



17 May 2002

Ms. Michelle DiGeambeardino
Naval Facilities Engineering Command
Engineering Field Activity North East
Environmental Division, Code EV2
10 Industrial Highway, Mail Stop No.82
Lester, Pennsylvania 19113-2090

Re: Former Location of Drums near Guadalcanal Road,
Naval Weapons Station Earle, Colts Neck, New Jersey
Contract No. N62472-92-D-1296, Task Order No. 100
EA Project No. 2960100

Dear Ms. DiGeambeardino:

This letter summarizes the findings of limited ground-water sampling performed at the former location of drums near Guadalcanal Road at Naval Weapons Station Earle, Colts Neck, New Jersey. At this location, several buried drums of a tar-like substance and associated visually impacted soils were removed in May 2000. As you know, the Navy requested that EA Engineering, Science, and Technology perform a limited investigation in this area during site investigation field activities in June 2001 in order to:

- Assess the depth to ground water at this location
- Assess the potential for impacts to ground water related to the former drums.

The sampling at this location was initiated voluntarily by Naval Weapons Station Earle and was not mandated by the New Jersey Department of Environmental Protection.

1. Field Activities

During 20-21 June 2001, one ground-water grab sample was collected from each of three locations (WP-04, WP-05, and WP-06), using a direct-push sampling method. Ground water was encountered at a depth of approximately 16 ft in each location. The samples were submitted to Chem-Tech Research, a New Jersey Department of Environmental Protection certified laboratory, on 22 June 2001, for analysis for Target Compound List volatile organic compounds and Target Compound List semi-volatile organic compounds.

2. Results and Conclusions

A summary of the analytical results and applicable New Jersey Category IIA Ground Water Quality Criteria is presented in Table 1. No analytes were reported at in any of the samples,

confirming compliance with Ground Water Quality Criteria. Based on these data, no further action appears to be required in the former location of drums near Guadalcanal Road.

EA appreciates the opportunity to assist the Navy with this project. If you have any questions or require further information, please call me at (732) 404-9370, Extension 220.

Sincerely,

EA ENGINEERING, SCIENCE,
AND TECHNOLOGY, INC.



Christopher Kerlish
Contract Task Order Manager

Attachment

cc: L. Berg, NWS Earle
K. Kilmer, EA
File 29601.00

TABLE 1
SUMMARY OF GROUND-WATER ANALYSES FOR SEMIVOLATILES -JUNE 2001

Compound	Guidance Criteria	Sample No.									
		WP-04	Q	WP-05	Q	WP-06	Q	DUP2 (WP-05)	Q	FB-01	Q
Phenol	4000	10	U	10	U	10	U	10	U	10	U
bis(2-Chloroethyl)ether	10	10	U	10	U	10	U	10	U	10	U
2-Chlorophenol	40	10	U	10	U	10	U	10	U	10	U
1,2-Dichlorobenzene	600	10	U	10	U	10	U	10	U	10	U
1,3-Dichlorobenzene	600	10	U	10	U	10	U	10	U	10	U
1,4-Dichlorobenzene	75	10	U	10	U	10	U	10	U	10	U
Benzyl Alcohol	2000	10	U	10	U	10	U	10	U	10	U
2-Methylphenol	--	10	U	10	U	10	U	10	U	10	U
2,2'-oxybis(1-Chloropropane)	--	10	U	10	U	10	U	10	U	10	U
3+4-Methylphenols	--	20	U	20	U	20	U	20	U	20	U
n-Nitroso-di-n-propylamine	20	10	U	10	U	10	U	10	U	10	U
Hexachloroethane	10	10	U	10	U	10	U	10	U	10	U
Nitrobenzene	10	10	U	10	U	10	U	10	U	10	U
Isophorone	100	10	U	10	U	10	U	10	U	10	U
2-Nitrophenol	--	10	U	10	U	10	U	10	U	10	U
2,4-Dimethylphenol	100	10	U	10	U	10	U	10	U	10	U
Benzoic Acid	--	10	U	10	U	10	U	10	U	10	U
bis(2-Chloroethoxy)methane	--	10	U	10	U	10	U	10	U	10	U
2,4-Dichlorophenol	20	10	U	10	U	10	U	10	U	10	U
1,2,4-Trichlorobenzene	9	10	U	10	U	10	U	10	U	10	U
Naphthalene	--	10	U	10	U	10	U	10	U	10	U
4-Chloroaniline	--	10	U	10	U	10	U	10	U	10	U
Hexachlorobutadiene	1	10	U	10	U	10	U	10	U	10	U
4-Chloro-3-methylphenol	--	10	U	10	U	10	U	10	U	10	U
2-Methylnaphthalene	--	10	U	10	U	10	U	10	U	10	U
Hexachlorocyclopentadiene	50	10	U	10	U	10	U	10	U	10	U
2,4,6-Trichlorophenol	20	10	U	10	U	10	U	10	U	10	U
2,4,5-Trichlorophenol	700	10	U	10	U	10	U	10	U	10	U
2-Chloronaphthalene	--	10	U	10	U	10	U	10	U	10	U
2-Nitroaniline	--	10	U	10	U	10	U	10	U	10	U
Dimethylphthalate	--	10	U	10	U	10	U	10	U	10	U
Acenaphthylene	--	10	U	10	U	10	U	10	U	10	U
2,6-Dinitrotoluene	--	10	U	10	U	10	U	10	U	10	U
3-Nitroaniline	--	10	U	10	U	10	U	10	U	10	U
Acenaphthene	400	10	U	10	U	10	U	10	U	10	U
2,4-Dinitrophenol	40	10	U	10	U	10	U	10	U	10	U
4-Nitrophenol	--	10	U	10	U	10	U	10	U	10	U
Dibenzofuran	--	10	U	10	U	10	U	10	U	10	U
2,4-Dinitrotoluene	10	10	U	10	U	10	U	10	U	10	U
Diethylphthalate	5000	10	U	10	U	10	U	10	U	10	U
4-Chlorophenyl-phenylether	--	10	U	10	U	10	U	10	U	10	U
Fluorene	300	10	U	10	U	10	U	10	U	10	U
4-Nitroaniline	--	10	U	10	U	10	U	10	U	10	U
4,6-Dinitro-2-methylphenol	--	10	U	10	U	10	U	10	U	10	U
n-Nitrosodiphenylamine	20	10	U	10	U	10	U	10	U	10	U
Azobenzene	--	10	U	10	U	10	U	10	U	10	U
4-Bromophenyl-phenylether	--	10	U	10	U	10	U	10	U	10	U
Hexachlorobenzene	10	10	U	10	U	10	U	10	U	10	U
Pentachlorophenol	1	10	U	10	U	10	U	10	U	10	U
Phenanthrene	--	10	U	10	U	10	U	10	U	10	U
Anthracene	2000	10	U	10	U	10	U	10	U	10	U
Di-n-butylphthalate	900	10	U	1.6	J	10	U	1.4	J	1.1	J
Fluoranthene	300	10	U	10	U	10	U	10	U	10	U
Pyrene	200	10	U	10	U	10	U	10	U	10	U
Butylbenzylphthalate	100	10	U	10	U	10	U	10	U	10	U
3,3'-Dichlorobenzidine	60	10	U	10	U	10	U	10	U	10	U
Benzo(a)anthrene	--	10	U	10	U	10	U	10	U	10	U
Chrysene	--	10	U	10	U	10	U	10	U	10	U
Bis(2-Ethylhexyl)phthalate	30	10	U	10	U	10	U	10	U	10	U
Di-n-octylphthalate	100	10	U	10	U	10	U	10	U	10	U
Benzo(b)fluoranthene	--	10	U	10	U	10	U	10	U	10	U
Benzo(k)fluoranthene	--	10	U	10	U	10	U	10	U	10	U
Benzo(a)pyrene	--	10	U	10	U	10	U	10	U	10	U
Indeno(1,2,3-cd)pyrene	--	10	U	10	U	10	U	10	U	10	U
Dibenzo(a,h)anthracene	--	10	U	10	U	10	U	10	U	10	U
Benzo(g,h,i)perylene	--	10	U	10	U	10	U	10	U	10	U

U The compound analyzed for was not detected

J The value is estimated as the compound was identified but the concentration was less than the specified detection limit

NOTE: The Criteria values represent the Ground Water Quality Standards, N.J.A.C. 7:9-6 determined by the NJDEP.
All results reported in ug/l

TABLE 2
SUMMARY OF GROUND-WATER ANALYSES FOR VOLATILES - JUNE 2001

Compound	Guidance Criteria	Sample No.											
		WP-04	Q	WP-05	Q	WP-06	Q	DUP2 (WP-05)	Q	TRIPBLANK	Q	FB-01	Q
Dichlorodifluoromethane	--	3.3	U	3.3	U	3.3	U	3.3	U	3.3	U	3.3	U
Chloromethane	30	2.8	U	2.8	U	2.8	U	2.8	U	2.8	U	2.8	U
Vinyl Chloride	5	1.8	U	1.8	U	1.8	U	1.8	U	1.8	U	1.8	U
Bromomethane	10	1.9	U	1.9	U	1.9	U	1.9	U	1.9	U	1.9	U
Chloroethane	--	2.3	U	2.3	U	2.3	U	2.3	U	2.3	U	2.3	U
Trichlorofluoromethane	--	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloroethene	2	1.6	U	1.6	U	1.6	U	1.6	U	1.6	U	1.6	U
Acetone	700	5.8	U	5.8	U	5.8	U	5.8	U	5.8	U	5.8	U
Carbon Disulfide	--	1	U	1	U	1	U	1	U	1	U	1	U
Methylene Chloride	2	1.1	U	1.1	U	1.1	U	1.1	U	1.1	U	1.1	U
trans-1,2-Dichloroethene	100	1.7	U	1.7	U	1.7	U	1.7	U	1.7	U	1.7	U
Vinyl Acetate	--	6.1	U	6.1	U	6.1	U	6.1	U	6.1	U	6.1	U
1,1-Dichloroethane	70	1	U	1	U	1	U	1	U	1	U	1	U
2-Butanone	300	5.6	U	5.6	U	5.6	U	5.6	U	5.6	U	5.6	U
2,2-Dichloropropane	--	1.1	U	1.1	U	1.1	U	1.1	U	1.1	U	1.1	U
cis-1,2-Dichloroethene	10	1.8	U	1.8	U	1.8	U	1.8	U	1.8	U	1.8	U
Bromochloromethane	--	1.6	U	1.6	U	1.6	U	1.6	U	1.6	U	1.6	U
Chloroform	6	1	U	1	U	1	U	1	U	1	U	1	U
1,1,1-Trichloroethane	30	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U
1,1-Dichloropropene	--	1.3	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3	U
Carbon Tetrachloride	2	1	U	1	U	1	U	1	U	1	U	1	U
Benzene	1	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dichloroethane	2	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
Trichloroethene	1	2.8	U	2.8	U	2.8	U	2.8	U	2.8	U	2.8	U
1,2-Dichloropropane	1	3.6	U	3.6	U	3.6	U	3.6	U	3.6	U	3.6	U
Dibromomethane	--	1	U	1	U	1	U	1	U	1	U	1	U
Bromodichloromethane	1	1	U	1	U	1	U	1	U	1	U	1	U
4-Methyl-2-Pentanone	400	3	U	3	U	3	U	3	U	3	U	3	U
Toluene	1000	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U
t-1,3-Dichloropropene	0.2	1.7	U	1.7	U	1.7	U	1.7	U	1.7	U	1.7	U
CIS-1,3-Dichloropropene	0.2	1	U	1	U	1	U	1	U	1	U	1	U
1,1,2-Trichloroethane	3	1.1	U	1.1	U	1.1	U	1.1	U	1.1	U	1.1	U
1,3-Dichloropropane	--	1	U	1	U	1	U	1	U	1	U	1	U
2-Chloroethyl vinyl ether	--	9.6	U	9.6	U	9.6	U	9.6	U	9.6	U	9.6	U
2-Hexanone	--	12	U	12	U	12	U	12	U	12	U	12	U
Dibromochloromethane	10	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dibromoethane	--	1	U	1	U	1	U	1	U	1	U	1	U
Tetrachloroethene	1	1.6	U	1.6	U	1.6	U	1.6	U	1.6	U	1.6	U
Chlorobenzene	4	1	U	1	U	1	U	1	U	1	U	1	U
1,1,1,2-Tetrachloroethane	10	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U
Ethyl Benzene	700	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U
m/p-Xylenes	40	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U
o-Xylene	40	1.7	U	1.7	U	1.7	U	1.7	U	1.7	U	1.7	U
Styrene	100	1	U	1	U	1	U	1	U	1	U	1	U
Bromoform	4	1	U	1	U	1	U	1	U	1	U	1	U
Isopropylbenzene	--	1	U	1	U	1	U	1	U	1	U	1	U
1,1,2,2-Tetrachloroethane	2	2.2	U	2.2	U	2.2	U	2.2	U	2.2	U	2.2	U
1,2,3-Trichloropropane	--	2.2	U	2.2	U	2.2	U	2.2	U	2.2	U	2.2	U
Bromobenzene	--	1	U	1	U	1	U	1	U	1	U	1	U
n-propylbenzene	--	1	U	1	U	1	U	1	U	1	U	1	U
2-Chlorotoluene	--	1	U	1	U	1	U	1	U	1	U	1	U
1,3,5-Trimethylbenzene	--	1	U	1	U	1	U	1	U	1	U	1	U
4-Chlorotoluene	--	1	U	1	U	1	U	1	U	1	U	1	U
tert-Butylbenzene	--	1	U	1	U	1	U	1	U	1	U	1	U
1,2,4-Trimethylbenzene	--	1	U	1	U	1	U	1	U	1	U	1	U
sec-Butylbenzene	--	1	U	1	U	1	U	1	U	1	U	1	U
p-Isopropyltoluene	--	1	U	1	U	1	U	1	U	1	U	1	U
1,3-Dichlorobenzene	600	1	U	1	U	1	U	1	U	1	U	1	U
1,4-Dichlorobenzene	75	1	U	1	U	1	U	1	U	1	U	1	U
n-Butylbenzene	--	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dichlorobenzene	600	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dibromo-3-Chloropropane	--	2.1	U	2.1	U	2.1	U	2.1	U	2.1	U	2.1	U
1,2,4-Trichlorobenzene	9	1	U	1	U	1	U	1	U	1	U	1	U
Hexachlorobutadiene	1	1	U	1	U	1	U	1	U	1	U	1	U
Naphthalene	--	1	U	1	U	1	U	1	U	1	U	1	U
Methyl tert-butyl Ether	--	1	U	1	U	1	U	1	U	1	U	1	U
1,2,3-Trichlorobenzene	--	1.6	U	1.6	U	1.6	U	1.6	U	1.6	U	1.6	U

U The compound analyzed for was not detected

J The value is estimated as the compound was identified but the concentration was less than the specified detection limit

NOTE: The Criteria values represent the Ground Water Quality Standards, N.J.A.C. 7:9-6 determined by the NJDEP.

All results reported in ug/l