Appendix J
Comparison of TZW Concentrations Observed During Tidal Studay and Phase 2 Offshore Investigation

Investigation	Phase 2 Offshore		TZW Tidal Study										Phase 2 Offshore	
Sample Station	GS-B7		GS-B7		GS-B7		GS-B7		GS-B7		GS-B7		GS-C7	
Sample ID	GS-B7-A		GS-B7PWE-071004		GS-B7PWE-071005		GS-B7PWSH-071005		GS-B7PWSL-071005		GS-B7PWSL-071006		GS-C7-A	
Sample Date	7/5/2007		10/4/07		10/5/07		10/5/07		10/5/07		10/6/07		7/11/2007	
Tide Condition	NA		Ebb		Ebb		Slack High		Slack Low		Slack Low		1 to 2	
Screened Interval (ft)	1 to 2		0.8 to 1.3		0.8 to 1.3		0.8 to 1.3		0.8 to 1.3		0.8 to 1.3		1 to 2	
Conventionals (mg/L)														
Alkalinity, Total (mg/L)	--		--		--		--		--		--		--	
Amenable Cyanide (mg/L)	0.01	U	--		--		--		--		--		0.01	U
Chloride (mg/L)	--		--		--		--		--		--		--	
Cyanide, Total (mg/L)	**2.74**		--		--		--		--		--		**0.1**	
Dissolved organic carbon (mg/L)	--		--		--		--		--		--		--	
Free Cyanide (ug/L)	**0.023**		--		--		--		--		--		0.01	U
Sulfate (mg/L)	--		--		--		--		--		--		--	
Sulfide (mg/L)	--		--		--		--		--		--		--	
Total organic carbon (mg/L)	--		--		--		--		--		--		--	
Metals (ug/L)														
Calcium	**139,000**		**59100**		**55600**		**54600**		**52100**		**57400**		**81,200**	
Iron	**289,000**		**47300**		**48600**		**42300**		**39100**		**43300**		**32,200**	
Magnesium	**69,500**		**19500**		**18900**		**18700**		**17500**		**18700**		**25,600**	
Manganese	**9,420**		**5370**		**5210**		**5210**		**4870**		**5280**		**2,310**	
Potassium	**9,490**		**2990**		**3860**		**3860**		**3640**		**3770**		**5,820**	
Sodium	**23,500**		**12900**		**13300**		**13200**		**12800**		**12300**		**26,100**	
PAHs (ug/L)														
2-Methylnaphthalene	**140**		--		--		--		--		--		**13**	
Acenaphthene	**190**		--		--		--		--		--		**31**	
Acenaphthylene	**4.5**		--		--		--		--		--		**0.67**	
Anthracene	**110**		--		--		--		--		--		**4.1**	
Benzo(a)anthracene	**60**		--		--		--		--		--		**2.7**	
Benzo(a)pyrene	**50**		--		--		--		--		--		**2.8**	
Benzo(b)fluoranthene	**45**		--		--		--		--		--		**2.3**	
Benzo(g,h,i)perylene	**39**		--		--		--		--		--		**2.5**	
Benzo(k)fluoranthene	**15**		--		--		--		--		--		**0.84**	
Chrysene	**79**		--		--		--		--		--		**5.1**	
Dibenzo(a,h)anthracene	**5**		--		--		--		--		--		**0.27**	
Dibenzofuran	**17**		--		--		--		--		--		**0.51**	
Fluoranthene	**270**		--		--		--		--		--		**9**	
Fluorene	**110**		--		--		--		--		--		**9.7**	
Indeno(1,2,3-cd)pyrene	**46**		--		--		--		--		--		**2.4**	
Naphthalene	**120**		--				--		--		--		**65**	
Phenanthrene	**520**		--		--		--		--		--		**16**	
Pyrene	**270**		--		--		--		--		--		**11**	
VOC (ug/L)														
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethene	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	2	U	2	U	2	UJ	2	U	2	U	2	U	2	U
1,2-Dibromoethane	2	U	2	U	2	UJ	2	U	2	U	2	U	2	U
1,2-Dichlorobenzene	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichlorobenzene	0.5	U	**2.6**		**1.1**	**J**	**0.77**		**2.5**		**0.76**		0.5	U

Appendix J
Comparison of TZW Concentrations Observed During Tidal Studay and Phase 2 Offshore Investigation

Sample Station	GS-B7		GS-B7		GS-B7		GS-B7		GS-B7		GS-B7		GS-C7	
Sample ID	GS-B7-A		GS-B7PWE-071004		GS-B7PWE-071005		GS-B7PWSH-071005		GS-B7PWSL-071005		GS-B7PWSL-071006		GS-C7-A	
Sample Date	7/5/2007		10/4/07		10/5/07		10/5/07		10/5/07		10/6/07		7/11/2007	
Tide Condition	NA		Ebb		Ebb		Slack High		Slack Low		Slack Low		1 to 2	
1,4-Dichlorobenzene	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	U	0.5	U	0.5	U
2-Butanone (MEK)	20	UJ	20	UJ	20	UJ	20	UJ	20	UJ	20	UJ	20	UJ
2-Chloroethylvinylether	5	U	5	U	5	UJ	5	U	5	U	5	UJ	5	UJ
2-Hexanone	20	UJ	20	UJ	20	UJ	20	UJ	20	UJ	20	UJ	20	UJ
4-Methyl-2-pentanone (MIBK)	20	UJ	20	UJ	20	UJ	20	UJ	20	UJ	20	UJ	20	UJ
Acetone	20	UJ	20	UJ	20	UJ	20	UJ	20	UJ	20	UJ	20	UJ
Acrolein	20	UJ	20	UJ	20	UJ	20	UJ	20	UJ	20	UJ	20	UJ
Acrylonitrile	5	UJ	5	UJ	5	UJ	5	UJ	5	UJ	5	UJ	5	UJ
Benzene	**8.8**		**0.19**	**J**	**0.24**	**J**	**0.24**	**J**	**0.19**	**J**	**0.36**	**J**	**0.34**	**J**
Bromochloromethane	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	U	0.5	U	0.5	U
Bromomethane	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	U	0.5	U
Carbon disulfide	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	**0.2**	**J**	**0.2**	**J**	0.5	U	**0.15**	**J**	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	U	0.5	U	0.5	U
Chloromethane	0.81	U	0.5	U	**0.21**	**J**	0.5	U	**0.15**	**J**	**0.22**	**J**	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	**33**		**0.43**	**J**	**0.55**	**J**	**0.6**		**0.36**	**J**	**0.48**	**J**	**0.52**	
Hexachlorobutadiene	2	U	2	U	2	UJ	2	U	2	U	2	U	2	U
Iodomethane	**4.8**	**J**	5	U	5	UJ	5	U	5	U	5	U	5	U
Isopropylbenzene	**2.9**		**2**		**3.9**	**J**	**3.6**		**1.5**	**J**	**2.4**		**1.8**	**J**
m,p-Xylene	**1.2**		**0.69**		**0.65**	**J**	**0.64**		**0.53**		**0.71**		**0.32**	**J**
Methylene chloride			2	U	2	UJ	2	U	2	U	2	U		
Methyltert-butylether	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	**100**		**7.2**		**15**	**J**	**19**		**10**		**17**		**85**	
o-Xylene	**2.9**		**0.56**		**0.75**	**J**	**0.78**		**0.46**	**J**	**0.66**		**0.42**	**J**
Styrene	**0.18**	**J**	0.5	U	0.5	UJ	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethene	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	U	0.5	U	0.5	U
Toluene	**14**		**2.6**		**1.1**	**J**	**0.82**		**1.2**		**1.2**		**0.22**	**J**
trans-1,2-Dichloroethene	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,4-Dichloro-2-butene	10	U	10	U	10	UJ	10	U	10	U	10	UJ	10	UJ
Trichloroethene	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	U	0.5	UJ	0.5	U
Vinyl acetate	5	UJ	5	UJ	5	UJ	5	UJ	5	UJ	5	UJ	5	UJ
Vinyl chloride	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	U	0.5	U	**0.12**	**J**

Appendix J
Comparison of TZW Concentrations Observed During Tidal Studay and Phase 2 Offshore Investigation

Investigation	TZW Tidal Study													
Sample Station	GS-C7		GS-C7		GS-C7		GS-C7		GS-C7		GS-C7		GS-C7	
Sample ID	GS-C7PWE-071004		GS-C7PWE-071005		GS-C7PWSH-071004		GS-C7PWSH-071005		GS-C7PWSL-071004		GS-C7PWSL-071005		GS-C7PWSL-071006	
Sample Date	10/4/07		10/5/07		10/4/07		10/5/07		10/4/07		10/5/07		10/6/07	
Tide Condition	Ebb		Ebb		Slack High		Slack High		Slack Low		Slack Low		Slack Low	
Screened Interval (ft)	1.4 to 1.9		1.4 to 1.9		1.4 to 1.9		1.4 to 1.9		1.4 to 1.9		1.4 to 1.9		1.4 to 1.9	
Conventionals (mg/L)														
Alkalinity, Total (mg/L)	**324**		**322**		**156**		**270**		**225**		**354**		**354**	
Amenable Cyanide (mg/L)	**0.01**	**R**	0.01	U	**0.01**	**R**	0.01	U	**0.01**	**R**	**0.07**		0.01	UJ
Chloride (mg/L)	**5.8**		**6.9**		**4.8**		**6.1**		**5.4**		**6.9**		**6.9**	
Cyanide, Total (mg/L)	**0.31**		**0.42**		**0.24**		**0.32**		**0.26**		**0.42**		**0.47**	
Dissolved organic carbon (mg/L)	**12.9**		**15**		**5.8**		**14**		**9.8**		**16.4**		**16**	
Free Cyanide (ug/L)	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Sulfate (mg/L)	**1.8**		**0.4**		**3.2**		**1.7**		**2.4**		**0.5**		**0.8**	
Sulfide (mg/L)	0.05	UJ	**0.014**	**J**	0.05	UJ	**0.027**	**J**	**0.12**	**J**	**0.027**	**J**	**0.07**	
Total organic carbon (mg/L)	**19.6**		**19.5**		**11.4**		**18**		**21.1**		**19.5**		**18**	
Metals (ug/L)														
Calcium	**54000**		**54700**		**49900**		**60900**		**47400**		**58700**		**50900**	
Iron	**39500**		**40100**		**35900**		**48000**		**37200**		**43200**		**37200**	
Magnesium	**18900**		**19800**		**17500**		**22500**		**17000**		**21200**		**17900**	
Manganese	**2420**		**2600**		**2210**		**2910**		**2130**		**2790**		**2290**	
Potassium	**3230**		**3760**		**3650**		**4180**		**2900**		**3950**		**2790**	
Sodium	**12200**		**13300**		**11900**		**14300**		**11300**		**13900**		**12000**	
PAHs (ug/L)														
2-Methylnaphthalene	**570**		**660**		**520**		**770**		**1000**		**670**		**510**	
Acenaphthene	**340**		**370**		**320**		**510**		**680**		**360**		**290**	
Acenaphthylene	**4.5**		**3.6**		**3.5**		**12**		**12**		**4.9**		**2.4**	
Anthracene	**36**		**31**		**30**		**91**		**97**		**40**		**21**	
Benzo(a)anthracene	**15**		**11**		**12**		**52**		**59**		**16**		**5.4**	
Benzo(a)pyrene	**18**		**13**		**14**		**66**		**75**		**20**		**6.1**	
Benzo(b)fluoranthene	**16**		**11**		**12**		**57**		**65**		**18**		**5.3**	
Benzo(g,h,i)perylene	**14**		**9.5**		**11**		**49**		**54**		**15**		**4.6**	
Benzo(k)fluoranthene	**5.4**		**3.5**		**3.7**		**18**		**20**		**5.5**		**1.6**	
Chrysene	**18**		**13**		**15**		**64**		**70**		**20**		**7.3**	
Dibenzo(a,h)anthracene	**1.9**		**1.3**		**1.5**		**5.6**		**6.7**		**2.1**		**0.59**	
Dibenzofuran	**17**		**18**		**15**		**28**		**33**		**19**		**16**	
Fluoranthene	**75**		**55**		**61**		**250**		**310**		**82**		**33**	
Fluorene	**82**		**79**		**71**		**150**		**170**		**89**		**70**	
Indeno(1,2,3-cd)pyrene	**13**		**8.9**		**10**		**47**		**53**		**15**		**4.3**	
Naphthalene	**11000**		**14000**		**9500**		**12000**		**15000**		**12000**		**12000**	
Phenanthrene	**280**		**240**		**270**		**570**		**790**		**270**		**160**	
Pyrene	**77**		**58**		**64**		**250**		**310**		**84**		**34**	
VOC (ug/L)														
1,1,1,2-Tetrachloroethane	50	U	100	U	50	U	50	UJ	50	U	100	U	25	U
1,1,1-Trichloroethane	50	U	100	U	50	U	50	UJ	50	U	100	U	25	U
1,1,2,2-Tetrachloroethane	50	U	100	U	50	U	50	UJ	50	U	100	U	25	U
1,1,2-Trichloroethane	50	U	100	U	50	U	50	UJ	50	U	100	U	25	U
1,1-Dichloroethane	50	U	100	U	50	U	50	UJ	50	U	100	U	25	U
1,1-Dichloroethene	50	U	100	U	50	U	50	UJ	50	U	100	U	25	U
1,2,3-Trichloropropane	50	U	100	U	50	U	50	UJ	50	U	100	U	25	U
1,2,4-Trichlorobenzene	200	U	400	U	200	U	200	UJ	200	U	400	U	100	U
1,2-Dibromoethane	200	U	400	U	200	U	200	UJ	200	U	400	U	100	U
1,2-Dichlorobenzene	50	U	100	U	50	U	50	UJ	50	U	100	U	25	U
1,2-Dichloroethane	50	U	100	U	50	U	50	UJ	50	U	100	U	25	U
1,2-Dichloropropane	50	U	100	U	50	U	50	UJ	50	U	100	U	25	U
1,3-Dichlorobenzene	50	U	100	U	50	U	50	UJ	50	U	100	U	25	U

Appendix J
Comparison of TZW Concentrations Observed During Tidal Studay and Phase 2 Offshore Investigation

Sample Station	GS-C7		GS-C7		GS-C7		GS-C7		GS-C7		GS-C7		GS-C7	
Sample ID	GS-C7PWE-071004		GS-C7PWE-071005		GS-C7PWSH-071004		GS-C7PWSH-071005		GS-C7PWSL-071004		GS-C7PWSL-071005		GS-C7PWSL-071006	
Sample Date	10/4/07		10/5/07		10/4/07		10/5/07		10/4/07		10/5/07		10/6/07	
Tide Condition	Ebb		Ebb		Slack High		Slack High		Slack Low		Slack Low		Slack Low	
1,4-Dichlorobenzene	50	U	100	U	50	U	50	UJ	50	U	100	U	25	U
2-Butanone (MEK)	2000	UJ	4000	UJ	2000	UJ	2000	UJ	2000	UJ	4000	UJ	1000	UJ
2-Chloroethylvinylether	500	U	1000	U	500	U	500	UJ	500	U	1000	U	250	UJ
2-Hexanone	2000	UJ	4000	UJ	2000	UJ	2000	UJ	2000	UJ	4000	UJ	1000	UJ
4-Methyl-2-pentanone (MIBK)	2000	UJ	4000	UJ	2000	UJ	2000	UJ	2000	UJ	4000	UJ	1000	UJ
Acetone	2000	UJ	4000	UJ	2000	UJ	2000	UJ	2000	UJ	4000	UJ	1000	UJ
Acrolein	2000	UJ	4000	UJ	2000	UJ	2000	UJ	2000	UJ	4000	UJ	1000	UJ
Acrylonitrile	500	UJ	1000	UJ	500	UJ	500	UJ	500	UJ	1000	UJ	250	UJ
Benzene	**3000**		**4800**		**2300**		**3100**	**J**	**2700**		**4400**		**4500**	
Bromochloromethane	50	U	100	U	50	U	50	UJ	50	U	100	U	25	U
Bromodichloromethane	50	U	100	U	50	U	50	UJ	50	U	100	U	25	U
Bromoform	50	U	100	U	50	U	50	UJ	50	U	100	U	25	U
Bromomethane	50	UJ	100	UJ	50	UJ	50	UJ	50	UJ	100	UJ	25	U
Carbon disulfide	50	U	100	U	50	U	50	UJ	50	U	100	U	25	U
Carbon tetrachloride	50	U	100	U	50	U	50	UJ	50	U	100	U	25	U
Chlorobenzene	50	U	100	U	50	U	50	UJ	50	U	100	U	25	U
Chloroethane	50	U	100	U	50	U	50	UJ	50	U	100	U	25	U
Chloroform	50	U	100	U	50	U	50	UJ	50	U	100	U	25	U
Chloromethane	50	U	100	U	50	U	50	UJ	50	U	100	U	25	U
cis-1,3-Dichloropropene	50	U	100	U	50	U	50	UJ	50	U	100	U	25	U
Dibromochloromethane	50	U	100	U	50	U	50	UJ	50	U	100	U	25	U
Dibromomethane	50	U	100	U	50	U	50	UJ	50	U	100	U	25	U
Dichlorodifluoromethane	50	U	100	U	50	U	50	UJ	50	U	100	U	25	U
Ethylbenzene	**460**		**690**		**360**		**470**	**J**	**420**		**630**		**660**	
Hexachlorobutadiene	200	U	400	U	200	U	200	UJ	200	U	400	U	100	U
Iodomethane	500	U	1000	U	500	U	500	UJ	500	U	1000	U	250	U
Isopropylbenzene	**15**	**J**	**22**	**J**	**13**	**J**	**14**	**J**	**14**	**J**	400	U	**18**	**J**
m,p-Xylene	**250**		**380**		**210**		**260**	**J**	**240**		**350**		**350**	
Methylene chloride	**66**	**J**	**52**	**J**	**49**	**J**	**64**	**J**	**41**	**J**	**50**	**J**	**15**	**J**
Methyltert-butylether	50	U	100	U	50	U	50	UJ	50	U	100	U	25	U
Naphthalene	**19000**		**17000**		**15000**		**17000**	**J**	**13000**		**19000**		**17000**	
o-Xylene	**140**		**210**		**110**		**140**	**J**	**130**		**190**		**210**	
Styrene	50	U	100	U	50	U	50	UJ	50	U	100	U	25	U
Tetrachloroethene	50	U	100	U	50	U	50	UJ	50	U	100	U	25	U
Toluene	**28**	**J**	**38**	**J**	**21**	**J**	**94**	**J**	**26**	**J**	**42**	**J**	**40**	
trans-1,2-Dichloroethene	50	U	100	U	50	U	50	UJ	50	U	100	U	25	U
trans-1,3-Dichloropropene	50	U	100	U	50	U	50	UJ	50	U	100	U	25	U
trans-1,4-Dichloro-2-butene	1000	U	2000	U	1000	U	1000	UJ	1000	U	2000	U	500	UJ
Trichloroethene	50	U	100	U	50	U	50	UJ	50	U	100	U	25	U
Trichlorofluoromethane	50	U	100	U	50	U	50	UJ	50	U	100	U	25	UJ
Vinyl acetate	500	UJ	1000	UJ	500	UJ	500	UJ	500	UJ	1000	UJ	250	UJ
Vinyl chloride	50	U	100	U	50	U	50	UJ	50	U	100	U	25	U

Appendix J
Comparison of TZW Concentrations Observed During Tidal Studay and Phase 2 Offshore Investigation

Investigation	Phase 2 Offshore		TZW Tidal Study											
Sample Station	GS-D5		GS-D5		GS-D5		GS-D5		GS-D5		GS-D5		GS-D5	
Sample ID	GS-D5-A		GS-D5PWE-071004		GS-D5PWE-071005		GS-D5PWSH-071004		GS-D5PWSH-071005		GS-D5PWSL-071005		GS-D5PWSL-071006	
Sample Date	7/24/2007		10/4/07		10/5/07		10/4/07		10/5/07		10/5/07		10/6/07	
Tide Condition	NA		Ebb		Ebb		Slack High		Slack High		Slack Low		Slack Low	
Screened Interval (ft)	1 to 2		1.5 to 2.0		1.5 to 2.0		1.5 to 2.0		1.5 to 2.0		1.5 to 2.0		1.5 to 2.0	
Conventionals (mg/L)														
Alkalinity, Total (mg/L)	--		**400**		**383**		**502**		**374**		**382**		**372**	
Amenable Cyanide (mg/L)	0.01	U	**0.01**	**R**	0.01	U	**0.01**	**R**	0.01	U	0.01	U	**0.004**	**J**
Chloride (mg/L)	--		**25.9**		**24**		**30.1**		**21.2**		**22.6**		**20.7**	
Cyanide, Total (mg/L)	0.01	U	**0.009**	**J**	0.01	U	**0.06**		0.01	U	0.01	U	**0.004**	**J**
Dissolved organic carbon (mg/L)	--		**7.1**		**7.4**		**7**		**6.7**		**6.9**		**6.6**	
Free Cyanide (ug/L)	0.01	UJ	10	U	10	U	10	U	10	U	10	U	10	U
Sulfate (mg/L)	--		**0.3**		**0.4**		**0.12**	**J**	**0.7**		**0.6**		**0.9**	
Sulfide (mg/L)	--		0.05	UJ	0.05	U	0.05	UJ	0.05	U	0.05	U	0.05	U
Total organic carbon (mg/L)	--		**15.3**		**14.5**		**13.9**		**13.9**		**14.7**		**13.1**	
Metals (ug/L)														
Calcium	**49,700**		**97600**		**95100**		**107000**		**90600**		**93300**		**92700**	
Iron	**20,100**		**63400**		**59300**		**72000**		**55800**		**57700**		**55500**	
Magnesium	**19,200**		**31000**		**29900**		**33800**		**28800**		**29900**		**30200**	
Manganese	**1,920**		**10100**		**9570**		**10200**		**9160**		**9340**		**9930**	
Potassium	**4,510**		**5070**		**5260**		**5550**		**5030**		**5220**		**4810**	
Sodium	**61,000**		**17400**		**18400**		**18800**		**17600**		**18200**		**16700**	
PAHs (ug/L)														
2-Methylnaphthalene	**0.06**		**0.0078**	**J**	**0.0091**	**J**	**0.014**	**J**	**0.0097**	**J**	**0.0078**	**J**	**0.021**	
Acenaphthene	**38**		**9.5**		**11**		**9.2**		**9.2**		**9.6**		**11**	
Acenaphthylene	**0.23**		**0.026**		**0.029**		**0.023**		**0.027**		**0.029**		**0.036**	
Anthracene	**0.4**	**J**	**0.051**		**0.06**		**0.044**		**0.06**		**0.061**		**0.099**	
Benzo(a)anthracene	**0.021**		0.02	U	0.019	U	0.02	U	0.019	U	0.019	U	0.019	U
Benzo(a)pyrene	**0.013**	**J**	**0.0087**	**J**	0.019	U	0.02	U	0.019	U	0.019	U	**0.0064**	**J**
Benzo(b)fluoranthene	**0.014**	**J**	**0.014**	**J**	0.019	U	0.02	U	0.019	U	0.019	U	**0.0081**	**J**
Benzo(g,h,i)perylene	**0.0082**	**J**	**0.014**	**J**	0.019	U	0.02	U	0.019	U	0.019	U	**0.0041**	**J**
Benzo(k)fluoranthene	**0.0056**	**J**	**0.0065**	**J**	0.019	U	0.02	U	0.019	U	0.019	U	0.019	U
Chrysene	**0.019**	**J**	**0.0064**	**J**	**0.0047**	**J**	**0.004**	**J**	**0.0036**	**J**	**0.0044**	**J**	**0.017**	**J**
Dibenzo(a,h)anthracene	0.02	U	**0.0065**	**J**	0.019	U	0.02	U	0.019	U	0.019	U	0.019	U
Dibenzofuran	**0.039**		**0.013**	**J**	**0.016**	**J**	**0.012**	**J**	**0.018**	**J**	**0.018**	**J**	**0.025**	
Fluoranthene	**0.076**		**0.11**		**0.13**		**0.1**		**0.12**		**0.13**		**0.16**	
Fluorene	**8.5**		**1.8**		**2**		**1.6**		**1.9**		**1.9**		**2.4**	
Indeno(1,2,3-cd)pyrene	**0.008**	**J**	**0.018**	**J**	0.019	U	0.02	U	0.019	U	0.019	U	**0.0037**	**J**
Naphthalene	**0.13**		0.036	U	0.045	U	**0.11**		0.042	U	0.037	U	**0.068**	
Phenanthrene	**5.4**		**1.1**		**1.2**		**0.99**		**1.1**		**1.2**		**1.6**	
Pyrene	**0.07**		**0.078**		**0.085**		**0.071**		**0.084**		**0.086**		**0.15**	
VOC (ug/L)														
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	UJ	0.5	UJ	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	UJ	0.5	UJ	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	UJ	0.5	UJ	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	UJ	0.5	UJ	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	UJ	0.5	UJ	0.5	U
1,1-Dichloroethene	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	UJ	0.5	UJ	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	UJ	0.5	UJ	0.5	U
1,2,4-Trichlorobenzene	2	U	2	U	2	UJ	2	U	2	UJ	2	UJ	2	U
1,2-Dibromoethane	2	U	2	U	2	UJ	2	U	2	UJ	2	UJ	2	U
1,2-Dichlorobenzene	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	UJ	0.5	UJ	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	UJ	0.5	UJ	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	UJ	0.5	UJ	0.5	U
1,3-Dichlorobenzene	0.5	U	**0.32**	**J**	0.5	UJ	0.5	U	0.5	UJ	0.5	UJ	**0.14**	**J**

Appendix J
Comparison of TZW Concentrations Observed During Tidal Studay and Phase 2 Offshore Investigation

Sample Station	GS-D5		GS-D5		GS-D5		GS-D5		GS-D5		GS-D5		GS-D5	
Sample ID	GS-D5-A		GS-D5PWE-071004		GS-D5PWE-071005		GS-D5PWSH-071004		GS-D5PWSH-071005		GS-D5PWSL-071005		GS-D5PWSL-071006	
Sample Date	7/24/2007		10/4/07		10/5/07		10/4/07		10/5/07		10/5/07		10/6/07	
Tide Condition	NA		Ebb		Ebb		Slack High		Slack High		Slack Low		Slack Low	
1,4-Dichlorobenzene	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	UJ	0.5	UJ	0.5	U
2-Butanone (MEK)	20	UJ	20	UJ	20	UJ	20	UJ	20	UJ	20	UJ	20	UJ
2-Chloroethylvinylether	5	UJ	5	U	5	UJ	5	U	5	UJ	5	UJ	5	UJ
2-Hexanone	20	UJ	20	UJ	20	UJ	20	UJ	20	UJ	20	UJ	20	UJ
4-Methyl-2-pentanone (MIBK)	20	UJ	20	UJ	20	UJ	20	UJ	20	UJ	20	UJ	20	UJ
Acetone	20	UJ	20	UJ	20	UJ	20	UJ	20	UJ	20	UJ	20	UJ
Acrolein	20	UJ	20	UJ	20	UJ	20	UJ	20	UJ	20	UJ	20	UJ
Acrylonitrile	5	UJ	5	UJ	5	UJ	5	UJ	5	UJ	5	UJ	5	UJ
Benzene	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	UJ	0.5	UJ	0.5	U
Bromochloromethane	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	UJ	0.5	UJ	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	UJ	0.5	UJ	0.5	U
Bromoform	0.5	UJ	0.5	U	0.5	UJ	0.5	U	0.5	UJ	0.5	UJ	0.5	U
Bromomethane	0.5	U	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	U
Carbon disulfide	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	UJ	0.5	UJ	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	UJ	0.5	UJ	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	UJ	0.5	UJ	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	UJ	0.5	UJ	0.5	U
Chloroform	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	UJ	0.5	UJ	0.5	U
Chloromethane	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	UJ	0.5	UJ	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	UJ	0.5	UJ	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	UJ	0.5	UJ	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	UJ	0.5	UJ	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	UJ	0.5	UJ	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	UJ	0.5	UJ	0.5	U
Hexachlorobutadiene	2	U	2	U	2	UJ	2	U	2	UJ	2	UJ	2	U
Iodomethane	5	U	5	U	5	UJ	5	U	5	UJ	5	UJ	5	U
Isopropylbenzene	**0.93**	**J**	2	U	2	UJ	2	U	2	UJ	2	UJ	**0.11**	**J**
m,p-Xylene	**0.23**	**J**	0.5	U	0.5	UJ	0.5	U	0.5	UJ	0.5	UJ	0.5	U
Methylene chloride			2	U	2	UJ	2	U	2	UJ	2	UJ	2	U
Methyltert-butylether	0.5	UJ	0.5	U	0.5	UJ	0.5	U	0.5	UJ	0.5	UJ	0.5	U
Naphthalene	2	U	2	U	2	UJ	2	U	2	UJ	2	UJ	2	U
o-Xylene	**0.31**	**J**	0.5	U	0.5	UJ	0.5	U	0.5	UJ	0.5	UJ	0.5	U
Styrene	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	UJ	0.5	UJ	0.5	U
Tetrachloroethene	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	UJ	0.5	UJ	0.5	U
Toluene	**0.72**		**0.75**		**0.78**	**J**	0.5	U	0.5	UJ	**1.1**	**J**	**0.2**	**J**
trans-1,2-Dichloroethene	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	UJ	0.5	UJ	0.5	U
trans-1,3-Dichloropropene	0.5	UJ	0.5	U	0.5	UJ	0.5	U	0.5	UJ	0.5	UJ	0.5	U
trans-1,4-Dichloro-2-butene	10	UJ	10	U	10	UJ	10	U	10	UJ	10	UJ	10	UJ
Trichloroethene	0.5	U	**0.16**	**J**	0.5	UJ	0.5	U	0.5	UJ	0.5	UJ	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	UJ	0.5	UJ	0.5	UJ
Vinyl acetate	5	UJ	5	UJ	5	UJ	5	UJ	5	UJ	5	UJ	5	UJ
Vinyl chloride	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	UJ	0.5	UJ	0.5	U

Appendix J
Comparison of TZW Concentrations Observed During Tidal Studay and Phase 2 Offshore Investigation

Notes:

Bold	detected results
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample
U	The analyte was analyzed for, but not detected above the sample reporting limit.
UJ	The analyte was not detected above the sample reporting limit. However, the sample reporting limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
R	The result was rejected due to analysis of the sample beyond two times the holding time (14 days)
mg/L	milligrams per liter
µg/L	micrograms per liter