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NAS PENSACOLA
5090.3a

FEASIBILITY STUDY FOR OPERABLE UNIT 2 (OU 2) VOLUME 2 OF 2 NAS PENSACOLA FL
4/26/1999
ENSAFE, INC

FEASIBILITY STUDY REPORT
OPERABLE UNIT 2
NAS PENSACOLA
PENSACOLA, FLORIDA

SOUTHNAVFACENGCOM
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Appendices A through D

Prepared for:

Department of the Navy
Southern Division
Naval Facilities Engineering Command
North Charleston, South Carolina

Prepared by:

EnSafe Inc.
5724 Summer Trees Drive
Memphis, Tennessee 38134
(901) 372-7962

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Appendix A

Applicable or Relevant and Appropriate Requirements

Table 1
Summary of Potential Chemical-Specific ARARs
NAS Pensacola OU 2 — Sites 11, 12, 25, 26, 27, 30

Requirements	Status	Requirement Synopsis	Application to the RI/FS
Federal Requirements			
Safe Drinking Water Act MCLs 40 CFR 141.11 - 141.16	Not Relevant and Appropriate	MCLs have been set for toxic compounds as enforceable standards for public drinking water systems. SMCLs are unenforceable goals regulating the aesthetic quality of drinking water.	The surficial zone of the Sand and Gravel Aquifer is characterized by high concentrations of naturally occurring aluminum, iron, sodium, and other inorganics. It has been classified a poor quality aquifer; therefore it is not considered a potable water source. MCLs are relevant and appropriate to drinking water aquifers. OU 2 contaminants exceed MCLs.
Safe Drinking Water Act MCLGs 40 CFR 141.50-141.51	Not Relevant and Appropriate	MCLGs are unenforceable goals under the SDWA.	The surficial zone of the Sand and Gravel Aquifer is a potential, although unlikely, source of drinking water. Some contaminants in the plume below OU 2 - Site 11, 12, 25, 26, 27, 30 are above MCLGs.
Clean Water Act Federal Water Quality Criteria 51 Federal Register 43665	Relevant and Appropriate	Effluent limitations must meet Best Achievable Technology (BAT). Ambient Water Quality Criteria (AWQC) are provided for toxic chemicals.	Discharges to water bodies during remediation activities (if required) would have AWQCs as potential goal.
Toxic Substance Control Act 40 CFR 761 Subpart G, Spill Cleanup Policy	Relevant and Appropriate	Establishes the criteria by which the EPA will determine the adequacy of the clean up of PCB spills.	PCBs have been identified in soil at OU 2.
State Requirements			
Florida Drinking Water Standards, Monitoring, and Reporting Title 62 Chapter 62-550	Not Applicable	Establishes Primary and Secondary Drinking Water Standards (FPDWS and FSDWS).	The surficial zone of the Sand and Gravel Aquifer is characterized by high concentrations of naturally occurring aluminum, iron, sodium, and other inorganics. It has been classified a poor quality aquifer; therefore it is not considered a potable water source. FPDWS and FSDWS are relevant and appropriate to drinking water aquifers. Some contaminants in the plumes below OU 2 are above the FPDWS and FSDWS.

Table 1
Summary of Potential Chemical-Specific ARARs
NAS Pensacola OU 2 — Sites 11, 12, 25, 26, 27, 30

Requirements	Status	Requirement Synopsis	Application to the RI/FS
UST, Drycleaners, and Brownsfields Cleanup Standards FAC 62-770, 62-781, and 62-785	Relevant and Appropriate	Establishes requirements for specific types of hazardous substance and petroleum-fuel cleanups.	Contaminants found at OU 2 are similar to contaminants covered by these regulations. These regulations have been applied at other locations at NAS Pensacola and, for consistency, should be considered in developing remedial solutions. The state has historically required use of UST regulations at groundwater/surface water contact at NAS Pensacola CERCLA sites.
Soil and Groundwater Cleanup Standards Florida Proposed Rule 62-777	To Be Considered[a]	Establishes remediation targets for various soil and groundwater exposure scenarios; provides standards for assessing potential cross-media transfer.	Standards in this proposed rule are relevant and appropriate to actions at OU 2. Industrial use standards are appropriate soil remediation goals given current and future site use. Poor quality groundwater goals are appropriate given background water quality within the Sand and Gravel Aquifer.
Florida Surface Water Quality Standards Title 62 Chapter 62-301 and 62-302	Applicable	Establishes water quality standards for all waters of the state.	Remedial objectives require protection of surficial water.

Note: [a] Florida Proposed Rule 62-777 is TBC because it has not been incorporated as a final regulation. However, upon finalization it will be considered relevant and appropriate to activities at OU 2 because it identifies soil and groundwater cleanup levels appropriate to an industrial use/poor quality groundwater site, as well as standards to evaluate cross media transfer (soil-to-groundwater, groundwater-to-surface water, etc.).

Table 2
Summary of Potential Location Specific ARARs
NAS Pensacola OU 2 —- Sites 11, 12, 25, 26, 27, 30

Requirements	Status	Requirement Synopsis	Application to the RI/FS
Federal Requirements			
National Environmental Policy Act 40 CFR Part 6, Appendix A	Applicable	Sets forth EPA policy carrying out the provisions of Executive Order 11988, Floodplain Management Policy, and Executive Order 11990, Wetlands Protection Policy.	OU 2 is located within a 100-year flood plain, and abuts wetlands areas. Remediation activities may disturb these areas.
Endangered Species Act (16 U.S.C. 1531 et seq.) 50 CFR Part 402 and Part 200	Applicable	Action must avoid jeopardizing the continued existence of listed endangered or threatened species or modification of their habitat.	Due to the wetland areas in OU 2 endangered species may be present.
Fish and Wildlife Coordination Act (16 U.S.C. 661 et seq.) 33 CFR Part 320 to Part 330 40 CFR 6.302	Not Applicable	Requires actions to protect fish and wildlife from actions modifying streams or areas affecting streams.	Onsite actions are unlikely to generate impacts to adjacent water bodies.
RCRA Location Requirements 40 CFR 264.18	Relevant and Appropriate	Sets forth minimum requirements for design, construction, and operation of a facility where treatment, storage, or disposal of hazardous waste will be within a 100-year floodplain.	Treatment, disposal, and storage of hazardous materials may take place during remediation of the site. Some wastes may be within the 100-year floodplain.
State Requirements			
Florida Hazardous Waste Rules Title 62 Chapter 62-730	Relevant and Appropriate	Sets forth minimum requirements for design, construction, and operation of a facility where treatment, storage, or disposal of hazardous waste will be within a 100-year floodplain.	Treatment, disposal, and storage of hazardous wastes may take place during remediation of the site. OU 2 is in the 100-year floodplain.
UST, Drycleaners, and Brownsfields Cleanup Standards FAC 62-770, 62-781, and 62-785	Relevant and Appropriate	Establishes requirements for specific types of hazardous substance and petroleum-fuel cleanups.	Contaminants found at OU 2 are similar to contaminants covered by these regulations. These regulations have been applied at other locations at NAS Pensacola and, for consistency, should be considered in developing remedial solutions. The state has historically required use of UST regulations at groundwater/surface water contact at NAS Pensacola CERCLA sites.

Table 3
Summary of Potential Action Specific ARARs
NAS Pensacola OU 2 — Sites 11, 12, 25, 26, 27, 30

Requirements	Status	Requirement Synopsis	Application to the RI/FS
Federal Requirements			
RCRA Identification of Hazardous Waste 40 CFR 261	Applicable	Criteria for identifying those solid wastes subject to regulation as hazardous waste under RCRA.	Treatment residuals from onsite remediation activities may be hazardous waste. Proper disposal of treatment residuals will be required.
RCRA Generator Standards 40 CFR 262	Relevant and Appropriate	Establishes standards for generators of RCRA hazardous waste(s).	Treatment residuals from onsite remediation activities may be hazardous waste.
RCRA Facility Standards 40 CFR 264	Relevant and Appropriate	Establishes standards for the safe management and storage of RCRA hazardous waste(s).	Treatment residuals from onsite remediation activities may be hazardous waste
RCRA Land Disposal Restrictions 40 CFR 268	Applicable	Certain classes of waste are restricted from land disposal without acceptable treatment.	If hazardous treatment residuals are disposed of offsite, they must comply with LDRs.
Clean Water Act National Pollutant Discharge Elimination System (NPDES) 40 CFR 122, 125, 129, 136	Applicable	Prohibits unpermitted discharge of any pollutant or combination of pollutants. Standards and limitations are established for discharges to waters of the U.S. from any point source.	Remedial actions may include the discharge of treated groundwater, runoff, or other flows to surface water.
Clean Water Act General Pretreatment Regulations for Existing and New Sources of Pollution 40 CFR 403	Relevant and Appropriate	Establishes the limits for the discharge of pollutants to publicly owned treatment works (POTW) and the requirement for pre-treatment if applicable.	Remedial actions may include the discharge of treated groundwater, runoff, or other flows to the federally owned treatment works (FOTW).
Department of Transportation Rules for the Transport of Hazardous Substances 49 CFR Parts 107 and 171-179	Applicable	Regulates the labeling, packaging, placarding, and transportation of solid and hazardous wastes offsite.	Remedial actions may include the offsite transport and disposal of solid and hazardous wastes.
Clean Air Act Permits Regulation 40 CFR 72	Relevant and Appropriate	Establishes requirements for major source permitting and operation.	Contaminants in groundwater include hazardous air pollutants (HAPs) and volatile organic compounds (VOCs). Remedial actions may include technologies that have air emissions.
Clean Water Act Wetlands Regulations Part 404 40 CFR 230	Not Relevant and Appropriate	Controls the discharge of dredged or fill materials into waters of the U.S. such that the physical and biological integrity is maintained.	Remedial actions are unlikely to impact water bodies.

Table 3
Summary of Potential Action Specific ARARs
NAS Pensacola OU 2 — Sites 11, 12, 25, 26, 27, 30

Requirements	Status	Requirement Synopsis	Application to the RI/FS
Toxic Substance Control Act 40 CFR 761 Subpart D, Storage and Disposal	Applicable	Regulates the storage and disposal of PCB materials at concentrations at 50 ppm or greater.	Remedial actions may include the storage and disposal of PCB contaminated soils.
OSHA Hazardous Waste Operations and Emergency Responses Standard 29 CFR 1910.120 OSHA General Safety and Health Standards 29 CFR Part 1926	Applicable	Sets limits on exposure to workers on hazardous site or emergency responses, sets forth minimum health and safety requirements such as personal protection and training, and reporting requirements.	All activities taking place at OU 2 including remediation, construction, and monitoring are subject to OSHA health and safety regulations.
State Requirements			
Florida Air Pollution Rules - Stationary Sources Title 62 Chapter 62-210-General Requirements Chapter 62-296-Emission Standards	Applicable	Establishes emission standards, emission rates, baseline areas, and source classifications for protection of health and welfare. Identifies new source requirements, test, and analysis methods.	Remedial actions may include technologies that have air emissions.
Florida Air Pollution Rules - Operation Permits for Major Sources of Air Pollution Title 62 Chapter 62-213	Relevant and Appropriate	Establishes the operation permit system for major sources of air pollution (Title V sources).	Contaminants in groundwater include hazardous air pollutants (HAPs) and volatile organic compounds (VOCs). Remedial actions may include technologies that have air emissions.
Florida Air Pollution Rules - Stationary Sources Preconstruction Review Title 62 Chapter 62-212	Relevant and Appropriate	Establishes the general and specific pre-construction review process for those proposed activities for which a air construction permit applies.	Remedial actions may include technologies that have air emissions.
Florida Rules on Permits Title 62 Chapter 62-4	Relevant and Appropriate	Establishes requirements and procedures for all permitting required by the FDEP, and defines anti-degradation requirements.	Requirements may be applicable to site depending upon remedial actions and discharge options selected.
Florida Storm water Discharge Regulations Title 62 Chapter 62-25	Applicable	Establishes design and performance standards and permit requirements for Storm water discharge facilities.	Remedial actions may impact Storm water discharge patterns at OU 2.

Table 3
Summary of Potential Action Specific ARARs
NAS Pensacola OU 2 — Sites 11, 12, 25, 26, 27, 30

Requirements	Status	Requirement Synopsis	Application to the RI/FS
Florida Surface Water Quality Standards Title 62 Chapter 62-301 and 62-302	Applicable	Establishes water quality standards for all waters of the state.	Remedial objectives require protection of surficial water. Remedial actions may impact surficial water bodies if treated waters are discharged under a NPDES permit.
Florida Water Well Permitting and Construction Title 62 Chapter 62-532	Applicable	Establishes local criteria for design and installation of monitoring wells.	Installation of monitoring wells will be a necessary part of site remediation given any alternative.
State Requirements (Continued)			
Florida Hazardous Waste Rules Title 62 Chapter 62-730	Applicable	Establishes standards for generators and transporters of hazardous wastes	Treatment residuals from onsite remediation activities may be hazardous waste
Florida Hazardous Substance Release Notification Rules Title 62 Chapter 62-150	Applicable	Establishes notification requirements in the event of a hazardous substance release.	May be applicable if a hazardous substance is released in conjunction with remedial activities.
UST, Drycleaners, and Brownsfields Cleanup Standards FAC 62-770, 62-781, and 62-785	Relevant and Appropriate	Establishes requirements for specific types of hazardous substance and petroleum-fuel cleanups.	Contaminants found at OU 2 are similar to contaminants covered by these regulations. These regulations have been applied at other locations at NAS Pensacola and, for consistency, should be considered in developing remedial solutions. The state has historically required use of UST regulations at groundwater/surface water contact at NAS Pensacola CERCLA sites.
Florida Industrial Waste Water Facilities Title 62 Chapter 62-660	To Be Considered	Establishes the policy to encourage an applicant to study and evaluate treatment alternative techniques and to discuss alternatives with the FDEP.	Applicable if remedial actions generate waste waters to be treated on site prior to discharge to the navigable water ways of the U.S. by a NPDES permit.
Florida Water Quality Based Effluent Limitations Title 62 Chapter 62-650	Relevant and Appropriate	Establishes the requirements for the characterization of the effluent to be discharged from by an affected discharger.	Applicable if remedial actions generate waste waters to be treated on site prior to discharge to the navigable water ways of the U.S. by a NPDES permit.

Table 3
Summary of Potential Action Specific ARARs
NAS Pensacola OU 2 — Sites 11, 12, 25, 26, 27, 30

Requirements	Status	Requirement Synopsis	Application to the RI/FS
Florida Pretreatment Requirements for Existing and New Sources of Pollution Title 62 Chapter 62-625	Relevant and Appropriate	Establishes the requirements for pretreatment of waste waters prior to discharge to a publically owned treatment works (POTW).	Remedial actions may include the discharge of treated groundwater, runoff, or other flows to the federally owned treatment works (FOTW).
Florida Waste Water Facility Permitting Title 62 Chapter 62-620	Relevant and Appropriate	Establishes the procedure to obtain a permit to construct, modify, or operate a domestic or industrial waste water facility.	Applicable if remedial actions generate waste waters to be treated on site prior to discharge to the navigable water ways of the U.S.

Appendix B

Groundwater Inorganic Concentrations

Background Groundwater Concentrations
Comparison with SCTLs
PENSACOLA — OU 2

Parameter	Sample ID	Result		Preliminary Remedial Goals	Primary or Secondary Groundwater Critieria	Freshwater Surface Water Criteria	Marine Surface Water Criteria	GW of Low Yield/Poor Quality Criteria
Aluminum			J	50	200	13	13	2000
	001GGS6702	41.8				X	X	
	001GGS6902	329.0		X	X	X	X	
Cadmium			J	5.0	5.0	a	9.3	50
	001GGS6702	0.5						
Calcium				-	-	-	-	-
	001GGI6802	4070.0						
	001GGI7002	6640.0						
	001GGS6702	17500.0						
	001GGS6902	9250.0						
Cobalt				-	420	NA	NA	4200
	001GGI6802	1.0	J					
	001GGS6902	0.9	J					
Iron				300	300	1000	300	3000
	001GGI6802	393.0		X	X		X	
	001GGI7002	26.6	J					
	001GGS6702	21.6	J					
	001GGS6902	192.0						
Lead				15	15	b	6	150
	001GGI6802	1.1	J					

Background Groundwater Concentrations
Comparison with SCTLs
PENSACOLA — OU 2

Parameter	Sample ID	Result	Preliminary Remedial Goals	Primary or Secondary Groundwater Critieria	Freshwater Surface Water Criteria	Marine Surface Water Criteria	GW of Low Yield/Poor Quality Criteria
Magnesium			-	-	-	-	-
	001GGI6802	1060.0					
	001GGI7002	3270.0					
	001GGS6702	2320.0					
	001GGS6902	1790.0					
Mercury			2.0	2.0	0.012	0.025	20
	001GGI6802	0.06 J			X	X	
	001GGS6702	0.06 J			X	X	
	001GGS6902	0.07 J			X	X	
Potassium			-	-	-	-	-
	001GGI6802	1920.0					
	001GGI7002	9670.0					
	001GGS6702	474.0 J					
	001GGS6902	2780.0					
Sodium			160000	160000	1275	NA	1600000
	001GGI6802	8160.0			X		
	001GGI7002	9840.0			X		
	001GGS6702	7760.0			X		
	001GGS6902	4500.0			X		
Vanadium			49	49	NA	NA	490

Appendix C

Soil and Groundwater Comparison to SCTLs
(Florida Proposed Rule 62-777)

Site 11 Soil

Exceeds Soil Cleanup Target Levels
for Soil Contaminants
PENSACOLA OU 2 – Site 11

			Direct Exposure		Leachability		
	Sample ID	Result	Res	Com/ Ind	GW Criteria	Marine SW Criteria	GW of Low Yield/Poor Quality
Inorganics (mg/kg)							
Aluminum			72,000	NA	LEACH TEST	LEACH TEST	LEACH TEST
	011-S-S001-01	9,910					
	011-S-S011-01	26,700					
	011-S-S013-01	21,700					
Arsenic			0.8	3.7	29	LEACH TEST	290
RC = 1.46	011-S-S001-01	3	X				
	011-S-S003-01	1.9 J	X				
	011-S-S011-01	4.1 J	X	X			
	011-S-S013-01	2.7 J	X				
Cadmium			75	1,300	8	LEACH TEST	80
	011-S-LF03-03	79.3 J			X		
	011-S-LF04-05	86.9 J			X		X
	011-S-LF10-06	129			X		X
	011-S-LF13-05	36.3 J			X		

Exceeds Soil Cleanup Target Levels
for Soil Contaminants
PENSACOLA OU 2 - Site 11

			Direct Exposure		Leachability		
	Sample ID	Result	Res	Com/ Ind	GW Criteria	Marine SW Criteria	GW of Low Yield/Poor Quality
Cadmium			75	1,300	8	LEACH TEST	80
	011-S-RA05-01	23.3 J			X		
	011-S-RA06-01	15.9 J			X		
	011-S-RA08-01	11.1			X		
	011-S-RA13-01	12.7 J			X		
Chromium			210	420	38	LEACH TEST	380
	011-S-LF03-03	90.8 J			X		
	011-S-LF04-05	206 J			X		
	011-S-LF09-05	72.9 J			X		
	011-S-RA05-01	1,610 J	X	X	X		X
	011-S-RA06-01	305 J	X		X		
	011-S-RA08-01	41.4 J			X		
Lead			400	920	LEACH TEST	LEACH TEST	LEACH TEST
	011-S-RA05-01	790 J	X				
	011-S-RA08-01	413 J	X				

Exceeds Soil Cleanup Target Levels
for Soil Contaminants
PENSACOLA OU 2 - Site 11

			Direct Exposure		Leachability		
	Sample ID	**Result**	**Res**	**Com/ Ind**	**GW Criteria**	**Marine SW Criteria**	**GW of Low Yield/Poor Quality**
Lead			400	920	LEACH TEST	LEACH TEST	LEACH TEST
	011-S-RA12-01	488	X				
	011-S-RA13-01	463 J	X				
Selenium			390	10,000	5	LEACH TEST	50
	011-S-LF01-09	20.1			X		

Exceeds Soil Cleanup Target Levels
for Soil Contaminants
PENSACOLA OU 2 - Site 11

			Direct Exposure		Leachability		
	Sample ID	Result	Res	Com/ Ind	GW Criteria	Marine SW Criteria	GW of Low Yield/Poor Quality
Pesticides/PCBs (μg/kg)							
4,4-DDE			3,300	13,000	18,000	100	180,000
	011-S-RA07-01	190 DJ				X	
	011-S-LF07-07	230 D				X	
4,4-DDT			3,300	13,000	11,000	60	110,000
	011-S-RA07-01	340 D				X	
	011-S-RA-07-01	70 D				X	
	011-S-LF07-07	2,800 D				X	
	011-S-LF09-05	61 J				X	
Aroclor-1260			500	2,100	17,000	1,000	170,000
	011-S-RA06-01	1,400 D	X			X	
Dieldrin			70	300	4	0	40
	011-S-RA05-01	22			X	X	
	011-S-S001-01	6.5			X	X	
	011-S-LF30-08	26 J			X	X	

Exceeds Soil Cleanup Target Levels
for Soil Contaminants
PENSACOLA OU 2 - Site 11

			Direct Exposure		Leachability		
	Sample ID	Result	Res	Com/ Ind	GW Criteria	Marine SW Criteria	GW of Low Yield/Poor Quality
alpha-BHC			200	500	0	1	3
	011-S-LF30-08	3.7 J			X	X	X
gamma-BHC (Lindane)			700	2,200	9	3	90
	011-S-LF30-08	6.6 J				X	

Exceeds Soil Cleanup Target Levels
for Soil Contaminants
PENSACOLA OU 2 – Site 11

			Direct Exposure		Leachability		
	Sample ID	Result	Res	Com/ Ind	GW Criteria	Marine SW Criteria	GW of Low Yield/Poor Quality
SVOCs (μg/kg)							
2,6-Dinitrotoluene			1,000	2,100	0.7	30	7
	011-S-S003-04	150 J			X	X	X
	011-S-S003-06	170 J			X	X	X
Benzo(a)anthracene			1,400	5,000	3,200	700	32,000
	011-S-LF01-09	960 J				X	
	011-S-LF03-03	7,400			X	X	
	011-S-LF05-03	1,100 J				X	
	011-S-LF10-06	1,400				X	
	011-S-RA07-01	4,600	X		X	X	
Benzo(a)pyrene			100	500	8,000	1,200	80,000
	011-S-LF03-03	4,500 J				X	
	011-S-RA07-01	4,500	X	X		X	
	011-S-RA08-01	610 J	X	X			
	011-S-S001-01	290 J	X				

Exceeds Soil Cleanup Target Levels
for Soil Contaminants
PENSACOLA OU 2 - Site 11

			Direct Exposure		Leachability		
	Sample ID	Result	Res	Com/ Ind	GW Criteria	Marine SW Criteria	GW of Low Yield/Poor Quality
Benzo(b) fluoranthene			1,400	4,800	10,000	1,600	100,000
	011-S-LF03-03	57,000			X	X	
	011-S-RA07-01	5,200	X	X		X	
Chrysene			140,000	450,000	77,000	700	770,000
	011-S-RA07-01	4800				X	
	011-S-RA13-01	830 J				X	
	011-S-LF01-09	950 J				X	
	011-S-LF03-03	6,100				X	
	011-S-LF05-03	880 J				X	
Dibenz(a,h)anthracene			100	500	30,000	4,700	300,000
	011-S-RA07-01	1,200 J	X	X			
	011-S-RA08-01	210 J	X				
Indeno(1,2,3-cd)pyrene			1,500	5,300	28,000	4,300	280,000
	011-S-RA07-01	2,400	X				
Naphthalene			40,000	270,000	1,700	2,200	17,000
	011-S-LF12-06	14,000 J			X	X	

Exceeds Soil Cleanup Target Levels
for Soil Contaminants
PENSACOLA OU 2 - Site 11

			Direct Exposure		Leachability		
	Sample ID	Result	Res	Com/ Ind	GW Criteria	Marine SW Criteria	GW of Low Yield/Poor Quality
Phenanthrene			2,000,000	30,000,000	250,000	700	2,500,000
	011-S-LF03-03	11,000				X	
	011-S-LF05-03	4,300				X	

Exceeds Soil Cleanup Target Levels
for Soil Contaminants
PENSACOLA OU 2 – Site 11

			Direct Exposure		Leachability		
	Sample ID	Result	Res	Com/ Ind	GW Criteria	Marine SW Criteria	GW of Low Yield/Poor Quality
Volatiles (μg/kg)							
Benzene			1,100	1,600	7	500	70
	011-S-LF01-09	8 J			X		
Tetrachloroethene			8,900	17,000	30	100	300
	011-S-1006-06	270 DJ			X		
Vinyl Chloride			30	40	7	NA	70
	011-S-LF04-05 RE	79			X		X
Xylene			5,900,000	40,000,000	200	3,900	2,000
	011-S-LF12-06	19,000			X	X	X

Site 12 Soil

Exceeds Soil Cleanup Target Levels
for Soil Contaminants
PENSACOLA OU 2 - Site 12

			Direct Exposure		Leachability		
	Sample ID	Result	Res	Com/ Ind	GW Criteria	Marine SW Criteria	GW of Low Yield/Poor Quality
Inorganics (mg/kg)							
Aluminum			72,000	NA	LEACH TEST	LEACH TEST	LEACH TEST
	011-S-0010-01	15,100					
	012-S-0014-01	16,100 J					
	012-S-0015-01	15,300 J					
Antimony			26	240	5	LEACH TEST	50
RC IS 9.49	012-S-0002-01	12.5			X		
Arsenic			0.8	3.7	29	LEACH TEST	290
RC IS 1.56	012-S-0007-01	2.4 J	X				
	012-S-0009-01	1.7 J	X				
	012-S-0010-01	2.8	X				
	012-S-0014-01	2.1 J	X				
	012-S-0015-01	1.4 J	X				
Cadmium			75	1,300	8	LEACH TEST	80
	012-S-0007-01	11.2			X		
	012-S-0007-05	10.4			X		

Exceeds Soil Cleanup Target Levels
for Soil Contaminants
PENSACOLA OU 2 – Site 12

			Direct Exposure		Leachability		
	Sample ID	Result	Res	Com/ Ind	GW Criteria	Marine SW Criteria	GW of Low Yield/Poor Quality
Cadmium			75	1,300	8	LEACH TEST	80
	012-S-0008-01	17.3			X		
	012-S-0009-01	49.4 J			X		
	012-S-0009-05	13.9 J			X		
	012-S-0010-01	562	X		X		X
	012-S-0010-05	66.5			X		
	012-S-0010-10	10.5			X		
	012-S-0010-12	28.2			X		
	012-S-0013-01	15.5			X		
	012-S-0013-05	11.3 J					
	012-S-0016-10	243			X		X
Chromium			210	420	38	LEACH TEST	380
	012-S-0003-01	50.3			X		
	012-S-0010-01	70.8			X		
	012-S-0016-10	203 J			X		

Exceeds Soil Cleanup Target Levels
for Soil Contaminants
PENSACOLA OU 2 - Site 12

			Direct Exposure		Leachability		
	Sample ID	Result	Res	Com/ Ind	GW Criteria	Marine SW Criteria	GW of Low Yield/Poor Quality
Copper			110	73,000	LEACH TEST	LEACH TEST	LEACH TEST
	012-S-0003-01	269	X				
	012-S-0007-01	129	X				
	012-S-0008-08	132	X				
	012-S-0009-01	370 J	X				
	012-S-0010-01	516	X				

Exceeds Soil Cleanup Target Levels
for Soil Contaminants
PENSACOLA OU 2 - Site 12

			Direct Exposure		Leachability		
	Sample ID	Result	Res	Com/ Ind	GW Criteria	Marine SW Criteria	GW of Low Yield/Poor Quality
Pesticides/PCBs (μg/kg)							
4,4-DDE			3,300	13,000	18,000	100	180,000
	012-S-0007-01	120 J				X	
Aroclor 1254			500	2,100	17,000	1,000	170,000
	012-S-0016-01	280					
Aroclor 1260			500	2,100	17,000	1,000	170,000
	012-S-0002-01	360					
	012-S-0003-01	1,200	X			X	
	012-S-0004-01	4,100	X	X		X	
	012-S-0005-01	410 J					
	012-S-0006-01	960	X				
	012-S-0007-01	15,000	X	X		X	
	012-S.0007-05	1,100				X	
	012-S-0008-01	12,000	X	X		X	
	012-S-0008-05	6,800			X	X	
	012-S-0008-10	12,000				X	

Exceeds Soil Cleanup Target Levels
for Soil Contaminants
PENSACOLA OU 2 - Site 12

			Direct Exposure		Leachability		
	Sample ID	Result	Res	Com/ Ind	GW Criteria	Marine SW Criteria	GW of Low Yield/Poor Quality
Aroclor 1260			500	2,100	17,000	1,000	170,000
	012-S-0009-01	3,900	X	X		X	
	012-S-0010-01	390					
	012-S-0013-01	1,400	X			X	
	012-S-0015-01	1,300	X			X	
Dieldrin			70	300	4	0.1	40
	012-S-0002-01	9.6			X	X	
	012-S-0002-05	2.9 J				X	
	012-S-0002-10	0.98 J				X	
	012-S-0003-01	20			X	X	
	012-S-0003-05	1.5 J				X	
	012-S-0003-15	1.6 J				X	
	012-S-0004-05	1 J				X	
	012-S-0005-01	1.7 J				X	
	012-S-0005-05	0.14 J				X	
	012-S-0006-01	5.4 J			X	X	

Exceeds Soil Cleanup Target Levels
for Soil Contaminants
PENSACOLA OU 2 - Site 12

			Direct Exposure		Leachability		
	Sample ID	Result	Res	Com/ Ind	GW Criteria	Marine SW Criteria	GW of Low Yield/Poor Quality
Dieldrin			70	300	4	0.1	40
	012-S-0006-05	0.1 J				X	
	012-S-0006-10	0.34 J				X	
	012-S-0006-15	0.15 J				X	
	012-S-0007-01	18 J			X	X	
	012-S-0007-05	1.1 J				X	
	012-S-0007-15	0.11 J				X	
	012-S-0009-05	3.3 J				X	
	012-S-0009-10	0.18 J				X	
	012-S-0010-05	0.46 J				X	
	012-S-0012-01	0.24 J				X	
	012-S-0013-10	0.35 J				X	
	012-S-0014-01	0.56 J				X	
	012-S-0014-05	0.19 J				X	
	012-S-0016-10	0.12 J				X	

Exceeds Soil Cleanup Target Levels
for Soil Contaminants
PENSACOLA OU 2 - Site 12

			Direct Exposure		Leachability		
	Sample ID	Result	Res	Com/ Ind	GW Criteria	Marine SW Criteria	GW of Low Yield/Poor Quality
SVOCs (μg/kg)							
Benzo(a)anthracene			1,400	5,000	3,200	700	32,000
	012-S-0009-01	1,200				X	
	012-S-0010-01	1,500	X			X	
Benzo(a)pyrene			100	500	8,000	1,200	80,000
	012-S-0007-01	340	X				
	012-S-008-01	360	X				
	012-S-0009-01	1,000	X	X			
	012-S-0010-01	1,900	X	X		X	
	012-S-0011-01	180 J	X				
	012-S-0012-01	140 J	X				
	012-S-0013-01	120 J	X				
	012-S-0015-01	190 J	X				
	012-S-0016-01	700	X	X			

Exceeds Soil Cleanup Target Levels
for Soil Contaminants
PENSACOLA OU 2 – Site 12

			Direct Exposure		Leachability		
	Sample ID	Result	Res	Com/ Ind	GW Criteria	Marine SW Criteria	GW of Low Yield/Poor Quality
Benzo(b)fluoranthene			1,400	4,800	10,000	1,600	100,000
	012-S-0009-01	3,600 J	X			X	
	012-S-0010-01	4,500 J	X			X	
Dibenz(a,h)anthracene			100	500	30,000	4,700	300,000
	012-S-0010-01	230	X				
	012-S-0016-01	190	X				

Site 25 Soil

Exceeds Soil Cleanup Target Levels
for Soil Contaminants
PENSACOLA OU 2 - Site 25

			Direct Exposure		Leachability		
	Sample ID	Result	Res	Com/ Ind	GW Criteria	Marine SW Criteria	GW of Low Yield/Poor Quality
Inorganics (mg/kg)							
Arsenic			0.8	3.7	29	LEACH TEST	290
RC IS 1.56	025-S-0009-00	2.1 J	X				
	025-S-0015-00	4.5	X	X			
	025-S-0016-00	2.1	X				
	025-S-0016-01	1.8	X				
	025-S-0016-02	0.89	X				
	025-S-0017-00	4.1	X	X			
	025-S-0019-00	1	X				
	025-S-019-02	1.1	X				
	025-S-0019-01	1.2	X				
Beryllium			120	800	63	LEACH TEST	630
RC = 0.41	025-S-0017-00	1.0					

Exceeds Soil Cleanup Target Levels
for Soil Contaminants
PENSACOLA OU 2 - Site 25

			Direct Exposure		Leachability		
	Sample ID	Result	Res	Com/ Ind	GW Criteria	Marine SW Criteria	GW of Low Yield/Poor Quality
Cadmium			75	1,300	8	LEACH TEST	80
	025-S-0011-01	9.1			X		
	025-S-0015-00	34.6			X		
	025-S-0016-01	13.1			X		
	025-S-0016-02	8.7			X		
	025-S-0017-00	31.7			X		
Chromium			210	420	38	LEACH TEST	380
	025-S-0015-00	234	X		X		
	025-S-0016-00	57.8 J			X		
	025-S-0017-00	201 J			X		
Lead			400	920	LEACH TEST	LEACH TEST	LEACH TEST
	025-S-0015-00	1,840	X	X			
	025-S-0016-00	717	X				
	025-S-0017-00	904	X				

Exceeds Soil Cleanup Target Levels
for Soil Contaminants
PENSACOLA OU 2 – Site 25

			Direct Exposure		Leachability		
	Sample ID	Result	Res	Com/ Ind	GW Criteria	Marine SW Criteria	GW of Low Yield/Poor Quality
Mercury			3	26	2.1	0.01	21
	025-S-0009-00	0.23				X	
	025-S-0009-06	0.14				X	
	025-S-0010-16	0.12				X	
	025-S-0015-00	0.54				X	
	025-S-0016-00	0.60				X	
	025-S-0016-01	0.34				X	
	025-S-0017-00	3.7	X		X	X	
	025-S-0018-00	0.41				X	
	025-S-0019-00	0.20				X	
	025-S-0019-02	0.58				X	
	025-S-0019-04	0.14				X	
Silver			390	9,100	17	—	170
	025-S-0015-00	45.5			X		
	025-S-0017-00	23.3			X		

Exceeds Soil Cleanup Target Levels
for Soil Contaminants
PENSACOLA OU 2 - Site 25

			Direct Exposure		Leachability		
	Sample ID	Result	Res	Com/ Ind	GW Criteria	Marine SW Criteria	GW of Low Yield/Poor Quality
Zinc			23,000	560,000	6,000	LEACH TEST	60,000
	025-S-0017-00	4,360					

Exceeds Soil Cleanup Target Levels
for Soil Contaminants
PENSACOLA OU 2 - Site 25

			Direct Exposure		Leachability		
	Sample ID	Result	Res	Com/ Ind	GW Criteria	Marine SW Criteria	GW of Low Yield/Poor Quality
Pesticides/PCBs (μg/kg)							
Aroclor-1254			500	2,100	17,000	1,000	170,000
	025-S-0017-00	910	X				
Aroclor-1260			500	2,100	17,000	1,000	170,000
	025-S-0015-00	1,100	X			X	
	025-S-0016-00	31,000	X	X	X	X	
	025-S-0016-01	5,700	X	X		X	
	025-S-0017-00	980	X				
	025-S-0018-00	780	X				
	025-S-0019-02	530	X				
Dieldrin			70	300	4	0.1	40
	025-S-0001-00	1.7 J				X	
	025-S-0001-01	1.2 J				X	
	025-S-0005-02	0.29 J				X	
	025-S-0010-01	0.094 J				X	
	025-S-0011-01	0.3 J				X	

Exceeds Soil Cleanup Target Levels
for Soil Contaminants
PENSACOLA OU 2 – Site 25

			Direct Exposure		Leachability		
	Sample ID	Result	Res	Com/ Ind	GW Criteria	Marine SW Criteria	GW of Low Yield/Poor Quality
Dieldrin			70	300	4	0.1	40
	025-S-0011-02	0.14 J				X	
	025-S-0011-06	0.064 J				X	
	025-S-0016-00	71	X		X	X	X
	025-S-0016-01	54 J			X	X	X
	025-S-0016-02	27			X	X	
	025-S-0017-00	4.5 J			X	X	
	025-S-0017-01	4.3 J			X	X	
	025-S-0017-02	0.46 J				X	
	025-S-0018-00	3.8 J				X	
	025-S-0019-00	13			X	X	
	025-S-0019-02	6.8			X	X	
	025-S-0019-04	11			X	X	

Exceeds Soil Cleanup Target Levels
for Soil Contaminants
PENSACOLA OU 2 - Site 25

			Direct Exposure		Leachability		
	Sample ID	Result	Res	Com/ Ind	GW Criteria	Marine SW Criteria	GW of Low Yield/Poor Quality
SVOCs (μg/kg)							
Benzo(a) anthracene			1,400	5,000	3,200	700	32,000
	025-S-0015-00	2,000	X			X	
	025-S-0017-00	3,800 J	X		X	X	
	025-S-0018-00	1,300				X	
Benzo(a)pyrene			100	500	8,000	1,200	80,000
	025-S-0013-02	120 J	X				
	025-S-0015-00	1,700	X	X		X	
	025-S-0016-00	470	X				
	025-S-0016-01	220 J	X				
	025-S-0017-00	3,400 J	X	X		X	
	025-S-0018-00	630	X	X			
Benzo(b) fluoranthene			1,400	4,800	10,000	1,600	100,000
	025-S-0015-00	4,700	X			X	
	025-S-0017-00	7,700 J	X	X		X	

Exceeds Soil Cleanup Target Levels
for Soil Contaminants
PENSACOLA OU 2 – Site 25

			Direct Exposure		Leachability		
	Sample ID	Result	Res	Com/ Ind	GW Criteria	Marine SW Criteria	GW of Low Yield/Poor Quality
Benzo(b) fluoranthene			1,400	4,800	10,000	1,600	100,000
	025-S-0018-00	1,800	X			X	
Benzo(k) fluoranthene			15,000	52,000	25,000	1,600	250,000
	025-S-0015-00	4,700				X	
	025-S-0017-00	7,700 J				X	
	025-S-0018-00	1,800				X	
Carbazole			53,000	190,000	600	6,500	6,000
	025-S-0015-00	710 J			X		
	025-S-0017-00	1,200 J			X		
Chrysene			140,000	450,000	77,000	700	770,000
	025-S-0015-00	2,200				X	
	025-S-0017-00	4,400 J				X	
	025-S-0018-00	1,200				X	
Dibenz(a,h)anthracene			100	500	30,000	4,700	300,000
	025-S-0017-00	2,200	X	X			

Exceeds Soil Cleanup Target Levels
for Soil Contaminants
PENSACOLA OU 2 – Site 25

			Direct Exposure		Leachability		
	Sample ID	Result	Res	Com/ Ind	GW Criteria	Marine SW Criteria	GW of Low Yield/Poor Quality
Indeno(1,2,3-cd)pyrene			1,500	5,300	28,000	4,300	280,000
	025-S-0017-00	5,100 J	X			X	
Isophorone			340,000	580,000	200	3,800	2,000
	025-S-0010-14	340			X		
Pentachlorophenol			7,700	23,000	30	200	300
	025-S-0012-14	47			X		
Phenanthrene			2,000,000	30,000,000	250,000	700	2,500,000
	025-S-0015-00	3,200				X	
	025-S-0017-00	6,600 J				X	
	025-S-0018-00	2,400				X	

Site 27 Soil

Exceeds Soil Cleanup Target Levels
for Soil Contaminants
PENSACOLA OU 2 - Site 27

			Direct Exposure		Leachability		
	Sample ID	Result	Res	Com/ Ind	GW Criteria	Marine SW Criteria	GW of Low Yield/Poor Quality
Inorganics (mg/kg)							
Antimony			26	240	5	LEACH TEST	50
RC = 9.49	027-S-0005-10	9.5			X		
Arsenic			0.8	3.7	29	LEACH TEST	290
RC IS 1.56	027-S-0001-00	1.4	X				
	027-S-0001-01	2.8	X				
	027-S-0002-02	0.99	X				
	027-S-0004-02	1.5	X				
	027-S-0005-01	1.7	X				
	027-S-0005-02	0.96	X				
	027-S-0006-01	2.3	X				
	027-S-0006-02	0.97	X				
	027-S-0007-01	1.2	X				
	027-S-0007-02	1.2	X				
	027-S-0008-01	2	X				

Exceeds Soil Cleanup Target Levels
for Soil Contaminants
PENSACOLA OU 2 - Site 27

			Direct Exposure		Leachability		
	Sample ID	Result	Res	Com/ Ind	GW Criteria	Marine SW Criteria	GW of Low Yield/Poor Quality
Arsenic			0.8	3.7	29	LEACH TEST	290
	027-S-0009-01	3.5	X				
	027-S-0009-02	4.4	X	X			
	027-S-0013-02	0.91	X				
	027-S-0017-01	0.83	X				
	027-S-0017-02	5.9	X	X			
	027-S-0017-02	1.1	X				
	027-S-0019-00	2.1	X				
	027-S-0020-00	3.2	X				
	027-S-0022-02	1.7	X				
	027-S-0026-00	1.6	X				
	027-S-0032-02	0.91	X				
	027-S-0041-00	4.8 J	X	X			
	027-S-0042-02	0.93	X				
	027-S-0044-02	1.2	X				
	027-S-0045-02	0.89 J	X				

Exceeds Soil Cleanup Target Levels
for Soil Contaminants
PENSACOLA OU 2 - Site 27

			Direct Exposure		Leachability		
	Sample ID	Result	Res	Com/ Ind	GW Criteria	Marine SW Criteria	GW of Low Yield/Poor Quality
Arsenic			0.8	3.7	29	LEACH TEST	290
	027-S-0047-02	1.7	X				
	027-S-0049-02	1.3	X				
	027-S-0052-00	1.2	X				
	027-S-0052-01	2.9	X				
	027-S-0052-02	3.9	X				
	027-S-0053-00	2.5	X				
	027-S-0053-01	1.5	X				
Beryllium			120	800	63	LEACH TEST	630
RC is 0.41	027-S-0007-01	0.44					
Cadmium			75	1,300	8	LEACH TEST	80
	027-S-0004-01	23.7			X		
	027-S-0004-02	12.2			X		
	027-S-0017-06	19.9			X		
	027-S-0052-00	20.3			X		
	027-S-0052-01	26.1			X		

Exceeds Soil Cleanup Target Levels
for Soil Contaminants
PENSACOLA OU 2 - Site 27

			Direct Exposure		Leachability		
	Sample ID	Result	Res	Com/ Ind	GW Criteria	Marine SW Criteria	GW of Low Yield/Poor Quality
Cadmium			75	1,300	8	LEACH TEST	80
	027-S-0052-02	19.2			X		
	027-S-0053-00	67.1			X		
	027-S-0053-01	16.4			X		
Chromium			210	420	38	LEACH TEST	380
	027-S-0004-01	314	X		X		
	027-S-0004-02	120			X		
	027-S-0004-14	40.6			X		
	027-S-0007-01	40.5			X		
	027-S-0020-00	131			X		
	027-S-0021-02	53.4			X		
	027-S-0052-00	288 J	X		X		
	027-S-0052-01	223	X		X		
	027-S-0052-02	253	X		X		
	027-S-0052-04	146			X		
	027-S-0053-00	252	X		X		

Exceeds Soil Cleanup Target Levels
for Soil Contaminants
PENSACOLA OU 2 – Site 27

			Direct Exposure		Leachability		
	Sample ID	Result	Res	Com/ Ind	GW Criteria	Marine SW Criteria	GW of Low Yield/Poor Quality
Chromium			210	420	38	LEACH TEST	380
	027-S-0053-01	90.5			X		
Lead			400	920	LEACH TEST	LEACH TEST	LEACH TEST
	027-S-0020-00	513 J	X				
	027-S-0053-00	1,550	X	X			
	027-S-0053-01	527	X				
Mercury			3	26	2.1	0.01	21
	027-S-0001-01	0.16				X	
	027-S-0004-01	0.56				X	
	027-S-0004-02	0.99				X	
	027-S-0008-01	0.17				X	
	027-S-0017-02	0.4				X	
	038-S-0017-04	0.38				X	
	027-S-0017-06	0.39				X	
	027-S-0019-00	7.1	X		X	X	

Exceeds Soil Cleanup Target Levels
for Soil Contaminants
PENSACOLA OU 2 - Site 27

			Direct Exposure		Leachability		
	Sample ID	Result	Res	Com/ Ind	GW Criteria	Marine SW Criteria	GW of Low Yield/Poor Quality
Mercury			3	26	2.1	0.01	21
	027-S-0023-08	0.1				X	
	027-S-0027-06	0.18				X	
	027-S-0027-18	0.12				X	
	027-S-0028-02	0.21				X	
	027-S-0028-04	0.15				X	
	027-S-0029-02	0.11				X	
	027-S-0030-06	0.1				X	
	027-S-0033-20	0.12				X	
	027-S-0044-02	10.2			X	X	
	027-S-0045-02	0.27 J				X	
	038-S-0045-04	0.15 J				X	
	027-S-0045-06	0.12 J				X	
	027-S-0046-02	0.11				X	
	027-S-0046-04	0.13				X	
	027-S-0047-02	2.2				X	

Exceeds Soil Cleanup Target Levels
for Soil Contaminants
PENSACOLA OU 2 - Site 27

			Direct Exposure		Leachability		
	Sample ID	Result	Res	Com/ Ind	GW Criteria	Marine SW Criteria	GW of Low Yield/Poor Quality
Mercury			3	26	2.1	0.01	21
	027-S-0047-04	1.8				X	
	027-S-0047-06	1.0				X	
	027-S-0047-08	2.6				X	
	027-S-0049-02	0.11				X	
	027-S-0052-01	0.19				X	
	027-S-0052-02	0.24				X	
	027-S-0053-00	84	X	X	X	X	X
	027-S-0053-01	21.8	X		X	X	X
	027-S-0053-02	3.4			X	X	
Silver			390	9,100	17	LEACH TEST	170
	027-S-0045-02	156					

Exceeds Soil Cleanup Target Levels
for Soil Contaminants
PENSACOLA OU 2 – Site 27

			Direct Exposure		Leachability		
	Sample ID	Result	Res	Com/ Ind	GW Criteria	Marine SW Criteria	GW of Low Yield/Poor Quality
Pesticides/PCBs (μg/kg)							
Dieldrin			70	300	4	0.1	40
	027-S-0001-01	2.7 J				X	
	027-S-0001-01	800 D	X	X	X	X	X
	027-S-0001-04	0.22 J				X	
	027-S-0001-06	16 J			X	X	
	027-S-0002-01	1.9 J				X	
	027-S-0002-02	1.4 J				X	
	027-S-0003-01	0.42 J				X	
	027-S-0004-01	21 J			X	X	
	027-S-0004-02	11 J			X	X	
	027-S-0006-01	360	X	X	X	X	X
	027-S-0006-06	0.29 J				X	
	027-S-0007-01	0.13 J				X	
	027-S-0008-01	32			X	X	
	027-S-0013-04	2 J				X	

Exceeds Soil Cleanup Target Levels
for Soil Contaminants
PENSACOLA OU 2 - Site 27

			Direct Exposure		Leachability		
	Sample ID	Result	Res	Com/ Ind	GW Criteria	Marine SW Criteria	GW of Low Yield/Poor Quality
Dieldrin			70	300	4	0.1	40
	027-S-0017-01	0.85 J				X	
	027-S-0017-02	3.8				X	
	027-S-0017-04	1.3 J				X	
	027-S-0017-06	9.1			X	X	
	027-S-0019-00	19 J			X	X	
	027-S-0019-46	0.36 J				X	
	027-S-0020-00	2.9 J				X	
	027-S-0020-02	0.55 J				X	
	027-S-0024-02	1.9 J				X	
	027-S-0027-01	0.17 J				X	
	027-S-0027-02	0.21 J				X	
	027-S-0027-20	0.98 J				X	
	027-S-0033-20	1.4 J				X	
	027-S-0040-12	0.34 J					
	027-S-0041-00	2.7 J					

Exceeds Soil Cleanup Target Levels
for Soil Contaminants
PENSACOLA OU 2 – Site 27

			Direct Exposure		Leachability		
	Sample ID	Result	Res	Com/ Ind	GW Criteria	Marine SW Criteria	GW of Low Yield/Poor Quality
Dieldrin			70	300	4	0.1	40
	027-S-0041-02	2 J				X	
	027-S-0044-02	3.9				X	
	027-S-0045-02	1.8 J				X	
	027-S-0046-04	0.28 J				X	
	027-S-0047-08	0.44 J				X	
	027-S-0049-02	47			X	X	X
	027-S-0052-00	41			X	X	X
	027-S-052-01	26 J			X	X	
	027-S-0052-02	19			X	X	
	027-S-0052-04	3.5 J				X	
	027-S-0053-00	1.3 J				X	
	027-S-0053-01	3.1 J				X	

Exceeds Soil Cleanup Target Levels
for Soil Contaminants
PENSACOLA OU 2 – Site 27

			Direct Exposure		Leachability		
	Sample ID	Result	Res	Com/ Ind	GW Criteria	Marine SW Criteria	GW of Low Yield/Poor Quality
SVOCs (μg/kg)							
Benzo(a) anthracene			1,400	5,000	3,200	700	32,000
	027-S-0004-02	9,500	X	X	X	X	
	027-S-0052-00	1,800	X			X	
	027-S-0052-01	2,100 J	X			X	
	027-S-0052-02	1,300 J				X	
Benzo(a)pyrene			100	500	8,000	1,200	80,000
	027-S-0004-02	5,600	X	X		X	
	027-S-0006-01	170 J	X				
	027-S-0017-01	190 J	X				
	027-S-0019-00	110 J	X				
	027-S-0040-00	210 J	X				
	027-S-0049-02	130 J	X				
	027-S-0052-00	1,300	X	X		X	
	027-S-0052-01	1,500 J	X	X		X	
	027-S-0052-02	1,100 J	X	X		X	

Exceeds Soil Cleanup Target Levels
for Soil Contaminants
PENSACOLA OU 2 - Site 27

			Direct Exposure		Leachability		
	Sample ID	Result	Res	Com/ Ind	GW Criteria	Marine SW Criteria	GW of Low Yield/Poor Quality
Benzo(b) fluoranthene			1,400	4,800	10,000	1,600	100,000
	027-S-0004-02	13,000 J	X	X	X	X	
	027-S-0052-00	2,600 J	X			X	
	027-S-0052-01	3,100 J	X			X	
	027-S-0052-02	2,400 J					
Benzo(k) fluoranthene			15,000	52,000	25,000	1,600	250,000
	027-S-0004-02	13,000 J				X	
	027-S-0052-00	2,600 J				X	
	027-S-0052-01	3,100 J				X	
	027-S-0052-02	2,400 J				X	
Carbazole			53,000	190,000	600	6,500	6,000
	027-S-0004-02	3,000 J			X		
	027-S-0063-01	760			X		

Exceeds Soil Cleanup Target Levels
for Soil Contaminants
PENSACOLA OU 2 - Site 27

			Direct Exposure		Leachability		
	Sample ID	Result	Res	Com/ Ind	GW Criteria	Marine SW Criteria	GW of Low Yield/Poor Quality
Chrysene			140,000	450,000	77,000	700	770,000
	027-S-0004-02	6,400				X	
	027-S-0052-00	1,500				X	
	027-S-0052-01	1,800 J				X	
	027-S-0052-02	1,400 J				X	
Dibenz(a,h) anthracene		.	100	500	30,000	4,700	300,000
	027-S-0004-02	1,200 J	X				
	027-S-0052-00	180	X				
	027-S-0052-01	150	X				
	027-S-0052-02	150 J	X				
Pentachlorophenol			7,700	23,000	30	200	300
	027-S-0049-62	270 J			X	X	
Phenanthrene			2,000,000	30,000,000	250,000	700	2,500,000
	027-S-0004-02	15,000				X	
	027-S-0052-01	3,800 J				X	
	027-S-0052-02	2,800				X	

Exceeds Soil Cleanup Target Levels
for Soil Contaminants
PENSACOLA OU 2 - Site 27

			Direct Exposure		Leachability		
	Sample ID	**Result**	**Res**	**Com/ Ind**	**GW Criteria**	**Marine SW Criteria**	**GW of Low Yield/Poor Quality**
Phenanthrene			2,000,000	30,000,000	250,000	700	2,500,000
	027-S-0052-04	830				X	
Phenol			900	390,000	50	30	500
	027-S-0017-06	66			X	X	

Site 30 Soil

Exceeds Soil Cleanup Target Levels
for Soil Contaminants
PENSACOLA OU 2 - Site 30

			Direct Exposure		Leachability		
	Sample ID	Result	Res	Com/ Ind	GW Criteria	Marine SW Criteria	GW of Low Yield/Poor Quality
Inorganics (mg/kg)							
Arsenic			0.8	3.7	29	LEACH TEST	290
RC IS 1.56	030-S-0102-01	1.5 J	X				
	030-S-0103-01	1.8 J	X				
	030-S-0106-01	0.82 J	X				
	030-S-0137-01	4.7	X	X			
	030-S-0140-01	1.5 J	X				
	030-S-0147-01	4.8	X	X			
	030-S-0151-01	3.6 J	X				
Beryllium			120	800	63	LEACH TEST	630
RC is 0.41	030-S-0103-01	0.42 J					
	030-S-0106-01	0.22 J					
	030-S-0113-01	0.23 J					
	030-S-0123-01	0.34 J					
	030-S-0137-01	1.3					

Exceeds Soil Cleanup Target Levels
for Soil Contaminants
PENSACOLA OU 2 - Site 30

			Direct Exposure		Leachability		
	Sample ID	Result	Res	Com/ Ind	GW Criteria	Marine SW Criteria	GW of Low Yield/Poor Quality
Cadmium			75	1,300	8	LEACH TEST	80
	030-S-0102-01	9.7 J			X		
	030-S-0102-02	14.3 J			X		
	030-S-0103-04	27.6			X		
	030-S-0123-01	9.7			X		
	030-S-0125-01	15.1			X		
	030-S-0137-01	35.9 J			X		
Chromium			210	420	38	LEACH TEST	380
	030-S-0053-10	46.7			X		
	030-S-0110-01	155			X		
	030-S-0111-02	89.6			X		
	030-S-0112-01	39.8 J			X		
	030-S-0123-01	204			X		
	030-S-0124-01	181 J			X		
	030-S-0125-01	395 J	X		X		X
	030-S-0126-02	74.2			X		

Exceeds Soil Cleanup Target Levels
for Soil Contaminants
PENSACOLA OU 2 - Site 30

			Direct Exposure		Leachability		
	Sample ID	**Result**	**Res**	**Com/ Ind**	**GW Criteria**	**Marine SW Criteria**	**GW of Low Yield/Poor Quality**
Chromium			210	420	38	LEACH TEST	380
	030-S-0127-01	68.7			X		
	030-S-0128-01	57.5			X		
	030-S-0137-01	116 J			X		

Exceeds Soil Cleanup Target Levels
for Soil Contaminants
PENSACOLA OU 2 - Site 30

			Direct Exposure		Leachability		
	Sample ID	Result	Res	Com/ Ind	GW Criteria	Marine SW Criteria	GW of Low Yield/Poor Quality
Pesticides/PCBs (μg/kg)							
Aroclor-1242			500	2,100	17,000	1,000	170,000
	030-S-0138-01	10,000 DJ	X	X		X	
Aroclor-1254			500	2,100	17,000	1,000	170,000
	030-S-0138-01	1,800 DJ	X			X	
Aroclor-1260			500	2,100	17,000	1,000	170,000
	030-S-0138-01	580 J	X				
Dieldrin			70	300	4	0.1	40
	030-S-0005-02	39			X	X	
	030-S-0103-04	4.4 J			X	X	
	030-S-0106-01	15			X	X	
	030-S-0110-01	3.8				X	
	030-S-0117-04	6.1			X	X	
	030-S-0120-01	6			X	X	
	030-S-0122-01	10			X	X	
	030-S-0122-03	9.1			X	X	
	030-S-0123-01	14			X	X	

Exceeds Soil Cleanup Target Levels
for Soil Contaminants
PENSACOLA OU 2 – Site 30

			Direct Exposure		Leachability		
	Sample ID	**Result**	**Res**	**Com/ Ind**	**GW Criteria**	**Marine SW Criteria**	**GW of Low Yield/Poor Quality**
Dieldrin			70	300	4	0.1	40
	030-S-0123-04	17			X	X	
	030-S-0124-01	18			X	X	
	030-S-0125-01	32			X	X	
	030-S-0125-03	31 J			X	X	
	030-S-0126-06	40			X	X	
	030-S-0127-01	11			X	X	
	030-S-0127-03	85 D			X	X	X
	030-S-0127-05	7.2			X	X	
	030-S-0128-01	6			X	X	
	030-S-0129-01	4.2			X	X	
	030-S-0137-01	5.6 J			X	X	
	030-S-0151-01	5.9			X	X	
	030-S-0153-11	4.9			X	X	
	030-S-0154-02	64 DJ			X	X	X
	030-S-0154-06	28			X	X	

Exceeds Soil Cleanup Target Levels
for Soil Contaminants
PENSACOLA OU 2 – Site 30

			Direct Exposure		Leachability		
	Sample ID	**Result**	**Res**	**Com/ Ind**	**GW Criteria**	**Marine SW Criteria**	**GW of Low Yield/Poor Quality**
SVOCs (μg/kg)							
3,3'-Dichlorobenzidine			2,100	6,300	400	2	4,000
	030-S-0110-03	1,400 J			X		
Benzo(a) anthracene			1,400	5,000	3,200	700	32,000
	030-S-0102-02	1,700	X			X	
	030-S-0137-01	2,500 J	X			X	
	030-S-0140-01	22,000	X	X	X	X	
Benzo(a)pyrene			100	500	8,000	1,200	80,000
	030-S-0012-02	170 J	X				
	030-S-0020-02	220 J	X				
	030-S-0102-01	190 J	X				
	030-S-0102-02	1,900	X	X		X	
	030-S-0116-01	120 J	X				
	030-S-0137-01	5,000	X	X		X	
	030-S-0140-01	18,000	X	X	X	X	

Exceeds Soil Cleanup Target Levels
for Soil Contaminants
PENSACOLA OU 2 - Site 30

			Direct Exposure		Leachability		
	Sample ID	**Result**	**Res**	**Com/ Ind**	**GW Criteria**	**Marine SW Criteria**	**GW of Low Yield/Poor Quality**
Benzo(b) fluoranthene			1,400	4,800	10,000	1,600	100,000
	030-S-0102-02	2,000	X			X	
	030-S-0137-01	4,600	X			X	
	030-S-0140-01	16,000	X	X	X	X	
Benzo(k) fluoranthene			15,000	52,000	25,000	1,600	250,000
	030-S-0137-01	4,200 J				X	
	030-S-0140-01	21,000	X			X	
Chrysene			140,000	450,000	77,000	700	770,000
	030-S-0102-02	1,600 J				X	
	030-S-0137-01	2,300 J				X	
	030-S-0140-01	20,000				X	
Dibenz(a,h) anthracene			100	500	30,000	4,700	300,000
	030-S-0102-02	580 J	X	X			
	030-S-0137-01	2,100 J	X	X			
	030-S-0140-01	5,900 J	X	X		X	

Exceeds Soil Cleanup Target Levels
for Soil Contaminants
PENSACOLA OU 2 - Site 30

			Direct Exposure		Leachability		
	Sample ID	**Result**	**Res**	**Com/ Ind**	**GW Criteria**	**Marine SW Criteria**	**GW of Low Yield/Poor Quality**
Indeno(1,2,3-cd)pyrene			1,500	5,300	28,000	4,300	280,000
	030-S-0137-01	5,600	X	X		X	
	030-S-0140-01	13,000	X	X		X	
Phenol			900	390,000	50	30	500
	030-S-0113-01	47 J				X	
	030-S-0122-03	39 J				X	
bis(2-ethyl hexyl)phthalate			76,000	280,000	3,600,000	12,000	36,000,000
	030-S-0012-20	58,000				X	

Exceeds Soil Cleanup Target Levels
for Soil Contaminants
PENSACOLA OU 2 – Site 30

			Direct Exposure		Leachability		
	Sample ID	**Result**	**Res**	**Com/ Ind**	**GW Criteria**	**Marine SW Criteria**	**GW of Low Yield/Poor Quality**
Volatiles (μg/kg)							
1,2-Dichloroethane			500	700	10	20	100
	030-S-0124-01	21 J			X	X	
	030-S-0125-01	50 J			X	X	
	030-S-0125-05	11			X		
	030-S-0127-01	45			X	X	
	030-S-0127-03	25			X	X	
	030-S-0137-01	96			X	X	
	030-S-0137-06	11			X		
	030-S-0138-06	13			X		
	030-S-0139-01	33			X	X	
	030-S-0140-01	27			X	X	
	030-S-0141-01	18			X		
	030-S-0148-01	23			X	X	
	030-S-0148-06	20			X		

Exceeds Soil Cleanup Target Levels
for Soil Contaminants
PENSACOLA OU 2 - Site 30

			Direct Exposure		Leachability		
	Sample ID	**Result**	**Res**	**Com/ Ind**	**GW Criteria**	**Marine SW Criteria**	**GW of Low Yield/Poor Quality**
Acetone			780,000	5,500,000	2,800	6,800	28,000
	030-S-0012-14	5,600 JD			X		
	030-S-0012-16	3,000 JD			X		
Benzene			1,100	1,600	7	500	70
	030-S-0016-18	10 J			X		
Methylene Chloride			16,000	23,000	20	7,300	200
	030-S-0017-18	31			X		
	030-S-0053-02	31			X		
	030-S-0053-04	25			X		
	030-S-0053-10	22			X		

Site 11 Groundwater

Table B-X
Exceeds Groundwater Standards
PENSACOLA OU 2 — Site 11

Parameter	Sample ID	Result	Preliminary Remedial Goals	Groundwater Critieria	Freshwater Surface Water Criteria	Marine Surface Water Criteria	GW of Low Yield/Poor Quality Criteria
1,1,2,2-Tetrachloroethane			0.0052	0.2	10.8	11	2
	011GGS2801	2.0 J	X	X			
	011GLF1300	15.0 J	X	X	X	X	X
1,1-Dichloroethane			700	70	NA	NA	700
	011GGS5202	72.0 D		X			
1,1-Dichloroethene			7.0	7.0	7.0	7.0	70
	011GGS5202	10.0	X	X	X	X	
1,2-Dichloroethane			3.0	3.0	5.0	5.0	30
	011GI01001	9.0 J	X	X	X	X	
1,2-Dichloroethene (total)			70	63	7000	7000	630
	011GGS5201	420.0	X	X			
	011GI01201	110.0	X	X			
	011GI01401	580.0	X	X			
1,2-Dichloropropane			-	5	2600	2600	5
2-Butanone (MEK)			-	4200	120000	120000	42000
2-Chloronaphthalene			-	560	NA	NA	5600
2-Methylnaphthalene			-	20	30	30	200
	011GGS4701	25.0		X			
	011GGS4702	40.0		X	X	X	
	011GLF1200	54.0 J		X	X	X	

Table B-X
Exceeds Groundwater Standards
PENSACOLA OU 2 — Site 11

Parameter	Sample ID	Result	Preliminary Remedial Goals	Groundwater Critieria	Freshwater Surface Water Criteria	Marine Surface Water Criteria	GW of Low Yield/Poor Quality Criteria
4,4'-DDD			0.1	0.1	0.003	0.003	1.0
	011GI01501	0.071 J			X	X	
	011GGS1502	0.012 J			X	X	
	011GLF1000	0.140 J	X	X	X	X	
4,4'-DDD			-	0.1	0.001	0.001	1.0
	011GGS1502	0.0026			X	X	
Acenaphthene			-	20	3	3	200
Acetone			-	700	1692	1692	7000
Aldrin			0.005	0.005	3.000	1.300	0.050
	011GI00401	0.008 J	X	X			
	011GS00301	0.026 J	X	X			
Aluminum			50	200	13	13	2000
	001GGS6902	329.0	X	X	X	X	
	011GGS1502	789.0	X	X	X	X	
	011GGS1503	1090.0	X	X	X	X	
	011GGS2801	919.0	X	X	X	X	
	011GGS3601	172.0 J	X		X	X	
	011GGS4601	587.0	X	X	X	X	
	011GGS5201	398.0	X	X	X	X	
	011GI00201	8730.0	X	X	X	X	X
	011GI00202	1110.0 J	X	X	X	X	

Table B-X
Exceeds Groundwater Standards
PENSACOLA OU 2 — Site 11

Parameter	Sample ID	Result	Preliminary Remedial Goals	Groundwater Critieria	Freshwater Surface Water Criteria	Marine Surface Water Criteria	GW of Low Yield/Poor Quality Criteria
Aluminum	011GI00401	4880.0	X	X	X	X	X
	011GI00402	363.0	X	X	X	X	
	011GI00601	368.0	X	X	X	X	
	011GI00801	824.0	X	X	X	X	
	011GI01001	745.0	X	X	X	X	
	011GI01201	1130.0	X	X	X	X	
	011GI01401	4070.0	X	X	X	X	X
	011GI01501	58900.0	X	X	X	X	X
	011GLF0100	518000.0	X	X	X	X	X
	011GLF1000	945000.0	X	X	X	X	X
	011GLF1100	67400.0 J	X	X	X	X	X
	011GLF1200	44000.0	X	X	X	X	X
	011GLF1300	50700.0 J	X	X	X	X	X
	011GS00102	900.0 J	X	X	X	X	
	011GS00301	769.0	X	X	X	X	
	011GS00501	409.0	X	X	X	X	
	011GS00502	310.0	X	X	X	X	
	011GS01301	458.0	X	X	X	X	
Antimony			6	6	4300	4300	60
	011GLF1000	210.0	X	X			X

Table B-X
Exceeds Groundwater Standards
PENSACOLA OU 2 — Site 11

Parameter	Sample ID	Result	Preliminary Remedial Goals	Groundwater Critieria	Freshwater Surface Water Criteria	Marine Surface Water Criteria	GW of Low Yield/Poor Quality Criteria
Arsenic			50	50	50	50	500
	011GI01501	230.0	X	X	X	X	
	011GLF0100	135.0	X	X	X	X	
	011GLF1000	148.0	X	X	X	X	
	011GLF1100	80.2 J	X	X	X	X	
	011GLF1300	128.0 J	X	X	X	X	
Barium			2000	2000	1000	1000	20000
	011GLF0100	1240.0			X	X	
	011GLF1000	2170.0	X	X	X	X	
	011GLF1300	2710.0	X	X	X	X	
	011GS01101	1520.0			X	X	
	011GS01301	3790.0	X	X	X	X	
Benzene			1.0	1.0	1.18	1.18	10
	011GGS4702	3.0	X	X	X	X	
	011GLF1100	2.0 J	X	X	X	X	
Beryllium			4	4	0.13	0	40
	011GI00201	1.0 J			X	X	
	011GI01501	11.0	X	X	X	X	
	011GLF0100	7.4	X	X	X	X	
	011GLF1000	22.5	X	X	X	X	
	011GLF1100	4.3 J	X	X	X	X	
	011GLF1200	1.7 J			X	X	

Table B-X
Exceeds Groundwater Standards
PENSACOLA OU 2 — Site 11

Parameter	Sample ID	Result	Preliminary Remedial Goals	Groundwater Critieria	Freshwater Surface Water Criteria	Marine Surface Water Criteria	GW of Low Yield/Poor Quality Criteria
Beryllium	011GLF1300	2.5 J			X	X	
	011GS00102	1.8 J			X	X	
BEHP			-	6	0.02	0.02	60
	011GGS3601	1.0 J			X	X	
	011GGS4701	2.0 J			X	X	
	011GS01301	1.0 J			X	X	
Cadmium			5.0	5.0	a	9	50
	011GGS1502	13.9	X	X		X	
	011GLF0100	275.0	X	X		X	X
	011GLF1000	4990.0	X	X		X	X
	011GLF1100	47.9	X	X		X	
	011GLF1200	169.0	X	X		X	X
	011GLF1300	236.0	X	X		X	X
	011GS00102	8.0	X	X			
	011GS00701	7.0	X	X			
Calcium			-	-	-	-	-
Carbon disulfide			-	700	105	105	7000
Chlorobenzene			3.9	100	17	17	1000
Chloroform			6	5.7	NA	NA	57

Table B-X
Exceeds Groundwater Standards
PENSACOLA OU 2 — Site 11

Parameter	Sample ID	Result	Preliminary Remedial Goals	Groundwater Critieria	Freshwater Surface Water Criteria	Marine Surface Water Criteria	GW of Low Yield/Poor Quality Criteria
Chromium			100	100	NA	NA	1000
	011GI01501	771.0	X	X			
	011GLF0100	872.0	X	X			
	011GLF1000	2290.0	X	X			X
	011GLF1100	1190.0	X	X			X
	011GLF1300	261.0	X	X			
cis-1,2-Dichloroethene			70	70	NA	NA	700
	011GGS5202	970.0 D	X	X			X
	011GI01402	240.0 D	X	X			
Cobalt			-	420	NA	NA	4200
Copper			1000	1000	c	2.9	10000
	011GGI5101	9.0 J				X	
	011GGS2801	3.0 J				X	
	011GI00201	24.0 J				X	
	011GI01401	3.0 J				X	
	011GI01501	103.0				X	
	011GLF0100	917.0				X	
	011GLF1000	8280.0	X	X		X	
	011GLF1100	154.0 J				X	
	011GLF1200	234.0				X	
	011GLF1300	938.0 J				X	
	011GS01301	4.0 J				X	

Table B-X
Exceeds Groundwater Standards
PENSACOLA OU 2 — Site 11

Parameter	Sample ID	Result	Preliminary Remedial Goals	Groundwater Critieria	Freshwater Surface Water Criteria	Marine Surface Water Criteria	GW of Low Yield/Poor Quality Criteria
Cyanide (CN)			-	200	5.2	1.0	2000
	011GLF1000	16.0			X	X	
Dibenzofuran			-	28	67	67	280
Dieldrin			0.1	0.005	0.0019	0.0019	0.5
	011GGS1502	0.0045 J			X	X	
	011GGS3601	0.030 J		X	X	X	
	011GS00301	0.0094 J		X	X	X	
Di-n-butylphthalate			-	-	-	-	-
Ethylbenzene			30	700	605	605	7000
Fluoranthene			-	280	0.3	0.3	2800
	011GLF1000	7.0 J			X	X	
	011GLF1300	6.0 J			X	X	
Fluorene			-	280	30	30	2800
Heptachlor epoxide			-	0.2	0.002	0.002	2.0
	011GGS5201	0.0059 J			X	X	
Iron			300	300	1000	300	3000
	001GGI6802	393.0	X	X		X	
	011GGI5101	1690.0 J	X	X	X	X	
	011GGS1503	3500.0	X	X	X	X	X
	011GGS2801	4120.0 J	X	X	X	X	X
	011GGS4702	1710.0	X	X	X	X	

Table B-X
Exceeds Groundwater Standards
PENSACOLA OU 2 — Site 11

Parameter	Sample ID	Result	Preliminary Remedial Goals	Groundwater Critieria	Freshwater Surface Water Criteria	Marine Surface Water Criteria	GW of Low Yield/Poor Quality Criteria
Iron	011GGS5201	3820.0 J	X	X	X	X	X
	011GI00201	7310.0 J	X	X	X	X	X
	011GI00202	1030.0	X	X	X	X	
	011GI00401	20000.0 J	X	X	X	X	X
	011GI00402	579.0	X	X		X	
	011GI00601	3470.0 J	X	X	X	X	X
	011GI00801	929.0 J	X	X		X	
	011GI01001	442.0 J	X	X		X	
	011GI01201	471.0 J	X	X		X	
	011GI01401	1200.0 J	X	X	X	X	
	011GI01501	170000.0 J	X	X	X	X	X
	011GLF0100	336000.0	X	X	X	X	X
	011GLF1000	1100000.0	X	X	X	X	X
	011GLF1100	83000.0	X	X	X	X	X
	011GLF1200	26300.0 J	X	X	X	X	X
	011GLF1300	117000.0	X	X	X	X	X
	011GS00102	5760.0	X	X	X	X	X
	011GS00301	328.0 J	X	X		X	
	011GS00302	376.0	X	X		X	
	011GS00501	5060.0 J	X	X	X	X	X
	011GS00502	3490.0	X	X	X	X	X
	011GS00701	8440.0 J	X	X	X	X	X

Table B-X
Exceeds Groundwater Standards
PENSACOLA OU 2 — Site 11

Parameter	Sample ID	Result	Preliminary Remedial Goals	Groundwater Critieria	Freshwater Surface Water Criteria	Marine Surface Water Criteria	GW of Low Yield/Poor Quality Criteria
Iron	011GS01301	10100.0 J	X	X	X	X	X
Lead			15	15	b	6	150
	011GGS1503	3500.0	X	X		X	X
	011GGS4702	1710.0	X	X		X	X
	011GI00201	14.0 J				X	
	011GI01501	94.0 J	X	X		X	
	011GLF0100	5060.0	X	X		X	X
	011GLF1000	50200.0	X	X		X	X
	011GLF1100	803.0	X	X		X	X
	011GLF1200	21700.0	X	X		X	X
	011GLF1300	11600.0	X	X		X	X
	011GS00501	30.0 J	X	X		X	
	011GS00502	13.0				X	
	011GS00701	6.0				X	
	011GS01101	7.0				X	
	011GS01301	17.0	X	X		X	
Magnesium			-	-	-	-	-
	011GGI5101	67100.0 R					
	011GGS1501	1350.0 R					
	011GGS1502	4920.0 J					
	011GGS1503	14200.0					
	011GGS2801	4190.0 R					

Table B-X
Exceeds Groundwater Standards
PENSACOLA OU 2 — Site 11

Parameter	Sample ID	Result	Preliminary Remedial Goals	Groundwater Critieria	Freshwater Surface Water Criteria	Marine Surface Water Criteria	GW of Low Yield/Poor Quality Criteria
Magnesium	011GGS3601	1520.0 R					
	011GGS4702	1120.0					
	011GGS4801	8670.0 R					
	011GI00201	724.0 R					
	011GI00401	821.0 R					
	011GI00402	542.0					
	011GI00601	974.0 R					
	011GI00801	52700.0 R					
	011GI01001	14500.0 R					
	011GI01201	120000.0 R					
	011GI01401	1990.0 R					
	011GI01501	35000.0 R					
	011GLF0100	18600.0					
	011GLF1000	110000.0					
	011GLF1100	10700.0					
	011GLF1200	2140.0 J					
	011GLF1300	26600.0					
	011GS00101	3610.0 R					
	011GS00102	2520.0					

Table B-X
Exceeds Groundwater Standards
PENSACOLA OU 2 — Site 11

Parameter	Sample ID	Result	Preliminary Remedial Goals	Groundwater Critieria	Freshwater Surface Water Criteria	Marine Surface Water Criteria	GW of Low Yield/Poor Quality Criteria
Magnesium	011GS00301	2250.0 R					
	011GS00302	2580.0					
	011GS00501	1040.0 R					
	011GS00502	868.0					
	011GS00701	9440.0 R					
	011GS00901	10500.0 R					
	011GS01101	7300.0 R					
	011GS01301	15000.0 R					
Manganese			50	50	NA	NA	500
	011GGI5101	316.0	X	X			
	011GGS1503	106.0	X	X			
	011GGS2801	83.0	X	X			
	011GGS4801	206.0	X	X			
	011GGS4901	125.0	X	X			
	011GI00601	55.0 J	X	X			
	011GI00801	71.0	X	X			
	011GI01201	52.0	X	X			
	011GI01501	935.0	X	X			X
	011GLF0100	8340.0	X	X			X
	011GLF1000	9940.0	X	X			X
	011GLF1100	180.0	X	X			
	011GLF1200	570.0 J	X	X			X

Table B-X
Exceeds Groundwater Standards
PENSACOLA OU 2 — Site 11

Parameter	Sample ID	Result	Preliminary Remedial Goals	Groundwater Critieria	Freshwater Surface Water Criteria	Marine Surface Water Criteria	GW of Low Yield/Poor Quality Criteria
Manganese	011GLF1300	1700.0	X	X			X
	011GS00501	95.0 J	X	X			
	011GS00701	365.0	X	X			
	011GS00901	212.0	X	X			
	011GS01101	120.0	X	X			
	011GS01301	133.0	X	X			
Mercury			2	2	0.012	0.025	20
	011GGS4702	0.1 J			X	X	
	011GLF0100	1.1			X	X	
	011GLF1000	5.9	X	X	X	X	
	011GLF1100	0.8			X	X	
	011GLF1200	0.4			X	X	
Methoxychlor			-	40	0.03	0.03	400
	011GS00501	0.039 J			X	X	
Methylene chloride			5	5	1580	1580	50
Naphthalene			20	20	26	26	200
	011GGS4701	47.0	X	X	X	X	
	011GGS4702	60.0	X	X	X	X	
	011GLF1200	69.0 J	X	X	X	X	

Table B-X
Exceeds Groundwater Standards
PENSACOLA OU 2 — Site 11

Parameter	Sample ID	Result	Preliminary Remedial Goals	Groundwater Critieria	Freshwater Surface Water Criteria	Marine Surface Water Criteria	GW of Low Yield/Poor Quality Criteria
Nickel			100	100	d	8.3	1000
	011GI00201	18.0 J				X	
	011GI00601	44.0				X	
	011GI01501	512.0	X	X		X	
	011GLF0100	177.0	X	X		X	
	011GLF1000	715.0	X	X		X	
	011GLF1100	71.4				X	
	011GLF1200	35.0 J				X	
	011GLF1300	145.0	X	X		X	
Phenanthrene			-	210	NA	NA	2100
Potassium			-	-	-	-	-
Pyrene			-	210	0.3	0.3	2100
	011GLF1000	8.0 J			X	X	
	011GLF1300	8.0 J			X	X	
Selenium			-	50	5	71	500
	011GI00201	6.0 J			X		
	011GI01501	11.5			X		
	011GLF1100	7.0 J			X		
	011GLF0100	6.1 J	X	X	X	X	X
	011GLF1000	9.2 J	X	X	X	X	X

Table B-X
Exceeds Groundwater Standards
PENSACOLA OU 2 — Site 11

Parameter	Sample ID	Result	Preliminary Remedial Goals	Groundwater Critieria	Freshwater Surface Water Criteria	Marine Surface Water Criteria	GW of Low Yield/Poor Quality Criteria
	011GLF1100	5.8 J	X	X	X	X	X
Sodium			160000	160000	1275	NA	1600000
	011GGI5101	1220000.0	X	X	X		
	011GGS1501	4320.0 J			X		
	011GGS1502	8270.0			X		
	011GGS1503	169000.0	X	X	X		
	011GGS2801	4870.0 J			X		
	011GGS3601	2800.0 J			X		
	011GGS4702	1910.0			X		
	011GI00201	19400.0			X		
	011GI00202	20800.0			X		
	011GI00401	13500.0			X		
	011GI00402	12500.0			X		
	011GI00601	12600.0			X		
	011GI00801	595000.0	X	X	X		
	011GI01001	178000.0	X	X	X		
	011GI01201	1160000.0	X	X	X		
	011GI01401	38900.0			X		
	011GI01501	275000.0	X	X	X		
	011GLF1000	10600.0			X		
	011GLF1200	1860.0 J			X		
	011GS00101	4750.0 J			X		

Table B-X
Exceeds Groundwater Standards
PENSACOLA OU 2 — Site 11

Parameter	Sample ID	Result	Preliminary Remedial Goals	Groundwater Critieria	Freshwater Surface Water Criteria	Marine Surface Water Criteria	GW of Low Yield/Poor Quality Criteria
Sodium	011GS00102	3380.0			X		
	011GS00301	4210.0 J			X		
	011GS00302	4140.0			X		
	011GS00501	8000.0			X		
	011GS00502	5470.0			X		
	011GS01301	16900.0			X		
Tetrachloroethene			3.0	3.0	3.0	3.0	30
	011GGS5202	23.0	X	X	X	X	
	011GS01302	7.0 J	X	X	X	X	
Toluene			40	1000	475	475	10000
trans-1,2-Dichloroethene			70	70	NA	NA	720
Trichloroethene			3	3	3	3	30
	011GGS5201	20.0 J	X	X	X	X	
	011GGS5202	50.0	X	X	X	X	X
	011GI01201	14.0	X	X	X	X	
	011GI01202	11.0 J	X	X	X	X	
	011GLF1200	21.0 J	X	X	X	X	
	011GS00501	4.0 J	X	X	X	X	
	011GS01302	5.0 J	X	X	X	X	

Table B-X
Exceeds Groundwater Standards
PENSACOLA OU 2 — Site 11

Parameter	Sample ID	Result	Preliminary Remedial Goals	Groundwater Critieria	Freshwater Surface Water Criteria	Marine Surface Water Criteria	GW of Low Yield/Poor Quality Criteria
Vanadium			49	49	NA	NA	490
	011GI01501	489.0	X	X			
	011GLF0100	781.0	X	X			X
	011GLF1000	1330.0	X	X			X
	011GLF1100	143.0	X	X			
	011GLF1200	67.7	X	X			
	011GLF1300	98.4	X	X			
Vinyl chloride			1.0	1.0	NA	NA	10
	011GGS2801	2.0 J	X	X			
	011GGS4701	55.0	X	X			X
	011GGS4702	48.0 D	X	X			X
	011GGS5201	230.0	X	X			X
	011GGS5202	74.0 D	X	X			X
	011GI01401	88.0	X	X			X
	011GI01402	33.0	X	X			X
	011GS01302	3.0 J	X	X			
Xylene (Total)			20	10000	370	370	100000

Table B-X
Exceeds Groundwater Standards
PENSACOLA OU 2 — Site 11

Parameter	Sample ID	Result	Preliminary Remedial Goals	Groundwater Critieria	Freshwater Surface Water Criteria	Marine Surface Water Criteria	GW of Low Yield/Poor Quality Criteria
Zinc			5000	5000	e	86	50000
	011GI01501	306.0				X	
	011GLF0100	3610.0				X	
	011GLF1000	67800.0	X	X		X	X
	011GLF1100	555.0				X	
	011GLF1200	342.0				X	
	011GLF1300	8770.0	X	X		X	
	011GS00701	560.0				X	

Notes:
a = 0.7852 * ln(hardness) - 3.49 for hardness between 25 and 400 mg/L CaCO3
b = 1.273 * ln(hardness) - 4.705 for hardness between 25 and 400 mg/L CaCO3
c = 0.8545 * ln(hardness) - 1.465 for hardness between 25 and 400 mg/L CaCO3
d = 0.846 * ln(hardness) + 1.1645 for hardness between 25 and 400 mg/L CaCO3
e = 0.8473 * ln(hardness) + 0.7614 for hardness between 25 and 400 mg/L CaCO3

Site 12 Groundwater

Table B-X
Exceeds Groundwater Standards
PENSACOLA OU 2 — Site 12

Parameter	Sample ID	Result	Preliminary Remedial Goals	Groundwater Criteria	Freshwater Surface Water Criteria	Marine Surface Water Criteria	GW of Low Yield/Poor Quality Criteria
1,1,1-Trichloroethane				200	270	270	200
1,1-Dichloroethane			700	70	NA	NA	700
1,1-Dichloroethene			7.0	7.0	7.0	7.0	70
4,4'-DDD			0.1	0.1	0.003	0.003	1.0
	012GGS0801	0.1100	X	X	X	X	
4,4'-DDE			-	0.1	0.006	0.006	1.0
4,4'-DDT			-	0.1	0.001	0.001	1.0
	012GGS0801	0.0099 J			X	X	
4-Nitrophenol			-	56	55	55	560
Aldrin			0.005	0.005	3.000	1.300	0.050
alpha-BHC			-	0.0060	0.0116	0.0116	0.0600
alpha-Chlordane			-	2.0	0.002	0.002	2.0
	012GGS0301	0.0041 J			X	X	
	012GGS0601	0.0069 J			X	X	
	012GGS0801	0.0500 J			X	X	
Aluminum			50	200	13	13	2000
	012GGS0101	222.0000	X	X	X	X	
	012GGS0201	161.0000 J	X		X	X	
	012GGS0301	77.6000 J	X		X	X	
	012GGS0501	108.0000 J	X		X	X	
	012GGS0601	220.0000	X	X	X	X	

Table B-X
Exceeds Groundwater Standards
PENSACOLA OU 2 — Site 12

Parameter	Sample ID	Result	Preliminary Remedial Goals	Groundwater Criteria	Freshwater Surface Water Criteria	Marine Surface Water Criteria	GW of Low Yield/Poor Quality Criteria
Aluminum	012GGS0801	117.0000 J	X		X	X	
	012GGS0901	90.5000 J	X		X	X	
	012GGS1001	99.9000 J	X		X	X	
	012GGS1301	147.0000 J	X		X	X	
	012GGS1401	156.0000 J	X		X	X	
	012GGS1501	137.0000 J	X		X	X	
	012GGS1601	132.0000 J	X		X	X	
	012W000101	1590.0000 J	X	X	X	X	
Antimony			-	6	4300	4300	60
Aroclor-1260			-	0.5	0.03	NA	5.0
	012GGS0801	0.4200 J			X		
	012W000101	1.8000		X	X		
Barium			2000	2000	1000	1000	20000
Cadmium			5.0	5.0	a	9.3	50
	012GGS0801	9.6000	X	X		X	
Calcium			-	-	-	-	-
Chloroform			6	5.7	NA	NA	57
Chromium			100	100	NA	NA	1000
cis-1,2-Dichloroethene			70	70	NA	NA	700
Cobalt			-	420	NA	NA	4200

Table B-X
Exceeds Groundwater Standards
PENSACOLA OU 2 — Site 12

Parameter	Sample ID	Result	Preliminary Remedial Goals	Groundwater Criteria	Freshwater Surface Water Criteria	Marine Surface Water Criteria	GW of Low Yield/Poor Quality Criteria
Copper			1000	1000	c	2.9	10000
	012GGS0801	6.8000 J				X	
	012GGS1301	3.3000 J				X	
	012W000101	31.3000				X	
Cyanide (CN)			-	200	5.2	1.0	2000
	012GGS0201	11.2000			X	X	
delta-BHC			-	2.1	NA	NA	21
Dieldrin			0.1	0.005	0.0019	0.0019	0.5
	012GGS0101	0.0073 J		X	X	X	
	012GGS0201	0.0720 J		X	X	X	
	012GGS0301	0.3000	X	X	X	X	
	012GGS0501	0.0680 J		X	X	X	
	012GGS0601	0.0740 J		X	X	X	
	012W000101	0.0064 J		X	X	X	
Endosulfan I			-	42	0.0560	0.0087	420
Endrin			-	2.0	0.0023	0.0023	20.0
	012GGS0301	0.0062 J			X	X	
Endrin aldehyde			-	2.0	0.0023	0.0023	20.0
	012GGS0801	0.0140 J			X	X	

Table B-X
Exceeds Groundwater Standards
PENSACOLA OU 2 — Site 12

Parameter	Sample ID	Result	Preliminary Remedial Goals	Groundwater Criteria	Freshwater Surface Water Criteria	Marine Surface Water Criteria	GW of Low Yield/Poor Quality Criteria
Endrin ketone			-	2.0	0.0023	0.0023	20.0
	012GGS0201	0.0031 J			X	X	
	012GGS0301	0.0710 J			X	X	
	012GGS0501	0.0053 J			X	X	
	012GGS0601	0.0051 J			X	X	
Ethylbenzene			30	700	605	605	7000
gamma-Chlordane			-	2.0	0.002	0.002	2.0
	012GGS0601	0.0031 J			X	X	
Heptachlor			-	0	0.0036	0.0038	2
Heptachlor epoxide			-	0	0.0020	0.0020	4
	012GGS0501	0.0110 J			X	X	
Iron			300	300	1000	300	3000
	012GGS1401	348.0000	X	X		X	
	012GGS1601	1090.0000	X	X	X	X	
	012W000101	1200.0000	X	X	X	X	
Lead			15	15	b	6	150
	012W000101	65.6000	X	X		X	
Magnesium			-	-	-	-	-
Manganese			50	50	NA	NA	500
Methoxychlor			-	40	0.03	0.03	400
Naphthalene			20	20	26	26	200

Table B-X
Exceeds Groundwater Standards
PENSACOLA OU 2 — Site 12

Parameter	Sample ID	Result	Preliminary Remedial Goals	Groundwater Criteria	Freshwater Surface Water Criteria	Marine Surface Water Criteria	GW of Low Yield/Poor Quality Criteria
Nickel			100	100	d	8.3	1000
	012GGS0901	17.5000 J				X	
	012GGS1401	20.5000 J				X	
Phenanthrene			-	210	NA	NA	2100
Potassium			-	-	-	-	-
Silver			-	100	0.07	0.35	1000
	012W000101	0.5800 J			X	X	
Sodium			160000	160000	1275	NA	1600000
	012GGS0101	9490.0000			X		
	012GGS0201	5990.0000			X		
	012GGS0301	6640.0000			X		
	012GGS0501	9030.0000			X		
	012GGS0601	8400.0000			X		
	012GGS0801	6400.0000			X		
	012GGS0901	4420.0000 J			X		
	012GGS1001	4540.0000 J			X		
	012GGS1301	4530.0000 J			X		
	012GGS1401	5820.0000			X		
	012GGS1501	6400.0000			X		
	012GGS1601	6070.0000			X		
	012W000101	2410.0000 J			X		

Table B-X
Exceeds Groundwater Standards
PENSACOLA OU 2 — Site 12

Parameter	Sample ID	Result	Preliminary Remedial Goals	Groundwater Criteria	Freshwater Surface Water Criteria	Marine Surface Water Criteria	GW of Low Yield/Poor Quality Criteria
Tetrachloroethene			3.0	3.0	3.0	3.0	30
Trichloroethene			3	3	3	3	30
Vanadium			49	49	NA	NA	490
Zinc			5000	5000	e	86	50000
	012GGS0801	164.0000				X	
	012W000101	143.0000 J				X	

Notes:
a = 0.7852 * ln(hardness) - 3.49 for hardness between 25 and 400 mg/L CaCO3

Site 25 Groundwater

Table B-X
Exceeds Groundwater Standards
PENSACOLA OU 2 — Site 25

Parameter	Sample ID	Result	Preliminary Remedial Goals	Groundwater Criteria	Freshwater Surface Water Criteria	Marine Surface Water Criteria	GW of Low Yield/Poor Quality Criteria
1,1,1-Trichloroethane			-	200	270	270	200
1,1-Dichloroethane			700	70	NA	NA	700
	025GS00400	90.0		X			
1,1-Dichloroethene			7.0	7.0	7.0	7.0	70
4,4'-DDD			0.1	0.1	0.003	0.003	1.0
	025GS00900	0.0 J			X	X	
Aluminum			50	200	13	13	2000
	025GI00101	120000.0 J	X	X	X	X	X
	025GI00201	88100.0	X	X	X	X	X
	025GS00100	15800.0	X	X	X	X	X
	025GS00102	248.0 J	X	X	X	X	
	025GS00102	248.0 J	X	X	X	X	
	025GS00200	4790.0 J	X	X	X	X	X
	025GS00300	83600.0 J	X	X	X	X	X
	025GS00400	183000.0 J	X	X	X	X	X
	025GS00500	35500.0	X	X	X	X	X
	025GS00600	22500.0	X	X	X	X	X
	025GS00700	59500.0 J	X	X	X	X	X
	025GS00800	37300.0	X	X	X	X	X
	025GS00900	247000.0 J	X	X	X	X	X
	025GS00902	2300.0	X	X	X	X	X
	025GS00902	2300.0	X	X	X	X	X

Table B-X
Exceeds Groundwater Standards
PENSACOLA OU 2 — Site 25

Parameter	Sample ID	Result	Preliminary Remedial Goals	Groundwater Criteria	Freshwater Surface Water Criteria	Marine Surface Water Criteria	GW of Low Yield/Poor Quality Criteria
Antimony			-	6	4300	4300	60
	025GI00101	55.4 J		X			
	025GS00200	61.0 J		X			X
	025GS00300	65.4 J		X			X
	025GS00400	218.0 J		X			X
	025GS00900	43.7 J		X			
Arsenic			50	50	50	50	500
	025GI00101	142.0 J	X	X	X	X	
	025GI00201	64.9	X	X	X	X	
	025GS00900	85.7 J	X	X	X	X	
Barium			2000	2000	1000	1000	20000
Beryllium			4	4	0.13	0.13	40
	025GI00101	3.9			X	X	
	025GI00201	2.5			X	X	
	025GS00300	1.2			X	X	
	025GS00400	2.6			X	X	
	025GS00900	3.7			X	X	
Cadmium			5.0	5.0	a	9.3	50
	025GI00101	6.1	X	X			
	025GS00400	54.4	X	X		X	X
Cadmium	025GS00700	5.4	X	X			
	025GS00900	7.9	X	X			

Table B-X
Exceeds Groundwater Standards
PENSACOLA OU 2 — Site 25

Parameter	Sample ID	Result	Preliminary Remedial Goals	Groundwater Criteria	Freshwater Surface Water Criteria	Marine Surface Water Criteria	GW of Low Yield/Poor Quality Criteria
Calcium			-	-	-	-	-
Chloroethane			140	12	NA	NA	120
	025GS00400	44.0		X			
Chloroform			6	5.7	NA	NA	57
Chromium			100	100	NA	NA	1000
	025GI00101	225.0	X	X			
	025GI00201	231.0	X	X			
	025GS00400	14700.0	X	X			X
	025GS00900	574.0	X	X			
cis-1,2-Dichloroethene			70	70	NA	NA	700
Cobalt			-	420	NA	NA	4200
Copper			1000	1000	c	2.9	10000
	025GI00101	65.9				X	
	025GI00201	99.4				X	
	025GS00100	20.4				X	
	025GS00300	68.8				X	
	025GS00400	354.0				X	
	025GS00500	32.7				X	
	025GS00600	19.3				X	
Copper	025GS00700	29.2				X	
	025GS00900	194.0				X	

Table B-X
Exceeds Groundwater Standards
PENSACOLA OU 2 — Site 25

Parameter	Sample ID	Result	Preliminary Remedial Goals	Groundwater Criteria	Freshwater Surface Water Criteria	Marine Surface Water Criteria	GW of Low Yield/Poor Quality Criteria
Cyanide (CN)			-	200	5.2	1.0	2000
	025GS00400	10.9			X	X	
	025GS00700	17.9			X	X	
	025GS00900	23.9			X	X	
Dieldrin			0.1	0.005	0.0019	0.0019	0.5
	025GI00201	0.004 J			X	X	
	025GS00800	0.003 J			X	X	
Endosulfan I			-	42	0.0560	0.0087	420
Ethylbenzene			30	700	605	605	7000
gamma-BHC (Lindane)			-	0.2	0.08	0.16	2.0
Heptachlor epoxide			-	0	0.0020	0.0020	4
	025GS00500	0.0 J			X	X	
Iron			300	300	1000	300	3000
	025GI00101	83400.0 J	X	X	X	X	X
	025GI00201	114000.0	X	X	X	X	X
	025GS00100	10400.0 J	X	X	X	X	X
	025GS00200	5200.0 J	X	X	X	X	X
	025GS00300	46600.0 J	X	X	X	X	X
	025GS00400	66900.0 J	X	X	X	X	X
	025GS00500	14800.0 J	X	X	X	X	X
	025GS00600	19100.0 J	X	X	X	X	X
	025GS00700	27700.0 J	X	X	X	X	X

Table B-X
Exceeds Groundwater Standards
PENSACOLA OU 2 — Site 25

Parameter	Sample ID	Result	Preliminary Remedial Goals	Groundwater Criteria	Freshwater Surface Water Criteria	Marine Surface Water Criteria	GW of Low Yield/Poor Quality Criteria
Iron	025GS00800	32400.0	X	X	X	X	X
	025GS00802	740.0	X	X		X	
	025GS00802	740.0	X	X		X	
	025GS00900	115000.0 J	X	X	X	X	X
	025GS00902	1060.0	X	X	X	X	
	025GS00902	1060.0	X	X	X	X	
Lead			15	15	b	5.6	150
	025GI00101	45.7 J	X	X		X	
	025GI00201	28.3	X	X		X	
	025GS00100	6.4				X	
	025GS00300	28.8 J	X	X		X	
	025GS00400	334.0 J	X	X		X	X
	025GS00500	16.0	X	X		X	
	025GS00600	50.0	X	X		X	
	025GS00700	10.2 J				X	
	025GS00800	55.9	X	X		X	
	025GS00900	308.0 J	X	X		X	X
Magnesium			-	-	-	-	-
Manganese			50	50	NA	NA	500
	025GI00101	283.0	X	X			
	025GI00201	54.7	X	X			
	025GS00100	115.0	X	X			

Table B-X
Exceeds Groundwater Standards
PENSACOLA OU 2 — Site 25

Parameter	Sample ID	Result	Preliminary Remedial Goals	Groundwater Criteria	Freshwater Surface Water Criteria	Marine Surface Water Criteria	GW of Low Yield/Poor Quality Criteria
Manganese	025GS00300	407.0	X	X			
	025GS00400	219.0	X	X			
	025GS00500	128.0	X	X			
	025GS00600	77.0	X	X			
	025GS00700	131.0	X	X			
	025GS00800	450.0	X	X			
	025GS00900	834.0	X	X			X
Mercury			2.0	2.0	0.012	0.025	20
	025GI00201	0.2			X	X	
	025GS00100	0.3			X	X	
	025GS00300	0.9			X	X	
	025GS00302	0.1 J			X	X	
	025GS00400	2.4	X	X	X	X	
	025GS00500	0.2			X	X	
	025GS00700	0.2			X	X	
	025GS00800	0.4			X	X	
	025GS00802	0.1 J			X	X	
	025GS00900	2.3	X	X	X	X	
	025GS00902	4.7	X	X	X	X	
	025GS00902	4.7	X	X	X	X	
Naphthalene			20	20	26	26	200

Table B-X
Exceeds Groundwater Standards
PENSACOLA OU 2 — Site 25

Parameter	Sample ID	Result	Preliminary Remedial Goals	Groundwater Criteria	Freshwater Surface Water Criteria	Marine Surface Water Criteria	GW of Low Yield/Poor Quality Criteria
Nickel			100	100	d	8.3	1000
	025GI00101	112.0	X	X		X	
	025GI00201	27.9				X	
	025GS00300	53.3				X	
	025GS00400	69.9				X	
	025GS00700	33.9				X	
	025GS00800	30.0				X	
	025GS00900	107.0	X	X		X	
Phenol			10	10	7	7	100
	025GS00900	10.0			X	X	
Potassium			-	-	-	-	-
Selenium			-	50	5	71	500
Sodium			160000	160000	1275	NA	1600000
	025GI00101	24600.0			X		
	025GI00201	18300.0			X		
	025GS00100	5170.0			X		
	025GS00102	3700.0			X		
	025GS00200	5440.0			X		
	025GS00202	3480.0			X		
	025GS00300	6950.0			X		
	025GS00302	3540.0			X		
	025GS00400	11400.0			X		

Table B-X
Exceeds Groundwater Standards
PENSACOLA OU 2 — Site 25

Parameter	Sample ID	Result	Preliminary Remedial Goals	Groundwater Criteria	Freshwater Surface Water Criteria	Marine Surface Water Criteria	GW of Low Yield/Poor Quality Criteria
Sodium	025GS00500	7370.0			X		
	025GS00600	5830.0			X		
	025GS00700	4340.0			X		
	025GS00702	6440.0			X		
	025GS00800	8150.0			X		
	025GS00802	6500.0			X		
	025GS00900	11900.0			X		
	025GS00902	5170.0			X		
Tetrachloroethene			3.0	3.0	3.0	3.0	30
	025GS00200	5.0 J	X	X	X	X	
Trichloroethene			3.0	3.0	3.0	3.0	30
	025GI00101	14.0	X	X	X	X	
	025GI00102	17.0	X	X	X	X	
	025GI00102	17.0	X	X	X	X	
	025GI00201	5.0 J	X	X	X	X	
	025GI00202	10.0	X	X	X	X	
	025GI00202	10.0	X	X	X	X	
Vanadium			49	49	NA	NA	490
	025GI00101	282.0	X	X			
	025GI00201	284.0	X	X			
	025GS00300	98.4	X	X			
	025GS00400	199.0	X	X			

Table B-X
Exceeds Groundwater Standards
PENSACOLA OU 2 — Site 25

Parameter	Sample ID	Result	Preliminary Remedial Goals	Groundwater Criteria	Freshwater Surface Water Criteria	Marine Surface Water Criteria	GW of Low Yield/Poor Quality Criteria
Vanadium	025GS00700	71.8	X	X			
	025GS00900	241.0	X	X			
Vinyl chloride			1.0	1.0	NA	NA	10
	025GS00400	7.0 J	X	X			
Xylene (Total)			20	10000	370	370	100000
Zinc			5000	5000	e	86	50000
	025GI00101	309.0				X	
	025GI00201	103.0				X	
	025GS00100	603.0				X	
	025GS00300	165.0				X	
	025GS00400	281.0				X	
	025GS00700	112.0				X	
	025GS00800	110.0				X	
	025GS00900	450.0				X	

Notes:
a = 0.7852 * ln(hardness) - 3.49 for hardness between 25 and 400 mg/L CaCO3
b = 1.273 * ln(hardness) - 4.705 for hardness between 25 and 400 mg/L CaCO3
d = 0.846 * ln(hardness) + 1.1645 for hardness between 25 and 400 mg/L CaCO3

Site 26 Groundwater

Table B-X
Exceeds Groundwater Standards
PENSACOLA OU 2 — Site 26

Parameter	Sample ID	Result	Preliminary Remedial Goals	Groundwater Critieria	Freshwater Surface Water Criteria	Marine Surface Water Criteria	GW of Low Yield/Poor Quality Criteria
4,4'-DDT			-	0.1	0.001	0.001	1.0
	026GGS0201	0.007 J			X	X	
Aluminum			50	200	13	13	2000
	026GGS0201	387.0	X	X	X	X	
Antimony			6	6	4300	4300	60
	026GGS0301	20.2 J	X	X			
Arsenic			50	50	50	50	500
Barium			2000	2000	1000	1000	20000
Beryllium			4	4	0.13	0.13	40
	026GGS0301	0.3 J			X	X	
Cadmium			5	5	a	9.3	50
	026GGS0301	6.2	X	X			
Calcium			-	-	-	-	-
Chromium			100	100	NA	NA	1000
Cobalt			-	420	NA	NA	4200
Dieldrin			0.1	0.005	0.0019	0.0019	0.5
	026GGS0301	0.0 J		X	X	X	
	026GGS0401	0.0 J		X	X	X	
Heptachlor epoxide			-	0.2	0.0020	0.0020	4.0
	026GGS0301	0.003 J			X	X	
Iron			300	300	1000	300	3000

Table B-X
Exceeds Groundwater Standards
PENSACOLA OU 2 — Site 26

Parameter	Sample ID	Result	Preliminary Remedial Goals	Groundwater Critieria	Freshwater Surface Water Criteria	Marine Surface Water Criteria	GW of Low Yield/Poor Quality Criteria
Magnesium			-	-	-	-	-
Manganese			50	50	NA	NA	500
Potassium			-	-	-	-	-
Sodium			160000	160000	1275	NA	1600000
	026GGS0201	2270.0 J			X		
	026GGS0301	9110.0			X		
	026GGS0401	4710.0 J			X		
Tetrachloroethene			3.0	3.0	3.0	3.0	30
Trichloroethene			3.0	3.0	3.0	3.0	30
Vinyl chloride			1.0	1.0	NA	NA	10
Zinc			5000	5000	e	86	50000
	026GGS0301	140.0				X	

Notes:
a = 0.7852 * ln(hardness) - 3.49 for hardness between 25 and 400 mg/L CaCO3

Site 27 Groundwater

Table B-X
ExceedsGroundwater Standards
PENSACOLA OU 2 — Site 27

Parameter	Sample ID	Result	Preliminary Remedial Goals	Groundwater Critieria	Freshwater Surface Water Criteria	Marine Surface Water Criteria	GW of Low Yield/Poor Quality Criteria
1,1,1-Trichloroethane			200	200	270	270	2000
	027GS01002	320.0 D	X	X	X	X	
	027GS01101	300.0	X	X	X	X	
1,1-Dichloroethane			700	70	NA	NA	700
	027GS00601	300.0		X			
	027GS01002	260.0 D		X			
	027GS01101	300.0		X			
	027GS01102	120.0 D		X			
	027GS01301	92.0		X			
	027GS01501	110.0		X			
	027GS01901	72.0 J		X			
1,1-Dichloroethene			7.0	7.0	7.0	7.0	70
	027GI00401	14.0	X	X	X	X	
	027GS00401	51.0	X	X	X	X	
	027GS00901	31.0	X	X	X	X	
	027GS01001	10.0	X	X	X	X	
	027GS01002	110.0 D	X	X	X	X	X
	027GS01101	26.0	X	X	X	X	
	027GS01102	12.0 J	X	X	X	X	
	027GS01301	13.0	X	X	X	X	
	027GS02101	15.0	X	X	X	X	

Table B-X
ExceedsGroundwater Standards
PENSACOLA OU 2 — Site 27

Parameter	Sample ID	Result	Preliminary Remedial Goals	Groundwater Critieria	Freshwater Surface Water Criteria	Marine Surface Water Criteria	GW of Low Yield/Poor Quality Criteria
1,2,4-Trichlorobenzene			-	70	22.5	22.5	700
1,2-Dichlorobenzene			-	600	99	99	6000
1,2-Dichloroethane			3.0	3.0	5.0	5.0	30
1,2-Dichloroethene (total)			70	63	7000	7000	630
	027GS01901	130.0	X	X			
1,3-Dichlorobenzene			-	10	85	85	100
1,4-Dichlorobenzene			-	75	100	100	750
2,4-Dimethylphenol			-	140	261	261	1400
2-Methylnaphthalene			-	20	30	30	200
	027GS01901	28.0		X			
3-Methylphenol			-	35	445	445	350
4,4'-DDE			-	0.1	0.001	0.001	1.0
	027GS01801	0.037 J			X	X	
4,4'-DDT			-	0.1	0.001	0.001	1.0
	027GS00801	0.003 J			X	X	
	027GS02001	0.032			X	X	
4-Chloro-3-methylphenol			-	63	100	100	630
4-Methylphenol (p-Cresol)			35	4	70	70	40
	027GS00101	16.0		X			
	027GS01301	100.0	X	X	X	X	X
	027GS01901	30.0		X			

Table B-X
ExceedsGroundwater Standards
PENSACOLA OU 2 — Site 27

Parameter	Sample ID	Result	Preliminary Remedial Goals	Groundwater Critieria	Freshwater Surface Water Criteria	Marine Surface Water Criteria	GW of Low Yield/Poor Quality Criteria
4-Nitrophenol			-	56	55	55	560
Acetone			-	700	1692	1692	7000
Aldrin			0.005	0.005	3.000	1.300	0.050
alpha-BHC			-	0.0060	0.0116	0.0116	0.0600
	027GS01801	0.0 J		X	X	X	
alpha-Chlordane			-	2.0	0.002	0.002	2.0
	027GS02001	0.0			X	X	
Aluminum			50	200	13	13	2000
	027GGD5401	663.0	X	X	X	X	
	027GGS0201	39500.0	X	X	X	X	X
	027GI00101	102000.0 J	X	X	X	X	X
	027GI00201	27600.0	X	X	X	X	X
	027GI00301	22000.0 J	X	X	X	X	X
	027GI00401	33800.0	X	X	X	X	X
	027GI00501	15500.0	X	X	X	X	X
	027GI00601	57600.0	X	X	X	X	X
	027GS00101	20400.0 J	X	X	X	X	X
	027GS00201	4070.0	X	X	X	X	X
	027GS00301	60900.0 J	X	X	X	X	X
	027GS00401	10000.0 J	X	X	X	X	X
	027GS00501	5860.0	X	X	X	X	X

Table B-X
ExceedsGroundwater Standards
PENSACOLA OU 2 — Site 27

Parameter	Sample ID	Result		Preliminary Remedial Goals	Groundwater Critieria	Freshwater Surface Water Criteria	Marine Surface Water Criteria	GW of Low Yield/Poor Quality Criteria
Aluminum	027GS00601	41500.0		X	X	X	X	X
	027GS00701	12400.0		X	X	X	X	X
	027GS00801	2880.0	J	X	X	X	X	X
	027GS00801	3270.0		X	X	X	X	X
	027GS00901	7080.0		X	X	X	X	X
	027GS01001	43200.0	J	X	X	X	X	X
	027GS01101	12900.0		X	X	X	X	X
	027GS01301	10200.0		X	X	X	X	X
	027GS01501	14100.0		X	X	X	X	X
	027GS01502	755.0		X	X	X	X	
	027GS01601	2930.0		X	X	X	X	X
	027GS01801	3010.0	J	X	X	X	X	X
	027GS01901	2180.0		X	X	X	X	X
	027GS02001	7320.0		X	X	X	X	X
	027GS02101	23000.0		X	X	X	X	X
Antimony				6.0	6.0	4300	4300	60
	027GI00101	59.9	J	X	X			
	027GI00301	39.2	J	X	X			
	027GS00101	61.1	J	X	X			X
	027GS00401	48.0	J	X	X			
	027GS00601	38.5		X	X			

Table B-X
ExceedsGroundwater Standards
PENSACOLA OU 2 — Site 27

Parameter	Sample ID	Result	Preliminary Remedial Goals	Groundwater Critieria	Freshwater Surface Water Criteria	Marine Surface Water Criteria	GW of Low Yield/Poor Quality Criteria
Antimony	027GS00801	43.6 J	X	X			
	027GS01001	61.0 J	X	X			X
	027GS02001	50.0	X	X			
Arsenic			50	50	50	50	500
	027GI00101	93.6 J	X	X	X	X	
Barium			2000	2000	1000	1000	20000
Benzene			1.0	1.0	1.18	1.18	10
	027GI00201	25.0	X	X	X	X	X
Beryllium			4	4	0.13	0.13	40
	027GGS0201	2.6			X	X	
	027GI00101	3.5			X	X	
	027GI00401	1.6			X	X	
	027GI00601	2.5			X	X	
	027GS00301	1.3			X	X	
	027GS00601	1.2			X	X	
beta-BHC			-	0.02	NA	NA	0.2
BEHP			4.8	6	0.02	0.02	60
	027GS00602	2.3 J			X	X	
	027GS01502	2.3 J			X	X	
	027GS01802	2.0 J			X	X	
	027GS01902	7.7 J	X	X	X	X	

Table B-X
ExceedsGroundwater Standards
PENSACOLA OU 2 — Site 27

Parameter	Sample ID	Result	Preliminary Remedial Goals	Groundwater Critieria	Freshwater Surface Water Criteria	Marine Surface Water Criteria	GW of Low Yield/Poor Quality Criteria
BEHP	027GS01902	7.7 J	X	X	X	X	
	027GS02002	9.3 J	X	X	X	X	
	027GS02102	2.5 J			X	X	
Butylbenzylphthalate			-	140	25.5	25.5	1400
Cadmium			5.0	5.0	a	9.3	50
	027GS00301	5.1	X	X			
	027GS01001	19.6	X	X		X	
	027GS01301	63.6	X	X		X	X
	027GS01801	8.3	X	X			
Calcium			-	-	-	-	-
Chlorobenzene			3.9	100	17	17	1000
	027GI00201	95.0	X		X	X	
Chloroethane			140	12	NA	NA	120
	027GS00101	25.0		X			
	027GS00601	55.0		X			
	027GS01002	22.0		X			
	027GS01101	84.0		X			
	027GS01301	140.0		X			X
	027GS01501	39.0		X			
	027GS01601	160.0	X	X			X
	027GS01801	33.0 J		X			

Table B-X
ExceedsGroundwater Standards
PENSACOLA OU 2 — Site 27

Parameter	Sample ID	Result	Preliminary Remedial Goals	Groundwater Critieria	Freshwater Surface Water Criteria	Marine Surface Water Criteria	GW of Low Yield/Poor Quality Criteria
Chloroethane	027GS01901	96.0 J		X			
	027GS02001	87.0		X			
	027GS02101	190.0	X	X			X
Chloroform			6	5.7	NA	NA	57
Chloromethane			2.7	3	471	471	27
	027GI00501	3.0 J	X	X			
Chromium			100	100	NA	NA	1000
	027GI00101	392.0	X	X			
	027GI00601	119.0	X	X			
	027GS00401	2170.0	X	X			X
	027GS01001	5810.0	X	X			X
	027GS01002	309.0	X	X			
cis-1,2-Dichloroethene			70	70	NA	NA	709
Cobalt			-	420	NA	NA	4200
Cyanide (CN)			-	200	5.2	1.0	2000
	027GS00101	13.9			X	X	
Dieldrin			0.1	0.005	0.0019	0.0019	0.5
	027GGS0201	0.0095 J		X	X	X	
	027GS00401	0.0021 J			X	X	
	027GS00801	0.0022 J			X	X	
	027GS01101	0.0064		X	X	X	

Table B-X
ExceedsGroundwater Standards
PENSACOLA OU 2 — Site 27

Parameter	Sample ID	Result	Preliminary Remedial Goals	Groundwater Critieria	Freshwater Surface Water Criteria	Marine Surface Water Criteria	GW of Low Yield/Poor Quality Criteria
Dieldrin	027GS02101	0.0037 J			X	X	
Diethylphthalate			-	5600	380	380	56000
	027GS01902	0.4 J		X	X	X	X
	027GS01902	0.2 J		X	X	X	X
Endosulfan sulfate			-	42	0.0560	0.0087	420
Ethylbenzene			30	700	605	605	7000
gamma-BHC (Lindane)			-	0.2	0.08	0.16	2.0
Heptachlor			-	0	0.0036	0.0038	2
Heptachlor epoxide			-	0	0.0020	0.0020	4
	027GS01001	0.0 J			X	X	
	027GS02101	0.0 J			X	X	
Iron			300	300	1000	300	3000
	027GGD5401	1770.0	X	X	X	X	
	027GGS0201	29700.0 J	X	X	X	X	X
	027GI00101	75600.0 J	X	X	X	X	X
	027GI00102	982.0	X	X		X	
	027GI00102	982.0	X	X		X	
	027GI00201	12400.0	X	X	X	X	X
	027GI00301	13900.0 J	X	X	X	X	X
	027GI00401	30800.0	X	X	X	X	X
	027GI00501	8690.0	X	X	X	X	X

Table B-X
ExceedsGroundwater Standards
PENSACOLA OU 2 — Site 27

Parameter	Sample ID	Result		Preliminary Remedial Goals	Groundwater Critieria	Freshwater Surface Water Criteria	Marine Surface Water Criteria	GW of Low Yield/Poor Quality Criteria
Iron	027GI00601	25600.0		X	X	X	X	X
	027GS00101	11700.0	J	X	X	X	X	X
	027GS00102	4470.0		X	X	X	X	X
	027GS00102	4470.0		X	X	X	X	X
	027GS00201	1620.0		X	X	X	X	
	027GS00301	45300.0	J	X	X	X	X	X
	027GS00302	916.0		X	X		X	
	027GS00401	10800.0	J	X	X	X	X	X
	027GS00402	874.0		X	X		X	
	027GS00501	3180.0		X	X	X	X	X
	027GS00601	46000.0	J	X	X	X	X	X
	027GS00701	9930.0	J	X	X	X	X	X
	027GS00801	3920.0	J	X	X	X	X	X
	027GS00801	3810.0	J	X	X	X	X	X
	027GS00901	7760.0	J	X	X	X	X	X
	027GS01001	23300.0	J	X	X	X	X	X
	027GS01101	38500.0		X	X	X	X	X
	027GS01301	19200.0		X	X	X	X	X
	027GS01501	25600.0	J	X	X	X	X	X
	027GS01502	543.0		X	X		X	
	027GS01601	2150.0		X	X	X	X	

Table B-X
ExceedsGroundwater Standards
PENSACOLA OU 2 — Site 27

Parameter	Sample ID	Result		Preliminary Remedial Goals	Groundwater Critieria	Freshwater Surface Water Criteria	Marine Surface Water Criteria	GW of Low Yield/Poor Quality Criteria
Iron	027GS01801	5350.0	J	X	X	X	X	X
	027GS01901	11900.0	J	X	X	X	X	X
	027GS02001	7170.0	J	X	X	X	X	X
	027GS02101	15600.0	J	X	X	X	X	X
Lead				15	15	b	5.6	150
	027GGS0201	92.8		X	X		X	
	027GI00101	84.3	J	X	X		X	
	027GI00201	34.9		X	X		X	
	027GI00301	9.9	J				X	
	027GI00401	13.7					X	
	027GI00601	21.1		X	X		X	
	027GS00201	20.4		X	X		X	
	027GS00301	122.0	J	X	X		X	
	027GS00401	128.0	J	X	X		X	
	027GS00601	32.4		X	X		X	
	027GS00801	13.1	J				X	
	027GS01001	44.8	J	X	X		X	
	027GS01101	58.5		X	X		X	
	027GS01301	45.6		X	X		X	
	027GS01501	9.4					X	
	027GS01801	20.3	J	X	X		X	

Table B-X
ExceedsGroundwater Standards
PENSACOLA OU 2 — Site 27

Parameter	Sample ID	Result	Preliminary Remedial Goals	Groundwater Critieria	Freshwater Surface Water Criteria	Marine Surface Water Criteria	GW of Low Yield/Poor Quality Criteria
Magnesium			-	-	-	-	-
Manganese			50	50	NA	NA	500
	027GGD5401	80.3	X	X			
	027GGS0201	1150.0	X	X			X
	027GI00101	297.0	X	X			
	027GI00201	54.9	X	X			
	027GI00301	65.0	X	X			
	027GI00401	108.0	X	X			
	027GI00601	110.0	X	X			
	027GS00102	371.0	X	X			
	027GS00301	144.0	X	X			
	027GS00601	214.0	X	X			
	027GS00701	89.5	X	X			
	027GS01001	218.0	X	X			
	027GS01002	52.2	X	X			
	027GS01101	336.0	X	X			
	027GS01301	192.0	X	X			
	027GS01501	461.0	X	X			
	027GS01901	76.5	X	X			
	027GS02101	60.8	X	X			

Table B-X
ExceedsGroundwater Standards
PENSACOLA OU 2 — Site 27

Parameter	Sample ID	Result	Preliminary Remedial Goals	Groundwater Critieria	Freshwater Surface Water Criteria	Marine Surface Water Criteria	GW of Low Yield/Poor Quality Criteria
Mercury			2.0	2.0	0.012	0.025	20
	027GI00102	0.1 J			X	X	
	027GS00201	0.2			X	X	
	027GS00301	1.2			X	X	
	027GS00401	0.5			X	X	
	027GS00402	0.1 J			X	X	
	027GS00601	0.2			X	X	
	027GS00801	0.2			X	X	
	027GS01101	0.3			X	X	
	027GS01301	0.3			X	X	
	027GS01501	0.4			X	X	
	027GS01502	0.1 J			X	X	
	027GS01801	0.3			X	X	
	027GS02101	0.6			X	X	
Methoxychlor			-	40	0.03	0.03	400
	027GS01301	0.0 J			X	X	
Naphthalene			20	20	26	26	200
	027GS01801	34.0	X	X	X	X	
	027GS01802	49.0	X	X	X	X	
	027GS01901	110.0	X	X	X	X	
	027GS01902	50.0	X	X	X	X	

Table B-X
ExceedsGroundwater Standards
PENSACOLA OU 2 — Site 27

Parameter	Sample ID	Result	Preliminary Remedial Goals	Groundwater Critieria	Freshwater Surface Water Criteria	Marine Surface Water Criteria	GW of Low Yield/Poor Quality Criteria
Nickel			100	100	d	8.3	1000
	027GI00101	110.0	X	X		X	
	027GI00401	28.9				X	
	027GI00601	36.3				X	
	027GS00101	19.6				X	
	027GS00301	33.4				X	
	027GS00401	68.3				X	
	027GS00601	28.5				X	
	027GS01001	31.1				X	
Pentachlorophenol			1.0	1.0	30	7.9	10
	027GS01301	2.0 J	X	X			
	027GS01902	1.7 J	X	X			
Phenol			10	10	6.5	6.5	100
	027GI00601	130.0 J	X	X	X	X	X
Potassium			-	-	-	-	-
Sodium			160000	160000	1275	NA	1600000
	027GGD5401	7910.0			X		
	027GGS0201	6130.0			X		
	027GGS0202	8140.0			X		
	027GI00101	11500.0			X		
	027GI00102	10300.0			X		

Table B-X
ExceedsGroundwater Standards
PENSACOLA OU 2 — Site 27

Parameter	Sample ID	Result	Preliminary Remedial Goals	Groundwater Critieria	Freshwater Surface Water Criteria	Marine Surface Water Criteria	GW of Low Yield/Poor Quality Criteria
Sodium	027GI00201	12000.0			X		
	027GI00301	9960.0			X		
	027GI00401	12200.0			X		
	027GI00501	10700.0			X		
	027GI00601	28700.0			X		
	027GS00101	11100.0			X		
	027GS00102	8130.0			X		
	027GS00201	6120.0			X		
	027GS00301	16200.0			X		
	027GS00302	7500.0			X		
	027GS00401	4350.0			X		
	027GS00402	3240.0			X		
	027GS00501	5230.0			X		
	027GS00601	21000.0			X		
	027GS00701	7730.0			X		
	027GS00702	2590.0			X		
	027GS00801	11500.0			X		
	027GS00801	12200.0			X		
	027GS00901	1880.0			X		
	027GS01001	13100.0			X		
	027GS01002	9260.0			X		

Table B-X
ExceedsGroundwater Standards
PENSACOLA OU 2 — Site 27

Parameter	Sample ID	Result	Preliminary Remedial Goals	Groundwater Critieria	Freshwater Surface Water Criteria	Marine Surface Water Criteria	GW of Low Yield/Poor Quality Criteria
Sodium	027GS01101	7920.0			X		
	027GS01301	7090.0			X		
	027GS01501	11400.0			X		
	027GS01502	3730.0			X		
	027GS01601	9420.0			X		
	027GS01801	8000.0			X		
	027GS01901	8260.0			X		
	027GS02001	3950.0			X		
	027GS02101	10400.0			X		
Tetrachloroethene			3.0	3.0	3.0	3.0	30
	027GS01002	9.0	X	X	X	X	
	027GS01101	4.0 J	X	X	X	X	
	027GS01801	62.0 J	X	X	X	X	X
	027GS01901	61.0 J	X	X	X	X	X
	027GS01902	32.0 D	X	X	X	X	X
Toluene			40	1000	475	475	10000
Trichloroethene			3.0	3.0	3.0	3.0	30
	027GS00301	4.0 J	X	X	X	X	
	027GS00402	7.0	X	X	X	X	
	027GS01901	130.0	X	X	X	X	X
	027GS01902	17.0	X	X	X	X	

Table B-X
ExceedsGroundwater Standards
PENSACOLA OU 2 — Site 27

Parameter	Sample ID	Result	Preliminary Remedial Goals	Groundwater Critieria	Freshwater Surface Water Criteria	Marine Surface Water Criteria	GW of Low Yield/Poor Quality Criteria
Vanadium			49	49	NA	NA	490
	027GI00101	260.0	X	X			
	027GI00201	64.1	X	X			
	027GI00401	98.0	X	X			
	027GI00601	149.0	X	X			
	027GS00301	88.0	X	X			
	027GS00601	53.7	X	X			
	027GS01001	57.7	X	X			
	027GS01101	66.2	X	X			
Vinyl chloride			1.0	1.0	NA	NA	10
	027GI00201	4.0 J	X	X			
Xylene (Total)			20	10000	370	370	100000
	027GS01801	480.0	X		X	X	
	027GS01901	640.0	X		X	X	
Zinc			5000	5000	e	86	50000
	027GGS0201	126.0				X	
	027GI00101	314.0				X	
	027GI00401	97.8				X	
	027GI00601	126.0				X	
	027GS00301	157.0				X	
	027GS00401	99.2				X	

Table B-X
ExceedsGroundwater Standards
PENSACOLA OU 2 — Site 27

Parameter	Sample ID	Result	Preliminary Remedial Goals	Groundwater Critieria	Freshwater Surface Water Criteria	Marine Surface Water Criteria	GW of Low Yield/Poor Quality Criteria
Zinc	027GS01001	131.0				X	
	027GS01501	164.0				X	
	027GS02101	97.2				X	

Notes:
a = 0.7852 * ln(hardness) - 3.49 for hardness between 25 and 400 mg/L CaCO3
b = 1.273 * ln(hardness) - 4.705 for hardness between 25 and 400 mg/L CaCO3
d = 0.846 * ln(hardness) + 1.1645 for hardness between 25 and 400 mg/L CaCO3

Site 30 Groundwater

Table B-X
Exceeds Groundwater Standards
PENSACOLA OU 2 — Site 30

Parameter	Sample ID	Result		Preliminary Remediation Goals	Groundwater Criteria	Freshwater Surface Water Criteria	Marine Surface Water Criteria	GW of Low Yield/Poor Quality Criteria
1,1,1-Trichloroethane				200	200	270	270	2000
	030GI16401	950.0		X	X	X	X	
	030GI32A01	300.0		X	X	X	X	
	030GS02200	1400.0	D	X	X	X	X	
	030GS02202	2100.0	D	X	X	X	X	X
	030GS02602	740.0	D	X	X	X	X	
	030GS02700	1300.0		X	X	X	X	
	030GS02702	1700.0	D	X	X	X	X	
	030GS02800	1300.0	D	X	X	X	X	
	030GS02802	2000.0	D	X	X	X	X	
	030GS04600	220.0		X	X			
	030GS16201	260.0		X	X			
	030GS16401	290.0	D	X	X	X	X	
1,1-Dichloroethane				700	70	NA	NA	700
	030GI16401	320.0			X			
	030GS02200	900.0	D	X	X			X
	030GS02202	1400.0	D	X	X			X
	030GS02600	160.0			X			
	030GS02602	2600.0	D	X	X			X
	030GS02702	4300.0	D	X	X			X
	030GS02800	380.0			X			
	030GS02802	2400.0	D	X	X			X
	030GS16501	76.0			X			
1,1-Dichloroethene				7.0	7.0	7	7.0	70
	030GI16401	410.0		X	X	X	X	X

Table B-X
Exceeds Groundwater Standards
PENSACOLA OU 2 — Site 30

Parameter	Sample ID	Result		Preliminary Remediation Goals	Groundwater Criteria	Freshwater Surface Water Criteria	Marine Surface Water Criteria	GW of Low Yield/Poor Quality Criteria
1,1-Dichloroethene	030GI32A01	14.0	J	X	X	X	X	
	030GS02200	170.0		X	X	X	X	X
	030GS02202	68.0	D	X	X	X	X	
	030GS02600	17.0		X	X	X	X	
	030GS02602	140.0		X	X	X	X	X
	030GS02700	510.0		X	X	X	X	X
	030GS02702	240.0	D	X	X	X	X	X
	030GS02800	220.0		X	X	X	X	X
	030GS02802	130.0	D	X	X	X	X	X
	030GS16201	100.0		X	X	X	X	X
	030GS16401	99.0		X	X	X	X	X
	030GS16501	11.0		X	X	X	X	
	030GS16601	9.0	J	X	X	X	X	
	030GS17201	10.0	J	X	X	X	X	
	030GS17202	46.0	D	X	X	X	X	
1,2,4-Trichlorobenzene				-	70	23	22.5	700
1,2-Dichlorobenzene				-	600	99	99	6000
	030GS02802	130.0	D			X	X	
1,2-Dichloroethane				3.0	3.0	5	5.0	30
	030GS02702	200.0	D	X	X	X	X	X
	030GS02800	6.0	J	X	X	X	X	
	030GS02802	220.0	D	X	X	X	X	X
	030WS20001	20.0		X	X	X	X	

Table B-X
Exceeds Groundwater Standards
PENSACOLA OU 2 — Site 30

Parameter	Sample ID	Result	Preliminary Remediation Goals	Groundwater Criteria	Freshwater Surface Water Criteria	Marine Surface Water Criteria	GW of Low Yield/Poor Quality Criteria
1,2-Dichloroethene (total)			70	63	7000	7000	630
	030GS02800	210.0	X	X			
	030GS04600	220.0	X	X			
1,3-Dichlorobenzene			-	10	85	85	100
	030GI11101	37.0		X			
	030GI11101	180.0 J		X	X	X	X
	030GI11102	37.0		X			
	030GI11102	140.0 D		X	X	X	X
	030GI11102	37.0		X			
1,4-Dichlorobenzene			-	75	100	100	750
	030GI11102	140.0 D		X	X	X	
2,4,6-Trichlorophenol			-	3.2	NA	NA	32
	030WS20001	57.0		X			X
2,4-Dichlorophenol			-	0.5	13	13	5.0
	030GI11101	3.0 J		X			
	030GI11102	3.2 J		X			
	030GS00600	3.0 J		X			
	030GS05100	1.0 J		X			
	030WS20001	64.0		X	X	X	X
2,6-Dinitrotoluene			-	0.1	4	4.0	1.0
	030WS20001	34.0		X	X	X	X
2-Butanone (MEK)			-	4200	120000	120000	42000
2-Chlorophenol			-	35	130	130	350
2-Hexanone			-	280	NA	NA	2800

Table B-X
Exceeds Groundwater Standards
PENSACOLA OU 2 — Site 30

Parameter	Sample ID	Result		Preliminary Remediation Goals	Groundwater Criteria	Freshwater Surface Water Criteria	Marine Surface Water Criteria	GW of Low Yield/Poor Quality Criteria
2-Methylnaphthalene				-	20	30	30	200
	030GS00600	35.0			X	X	X	
2-Nitroaniline				-	21	1200	1200	210
3-Methylphenol/4-Methylphenol				-	35	445	445	350
4,4'-DDD				0.1	0.1	0.003	0.003	1.0
	030WS20001	0.7	J	X	X	X	X	
4,4'-DDE				-	0.1	0.001	0.001	1.0
	030WS20001	0.6	J		X	X	X	
4-Methylphenol (p-Cresol)				35	4	70	70	40
	030GS04600	21.0			X			
	030GS05100	15.0			X			
4-Nitrophenol				-	56	55	55	560
Acenaphthene				-	20	3.0	3.0	200
Acenaphthylene				-	210	NA	NA	2100
Acetone				-	700	1692	1692	7000
alpha-BHC				-	0.0060	0.0116	0.0116	0.0600
	030WS20001	0.8	J		X	X	X	X
Aluminum				50	200	13	13	2000
	030GI00701	2050.0		X	X	X	X	X
	030GI00901	7180.0		X	X	X	X	X
	030GI05801	6680.0	J	X	X	X	X	X
	030GI06001	12300.0	J	X	X	X	X	X
	030GI06002	804.0		X	X	X	X	
	030GI11101	724.0		X	X	X	X	
	030GI12601	5270.0	J	X	X	X	X	X

Table B-X
Exceeds Groundwater Standards
PENSACOLA OU 2 — Site 30

Parameter	Sample ID	Result		Preliminary Remediation Goals	Groundwater Criteria	Freshwater Surface Water Criteria	Marine Surface Water Criteria	GW of Low Yield/Poor Quality Criteria
Aluminum	030GI16401	1640.0	J	X	X	X	X	
	030GI17001	6200.0	J	X	X	X	X	X
	030GS00500	18500.0		X	X	X	X	X
	030GS00600	977.0		X	X	X	X	
	030GS01601	1890.0	J	X	X	X	X	
	030GS01800	2730.0		X	X	X	X	X
	030GS02000	4580.0		X	X	X	X	X
	030GS02200	68.4	J	X		X	X	
	030GS02400	612.0	J	X	X	X	X	
	030GS02700	235.0	J	X	X	X	X	
	030GS02702	327.0	J	X	X	X	X	
	030GS02802	784.0	J	X	X	X	X	
	030GS04300	1780.0		X	X	X	X	
	030GS04400	1180.0	J	X	X	X	X	
	030GS05200	5260.0		X	X	X	X	X
	030GS05600	266.0	J	X	X	X	X	
	030GS05700	20000.0	J	X	X	X	X	X
	030GS05900	2710.0	J	X	X	X	X	X
	030GS06200	23500.0	J	X	X	X	X	X
	030GS11101	760.0		X	X	X	X	
	030GS11102	339.0		X	X	X	X	
	030GS11301	402.0	J	X	X	X	X	
	030GS11801	905.0	J	X	X	X	X	
	030GS12301	681.0		X	X	X	X	
	030GS12601	627.0	J	X	X	X	X	

Table B-X
Exceeds Groundwater Standards
PENSACOLA OU 2 — Site 30

Parameter	Sample ID	Result		Preliminary Remediation Goals	Groundwater Criteria	Freshwater Surface Water Criteria	Marine Surface Water Criteria	GW of Low Yield/Poor Quality Criteria
Aluminum	030GS12602	579.0		X	X	X	X	
	030GS15601	252.0	J	X	X	X	X	
	030GS15701	2430.0	J	X	X	X	X	X
	030GS16001	513.0	J	X	X	X	X	
	030GS16101	1700.0	J	X	X	X	X	
	030GS16201	6120.0		X	X	X	X	X
	030GS16501	859.0	J	X	X	X	X	
	030GS16601	1170.0	J	X	X	X	X	
	030GS17001	948.0		X	X	X	X	
	030GS17102	158.0	J	X		X	X	
	030GS17202	2070.0		X	X	X	X	X
	030GS17302	710.0		X	X	X	X	
	030M000100	4960.0		X	X	X	X	X
	030M000200	12700.0		X	X	X	X	X
	030N000100	3550.0		X	X	X	X	X
	030R000300	154.0	B	X		X	X	
	030W000100	167.0	B	X		X	X	
	030W000100	278.5		X	X	X	X	
	030W000200	335.0		X	X	X	X	
	030W000300	154.0	B	X		X	X	
	030WS20001	1960.0		X	X	X	X	
	030WS40001	89900.0		X	X	X	X	X

Table B-X
Exceeds Groundwater Standards
PENSACOLA OU 2 — Site 30

Parameter	Sample ID	Result		Preliminary Remediation Goals	Groundwater Criteria	Freshwater Surface Water Criteria	Marine Surface Water Criteria	GW of Low Yield/Poor Quality Criteria
Antimony				6.0	6.0	4300	4300	60
	030GS10302	7.8	J	X	X			
	030M000100	19.4	B	X	X			
	030M000200	15.5	B	X	X			
	030N000100	8.5	B	X	X			
	030WS20001	114.0		X	X			X
Arsenic				50	50	50	50	500
Barium				2000	2000	1000	1000	20000
Benzene				1.0	1.0	1.18	1.18	10
	030GI11101	2.0	J	X	X	X	X	
	030GI11102	7.0		X	X	X	X	
	030GS00600	250.0		X	X	X	X	X
	030GS00602	2.0		X	X	X	X	
	030GS02900	3.0	J	X	X	X	X	
	030GS17001	2.0	J	X	X	X	X	
	030GS17101	2.0	J	X	X	X	X	
Benzo(b)fluoranthene				-	0.2	NA	NA	2.0
	030WS20001	10.0			X			X
Beryllium				4.0	4.0	0.13	0.13	40
	030GI05801	1.0	J			X	X	
	030GI06001	1.2	J			X	X	
	030GS17102	0.6	J			X	X	
	030GS17202	0.4	J			X	X	
	030GS17302	0.3	J			X	X	
	030WS20001	9.9		X	X	X	X	

Table B-X
Exceeds Groundwater Standards
PENSACOLA OU 2 — Site 30

Parameter	Sample ID	Result		Preliminary Remediation Goals	Groundwater Criteria	Freshwater Surface Water Criteria	Marine Surface Water Criteria	GW of Low Yield/Poor Quality Criteria
BEHP				4.8	6.0	0.02	0.02	60
	030GI11301	2.0	J			X	X	
	030GS01200	18000.0	JJ	X	X	X	X	X
	030GS01202	1.5	J			X	X	
	030GS02202	11.0		X	X	X	X	
	030GS04602	9.0	J	X	X	X	X	
	030GS05102	13.0	J	X	X	X	X	
	030GS14601	1.0	J			X	X	
	030GS15401	1.0	J			X	X	
	030GS15601	2.0	J			X	X	
	030GS16001	1.0	J			X	X	
	030GS16201	2.0	J			X	X	
Bromodichloromethane				0.6	0.6	100	100	6.0
	030GI06001	1.0	J	X	X			
	030WS20001	18.0		X	X			X
Bromoform				-	4.4	NA	NA	44
Butylbenzylphthalate				-	140	25.5	25.5	1400
Cadmium				5.0	5.0	a	9.3	50
	030GI03201	7.5		X	X			
	030GS02800	7.8		X	X			
	030GS02802	108.0		X	X		X	X
	030GS10302	5.1	J	X	X			
	030GS12602	21.8		X	X		X	
	030GS15701	8.6		X	X			
	030GS17102	158.0	J	X	X		X	X

Table B-X
Exceeds Groundwater Standards
PENSACOLA OU 2 — Site 30

Parameter	Sample ID	Result	Preliminary Remediation Goals	Groundwater Criteria	Freshwater Surface Water Criteria	Marine Surface Water Criteria	GW of Low Yield/Poor Quality Criteria
Cadmium	030GS17202	2070.0	X	X		X	X
	030GS17302	710.0	X	X		X	X
	030M000100	101.0 N	X	X		X	X
	030M000200	131.0 N	X	X		X	X
	030N000100	84.4 N	X	X		X	X
	030WS20001	50.1	X	X		X	X
Calcium			-	-	-	-	-
Carbazole			7.5	4.0	47	47	40
	030GS00600	14.0 J	X	X			
Carbon tetrachloride			-	3.0	NA	NA	30
Chlorobenzene			3.9	100	17	17	1000
	030GI11101	620.0 D	X	X	X	X	
	030GS11101	720.0	X	X	X	X	
	030GS11102	19.0 J	X		X	X	
	030GS12301	25.0	X		X	X	
Chloroethane			140	12	NA	NA	120
	030GS02202	110.0 D		X			
	030GS02602	180.0 DJ	X	X			X
	030GS02702	520.0 D	X	X			X
	030GS02802	580.0 D	X	X			X
Chloroform			6.0	5.7	471	471	57
	030GS06200	80.0	X	X			X
Chloromethane			2.7	2.7	471	471	27

Table B-X
Exceeds Groundwater Standards
PENSACOLA OU 2 — Site 30

Parameter	Sample ID	Result	Preliminary Remediation Goals	Groundwater Criteria	Freshwater Surface Water Criteria	Marine Surface Water Criteria	GW of Low Yield/Poor Quality Criteria
Chromium			100	100	NA	NA	1000
	030GS02700	1380.0	X	X			X
	030GS02800	715.0	X	X			
	030GS02802	418.0	X	X			
	030M000100	2690.0	X	X			X
	030M000200	2380.0	X	X			X
	030N000100	1070.0	X	X			X
cis-1,2-Dichloroethene			70	70	NA	NA	700
	030GS02802	120.0 D	X	X			
	030GS04602	190.0 D	X	X			
cis-1,3-Dichloropropene			-	0.2	12	12	2.0
	030WS20001	14.0		X	X	X	X
Cobalt			-	420	NA	NA	4200
Copper			1000	1000	c	2.9	10000
	030GS02802	73.0				X	
	030GS06200	38.1 J				X	
	030M000100	144.0 *				X	
	030M000200	232.0 *				X	
	030N000100	1470.0 *	X	X		X	
	030R000300	4.1 B				X	
	030W000100	9.0 B				X	
	030W000200	6.7 B				X	
	030W000300	4.1 B				X	
	030WS20001	58.3				X	

Table B-X
Exceeds Groundwater Standards
PENSACOLA OU 2 — Site 30

Parameter	Sample ID	Result	Preliminary Remediation Goals	Groundwater Criteria	Freshwater Surface Water Criteria	Marine Surface Water Criteria	GW of Low Yield/Poor Quality Criteria
Cyanide (CN)			-	200	5.2	1.0	2000
	030M000100	2.0				X	
	030N000100	1.7				X	
	030WS20001	19.3 J			X	X	
Dibenzofuran			-	28	67	67	280
Dibromochloromethane			1.0	0.4	34	34	4.0
	030GI06001	2.0 J	X	X			
	030WS20001	18.0	X	X			X
Dieldrin			0.1	0.005	0.0019	0.0019	0.5
	030GI16402	0.0 J			X	X	
	030WS20001	0.8 J	X	X	X	X	X
Dimethylphthalate			-	70000	1450	1450	700000
Di-n-butylphthalate			-	-	-	-	-
Endrin			-	2.0	0.0023	0.0023	20.0
	030GS17202	0.0 J			X	X	
	030WS20001	0.9 J			X	X	
Endrin aldehyde			-	2.0	0.0023	0.0023	20.0
	030WS20001	0.0 J			X	X	
Endrin ketone			-	2.0	0.0023	0.0023	20.0
	030WS20001	0.0 JP			X	X	
Ethylbenzene	0		30	700	605	605	7000
Fluorene			-	280	30	30	2800
	030WS20001	34.0			X	X	
gamma-BHC (Lindane)			-	0.2	0.08	0.16	2.0
	030WS20001	0.7 J		X	X	X	

Table B-X
Exceeds Groundwater Standards
PENSACOLA OU 2 — Site 30

Parameter	Sample ID	Result		Preliminary Remediation Goals	Groundwater Criteria	Freshwater Surface Water Criteria	Marine Surface Water Criteria	GW of Low Yield/Poor Quality Criteria
Heptachlor				-	0.4	0.0036	0.0038	2.0
	030WS20001	0.5	J		X	X	X	
Heptachlor epoxide				-	0.2	0.0020	0.0020	4.0
	030GS15601	0.029	J	X	X	X	X	X
Iron	0			300	300	1000	300	3000
	030GI00701	1200.0		X	X	X	X	
	030GI00901	17500.0		X	X	X	X	X
	030GI01901	356.0		X	X		X	
	030GI05801	7070.0	J	X	X	X	X	X
	030GI06001	6560.0		X	X	X	X	X
	030GI06002	1090.0		X	X	X	X	
	030GI11101	15800.0		X	X	X	X	X
	030GI11301	3010.0		X	X	X	X	X
	030GI12601	2070.0		X	X	X	X	
	030GI12602	674.0		X	X		X	
	030GI16401	4470.0		X	X	X	X	X
	030GI17001	10300.0	J	X	X	X	X	X
	030GI32A01	1490.0	J	X	X	X	X	
	030GS00500	10900.0		X	X	X	X	X
	030GS00600	4230.0		X	X	X	X	X
	030GS01100	4160.0		X	X	X	X	X
	030GS01601	735.0	J	X	X		X	
	030GS01800	5260.0		X	X	X	X	X
	030GS02000	1760.0		X	X	X	X	
	030GS02400	688.0	J	X	X		X	

Table B-X
Exceeds Groundwater Standards
PENSACOLA OU 2 — Site 30

Parameter	Sample ID	Result		Preliminary Remediation Goals	Groundwater Criteria	Freshwater Surface Water Criteria	Marine Surface Water Criteria	GW of Low Yield/Poor Quality Criteria
Iron	030GS02702	2810.0		X	X	X	X	
	030GS02802	6970.0		X	X	X	X	X
	030GS02900	1100.0		X	X	X	X	
	030GS04300	1110.0		X	X	X	X	
	030GS04400	650.0	J	X	X		X	
	030GS05200	3070.0		X	X	X	X	X
	030GS05700	7870.0	J	X	X	X	X	X
	030GS05900	2640.0	J	X	X	X	X	
	030GS06200	16100.0	J	X	X	X	X	X
	030GS10101	1080.0		X	X	X	X	
	030GS10301	7900.0		X	X	X	X	X
	030GS10302	4680.0		X	X	X	X	X
	030GS10801	473.0		X	X		X	
	030GS11101	1320.0		X	X	X	X	
	030GS11102	605.0		X	X		X	
	030GS11301	685.0		X	X		X	
	030GS11801	5410.0		X	X	X	X	X
	030GS12301	702.0		X	X		X	
	030GS12602	510.0		X	X		X	
	030GS15401	5490.0		X	X	X	X	X
	030GS15601	4760.0	J	X	X	X	X	X
	030GS15701	4390.0	J	X	X	X	X	X
	030GS16001	470.0	J	X	X		X	
	030GS16101	1050.0	J	X	X	X	X	
	030GS16201	2070.0		X	X	X	X	

Table B-X
Exceeds Groundwater Standards
PENSACOLA OU 2 — Site 30

Parameter	Sample ID	Result	Preliminary Remediation Goals	Groundwater Criteria	Freshwater Surface Water Criteria	Marine Surface Water Criteria	GW of Low Yield/Poor Quality Criteria
Iron	030GS16401	429.0	X	X		X	
	030GS16501	309.0	X	X		X	
	030GS16601	601.0	X	X		X	
	030GS17001	382.0	X	X		X	
	030GS17102	310.0	X	X		X	
	030GS17202	1370.0	X	X	X	X	
	030GS17301	308.0	X	X		X	
	030GS17302	486.0	X	X		X	
	030M000100	6960.0	X	X	X	X	X
	030M000200	11700.0	X	X	X	X	X
	030N000100	5870.0	X	X	X	X	X
	030R000300	650.0 E	X	X		X	
	030W000100	765.0 E	X	X		X	
	030W000100	914.7 *	X	X		X	
	030W000200	616.0 N*	X	X		X	
	030W000300	650.0 E	X	X		X	
	030WS20001	1160.0	X	X	X	X	
	030WS40001	91500.0	X	X	X	X	X
Isophorone			-	37	645	645	370
Lead			15	15	b	5.6	150
	030GI00701	6.4 J				X	
	030GI00901	11.1 J				X	
	030GI05801	15.0 J				X	
	030GI06001	13.3 J				X	
	030GI16401	27.3	X	X		X	

Table B-X
Exceeds Groundwater Standards
PENSACOLA OU 2 — Site 30

Parameter	Sample ID	Result		Preliminary Remediation Goals	Groundwater Criteria	Freshwater Surface Water Criteria	Marine Surface Water Criteria	GW of Low Yield/Poor Quality Criteria
Lead	030GS00500	10.6	J				X	
	030GS00600	34.8	J	X	X		X	
	030GS02200	52.5	J	X	X		X	
	030GS02202	56.2		X	X		X	
	030GS02400	15.0	J				X	
	030GS02600	8.4	J				X	
	030GS05700	96.0	J	X	X		X	
	030GS05900	7.5	J				X	
	030GS06200	17.0	J	X	X		X	
	030GS10301	10.2	J				X	
	030GS10302	37.1		X	X		X	
	030GS11301	9.4					X	
	030GS12602	236.0		X	X		X	X
	030M000100	2650.0	*	X	X		X	X
	030M000200	3400.0	*	X	X		X	X
	030N000100	2550.0	*	X	X		X	X
	030W000100	7.5	*				X	
	030WS20001	23.0	J	X	X		X	
Magnesium				-	-	-	-	-
Manganese				50	50	NA	NA	500
	030GI00701	56.5		X	X			
	030GI01901	54.8		X	X			
	030GI06001	50.8		X	X			
	030GI11101	76.8		X	X			
	030GI11301	64.1		X	X			

Table B-X
Exceeds Groundwater Standards
PENSACOLA OU 2 — Site 30

Parameter	Sample ID	Result		Preliminary Remediation Goals	Groundwater Criteria	Freshwater Surface Water Criteria	Marine Surface Water Criteria	GW of Low Yield/Poor Quality Criteria
Manganese	030GI16401	264.0		X	X			
	030GI32A01	75.2		X	X			
	030GS01100	140.0		X	X			
	030GS01800	60.9		X	X			
	030GS02800	53.0		X	X			
	030GS02900	57.8		X	X			
	030GS05700	107.0		X	X			
	030GS06200	88.4		X	X			
	030GS10301	457.0		X	X			
	030GS10302	204.0		X	X			
	030GS11801	422.0		X	X			
	030GS12602	236.0		X	X			
	030GS15401	60.2		X	X			
	030GS15601	168.0		X	X			
	030GS15701	373.0		X	X			
	030GS17101	56.0		X	X			
	030GS17102	95.4		X	X			
	030GS17201	50.1		X	X			
	030M000100	63.0		X	X			
	030M000200	82.5		X	X			
	030W000100	233.0		X	X			
	030W000100	56.4	*	X	X			
	030WS20001	52.5		X	X			

Table B-X
Exceeds Groundwater Standards
PENSACOLA OU 2 — Site 30

Parameter	Sample ID	Result		Preliminary Remediation Goals	Groundwater Criteria	Freshwater Surface Water Criteria	Marine Surface Water Criteria	GW of Low Yield/Poor Quality Criteria
Mercury				2.0	2.0	0.012	0.025	20
	030GI06002	0.1	J			X	X	
	030GS00602	0.1	J			X	X	
	030GS02202	0.1	J			X	X	
	030GS06200	0.4				X	X	
	030GS06202	0.1	J			X	X	
	030GS12602	0.1	J			X	X	
	030GS15701	0.5				X	X	
	030M000100	1.5				X	X	
	030M000200	1.6				X	X	
	030N000100	1.6				X	X	
Methylene chloride				5.0	5.0	1580	1580	50
	030GI16401	11.0	J	X	X			
	030GS00600	12.0	J	X	X			
	030WS20001	21.0		X	X			
Naphthalene				20	20	26	26	200
	030GS00600	76.0		X	X	X	X	
	030GS01200	29000.0	JJ	X	X	X	X	X
	030GS02200	23.0		X	X			
Nickel				100	100	d	8.3	1000
	030GS17102	11.2	J				X	
	030M000100	213.0	*	X	X		X	
	030M000200	135.0	*	X	X		X	
	030N000100	75.9	*				X	
	030WS20001	108.0		X	X		X	

Table B-X
Exceeds Groundwater Standards
PENSACOLA OU 2 — Site 30

Parameter	Sample ID	Result		Preliminary Remediation Goals	Groundwater Criteria	Freshwater Surface Water Criteria	Marine Surface Water Criteria	GW of Low Yield/Poor Quality Criteria
Pentachlorophenol				1.0	1.0	30	7.9	10
	030GS01202	1.4	J	X	X			
	030WS20001	70.0		X	X	X	X	X
Phenanthrene				-	210	NA	NA	2100
Phenol				10	10	6.5	6.5	100
	030GI11102	6.9	J			X	X	
	030GS00300	24.0		X	X	X	X	
	030GS00600	7.0	J			X	X	
	030GS01100	10.0	J			X	X	
	030GS01601	38.0		X	X	X	X	
	030GS10301	7.0	J			X	X	
	030GS14601	8.0	J			X	X	
	030GS15601	54.0		X	X	X	X	
	030GS16001	14.0		X	X	X	X	
	030GS16801	8.0	J			X	X	
	030GS17001	47.0		X	X	X	X	
	030WS20001	56.0		X	X	X	X	
Potassium				-	-	-	-	-
Pyrene				-	210	0.3	0.3	2100
	030WS20001	29.0				X	X	
Selenium				-	50	5.0	71	500
	030M000200	5.5				X		
	030WS20001	20.2				X		

Table B-X
Exceeds Groundwater Standards
PENSACOLA OU 2 — Site 30

Parameter	Sample ID	Result	Preliminary Remediation Goals	Groundwater Criteria	Freshwater Surface Water Criteria	Marine Surface Water Criteria	GW of Low Yield/Poor Quality Criteria
Silver			-	100	0.07	0.35	1000
	030GI05801	43.4 J			X	X	
	030M000100	85.4 N*			X	X	
	030M000200	54.6 N*			X	X	
	030N000100	132.0 N*		X	X	X	
Sodium			160000	160000	1275	NA	1600000
	030GI00701	11500.0			X		
	030GI00901	14800.0			X		
	030GI01901	10400.0			X		
	030GI03201	18500.0			X		
	030GI05801	11700.0			X		
	030GI06001	18800.0			X		
	030GI06002	19000.0			X		
	030GI11101	344000.0	X	X	X		
	030GI11301	84000.0			X		
	030GI12601	9620.0			X		
	030GI12602	9700.0			X		
	030GI16401	16200.0			X		
	030GI17001	15900.0 J			X		
	030GI32A01	6440.0			X		
	030GS00500	17900.0			X		
	030GS00600	7790.0			X		
	030GS00602	9710.0			X		
	030GS01100	5960.0			X		
	030GS01500	8670.0			X		

Table B-X
Exceeds Groundwater Standards
PENSACOLA OU 2 — Site 30

Parameter	Sample ID	Result		Preliminary Remediation Goals	Groundwater Criteria	Freshwater Surface Water Criteria	Marine Surface Water Criteria	GW of Low Yield/Poor Quality Criteria
Sodium	030GS01800	5640.0				X		
	030GS02000	14000.0				X		
	030GS02200	29100.0				X		
	030GS02202	10300.0				X		
	030GS02400	27400.0				X		
	030GS02600	9220.0				X		
	030GS02700	8050.0				X		
	030GS02702	8160.0				X		
	030GS02800	9840.0				X		
	030GS02802	4040.0				X		
	030GS02900	8890.0				X		
	030GS04300	1750.0	J			X		
	030GS04400	9350.0				X		
	030GS04600	10600.0				X		
	030GS04900	11100.0				X		
	030GS05000	7700.0				X		
	030GS05100	6240.0				X		
	030GS05200	9650.0				X		
	030GS05600	13100.0				X		
	030GS05700	12000.0				X		
	030GS05900	17900.0				X		
	030GS06200	12700.0				X		
	030GS06202	11200.0				X		
	030GS10101	2580.0				X		
	030GS10301	9340.0				X		

Table B-X
Exceeds Groundwater Standards
PENSACOLA OU 2 — Site 30

Parameter	Sample ID	Result		Preliminary Remediation Goals	Groundwater Criteria	Freshwater Surface Water Criteria	Marine Surface Water Criteria	GW of Low Yield/Poor Quality Criteria
Sodium	030GS10302	6790.0				X		
	030GS10801	2530.0				X		
	030GS11101	37300.0				X		
	030GS11102	11500.0				X		
	030GS11301	3490.0	J			X		
	030GS11801	4960.0	J			X		
	030GS12301	7420.0				X		
	030GS12601	6140.0				X		
	030GS12602	9380.0				X		
	030GS14601	5440.0				X		
	030GS15401	9410.0				X		
	030GS15601	8260.0				X		
	030GS15701	8000.0				X		
	030GS16001	2450.0	J			X		
	030GS16101	12600.0				X		
	030GS16201	17400.0				X		
	030GS16401	17900.0				X		
	030GS16501	15500.0				X		
	030GS16601	14800.0				X		
	030GS16801	7820.0				X		
	030GS17001	8880.0				X		
	030GS17101	6570.0				X		
	030GS17102	23400.0				X		
	030GS17201	9010.0				X		
	030GS17202	71300.0				X		

Table B-X
Exceeds Groundwater Standards
PENSACOLA OU 2 — Site 30

Parameter	Sample ID	Result		Preliminary Remediation Goals	Groundwater Criteria	Freshwater Surface Water Criteria	Marine Surface Water Criteria	GW of Low Yield/Poor Quality Criteria
Sodium	030GS17301	5390.0				X		
	030GS17302	19800.0				X		
	030R000300	10800.0	E			X		
	030W000100	8630.0	E			X		
	030W000100	13330.0				X		
	030W000200	9950.0	E			X		
	030W000300	10800.0	E			X		
Tetrachloroethene				3.0	3.0	3.0	3.0	30
	030GS00300	7.0	J	X	X	X	X	
	030GS02200	10.0	J	X	X	X	X	
	030GS02202	13.0		X	X	X	X	
	030GS02600	7.0	J	X	X	X	X	
	030GS02602	12.0		X	X	X	X	
	030GS02700	11.0	J	X	X	X	X	
	030GS02702	12.0		X	X	X	X	
	030GS02800	310.0		X	X	X	X	X
	030GS02802	10.0		X	X	X	X	
	030GS04600	200.0		X	X	X	X	X
	030GS04602	1100.0	D	X	X	X	X	X
	030WS20001	17.0		X	X	X	X	
Thallium				2.0	2.0	6.3	6.3	20
	030WS20001	21.0		X	X	X	X	X
Toluene				40	1000	475	475	10000
	030GS04602	1100.0	D	X	X	X	X	

Table B-X
Exceeds Groundwater Standards
PENSACOLA OU 2 — Site 30

Parameter	Sample ID	Result		Preliminary Remediation Goals	Groundwater Criteria	Freshwater Surface Water Criteria	Marine Surface Water Criteria	GW of Low Yield/Poor Quality Criteria
Toxaphene				3.0	3.0	0.0002	0.0002	30
	030GS12301	4.8		X	X	X	X	
trans-1,3-Dichloropropene				-	0.2	12	12	2.0
	030WS20001	14.0			X	X	X	X
Trichloroethene				3.0	3.0	3	3.0	30
	030GI01901	22.0		X	X	X	X	
	030GI17001	34.0		X	X	X	X	X
	030GS02800	36.0	J	X	X	X	X	X
	030GS02802	5.0		X	X	X	X	
	030GS04600	4.0	J	X	X	X	X	
	030GS04602	58.0	D	X	X	X	X	X
	030GS05000	4.0	J	X	X	X	X	
Vanadium				49	49	NA	NA	490
	030GI06001	61.0	J	X	X			
	030WS20001	99.7		X	X			
Vinyl chloride				1.0	1.0	NA	NA	10
	030GI11101	20.0		X	X			X
	030GI11102	15.0		X	X			X
	030GS15401	110.0		X	X			X
	030WS20001	24.0		X	X			X
Xylene (Total)				20	10000	370	370	100000
	030GS00600	1200.0		X		X	X	
	030GS01200	29000.0		X	X	X	X	

Table B-X
Exceeds Groundwater Standards
PENSACOLA OU 2 — Site 30

Parameter	Sample ID	Result	Preliminary Remediation Goals	Groundwater Criteria	Freshwater Surface Water Criteria	Marine Surface Water Criteria	GW of Low Yield/Poor Quality Criteria
Zinc			5000	5000	e	86	50000
	030M000100	252.0 N				X	
	030M000200	605.0 N				X	
	030N000100	233.0 N				X	

Notes:
a = 0.7852 * ln(hardness) - 3.49 for hardness between 25 and 400 mg/L CaCO3
b = 1.273 * ln(hardness) - 4.705 for hardness between 25 and 400 mg/L CaCO3
c = 0.8545 * ln(hardness) - 1.465 for hardness between 25 and 400 mg/L CaCO3
d = 0.846 * ln(hardness) + 1.1645 for hardness between 25 and 400 mg/L CaCO3
e = 0.8473 * ln(hardness) + 0.7614 for hardness between 25 and 400 mg/L CaCO3

Appendix D

Primary Inorganic Compound Fate and Mobility Summary

Factors Affecting Fate and Mobility of Inorganic Compounds

Compound	pH	Oxidizing Conditions	Reducing Conditions	Aerobic Conditions	Anaerobic Conditions	Comments
Antimony	•	• forms Sb(III)	•	•	•	•
Arsenic	• under acidic conditions, As(III) and As(V) will co-precipitate or adsorb onto iron hydroxides	• forms As(V)	• **forms As(III)** • **As(V) will reduce to As(III) under alkaline or saline conditions**	• As(V) will precipitate when metal cations are present	•	• **As(III) is more toxic and mobile than As(V)** • many As compounds sorb strongly to soil • dissolved organic matter increases solubility of As(III) and As(V)
Barium	• **occurs primarily as the dissolved divalent ion, Ba(II) at pH < 9.3** • precipitates at pH > 9.3 and high concentrations of sulfate and carbonate	• NA	• NA	•	•	• forms salts with As(V) • can form complexes with natural organics
Beryllium	• solubility of $Be(OH)_2$ is very low at natural pH levels	• resistant to oxidation at ordinary temperatures	• reduction from Be(II) to Be(O) does not occur naturally	•	•	• forms strong complexes with OH ions

Factors Affecting Fate and Mobility of Inorganic Compounds

Compound	pH	Oxidizing Conditions	Reducing Conditions	Aerobic Conditions	Anaerobic Conditions	Comments
Cadmium	• solid species dominate at pH > 8 • **aqueous species dominate at pH < 6**	•	• forms CdS(s) when sulfur is present	•	•	• cadmium is often removed from natural waters by precipitation and sorption to mineral surfaces at pH > 6
Chromium	• Cr(III) prevalent below PH 4 • **leachability of Cr(VI) from soil increases as pH incrreases**	• **forms Cr(VI)**	• forms Cr(III)	• **soluble form, Cr(VI) dominates in shallow aquifers**	• forms Cr(III)	• **Cr(VI) is more toxic and mobile than Cr(III)**
Copper	• Cu(II), most toxic form, sorbs strongly to mineral surfaces over a wide range of pH values	•	•	•	• forms CuS(s) when sulfur is present	•
Lead	• lead carbonate solids form above pH 6 • **low pH destabilizes carbonates**	•	• Stable solid PbS(s) forms under reducing conditions	•	• **tetramethyl lead may form in anaerobic sediments as a result of alkyllation by microbes**	• significant fraction of lead is undissolved and occurs as precipitates

Factors Affecting Fate and Mobility of Inorganic Compounds

Compound	pH	Oxidizing Conditions	Reducing Conditions	Aerobic Conditions	Anaerobic Conditions	Comments
Mercury	• sorption increases as pH increases • **methyl Hg forms below pH 4** • Hg precipitates at high pH • HgS(s) forms at pH betwen 4 and 9 and normal sulfide concentrations	• forms Hg(II) species which are more stable than metallic mercury • Hg(II) species form strong complexes with a variety of organic and inorganic ligands — very soluble forms in aquatic systems	• forms Hg(0) • **HOWEVER, under mildly reducing conditions, organic or inorganic Hg(II) may be reduced to Hg(0) which can be converted to alkyllated forms by biological processes**	•	• **both inorganic and organic Hg may be converted to alkyllated forms by microbial activity**	• **methyl and ethyl mercury are most toxic and mobile forms** • methyl mercury is often bioaccumulated in fish
Metal cations	• **most mobile under acidic conditions** • precipitate or sorb to mineral surfaces under alkaline conditions	•	•	•	•	• presence of Fe, Al, and Mn can remove cations • Cu and Pb are least mobile • Hg(II) is most mobile
Metal anions	• tend to sorb to oxide minerals under acidic conditions • **tend to mobilize under alkaline conditions**	•	•	•	•	• presence of Fe, Al, and Mn can remove anions

Factors Affecting Fate and Mobility of Inorganic Compounds

Compound	pH	Oxidizing Conditions	Reducing Conditions	Aerobic Conditions	Anaerobic Conditions	Comments
Silver	•	•	• **forms the least soluble species, silver sulfide** • Ag(0) may form	•	•	•
Zinc	• **present in soluble forms in neutral and acidic conditions** • forms precipitates at high pH levels • sorption increases as pH increases	•	• readily precipitates	•	•	•

Note:
Bold indicates a more toxic or mobile state.