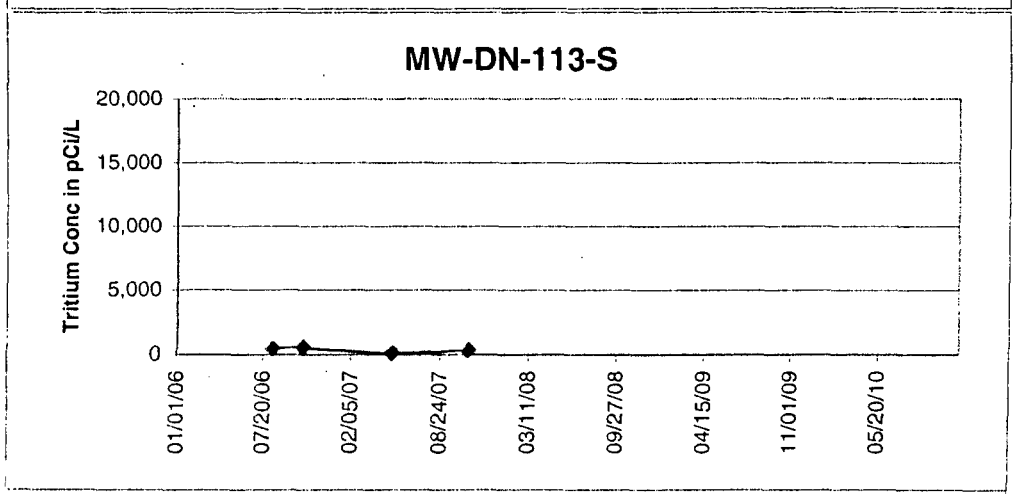


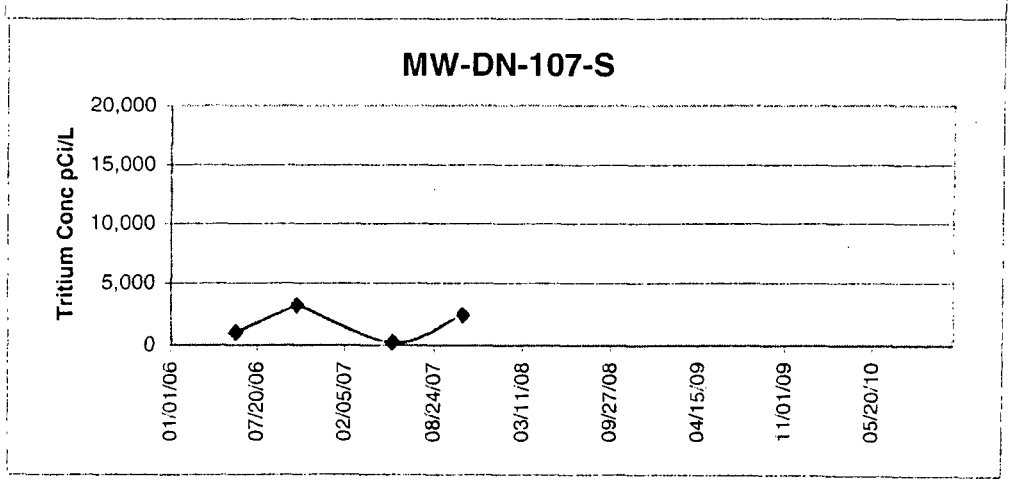


Radioactive Groundwater Protection Program (RGPP) - (continued)
Wells Inside P.A. - South-side of Plant

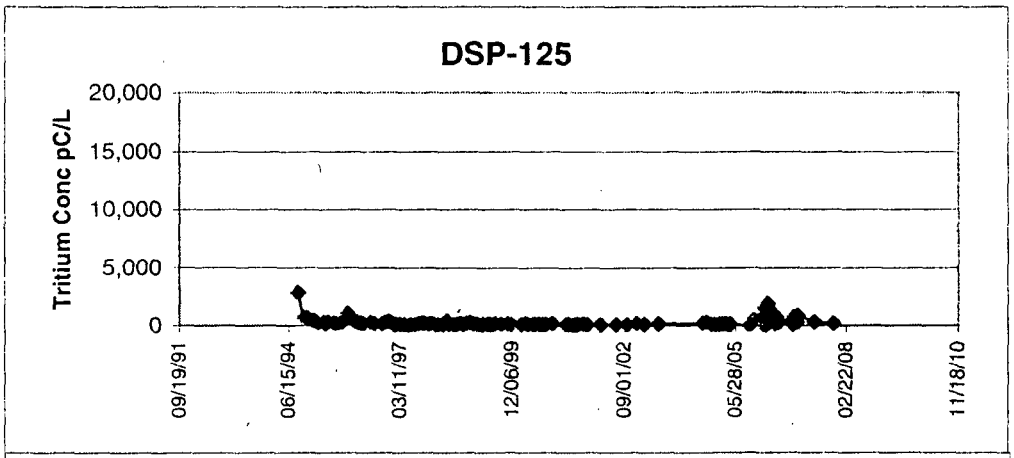


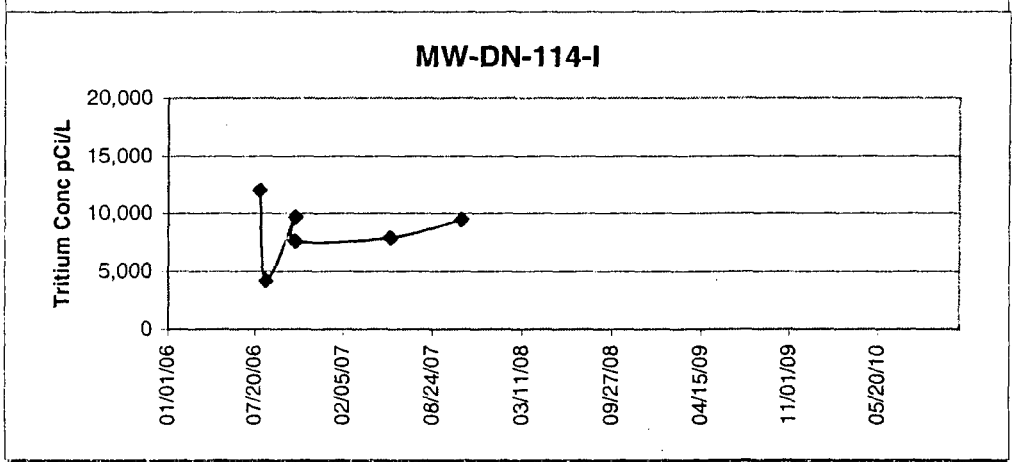


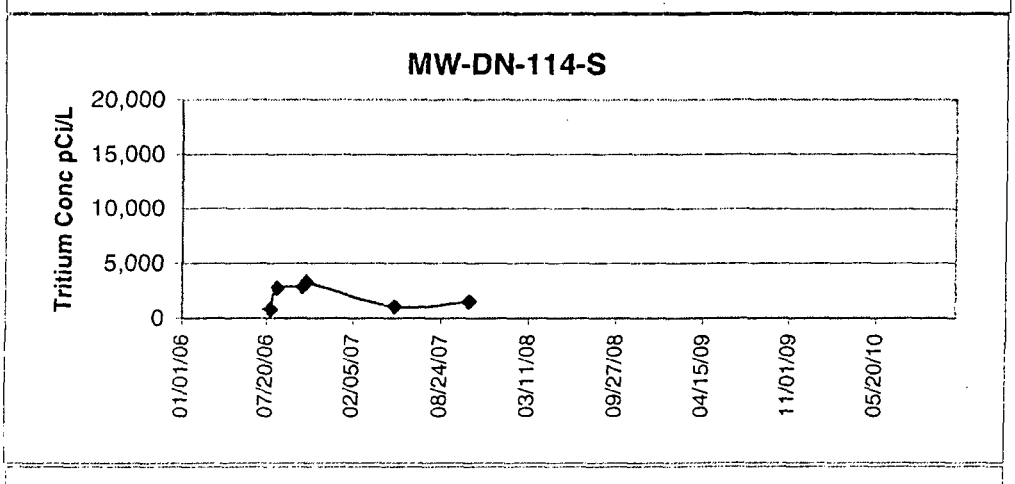


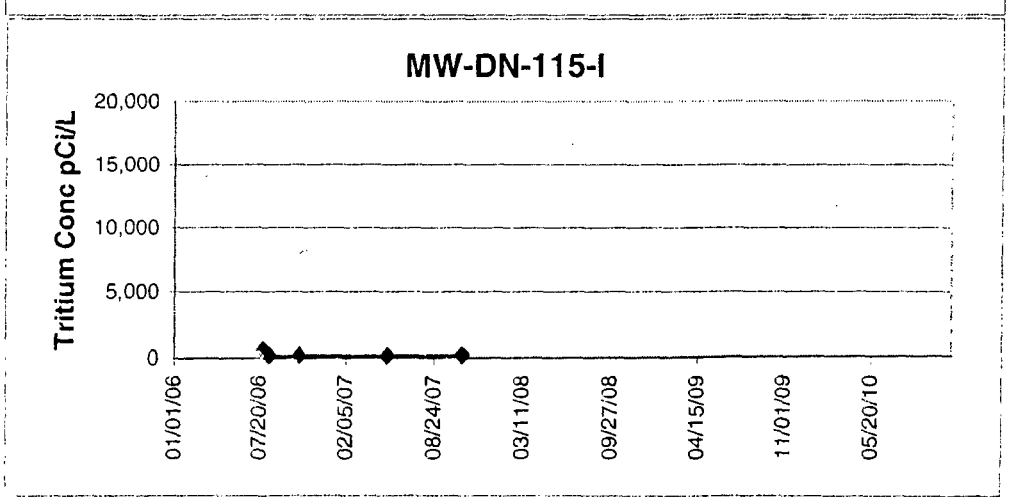


Radioactive Groundwater Protection Program (RGPP) - (continued)
Wells Inside P.A. - South-side of Plant

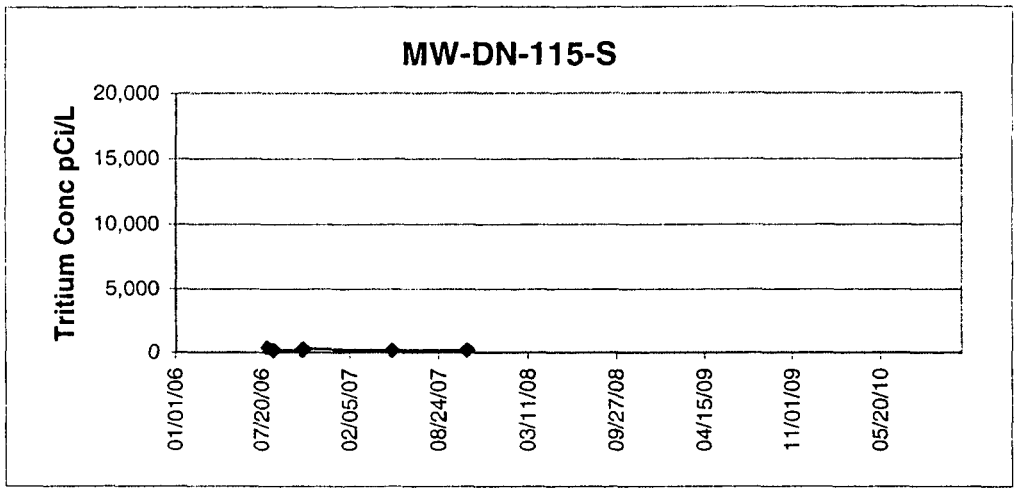








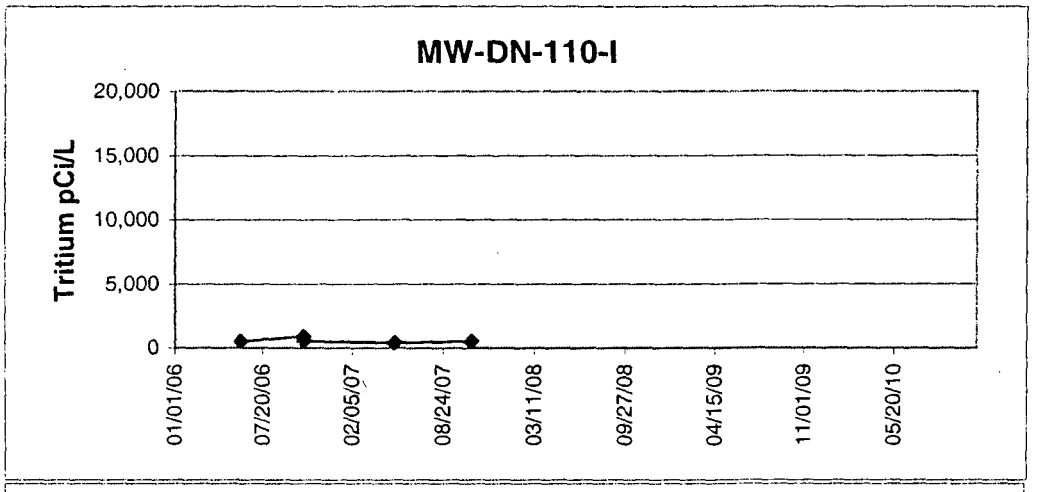
Radioactive Groundwater Protection Program (RGPP) - (continued)
Wells Inside P.A. - South-side of Plant

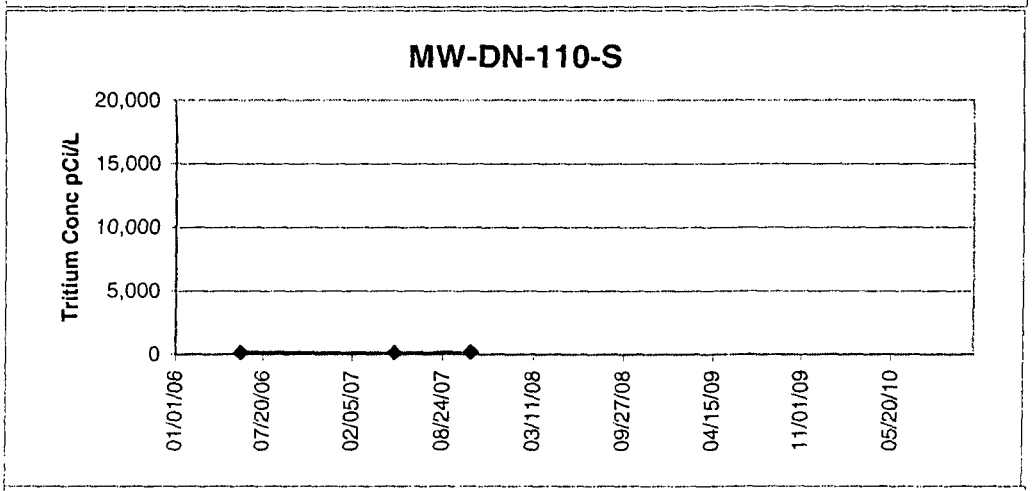


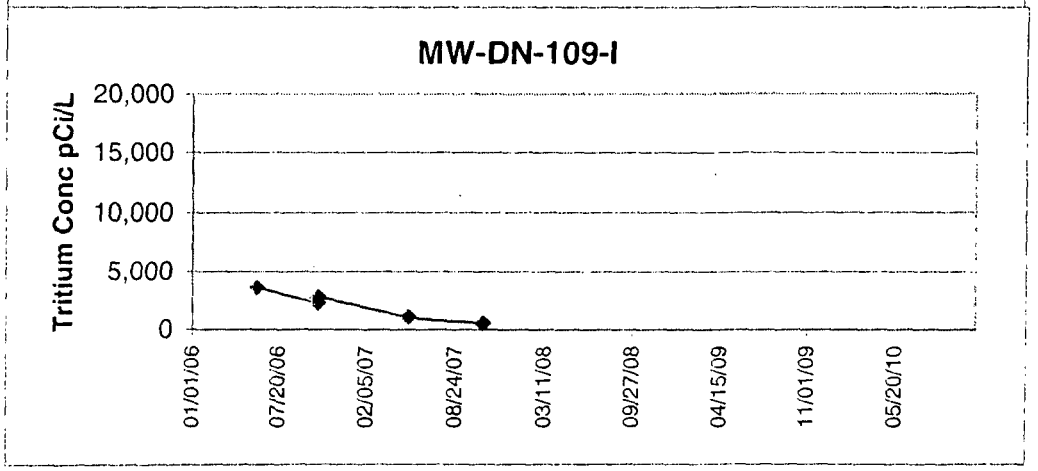
Radioactive Groundwater Protection Program (RGPP)

Wells Inside P.A. - West-side of Plant

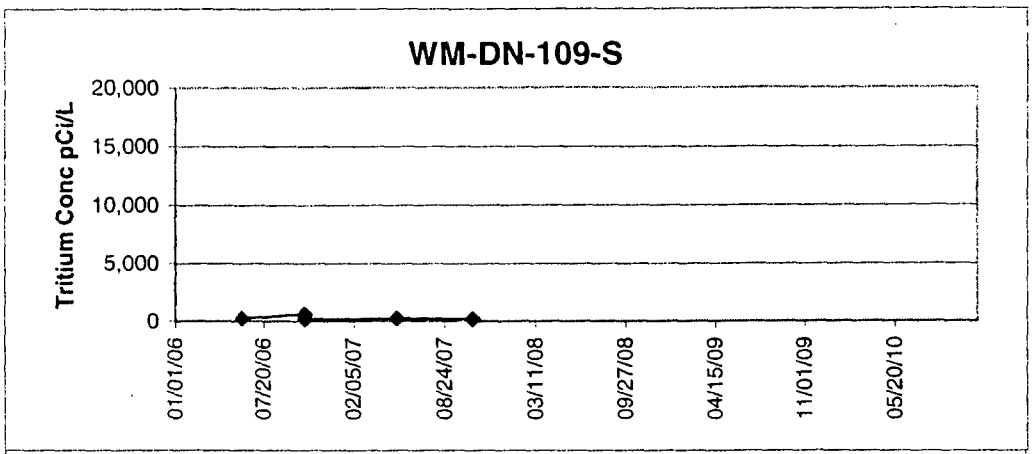
1 MW-DN-110-I
2 MW-DN-110-S
3 MW-DN-109-I
4 MW-DN-109-S
5 DSP-124
6 MW-DN-111-S
7 MW-DN-112-I
8 MW-DN-112-S

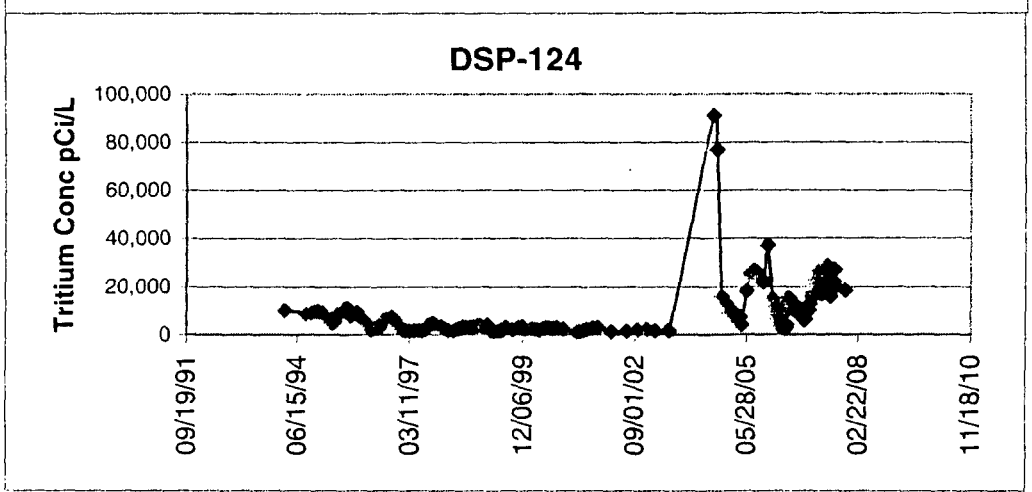


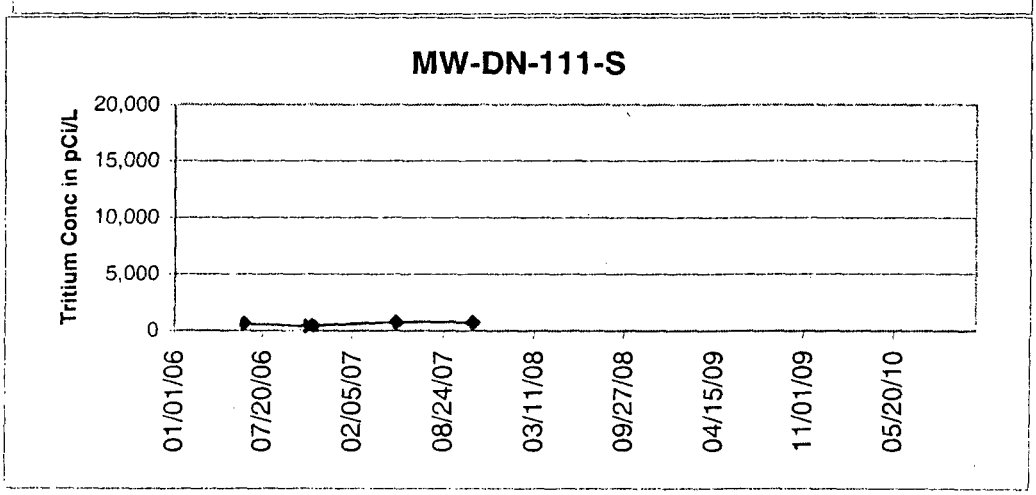




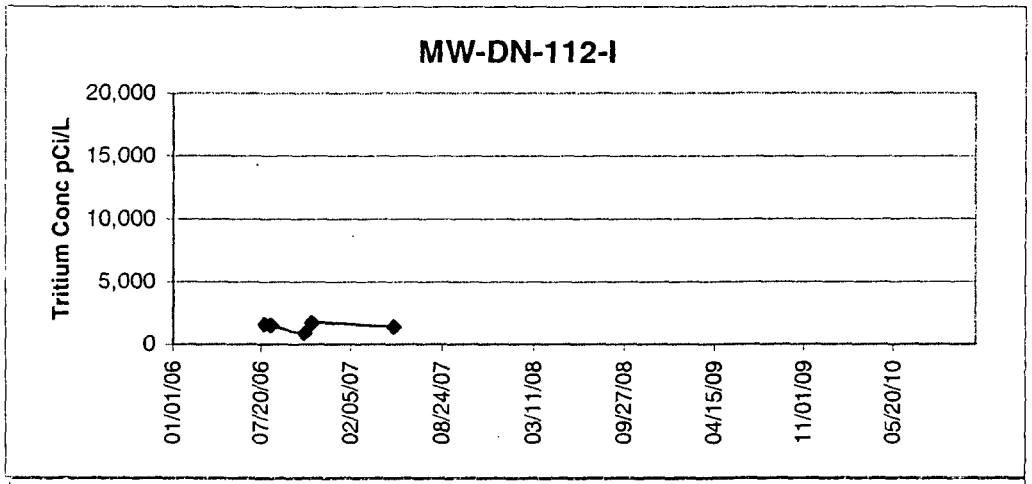
Radioactive Groundwater Protection Program (RGPP) - (continued)
Wells Inside P.A. - West-side of Plant

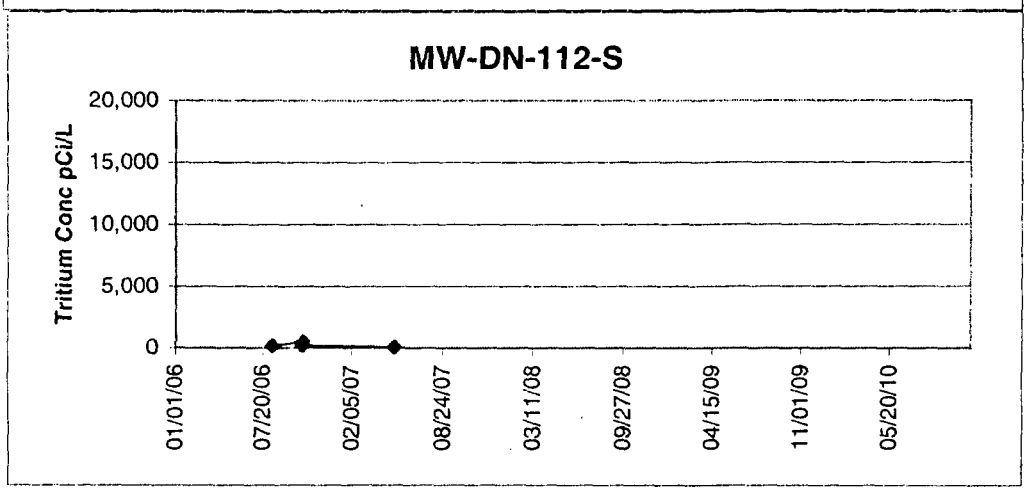






Radioactive Groundwater Protection Program (RGPP) - (continued)
Wells Inside P.A. - West-side of Plant

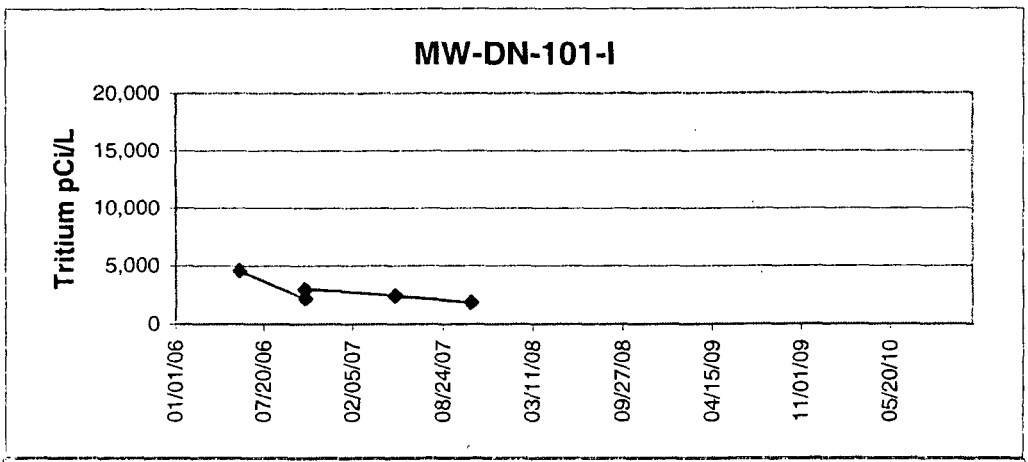


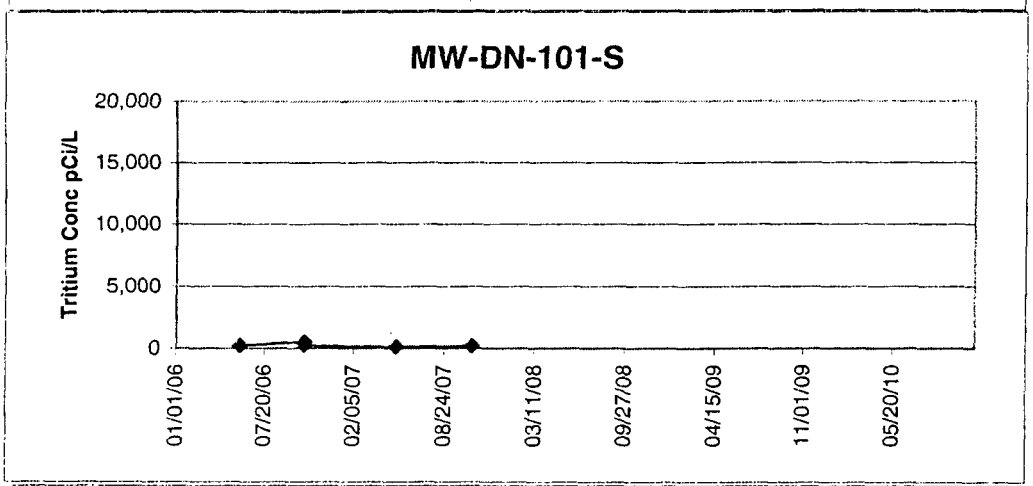


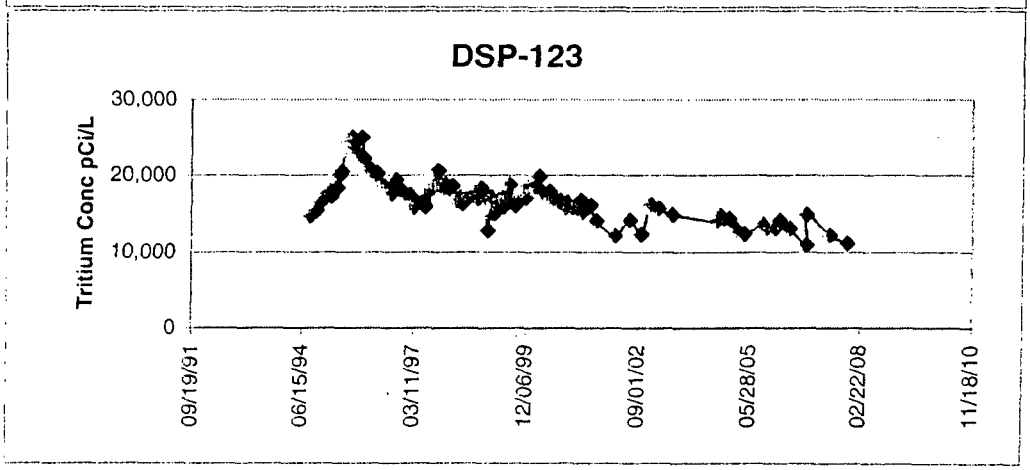
Radioactive Groundwater Protection Program (RGPP)

Wells Inside P.A. - North-side of Plant

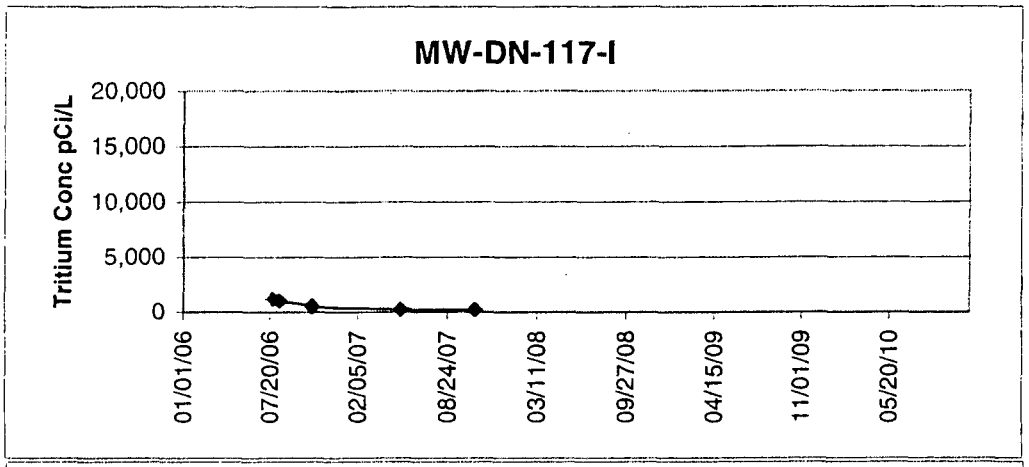
1 MW-DN-101-I
2 MW-DN-101-S
3 MW-DN-123
4 MW-DN-117-I
5 MW-DN-108-I
6 MW-DN-116-I
7 MW-DN-116-S
8 DSP-122
9 MW-DN-104-S

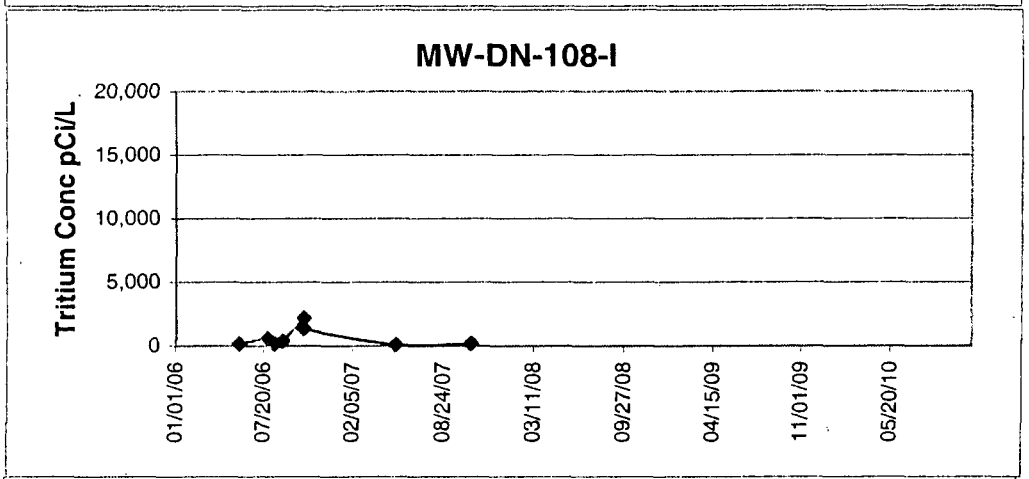


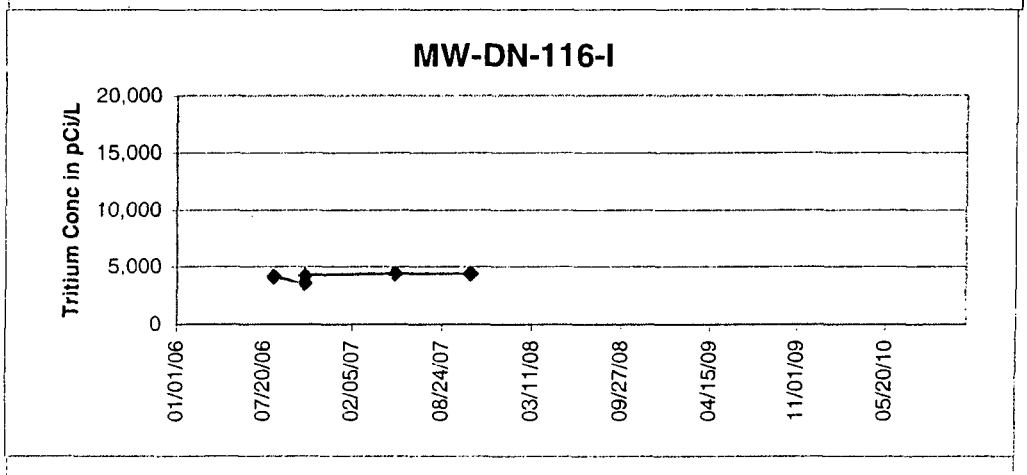


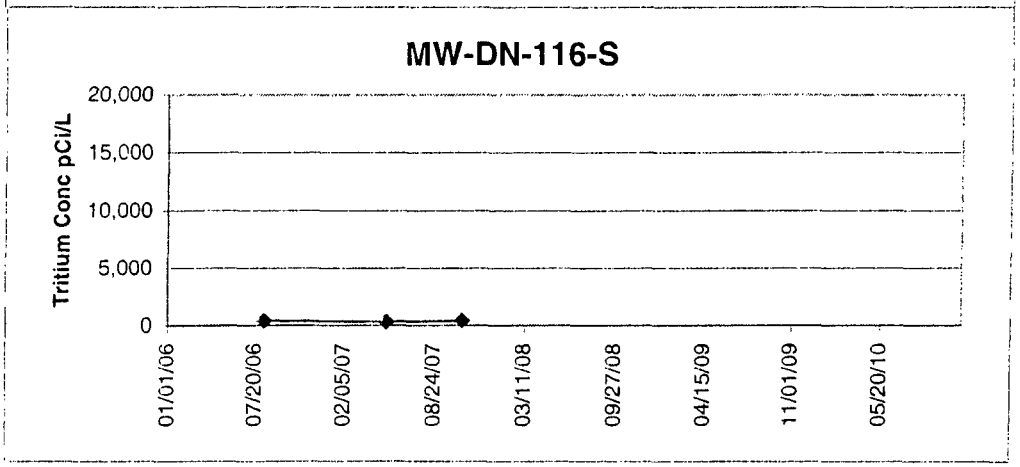


Radioactive Groundwater Protection Program (RGPP) - (continued)
Wells Inside P.A. - North-side of Plant

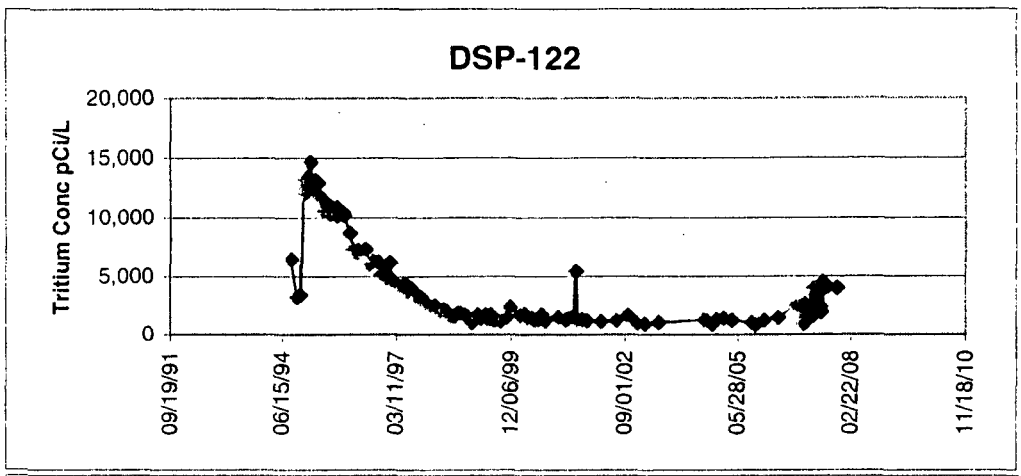


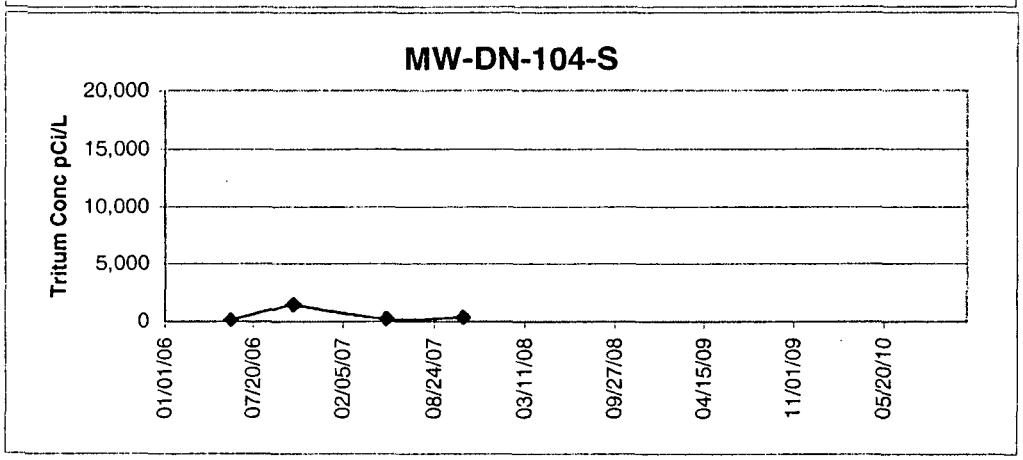






Radioactive Groundwater Protection Program (RGPP) - (continued)
Wells Inside P.A. - West-side of Plant

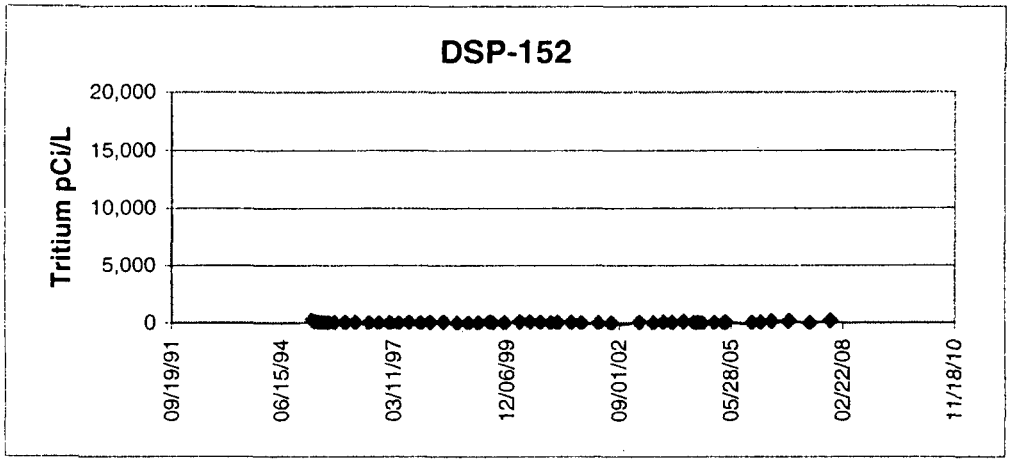




Radioactive Groundwater Protection Program (RGPP)

Wells Outside of the P.A. - East-side of Plant

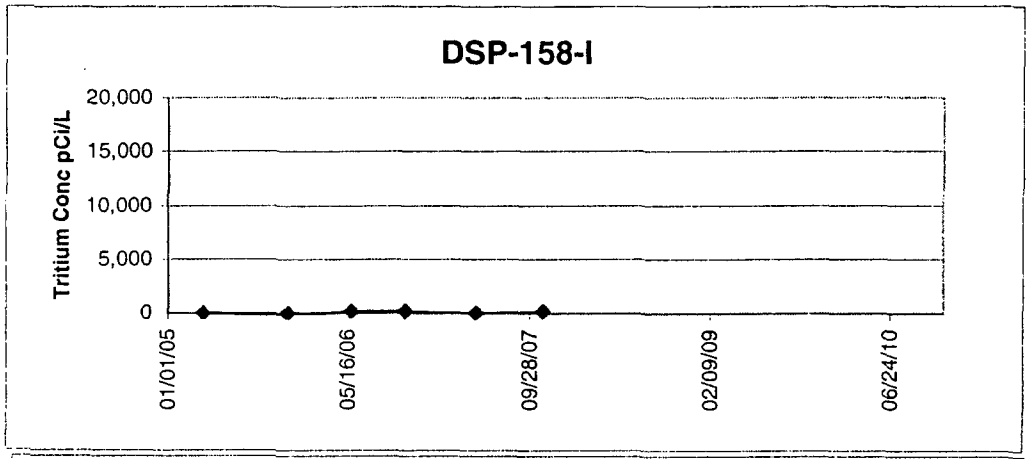
1 DSP-152

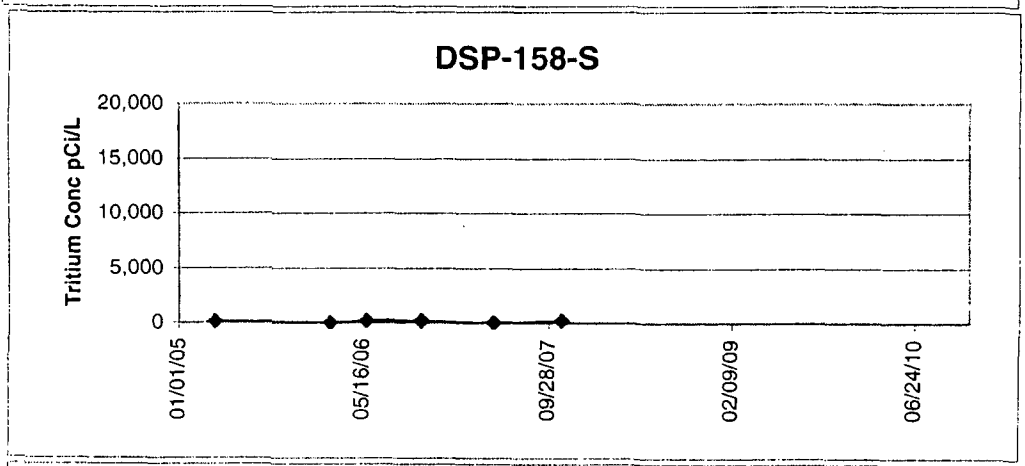


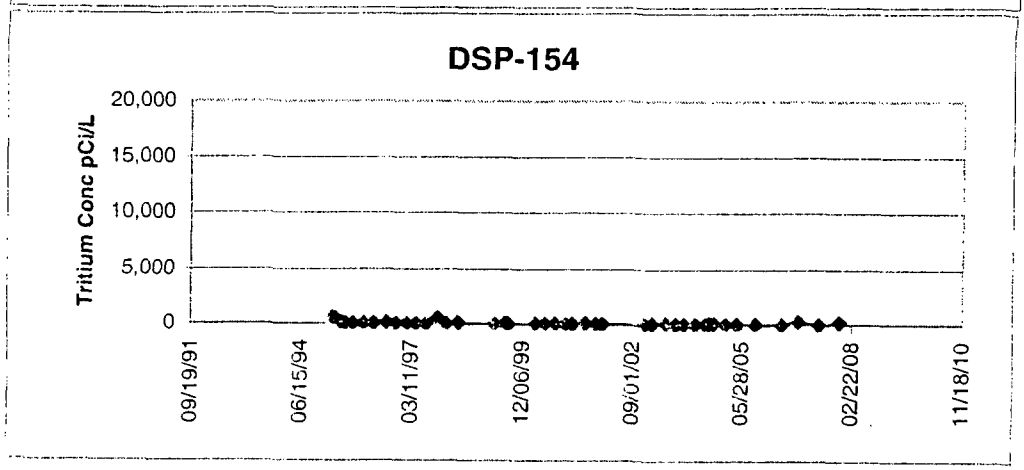
Radioactive Groundwater Protection Program (RGPP)

Wells Outside P.A. - South-side of Plant

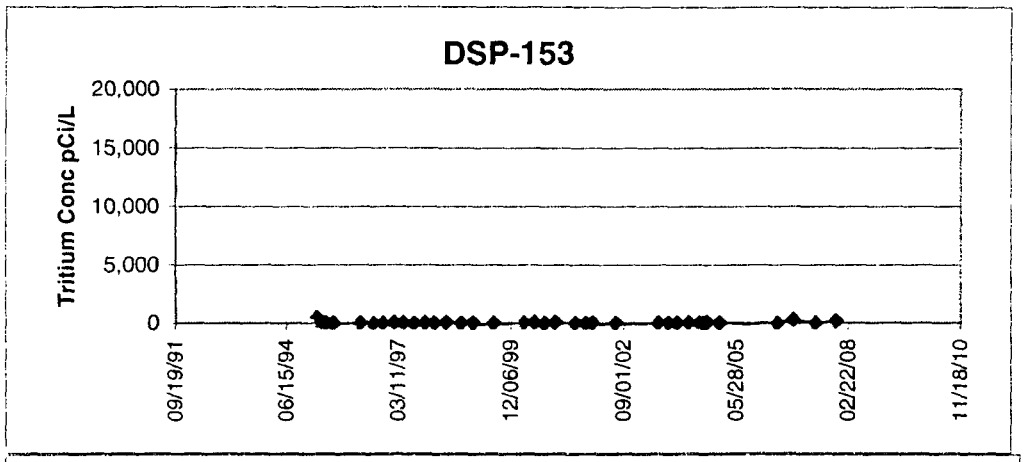
1 DSP-158-I
2 DSP-158-S
3 DSP-154
4 DSP-153
5 DSP-157-I
6 DSP-157-S
7 DSP-159-I
8 DSP-159-S
9 MW-DN-123-I
10 MW-DN-123-S

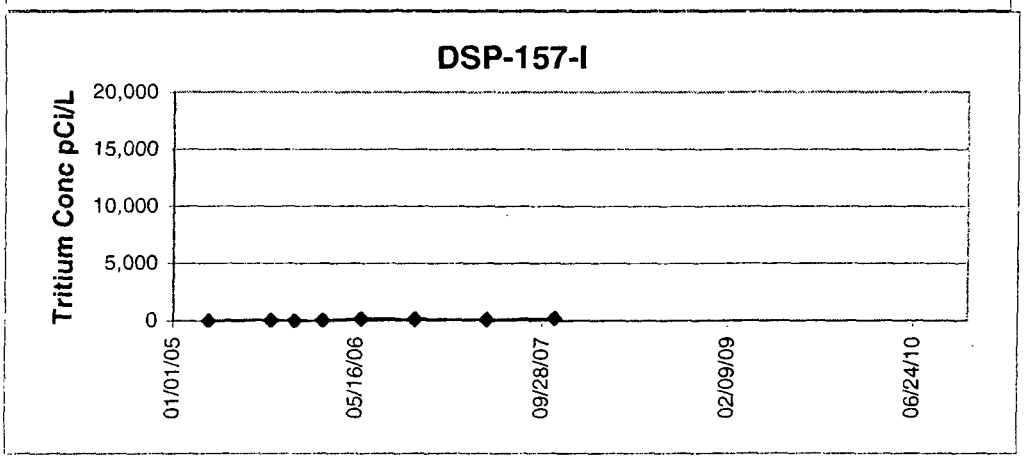


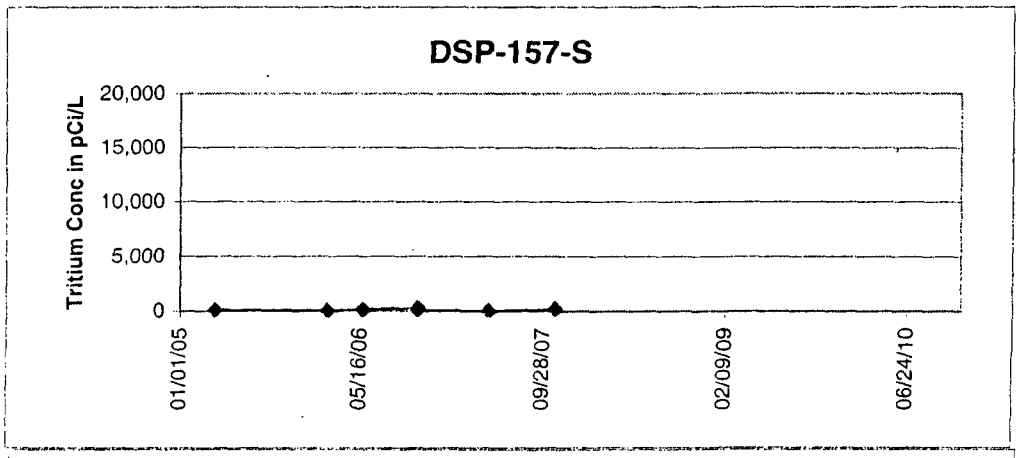


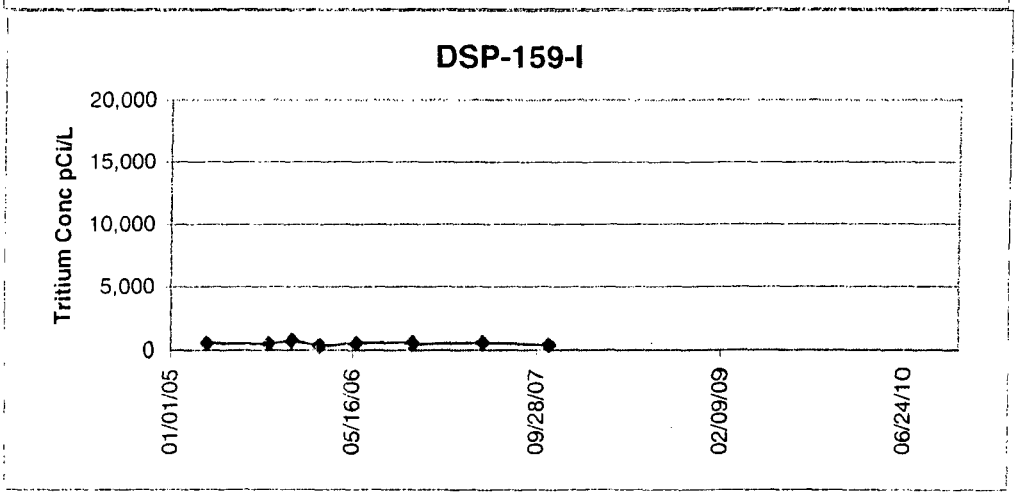


Radioactive Groundwater Protection Program (RGPP) - (continued)
Wells Outside P.A. - South-side of Plant

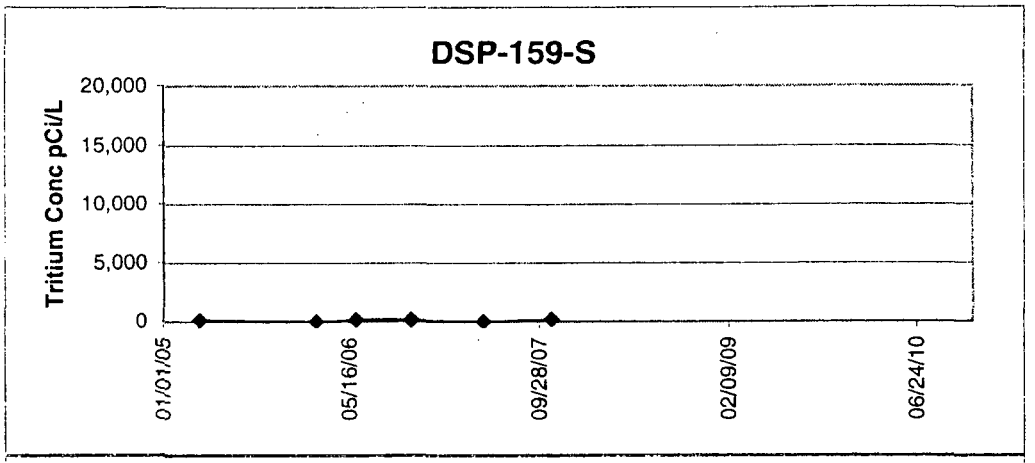


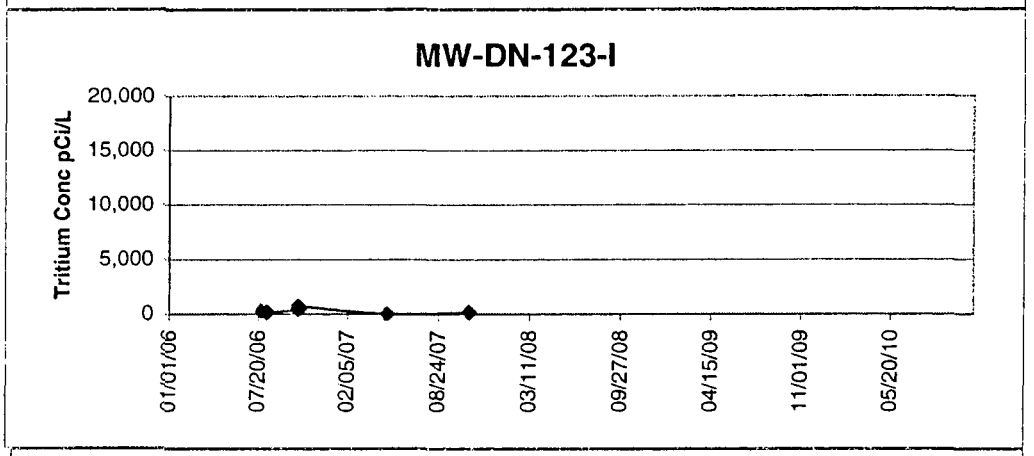


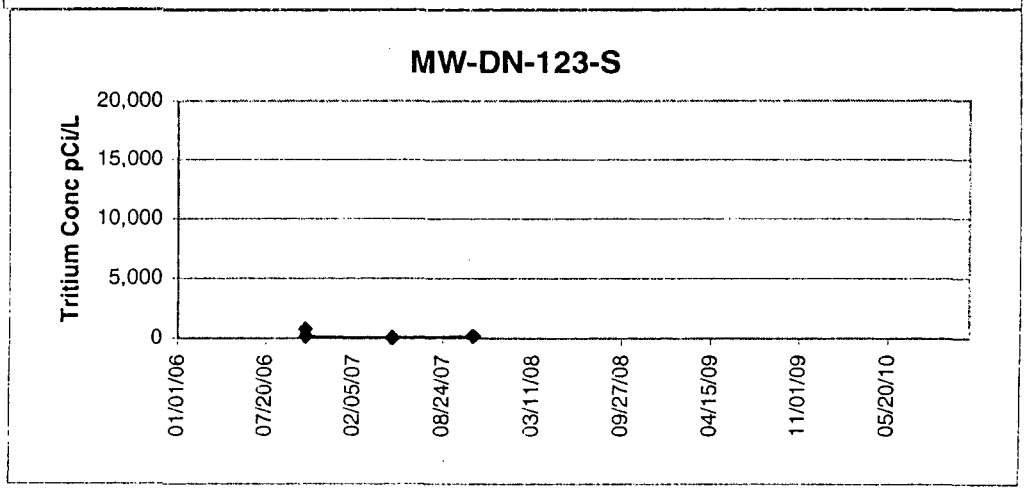




Radioactive Groundwater Protection Program (RGPP) - (continued)
Wells Outside P.A. - South-side of Plant



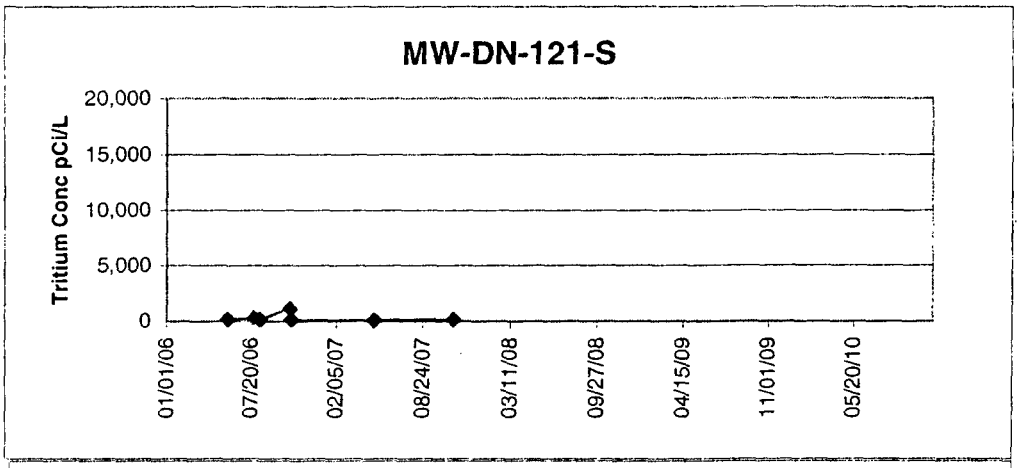


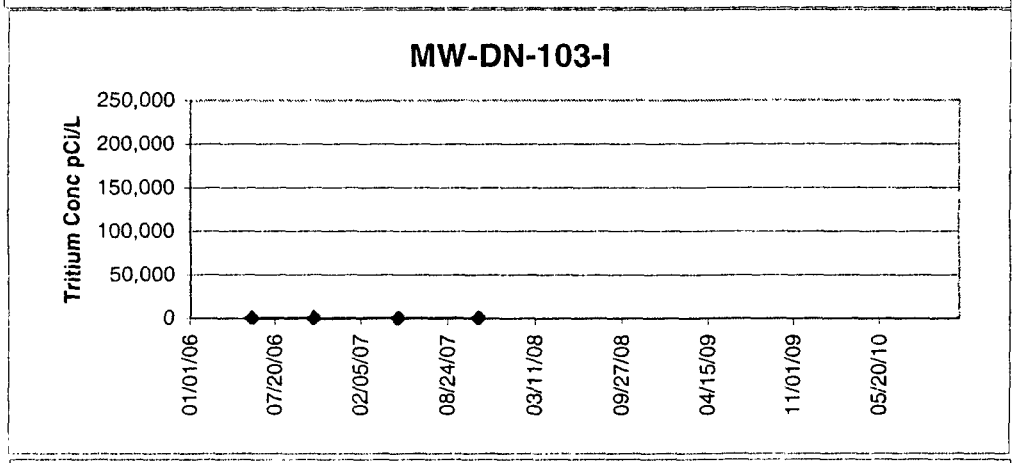


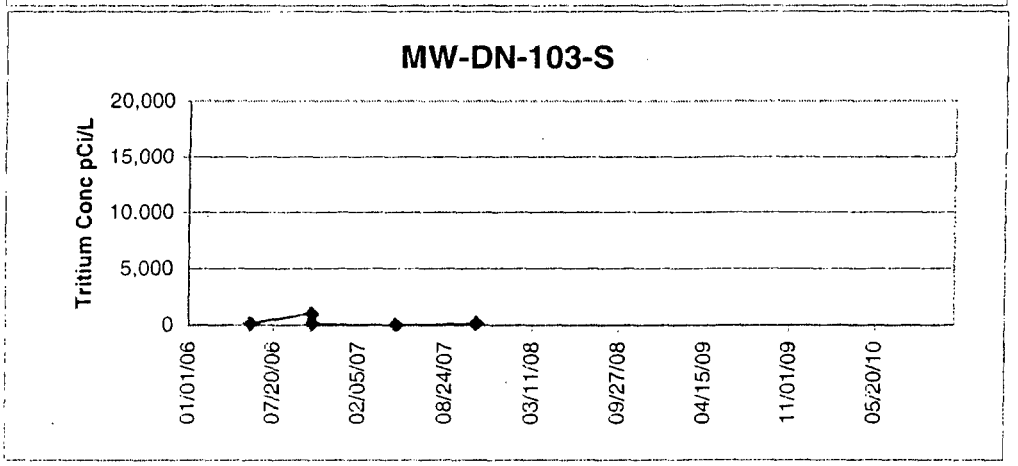
Radioactive Groundwater Protection Program (RGPP)

Wells Outside P.A. - West-side of Plant

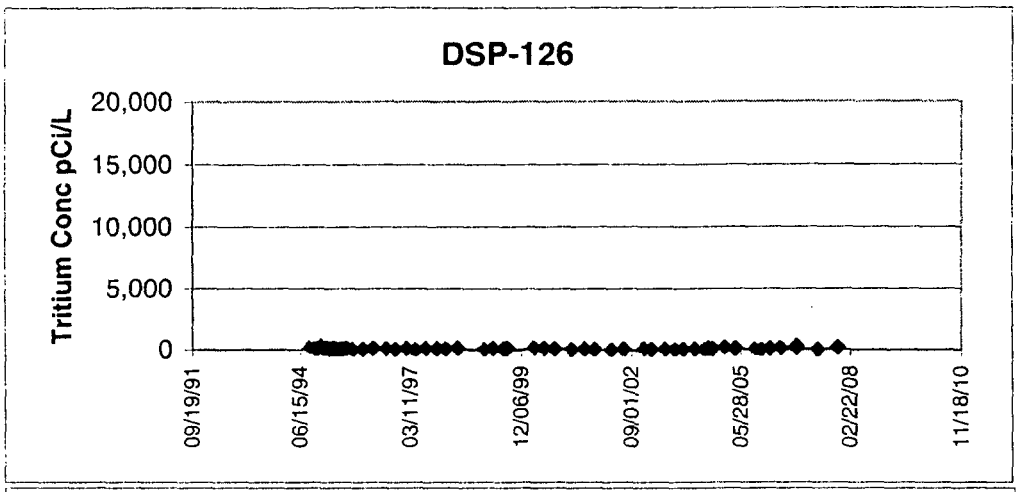
1 MW-DN-121-S
2 MW-DN-103-I
3 MW-DN-103-S
4 DSP-126
5 MW-DN-122-I
6 MW-DN-122-S

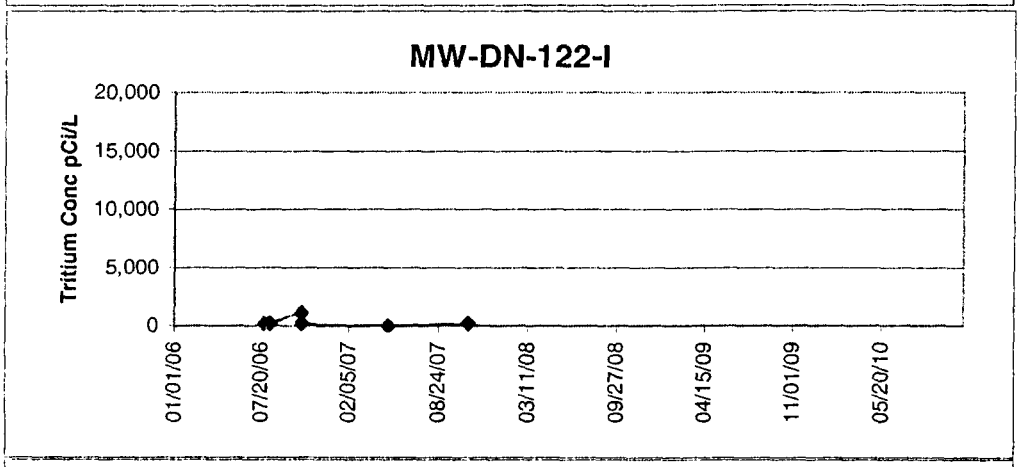


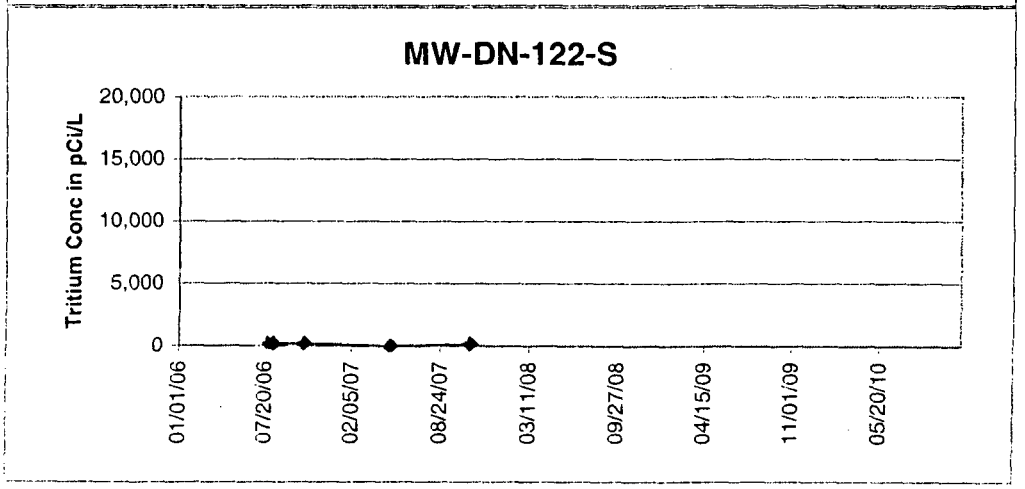




Radioactive Groundwater Protection Program (RGPP) - (continued)
Wells Outside P.A. - West-side of Plant



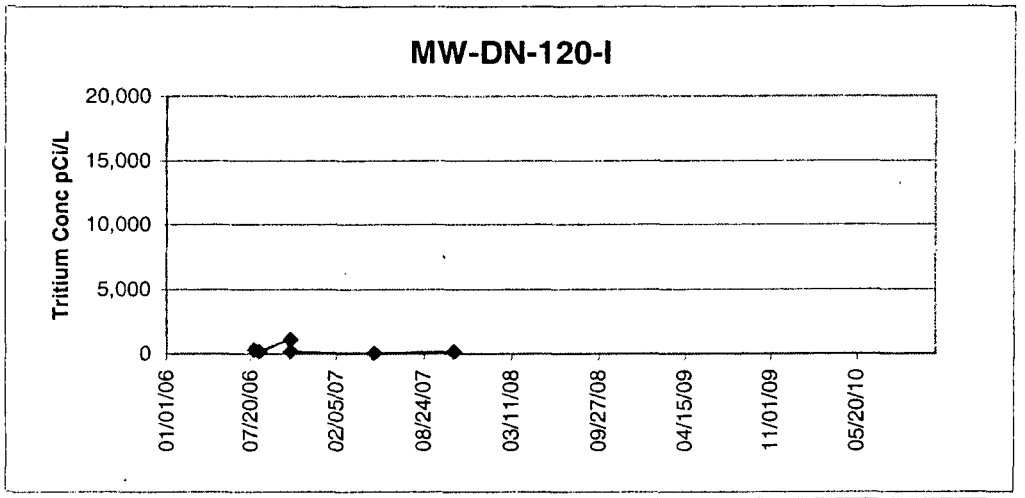


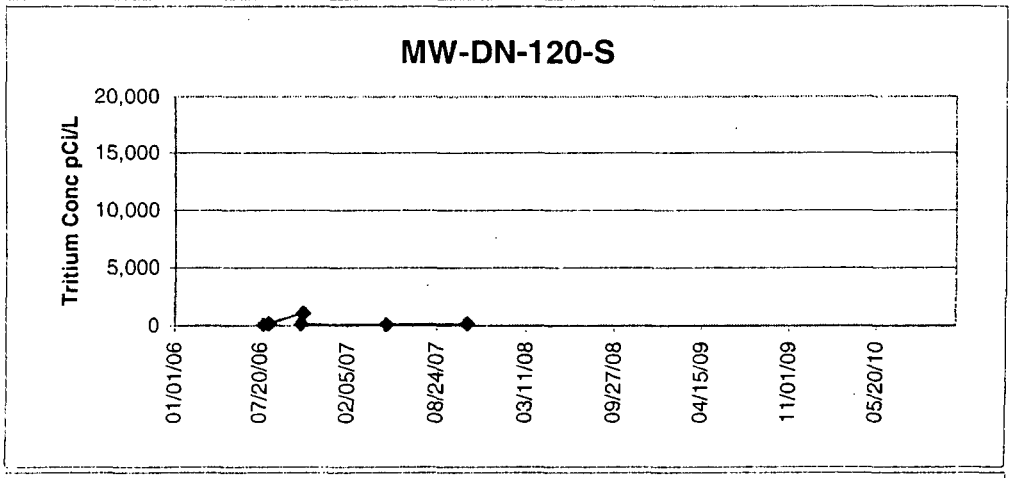


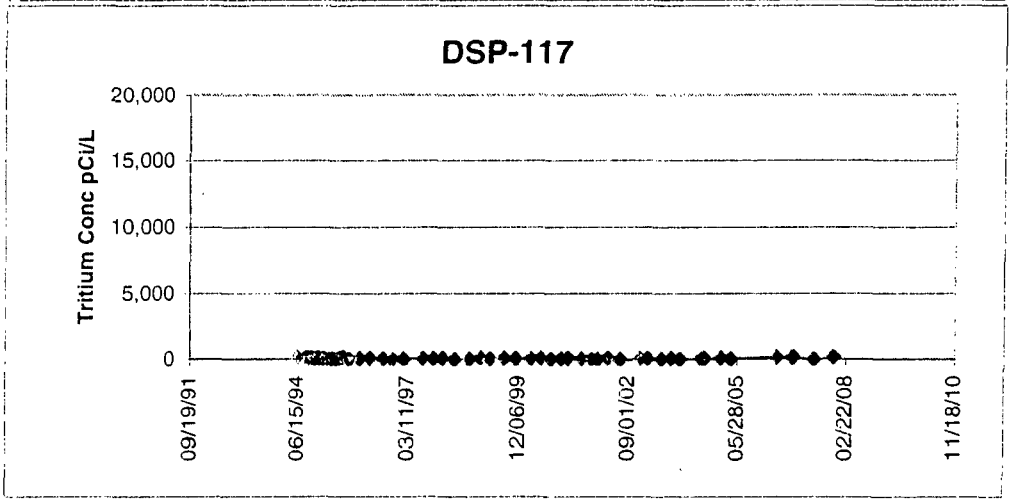
Radioactive Groundwater Protection Program (RGPP)

Wells Outside P.A. - North-side of Plant

1 MW-DN-120-I
2 MW-DN-120-S
3 DSP-117
4 MW-DN-106-S
5 DSP-121
6 DSP-149R
7 DSP-156
8 DSP-148
9 DSP-147

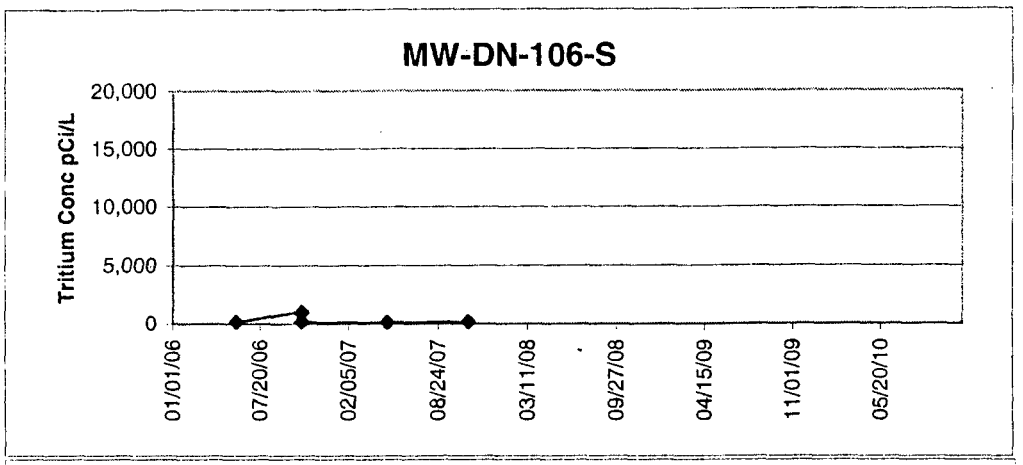


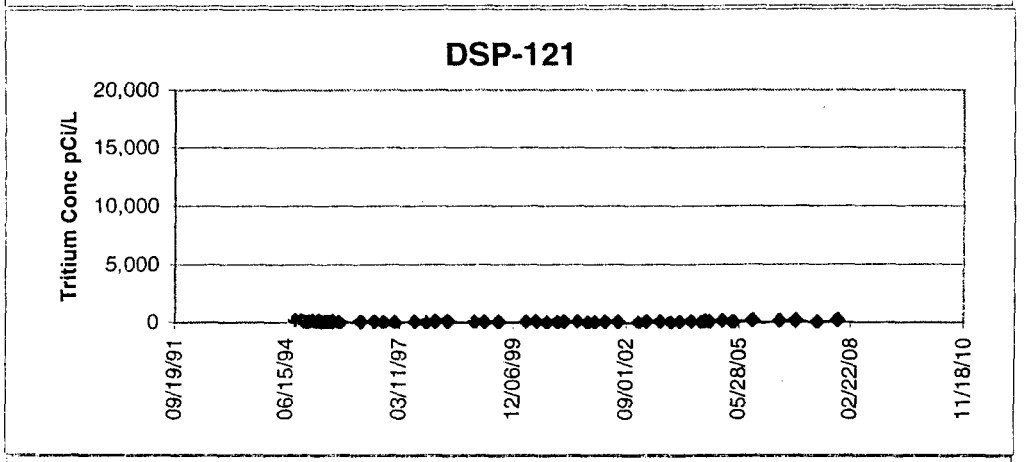


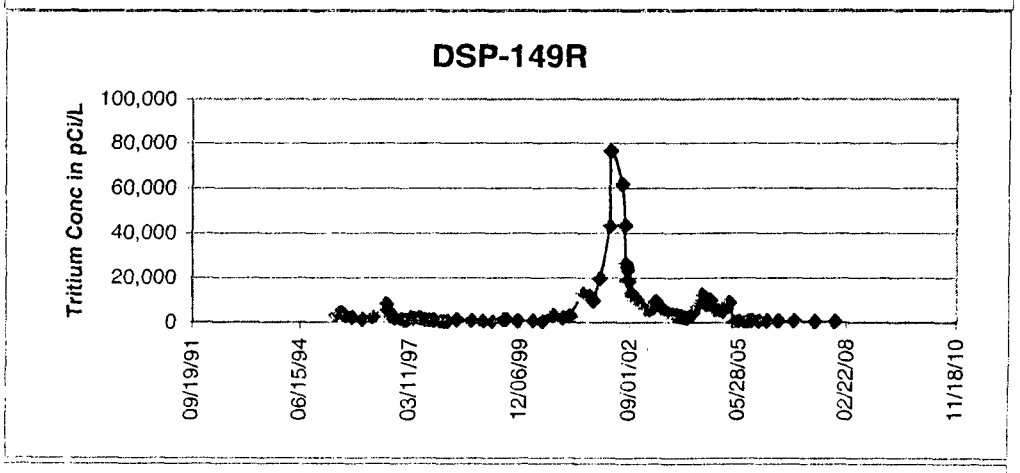


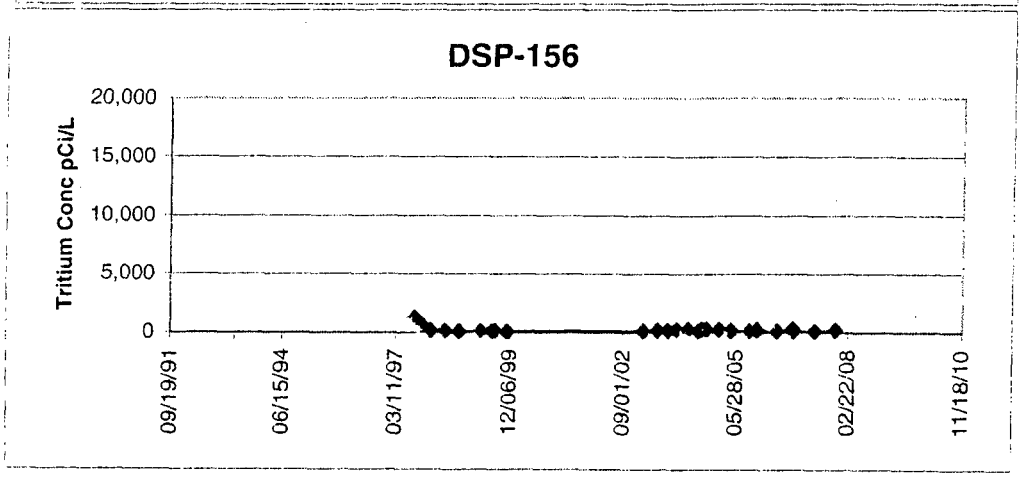
Radioactive Groundwater Protection Program (RGPP) - (continued)

Wells Outside P.A. - South-side of Plant

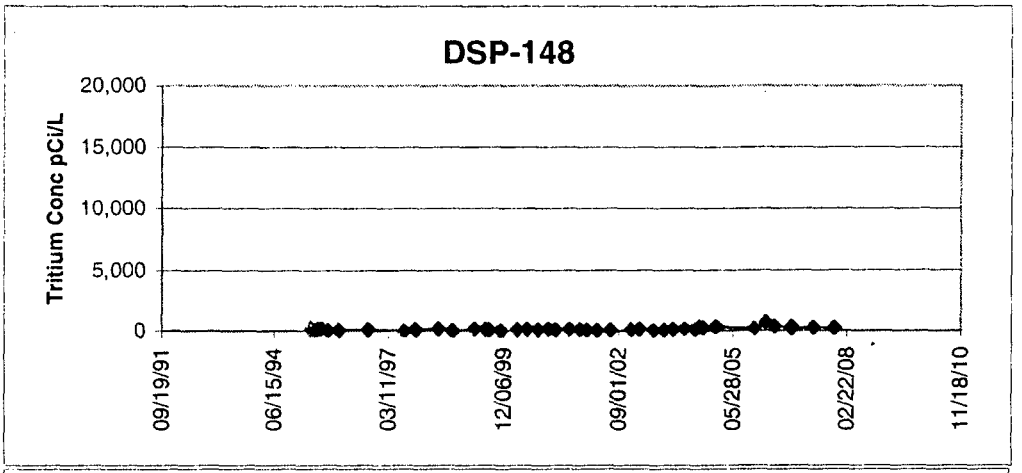


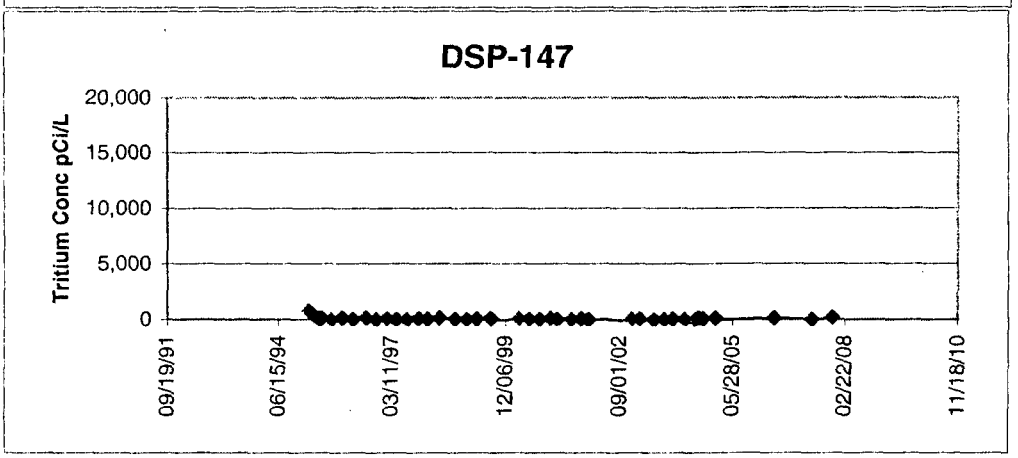






Radioactive Groundwater Protection Program (RGPP) - (continued)
Wells Outside P.A. - South-side of Plant

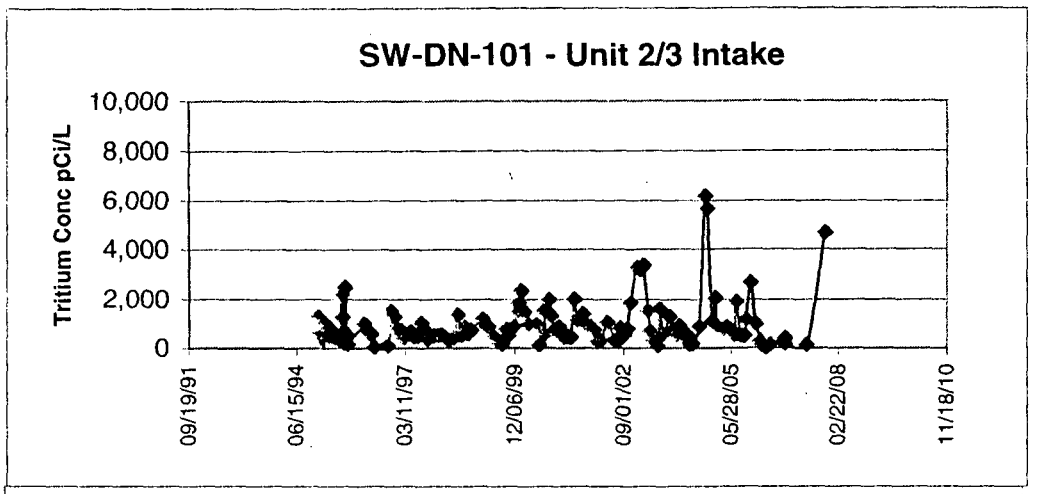


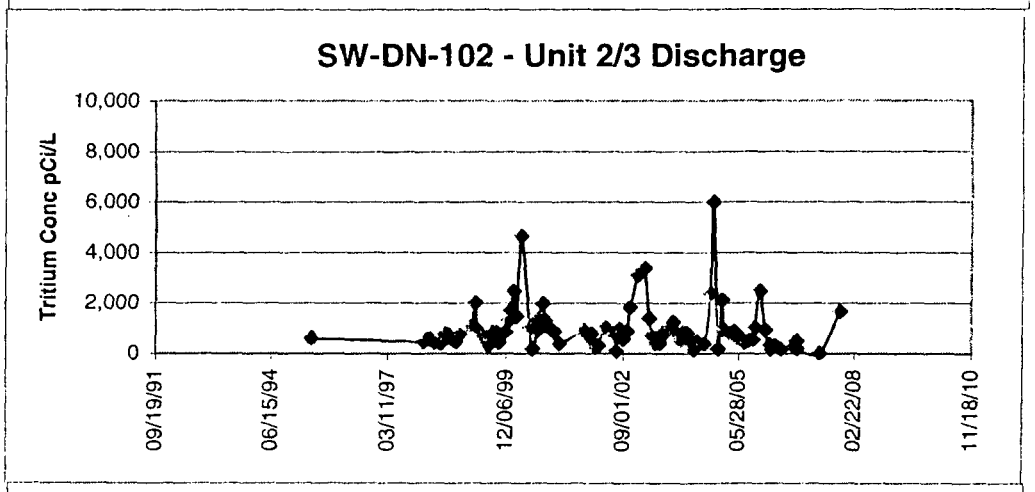


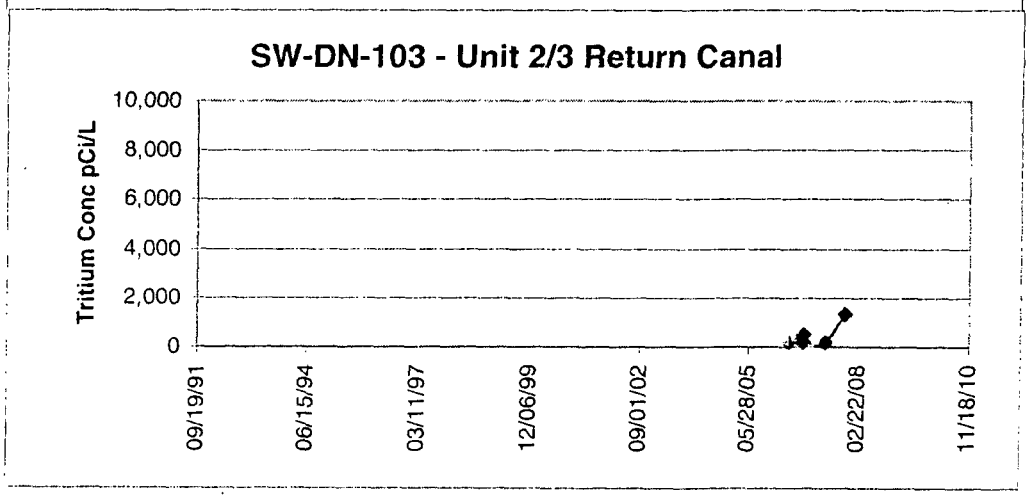
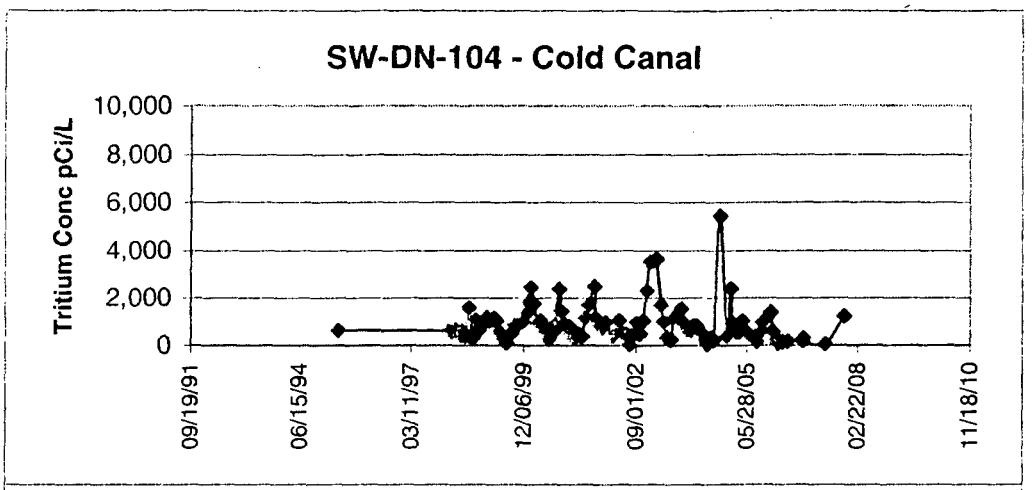
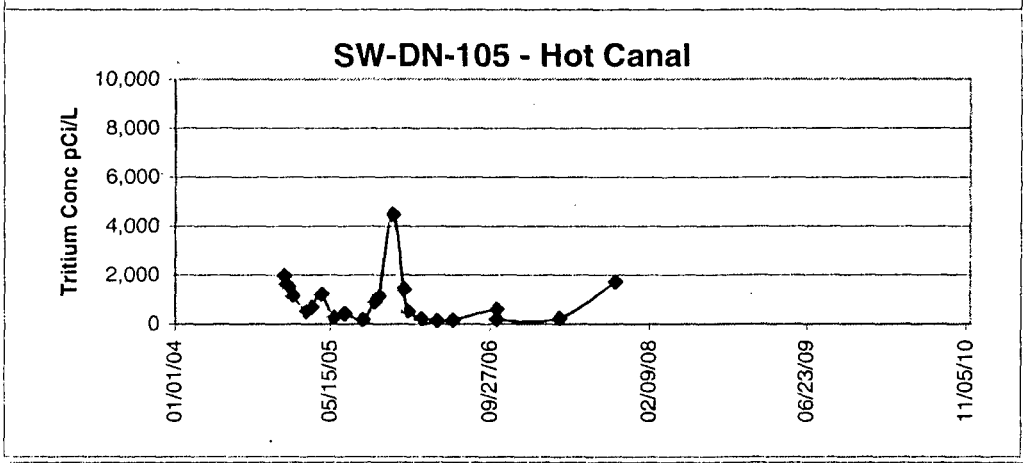
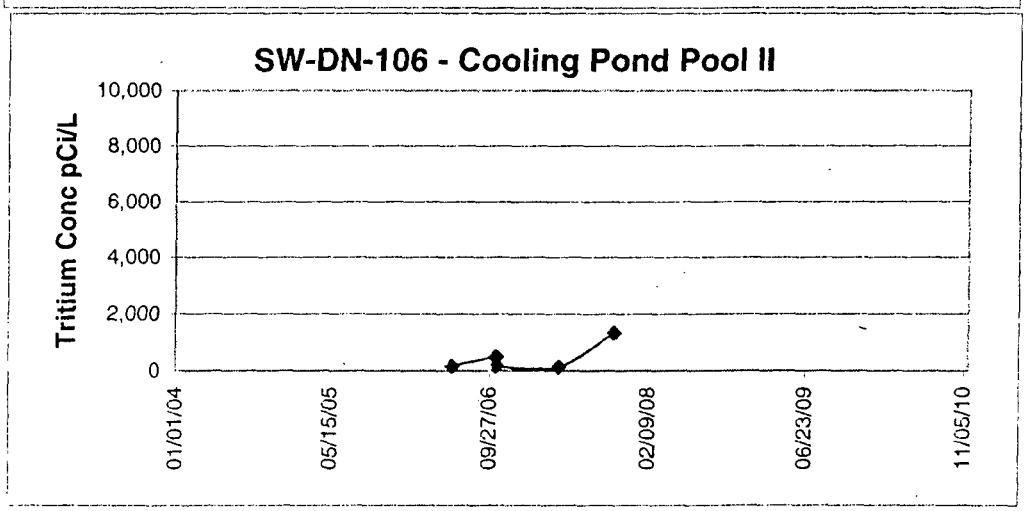
Radioactive Groundwater Protection Program (RGPP)

Waterways

1 SW-DN-101 - Unit 2/3 Intake (DSP50)
2 MW-DN-102 - Unit 2/3 Discharge (DSP20)
3 MW-DN-103 - Unit 2/3 Return Canal
4 MW-DN-104 - Cold Canal (DSP34A)
5 MW-DN-105 - Hot Canal (DSP34B)
6 MW-DN-106 - Cooling Pond Pool II







Radioactive Groundwater Protection Program (RGPP) - (continued)
Waterways