Progress Energy

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U. S. Nuclear Regulatory Commission
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Subject: Brunswick Steam Electric Plant, Unit Nos. 1 and 2
Docket Nos. 50-325 and 50-324/License Nos. DPR-71 and DPR-62
Annual Radiological Environmental Operating Report for 2006

Ladies and Gentlemen:

In accordance with Technical Specification (TS) 5.6.2 for the Brunswick Steam Electric Plant (BSEP), Unit Nos. 1 and 2, Carolina Power & Light Company, now doing business as Progress Energy Carolinas, Inc., is submitting the enclosed Radiological Environmental Operating Report for 2006.

No regulatory commitments are contained in this submittal. Please refer any questions regarding this submittal to Ms. Annette H. Pope, Supervisor - Licensing/Regulatory Programs, at (910) 457-2184.

Sincerely,

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MAT/mat

Enclosure:

Annual Radiological Environmental Operating Report for 2006

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Enclosure
BSEP 07-0037

Annual Radiological Environmental Operating Report for 2006

RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT

2006

BRUNSWICK STEAM ELECTRIC PLANT

CAROLINA POWER & LIGHT COMPANY

Now Doing Business as

PROGRESS ENERGY CAROLINAS, INC.

SHEARON HARRIS ENERGY &

ENVIRONMENTAL CENTER

CAROLINA POWER & LIGHT COMPANY

NOW DOING BUSINESS AS

PROGRESS ENERGY CAROLINAS, INC.

NEW HILL, NORTH CAROLINA

RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT

FOR

BRUNSWICK STEAM ELECTRIC PLANT

JANUARY 1 THROUGH DECEMBER 31, 2006

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EXECUTIVE SUMMARY

The Brunswick Steam Electric Plant (BSEP), Unit Nos. 1 and 2, is operated by Carolina Power & Light Company, now doing business as Progress Energy Carolinas, Inc., under licenses granted by the Nuclear Regulatory Commission (NRC). BSEP Technical Specification 5.6.2 and BSEP Offsite Dose Calculation Manual (ODCM) establish the requirements of the Radiological Environmental Monitoring Program (REMP). This report provides the results of the REMP from January 1, 2006 through December 31, 2006.

The REMP was established in 1973. Radiation and radioactivity in various environmental media have been monitored for more than 30 years, including monitoring in excess of a year prior to commencing operation. Monitoring is also provided for control locations which would not be impacted by operations of BSEP. Using the data from the control locations and the historical data collected prior to operation, analyses of data from locations which could potentially be impacted by the operations of BSEP were performed. Radiation levels show no measurable change from pre-operational radiation levels.

Monitoring results for environmental media are summarized as follows:

- Air-monitoring results are similar or less than the concentrations of radioactivity from pre-operation monitoring. These observations are also consistent with past operational data, except for one anomalous air cartridge result for I-131 (iodine-131).

- Milk was unavailable due to no milk (milch) animals (goat or cow) currently identified within the environs of the plant; therefore, no exposure pathway exists.

- Terrestrial vegetation includes broadleaf vegetation from indicator and control locations. Results indicate detectable concentrations of Cs-137 in the control location for broadleaf vegetation. No other gamma activity was detected in any sample except for K-40 (potassium-40) and other naturally occurring gamma activity.

- Aquatic organism monitoring includes fish (free swimmers and bottom feeders), invertebrates (shellfish (SH)), and Benthic organisms (BO) (organisms that live on the bottom of the ocean). Results indicated no detectable plant - related activity.

- Surface water results indicate no detectable plant - related activity.

- External radiation dose showed no measurable change from pre-operational data.

The continued operation of BSEP has not significantly contributed radiation or the presence of radioactivity in the environmental media monitored. The measured concentrations of radioactivity and radiation are well within applicable regulatory limits.

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM

PURPOSE AND REQUIREMENTS FOR THE RADIOLOGICAL MONITORING PROGRAM

Although the operation of a nuclear generating station results in the raising of background radiation only a small amount, it is important to measure these emissions of radioactivity and radiation to assess their impact on the surrounding populations. The purpose of the REMP is to measure accumulation of radioactivity in the environments, to determine whether this radioactivity is the result of operations of BSEP and to assess the potential dose to the off-site population based on the cumulative measurements of radioactivity of plant origin. Radiological monitoring programs provide an additional verification of the containment and radiological controls of nuclear generating stations.

The REMP was established in 1973 and continues to collect samples and evaluate them.

Requirements are established for the radiological monitoring program as follows:

- Technical Specifications
- Off-Site Dose Calculation Manual (ODCM)
- Various procedures

Additional guidance regarding the radiological monitoring program may be found in the following:

- NRC Regulatory Guide 1.109, "Calculation of Annual Doses to Man from Routine Releases of Reactor Effluents for the Purpose of Evaluating Compliance with 10 CFR Part 50, Appendix I"
- NRC Regulatory Guide 4.13, "Performance, Testing, and Procedural Specifications for Thermoluminescence Dosimetry: Environmental Applications"
- NRC Regulatory Guide 4.15, "Quality Assurance for Radiological Monitoring Programs (Normal Operations) - Effluent Streams and the Environment"

General Site Description

BSEP consists of two boiling water reactors with a design rating of 2923 megawatts thermal. Commercial production was initiated by Unit 2 on November 3, 1975 and by Unit 1 on March 18, 1977. BSEP is located in Brunswick County, North Carolina. The site is along state route 87 approximately two and a half miles north of Southport and is displayed on the map of southeastern North Carolina (Figure 1). The community of Boiling Spring Lakes is about three miles northwest of the site. The towns of Caswell Beach and Oak Island are on a barrier island south of the plant. The site is also approximately 16 miles south of Wilmington, North Carolina.

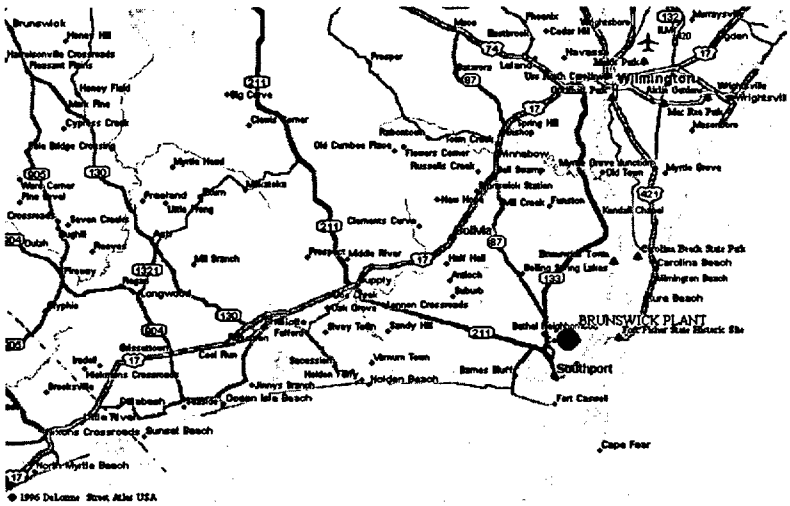


Figure 1: Location of Brunswick Steam Electric Plant

The Cape Fear River is east of the plant, and cooling water is drawn from the river through a canal. The cooling water is discharged to the Atlantic Ocean through a canal, pumping station, and piping. The discharge point is south of the town of Caswell Beach.

The plant site varies in elevation from sea level to 30 feet above mean sea level (MSL). It is surrounded by extensive marshes. The lower Cape Fear River is an important nursery area for shellfish, and other marine species.

The local economy supports significant recreational, industrial, agricultural, and government contributions. There is well-developed recreational use of the barrier islands south and east of the site. Fishing and boating are popular activities. Commercial fishing is also an important industry in the community. Agriculture utilizes some of the land within 50 miles of the site; such as small truck farms, cattle, poultry, and row crops including corn, soybeans and tobacco. Industrial activity includes the Archer-Daniels-Midland Chemical (ADM) Company, a manufacturer of citric acid, located one and a half miles southeast of the plant. In conjunction with the citric acid plant is a small electrical generating station operated by Primary Energy. This coal-fired station is composed of two units rated at 55 Mwe each.

Transportation is a significant industry in the local economy, with the Port of Wilmington north of the site. The shipping channel is just east of the site in the Cape Fear River. Also, the Sunny Point Military Ocean Terminal (MOT) is located approximately three miles north of the plant site on the Cape Fear River.

RADIOLOGICAL MONITORING PROGRAM QUALITY ASSURANCE

A required component of the REMP is the Quality Assurance Program. The standards for the quality assurance program are established in NRC Regulatory Guide (R.G.) 4.15, "Quality Assurance for Radiological Monitoring Programs." According to R.G. 4.15, the purpose of the quality assurance program is "(1) to identify deficiencies in the sampling and measurement processes to those responsible for these operations so that corrective action can be taken, and (2) to obtain some measure of confidence in the results of the monitoring programs in order to assure the regulatory agencies and the public that the results are valid." This provides the opportunity to implement corrective actions that address possible deficiencies. Examples of the activities of the quality assurance program include:

- regular review of sample collection and records,
- regular review of laboratory procedures and methods,
- participation in the Analytics, Inc., Environmental Cross-Check Program, which provides an independent assessment of the quality of laboratory results, and
- the use of known concentrations of radioactivity in test samples by the laboratory to ensure consistent quality results on an ongoing basis.

RADIOLOGICAL MONITORING PROGRAM GENERAL DESCRIPTION

Although the contribution to background radiation is small, Carolina Power & Light Company, now doing business as Progress Energy Carolinas, Inc. has established this program to measure the exposure pathways to man. An exposure pathway describes the source of the radiological exposure. The primary forms of potential radiological emissions from the plant are airborne and liquid discharge. The following pathways are monitored: external dose, ingestion of radioactive materials, and the inhalation of radioactive material. Specific methods and different environmental media are required to assess each pathway. Table 1 provides a list of the media used to assess each of these pathways.

Table 1

Media Used to Assess Exposure Pathways to Man

Pathway of Exposure to Man	Media Sampled
External Dose	Thermoluminescent Dosimetry (TLD) Shoreline Sediment
Ingestion	Broadleaf Vegetation Fish and Invertebrates Surface Water
Inhalation	Air Samples (Particulate and Radioiodine)

Sampling Locations

Sampling locations are chosen based upon meteorological factors, preoperational monitoring, and results of the land use surveys. A number of locations are selected as controls. Control stations are selected because they are very unlikely to be affected by operation of the plant. Sample locations may be seen in Figures 2 and 3. A description of each sample location may be found in Table 2.

Radiological Sampling Locations

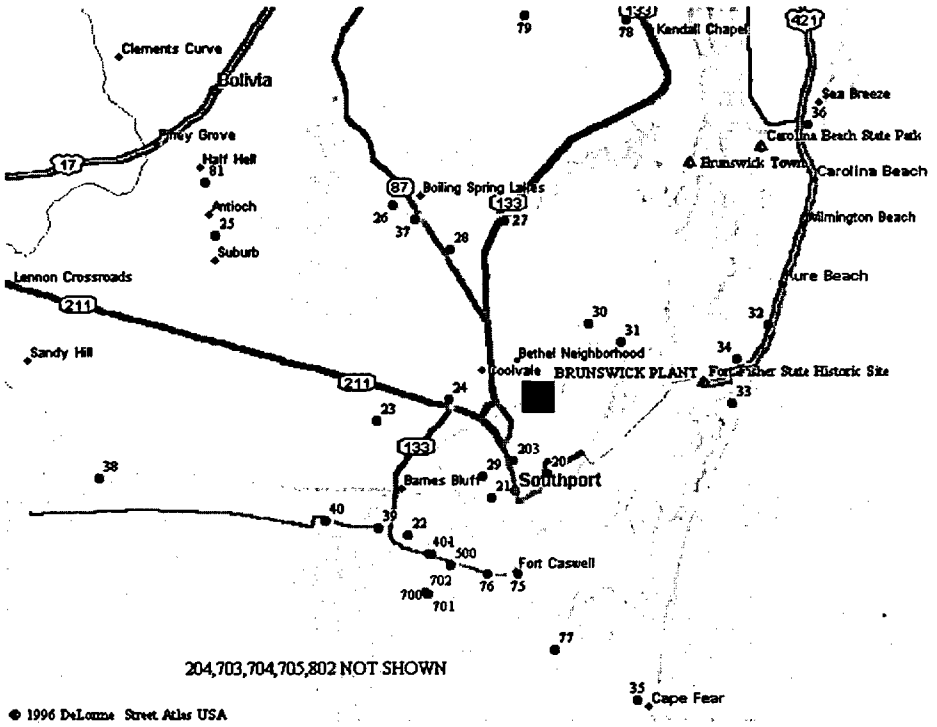


Figure 2: Radiological Sampling Locations (Distant from Plant)

Stations not illustrated:

204 (Sutton Plant in Wilmington) (Control Air Station)

703, 704, 705 (Location not Specified in the Atlantic Ocean)(Control Fish Station)

802 (Location not specified) (Control Vegetation)

Radiological Sampling Locations

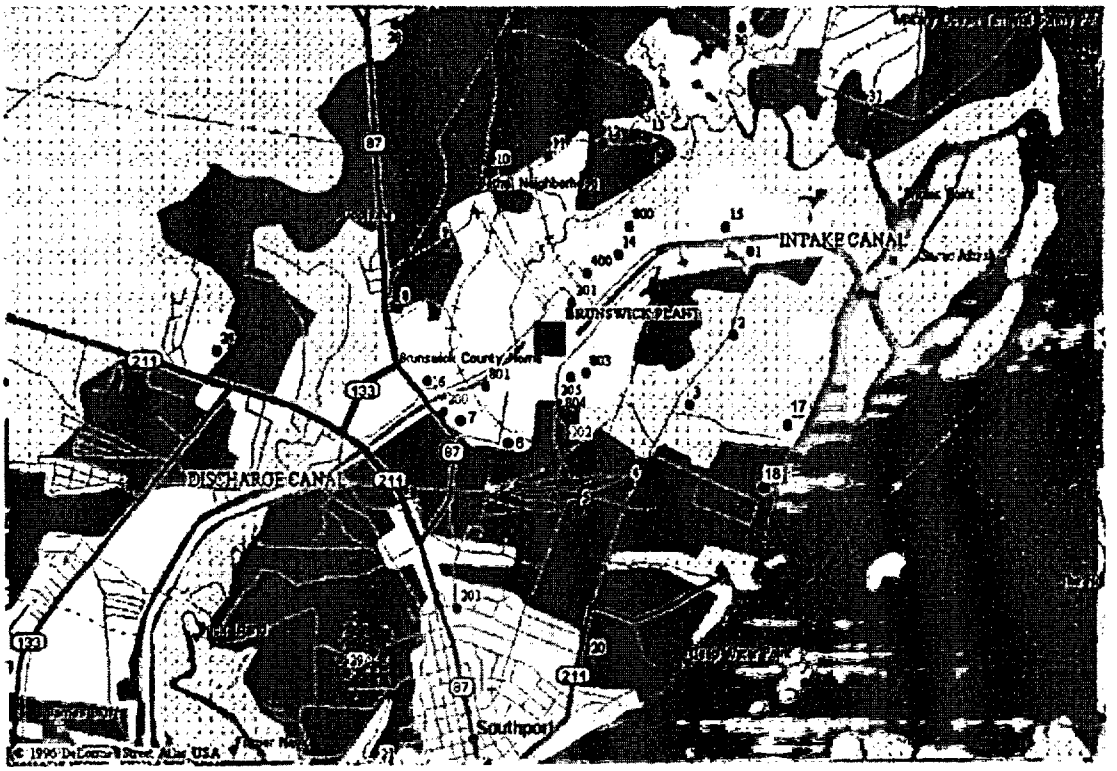


Figure 3 (nearest Plant) is an expanded view of the previous figure (Figure 2 page 6).

Table 2

Brunswick Steam Electric Plant

Radiological Monitoring Sampling Locations

Sample Type	Location & Description	Frequency	Sample Size	Analysis
Air Cartridge (AC)	200--1.0 miles WSW Visitors Center 201--0.5 miles NE PMAC 202--1.0 miles S Substation--Construction Rd. 203--2.0 miles SSW Southport substation 204--22.4 miles NNE Sutton Plant* 205--0.6 miles SSE Spoil Pond	Weekly (Continuous Sampling)	(270 m^3)	Iodine-131
Air Particulate (AP)	200--1.0 miles WSW Visitors Center 201--0.5 miles NE PMAC 202--1.0 miles S Substation-Construction Rd. 203--2.0 miles SSW Southport substation 204--22.4 miles NNE Sutton Plant* 205--0.6 miles SSE Spoil Pond	Weekly (Continuous Sampling) Quarterly	(270 m^3)	Gross Beta (Weekly) Composite Gamma (Quarterly)
Fish (FI)	700--5.5 miles SSW Atlantic Ocean @ discharge (free-swimmers) 701--5.5 miles SSW Atlantic Ocean @ discharge (bottom-feeders) 702--5.5 miles SSW Atlantic Ocean @ discharge (invertebrates) 703--Atlantic Ocean; location not specified* (free-swimmers) 704--Atlantic Ocean; location not specified* (bottom-feeders) 705--Atlantic Ocean; location not specified* (invertebrates)	Semiannual (In Season)	500 grams (wet)	Gamma (Edible portions)
Broadleaf Vegetation (BL)	800--0.7 miles NE intake canal 801--0.8 miles SW discharge canal 802--10.1 miles; location not specified* 803--0.6 miles SSE Spoil Pond 804--0.7 miles S Leonard Street plant exit adjacent to RR tracks	Monthly (As available)	300 grams (wet)	Gamma Iodine-131
Shoreline Sediment (SS)	500--5.0 miles SSW discharge; beach near OD pumps	Semiannual	500 grams	Gamma
Surface Water (SW)	400--0.6 miles NE Intake Canal* 401--4.9 miles SSW discharge canal @ OD pumps	Monthly Composite	4 liters	Gamma Tritium

* Control Stations

Table 2 (Continued)

Brunswick Steam Electric Plant

Radiological Monitoring Sampling Locations

Sample Type	Location & Description	Frequency	Sample Sz	Analysis
Thermoluminescent Dosimetry (TLD) (Direct Radiation)	1 1.1 miles E 2 0.9 miles ESE 3 0.9 miles SE 4 1.1 miles SSE 5 1.1 miles S 6 1.1 miles SSW 7 1.1 miles SW 8 1.2 miles W 9 1.0 miles WNW 10 0.8 miles NW 11 0.9 miles NNW 12 1.1 miles N 13 1.2 miles NNE 14 0.5 miles NE 15 0.9 miles ENE 16 1.0 miles WSW 17 1.4 miles ESE 18 1.7 miles SE 20 2.1 miles S 21 2.9 miles SSW 22 5.3 miles SW 23 4.6 miles WSW 24 3.0 miles W 25 8.6 miles WNW 26 5.9 miles NW 27 5.1 miles NNW 28 4.2 miles NW 29 2.6 miles SSW 30 2.0 miles NE 31 2.5 miles ENE 32 5.8 miles ENE 33 4.1 miles E 34 5.4 miles E 35 7.3 miles SSE 36 8.9 miles NE 37 5.5 miles NW 38 11.0 miles W 39 5.3 miles SW 40 6.9 miles WSW 75 4.7 miles S 76 4.8 miles SSW 77 5.4 miles S 78 9.9 miles NNE 79 9.5 miles N 81 9.9 miles WNW*	Quarterly	Not Applicable	TLD Reading (Gamma Dose)

*Control Station

SUMMARY OF RADIOLOGICAL MONITORING PROGRAM

This report presents the results of the Radiological Environmental Monitoring Program conducted during 2006 for BSEP. The program was conducted in accordance with the ODCM, and applicable procedures.

The 2006 Annual Radiological Environmental Operating Report (REOR) has been prepared and submitted in accordance with Technical Specification 5.6.2 and ODCM 7.4.1. The report applies to both BSEP Unit Nos. 1 and 2 (License Nos. DPR-71 and DPR-62, respectively).

A total of 949 sample measurements were performed on 925 collected samples from indicator and control locations from six environmental media types during the year. No detectable radioactivity (or radioactivity which did not differ significantly from the corresponding control) was observed in any of the 795 measurements performed on the 783 indicator location samples in 2006, except for one anomalous I-131 result on an air cartridge sample. No other gamma activity was detected in any samples, except for Cs-137, K-40, and other naturally occurring gamma activity. All samples analyzed met the Lower Limit of Detection (LLD) requirements as established by ODCM Table 7.3.15-3.

The radiological environmental data indicates that BSEP operations in 2006 had no significant impact on the environment or public health and safety. No measurable radiation exposure is attributed to any off-site member of the public due to the operations of BSEP.

A statistical summary of all the data gathered in 2006 has been compiled in Table 3.

Comparison of the current data with preoperational (1973, 1974) information (Tables 4 and 5) indicates that air particulate filter gross beta activity and ambient gamma radiation levels were lower for gross beta and about the same for gamma in 2006.

TABLE 3
BRUNSWICK STEAM ELECTRIC PLANT
RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM DATA SUMMARY

Brunswick Steam Electric Plant
Brunswick County, North Carolina

Docket Numbers - 50-324 and 325
Calendar Year 2006

Medium or Pathway Sampled or Measured (Unit of Measurement)	Type and Total No. of Measurements Performed	Lower Limit of Detection (LLD)[1]	All Indicator Locations[2] Mean Range	Location w/Highest Annual Mean: Name, Distance, and Direction	Location w/Highest Annual Mean: Mean Range[2]	Control Locations Mean Range[2]
Air Cartridge (pCi/m^3)	I-131 312	6.8E-2	5.31E-2 (1/260)[7] Single value	Spoil Pond 0.6 miles SSE	5.31E-2 (1/52)[7] Single value	All less than LLD
Air Particulate (pCi/m^3)	Gross Beta 312	4.1E-3	1.85E-2 (260/260)[7] 6.89E-3 – 2.73E-2	Visitor Center 1.0 mile WSW	1.92E-2 (52/52)[7] 1.06E-2 – 2.53E-2	1.90E-2 (52/52)[7] 7.96E-3 – 3.01E-2
	Gamma[4] 24	See Table 6	All less than LLD		All less than LLD	All less than LLD
Broadleaf Vegetation (pCi/g, wet)	Gamma[4] 60[3] Cs-137	2.9E-2	All less than LLD		All less than LLD	2.73E-2 (1/12)[7] Single value
Fish and Invertebrates (pCi/g, wet)	Gamma[4] 12	See Table 6	All less than LLD		All less than LLD	All less than LLD
Sediments--Shoreline (pCi/g, dry)	Gamma[4] 2	See Table 6	All less than LLD		All less than LLD	No control
Surface Water (pCi/l)	Gamma[4] 24	See Table 6	All less than LLD		All less than LLD	All less than LLD
	Tritium 24	3.50E+2[6]	All less than LLD		All less than LLD	All less than LLD
TLD (mR per quarter)[5]	TLD Readout 179[3]		1.00E+1 (175/176)[7] 7.70E+0 - 1.30E+1	1.1 miles SSW	1.27E+1 (4/4)[7] 1.24E+1 -1.30E+1	1.07E+1 (4/4)[7] 9.50E+0 - 1.17E+1

FOOTNOTES TO TABLE 3

1. LLD is calculated based on 4.66 standard deviations above background using typical sample sizes and counting times. Due to counting statistics and varying volumes, occasionally lower LLDs are achieved. See Table 6.

2. Mean and range are based on detectable measurements only. The fractions of detectable measurements at specific locations are indicated in parentheses.

3. Missing samples are discussed in Missed Surveillances.

4. Summary of gamma analysis results in this report does not include the following naturally occurring isotopes since most environmental samples contained some or all of these: Be-7, K-40, Tl-208, Pb-212, Bi-214, Pb-214, and Ra-226.

5. TLD dose is reported in milliroentgen (mR) per 90-day period (quarter) beginning in 1995. This is the exposure standard used to compare data to the NRC.

6. The tritium LLD was lowered to 3.50E+2 pCi/L. The LLD was lowered at the request of Carolina Power & Light Company, now doing business as Progress Energy Carolinas, Inc. in order to maintain comparable LLD values with the North Carolina Division of Radiation Protection (NCDRP) laboratory.

7. The numbers in parentheses [e.g., Broadleaf Vegetation Gamma 2.73E-2 (1/12) for Control Location Mean (Average)] indicate how many samples that specific value and column apply to in relation to the total number of samples for that column heading.

INTERPRETATIONS AND CONCLUSIONS

Air Monitoring

The average gross beta concentration measured in 260 air particulate (AP) samples collected at indicator stations during 2006 was 1.85E-2 picocuries per cubic meter (pCi/m^3) and the average gross beta concentration measured in 52 AP samples collected at control stations during 2006 was 1.90E-2 pCi/m^3. The preoperational (1973-1974) average concentration was 8.2E-2 pCi/m^3, while the average activity in the recent past (2001-2005) was 1.69E-2 pCi/m^3 (Table 4). The airborne concentrations of gross beta activity in 2006 are indicative of natural background and do not indicate any abnormal activities originating from the nuclear operations at BSEP. Figures 4 through 8 depict the monthly variations of these values.

Gamma analyses of the composite air particulate filters indicated that all of the radionuclides indicative of plant effluents were at concentrations less than their respective LLDs. All radionuclides positively identified by the radionuclide analyses were typical of naturally occurring materials.

Analyses of 260 indicator and 52 control air cartridges (AC) for the collection of radioiodines indicated that concentrations of those radionuclides, and particularly I-131, were less than the LLD, except for one anomalous sample. The anomalous I-131 on AC-205 sample (indicator) collected November 6, 2006 in the SSE sector at approximately 0.6 miles from the plant was due to plant conditions (Nuclear Condition Report (NCR) # 211934). The levels of activity are well below the Reporting Criteria as stated in the ODCM. No I-131 activity was identified in any other indicator or control samples in 2006.

Milk

No milk (milch) sampling locations are currently identified in BSEP environs; therefore, no sampling of this media was available.

Vegetation

Food crops were not grown in the vicinity of the plant in 2006, and this media was represented by indigenous vegetation samples consisting primarily of wax myrtle leaves. Forty-eight (48) samples were collected from indicator locations and 12 samples from the control location. No detectable activities relating to plant effluents were detected in this sampling media in 2006; however, results indicated detectable concentrations of Cs-137 in one control sample (2.73E-2 pCi/g Wet) for wax myrtle broadleaf vegetation in 2006. Upon comparing these results, it is concluded that the values reflect fallout Cs-137 contamination. No other gamma activity was detected in any sample, except for K-40 (potassium-40) and other naturally occurring gamma activity.

Fish and Invertebrates

Fish (free swimmers and bottom feeders), invertebrate (SH), and BO samples are collected semiannually from two locations: (1) near the Atlantic Ocean discharge pipe at Caswell Beach and (2) a control location in the Atlantic Ocean not influenced by plant operations. In all 12 samples (indicator and control), no detectable activities relating to plant effluents were detected in 2006. All radionuclides positively identified by the radionuclide analyses were naturally occurring nuclides.

Shoreline Sediments

Two shoreline sediments in 2006 were drawn from the beach area near the pumping station location at Caswell Beach. In both samples, all of the radionuclides indicative of plant effluents were determined to be less than the respective LLDs for gamma-emitting radionuclides.

Surface Water

Surface water is sampled monthly from the intake and discharge canal. These samples are analyzed for gamma-emitting radionuclides and for tritium. The analyses indicated that no detectable concentrations of gamma emitting radionuclides relating to plant effluents appeared in the 12 indicator and 12 control samples. None of these samples (indicator or control) indicated any detectable concentrations of tritium. Figure 9 depicts the observed tritium concentrations for 2006.

External Radiation Exposure

The environmental data on external radiation exposure for 2006 was essentially unchanged from 1989-2005 with an average exposure for all of 2006 indicator locations of 10.0 mR per quarter. The average exposure observed over the preoperational period was 1.02 mR per week observed from the fourth quarter of 1972 through the second quarter of 1975. Table 5 provides a comparison of recent data with the preoperational and historical data.

The highest average exposure occurred at one TLD location at 1.1 miles SSW. The exposure was 12.7 mR per quarter. Figure 10 depicts average inner and outer ring TLD data for each quarter of 2006. This depiction does not indicate a significant higher exposure rate for the inner versus the outer ring. This is interpreted as demonstrating that no discernible off-site exposure has occurred from plant operations.

TABLE 4

Brunswick Steam Electric Plant

GROSS BETA AIR PARTICULATE ACTIVITY AVERAGES

	Gross Beta Activity (pCi/m^3)							
	Preoperational		Recent Operational					
Location	**1973**	**1974**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**
AP-200	2.2E-2	1.4E-1	1.8E-2	1.5E-2	1.4E-2	1.7E-2	1.8E-2	1.9E-2
AP-201	3.1E-2	1.4E-1	1.9E-2	1.6E-2	1.5E-2	1.8E-2	1.9E-2	1.9E-2
AP-202	3.4E-2	1.4E-1	1.8E-2	1.6E-2	1.5E-2	1.7E-2	1.7E-2	1.8E-2
AP-203	2.4E-2	1.3E-1	1.8E-2	1.6E-2	1.6E-2	1.8E-2	1.8E-2	1.8E-2
AP-204*	2.5E-2	1.3E-1	1.9E-2	1.7E-2	1.6E-2	1.8E-2	1.9E-2	1.9E-2
AP-205	**	**	1.7E-2	1.4E-2	1.4E-2	1.8E-2	1.8E-2	1.8E-2

* Control location

** This sample point added post-operational.

TABLE 5

Brunswick Steam Electric Plant

HISTORICAL TLD RESULTS (1972-2006)

Year	Average Exposure of All TLD Monitoring Locations (mR per week)
1972 (4th Qtr.)	0.80
1973	1.25
1974	0.97
1975 (1st, 2nd Qtr)	0.80
1976	0.98
1977	1.32
1978	1.24
1979	0.93
1980	0.90
1981	0.96
1982	1.18
1983	1.21
1984	0.98
1985	1.03
1986	0.89
1987	0.92
1988	0.86
1989	0.75
1990	0.76
1991	0.76
1992	0.75
1993	0.78
1994	0.77
1995	10.1 (mR per quarter)*
1996	10.1 (mR per quarter)
1997	10.1 (mR per quarter)
1998	9.7 (mR per quarter)
1999	9.7 (mR per quarter)
2000	9.7 (mR per quarter)
2001	10.0 (mR per quarter)
2002	9.6 (mR per quarter)
2003	9.6 (mR per quarter)
2004	9.7 (mR per quarter)
2005	9.8 (mR per quarter)
2006	10.0 (mR per quarter)

*TLD exposure in mR per quarter beginning in 1995. The equivalent weekly exposure is 0.78 mR.

MISSED SURVEILLANCES

Air Cartridge and Air Particulates

Any REMP weekly air samples (Air Cartridge – AC or Air Particulate – AP) that exceed 30 hours of down time in a surveillance period will be reported as a "missed surveillance." However, this sample will still be counted and the data reported; whereas a "missed sample" will have no data reported.

All AP and AC samples were available for counting in 2006.

Missed Surveillances:

- None Reported

Food Crops / Vegetation

No food crops were grown in the vicinity of the plant in 2006; therefore, none were collected. The media were represented by indigenous vegetation samples (broadleaf vegetation) consisting primarily of wax myrtle leaves.

Thermoluminescent Dosimeters (TLDs)

One out of a possible 180 TLD samples was missing during 2006. The missing TLD occurred:

Fourth Quarter - TLD 25 was missing in the field due to the power pole it was stationed on being replaced due to a vehicle accident, which resulted in the loss of the TLD. A new TLD and holder were placed in the same location on a new pole (NCR # 218155).

Note: TLD points 41 thru 74 are not ODCM TLD sample points and are not listed. TLD sample points 19 and 80 have been retired.

ANALYTICAL PROCEDURES

Gross Beta

Gross beta radioactivity measurements are made utilizing a Tennelec Low-Background Alpha/Beta Counting System. The LLD for air particulates is approximately 4.1E-3 pCi/m^3.

AP samples are mounted in two-inch stainless steel planchets and are typically counted directly for 50 minutes.

Tritium

Liquid samples requiring tritium analysis are treated with a small amount of sodium hydroxide, potassium permanganate crystals, and then distilled. Five milliliters of the distillate are mixed with 13 milliliters of liquid scintillation cocktail and counted in a liquid scintillation counter typically for 200 minutes. The LLD for this count time was approximately 3.50E+2 pCi/L. This lower LLD was established to compare BSEP tritium LLDs and North Carolina Department of Radiation Protection's reportable concentrations, in the Split Sample Program's Annual Report.

Iodine-131

Iodine-131 airborne concentrations are analyzed by the intrinsic germanium (Ge) gamma spectrometry systems. The cartridges are placed on the detector and each charcoal cartridge is typically counted individually for 2,500 seconds with an approximate LLD of 6.8E-2 pCi/m^3.

Gamma Spectrometry

Gamma spectrum analysis utilizes intrinsic germanium detectors with thin aluminum windows housed in steel and lead shields. The analyzer system is the Canberra Nuclear 9900 Gamma Spectroscopy System. Table 6 summarizes LLD values derived from using the instrument with the worst sensitivity, typical sample volumes, typical count times, typical worst background count, and worst case on decay (from collection to counting).

AP filter quarterly composites are placed in a Petri dish and analyzed directly for a typical count time of 7,000 seconds. The count time was increased in 1997 from 3,600 seconds to 7,000 seconds due to decreased sample volumes.

Liquid samples are boiled down to reduce the volume, transferred to a 1000-milliliter Marinelli beaker, and analyzed for a typical count time of 80,000 seconds.

Shoreline sediments are dried, ground, weighed, and then analyzed in a Marinelli beaker for a typical count time of 1,500 seconds.

Broadleaf vegetation is weighed wet and analyzed in a Marinelli beaker for a typical count time of 7,500 seconds.

Fish samples and edible portions of invertebrate organisms are cleaned, dressed, and placed in a Marinelli beaker for analysis for a typical count time of 1,500 seconds.

Thermoluminescent Dosimetry

Each area monitoring station includes a TLD packet, which is a polyethylene bag containing three calcium sulfate phosphors contained in a Panasonic UD-814 badge. The TLD is light tight and the bag is weather-resistant.

Dosimeters are machine annealed before field placement. Following exposure in the field, each dosimeter is read utilizing a Panasonic TLD reader. This instrument integrates the light photons emitted from traps as the dosimeter is heated. Calibration is calculated using dosimeters irradiated to known doses for each set of dosimeters measured. Prior to the measurement of each dosimeter, the instrument is checked through use of an internal constant light source as a secondary standard.

The exposure reported is corrected for exposure received in transit and during storage through the use of control dosimeters.

Interlaboratory Comparison Program

The Radiochemistry Laboratory at the Harris Energy & Environmental Center in New Hill, North Carolina, provides radioanalytical services for Progress Energy Carolinas, Inc.'s nuclear plant radiological environmental surveillance programs. In fulfillment of ODCM Operational Requirements, the laboratory is a participant in the Analytics, Inc., Environmental Cross-Check Program and uses its performance in this program as a major determinant of the accuracy and precision of its analytical results.

During 2006, 133 analyses were completed on 22 samples representing seven major environmental media (i.e., water, milk, air filters, air filters composite, soil, air cartridges, and simulated vegetation). Data on the known activities, the uncertainties, and the ratios to the known for the 133 analyses have been received from Analytics, Inc. The results shall be compared to the criteria established in the NRC Inspection Manual (Procedure 84750) for Radioactive Waste Treatment, Effluent, and Environmental monitoring.

All of the 133 analyses were within the acceptance criteria, except for one Gamma on Filter for Cs-134 result which fell outside the acceptable criteria (NCR # 204953). During 2006, each individual measurement (587 analyses) was evaluated; with all but six (6) of the individual measurements falling within the acceptable criteria (NCR # 199276, 204952, 204953, and 226140). Any results that lie outside the ratio criteria will have an evaluation performed to identify any recommended remedial actions and to reduce anomalous errors. Complete documentation of any evaluation will be available and provided to the NRC upon request.

Lower Limits of Detection

All samples analyzed met the LLD required by ODCM Table 7.3.15-3. Typical "a priori" LLD values for the samples analyzed are listed in Table 6.

TABLE 6
TYPICAL LOWER LIMITS OF DETECTION (A PRIORI)
GAMMA SPECTROMETRY

Surface Water Samples (Saline Water)	
Isotope	**LLD (pCi/l)**
Mn-54	4
Co-58	5
Fe-59	12
Co-60	6
Zn-65	10
Zr-Nb-95	8 / 5
I-131	14
Cs-134	4
Cs-137	4
Ba-La-140	33 / 8
Air Particulates (Quarterly Composite)	
Isotope	**LLD (pCi/m^3)**
Cs-134	0.002
Cs-137	0.002
Shoreline Sediment	
Isotope	**LLD (pCi/kg, dry)**
Cs-134	148
Cs-137	121
Fish	
Isotope	**LLD (pCi/kg, wet)**
Mn-54	97
Co-58	102
Fe-59	238
Co-60	127
Zn-65	256
Cs-134	128
Cs-137	115
Food Products and Vegetation	
Isotope	**LLD (pCi/kg, wet)**
I-131	57
Cs-134	44
Cs-137	29

LAND USE CENSUS

PURPOSE OF THE LAND USE CENSUS

The land use census identifies the pathways (or routes) that radioactive material may reach the general populations near commercial nuclear generating stations. This is accomplished by completing studies each year that identify how the surrounding lands are used by the population. A comprehensive census of the use of the land within a five-mile distance of the plant is completed during the growing season each year. This information is used for dose assessment and to identify changes to the stations sampled and the type of samples. These results ensure that the Radiological Environmental Monitoring Program (REMP) is based upon current data regarding human activity in the vicinity of the plant. Therefore, the purpose of the land use census is both to ensure the monitoring program is current as well as to provide data for the calculation of estimated radiation exposure.

The pathways that are evaluated are:

- Ingestion Pathway - Results from eating food crops that may have radioactive materials deposited on them from the soil or atmosphere. Another pathway is through drinking milk from local cows or goats if these are present. The grass used to feed these animals may have incorporated or had deposited on it radioactive materials that can be transferred to the milk.

- Direct Radiation Exposure Pathway - Results from deposition of radioactive materials on the ground or from passage of these radioactive materials in the air.

- Inhalation Pathway - Results from breathing radioactive materials transported in the air.

Methodology

The following must be identified within the five-mile radius of the plant for each of the 16 meteorological sectors (compass direction from which the winds may blow, for example NNE [North North East]):

- The nearest resident
- The nearest garden of greater that 500 square feet, producing broadleaf vegetables
- The nearest milk animal

The primary method is visual inspection from roadside within the five-mile radius, with the exception of the Sunny Point Military Ocean Terminal. This information may be supplemented with data from aerial photographs and a Global Positioning System (GPS) to determine distance and direction from the plant.

2006 Land Use Census Results

The 2005 and 2006 results of the survey for the nearest resident, garden, milk and meat animals in each sector are compared in Table 7.

The resident portion of the census conducted in June and July of 2006 did identify a change in the identity of the nearest resident from plant center from 2005 in the NNW sector. The garden portion of the census identified changes in the distances, locations, and existence of the nearest garden in six sectors. The census did identify some changes in the distance of 0.1 mile due to the GPS readings, not actual changes.

The nearest garden location changed in the South (S) sector from 1.8 miles to 1.9 miles, the South Southwest (SSW) sector from 1.5 miles to 1.7 miles, the West Southwest (WSW) from 1.2 miles to 1.5 miles, the West (W) sector from 2.4 miles to 0.9 miles, the Northwest (NW) sector from 4.8 miles to 1.0 mile, and the North Northwest (NNW) from 0.9 miles to 4.5 miles. No milk animals were located within 5 miles of the plant in 2006.

The 2006 Garden Census was conducted within 3 miles of BSEP and identifies all gardens of greater that 500 square feet that were found in the survey area. Results of the garden census are located in Table 8.

Results of the 2006 Land Use and Garden Census indicate stable use of land, confirming that current control locations are appropriate, and no changes are needed for dose assessment and environmental motoring.

TABLE 7
Brunswick Steam Electric Plant
LAND USE CENSUS COMPARISONS (2005- 2006)
NEAREST PATHWAY (MILES)

SECTOR	RESIDENT		GARDEN		MILK/MEAT ANIMALS	
	2005	2006	2005	2006	2005	2006
N	0.7	0.8	None	None	None	None
NNE	0.8	0.7	None	None	None	None
NE	None	None	None	None	None	None
ENE	None	None	None	None	None	None
E	None	None	None	None	None	None
ESE	1.5	1.4	None	None	None	None
SE	0.9	0.9	None	None	None	None
SSE	1.0	0.9	None	None	None	None
S	1.1	1.1	1.8	1.9*	None	None
SSW	1.2	1.2	1.5	1.7*	None	None
SW	1.0	1.1	2.9	3.0	None	None
WSW	1.2	1.2	1.2	1.5*	None	None
W	0.8	0.9	2.4	0.9*	None	None
WNW	0.8	0.9	None	None	None	None
NW	0.9	0.9	4.8	1.0*	None	None
NNW	0.8	0.8*	0.9	4.5*	None	None

* Represents a change from the previous year.

TABLE 8
Brunswick Steam Electric Plant
GARDEN CENSUS (2006)

SECTOR	DISTANCE (miles)		SECTOR	DISTANCE (miles)
N	None		W	2.7
NNE	None		NW	1.0
NE	None		NW	4.8
ENE	None		NNW	4.5
E	None		NNW	4.8
ESE	None			
SE	None			
SSE	None			
S	1.9			
SSW	1.7			
SSW	1.8			
SSW	1.8			
SSW	1.9			
SSW	2.0			
SSW	2.1			
SSW	2.3			
SSW	2.7			
SSW	2.8			
SW	3.0			
WSW	1.5			
WSW	1.9			
WSW	2.1			
W	0.9			
W	1.0			
W	2.4			
W	2.5			

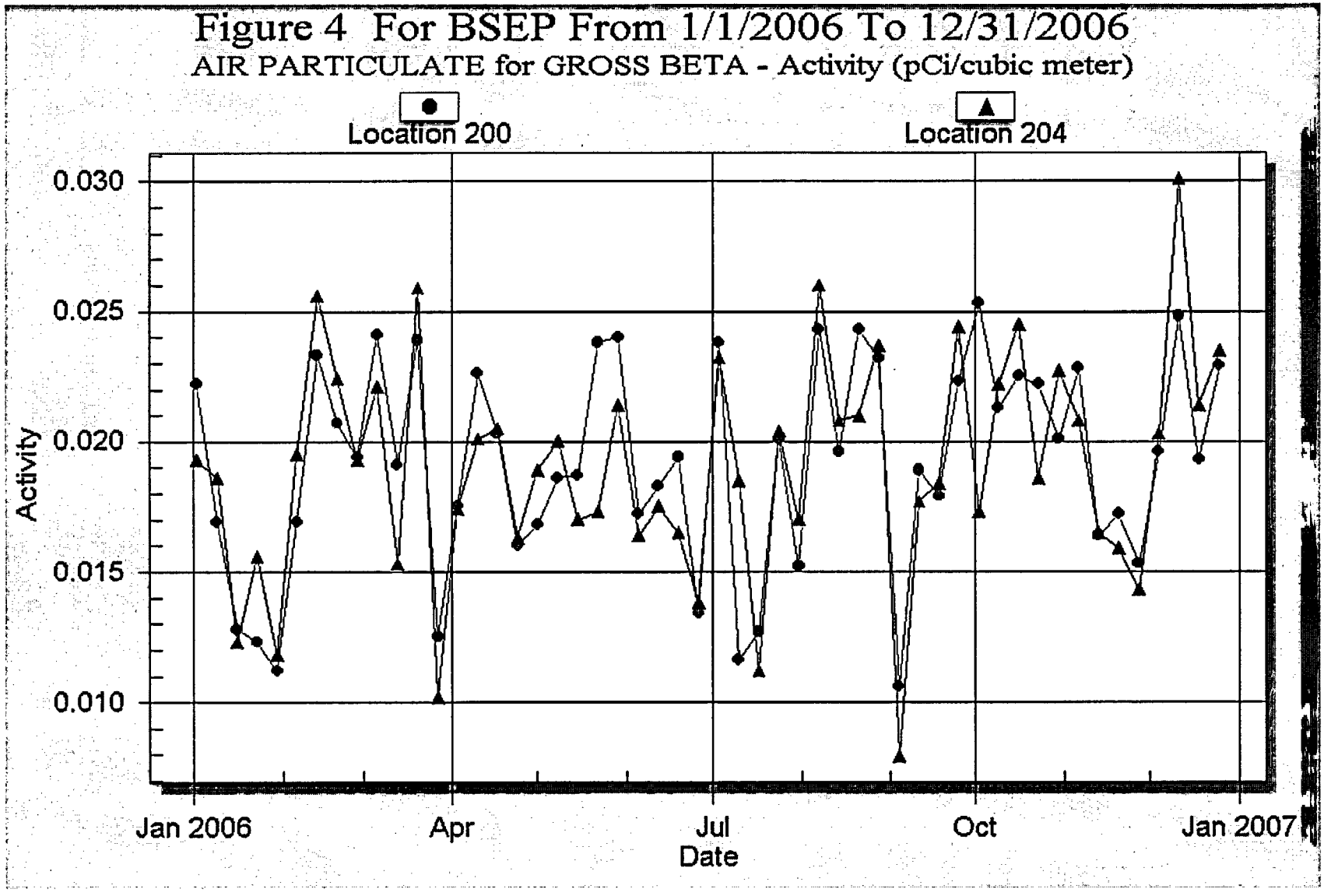


Figure 4 For BSEP From 1/1/2006 To 12/31/2006
AIR PARTICULATE for GROSS BETA - Activity (pCi/cubic meter)
Location 200
Location 204
0.030
0.025
0.020
0.015
0.010
Activity
Jan 2006
Apr
Jul
Oct
Jan 2007
Date

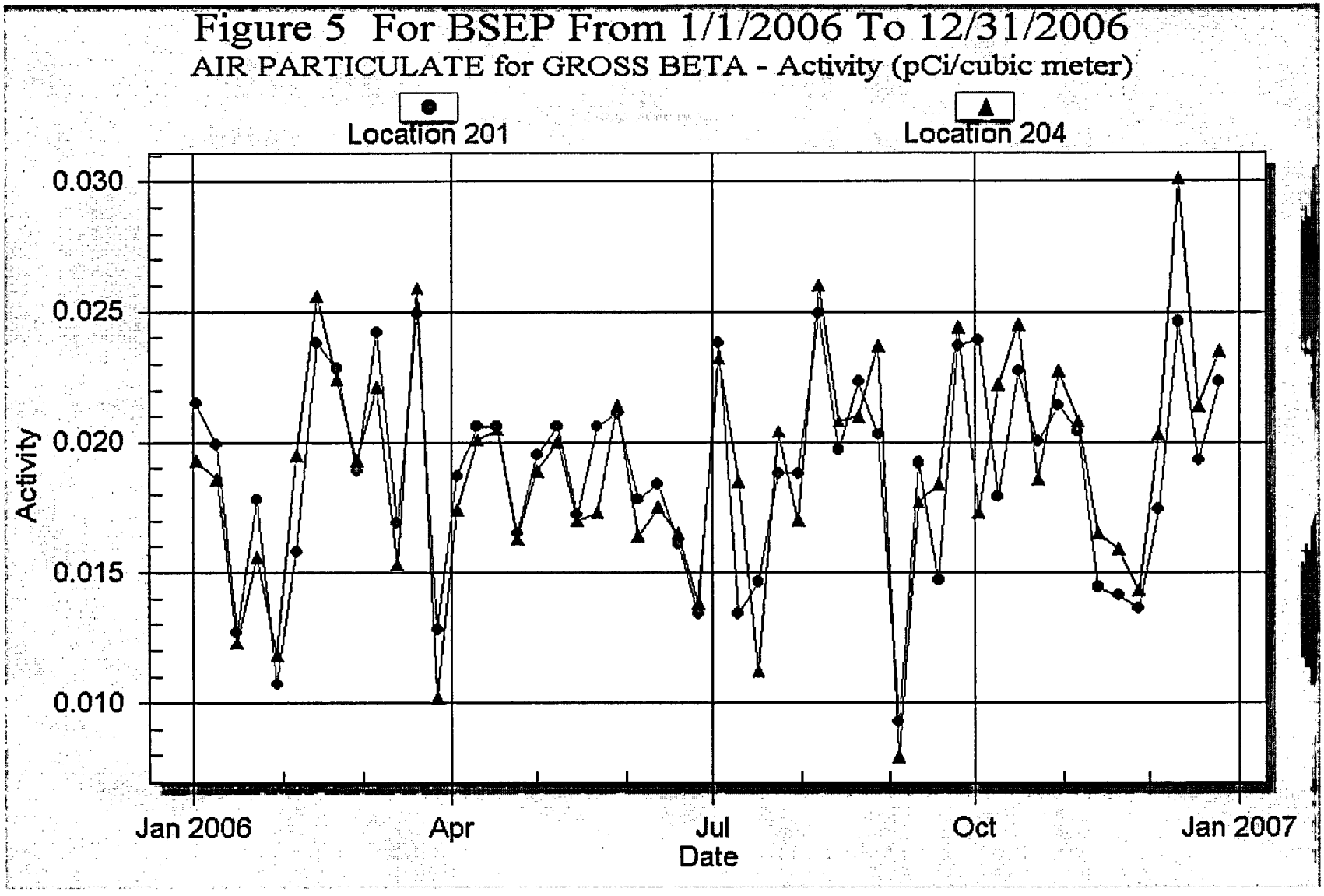


Figure 5 For BSEP From 1/1/2006 To 12/31/2006
AIR PARTICULATE for GROSS BETA - Activity (pCi/cubic meter)
Location 201
Location 204
0.030
0.025
0.020
0.015
0.010
Activity
Jan 2006
Apr
Jul
Oct
Jan 2007
Date

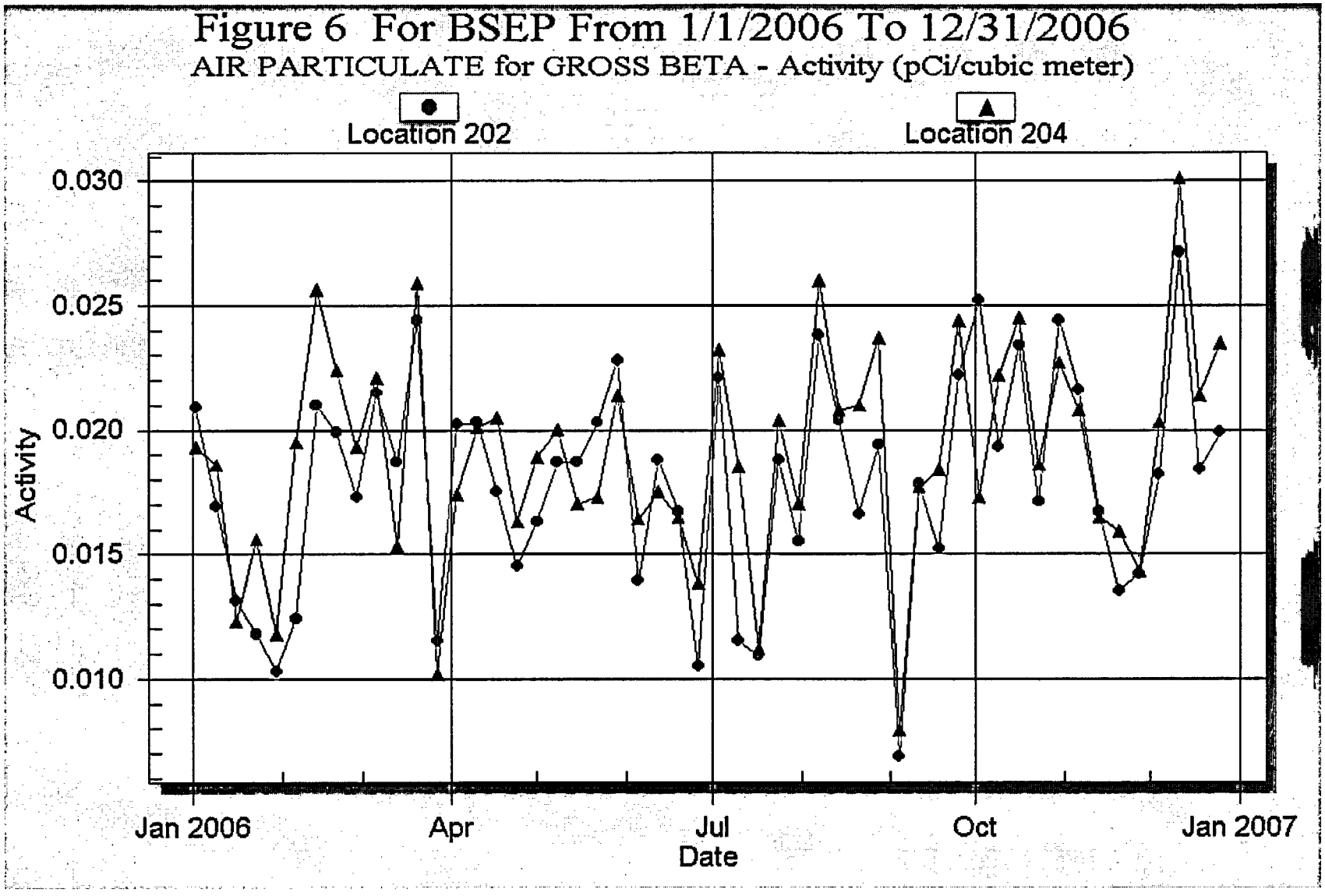


Figure 6 For BSEP From 1/1/2006 To 12/31/2006
AIR PARTICULATE for GROSS BETA - Activity (pCi/cubic meter)
Location 202
Location 204
0.030
0.025
0.020
0.015
0.010
Activity
Jan 2006
Apr
Jul
Oct
Jan 2007
Date

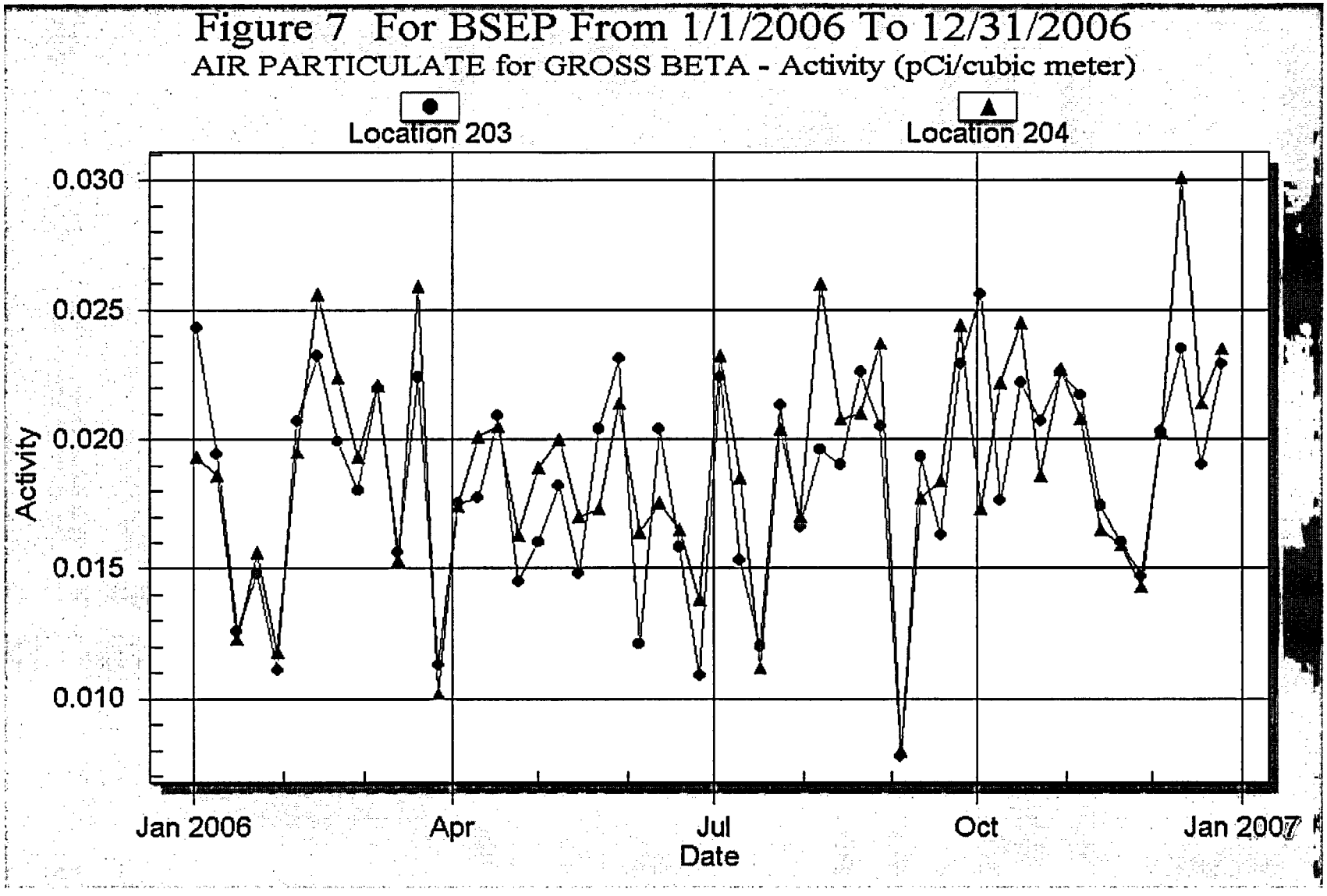


Figure 7 For BSEP From 1/1/2006 To 12/31/2006
AIR PARTICULATE for GROSS BETA - Activity (pCi/cubic meter)
Location 203
Location 204
0.030
0.025
0.020
0.015
0.010
Activity
Jan 2006
Apr
Jul
Oct
Jan 2007
Date

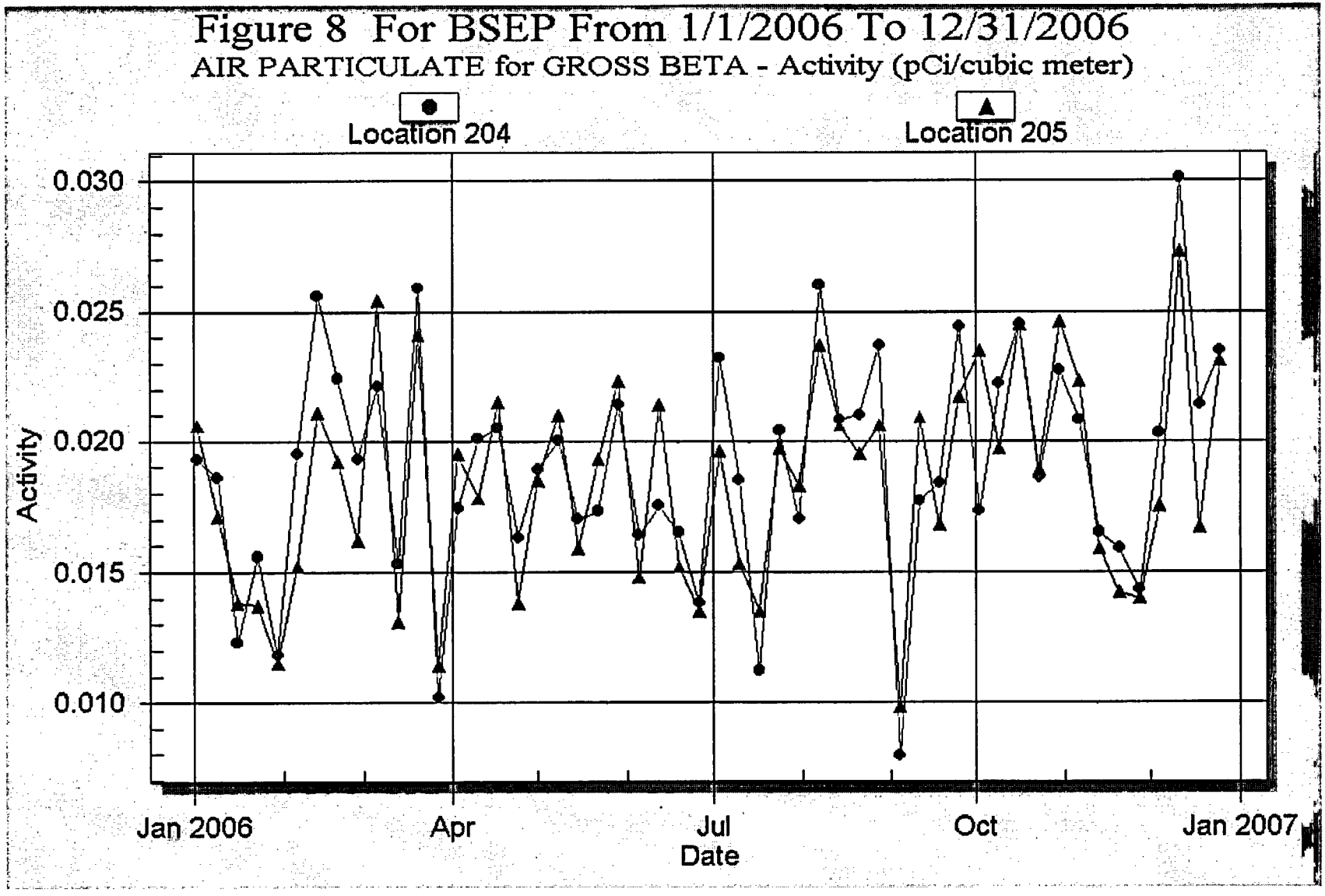


Figure 8 For BSEP From 1/1/2006 To 12/31/2006
AIR PARTICULATE for GROSS BETA - Activity (pCi/cubic meter)
Location 204
Location 205
0.030
0.025
0.020
0.015
0.010
Activity
Jan 2006
Apr
Jul
Oct
Jan 2007
Date

Figure 9 BSEP 2006 Surface Water Tritium

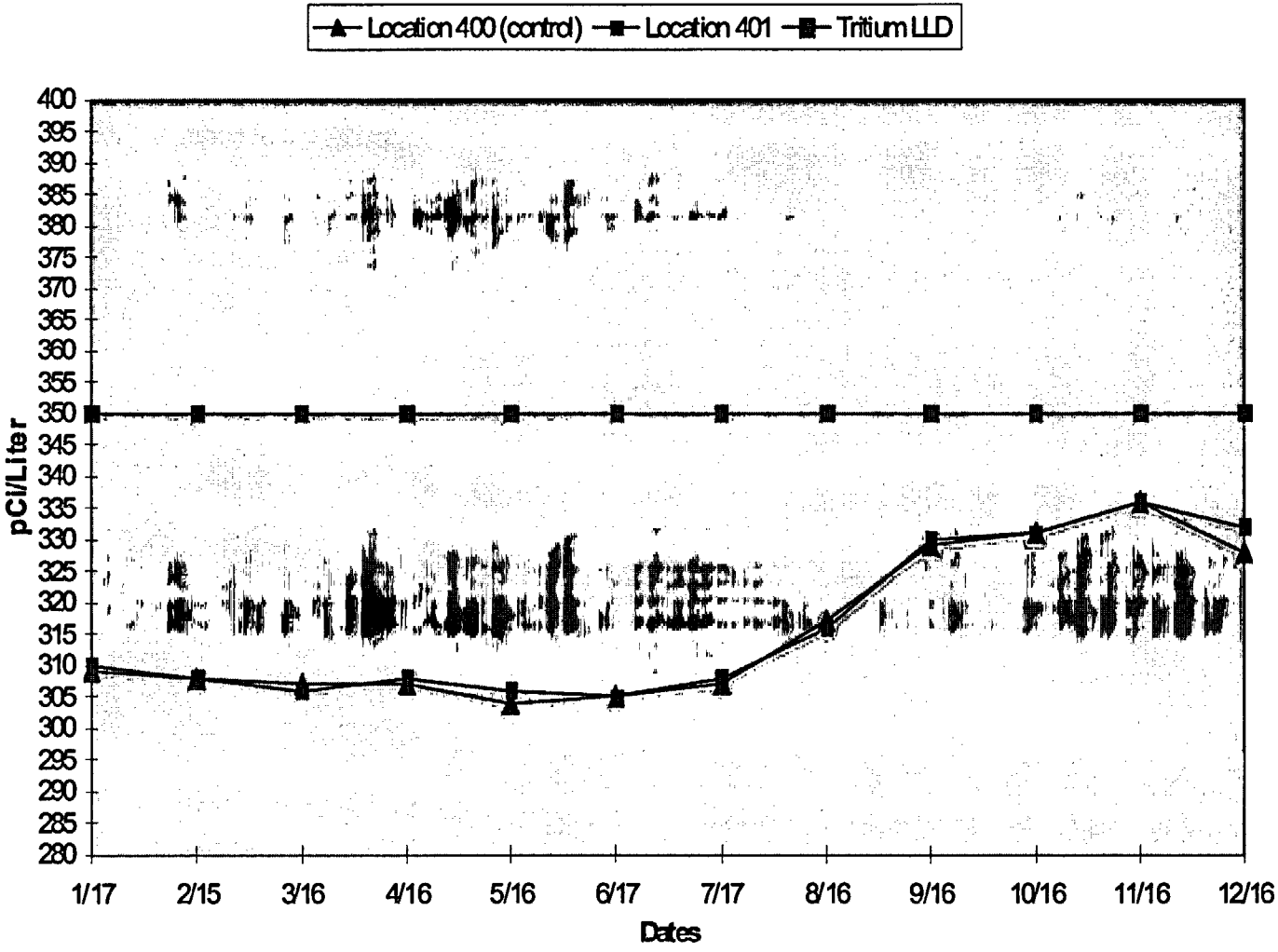
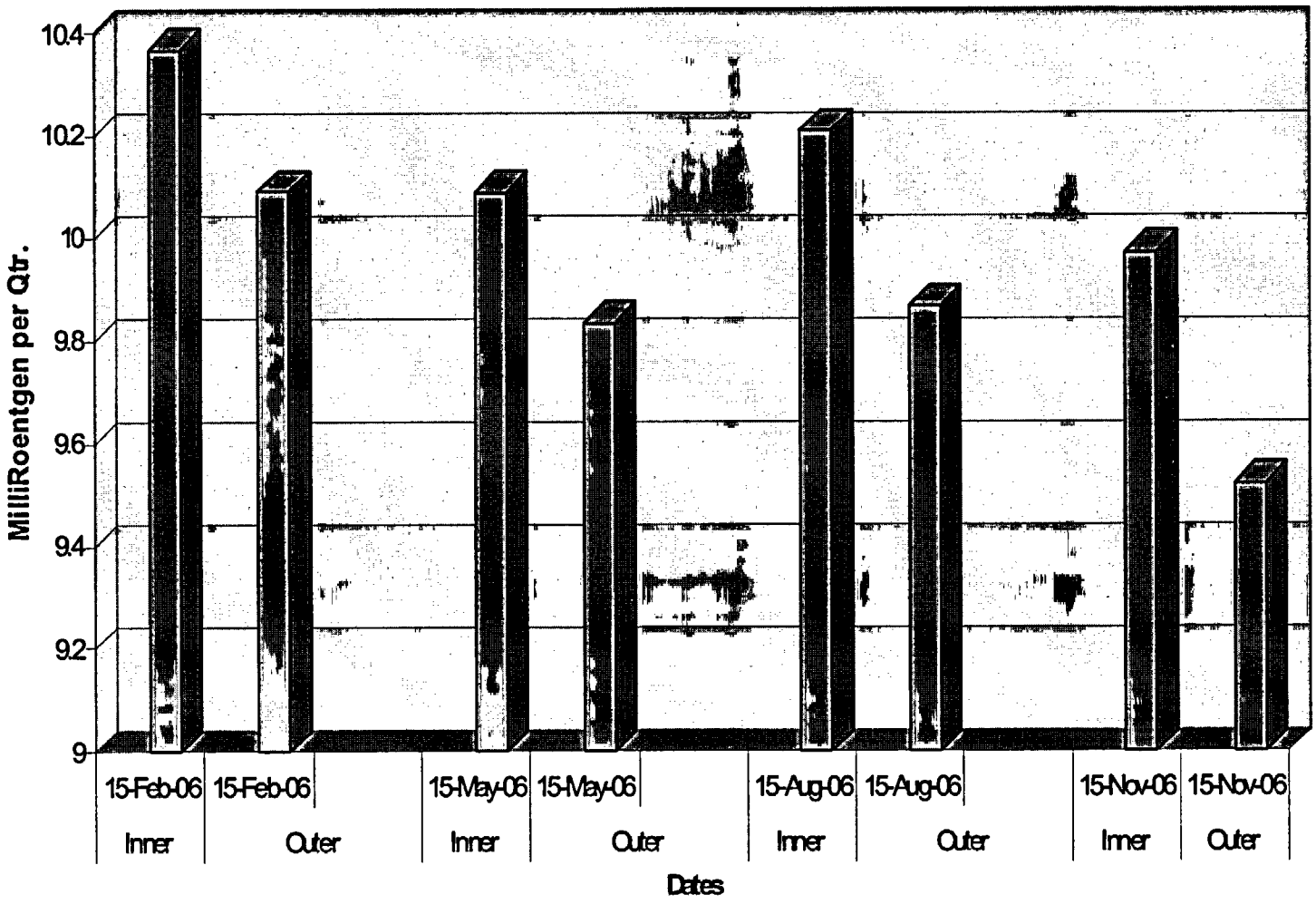


Figure 10 BSEP 2006 TLD Averages for Inner and Outer Ring Locations



2006 BSEP
Radiological Environmental Monitoring
TLD Report

Comments

- TLD points 41 thru 74 are not ODCM TLD sample points and are not listed.
- TLD sample points 19 and 80 have been retired and are not used.
- All BSEP Environmental TLDs were present in 2006, except for the following TLD:
  - TLD # 25 Fourth Quarter of 2006

BNP Radiological Environmental Monitoring TLD Report

Dose: mR/std. qtr.

TLD	*TLD Location Description*	*Sample Date*	*Dose*	*2 Sigma Error*
1	1.1 MI E	2/15/2006	9.8	1.1
1	1.1 MI E	5/15/2006	10.1	1.1
1	1.1 MI E	8/15/2006	9.5	0.7
1	1.1 MI E	11/15/2006	9.8	0.5
2	0.9 MI ESE	2/15/2006	8.8	1.2
2	0.9 MI ESE	5/15/2006	10.6	1.5
2	0.9 MI ESE	8/15/2006	9.3	1.1
2	0.9 MI ESE	11/15/2006	10.9	0.5
3	0.9 MI SE	2/15/2006	9.6	2
3	0.9 MI SE	5/15/2006	11.3	0.6
3	0.9 MI SE	8/15/2006	9.7	0.6
3	0.9 MI SE	11/15/2006	11.2	0.8
4	1.1 MI SSE	2/15/2006	10.5	1.4
4	1.1 MI SSE	5/15/2006	10.6	1.6
4	1.1 MI SSE	8/15/2006	10.1	0.6
4	1.1 MI SSE	11/15/2006	9.9	1.3
5	1.1 MI S	2/15/2006	10.8	1.5
5	1.1 MI S	5/15/2006	10	1.5
5	1.1 MI S	8/15/2006	10.5	0.9
5	1.1 MI S	11/15/2006	11.1	2
6	1.1 MI SSW	2/15/2006	12.4	1.5
6	1.1 MI SSW	5/15/2006	12.7	1.5

Dose: mR/std. qtr.

TLD	TLD Location Description	Sample Date	Dose	2 Sigma Error
6	1.1 MI SSW	8/15/2006	13	0.5
6	1.1 MI SSW	11/15/2006	12.7	1.2
7	1.1 MI SW	2/15/2006	9.4	1.2
7	1.1 MI SW	5/15/2006	10.5	1
7	1.1 MI SW	8/15/2006	10.2	0.5
7	1.1 MI SW	11/15/2006	10.1	0.7
8	1.2 MI W	2/15/2006	10.1	1.2
8	1.2 MI W	5/15/2006	10.4	1.3
8	1.2 MI W	8/15/2006	9.1	0.5
8	1.2 MI W	11/15/2006	10.1	1.4
9	1.0 MI WNW	2/15/2006	11.3	1.7
9	1.0 MI WNW	5/15/2006	9.5	1.4
9	1.0 MI WNW	8/15/2006	8.3	1.1
9	1.0 MI WNW	11/15/2006	9.4	1.2
10	0.8 MI NW	2/15/2006	9	1.1
10	0.8 MI NW	5/15/2006	8.3	1.1
10	0.8 MI NW	8/15/2006	8.9	0.5
10	0.8 MI NW	11/15/2006	8.5	0.5
11	0.9 MI NNW	2/15/2006	11.4	2.6
11	0.9 MI NNW	5/15/2006	9.6	1
11	0.9 MI NNW	8/15/2006	11.4	1.8
11	0.9 MI NNW	11/15/2006	9.5	0.5
12	1.1 MI N	2/15/2006	10.2	1.1
12	1.1 MI N	5/15/2006	10	1.8

Dose: mR/std. qtr.

TLD	TLD Location Description	Sample Date	Dose	2 Sigma Error
12	1.1 MI N	8/15/2006	10.1	1.2
12	1.1 MI N	11/15/2006	9.6	1.3
13	1.2 MI NNE	2/15/2006	9.5	1.3
13	1.2 MI NNE	5/15/2006	9.2	1.9
13	1.2 MI NNE	8/15/2006	9.2	0.6
13	1.2 MI NNE	11/15/2006	8.6	0.6
14	0.5 MI NE	2/15/2006	10.7	1.4
14	0.5 MI NE	5/15/2006	11.3	0.7
14	0.5 MI NE	8/15/2006	10.8	1.6
14	0.5 MI NE	11/15/2006	11.1	0.8
15	0.9 MI ENE	2/15/2006	10.4	1.6
15	0.9 MI ENE	5/15/2006	11	1
15	0.9 MI ENE	8/15/2006	10.8	1.3
15	0.9 MI ENE	11/15/2006	10.6	1
16	1.0 MI WSW	2/15/2006	8.9	1
16	1.0 MI WSW	5/15/2006	9.9	1.4
16	1.0 MI WSW	8/15/2006	9	1
16	1.0 MI WSW	11/15/2006	9.6	0.4
17	1.4 MI ESE	2/15/2006	12.6	1.9
17	1.4 MI ESE	5/15/2006	10.6	2
17	1.4 MI ESE	8/15/2006	12.4	2
17	1.4 MI ESE	11/15/2006	10.5	1.1
18	1.7 MI SE	2/15/2006	10.4	0.8
18	1.7 MI SE	5/15/2006	9.5	0.6

Dose: mR/std. qtr.

TLD	TLD Location Description	Sample Date	Dose	2 Sigma Error
18	1.7 MI SE	8/15/2006	10.6	1.1
18	1.7 MI SE	11/15/2006	9.6	0.7
20	2.1 MI S	2/15/2006	11.5	1.2
20	2.1 MI S	5/15/2006	7.7	0.8
20	2.1 MI S	8/15/2006	10.3	0.7
20	2.1 MI S	11/15/2006	8.2	1.2
21	2.9 MI SSW	2/15/2006	9.3	1.4
21	2.9 MI SSW	5/15/2006	9.6	0.7
21	2.9 MI SSW	8/15/2006	9.7	1.3
21	2.9 MI SSW	11/15/2006	9.4	0.5
22	5.3 MI SW	2/15/2006	9	1.3
22	5.3 MI SW	5/15/2006	10.7	1.4
22	5.3 MI SW	8/15/2006	9.3	0.9
22	5.3 MI SW	11/15/2006	10.3	0.6
23	4.6 MI WSW	2/15/2006	10.3	1.2
23	4.6 MI WSW	5/15/2006	8.2	0.5
23	4.6 MI WSW	8/15/2006	9.6	0.5
23	4.6 MI WSW	11/15/2006	8.1	0.9
24	3.0 MI W	2/15/2006	10.4	1.2
24	3.0 MI W	5/15/2006	10.3	0.7
24	3.0 MI W	8/15/2006	10.6	0.5
24	3.0 MI W	11/15/2006	10.3	1
25	8.6 MI WNW	2/15/2006	9.1	1
25	8.6 MI WNW	5/15/2006	9.7	0.9

Dose: mR/std. qtr.

TLD	TLD Location Description	Sample Date	Dose	2 Sigma Error
25	8.6 MI WNW	8/15/2006	9.1	1.3
26	5.9 MI NW	2/15/2006	12.2	1.7
26	5.9 MI NW	5/15/2006	11.1	1.7
26	5.9 MI NW	8/15/2006	12	0.6
26	5.9 MI NW	11/15/2006	10.9	0.9
27	5.1 MI NNW	2/15/2006	9.5	2.4
27	5.1 MI NNW	5/15/2006	8.9	1.1
27	5.1 MI NNW	8/15/2006	9.6	1.4
27	5.1 MI NNW	11/15/2006	8.6	0.9
28	4.2 MI NW	2/15/2006	10.5	1.2
28	4.2 MI NW	5/15/2006	10.1	0.6
28	4.2 MI NW	8/15/2006	10.1	0.7
28	4.2 MI NW	11/15/2006	9.6	0.8
29	2.6 MI SSW	2/15/2006	9.1	1.1
29	2.6 MI SSW	5/15/2006	8.9	0.5
29	2.6 MI SSW	8/15/2006	9.2	1.3
29	2.6 MI SSW	11/15/2006	8.8	0.7
30	2.0 MI NE	2/15/2006	12.6	1
30	2.0 MI NE	5/15/2006	10.6	1
30	2.0 MI NE	8/15/2006	12.2	1
30	2.0 MI NE	11/15/2006	10.2	0.4
31	2.5 MI ENE	2/15/2006	10	1.4
31	2.5 MI ENE	5/15/2006	9.9	1.4
31	2.5 MI ENE	8/15/2006	10.2	0.6

Dose: mR/std. qtr.

TLD	TLD Location Description	Sample Date	Dose	2 Sigma Error
31	2.5 MI ENE	11/15/2006	10	0.8
32	5.8 MI ENE	2/15/2006	12.1	1.2
32	5.8 MI ENE	5/15/2006	11	0.8
32	5.8 MI ENE	8/15/2006	11.3	1.5
32	5.8 MI ENE	11/15/2006	11	0.8
33	4.1 MI E	2/15/2006	9.4	1.1
33	4.1 MI E	5/15/2006	8.9	0.6
33	4.1 MI E	8/15/2006	8.9	1.2
33	4.1 MI E	11/15/2006	8.8	0.9
34	5.4 MI E	2/15/2006	9.6	1.1
34	5.4 MI E	5/15/2006	9.7	0.8
34	5.4 MI E	8/15/2006	9	0.6
34	5.4 MI E	11/15/2006	9.2	0.5
35	7.3 MI SSE	2/15/2006	8.5	1.2
35	7.3 MI SSE	5/15/2006	8.1	0.9
35	7.3 MI SSE	8/15/2006	7.8	0.6
35	7.3 MI SSE	11/15/2006	8	1
36	8.9 MI NE	2/15/2006	10.4	1.6
36	8.9 MI NE	5/15/2006	10.1	0.5
36	8.9 MI NE	8/15/2006	10.3	0.8
36	8.9 MI NE	11/15/2006	10.1	1.1
37	5.5 MI NW	2/15/2006	9.3	1.1
37	5.5 MI NW	5/15/2006	8.5	0.8
37	5.5 MI NW	8/15/2006	8.9	1.3

Dose: mR/std. qtr.

TLD	TLD Location Description	Sample Date	Dose	2 Sigma Error
37	5.5 MI NW	11/15/2006	8.7	0.5
38	11.0 MI W	2/15/2006	8.7	1
38	11.0 MI W	5/15/2006	8.8	1.2
38	11.0 MI W	8/15/2006	9.1	0.9
38	11.0 MI W	11/15/2006	8.8	1.1
39	5.3 MI SW	2/15/2006	9	1.2
39	5.3 MI SW	5/15/2006	10	0.9
39	5.3 MI SW	8/15/2006	8.8	0.9
39	5.3 MI SW	11/15/2006	9.6	0.8
40	6.9 MI WSW	2/15/2006	8.7	1.1
40	6.9 MI WSW	5/15/2006	9.4	1
40	6.9 MI WSW	8/15/2006	8.4	0.4
40	6.9 MI WSW	11/15/2006	9.4	1.1
75	4.7 MI S	2/15/2006	10.1	1.4
75	4.7 MI S	5/15/2006	11.1	0.7
75	4.7 MI S	8/15/2006	10.3	1
75	4.7 MI S	11/15/2006	10.5	1.9
76	4.8 MI SSW	2/15/2006	12.6	1.2
76	4.8 MI SSW	5/15/2006	12.3	1.9
76	4.8 MI SSW	8/15/2006	12.7	0.5
76	4.8 MI SSW	11/15/2006	11.2	0.7
77	5.4 MI S	2/15/2006	11.3	1.1
77	5.4 MI S	5/15/2006	9.2	0.9
77	5.4 MI S	8/15/2006	10.1	0.9

Dose: mR/std. qtr.

TLD	TLD Location Description	Sample Date	Dose	2 Sigma Error
77	5.4 MI S	11/15/2006	8.6	0.8
78	9.9 MI NNE	2/15/2006	8.9	1.4
78	9.9 MI NNE	5/15/2006	10	0.6
78	9.9 MI NNE	8/15/2006	8.5	1
78	9.9 MI NNE	11/15/2006	9.4	0.4
79	9.5 MI N	2/15/2006	11.6	1.5
79	9.5 MI N	5/15/2006	11	2.1
79	9.5 MI N	8/15/2006	11.9	1.4
79	9.5 MI N	11/15/2006	10.2	1.4
81	9.9 MI WNW - CONTROL	2/15/2006	11.5	1.1
81	9.9 MI WNW - CONTROL	5/15/2006	10	0.6
81	9.9 MI WNW - CONTROL	8/15/2006	11.7	0.4
81	9.9 MI WNW - CONTROL	11/15/2006	9.5	1.1

2006 BSEP
Radiological Environmental Monitoring
Analysis Report

Comments

- Efficiency values are not included for AC samples requiring radioiodine analysis (I-131), because gamma software does not report these values.
- The Less than LLD (<LLD) represents that no activity was present, but lists the LLD values.
- There are no 2 sigma error values reported when activity is <LLD.

BSEP Radiological Environmental Monitoring Analysis Report

Media Type: Air Particulate
Quantity: cubic meters
Activity: pCi/cubic meter

Analysis: Beta

Sample Point		Sample Date	Quantity	Efficiency	Activity	2 Sigma Error	LLD
200	1.0 MI WSW - VISITORS CENTER	1/2/2006	234.8	3.88E-01	2.22E-02	3.77E-03	3.83E-03
200	1.0 MI WSW - VISITORS CENTER	1/9/2006	278.2	3.88E-01	1.69E-02	3.22E-03	3.59E-03
200	1.0 MI WSW - VISITORS CENTER	1/16/2006	283.2	3.88E-01	1.28E-02	2.84E-03	3.24E-03
200	1.0 MI WSW - VISITORS CENTER	1/23/2006	284.7	3.88E-01	1.23E-02	2.85E-03	3.33E-03
200	1.0 MI WSW - VISITORS CENTER	1/30/2006	282.6	3.88E-01	1.12E-02	2.82E-03	3.40E-03
200	1.0 MI WSW - VISITORS CENTER	2/6/2006	284.3	3.88E-01	1.69E-02	3.15E-03	3.45E-03
200	1.0 MI WSW - VISITORS CENTER	2/13/2006	285.3	3.88E-01	2.33E-02	3.33E-03	3.08E-03
200	1.0 MI WSW - VISITORS CENTER	2/20/2006	303	3.88E-01	2.07E-02	3.17E-03	3.17E-03
200	1.0 MI WSW - VISITORS CENTER	2/27/2006	305.5	3.88E-01	1.94E-02	2.97E-03	2.81E-03
200	1.0 MI WSW - VISITORS CENTER	3/6/2006	316.7	3.88E-01	2.41E-02	3.25E-03	3.07E-03
200	1.0 MI WSW - VISITORS CENTER	3/13/2006	269.2	3.88E-01	1.91E-02	3.36E-03	3.57E-03
200	1.0 MI WSW - VISITORS CENTER	3/20/2006	252.6	3.88E-01	2.39E-02	3.70E-03	3.66E-03
200	1.0 MI WSW - VISITORS CENTER	3/27/2006	281.8	3.88E-01	1.25E-02	2.84E-03	3.26E-03
200	1.0 MI WSW - VISITORS CENTER	4/3/2006	284.6	3.88E-01	1.75E-02	3.03E-03	3.07E-03
200	1.0 MI WSW - VISITORS CENTER	4/10/2006	289.8	3.88E-01	2.26E-02	3.36E-03	3.32E-03
200	1.0 MI WSW - VISITORS CENTER	4/17/2006	286.3	3.88E-01	2.03E-02	3.21E-03	3.18E-03
200	1.0 MI WSW - VISITORS CENTER	4/24/2006	291.6	3.88E-01	1.60E-02	2.97E-03	3.17E-03
200	1.0 MI WSW - VISITORS CENTER	5/1/2006	287	3.88E-01	1.68E-02	3.15E-03	3.48E-03
200	1.0 MI WSW - VISITORS CENTER	5/8/2006	297.3	3.88E-01	1.86E-02	2.91E-03	2.67E-03
200	1.0 MI WSW - VISITORS CENTER	5/15/2006	283	3.88E-01	1.87E-02	3.05E-03	2.94E-03
200	1.0 MI WSW - VISITORS CENTER	5/22/2006	287.8	3.88E-01	2.38E-02	3.24E-03	2.76E-03
200	1.0 MI WSW - VISITORS CENTER	5/29/2006	291	3.88E-01	2.40E-02	3.39E-03	3.22E-03
200	1.0 MI WSW - VISITORS CENTER	6/5/2006	299	3.88E-01	1.72E-02	3.06E-03	3.30E-03
200	1.0 MI WSW - VISITORS CENTER	6/12/2006	283.8	3.88E-01	1.83E-02	3.20E-03	3.39E-03
200	1.0 MI WSW - VISITORS CENTER	6/19/2006	292.6	3.88E-01	1.94E-02	3.00E-03	2.77E-03
200	1.0 MI WSW - VISITORS CENTER	6/26/2006	296	3.88E-01	1.34E-02	2.71E-03	2.92E-03
200	1.0 MI WSW - VISITORS CENTER	7/3/2006	289.7	3.88E-01	2.38E-02	3.25E-03	2.82E-03

BSEP Radiological Environmental Monitoring Analysis Report

Media Type: Air Particulate
Quantity: cubic meters
Activity: pCi/cubic meter

Analysis: Beta

Sample Point		Sample Date	Quantity	Efficiency	Activity	2 Sigma Error	LLD
200	1.0 MI WSW - VISITORS CENTER	7/10/2006	255.3	3.88E-01	1.16E-02	2.88E-03	3.31E-03
200	1.0 MI WSW - VISITORS CENTER	7/17/2006	293.6	3.88E-01	1.27E-02	2.75E-03	3.11E-03
200	1.0 MI WSW - VISITORS CENTER	7/24/2006	297.3	3.88E-01	2.01E-02	3.17E-03	3.19E-03
200	1.0 MI WSW - VISITORS CENTER	7/31/2006	290.5	3.88E-01	1.52E-02	2.86E-03	3.00E-03
200	1.0 MI WSW - VISITORS CENTER	8/7/2006	292.9	3.88E-01	2.43E-02	3.33E-03	3.05E-03
200	1.0 MI WSW - VISITORS CENTER	8/14/2006	293.6	3.88E-01	1.96E-02	3.03E-03	2.85E-03
200	1.0 MI WSW - VISITORS CENTER	8/21/2006	290.3	3.88E-01	2.43E-02	3.32E-03	2.98E-03
200	1.0 MI WSW - VISITORS CENTER	8/28/2006	292.8	3.88E-01	2.32E-02	3.12E-03	2.53E-03
200	1.0 MI WSW - VISITORS CENTER	9/4/2006	293.4	3.88E-01	1.06E-02	2.48E-03	2.76E-03
200	1.0 MI WSW - VISITORS CENTER	9/11/2006	293.3	3.88E-01	1.89E-02	3.16E-03	3.30E-03
200	1.0 MI WSW - VISITORS CENTER	9/18/2006	289.9	3.88E-01	1.79E-02	3.04E-03	3.10E-03
200	1.0 MI WSW - VISITORS CENTER	9/25/2006	286.3	3.88E-01	2.23E-02	3.25E-03	3.00E-03
200	1.0 MI WSW - VISITORS CENTER	10/2/2006	289.9	3.88E-01	2.53E-02	3.38E-03	3.01E-03
200	1.0 MI WSW - VISITORS CENTER	10/9/2006	293.1	3.88E-01	2.13E-02	3.23E-03	3.15E-03
200	1.0 MI WSW - VISITORS CENTER	10/16/2006	292.6	3.88E-01	2.25E-02	3.22E-03	2.96E-03
200	1.0 MI WSW - VISITORS CENTER	10/23/2006	287	3.88E-01	2.22E-02	3.34E-03	3.29E-03
200	1.0 MI WSW - VISITORS CENTER	10/30/2006	284.8	3.88E-01	2.01E-02	3.18E-03	3.11E-03
200	1.0 MI WSW - VISITORS CENTER	11/6/2006	280.3	3.88E-01	2.28E-02	3.33E-03	3.11E-03
200	1.0 MI WSW - VISITORS CENTER	11/13/2006	292.1	3.88E-01	1.64E-02	3.01E-03	3.23E-03
200	1.0 MI WSW - VISITORS CENTER	11/20/2006	276.9	3.88E-01	1.72E-02	3.25E-03	3.60E-03
200	1.0 MI WSW - VISITORS CENTER	11/27/2006	285.5	3.88E-01	1.53E-02	2.93E-03	3.13E-03
200	1.0 MI WSW - VISITORS CENTER	12/4/2006	283.8	3.88E-01	1.96E-02	3.17E-03	3.14E-03
200	1.0 MI WSW - VISITORS CENTER	12/11/2006	279.6	3.88E-01	2.48E-02	3.51E-03	3.33E-03
200	1.0 MI WSW - VISITORS CENTER	12/18/2006	276.4	3.88E-01	1.93E-02	3.15E-03	3.06E-03
200	1.0 MI WSW - VISITORS CENTER	12/25/2006	285.6	3.88E-01	2.29E-02	3.23E-03	2.84E-03
201	0.5 MI NE - PMAC	1/2/2006	253.5	3.88E-01	2.15E-02	3.54E-03	3.55E-03
201	0.5 MI NE - PMAC	1/9/2006	223.2	3.88E-01	1.99E-02	3.95E-03	4.47E-03

BSEP Radiological Environmental Monitoring Analysis Report

Media Type: Air Particulate
Quantity: cubic meters
Activity: pCi/cubic meter

Analysis: Beta

Sample Point		Sample Date	Quantity	Efficiency	Activity	2 Sigma Error	LLD
201	0.5 MI NE - PMAC	1/16/2006	304.4	3.88E-01	1.27E-02	2.69E-03	3.02E-03
201	0.5 MI NE - PMAC	1/23/2006	277.6	3.88E-01	1.78E-02	3.20E-03	3.42E-03
201	0.5 MI NE - PMAC	1/30/2006	276.4	3.88E-01	1.07E-02	2.84E-03	3.48E-03
201	0.5 MI NE - PMAC	2/6/2006	275	3.88E-01	1.58E-02	3.16E-03	3.56E-03
201	0.5 MI NE - PMAC	2/13/2006	272	3.88E-01	2.38E-02	3.46E-03	3.23E-03
201	0.5 MI NE - PMAC	2/20/2006	272.3	3.88E-01	2.28E-02	3.52E-03	3.53E-03
201	0.5 MI NE - PMAC	2/27/2006	273	3.88E-01	1.89E-02	3.17E-03	3.15E-03
201	0.5 MI NE - PMAC	3/6/2006	268.4	3.88E-01	2.42E-02	3.64E-03	3.63E-03
201	0.5 MI NE - PMAC	3/13/2006	274.2	3.88E-01	1.69E-02	3.20E-03	3.51E-03
201	0.5 MI NE - PMAC	3/20/2006	273.8	3.88E-01	2.49E-02	3.56E-03	3.38E-03
201	0.5 MI NE - PMAC	3/27/2006	264	3.88E-01	1.28E-02	3.00E-03	3.48E-03
201	0.5 MI NE - PMAC	4/3/2006	272.5	3.88E-01	1.87E-02	3.18E-03	3.20E-03
201	0.5 MI NE - PMAC	4/10/2006	270.3	3.88E-01	2.06E-02	3.43E-03	3.56E-03
201	0.5 MI NE - PMAC	4/17/2006	282.2	3.88E-01	2.06E-02	3.26E-03	3.23E-03
201	0.5 MI NE - PMAC	4/24/2006	276.7	3.88E-01	1.65E-02	3.11E-03	3.34E-03
201	0.5 MI NE - PMAC	5/1/2006	313.5	3.88E-01	1.95E-02	3.08E-03	3.18E-03
201	0.5 MI NE - PMAC	5/8/2006	275.6	3.88E-01	2.06E-02	3.16E-03	2.89E-03
201	0.5 MI NE - PMAC	5/15/2006	286.9	3.66E-01	1.72E-02	3.06E-03	3.07E-03
201	0.5 MI NE - PMAC	5/22/2006	279.9	3.88E-01	2.06E-02	3.13E-03	2.84E-03
201	0.5 MI NE - PMAC	5/29/2006	284.7	3.88E-01	2.11E-02	3.30E-03	3.29E-03
201	0.5 MI NE - PMAC	6/5/2006	290.4	3.88E-01	1.78E-02	3.15E-03	3.39E-03
201	0.5 MI NE - PMAC	6/12/2006	279.4	3.88E-01	1.84E-02	3.24E-03	3.44E-03
201	0.5 MI NE - PMAC	6/19/2006	286.9	3.88E-01	1.61E-02	2.85E-03	2.82E-03
201	0.5 MI NE - PMAC	6/26/2006	294	3.88E-01	1.34E-02	2.73E-03	2.94E-03
201	0.5 MI NE - PMAC	7/3/2006	286.7	3.88E-01	2.38E-02	3.27E-03	2.85E-03
201	0.5 MI NE - PMAC	7/10/2006	292.7	3.88E-01	1.34E-02	2.71E-03	2.89E-03
201	0.5 MI NE - PMAC	7/17/2006	291.4	3.88E-01	1.46E-02	2.87E-03	3.13E-03

BSEP Radiological Environmental Monitoring Analysis Report

Media Type: Air Particulate
Quantity: cubic meters
Activity: pCi/cubic meter

Analysis: Beta

Sample Point		Sample Date	Quantity	Efficiency	Activity	2 Sigma Error	LLD
201	0.5 MI NE - PMAC	7/24/2006	294.5	3.88E-01	1.88E-02	3.13E-03	3.22E-03
201	0.5 MI NE - PMAC	7/31/2006	283.4	3.88E-01	1.88E-02	3.11E-03	3.08E-03
201	0.5 MI NE - PMAC	8/7/2006	297.5	3.88E-01	2.49E-02	3.33E-03	3.00E-03
201	0.5 MI NE - PMAC	8/14/2006	290.4	3.88E-01	1.97E-02	3.06E-03	2.89E-03
201	0.5 MI NE - PMAC	8/21/2006	284.5	3.88E-01	2.23E-02	3.27E-03	3.04E-03
201	0.5 MI NE - PMAC	8/28/2006	292.3	3.88E-01	2.03E-02	2.97E-03	2.54E-03
201	0.5 MI NE - PMAC	9/4/2006	288.8	3.88E-01	9.25E-03	2.42E-03	2.80E-03
201	0.5 MI NE - PMAC	9/11/2006	287.2	3.88E-01	1.92E-02	3.23E-03	3.37E-03
201	0.5 MI NE - PMAC	9/18/2006	282.1	3.88E-01	1.47E-02	2.93E-03	3.19E-03
201	0.5 MI NE - PMAC	9/25/2006	281.1	3.88E-01	2.37E-02	3.36E-03	3.06E-03
201	0.5 MI NE - PMAC	10/2/2006	283.5	3.88E-01	2.39E-02	3.36E-03	3.08E-03
201	0.5 MI NE - PMAC	10/9/2006	287.5	3.88E-01	1.79E-02	3.10E-03	3.22E-03
201	0.5 MI NE - PMAC	10/16/2006	274.6	3.88E-01	2.27E-02	3.37E-03	3.15E-03
201	0.5 MI NE - PMAC	10/23/2006	280.2	3.88E-01	2.00E-02	3.29E-03	3.37E-03
201	0.5 MI NE - PMAC	10/30/2006	266.1	3.88E-01	2.14E-02	3.40E-03	3.33E-03
201	0.5 MI NE - PMAC	11/6/2006	272.9	3.88E-01	2.04E-02	3.27E-03	3.20E-03
201	0.5 MI NE - PMAC	11/13/2006	269.8	3.88E-01	1.44E-02	3.07E-03	3.50E-03
201	0.5 MI NE - PMAC	11/20/2006	270.5	3.88E-01	1.41E-02	3.14E-03	3.69E-03
201	0.5 MI NE - PMAC	11/27/2006	262.3	3.88E-01	1.36E-02	3.01E-03	3.40E-03
201	0.5 MI NE - PMAC	12/4/2006	274.5	3.88E-01	1.74E-02	3.13E-03	3.25E-03
201	0.5 MI NE - PMAC	12/11/2006	252.5	3.88E-01	2.46E-02	3.75E-03	3.69E-03
201	0.5 MI NE - PMAC	12/18/2006	240.8	3.88E-01	1.93E-02	3.46E-03	3.51E-03
201	0.5 MI NE - PMAC	12/25/2006	272.3	3.88E-01	2.23E-02	3.30E-03	2.97E-03
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	1/2/2006	258.1	3.88E-01	2.09E-02	3.46E-03	3.48E-03
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	1/9/2006	274.1	3.88E-01	1.69E-02	3.26E-03	3.64E-03
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	1/16/2006	276.4	3.88E-01	1.31E-02	2.91E-03	3.32E-03
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	1/23/2006	276.8	3.88E-01	1.18E-02	2.88E-03	3.43E-03

BSEP Radiological Environmental Monitoring Analysis Report

Media Type: Air Particulate
Quantity: cubic meters
Activity: pCi/cubic meter

Analysis: Beta

Sample Point		Sample Date	Quantity	Efficiency	Activity	2 Sigma Error	LLD
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	1/30/2006	274.6	3.88E-01	1.03E-02	2.83E-03	3.50E-03
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	2/6/2006	276.1	3.88E-01	1.24E-02	2.97E-03	3.55E-03
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	2/13/2006	275.9	3.88E-01	2.10E-02	3.29E-03	3.19E-03
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	2/20/2006	276.1	3.88E-01	1.99E-02	3.34E-03	3.48E-03
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	2/27/2006	278.5	3.88E-01	1.73E-02	3.04E-03	3.08E-03
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	3/6/2006	277.1	3.88E-01	2.15E-02	3.43E-03	3.51E-03
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	3/13/2006	277	3.88E-01	1.87E-02	3.27E-03	3.47E-03
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	3/20/2006	279.1	3.88E-01	2.44E-02	3.49E-03	3.31E-03
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	3/27/2006	273.6	3.88E-01	1.15E-02	2.84E-03	3.36E-03
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	4/3/2006	278.2	3.88E-01	2.02E-02	3.22E-03	3.14E-03
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	4/10/2006	279.7	3.88E-01	2.03E-02	3.33E-03	3.44E-03
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	4/17/2006	280.1	3.88E-01	1.75E-02	3.11E-03	3.25E-03
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	4/24/2006	282.5	3.88E-01	1.45E-02	2.95E-03	3.27E-03
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	5/1/2006	284.3	3.88E-01	1.63E-02	3.14E-03	3.51E-03
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	5/8/2006	287.5	3.88E-01	1.87E-02	2.97E-03	2.77E-03
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	5/15/2006	276.3	3.88E-01	1.87E-02	3.10E-03	3.01E-03
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	5/22/2006	280.2	3.88E-01	2.03E-02	3.11E-03	2.84E-03
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	5/29/2006	285	3.88E-01	2.28E-02	3.38E-03	3.29E-03
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	6/5/2006	294.1	3.88E-01	1.39E-02	2.92E-03	3.35E-03
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	6/12/2006	278.9	3.88E-01	1.88E-02	3.26E-03	3.45E-03
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	6/19/2006	287.6	3.88E-01	1.67E-02	2.88E-03	2.82E-03
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	6/26/2006	291	3.88E-01	1.05E-02	2.57E-03	2.97E-03
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	7/3/2006	262.1	3.88E-01	2.21E-02	3.38E-03	3.12E-03
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	7/10/2006	291.5	3.88E-01	1.15E-02	2.60E-03	2.90E-03
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	7/17/2006	289.5	3.88E-01	1.09E-02	2.67E-03	3.15E-03
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	7/24/2006	293.6	3.88E-01	1.88E-02	3.13E-03	3.23E-03
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	7/31/2006	286.9	3.88E-01	1.55E-02	2.90E-03	3.04E-03

BSEP Radiological Environmental Monitoring Analysis Report

Media Type: Air Particulate
Quantity: cubic meters
Activity: pCi/cubic meter

Analysis: Beta

Sample Point		Sample Date	Quantity	Efficiency	Activity	2 Sigma Error	LLD
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	8/7/2006	291.6	3.88E-01	2.38E-02	3.32E-03	3.06E-03
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	8/14/2006	290.7	3.88E-01	2.04E-02	3.10E-03	2.88E-03
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	8/21/2006	287.8	3.88E-01	1.66E-02	2.95E-03	3.01E-03
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	8/28/2006	290.1	3.88E-01	1.94E-02	2.94E-03	2.56E-03
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	9/4/2006	289.7	3.88E-01	6.89E-03	2.26E-03	2.79E-03
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	9/11/2006	288.7	3.88E-01	1.78E-02	3.14E-03	3.35E-03
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	9/18/2006	286.5	3.88E-01	1.52E-02	2.92E-03	3.14E-03
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	9/25/2006	280.6	3.88E-01	2.22E-02	3.29E-03	3.06E-03
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	10/2/2006	285.2	3.88E-01	2.52E-02	3.41E-03	3.06E-03
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	10/9/2006	285.1	3.88E-01	1.93E-02	3.19E-03	3.24E-03
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	10/16/2006	289.9	3.88E-01	2.34E-02	3.28E-03	2.99E-03
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	10/23/2006	283.7	3.88E-01	1.71E-02	3.11E-03	3.32E-03
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	10/30/2006	278.2	3.88E-01	2.44E-02	3.45E-03	3.18E-03
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	11/6/2006	270.5	3.88E-01	2.16E-02	3.36E-03	3.22E-03
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	11/13/2006	287.1	3.88E-01	1.67E-02	3.06E-03	3.29E-03
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	11/20/2006	271.1	3.88E-01	1.35E-02	3.10E-03	3.68E-03
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	11/27/2006	281.9	3.88E-01	1.42E-02	2.90E-03	3.17E-03
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	12/4/2006	281.1	3.88E-01	1.82E-02	3.12E-03	3.17E-03
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	12/11/2006	271.3	3.88E-01	2.71E-02	3.69E-03	3.43E-03
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	12/18/2006	274.1	3.88E-01	1.84E-02	3.12E-03	3.08E-03
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	12/25/2006	281.9	3.88E-01	1.99E-02	3.10E-03	2.87E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	1/2/2006	252.4	3.88E-01	2.43E-02	3.69E-03	3.56E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	1/9/2006	262.1	3.88E-01	1.94E-02	3.49E-03	3.81E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	1/16/2006	266.3	3.88E-01	1.26E-02	2.96E-03	3.45E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	1/23/2006	268.2	3.88E-01	1.48E-02	3.12E-03	3.54E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	1/30/2006	250.2	3.88E-01	1.11E-02	3.09E-03	3.84E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	2/6/2006	287.7	3.88E-01	2.07E-02	3.31E-03	3.41E-03

BSEP Radiological Environmental Monitoring Analysis Report

Media Type: Air Particulate
Quantity: cubic meters
Activity: pCi/cubic meter

Analysis: Beta

Sample Point		Sample Date	Quantity	Efficiency	Activity	2 Sigma Error	LLD
203	2.0 MI SSW - SOUTHPORT SUBSTATION	2/13/2006	272.2	3.88E-01	2.32E-02	3.43E-03	3.23E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	2/20/2006	273.3	3.88E-01	1.99E-02	3.36E-03	3.52E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	2/27/2006	275.5	3.88E-01	1.80E-02	3.10E-03	3.12E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	3/6/2006	275.1	3.88E-01	2.20E-02	3.47E-03	3.54E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	3/13/2006	275.8	3.88E-01	1.56E-02	3.12E-03	3.49E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	3/20/2006	277.4	3.88E-01	2.24E-02	3.41E-03	3.33E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	3/27/2006	270.9	3.88E-01	1.13E-02	2.85E-03	3.39E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	4/3/2006	275.7	3.88E-01	1.75E-02	3.10E-03	3.16E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	4/10/2006	279.1	3.88E-01	1.77E-02	3.20E-03	3.45E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	4/17/2006	278.9	3.88E-01	2.09E-02	3.30E-03	3.27E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	4/24/2006	281	3.88E-01	1.45E-02	2.96E-03	3.29E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	5/1/2006	283.6	3.88E-01	1.60E-02	3.13E-03	3.52E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	5/8/2006	290.1	3.88E-01	1.82E-02	2.93E-03	2.74E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	5/15/2006	279.1	3.88E-01	1.48E-02	2.86E-03	2.98E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	5/22/2006	284	3.88E-01	2.04E-02	3.09E-03	2.80E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	5/29/2006	288.8	3.88E-01	2.31E-02	3.36E-03	3.24E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	6/5/2006	296.2	3.88E-01	1.21E-02	2.80E-03	3.33E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	6/12/2006	281.7	3.88E-01	2.04E-02	3.32E-03	3.41E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	6/19/2006	290.5	3.88E-01	1.58E-02	2.81E-03	2.79E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	6/26/2006	288.7	3.88E-01	1.09E-02	2.61E-03	3.00E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	7/3/2006	282.5	3.88E-01	2.24E-02	3.23E-03	2.89E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	7/10/2006	288.9	3.88E-01	1.53E-02	2.84E-03	2.93E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	7/17/2006	288.1	3.88E-01	1.20E-02	2.75E-03	3.16E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	7/24/2006	290.7	3.88E-01	2.13E-02	3.28E-03	3.27E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	7/31/2006	284.1	3.88E-01	1.66E-02	2.98E-03	3.07E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	8/7/2006	289.6	3.88E-01	1.96E-02	3.13E-03	3.08E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	8/14/2006	286.8	3.88E-01	1.90E-02	3.05E-03	2.92E-03

BSEP Radiological Environmental Monitoring Analysis Report

Media Type: Air Particulate
Quantity: cubic meters
Activity: pCi/cubic meter

Analysis: Beta

Sample Point		Sample Date	Quantity	Efficiency	Activity	2 Sigma Error	LLD
203	2.0 MI SSW - SOUTHPORT SUBSTATION	8/21/2006	283.8	3.88E-01	2.26E-02	3.29E-03	3.05E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	8/28/2006	286.1	3.88E-01	2.05E-02	3.02E-03	2.59E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	9/4/2006	287	3.88E-01	7.77E-03	2.33E-03	2.82E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	9/11/2006	284.8	3.88E-01	1.93E-02	3.25E-03	3.40E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	9/18/2006	281.4	3.88E-01	1.63E-02	3.02E-03	3.19E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	9/25/2006	277.9	3.88E-01	2.29E-02	3.34E-03	3.09E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	10/2/2006	280.7	3.88E-01	2.56E-02	3.47E-03	3.11E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	10/9/2006	280.5	3.88E-01	1.76E-02	3.14E-03	3.30E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	10/16/2006	286.4	3.88E-01	2.22E-02	3.25E-03	3.02E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	10/23/2006	279.5	3.88E-01	2.07E-02	3.33E-03	3.37E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	10/30/2006	274.5	3.88E-01	2.26E-02	3.39E-03	3.23E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	11/6/2006	269.5	3.88E-01	2.17E-02	3.37E-03	3.24E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	11/13/2006	282.6	3.88E-01	1.74E-02	3.14E-03	3.34E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	11/20/2006	266.5	3.88E-01	1.60E-02	3.28E-03	3.74E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	11/27/2006	277.1	3.88E-01	1.47E-02	2.96E-03	3.22E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	12/4/2006	276.5	3.88E-01	2.03E-02	3.27E-03	3.23E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	12/11/2006	269.1	3.88E-01	2.35E-02	3.54E-03	3.46E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	12/18/2006	268.1	3.88E-01	1.90E-02	3.20E-03	3.15E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	12/25/2006	276.3	3.88E-01	2.29E-02	3.30E-03	2.93E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	1/2/2006	276.8	3.88E-01	1.93E-02	3.22E-03	3.25E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	1/9/2006	278.2	3.88E-01	1.86E-02	3.31E-03	3.59E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	1/16/2006	290.5	3.88E-01	1.23E-02	2.76E-03	3.16E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	1/23/2006	282.8	3.88E-01	1.56E-02	3.05E-03	3.36E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	1/30/2006	273.4	3.88E-01	1.18E-02	2.93E-03	3.52E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	2/6/2006	291.1	3.88E-01	1.95E-02	3.22E-03	3.37E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	2/13/2006	268.9	3.88E-01	2.56E-02	3.58E-03	3.27E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	2/20/2006	279.4	3.88E-01	2.24E-02	3.44E-03	3.44E-03

BSEP Radiological Environmental Monitoring Analysis Report

Media Type: Air Particulate
Quantity: cubic meters
Activity: pCi/cubic meter

Analysis: Beta

Sample Point		Sample Date	Quantity	Efficiency	Activity	2 Sigma Error	LLD
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	2/27/2006	279.8	3.88E-01	1.93E-02	3.14E-03	3.07E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	3/6/2006	280.3	3.88E-01	2.21E-02	3.43E-03	3.47E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	3/13/2006	283.7	3.88E-01	1.53E-02	3.04E-03	3.39E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	3/20/2006	282.4	3.88E-01	2.59E-02	3.53E-03	3.27E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	3/27/2006	279.4	3.88E-01	1.02E-02	2.72E-03	3.29E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	4/3/2006	281.9	3.88E-01	1.74E-02	3.04E-03	3.09E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	4/10/2006	284.7	3.88E-01	2.01E-02	3.28E-03	3.38E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	4/17/2006	286.3	3.88E-01	2.05E-02	3.22E-03	3.18E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	4/24/2006	286.2	3.88E-01	1.63E-02	3.02E-03	3.23E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	5/1/2006	290.9	3.88E-01	1.89E-02	3.22E-03	3.43E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	5/8/2006	280.3	3.88E-01	2.00E-02	3.10E-03	2.84E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	5/15/2006	281.2	3.88E-01	1.70E-02	2.97E-03	2.96E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	5/22/2006	286.1	3.88E-01	1.73E-02	2.91E-03	2.78E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	5/29/2006	292.1	3.88E-01	2.14E-02	3.25E-03	3.21E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	6/5/2006	283.2	3.88E-01	1.64E-02	3.14E-03	3.48E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	6/12/2006	287.1	3.88E-01	1.75E-02	3.13E-03	3.35E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	6/19/2006	286.4	3.88E-01	1.65E-02	2.88E-03	2.83E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	6/26/2006	288.2	3.88E-01	1.38E-02	2.79E-03	3.00E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	7/3/2006	288.2	3.88E-01	2.32E-02	3.23E-03	2.83E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	7/10/2006	288	3.88E-01	1.85E-02	3.02E-03	2.93E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	7/17/2006	288.4	3.88E-01	1.12E-02	2.70E-03	3.16E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	7/24/2006	289.3	3.88E-01	2.04E-02	3.24E-03	3.28E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	7/31/2006	288.8	3.88E-01	1.70E-02	2.97E-03	3.02E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	8/7/2006	290	3.88E-01	2.60E-02	3.44E-03	3.08E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	8/14/2006	288.3	3.88E-01	2.08E-02	3.13E-03	2.91E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	8/21/2006	288.9	3.88E-01	2.10E-02	3.17E-03	3.00E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	8/28/2006	288.4	3.88E-01	2.37E-02	3.17E-03	2.57E-03

BSEP Radiological Environmental Monitoring Analysis Report

Media Type: Air Particulate
Quantity: cubic meters
Activity: pCi/cubic meter

Analysis: Beta

Sample Point		Sample Date	Quantity	Efficiency	Activity	2 Sigma Error	LLD
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	9/4/2006	288.9	3.88E-01	7.96E-03	2.33E-03	2.80E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	9/11/2006	286.8	3.88E-01	1.77E-02	3.15E-03	3.37E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	9/18/2006	286.5	3.88E-01	1.84E-02	3.10E-03	3.14E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	9/25/2006	285.6	3.88E-01	2.44E-02	3.36E-03	3.01E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	10/2/2006	283.9	3.88E-01	1.73E-02	3.02E-03	3.07E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	10/9/2006	281.8	3.88E-01	2.22E-02	3.36E-03	3.28E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	10/16/2006	279.3	3.88E-01	2.45E-02	3.42E-03	3.10E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	10/23/2006	279.9	3.88E-01	1.86E-02	3.22E-03	3.37E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	10/30/2006	279.8	3.88E-01	2.27E-02	3.35E-03	3.17E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	11/6/2006	270.7	3.88E-01	2.08E-02	3.31E-03	3.22E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	11/13/2006	279.7	3.88E-01	1.65E-02	3.11E-03	3.37E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	11/20/2006	270.7	3.88E-01	1.59E-02	3.23E-03	3.69E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	11/27/2006	276	3.88E-01	1.43E-02	2.94E-03	3.23E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	12/4/2006	272.3	3.88E-01	2.03E-02	3.30E-03	3.28E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	12/11/2006	271.4	3.88E-01	3.01E-02	3.83E-03	3.43E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	12/18/2006	272.5	3.88E-01	2.14E-02	3.29E-03	3.10E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	12/25/2006	275.1	3.88E-01	2.35E-02	3.34E-03	2.94E-03
205	0.6 MI SSE - SPOIL POND	1/2/2006	270.1	3.88E-01	2.06E-02	3.34E-03	3.33E-03
205	0.6 MI SSE - SPOIL POND	1/9/2006	287.3	3.88E-01	1.71E-02	3.16E-03	3.47E-03
205	0.6 MI SSE - SPOIL POND	1/16/2006	292.1	3.88E-01	1.38E-02	2.83E-03	3.14E-03
205	0.6 MI SSE - SPOIL POND	1/23/2006	292.6	3.88E-01	1.37E-02	2.87E-03	3.24E-03
205	0.6 MI SSE - SPOIL POND	1/30/2006	291.2	3.88E-01	1.15E-02	2.77E-03	3.30E-03
205	0.6 MI SSE - SPOIL POND	2/6/2006	292.2	3.88E-01	1.52E-02	2.99E-03	3.35E-03
205	0.6 MI SSE - SPOIL POND	2/13/2006	276.3	3.88E-01	2.11E-02	3.29E-03	3.18E-03
205	0.6 MI SSE - SPOIL POND	2/20/2006	274.3	3.88E-01	1.92E-02	3.32E-03	3.51E-03
205	0.6 MI SSE - SPOIL POND	2/27/2006	279.6	3.88E-01	1.62E-02	2.98E-03	3.07E-03
205	0.6 MI SSE - SPOIL POND	3/6/2006	279	3.88E-01	2.54E-02	3.60E-03	3.49E-03

BSEP Radiological Environmental Monitoring Analysis Report

Media Type: Air Particulate
Quantity: cubic meters
Activity: pCi/cubic meter

Analysis: Beta

Sample Point		Sample Date	Quantity	Efficiency	Activity	2 Sigma Error	LLD
205	0.6 MI SSE - SPOIL POND	3/13/2006	280.8	3.88E-01	1.31E-02	2.94E-03	3.42E-03
205	0.6 MI SSE - SPOIL POND	3/20/2006	282.6	3.88E-01	2.41E-02	3.44E-03	3.27E-03
205	0.6 MI SSE - SPOIL POND	3/27/2006	277	3.88E-01	1.14E-02	2.81E-03	3.31E-03
205	0.6 MI SSE - SPOIL POND	4/3/2006	282.2	3.88E-01	1.95E-02	3.15E-03	3.09E-03
205	0.6 MI SSE - SPOIL POND	4/10/2006	284.2	3.88E-01	1.78E-02	3.17E-03	3.38E-03
205	0.6 MI SSE - SPOIL POND	4/17/2006	283.5	3.88E-01	2.15E-02	3.30E-03	3.22E-03
205	0.6 MI SSE - SPOIL POND	4/24/2006	285.8	3.88E-01	1.38E-02	2.89E-03	3.23E-03
205	0.6 MI SSE - SPOIL POND	5/1/2006	287.4	3.88E-01	1.85E-02	3.23E-03	3.47E-03
205	0.6 MI SSE - SPOIL POND	5/8/2006	407.8	3.88E-01	2.10E-02	2.48E-03	1.95E-03
205	0.6 MI SSE - SPOIL POND	5/15/2006	275.8	3.88E-01	1.59E-02	2.95E-03	3.01E-03
205	0.6 MI SSE - SPOIL POND	5/22/2006	284.4	3.88E-01	1.93E-02	3.03E-03	2.80E-03
205	0.6 MI SSE - SPOIL POND	5/29/2006	288.2	3.88E-01	2.23E-02	3.33E-03	3.25E-03
205	0.6 MI SSE - SPOIL POND	6/5/2006	297.1	3.88E-01	1.48E-02	2.95E-03	3.32E-03
205	0.6 MI SSE - SPOIL POND	6/12/2006	283.4	3.88E-01	2.14E-02	3.35E-03	3.39E-03
205	0.6 MI SSE - SPOIL POND	6/19/2006	291.8	3.88E-01	1.52E-02	2.77E-03	2.77E-03
205	0.6 MI SSE - SPOIL POND	6/26/2006	294.7	3.88E-01	1.35E-02	2.72E-03	2.94E-03
205	0.6 MI SSE - SPOIL POND	7/3/2006	288.9	3.88E-01	1.96E-02	3.04E-03	2.83E-03
205	0.6 MI SSE - SPOIL POND	7/10/2006	295.8	3.88E-01	1.53E-02	2.80E-03	2.86E-03
205	0.6 MI SSE - SPOIL POND	7/17/2006	296.7	3.88E-01	1.35E-02	2.77E-03	3.07E-03
205	0.6 MI SSE - SPOIL POND	7/24/2006	296.8	3.88E-01	1.97E-02	3.15E-03	3.20E-03
205	0.6 MI SSE - SPOIL POND	7/31/2006	290.2	3.88E-01	1.83E-02	3.03E-03	3.01E-03
205	0.6 MI SSE - SPOIL POND	8/7/2006	294.3	3.88E-01	2.37E-02	3.29E-03	3.03E-03
205	0.6 MI SSE - SPOIL POND	8/14/2006	293.1	3.88E-01	2.06E-02	3.09E-03	2.86E-03
205	0.6 MI SSE - SPOIL POND	8/21/2006	289.7	3.88E-01	1.95E-02	3.09E-03	2.99E-03
205	0.6 MI SSE - SPOIL POND	8/28/2006	292.5	3.88E-01	2.06E-02	2.98E-03	2.54E-03
205	0.6 MI SSE - SPOIL POND	9/4/2006	293.3	3.88E-01	9.82E-03	2.43E-03	2.76E-03
205	0.6 MI SSE - SPOIL POND	9/11/2006	291.3	3.88E-01	2.09E-02	3.27E-03	3.32E-03

BSEP Radiological Environmental Monitoring Analysis Report

Media Type: Air Particulate
Quantity: cubic meters
Activity: pCi/cubic meter

Analysis: Beta

Sample Point		Sample Date	Quantity	Efficiency	Activity	2 Sigma Error	LLD
205	0.6 MI SSE - SPOIL POND	9/18/2006	288.6	3.88E-01	1.68E-02	3.00E-03	3.11E-03
205	0.6 MI SSE - SPOIL POND	9/25/2006	284.2	3.88E-01	2.17E-02	3.24E-03	3.02E-03
205	0.6 MI SSE - SPOIL POND	10/2/2006	289.4	3.88E-01	2.35E-02	3.30E-03	3.01E-03
205	0.6 MI SSE - SPOIL POND	10/9/2006	289.2	3.88E-01	1.97E-02	3.18E-03	3.20E-03
205	0.6 MI SSE - SPOIL POND	10/16/2006	296.2	3.88E-01	2.45E-02	3.29E-03	2.92E-03
205	0.6 MI SSE - SPOIL POND	10/23/2006	287.9	3.88E-01	1.89E-02	3.17E-03	3.28E-03
205	0.6 MI SSE - SPOIL POND	10/30/2006	287.4	3.88E-01	2.46E-02	3.38E-03	3.08E-03
205	0.6 MI SSE - SPOIL POND	11/6/2006	277.7	3.88E-01	2.23E-02	3.33E-03	3.14E-03
205	0.6 MI SSE - SPOIL POND	11/13/2006	293.3	3.88E-01	1.59E-02	2.97E-03	3.22E-03
205	0.6 MI SSE - SPOIL POND	11/20/2006	277.6	3.88E-01	1.42E-02	3.08E-03	3.59E-03
205	0.6 MI SSE - SPOIL POND	11/27/2006	289.4	3.88E-01	1.40E-02	2.83E-03	3.08E-03
205	0.6 MI SSE - SPOIL POND	12/4/2006	287.3	3.88E-01	1.75E-02	3.03E-03	3.11E-03
205	0.6 MI SSE - SPOIL POND	12/11/2006	283.7	3.88E-01	2.73E-02	3.59E-03	3.28E-03
205	0.6 MI SSE - SPOIL POND	12/18/2006	280.1	3.88E-01	1.67E-02	2.98E-03	3.02E-03
205	0.6 MI SSE - SPOIL POND	12/25/2006	288.1	3.88E-01	2.31E-02	3.22E-03	2.81E-03

BSEP Radiological Environmental Monitoring Analysis Report

Media Type: Air Cartridge
Quantity: cubic meters
Activity: pCi/cubic meter

Analysis: Iodine

Sample Point		Sample Date	Quantity	Activity	LLD
200	1.0 MI WSW - VISITORS CENTER	1/2/2006	234.8	<LLD	2.53E-02
200	1.0 MI WSW - VISITORS CENTER	1/9/2006	278.2	<LLD	2.31E-02
200	1.0 MI WSW - VISITORS CENTER	1/16/2006	283.2	<LLD	1.47E-02
200	1.0 MI WSW - VISITORS CENTER	1/23/2006	284.7	<LLD	3.09E-02
200	1.0 MI WSW - VISITORS CENTER	1/30/2006	282.6	<LLD	2.55E-02
200	1.0 MI WSW - VISITORS CENTER	2/6/2006	284.3	<LLD	1.71E-02
200	1.0 MI WSW - VISITORS CENTER	2/13/2006	285.3	<LLD	2.47E-02
200	1.0 MI WSW - VISITORS CENTER	2/20/2006	303.0	<LLD	2.44E-02
200	1.0 MI WSW - VISITORS CENTER	2/27/2006	305.5	<LLD	2.28E-02
200	1.0 MI WSW - VISITORS CENTER	3/6/2006	316.7	<LLD	1.27E-02
200	1.0 MI WSW - VISITORS CENTER	3/13/2006	269.2	<LLD	2.59E-02
200	1.0 MI WSW - VISITORS CENTER	3/20/2006	252.6	<LLD	2.33E-02
200	1.0 MI WSW - VISITORS CENTER	3/27/2006	281.8	<LLD	2.48E-02
200	1.0 MI WSW - VISITORS CENTER	4/3/2006	284.6	<LLD	2.73E-02
200	1.0 MI WSW - VISITORS CENTER	4/10/2006	289.8	<LLD	2.02E-02
200	1.0 MI WSW - VISITORS CENTER	4/17/2006	286.3	<LLD	1.55E-02
200	1.0 MI WSW - VISITORS CENTER	4/24/2006	291.6	<LLD	2.02E-02
200	1.0 MI WSW - VISITORS CENTER	5/1/2006	287.0	<LLD	1.83E-02
200	1.0 MI WSW - VISITORS CENTER	5/8/2006	297.3	<LLD	2.08E-02
200	1.0 MI WSW - VISITORS CENTER	5/15/2006	283.0	<LLD	2.35E-02
200	1.0 MI WSW - VISITORS CENTER	5/22/2006	287.8	<LLD	1.62E-02
200	1.0 MI WSW - VISITORS CENTER	5/29/2006	291.0	<LLD	2.01E-02

BSEP Radiological Environmental Monitoring Analysis Report

Media Type: Air Cartridge
Quantity: cubic meters
Activity: pCi/cubic meter

Analysis: Iodine

Sample Point		Sample Date	Quantity	Activity	LLD
200	1.0 MI WSW - VISITORS CENTER	6/5/2006	299.0	<LLD	1.81E-02
200	1.0 MI WSW - VISITORS CENTER	6/12/2006	283.8	<LLD	2.61E-02
200	1.0 MI WSW - VISITORS CENTER	6/19/2006	292.6	<LLD	2.58E-02
200	1.0 MI WSW - VISITORS CENTER	6/26/2006	296.0	<LLD	1.89E-02
200	1.0 MI WSW - VISITORS CENTER	7/3/2006	289.7	<LLD	1.67E-02
200	1.0 MI WSW - VISITORS CENTER	7/10/2006	255.3	<LLD	2.26E-02
200	1.0 MI WSW - VISITORS CENTER	7/17/2006	293.6	<LLD	2.31E-02
200	1.0 MI WSW - VISITORS CENTER	7/24/2006	297.3	<LLD	2.53E-02
200	1.0 MI WSW - VISITORS CENTER	7/31/2006	290.5	<LLD	2.15E-02
200	1.0 MI WSW - VISITORS CENTER	8/7/2006	292.9	<LLD	2.86E-02
200	1.0 MI WSW - VISITORS CENTER	8/14/2006	293.6	<LLD	2.45E-02
200	1.0 MI WSW - VISITORS CENTER	8/21/2006	290.3	<LLD	2.94E-02
200	1.0 MI WSW - VISITORS CENTER	8/28/2006	292.8	<LLD	2.03E-02
200	1.0 MI WSW - VISITORS CENTER	9/4/2006	293.4	<LLD	2.64E-02
200	1.0 MI WSW - VISITORS CENTER	9/11/2006	293.3	<LLD	2.31E-02
200	1.0 MI WSW - VISITORS CENTER	9/18/2006	289.9	<LLD	1.79E-02
200	1.0 MI WSW - VISITORS CENTER	9/25/2006	286.3	<LLD	1.49E-02
200	1.0 MI WSW - VISITORS CENTER	10/2/2006	289.9	<LLD	1.49E-02
200	1.0 MI WSW - VISITORS CENTER	10/9/2006	293.1	<LLD	2.21E-02
200	1.0 MI WSW - VISITORS CENTER	10/16/2006	292.6	<LLD	1.88E-02
200	1.0 MI WSW - VISITORS CENTER	10/23/2006	287.0	<LLD	2.00E-02
200	1.0 MI WSW - VISITORS CENTER	10/30/2006	284.8	<LLD	2.82E-02

BSEP Radiological Environmental Monitoring Analysis Report

Media Type: Air Cartridge
Quantity: cubic meters
Activity: pCi/cubic meter

Analysis: Iodine

Sample Point		Sample Date	Quantity	Activity	LLD
200	1.0 MI WSW - VISITORS CENTER	11/6/2006	280.3	<LLD	3.26E-02
200	1.0 MI WSW - VISITORS CENTER	11/13/2006	292.1	<LLD	3.28E-02
200	1.0 MI WSW - VISITORS CENTER	11/20/2006	276.9	<LLD	1.85E-02
200	1.0 MI WSW - VISITORS CENTER	11/27/2006	285.5	<LLD	2.59E-02
200	1.0 MI WSW - VISITORS CENTER	12/4/2006	283.8	<LLD	1.68E-02
200	1.0 MI WSW - VISITORS CENTER	12/11/2006	279.6	<LLD	2.60E-02
200	1.0 MI WSW - VISITORS CENTER	12/18/2006	276.4	<LLD	2.86E-02
200	1.0 MI WSW - VISITORS CENTER	12/25/2006	285.6	<LLD	2.76E-02
201	0.5 MI NE - PMAC	1/2/2006	253.5	<LLD	2.50E-02
201	0.5 MI NE - PMAC	1/9/2006	223.2	<LLD	2.77E-02
201	0.5 MI NE - PMAC	1/16/2006	304.4	<LLD	3.21E-02
201	0.5 MI NE - PMAC	1/23/2006	277.6	<LLD	1.58E-02
201	0.5 MI NE - PMAC	1/30/2006	276.4	<LLD	1.75E-02
201	0.5 MI NE - PMAC	2/6/2006	275.0	<LLD	3.14E-02
201	0.5 MI NE - PMAC	2/13/2006	272.0	<LLD	2.19E-02
201	0.5 MI NE - PMAC	2/20/2006	272.3	<LLD	2.14E-02
201	0.5 MI NE - PMAC	2/27/2006	273.0	<LLD	2.36E-02
201	0.5 MI NE - PMAC	3/6/2006	268.4	<LLD	3.34E-02
201	0.5 MI NE - PMAC	3/13/2006	274.2	<LLD	1.72E-02
201	0.5 MI NE - PMAC	3/20/2006	273.8	<LLD	2.00E-02
201	0.5 MI NE - PMAC	3/27/2006	264.0	<LLD	2.14E-02
201	0.5 MI NE - PMAC	4/3/2006	272.5	<LLD	3.93E-02

BSEP Radiological Environmental Monitoring Analysis Report

Media Type: Air Cartridge
Quantity: cubic meters
Activity: pCi/cubic meter

Analysis: Iodine

Sample Point		Sample Date	Quantity	Activity	LLD
201	0.5 MI NE - PMAC	4/10/2006	270.3	<LLD	2.46E-02
201	0.5 MI NE - PMAC	4/17/2006	282.2	<LLD	2.60E-02
201	0.5 MI NE - PMAC	4/24/2006	276.7	<LLD	3.17E-02
201	0.5 MI NE - PMAC	5/1/2006	313.5	<LLD	2.30E-02
201	0.5 MI NE - PMAC	5/8/2006	275.6	<LLD	1.77E-02
201	0.5 MI NE - PMAC	5/15/2006	286.9	<LLD	2.98E-02
201	0.5 MI NE - PMAC	5/22/2006	279.9	<LLD	3.86E-02
201	0.5 MI NE - PMAC	5/29/2006	284.7	<LLD	1.94E-02
201	0.5 MI NE - PMAC	6/5/2006	290.4	<LLD	1.63E-02
201	0.5 MI NE - PMAC	6/12/2006	279.4	<LLD	1.62E-02
201	0.5 MI NE - PMAC	6/19/2006	286.9	<LLD	2.02E-02
201	0.5 MI NE - PMAC	6/26/2006	294.0	<LLD	2.67E-02
201	0.5 MI NE - PMAC	7/3/2006	286.7	<LLD	1.78E-02
201	0.5 MI NE - PMAC	7/10/2006	292.7	<LLD	2.37E-02
201	0.5 MI NE - PMAC	7/17/2006	291.4	<LLD	3.37E-02
201	0.5 MI NE - PMAC	7/24/2006	294.5	<LLD	2.08E-02
201	0.5 MI NE - PMAC	7/31/2006	283.4	<LLD	2.96E-02
201	0.5 MI NE - PMAC	8/7/2006	297.5	<LLD	2.29E-02
201	0.5 MI NE - PMAC	8/14/2006	290.4	<LLD	1.66E-02
201	0.5 MI NE - PMAC	8/21/2006	284.5	<LLD	2.18E-02
201	0.5 MI NE - PMAC	8/28/2006	292.3	<LLD	3.24E-02
201	0.5 MI NE - PMAC	9/4/2006	288.8	<LLD	2.51E-02

BSEP Radiological Environmental Monitoring Analysis Report

Media Type: Air Cartridge
Quantity: cubic meters
Activity: pCi/cubic meter

Analysis: Iodine

Sample Point		Sample Date	Quantity	Activity	LLD
201	0.5 MI NE - PMAC	9/11/2006	287.2	<LLD	3.72E-02
201	0.5 MI NE - PMAC	9/18/2006	282.1	<LLD	2.13E-02
201	0.5 MI NE - PMAC	9/25/2006	281.1	<LLD	3.38E-02
201	0.5 MI NE - PMAC	10/2/2006	283.5	<LLD	2.19E-02
201	0.5 MI NE - PMAC	10/9/2006	287.5	<LLD	2.29E-02
201	0.5 MI NE - PMAC	10/16/2006	274.6	<LLD	4.07E-02
201	0.5 MI NE - PMAC	10/23/2006	280.2	<LLD	2.92E-02
201	0.5 MI NE - PMAC	10/30/2006	266.1	<LLD	2.09E-02
201	0.5 MI NE - PMAC	11/6/2006	272.9	<LLD	1.86E-02
201	0.5 MI NE - PMAC	11/13/2006	269.8	<LLD	3.86E-02
201	0.5 MI NE - PMAC	11/20/2006	270.5	<LLD	2.24E-02
201	0.5 MI NE - PMAC	11/27/2006	262.3	<LLD	2.13E-02
201	0.5 MI NE - PMAC	12/4/2006	274.5	<LLD	3.38E-02
201	0.5 MI NE - PMAC	12/11/2006	252.5	<LLD	4.40E-02
201	0.5 MI NE - PMAC	12/18/2006	240.8	<LLD	1.93E-02
201	0.5 MI NE - PMAC	12/25/2006	272.3	<LLD	3.14E-02
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	1/2/2006	258.1	<LLD	3.37E-02
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	1/9/2006	274.1	<LLD	2.57E-02
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	1/16/2006	276.4	<LLD	2.84E-02
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	1/23/2006	276.8	<LLD	1.89E-02
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	1/30/2006	274.6	<LLD	1.92E-02
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	2/6/2006	276.1	<LLD	2.67E-02

BSEP Radiological Environmental Monitoring Analysis Report

Media Type: Air Cartridge
Quantity: cubic meters
Activity: pCi/cubic meter

Analysis: Iodine

Sample Point		Sample Date	Quantity	Activity	LLD
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	2/13/2006	275.9	<LLD	1.74E-02
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	2/20/2006	276.1	<LLD	2.18E-02
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	2/27/2006	278.5	<LLD	2.10E-02
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	3/6/2006	277.1	<LLD	2.69E-02
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	3/13/2006	277.0	<LLD	1.70E-02
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	3/20/2006	279.1	<LLD	1.86E-02
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	3/27/2006	273.6	<LLD	2.40E-02
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	4/3/2006	278.2	<LLD	3.88E-02
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	4/10/2006	279.7	<LLD	1.74E-02
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	4/17/2006	280.1	<LLD	2.01E-02
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	4/24/2006	282.5	<LLD	1.64E-02
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	5/1/2006	284.3	<LLD	1.77E-02
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	5/8/2006	287.5	<LLD	3.37E-02
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	5/15/2006	276.3	<LLD	3.08E-02
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	5/22/2006	280.2	<LLD	3.15E-02
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	5/29/2006	285.0	<LLD	3.11E-02
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	6/5/2006	294.1	<LLD	2.78E-02
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	6/12/2006	278.9	<LLD	2.29E-02
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	6/19/2006	287.6	<LLD	1.99E-02
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	6/26/2006	291.0	<LLD	1.78E-02
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	7/3/2006	262.1	<LLD	3.71E-02
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	7/10/2006	291.5	<LLD	1.76E-02

BSEP Radiological Environmental Monitoring Analysis Report

Media Type: Air Cartridge
Quantity: cubic meters
Activity: pCi/cubic meter

Analysis: Iodine

Sample Point		Sample Date	Quantity	Activity	LLD
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	7/17/2006	289.5	<LLD	2.47E-02
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	7/24/2006	293.6	<LLD	1.73E-02
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	7/31/2006	286.9	<LLD	1.35E-02
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	8/7/2006	291.6	<LLD	1.85E-02
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	8/14/2006	290.7	<LLD	1.49E-02
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	8/21/2006	287.8	<LLD	1.78E-02
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	8/28/2006	290.1	<LLD	2.61E-02
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	9/4/2006	289.7	<LLD	3.69E-02
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	9/11/2006	288.7	<LLD	2.43E-02
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	9/18/2006	286.5	<LLD	2.39E-02
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	9/25/2006	280.6	<LLD	2.44E-02
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	10/2/2006	285.2	<LLD	2.05E-02
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	10/9/2006	285.1	<LLD	1.75E-02
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	10/16/2006	289.9	<LLD	2.43E-02
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	10/23/2006	283.7	<LLD	2.39E-02
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	10/30/2006	278.2	<LLD	1.99E-02
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	11/6/2006	270.5	<LLD	2.92E-02
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	11/13/2006	287.1	<LLD	2.07E-02
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	11/20/2006	271.1	<LLD	1.75E-02
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	11/27/2006	281.9	<LLD	3.84E-02
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	12/4/2006	281.1	<LLD	2.44E-02
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	12/11/2006	271.3	<LLD	2.61E-02

BSEP Radiological Environmental Monitoring Analysis Report

Media Type: Air Cartridge
Quantity: cubic meters
Activity: pCi/cubic meter

Analysis: Iodine

Sample Point		Sample Date	Quantity	Activity	LLD
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	12/18/2006	274.1	<LLD	2.77E-02
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	12/25/2006	281.9	<LLD	2.35E-02
203	2.0 MI SSW - SOUTHPORT SUBSTATION	1/2/2006	252.4	<LLD	2.39E-02
203	2.0 MI SSW - SOUTHPORT SUBSTATION	1/9/2006	262.1	<LLD	1.91E-02
203	2.0 MI SSW - SOUTHPORT SUBSTATION	1/16/2006	266.3	<LLD	2.36E-02
203	2.0 MI SSW - SOUTHPORT SUBSTATION	1/23/2006	268.2	<LLD	2.60E-02
203	2.0 MI SSW - SOUTHPORT SUBSTATION	1/30/2006	250.2	<LLD	4.33E-02
203	2.0 MI SSW - SOUTHPORT SUBSTATION	2/6/2006	287.7	<LLD	1.55E-02
203	2.0 MI SSW - SOUTHPORT SUBSTATION	2/13/2006	272.2	<LLD	3.19E-02
203	2.0 MI SSW - SOUTHPORT SUBSTATION	2/20/2006	273.3	<LLD	3.89E-02
203	2.0 MI SSW - SOUTHPORT SUBSTATION	2/27/2006	275.5	<LLD	2.87E-02
203	2.0 MI SSW - SOUTHPORT SUBSTATION	3/6/2006	275.1	<LLD	1.76E-02
203	2.0 MI SSW - SOUTHPORT SUBSTATION	3/13/2006	275.8	<LLD	2.66E-02
203	2.0 MI SSW - SOUTHPORT SUBSTATION	3/20/2006	277.4	<LLD	3.39E-02
203	2.0 MI SSW - SOUTHPORT SUBSTATION	3/27/2006	270.9	<LLD	2.48E-02
203	2.0 MI SSW - SOUTHPORT SUBSTATION	4/3/2006	275.7	<LLD	3.02E-02
203	2.0 MI SSW - SOUTHPORT SUBSTATION	4/10/2006	279.1	<LLD	2.99E-02
203	2.0 MI SSW - SOUTHPORT SUBSTATION	4/17/2006	278.9	<LLD	2.60E-02
203	2.0 MI SSW - SOUTHPORT SUBSTATION	4/24/2006	281.0	<LLD	2.81E-02
203	2.0 MI SSW - SOUTHPORT SUBSTATION	5/1/2006	283.6	<LLD	1.95E-02
203	2.0 MI SSW - SOUTHPORT SUBSTATION	5/8/2006	290.1	<LLD	2.77E-02
203	2.0 MI SSW - SOUTHPORT SUBSTATION	5/15/2006	279.1	<LLD	2.04E-02

BSEP Radiological Environmental Monitoring Analysis Report

Media Type: Air Cartridge
Quantity: cubic meters
Activity: pCi/cubic meter

Analysis: Iodine

Sample Point		Sample Date	Quantity	Activity	LLD
203	2.0 MI SSW - SOUTHPORT SUBSTATION	5/22/2006	284.0	<LLD	2.06E-02
203	2.0 MI SSW - SOUTHPORT SUBSTATION	5/29/2006	288.8	<LLD	2.69E-02
203	2.0 MI SSW - SOUTHPORT SUBSTATION	6/5/2006	296.2	<LLD	2.32E-02
203	2.0 MI SSW - SOUTHPORT SUBSTATION	6/12/2006	281.7	<LLD	1.85E-02
203	2.0 MI SSW - SOUTHPORT SUBSTATION	6/19/2006	290.5	<LLD	2.26E-02
203	2.0 MI SSW - SOUTHPORT SUBSTATION	6/26/2006	288.7	<LLD	1.57E-02
203	2.0 MI SSW - SOUTHPORT SUBSTATION	7/3/2006	282.5	<LLD	1.74E-02
203	2.0 MI SSW - SOUTHPORT SUBSTATION	7/10/2006	288.9	<LLD	3.63E-02
203	2.0 MI SSW - SOUTHPORT SUBSTATION	7/17/2006	288.1	<LLD	1.85E-02
203	2.0 MI SSW - SOUTHPORT SUBSTATION	7/24/2006	290.7	<LLD	3.28E-02
203	2.0 MI SSW - SOUTHPORT SUBSTATION	7/31/2006	284.1	<LLD	3.38E-02
203	2.0 MI SSW - SOUTHPORT SUBSTATION	8/7/2006	289.6	<LLD	3.18E-02
203	2.0 MI SSW - SOUTHPORT SUBSTATION	8/14/2006	286.8	<LLD	3.91E-02
203	2.0 MI SSW - SOUTHPORT SUBSTATION	8/21/2006	283.8	<LLD	3.49E-02
203	2.0 MI SSW - SOUTHPORT SUBSTATION	8/28/2006	286.1	<LLD	2.16E-02
203	2.0 MI SSW - SOUTHPORT SUBSTATION	9/4/2006	287.0	<LLD	3.17E-02
203	2.0 MI SSW - SOUTHPORT SUBSTATION	9/11/2006	284.8	<LLD	2.49E-02
203	2.0 MI SSW - SOUTHPORT SUBSTATION	9/18/2006	281.4	<LLD	3.64E-02
203	2.0 MI SSW - SOUTHPORT SUBSTATION	9/25/2006	277.9	<LLD	2.03E-02
203	2.0 MI SSW - SOUTHPORT SUBSTATION	10/2/2006	280.7	<LLD	3.05E-02
203	2.0 MI SSW - SOUTHPORT SUBSTATION	10/9/2006	280.5	<LLD	2.91E-02
203	2.0 MI SSW - SOUTHPORT SUBSTATION	10/16/2006	286.4	<LLD	2.43E-02

BSEP Radiological Environmental Monitoring Analysis Report

Media Type: Air Cartridge
Quantity: cubic meters
Activity: pCi/cubic meter

Analysis: Iodine

Sample Point		Sample Date	Quantity	Activity	LLD
203	2.0 MI SSW - SOUTHPORT SUBSTATION	10/23/2006	279.5	<LLD	1.73E-02
203	2.0 MI SSW - SOUTHPORT SUBSTATION	10/30/2006	274.5	<LLD	3.58E-02
203	2.0 MI SSW - SOUTHPORT SUBSTATION	11/6/2006	269.5	<LLD	3.27E-02
203	2.0 MI SSW - SOUTHPORT SUBSTATION	11/13/2006	282.6	<LLD	4.00E-02
203	2.0 MI SSW - SOUTHPORT SUBSTATION	11/20/2006	266.5	<LLD	2.38E-02
203	2.0 MI SSW - SOUTHPORT SUBSTATION	11/27/2006	277.1	<LLD	2.47E-02
203	2.0 MI SSW - SOUTHPORT SUBSTATION	12/4/2006	276.5	<LLD	1.64E-02
203	2.0 MI SSW - SOUTHPORT SUBSTATION	12/11/2006	269.1	<LLD	2.53E-02
203	2.0 MI SSW - SOUTHPORT SUBSTATION	12/18/2006	268.1	<LLD	2.19E-02
203	2.0 MI SSW - SOUTHPORT SUBSTATION	12/25/2006	276.3	<LLD	4.38E-02
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	1/2/2006	276.8	<LLD	2.26E-02
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	1/9/2006	278.2	<LLD	2.29E-02
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	1/16/2006	290.5	<LLD	1.74E-02
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	1/23/2006	282.9	<LLD	1.97E-02
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	1/30/2006	273.4	<LLD	2.00E-02
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	2/6/2006	291.1	<LLD	1.82E-02
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	2/13/2006	268.9	<LLD	2.38E-02
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	2/20/2006	279.4	<LLD	2.79E-02
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	2/27/2006	279.8	<LLD	3.09E-02
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	3/6/2006	280.3	<LLD	2.04E-02
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	3/13/2006	283.7	<LLD	2.50E-02
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	3/20/2006	282.4	<LLD	2.34E-02

BSEP Radiological Environmental Monitoring Analysis Report

Media Type: Air Cartridge
Quantity: cubic meters
Activity: pCi/cubic meter

Analysis: Iodine

Sample Point		Sample Date	Quantity	Activity	LLD
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	3/27/2006	279.4	<LLD	2.88E-02
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	4/3/2006	281.9	<LLD	3.62E-02
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	4/10/2006	284.7	<LLD	2.15E-02
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	4/17/2006	286.3	<LLD	1.94E-02
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	4/24/2006	286.2	<LLD	1.79E-02
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	5/1/2006	290.9	<LLD	2.42E-02
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	5/8/2006	280.3	<LLD	1.54E-02
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	5/15/2006	281.2	<LLD	1.71E-02
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	5/22/2006	286.1	<LLD	2.47E-02
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	5/29/2006	292.1	<LLD	1.98E-02
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	6/5/2006	283.2	<LLD	1.97E-02
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	6/12/2006	287.1	<LLD	1.89E-02
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	6/19/2006	286.4	<LLD	1.51E-02
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	6/26/2006	288.2	<LLD	3.38E-02
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	7/3/2006	288.2	<LLD	3.22E-02
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	7/10/2006	288.0	<LLD	1.73E-02
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	7/17/2006	288.4	<LLD	1.87E-02
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	7/24/2006	289.3	<LLD	2.82E-02
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	7/31/2006	288.8	<LLD	1.66E-02
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	8/7/2006	290.0	<LLD	2.53E-02
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	8/14/2006	288.3	<LLD	1.91E-02
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	8/21/2006	288.9	<LLD	1.61E-02

BSEP Radiological Environmental Monitoring Analysis Report

Media Type: Air Cartridge
Quantity: cubic meters
Activity: pCi/cubic meter

Analysis: Iodine

Sample Point		Sample Date	Quantity	Activity	LLD
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	8/28/2006	288.4	<LLD	2.31E-02
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	9/4/2006	288.9	<LLD	2.30E-02
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	9/11/2006	286.8	<LLD	1.72E-02
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	9/18/2006	286.5	<LLD	2.41E-02
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	9/25/2006	285.6	<LLD	2.16E-02
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	10/2/2006	283.9	<LLD	1.97E-02
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	10/9/2006	281.8	<LLD	2.63E-02
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	10/16/2006	279.3	<LLD	2.56E-02
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	10/23/2006	279.9	<LLD	1.80E-02
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	10/30/2006	279.8	<LLD	2.51E-02
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	11/6/2006	270.7	<LLD	2.41E-02
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	11/13/2006	279.7	<LLD	2.40E-02
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	11/20/2006	270.7	<LLD	2.33E-02
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	11/27/2006	276.0	<LLD	1.99E-02
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	12/4/2006	272.3	<LLD	1.99E-02
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	12/11/2006	271.4	<LLD	2.68E-02
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	12/18/2006	272.5	<LLD	3.99E-02
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	12/25/2006	275.1	<LLD	2.36E-02
205	0.6 MI SSE - SPOIL POND	1/2/2006	270.1	<LLD	2.69E-02
205	0.6 MI SSE - SPOIL POND	1/9/2006	287.3	<LLD	2.66E-02
205	0.6 MI SSE - SPOIL POND	1/16/2006	292.1	<LLD	3.13E-02
205	0.6 MI SSE - SPOIL POND	1/23/2006	292.6	<LLD	1.90E-02

BSEP Radiological Environmental Monitoring Analysis Report

Media Type: Air Cartridge
Quantity: cubic meters
Activity: pCi/cubic meter

Analysis: Iodine

Sample Point		Sample Date	Quantity	Activity	LLD
205	0.6 MI SSE - SPOIL POND	1/30/2006	291.2	<LLD	1.60E-02
205	0.6 MI SSE - SPOIL POND	2/6/2006	292.2	<LLD	2.95E-02
205	0.6 MI SSE - SPOIL POND	2/13/2006	276.3	<LLD	2.03E-02
205	0.6 MI SSE - SPOIL POND	2/20/2006	274.3	<LLD	2.36E-02
205	0.6 MI SSE - SPOIL POND	2/27/2006	279.6	<LLD	1.95E-02
205	0.6 MI SSE - SPOIL POND	3/6/2006	279.0	<LLD	2.75E-02
205	0.6 MI SSE - SPOIL POND	3/13/2006	280.8	<LLD	1.98E-02
205	0.6 MI SSE - SPOIL POND	3/20/2006	282.6	<LLD	1.84E-02
205	0.6 MI SSE - SPOIL POND	3/27/2006	277.0	<LLD	2.70E-02
205	0.6 MI SSE - SPOIL POND	4/3/2006	282.2	<LLD	3.38E-02
205	0.6 MI SSE - SPOIL POND	4/10/2006	284.2	<LLD	2.99E-02
205	0.6 MI SSE - SPOIL POND	4/17/2006	283.5	<LLD	2.99E-02
205	0.6 MI SSE - SPOIL POND	4/24/2006	285.8	<LLD	3.84E-02
205	0.6 MI SSE - SPOIL POND	5/1/2006	287.5	<LLD	2.00E-02
205	0.6 MI SSE - SPOIL POND	5/8/2006	407.8	<LLD	2.63E-02
205	0.6 MI SSE - SPOIL POND	5/15/2006	275.8	<LLD	3.54E-02
205	0.6 MI SSE - SPOIL POND	5/22/2006	284.4	<LLD	3.66E-02
205	0.6 MI SSE - SPOIL POND	5/29/2006	288.2	<LLD	3.19E-02
205	0.6 MI SSE - SPOIL POND	6/5/2006	297.1	<LLD	2.96E-02
205	0.6 MI SSE - SPOIL POND	6/12/2006	283.4	<LLD	2.07E-02
205	0.6 MI SSE - SPOIL POND	6/19/2006	291.8	<LLD	2.06E-02
205	0.6 MI SSE - SPOIL POND	6/26/2006	294.7	<LLD	2.12E-02

BSEP Radiological Environmental Monitoring Analysis Report

Media Type: Air Cartridge
Quantity: cubic meters
Activity: pCi/cubic meter

Analysis: Iodine

Sample Point		Sample Date	Quantity	Activity	LLD
205	0.6 MI SSE - SPOIL POND	7/3/2006	288.9	<LLD	2.34E-02
205	0.6 MI SSE - SPOIL POND	7/10/2006	295.8	<LLD	1.80E-02
205	0.6 MI SSE - SPOIL POND	7/17/2006	296.7	<LLD	3.62E-02
205	0.6 MI SSE - SPOIL POND	7/24/2006	296.8	<LLD	1.52E-02
205	0.6 MI SSE - SPOIL POND	7/31/2006	290.2	<LLD	2.74E-02
205	0.6 MI SSE - SPOIL POND	8/7/2006	294.3	<LLD	2.45E-02
205	0.6 MI SSE - SPOIL POND	8/14/2006	293.1	<LLD	2.11E-02
205	0.6 MI SSE - SPOIL POND	8/21/2006	289.7	<LLD	3.75E-02
205	0.6 MI SSE - SPOIL POND	8/28/2006	292.5	<LLD	2.10E-02
205	0.6 MI SSE - SPOIL POND	9/4/2006	293.3	<LLD	3.25E-02
205	0.6 MI SSE - SPOIL POND	9/11/2006	291.3	<LLD	3.33E-02
205	0.6 MI SSE - SPOIL POND	9/18/2006	288.6	<LLD	2.50E-02
205	0.6 MI SSE - SPOIL POND	9/25/2006	284.2	<LLD	3.67E-02
205	0.6 MI SSE - SPOIL POND	10/2/2006	289.4	<LLD	2.42E-02
205	0.6 MI SSE - SPOIL POND	10/9/2006	289.2	<LLD	2.19E-02
205	0.6 MI SSE - SPOIL POND	10/16/2006	296.2	<LLD	2.08E-02
205	0.6 MI SSE - SPOIL POND	10/23/2006	287.9	<LLD	4.10E-02
205	0.6 MI SSE - SPOIL POND	10/30/2006	287.4	<LLD	1.82E-02
205	0.6 MI SSE - SPOIL POND	11/6/2006	277.7	5.31E-02	
205	0.6 MI SSE - SPOIL POND	11/13/2006	293.3	<LLD	3.79E-02
205	0.6 MI SSE - SPOIL POND	11/20/2006	277.6	<LLD	1.87E-02
205	0.6 MI SSE - SPOIL POND	11/27/2006	289.4	<LLD	2.84E-02

BSEP Radiological Environmental Monitoring Analysis Report

Media Type: Air Cartridge
Quantity: cubic meters
Activity: pCi/cubic meter

Analysis: Iodine

Sample Point		Sample Date	Quantity	Activity	LLD
205	0.6 MI SSE - SPOIL POND	12/4/2006	287.3	<LLD	2.85E-02
205	0.6 MI SSE - SPOIL POND	12/11/2006	283.7	<LLD	3.62E-02
205	0.6 MI SSE - SPOIL POND	12/18/2006	280.1	<LLD	1.96E-02
205	0.6 MI SSE - SPOIL POND	12/25/2006	288.1	<LLD	3.50E-02

BSEP Radiological Environmental Monitoring Analysis Report

Media Type: Surface Water
Quantity: Liters
Concentration (Activity): pCi/Liter

Analysis: Tritium

Sample Point		Sample Date	Quantity	Efficiency	Activity	LLD
400	0.6 MI NE - INTAKE CANAL (CONTROL)	1/17/2006	0.005	4.21E-01	<LLD	3.09E+02
400	0.6 MI NE - INTAKE CANAL (CONTROL)	2/15/2006	0.005	4.18E-01	<LLD	3.08E+02
400	0.6 MI NE - INTAKE CANAL (CONTROL)	3/16/2006	0.005	4.18E-01	<LLD	3.07E+02
400	0.6 MI NE - INTAKE CANAL (CONTROL)	4/16/2006	0.005	4.20E-01	<LLD	3.07E+02
400	0.6 MI NE - INTAKE CANAL (CONTROL)	5/16/2006	0.005	4.19E-01	<LLD	3.04E+02
400	0.6 MI NE - INTAKE CANAL (CONTROL)	6/17/2006	0.005	4.18E-01	<LLD	3.05E+02
400	0.6 MI NE - INTAKE CANAL (CONTROL)	7/17/2006	0.005	4.17E-01	<LLD	3.07E+02
400	0.6 MI NE - INTAKE CANAL (CONTROL)	8/16/2006	0.005	4.15E-01	<LLD	3.17E+02
400	0.6 MI NE - INTAKE CANAL (CONTROL)	9/16/2006	0.005	4.01E-01	<LLD	3.29E+02
400	0.6 MI NE - INTAKE CANAL (CONTROL)	10/16/2006	0.005	4.01E-01	<LLD	3.31E+02
400	0.6 MI NE - INTAKE CANAL (CONTROL)	11/16/2006	0.005	3.99E-01	<LLD	3.36E+02
400	0.6 MI NE - INTAKE CANAL (CONTROL)	12/16/2006	0.005	4.02E-01	<LLD	3.28E+02
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	1/17/2006	0.005	4.20E-01	<LLD	3.10E+02
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	2/15/2006	0.005	4.18E-01	<LLD	3.08E+02
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	3/16/2006	0.005	4.20E-01	<LLD	3.06E+02
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	4/16/2006	0.005	4.19E-01	<LLD	3.08E+02
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	5/16/2006	0.005	4.17E-01	<LLD	3.06E+02
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	6/17/2006	0.005	4.19E-01	<LLD	3.05E+02
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	7/17/2006	0.005	4.16E-01	<LLD	3.08E+02
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	8/16/2006	0.005	4.17E-01	<LLD	3.16E+02
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	9/16/2006	0.005	4.02E-01	<LLD	3.30E+02
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	10/16/2006	0.005	4.02E-01	<LLD	3.31E+02
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	11/16/2006	0.005	3.99E-01	<LLD	3.36E+02
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	12/16/2006	0.005	3.97E-01	<LLD	3.32E+02

2006 BSEP
Radiological Environmental Monitoring
Gamma Isotopic Report

Comments

- All AC and AP samples were available.
- Aquatic organism monitoring includes fish (free swimmers and bottom feeders), invertebrates (shellfish – (SH)), and Benthic organisms (BO). Invertebrates in the Gamma Isotopic data are represented by SH/BO*.

BSEP Radiological Environmental Monitoring Gamma Isotopic Report

Media Type: Air Particulate
Quantity: CUBIC METERS
Concentration (Activity): pCi/cubic meter

Sample Point		Sample Date	Quantity	Isotope	Activity	2 Sigma Error
200	1.0 MI WSW - VISITORS CENTER	2/13/2006	3661.9	K-40	1.55E-02	1.09E-02
200	1.0 MI WSW - VISITORS CENTER	2/13/2006	3661.9	PB-212	1.36E-03	6.24E-04
200	1.0 MI WSW - VISITORS CENTER	2/13/2006	3661.9	BI-214	5.39E-03	1.82E-03
200	1.0 MI WSW - VISITORS CENTER	2/13/2006	3661.9	PB-214	4.45E-03	1.47E-03
200	1.0 MI WSW - VISITORS CENTER	2/13/2006	3661.9	BE-7	1.27E-01	1.68E-02
200	1.0 MI WSW - VISITORS CENTER	5/15/2006	3769.7	BE-7	1.55E-01	2.43E-02
200	1.0 MI WSW - VISITORS CENTER	5/15/2006	3769.7	BI-214	1.94E-03	1.70E-03
200	1.0 MI WSW - VISITORS CENTER	8/14/2006	3758.6	PB-212	1.34E-03	7.51E-04
200	1.0 MI WSW - VISITORS CENTER	8/14/2006	3758.6	TL-208	7.68E-04	4.41E-04
200	1.0 MI WSW - VISITORS CENTER	8/14/2006	3758.6	BI-214	6.97E-03	1.57E-03
200	1.0 MI WSW - VISITORS CENTER	8/14/2006	3758.6	PB-214	5.09E-03	1.55E-03
200	1.0 MI WSW - VISITORS CENTER	8/14/2006	3758.6	BE-7	1.12E-01	1.51E-02
200	1.0 MI WSW - VISITORS CENTER	11/13/2006	3707.6	TH-234	1.49E-02	1.14E-02
200	1.0 MI WSW - VISITORS CENTER	11/13/2006	3707.6	PB-214	2.28E-03	1.64E-03
200	1.0 MI WSW - VISITORS CENTER	11/13/2006	3707.6	BI-214	1.82E-03	1.73E-03
200	1.0 MI WSW - VISITORS CENTER	11/13/2006	3707.6	PB-212	8.95E-04	6.73E-04
200	1.0 MI WSW - VISITORS CENTER	11/13/2006	3707.6	K-40	1.51E-02	9.78E-03
200	1.0 MI WSW - VISITORS CENTER	11/13/2006	3707.6	BE-7	1.18E-01	1.64E-02
201	0.5 MI NE - PMAC	2/13/2006	3507.7	BE-7	1.17E-01	2.20E-02
201	0.5 MI NE - PMAC	5/15/2006	3693	K-40	1.12E-02	8.48E-03
201	0.5 MI NE - PMAC	5/15/2006	3693	BI-214	3.57E-03	1.22E-03
201	0.5 MI NE - PMAC	5/15/2006	3693	PB-214	2.77E-03	1.12E-03
201	0.5 MI NE - PMAC	5/15/2006	3693	BE-7	1.37E-01	1.56E-02
201	0.5 MI NE - PMAC	8/14/2006	3752.6	BE-7	1.16E-01	1.66E-02

BSEP Radiological Environmental Monitoring Gamma Isotopic Report

Media Type: Air Particulate
Quantity: CUBIC METERS
Concentration (Activity): pCi/cubic meter

Sample Point		Sample Date	Quantity	Isotope	Activity	2 Sigma Error
201	0.5 MI NE - PMAC	11/13/2006	3507.3	BE-7	1.28E-01	2.12E-02
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	2/13/2006	3573.4	PB-212	1.89E-03	1.45E-03
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	2/13/2006	3573.4	BE-7	1.12E-01	1.99E-02
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	5/15/2006	3685.4	BE-7	1.31E-01	1.83E-02
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	8/14/2006	3729.2	PB-214	5.70E-03	1.58E-03
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	8/14/2006	3729.2	BI-214	3.72E-03	1.74E-03
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	8/14/2006	3729.2	PB-212	1.44E-03	8.68E-04
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	8/14/2006	3729.2	BE-7	1.15E-01	1.44E-02
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	11/13/2006	3641	BE-7	1.14E-01	1.75E-02
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	11/13/2006	3641	BI-214	6.34E-03	1.77E-03
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	11/13/2006	3641	PB-214	5.32E-03	1.56E-03
202	1.0 MI S - SUBSTATION ON CONSTRUCTION RD	11/13/2006	3641	PB-212	3.31E-03	8.37E-04
203	2.0 MI SSW - SOUTHPORT SUBSTATION	2/13/2006	3507.2	BI-214	2.91E-03	1.43E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	2/13/2006	3507.2	PB-212	2.90E-03	9.19E-04
203	2.0 MI SSW - SOUTHPORT SUBSTATION	2/13/2006	3507.2	TL-208	1.24E-03	7.23E-04
203	2.0 MI SSW - SOUTHPORT SUBSTATION	2/13/2006	3507.2	BE-7	1.26E-01	1.51E-02
203	2.0 MI SSW - SOUTHPORT SUBSTATION	2/13/2006	3507.2	PB-214	4.09E-03	1.42E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	5/15/2006	3697.3	K-40	9.70E-03	8.29E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	5/15/2006	3697.3	PB-214	2.48E-03	1.36E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	5/15/2006	3697.3	BE-7	1.37E-01	1.67E-02
203	2.0 MI SSW - SOUTHPORT SUBSTATION	5/15/2006	3697.3	BI-214	3.35E-03	1.16E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	5/15/2006	3697.3	PB-212	8.92E-04	6.82E-04
203	2.0 MI SSW - SOUTHPORT SUBSTATION	8/14/2006	3711.5	BE-7	1.25E-01	2.12E-02
203	2.0 MI SSW - SOUTHPORT SUBSTATION	11/13/2006	3587.2	PB-214	4.14E-03	1.96E-03

BSEP Radiological Environmental Monitoring Gamma Isotopic Report

Media Type: Air Particulate
Quantity: CUBIC METERS
Concentration (Activity): pCi/cubic meter

Sample Point		Sample Date	Quantity	Isotope	Activity	2 Sigma Error
203	2.0 MI SSW - SOUTHPORT SUBSTATION	11/13/2006	3587.2	BE-7	1.46E-01	2.29E-02
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	2/13/2006	3646.7	PB-212	1.57E-03	6.10E-04
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	2/13/2006	3646.7	BI-214	4.90E-03	1.64E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	2/13/2006	3646.7	PB-214	5.37E-03	1.39E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	2/13/2006	3646.7	BE-7	1.30E-01	1.51E-02
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	5/15/2006	3714.5	BE-7	1.23E-01	2.32E-02
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	5/15/2006	3714.5	BI-214	2.28E-03	1.79E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	8/14/2006	3746	PB-212	1.33E-03	6.08E-04
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	8/14/2006	3746	BI-214	4.76E-03	1.53E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	8/14/2006	3746	BE-7	1.26E-01	1.62E-02
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	8/14/2006	3746	PB-214	5.55E-03	1.71E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	11/13/2006	3592.9	BE-7	1.24E-01	1.56E-02
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	11/13/2006	3592.9	TL-208	1.35E-03	5.81E-04
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	11/13/2006	3592.9	PB-212	1.27E-03	6.82E-04
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	11/13/2006	3592.9	BI-214	4.70E-03	1.58E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	11/13/2006	3592.9	PB-214	4.92E-03	1.28E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	11/13/2006	3592.9	TH-234	1.28E-02	1.18E-02
205	0.6 MI SSE - SPOIL POND	2/13/2006	3675.1	BE-7	1.16E-01	1.70E-02
205	0.6 MI SSE - SPOIL POND	2/13/2006	3675.1	PB-212	1.64E-03	1.12E-03
205	0.6 MI SSE - SPOIL POND	5/15/2006	3846.4	BE-7	1.34E-01	1.77E-02
205	0.6 MI SSE - SPOIL POND	8/14/2006	3795.4	BE-7	1.09E-01	1.65E-02
205	0.6 MI SSE - SPOIL POND	8/14/2006	3795.4	BI-214	2.17E-03	1.26E-03
205	0.6 MI SSE - SPOIL POND	8/14/2006	3795.4	PB-214	1.92E-03	1.15E-03
205	0.6 MI SSE - SPOIL POND	11/13/2006	3727.1	BE-7	1.27E-01	1.91E-02

BNP Radiological Environmental Monitoring Gamma Isotopic Report

Media Type: Broadleaf Vegetation
Quantity: GRAMS (wet)
Concentration (Activity): pCi/gm wet

Media: WAX MYRTLE

Sample Point		Sample Date	Quantity	Isotope	Activity	2 Sigma Error
800	0.7 MI NE - INTAKE CANAL	1/3/2006	356.6	K-40	1.59E+00	4.07E-01
800	0.7 MI NE - INTAKE CANAL	1/3/2006	356.6	PB-214	4.27E-02	3.98E-02
800	0.7 MI NE - INTAKE CANAL	1/3/2006	356.6	BE-7	3.16E+00	3.22E-01
800	0.7 MI NE - INTAKE CANAL	2/1/2006	529.3	K-40	1.73E+00	3.73E-01
800	0.7 MI NE - INTAKE CANAL	2/1/2006	529.3	BE-7	2.71E+00	2.72E-01
800	0.7 MI NE - INTAKE CANAL	3/1/2006	453.8	K-40	2.02E+00	4.98E-01
800	0.7 MI NE - INTAKE CANAL	3/1/2006	453.8	BE-7	3.31E+00	3.30E-01
800	0.7 MI NE - INTAKE CANAL	4/1/2006	371.8	BE-7	3.73E+00	3.51E-01
800	0.7 MI NE - INTAKE CANAL	4/1/2006	371.8	K-40	2.26E+00	5.48E-01
800	0.7 MI NE - INTAKE CANAL	5/1/2006	582.3	K-40	3.61E+00	4.50E-01
800	0.7 MI NE - INTAKE CANAL	5/1/2006	582.3	BE-7	1.23E+00	1.58E-01
800	0.7 MI NE - INTAKE CANAL	6/1/2006	435.4	BE-7	7.12E-01	2.23E-01
800	0.7 MI NE - INTAKE CANAL	6/1/2006	435.4	BI-214	6.87E-02	3.96E-02
800	0.7 MI NE - INTAKE CANAL	6/1/2006	435.4	K-40	2.83E+00	4.16E-01
800	0.7 MI NE - INTAKE CANAL	7/1/2006	439.7	BE-7	7.78E-01	2.14E-01
800	0.7 MI NE - INTAKE CANAL	7/1/2006	439.7	K-40	3.18E+00	5.57E-01
800	0.7 MI NE - INTAKE CANAL	8/1/2006	465	BE-7	8.05E-01	2.63E-01
800	0.7 MI NE - INTAKE CANAL	8/1/2006	465	K-40	2.67E+00	5.08E-01
800	0.7 MI NE - INTAKE CANAL	8/1/2006	465	BI-214	1.22E-01	5.30E-02

BNP Radiological Environmental Monitoring Gamma Isotopic Report

Media Type: Broadleaf Vegetation
Quantity: GRAMS (wet)
Concentration (Activity): pCi/gm wet

Media: WAX MYRTLE

Sample Point		Sample Date	Quantity	Isotope	Activity	2 Sigma Error
800	0.7 MI NE - INTAKE CANAL	9/1/2006	461.8	BI-214	5.88E-02	5.15E-02
800	0.7 MI NE - INTAKE CANAL	9/1/2006	461.8	K-40	1.94E+00	4.74E-01
800	0.7 MI NE - INTAKE CANAL	9/1/2006	461.8	BE-7	1.70E+00	3.02E-01
800	0.7 MI NE - INTAKE CANAL	10/1/2006	506	BE-7	8.83E-01	1.55E-01
800	0.7 MI NE - INTAKE CANAL	10/1/2006	506	K-40	1.90E+00	3.39E-01
800	0.7 MI NE - INTAKE CANAL	11/1/2006	476.1	PB-212	5.98E-02	2.91E-02
800	0.7 MI NE - INTAKE CANAL	11/1/2006	476.1	K-40	2.03E+00	5.16E-01
800	0.7 MI NE - INTAKE CANAL	11/1/2006	476.1	BI-214	9.25E-02	4.78E-02
800	0.7 MI NE - INTAKE CANAL	11/1/2006	476.1	PB-214	6.45E-02	4.18E-02
800	0.7 MI NE - INTAKE CANAL	11/1/2006	476.1	BE-7	2.04E+00	2.67E-01
800	0.7 MI NE - INTAKE CANAL	12/1/2006	454.7	PB-212	2.81E-02	2.41E-02
800	0.7 MI NE - INTAKE CANAL	12/1/2006	454.7	BE-7	2.03E+00	2.49E-01
800	0.7 MI NE - INTAKE CANAL	12/1/2006	454.7	RA-226	4.75E-01	3.51E-01
800	0.7 MI NE - INTAKE CANAL	12/1/2006	454.7	BI-214	4.86E-02	3.77E-02
800	0.7 MI NE - INTAKE CANAL	12/1/2006	454.7	K-40	1.23E+00	3.99E-01
801	0.8 MI SW - DISCHARGE CANAL	1/3/2006	338.5	K-40	1.49E+00	5.55E-01
801	0.8 MI SW - DISCHARGE CANAL	1/3/2006	338.5	BE-7	2.18E+00	4.17E-01
801	0.8 MI SW - DISCHARGE CANAL	2/1/2006	502.1	BE-7	3.00E+00	2.70E-01
801	0.8 MI SW - DISCHARGE CANAL	2/1/2006	502.1	K-40	1.61E+00	3.40E-01

BNP Radiological Environmental Monitoring Gamma Isotopic Report

Media Type: Broadleaf Vegetation
Quantity: GRAMS (wet)
Concentration (Activity): pCi/gm wet

Media: WAX MYRTLE

Sample Point		Sample Date	Quantity	Isotope	Activity	2 Sigma Error
801	0.8 MI SW - DISCHARGE CANAL	2/1/2006	502.1	BI-214	4.48E-02	3.63E-02
801	0.8 MI SW - DISCHARGE CANAL	3/1/2006	448.3	BE-7	2.16E+00	2.56E-01
801	0.8 MI SW - DISCHARGE CANAL	3/1/2006	448.3	K-40	2.09E+00	4.40E-01
801	0.8 MI SW - DISCHARGE CANAL	4/1/2006	383.8	K-40	2.37E+00	5.05E-01
801	0.8 MI SW - DISCHARGE CANAL	4/1/2006	383.8	BE-7	1.12E+00	2.96E-01
801	0.8 MI SW - DISCHARGE CANAL	5/1/2006	535.4	BE-7	1.19E+00	2.07E-01
801	0.8 MI SW - DISCHARGE CANAL	5/1/2006	535.4	K-40	2.30E+00	4.39E-01
801	0.8 MI SW - DISCHARGE CANAL	6/1/2006	406.6	K-40	2.19E+00	4.23E-01
801	0.8 MI SW - DISCHARGE CANAL	6/1/2006	406.6	BE-7	8.27E-01	1.67E-01
801	0.8 MI SW - DISCHARGE CANAL	7/1/2006	429.2	K-40	2.62E+00	4.36E-01
801	0.8 MI SW - DISCHARGE CANAL	7/1/2006	429.2	PB-214	4.32E-02	3.43E-02
801	0.8 MI SW - DISCHARGE CANAL	7/1/2006	429.2	BE-7	1.03E+00	1.94E-01
801	0.8 MI SW - DISCHARGE CANAL	8/1/2006	478.8	BE-7	9.21E-01	1.74E-01
801	0.8 MI SW - DISCHARGE CANAL	8/1/2006	478.8	K-40	2.24E+00	4.14E-01
801	0.8 MI SW - DISCHARGE CANAL	9/1/2006	428.9	BE-7	1.17E+00	1.91E-01
801	0.8 MI SW - DISCHARGE CANAL	9/1/2006	428.9	BI-214	6.66E-02	4.27E-02
801	0.8 MI SW - DISCHARGE CANAL	9/1/2006	428.9	K-40	1.96E+00	3.86E-01
801	0.8 MI SW - DISCHARGE CANAL	10/1/2006	463	BE-7	1.19E+00	2.37E-01
801	0.8 MI SW - DISCHARGE CANAL	10/1/2006	463	K-40	1.59E+00	4.94E-01

BNP Radiological Environmental Monitoring Gamma Isotopic Report

Media Type: Broadleaf Vegetation
Quantity: GRAMS (wet)
Concentration (Activity): pCi/gm wet

Media: WAX MYRTLE

Sample Point		Sample Date	Quantity	Isotope	Activity	2 Sigma Error
801	0.8 MI SW - DISCHARGE CANAL	11/1/2006	487.8	BE-7	8.85E-01	1.71E-01
801	0.8 MI SW - DISCHARGE CANAL	11/1/2006	487.8	BI-214	6.65E-02	3.67E-02
801	0.8 MI SW - DISCHARGE CANAL	11/1/2006	487.8	K-40	2.18E+00	3.81E-01
801	0.8 MI SW - DISCHARGE CANAL	12/1/2006	463.6	TL-208	2.34E-02	1.85E-02
801	0.8 MI SW - DISCHARGE CANAL	12/1/2006	463.6	BI-214	6.43E-02	3.39E-02
801	0.8 MI SW - DISCHARGE CANAL	12/1/2006	463.6	BE-7	1.23E+00	1.99E-01
801	0.8 MI SW - DISCHARGE CANAL	12/1/2006	463.6	K-40	1.53E+00	3.15E-01
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	1/3/2006	359.4	K-40	1.01E+00	3.79E-01
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	1/3/2006	359.4	BE-7	2.10E+00	2.89E-01
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	1/3/2006	359.4	BI-214	7.85E-02	4.82E-02
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	2/1/2006	507.5	BE-7	2.87E+00	2.66E-01
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	2/1/2006	507.5	K-40	1.24E+00	2.98E-01
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	3/1/2006	464.4	RA-226	8.89E-01	4.77E-01
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	3/1/2006	464.4	BE-7	5.03E+00	3.55E-01
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	3/1/2006	464.4	PB-214	7.30E-02	4.86E-02
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	3/1/2006	464.4	BI-214	5.65E-02	3.20E-02
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	3/1/2006	464.4	K-40	1.12E+00	3.19E-01
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	4/1/2006	374.1	K-40	2.49E+00	5.30E-01
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	4/1/2006	374.1	BE-7	3.56E+00	3.97E-01

BNP Radiological Environmental Monitoring Gamma Isotopic Report

Media Type: Broadleaf Vegetation
Quantity: GRAMS (wet)
Concentration (Activity): pCi/gm wet

Media: WAX MYRTLE

Sample Point		Sample Date	Quantity	Isotope	Activity	2 Sigma Error
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	5/1/2006	581.3	BE-7	1.06E+00	1.68E-01
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	5/1/2006	581.3	CS-137	2.73E-02	1.14E-02
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	5/1/2006	581.3	K-40	2.50E+00	3.28E-01
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	6/1/2006	490.7	BE-7	6.35E-01	2.20E-01
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	6/1/2006	490.7	BI-214	6.21E-02	5.18E-02
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	6/1/2006	490.7	K-40	2.04E+00	4.21E-01
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	7/3/2006	424	K-40	3.05E+00	4.67E-01
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	7/3/2006	424	BE-7	1.89E+00	2.63E-01
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	8/1/2006	452.6	BE-7	1.87E+00	2.70E-01
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	8/1/2006	452.6	K-40	1.93E+00	4.89E-01
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	9/1/2006	442.2	K-40	1.54E+00	5.25E-01
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	9/1/2006	442.2	BE-7	1.79E+00	2.88E-01
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	9/1/2006	442.2	BI-214	6.82E-02	4.30E-02
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	10/1/2006	433.4	BI-214	3.90E-02	3.36E-02
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	10/1/2006	433.4	K-40	1.45E+00	4.32E-01
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	10/1/2006	433.4	BE-7	2.51E+00	3.41E-01
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	11/1/2006	443.2	RA-226	3.78E-01	3.10E-01
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	11/1/2006	443.2	BI-214	4.72E-02	4.08E-02
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	11/1/2006	443.2	BE-7	3.43E+00	2.82E-01

BNP Radiological Environmental Monitoring Gamma Isotopic Report

Media Type: Broadleaf Vegetation
Quantity: GRAMS (wet)
Concentration (Activity): pCi/gm wet

Media: WAX MYRTLE

Sample Point		Sample Date	Quantity	Isotope	Activity	2 Sigma Error
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	11/1/2006	443.2	K-40	1.48E+00	3.44E-01
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	12/1/2006	409.3	K-40	1.73E+00	5.35E-01
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	12/1/2006	409.3	BE-7	3.36E+00	3.77E-01
803	0.6 MI SSE - SPOIL POND	1/3/2006	420.7	BE-7	2.31E+00	3.21E-01
803	0.6 MI SSE - SPOIL POND	1/3/2006	420.7	K-40	1.13E+00	4.58E-01
803	0.6 MI SSE - SPOIL POND	2/1/2006	536.8	K-40	1.77E+00	4.03E-01
803	0.6 MI SSE - SPOIL POND	2/1/2006	536.8	BE-7	1.30E+00	2.33E-01
803	0.6 MI SSE - SPOIL POND	3/1/2006	473.3	PB-212	4.76E-02	3.75E-02
803	0.6 MI SSE - SPOIL POND	3/1/2006	473.3	BE-7	1.76E+00	2.78E-01
803	0.6 MI SSE - SPOIL POND	3/1/2006	473.3	K-40	2.11E+00	4.56E-01
803	0.6 MI SSE - SPOIL POND	4/1/2006	366.5	BE-7	2.60E+00	3.09E-01
803	0.6 MI SSE - SPOIL POND	4/1/2006	366.5	K-40	1.38E+00	3.74E-01
803	0.6 MI SSE - SPOIL POND	4/1/2006	366.5	PB-214	4.09E-02	4.00E-02
803	0.6 MI SSE - SPOIL POND	5/1/2006	546.6	PB-212	4.10E-02	2.57E-02
803	0.6 MI SSE - SPOIL POND	5/1/2006	546.6	K-40	2.61E+00	4.39E-01
803	0.6 MI SSE - SPOIL POND	5/1/2006	546.6	BE-7	9.83E-01	2.15E-01
803	0.6 MI SSE - SPOIL POND	6/1/2006	467.2	K-40	2.34E+00	4.11E-01
803	0.6 MI SSE - SPOIL POND	6/1/2006	467.2	BE-7	7.56E-01	1.92E-01
803	0.6 MI SSE - SPOIL POND	7/1/2006	445.5	BE-7	7.06E-01	1.71E-01

BNP Radiological Environmental Monitoring Gamma Isotopic Report

Media Type: Broadleaf Vegetation
Quantity: GRAMS (wet)
Concentration (Activity): pCi/gm wet

Media: WAX MYRTLE

Sample Point		Sample Date	Quantity	Isotope	Activity	2 Sigma Error
803	0.6 MI SSE - SPOIL POND	7/1/2006	445.5	K-40	2.81E+00	4.35E-01
803	0.6 MI SSE - SPOIL POND	8/1/2006	434.9	BE-7	1.13E+00	2.32E-01
803	0.6 MI SSE - SPOIL POND	8/1/2006	434.9	K-40	2.53E+00	5.08E-01
803	0.6 MI SSE - SPOIL POND	9/1/2006	416.8	BI-214	6.63E-02	3.89E-02
803	0.6 MI SSE - SPOIL POND	9/1/2006	416.8	K-40	2.14E+00	4.10E-01
803	0.6 MI SSE - SPOIL POND	9/1/2006	416.8	BE-7	8.07E-01	1.69E-01
803	0.6 MI SSE - SPOIL POND	9/1/2006	416.8	PB-214	7.47E-02	4.06E-02
803	0.6 MI SSE - SPOIL POND	10/1/2006	408.9	K-40	2.04E+00	6.37E-01
803	0.6 MI SSE - SPOIL POND	10/1/2006	408.9	BE-7	1.04E+00	2.74E-01
803	0.6 MI SSE - SPOIL POND	10/1/2006	408.9	BI-214	5.88E-02	5.02E-02
803	0.6 MI SSE - SPOIL POND	11/1/2006	437.1	K-40	2.28E+00	5.21E-01
803	0.6 MI SSE - SPOIL POND	11/1/2006	437.1	BE-7	1.46E+00	2.41E-01
803	0.6 MI SSE - SPOIL POND	12/1/2006	456.7	K-40	1.57E+00	4.82E-01
803	0.6 MI SSE - SPOIL POND	12/1/2006	456.7	BE-7	2.19E+00	3.09E-01
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	1/3/2006	389.3	BE-7	3.11E+00	3.22E-01
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	1/3/2006	389.3	PB-212	5.61E-02	3.97E-02
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	1/3/2006	389.3	K-40	9.19E-01	3.70E-01
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	2/1/2006	558.1	K-40	1.84E+00	3.31E-01
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	2/1/2006	558.1	BE-7	1.20E+00	1.71E-01

BNP Radiological Environmental Monitoring Gamma Isotopic Report

Media Type: Broadleaf Vegetation
Quantity: GRAMS (wet)
Concentration (Activity): pCi/gm wet

Media: WAX MYRTLE

Sample Point		Sample Date	Quantity	Isotope	Activity	2 Sigma Error
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	3/1/2006	501.8	BI-214	7.28E-02	3.19E-02
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	3/1/2006	501.8	K-40	1.91E+00	3.46E-01
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	3/1/2006	501.8	BE-7	1.94E+00	2.10E-01
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	4/1/2006	375.6	BE-7	2.36E+00	3.34E-01
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	4/1/2006	375.6	K-40	1.71E+00	4.40E-01
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	5/1/2006	557.6	BE-7	5.36E-01	1.78E-01
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	5/1/2006	557.6	K-40	2.34E+00	4.05E-01
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	6/1/2006	489.3	BE-7	4.42E-01	1.43E-01
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	6/1/2006	489.3	K-40	2.15E+00	3.75E-01
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	7/1/2006	466.1	BE-7	1.23E+00	2.27E-01
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	7/1/2006	466.1	PB-214	4.11E-02	3.04E-02
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	7/1/2006	466.1	RA-226	8.70E-01	5.91E-01
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	7/1/2006	466.1	BI-214	5.12E-02	3.60E-02
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	7/1/2006	466.1	K-40	2.07E+00	3.68E-01
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	8/1/2006	513.4	PB-214	4.56E-02	3.13E-02
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	8/1/2006	513.4	BE-7	1.12E+00	1.65E-01
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	8/1/2006	513.4	K-40	1.76E+00	3.35E-01
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	9/1/2006	470.1	PB-214	5.41E-02	5.10E-02
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	9/1/2006	470.1	BI-214	7.93E-02	4.54E-02

BNP Radiological Environmental Monitoring Gamma Isotopic Report

Media Type: Broadleaf Vegetation
Quantity: GRAMS (wet)
Concentration (Activity): pCi/gm wet

Media: WAX MYRTLE

Sample Point		Sample Date	Quantity	Isotope	Activity	2 Sigma Error
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	9/1/2006	470.1	BE-7	1.09E+00	2.28E-01
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	9/1/2006	470.1	K-40	1.50E+00	4.36E-01
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	10/1/2006	501.4	K-40	1.68E+00	3.42E-01
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	10/1/2006	501.4	BE-7	8.01E-01	1.69E-01
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	11/1/2006	473	BE-7	1.21E+00	2.05E-01
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	11/1/2006	473	K-40	1.73E+00	4.60E-01
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	11/1/2006	473	TL-208	2.30E-02	1.87E-02
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	11/1/2006	473	PB-212	4.51E-02	3.44E-02
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	11/1/2006	473	BI-214	7.08E-02	3.90E-02
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	12/1/2006	467.9	K-40	1.30E+00	2.93E-01
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	12/1/2006	467.9	BE-7	1.96E+00	2.54E-01

BSEP Radiological Environmental Monitoring Gamma Isotopic Report

Media Type: Fish and Invertebrates
Quantity: GRAMS (wet)
Concentration (Activity): pCi/gm wet

Sample Point		Sample Date	Quantity	Isotope	Activity	2 Sigma Error
700	5.5 MI SSW - FREE SWIMMERS - ATLANTIC OCEAN AT DI	5/23/2006	831.2	K-40	3.55E+00	7.95E-01
700	5.5 MI SSW - FREE SWIMMERS - ATLANTIC OCEAN AT DI	10/26/2006	515.2	K-40	2.56E+00	8.40E-01
701	5.5 MI SSW - BOTTOM FEEDER - ATLANTIC OCEAN AT DI	5/23/2006	538.4	K-40	2.44E+00	6.14E-01
701	5.5 MI SSW - BOTTOM FEEDER - ATLANTIC OCEAN AT DI	10/26/2006	554	K-40	2.14E+00	6.34E-01
702	5.5 MI SSW - SH/BO* - ATLANTIC OCEAN AT DISCHARGE	5/23/2006	446.8	K-40	2.00E+00	8.62E-01
702	5.5 MI SSW - SH/BO* - ATLANTIC OCEAN AT DISCHARGE	10/26/2006	607.9	PB-214	9.37E-02	6.53E-02
702	5.5 MI SSW - SH/BO* - ATLANTIC OCEAN AT DISCHARGE	10/26/2006	607.9	K-40	2.82E+00	7.92E-01
703	FREE SWIMMERS - ATLANTIC OCEAN (CONTROL)	5/23/2006	563.7	K-40	2.90E+00	7.93E-01
703	FREE SWIMMERS - ATLANTIC OCEAN (CONTROL)	10/28/2006	525.5	BI-214	5.60E-02	3.55E-02
703	FREE SWIMMERS - ATLANTIC OCEAN (CONTROL)	10/28/2006	525.5	K-40	2.68E+00	7.63E-01
704	BOTTOM FEEDER - ATLANTIC OCEAN (CONTROL)	5/23/2006	429	K-40	2.46E+00	7.00E-01
704	BOTTOM FEEDER - ATLANTIC OCEAN (CONTROL)	10/28/2006	525.7	K-40	2.05E+00	7.65E-01
704	BOTTOM FEEDER - ATLANTIC OCEAN (CONTROL)	10/28/2006	525.7	PB-214	5.23E-02	4.58E-02
705	SH/BO* - ATLANTIC OCEAN (CONTROL)	5/23/2006	636.4	K-40	2.71E+00	8.24E-01
705	SH/BO* - ATLANTIC OCEAN (CONTROL)	10/28/2006	869.8	BI-214	4.49E-02	3.34E-02
705	SH/BO* - ATLANTIC OCEAN (CONTROL)	10/28/2006	869.8	K-40	1.63E+00	5.56E-01

BSEP Radiological Environmental Monitoring Gamma Isotopic Report

Media Type: Shoreline Sediment
Quantity: GRAMS (dry)
Concentration (Activity): pCi/gm dry

Sample Point		Sample Date	Quantity	Isotope	Activity	2 Sigma Error
500	5.0 MI SSW - DISCHARGE; BEACH NEAR OD PUMPS	5/1/2006	1611	AC-228	8.06E-02	4.51E-02
500	5.0 MI SSW - DISCHARGE; BEACH NEAR OD PUMPS	5/1/2006	1611	PB-214	9.62E-02	3.94E-02
500	5.0 MI SSW - DISCHARGE; BEACH NEAR OD PUMPS	5/1/2006	1611	BI-214	1.12E-01	3.34E-02
500	5.0 MI SSW - DISCHARGE; BEACH NEAR OD PUMPS	5/1/2006	1611	PB-212	4.06E-02	2.29E-02
500	5.0 MI SSW - DISCHARGE; BEACH NEAR OD PUMPS	5/1/2006	1611	TL-208	2.73E-02	2.09E-02
500	5.0 MI SSW - DISCHARGE; BEACH NEAR OD PUMPS	5/1/2006	1611	K-40	9.11E-01	2.67E-01
500	5.0 MI SSW - DISCHARGE; BEACH NEAR OD PUMPS	10/30/2006	1552.8	AC-228	3.27E-01	8.51E-02
500	5.0 MI SSW - DISCHARGE; BEACH NEAR OD PUMPS	10/30/2006	1552.8	PB-214	3.75E-01	6.41E-02
500	5.0 MI SSW - DISCHARGE; BEACH NEAR OD PUMPS	10/30/2006	1552.8	BI-214	3.83E-01	6.42E-02
500	5.0 MI SSW - DISCHARGE; BEACH NEAR OD PUMPS	10/30/2006	1552.8	PB-212	2.94E-01	4.06E-02
500	5.0 MI SSW - DISCHARGE; BEACH NEAR OD PUMPS	10/30/2006	1552.8	TL-208	1.02E-01	2.42E-02
500	5.0 MI SSW - DISCHARGE; BEACH NEAR OD PUMPS	10/30/2006	1552.8	K-40	5.65E-01	2.87E-01

BSEP Radiological Environmental Monitoring Gamma Isotopic Report

Media Type: Surface Water
Quantity: Liters
Concentration (Activity): pCi/L

Sample Point		Sample Date	Quantity	Isotope	Activity	2 Sigma Error
400	0.6 MI NE - INTAKE CANAL (CONTROL)	1/17/2006	1	K-40	2.02E+02	5.26E+01
400	0.6 MI NE - INTAKE CANAL (CONTROL)	2/15/2006	1	K-40	2.48E+02	5.37E+01
400	0.6 MI NE - INTAKE CANAL (CONTROL)	3/16/2006	1	K-40	2.03E+02	4.45E+01
400	0.6 MI NE - INTAKE CANAL (CONTROL)	4/16/2006	1	K-40	2.60E+02	3.72E+01
400	0.6 MI NE - INTAKE CANAL (CONTROL)	5/16/2006	1	TL-208	3.88E+00	1.86E+00
400	0.6 MI NE - INTAKE CANAL (CONTROL)	5/16/2006	1	K-40	3.48E+02	5.17E+01
400	0.6 MI NE - INTAKE CANAL (CONTROL)	6/17/2006	1	K-40	1.95E+02	4.16E+01
400	0.6 MI NE - INTAKE CANAL (CONTROL)	7/17/2006	1	K-40	2.12E+02	4.47E+01
400	0.6 MI NE - INTAKE CANAL (CONTROL)	8/16/2006	1	K-40	2.70E+02	4.40E+01
400	0.6 MI NE - INTAKE CANAL (CONTROL)	9/16/2006	1	K-40	1.09E+02	5.66E+01
400	0.6 MI NE - INTAKE CANAL (CONTROL)	10/16/2006	1	K-40	2.86E+02	3.71E+01
400	0.6 MI NE - INTAKE CANAL (CONTROL)	11/16/2006	1	K-40	1.35E+02	4.16E+01
400	0.6 MI NE - INTAKE CANAL (CONTROL)	12/16/2006	1	K-40	1.16E+02	4.13E+01
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	1/17/2006	1	K-40	1.66E+02	4.26E+01
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	2/15/2006	1	K-40	1.79E+02	4.23E+01
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	3/16/2006	1	K-40	3.22E+02	5.16E+01
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	4/16/2006	1	PB-214	8.90E+00	3.81E+00
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	4/16/2006	1	K-40	3.45E+02	5.44E+01
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	4/16/2006	1	TL-208	3.78E+00	1.91E+00
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	5/16/2006	1	TL-208	3.10E+00	1.27E+00
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	5/16/2006	1	K-40	2.52E+02	4.65E+01
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	6/17/2006	1	K-40	2.06E+02	4.38E+01
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	7/17/2006	1	K-40	2.13E+02	3.69E+01
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	8/16/2006	1	K-40	2.54E+02	5.51E+01
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	9/16/2006	1	K-40	1.77E+02	3.56E+01
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	10/16/2006	1	K-40	2.17E+02	4.50E+01

BSEP Radiological Environmental Monitoring Gamma Isotopic Report

Media Type: Surface Water
Quantity: Liters
Concentration (Activity): pCi/L

Sample Point		*Sample Date*	*Quantity*	*Isotope*	*Activity*	*2 Sigma Error*
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	11/16/2006	1	K-40	1.56E+02	4.11E+01
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	11/16/2006	1	TL-208	3.07E+00	2.29E+00
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	12/16/2006	1	K-40	1.07E+02	5.45E+01