Analytical Report

Prepared For

Engelhard Corporation
Route 152
Plainville, MA 02762

By

R.I. ANALYTICAL LABORATORIES, INC.
41 Illinois Avenue
Warwick, RI 02888

Project: Collection and analysis of groundwater monitoring well samples located at Engelhard Corp., Plainville, MA site

B/146

Methodology

PARAMETER	METHOD	REFERENCE
Volatile Organic Compounds	624	1
Metals (soluble):		
Antimony	7041	2
Arsenic	7060	2
Beryllium	6010	2
Cadmium	6010	2
Chromium	6010	2
Copper	6010	2
Lead	6010	2
Mercury	7470	2
Nickel	6010	2
Selenium	7740	2
Silver	6010	2
Thallium	7840	2
Zinc	6010	2
Gross Alpha Radioactivity	900.0	3
Gross Beta Radioactivity	900.0	3

1. Methods for Chemical Analysis of Water and Wastes. EPA-600/4-79-020, revised March 1983

2. Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, U.S. EPA, Sw-846, July 1982, second edition.

3. Prescribed Procedures for Measurement of Radioactivity in Drinking Water. EPA-600/4-80-032, August 1980.

CERTIFICATE OF ANALYSIS

Engelhard Corporation
Date Reported: 12/31/91
Invoice #: D5709

	MW #1		MW #3		MW #4	
DATE SAMPLED	11/13/91		11/12/91		11/13/91	
DATE ANALYZED	11/19/91		11/15/91		11/19/91	
PARAMETER						
Volatile Organic Compounds (Method #624) :						
chloromethane	<1	µg/l	<10	µg/l	<100	µg/l
bromomethane	<1	"	<10	"	<100	"
vinyl chloride	<1	"	<10	"	<100	"
chloroethane	<1	"	<10	"	<100	"
methylene chloride	<1	"	<10	"	<100	"
trichlorofluoromethane	<1	"	<10	"	<100	"
1,1-dichloroethylene	<1	"	67	"	<100	"
1,1-dichloroethane	<1	"	39	"	<100	"
trans-1,2-dichloroethylene	<1	"	<10	"	<100	"
chloroform	<1	"	<10	"	<100	"
1,2-dichloroethane	<1	"	<10	"	<100	"
1,1,1-trichloroethane	<1	"	1,600	"	1,000	"
carbon tetrachloride	<1	"	<10	"	<100	"
bromodichloromethane	<1	"	<10	"	<100	"
1,2-dichloropropane	<1	"	<10	"	<100	"
cis-1,3-dichloropropylene	<1	"	<10	"	<100	"
trichloroethylene	2	"	1,200	"	700	"
trans-1,3-dichloropropylene	<1	"	<10	"	<100	"
1,1,2-trichloroethane	<1	"	<10	"	<100	"
dibromochloromethane	<1	"	<10	"	<100	"
bromoform	<1	"	<10	"	<100	"
tetrachloroethylene	16	"	120	"	6,900	"
1,1,2,2-tetrachloroethane	<1	"	<10	"	<100	"
chlorobenzene	<1	"	<10	"	<100	"
2-chloroethyl vinyl ether	<1	"	<10	"	<100	"
dichlorobenzenes	<1	"	<10	"	<100	"
benzene	<1	"	<10	"	<100	"
toluene	<1	"	<10	"	<100	"
ethylbenzene	<1	"	<10	"	<100	"
xylenes	<1	"	<10	"	<100	"

R.I. ANALYTICAL LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

Engelhard Corporation
Date Reported: 12/31/91
Invoice #: D5709

	MW #5		MW #6		MW #7	
DATE SAMPLED	11/13/91		11/13/91		11/13/91	
DATE ANALYZED	11/19/91		11/19/91		11/19/91	
PARAMETER						
Volatile Organic Compounds (Method #624) :						
chloromethane	<1	µg/l	<1	µg/l	<1	µg/l
bromomethane	<1	"	<1	"	<1	"
vinyl chloride	5	"	<1	"	<1	"
chloroethane	<1	"	<1	"	<1	"
methylene chloride	<1	"	<1	"	<1	"
trichlorofluoromethane	<1	"	<1	"	<1	"
1,1-dichloroethylene	3	"	<1	"	<1	"
1,1-dichloroethane	15	"	<1	"	<1	"
trans-1,2-dichloroethylene	<1	"	<1	"	<1	"
chloroform	<1	"	<1	"	<1	"
1,2-dichloroethane	<1	"	<1	"	<1	"
1,1,1-trichloroethane	110	"	<1	"	<1	"
carbon tetrachloride	<1	"	<1	"	<1	"
bromodichloromethane	<1	"	<1	"	<1	"
1,2-dichloropropane	<1	"	<1	"	<1	"
cis-1,3-dichloropropylene	<1	"	<1	"	<1	"
trichloroethylene	120	"	<1	"	<1	"
trans-1,3-dichloropropylene	<1	"	<1	"	<1	"
1,1,2-trichloroethane	<1	"	<1	"	<1	"
dibromochloromethane	<1	"	<1	"	<1	"
bromoform	<1	"	<1	"	<1	"
tetrachloroethylene	96	"	<1	"	<1	"
1,1,2,2-tetrachloroethane	<1	"	<1	"	<1	"
chlorobenzene	<1	"	<1	"	<1	"
2-chloroethyl vinyl ether	<1	"	<1	"	<1	"
dichlorobenzenes	<1	"	<1	"	<1	"
benzene	<1	"	<1	"	<1	"
toluene	<1	"	<1	"	<1	"
ethylbenzene	<1	"	<1	"	<1	"
xylenes	<1	"	<1	"	<1	"

R.I. ANALYTICAL LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

Engelhard Corporation
Date Reported: 12/31/91
Invoice #: D5709

	MW #8		MW #9		MW #12	
DATE SAMPLED	11/12/91		11/12/91		11/13/91	
DATE ANALYZED	11/15/91		11/15/91		11/19/91	
PARAMETER						
Volatile Organic Compounds (Method #624) :						
chloromethane	<1	µg/l	<1	µg/l	<1	µg/l
bromomethane	<1	"	<1	"	<1	"
vinyl chloride	<1	"	<1	"	<1	"
chloroethane	<1	"	<1	"	<1	"
methylene chloride	<1	"	<1	"	<1	"
trichlorofluoromethane	<1	"	<1	"	<1	"
1,1-dichloroethylene	9	"	<1	"	3	"
1,1-dichloroethane	4	"	<1	"	64	"
trans-1,2-dichloroethylene	<1	"	<1	"	<1	"
chloroform	<1	"	<1	"	<1	"
1,2-dichloroethane	<1	"	<1	"	<1	"
1,1,1-trichloroethane	330	"	3	"	140	"
carbon tetrachloride	<1	"	<1	"	<1	"
bromodichloromethane	<1	"	<1	"	<1	"
1,2-dichloropropane	<1	"	<1	"	<1	"
cis-1,3-dichloropropylene	<1	"	<1	"	<1	"
trichloroethylene	52	"	<1	"	53	"
trans-1,3-dichloropropylene	<1	"	<1	"	<1	"
1,1,2-trichloroethane	<1	"	<1	"	<1	"
dibromochloromethane	<1	"	<1	"	<1	"
bromoform	<1	"	<1	"	<1	"
tetrachloroethylene	55	"	<1	"	39	"
1,1,2,2-tetrachloroethane	<1	"	<1	"	<1	"
chlorobenzene	<1	"	<1	"	<1	"
2-chloroethyl vinyl ether	<1	"	<1	"	<1	"
dichlorobenzenes	<1	"	<1	"	<1	"
benzene	<1	"	<1	"	<1	"
toluene	<1	"	<1	"	<1	"
ethylbenzene	<1	"	<1	"	<1	"
xylenes	<1	"	<1	"	<1	"

R.I. ANALYTICAL LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

Engelhard Corporation
Date Reported: 12/31/91
Invoice #: D5709

	MW #13	MW #14	MW #15
DATE SAMPLED	11/12/91	11/12/91	11/13/91
DATE ANALYZED	11/19/91	11/15/91	11/19/91
PARAMETER			
Volatile Organic Compounds (Method #624) :			
chloromethane	<1 µg/l	<10 µg/l	<10 µg/l
bromomethane	<1 "	<10 "	<10 "
vinyl chloride	<1 "	<10 "	<10 "
chloroethane	<1 "	<10 "	<10 "
methylene chloride	<1 "	<10 "	<10 "
trichlorofluoromethane	<1 "	<10 "	<10 "
1,1-dichloroethylene	<1 "	49 "	250 "
1,1-dichloroethane	<1 "	20 "	74 "
trans-1,2-dichloroethylene	<1 "	<10 "	<10 "
chloroform	<1 "	<10 "	<10 "
1,2-dichloroethane	<1 "	<10 "	<10 "
1,1,1-trichloroethane	<1 "	2,700 "	8,600 "
carbon tetrachloride	<1 "	<10 "	<10 "
bromodichloromethane	<1 "	<10 "	<10 "
1,2-dichloropropane	<1 "	<10 "	<10 "
cis-1,3-dichloropropylene	<1 "	<10 "	<10 "
trichloroethylene	<1 "	240 "	2,000 "
trans-1,3-dichloropropylene	<1 "	<10 "	<10 "
1,1,2-trichloroethane	<1 "	<10 "	<10 "
dibromochloromethane	<1 "	<10 "	<10 "
bromoform	<1 "	<10 "	<10 "
tetrachloroethylene	<1 "	780 "	24,000 "
1,1,2,2-tetrachloroethane	<1 "	<10 "	<10 "
chlorobenzene	<1 "	<10 "	<10 "
2-chloroethyl vinyl ether	<1 "	<10 "	<10 "
dichlorobenzenes	<1 "	<10 "	<10 "
benzene	<1 "	<10 "	<10 "
toluene	<1 "	<10 "	<10 "
ethylbenzene	<1 "	<10 "	<10 "
xylenes	<1 "	<10 "	<10 "

R.I. ANALYTICAL LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

Engelhard Corporation
Date Reported: 12/31/91
Invoice #: D5709

	MW #16	MW #17	MW #18
DATE SAMPLED	11/12/91	11/14/91	11/13/91
DATE ANALYZED	11/15/91	11/21/91	11/19/91
PARAMETER			
Volatile Organic Compounds (Method #624) :			
chloromethane	<10 µg/l	<100 µg/l	<10 µg/l
bromomethane	<10 "	<100 "	<10 "
vinyl chloride	<10 "	<100 "	<10 "
chloroethane	<10 "	<100 "	<10 "
methylene chloride	<10 "	<100 "	<10 "
trichlorofluoromethane	<10 "	<100 "	<10 "
1,1-dichloroethylene	40 "	170 "	110 "
1,1-dichloroethane	<10 "	<100 "	<10 "
trans-1,2-dichloroethylene	<10 "	<100 "	<10 "
chloroform	<10 "	<100 "	<10 "
1,2-dichloroethane	<10 "	<100 "	<10 "
1,1,1-trichloroethane	4,000 "	17,000 "	1,300 "
carbon tetrachloride	<10 "	<100 "	<10 "
bromodichloromethane	<10 "	<100 "	<10 "
1,2-dichloropropane	<10 "	<100 "	<10 "
cis-1,3-dichloropropylene	<10 "	<100 "	<10 "
trichloroethylene	100 "	<100 "	370 "
trans-1,3-dichloropropylene	<10 "	<100 "	<10 "
1,1,2-trichloroethane	<10 "	<100 "	<10 "
dibromochloromethane	<10 "	<100 "	<10 "
bromoform	<10 "	<100 "	<10 "
tetrachloroethylene	360 "	9,300 "	18 "
1,1,2,2-tetrachloroethane	<10 "	<100 "	<10 "
chlorobenzene	<10 "	<100 "	<10 "
2-chloroethyl vinyl ether	<10 "	<100 "	<10 "
dichlorobenzenes	<10 "	<100 "	<10 "
benzene	<10 "	<100 "	<10 "
toluene	<10 "	<100 "	<10 "
ethylbenzene	<10 "	<100 "	<10 "
xylenes	<10 "	<100 "	<10 "

R.I. ANALYTICAL LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

Engelhard Corporation
Date Reported: 12/31/91
Invoice #: D5709

	MW #19	MW #20A	MW #20B
DATE SAMPLED	11/14/91	11/14/91	11/14/91
DATE ANALYZED	11/20/91	11/20/91	11/20/91
PARAMETER			
Volatile Organic Compounds (Method #624) :			
chloromethane	<10 µg/l	<1 µg/l	<1 µg/l
bromomethane	<10 "	<1 "	<1 "
vinyl chloride	<10 "	<1 "	<1 "
chloroethane	<10 "	<1 "	<1 "
methylene chloride	<10 "	<1 "	<1 "
trichlorofluoromethane	<10 "	<1 "	<1 "
1,1-dichloroethylene	25 "	<1 "	<1 "
1,1-dichloroethane	<10 "	<1 "	<1 "
trans-1,2-dichloroethylene	<10 "	<1 "	<1 "
chloroform	<10 "	<1 "	<1 "
1,2-dichloroethane	<10 "	<1 "	<1 "
1,1,1-trichloroethane	910 "	<1 "	5 "
carbon tetrachloride	<10 "	<1 "	<1 "
bromodichloromethane	<10 "	<1 "	<1 "
1,2-dichloropropane	<10 "	<1 "	<1 "
cis-1,3-dichloropropylene	<10 "	<1 "	<1 "
trichloroethylene	190 "	<1 "	<1 "
trans-1,3-dichloropropylene	<10 "	<1 "	<1 "
1,1,2-trichloroethane	<10 "	<1 "	<1 "
dibromochloromethane	<10 "	<1 "	<1 "
bromoform	<10 "	<1 "	<1 "
tetrachloroethylene	96 "	<1 "	1 "
1,1,2,2-tetrachloroethane	<10 "	<1 "	<1 "
chlorobenzene	<10 "	<1 "	<1 "
2-chloroethyl vinyl ether	<10 "	<1 "	<1 "
dichlorobenzenes	<10 "	<1 "	<1 "
benzene	<10 "	<1 "	<1 "
toluene	<10 "	<1 "	<1 "
ethylbenzene	<10 "	<1 "	<1 "
xylenes	<10 "	<1 "	<1 "

R.I. ANALYTICAL LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

Engelhard Corporation
Date Reported: 12/31/91
Invoice #: D5709

	MW #21A	MW #21B	MW #22A
DATE SAMPLED	11/14/91	11/14/91	11/12/91
DATE ANALYZED	11/21/91	11/20/91	11/18/91
PARAMETER			
Volatile Organic Compounds (Method #624) :			
chloromethane	<10 µg/l	<10 µg/l	<1 µg/l
bromomethane	<10 "	<10 "	<1 "
vinyl chloride	<10 "	<10 "	<1 "
chloroethane	<10 "	<10 "	<1 "
methylene chloride	<10 "	<10 "	<1 "
trichlorofluoromethane	<10 "	<10 "	<1 "
1,1-dichloroethylene	<10 "	38 "	<1 "
1,1-dichloroethane	49 "	57 "	<1 "
trans-1,2-dichloroethylene	<10 "	<10 "	<1 "
chloroform	<10 "	<10 "	<1 "
1,2-dichloroethane	<10 "	<10 "	<1 "
1,1,1-trichloroethane	470 "	2,400 "	<1 "
carbon tetrachloride	<10 "	<10 "	<1 "
bromodichloromethane	<10 "	<10 "	<1 "
1,2-dichloropropane	<10 "	<10 "	<1 "
cis-1,3-dichloropropylene	<10 "	<10 "	<1 "
trichloroethylene	200 "	170 "	<1 "
trans-1,3-dichloropropylene	<10 "	<10 "	<1 "
1,1,2-trichloroethane	<10 "	<10 "	<1 "
dibromochloromethane	<10 "	<10 "	<1 "
bromoform	<10 "	<10 "	<1 "
tetrachloroethylene	1,200 "	780 "	<1 "
1,1,2,2-tetrachloroethane	<10 "	<10 "	<1 "
chlorobenzene	<10 "	<10 "	<1 "
2-chloroethyl vinyl ether	<10 "	<10 "	<1 "
dichlorobenzenes	<10 "	<10 "	<1 "
benzene	<10 "	<10 "	<1 "
toluene	<10 "	<10 "	<1 "
ethylbenzene	<10 "	<10 "	<1 "
xylenes	<10 "	<10 "	<1 "

R.I. ANALYTICAL LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

Engelhard Corporation
Date Reported: 12/31/91
Invoice #: D5709

	MW #22B		MW #23A		MW #23B	
DATE SAMPLED	11/12/91		11/12/91		11/12/91	
DATE ANALYZED	11/15/91		11/15/91		11/15/91	
PARAMETER						
Volatile Organic Compounds (Method #624) :						
chloromethane	<1	µg/l	<1	µg/l	<1	µg/l
bromomethane	<1	"	<1	"	<1	"
vinyl chloride	<1	"	<1	"	<1	"
chloroethane	<1	"	<1	"	<1	"
methylene chloride	<1	"	<1	"	<1	"
trichlorofluoromethane	<1	"	<1	"	<1	"
1,1-dichloroethylene	5	"	<1	"	<1	"
1,1-dichloroethane	49	"	<1	"	<1	"
trans-1,2-dichloroethylene	<1	"	<1	"	<1	"
chloroform	<1	"	<1	"	<1	"
1,2-dichloroethane	<1	"	<1	"	<1	"
1,1,1-trichloroethane	160	"	<1	"	<1	"
carbon tetrachloride	<1	"	<1	"	<1	"
bromodichloromethane	<1	"	<1	"	<1	"
1,2-dichloropropane	<1	"	<1	"	<1	"
cis-1,3-dichloropropylene	<1	"	<1	"	<1	"
trichloroethylene	55	"	<1	"	<1	"
trans-1,3-dichloropropylene	<1	"	<1	"	<1	"
1,1,2-trichloroethane	<1	"	<1	"	<1	"
dibromochloromethane	<1	"	<1	"	<1	"
bromoform	<1	"	<1	"	<1	"
tetrachloroethylene	5	"	<1	"	<1	"
1,1,2,2-tetrachloroethane	<1	"	<1	"	<1	"
chlorobenzene	<1	"	<1	"	<1	"
2-chloroethyl vinyl ether	<1	"	<1	"	<1	"
dichlorobenzenes	<1	"	<1	"	<1	"
benzene	<1	"	<1	"	<1	"
toluene	<1	"	<1	"	<1	"
ethylbenzene	<1	"	<1	"	<1	"
xylenes	<1	"	<1	"	<1	"

R.I. ANALYTICAL LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

Engelhard Corporation
Date Reported: 12/31/91
Invoice #: D5709

	MW #24A	MW #24B
DATE SAMPLED	11/12/91	11/12/91
DATE ANALYZED	11/15/91	11/15/91
PARAMETER		
Volatile Organic Compounds (Method #624) :		
chloromethane	<1 µg/l	<1 µg/l
bromomethane	<1 "	<1 "
vinyl chloride	<1 "	<1 "
chloroethane	<1 "	<1 "
methylene chloride	<1 "	<1 "
trichlorofluoromethane	<1 "	<1 "
1,1-dichloroethylene	<1 "	<1 "
1,1-dichloroethane	<1 "	<1 "
trans-1,2-dichloroethylene	<1 "	<1 "
chloroform	<1 "	<1 "
1,2-dichloroethane	<1 "	<1 "
1,1,1-trichloroethane	<1 "	<1 "
carbon tetrachloride	<1 "	<1 "
bromodichloromethane	<1 "	<1 "
1,2-dichloropropane	<1 "	<1 "
cis-1,3-dichloropropylene	<1 "	<1 "
trichloroethylene	<1 "	<1 "
trans-1,3-dichloropropylene	<1 "	<1 "
1,1,2-trichloroethane	<1 "	<1 "
dibromochloromethane	<1 "	<1 "
bromoform	<1 "	<1 "
tetrachloroethylene	<1 "	<1 "
1,1,2,2-tetrachloroethane	<1 "	<1 "
chlorobenzene	<1 "	<1 "
2-chloroethyl vinyl ether	<1 "	<1 "
dichlorobenzenes	<1 "	<1 "
benzene	<1 "	<1 "
toluene	<1 "	<1 "
ethylbenzene	<1 "	<1 "
xylenes	<1 "	<1 "

R.I. ANALYTICAL LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

Engelhard Corporation
Date Reported: 12/31/91
Invoice #: D5709

	MW #3	MW #4
DATE SAMPLED	11/12/91	11/13/91
DATE ANALYZED	12/09/91	12/18/91
PARAMETER		
Metals (soluble):		
Antimony	<0.005 mg/l	<0.005 mg/l
Arsenic	<0.005 "	<0.005 "
Beryllium	<0.01 "	<0.01 "
Cadmium	<0.01 "	<0.01 "
Copper	<0.05 "	<0.05 "
Chromium	<0.03 "	<0.03 "
Copper	<0.05 "	<0.05 "
Lead	<0.04 "	<0.04 "
Mercury	<0.0005 "	<0.0005 "
Nickel	<0.02 "	<0.02 "
Selenium	<0.005 "	<0.005 "
Silver	<0.02 "	<0.02 "
Thallium	<0.005 "	<0.005 "
Zinc	0.06 "	<0.02 "
Gross Alpha Radioactivity	3.2+/-2.7 pCi/L	1.5+/-1.7 pCi/L
Gross Beta Radioactivity	3.3+/-3.4 pCi/L	2.2+/-3.1 pCi/L

R.I. ANALYTICAL LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

Engelhard Corporation
Date Reported: 12/31/91
Invoice #: D5709

	MW #5	MW #6
DATE SAMPLED	**11/13/91**	**11/13/91**
DATE ANALYZED	**12/20/91**	**12/20/91**
PARAMETER		
Metals (soluble):		
Antimony	<0.005 mg/l	<0.005 mg/l
Arsenic	<0.005 "	<0.005 "
Beryllium	<0.01 "	<0.01 "
Cadmium	<0.01 "	<0.01 "
Copper	<0.05 "	<0.05 "
Chromium	<0.03 "	<0.03 "
Copper	<0.05 "	<0.05 "
Lead	<0.04 "	<0.04 "
Mercury	<0.0005 "	<0.0005 "
Nickel	<0.02 "	<0.02 "
Selenium	<0.005 "	<0.005 "
Silver	<0.02 "	<0.02 "
Thallium	<0.005 "	<0.005 "
Zinc	<0.02 "	<0.02 "
Gross Alpha Radioactivity	2.0+/-1.8 pCi/L	0.4+/-1.9 pCi/L
Gross Beta Radioactivity	0.4+/-3.0 pCi/L	0.0+/-3.1 pCi/L

R.I. ANALYTICAL LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

Engelhard Corporation
Date Reported: 12/31/91
Invoice #: D5709

	MW #14	MW #15
DATE SAMPLED	11/12/91	11/13/91
DATE ANALYZED	12/09/91	12/18/91
PARAMETER		
Metals (soluble):		
Antimony	<0.005 mg/l	<0.005 mg/l
Arsenic	<0.005 "	<0.005 "
Beryllium	<0.01 "	<0.01 "
Cadmium	<0.01 "	<0.01 "
Copper	<0.05 "	<0.05 "
Chromium	<0.03 "	<0.03 "
Copper	<0.05 "	<0.05 "
Lead	<0.04 "	<0.04 "
Mercury	<0.0005 "	<0.0005 "
Nickel	<0.02 "	<0.02 "
Selenium	<0.005 "	<0.005 "
Silver	<0.02 "	<0.02 "
Thallium	<0.005 "	<0.005 "
Zinc	0.06 "	<0.02 "
Gross Alpha Radioactivity	1.0+/-1.7 pCi/L	2.6+/-2.0 pCi/L
Gross Beta Radioactivity	2.3+/-3.1 pCi/L	2.5+/-3.1 pCi/L

R.I. ANALYTICAL LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

Engelhard Corporation
Date Reported: 12/31/91
Invoice #: D5709

	MW #17	MW #18
DATE SAMPLED	11/14/91	11/13/91
DATE ANALYZED	11/27/91	12/20/91
PARAMETER		
Metals (soluble):		
Antimony	<0.005 mg/l	<0.005 mg/l
Arsenic	<0.005 "	<0.005 "
Beryllium	<0.01 "	<0.01 "
Cadmium	<0.01 "	<0.01 "
Copper	<0.05 "	<0.05 "
Chromium	<0.03 "	<0.03 "
Copper	<0.05 "	<0.05 "
Lead	<0.04 "	<0.04 "
Mercury	<0.0005 "	<0.0005 "
Nickel	<0.02 "	<0.02 "
Selenium	<0.005 "	<0.005 "
Silver	<0.02 "	<0.02 "
Thallium	<0.005 "	<0.005 "
Zinc	<0.02 "	<0.02 "
Gross Alpha Radioactivity	2.6+/-2.2 pCi/L	1.7+/-2.2 pCi/L
Gross Beta Radioactivity	0.7+/-3.2 pCi/L	3.6+/-3.2 pCi/L

R.I. ANALYTICAL LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

Engelhard Corporation
Date Reported: 12/31/91
Invoice #: D5709

MATRIX SPIKING DATA

MW #17

PARAMETER	SPIKE LEVEL	EXPECTED LEVEL	DETECTED LEVEL	% REC.
Metals (mg/l):				
Antimony	0.040	0.040	0.035	88
Arsenic	0.040	0.040	0.040	100
Beryllium	1.00	1.00	1.04	104
Cadmium	1.00	1.00	1.02	102
Copper	1.00	1.00	1.00	100
Chromium	1.00	1.00	1.07	107
Copper	1.00	1.00	1.03	103
Lead	1.00	1.00	1.04	104
Mercury	0.0020	0.0020	0.0018	90
Nickel	1.00	1.00	1.04	104
Selenium	0.040	0.040	0.032	80
Silver	1.00	1.00	0.89	89
Thallium	0.040	0.040	0.037	92
Zinc	1.00	1.00	1.04	104

CERTIFICATE OF ANALYSIS

Engelhard Corporation
Date Reported: 12/31/91
Invoice #: D5709

MATRIX SPIKING DATA

MW-22B

PARAMETER	SPIKE LEVEL	EXPECTED LEVEL	DETECTED LEVEL	% REC.
Volatile Organic Compounds (Method #624) :				
chloromethane	20	20	27.9	139
bromomethane	20	20	20.6	103
vinyl chloride	20	20	25.8	129
chloroethane	20	20	18.0	90
methylene chloride	20	20	17.8	89
trichlorofluoromethane	20	20	18.0	90
1,1-dichloroethylene	20	25	25.3	103
1,1-dichloroethane	20	69	70.7	106
trans-1,2-dichloroethylene	20	20	21.0	105
chloroform	20	20	20.4	102
1,2-dichloroethane	20	20	25.0	125
1,1,1-trichloroethane	20	180	179.0	100
carbon tetrachloride	20	20	22.0	110
bromodichloromethane	20	20	23.0	115
1,2-dichloropropane	20	20	24.0	120
cis-1,3-dichloropropylene	20	20	20.2	101
trichloroethylene	20	75	74.1	95
trans-1,3-dichloropropylene	20	20	20.6	103
1,1,2-trichloroethane	20	20	22.4	112
dibromochloromethane	20	20	21.4	107
bromoform	20	20	23.0	115
tetrachloroethylene	20	25	27.3	112
1,1,2,2-tetrachloroethane	20	20	23.8	119
chlorobenzene	20	20	21.4	107
dichlorobenzenes	60	60	70.2	117
benzene	20	20	23.4	117
toluene	20	20	19.8	99
ethylbenzene	20	20	19.6	98
xylenes	60	60	60.0	100

R.I. ANALYTICAL LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

Engelhard Corporation
Date Reported: 12/31/91
Invoice #: D5709

REPLICATE SAMPLE RESULTS

PARAMETER	MW #14		RELATIVE % DIFFERENCE
Metals (soluble):			
Antimony	<0.005	mg/l	0
Arsenic	<0.005	"	0
Beryllium	<0.01	"	0
Cadmium	<0.01	"	0
Copper	<0.05	"	0
Chromium	<0.03	"	0
Copper	<0.05	"	0
Lead	<0.04	"	0
Mercury	<0.0005	"	0
Nickel	<0.02	"	0
Selenium	<0.005	"	0
Silver	<0.02	"	0
Thallium	<0.005	"	0
Zinc	0.06	"	0

R.I. ANALYTICAL LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

Engelhard Corporation
Date Reported: 12/31/91
Invoice #: D5709

REPLICATE SAMPLE RESULTS

PARAMETER	MW #13		RELATIVE % DIFFERENCE
Volatile Organic Compounds (Method #624) :			
chloromethane	<1	µg/l	0
bromomethane	<1	"	0
vinyl chloride	<1	"	0
chloroethane	<1	"	0
methylene chloride	<1	"	0
trichlorofluoromethane	<1	"	0
1,1-dichloroethylene	<1	"	0
1,1-dichloroethane	<1	"	0
trans-1,2-dichloroethylene	<1	"	0
chloroform	<1	"	0
1,2-dichloroethane	<1	"	0
1,1,1-trichloroethane	<1	"	0
carbon tetrachloride	<1	"	0
bromodichloromethane	<1	"	0
1,2-dichloropropane	<1	"	0
cis-1,3-dichloropropylene	<1	"	0
trichloroethylene	<1	"	0
trans-1,3-dichloropropylene	<1	"	0
1,1,2-trichloroethane	<1	"	0
dibromochloromethane	<1	"	0
bromoform	<1	"	0
tetrachloroethylene	<1	"	0
1,1,2,2-tetrachloroethane	<1	"	0
chlorobenzene	<1	"	0
2-chloroethyl vinyl ether	<1	"	0
dichlorobenzenes	<1	"	0
benzene	<1	"	0
toluene	<1	"	0
ethylbenzene	<1	"	0
xylenes.	<1	"	0

R.I. ANALYTICAL LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

Engelhard Corporation
Date Reported: 12/31/91
Invoice #: D5709

REPLICATE SAMPLE RESULTS

PARAMETER	MW #3		RELATIVE % DIFFERENCE
Volatile Organic Compounds (Method #624) :			
chloromethane	<10	µg/l	0
bromomethane	<10	"	0
vinyl chloride	<10	"	0
chloroethane	<10	"	0
methylene chloride	<10	"	0
trichlorofluoromethane	<10	"	0
1,1-dichloroethylene	100	"	39
1,1-dichloroethane	50	"	25
trans-1,2-dichloroethylene	<10	"	0
chloroform	<10	"	0
1,2-dichloroethane	<10	"	0
1,1,1-trichloroethane	1,800	"	12
carbon tetrachloride	<10	"	0
bromodichloromethane	<10	"	0
1,2-dichloropropane	<10	"	0
cis-1,3-dichloropropylene	<10	"	0
trichloroethylene	1,300	"	8
trans-1,3-dichloropropylene	<10	"	0
1,1,2-trichloroethane	<10	"	0
dibromochloromethane	<10	"	0
bromoform	<10	"	0
tetrachloroethylene	140	"	15
1,1,2,2-tetrachloroethane	<10	"	0
chlorobenzene	<10	"	0
2-chloroethyl vinyl ether	<10	"	0
dichlorobenzenes	<10	"	0
benzene	<10	"	0
toluene	<10	"	0
ethylbenzene	<10	"	0
xylenes	<10	"	0

R.I. ANALYTICAL LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

Engelhard Corporation
Date Reported: 12/31/91
Invoice #: D5709

FIELD DUPLICATE RESULTS

PARAMETER	MW #15	RELATIVE % DIFFERENCE
Metals (soluble):		
Antimony	<0.005 mg/l	0
Arsenic	<0.005 "	0
Beryllium	<0.01 "	0
Cadmium	<0.01 "	0
Copper	<0.05 "	0
Chromium	<0.03 "	0
Copper	<0.05 "	0
Lead	<0.04 "	0
Mercury	<0.0005 "	0
Nickel	<0.02 "	0
Selenium	<0.005 "	0
Silver	<0.02 "	0
Thallium	<0.005 "	0
Zinc	0.06 "	0
Gross Alpha Radioactivity	3.2+/-2.7 pCi/L	21
Gross Beta Radioactivity	2.4+/-3.4 pCi/L	4

R.I. ANALYTICAL LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

Engelhard Corporation
Date Reported: 12/31/91
Invoice #: D5709

FIELD DUPICATE RESULTS

PARAMETER	MW 20B		RELATIVE % DIFFERENCE
Volatile Organic Compounds (Method #624) :			
chloromethane	<1	µg/l	0
bromomethane	<1	"	0
vinyl chloride	<1	"	0
chloroethane	<1	"	0
methylene chloride	<1	"	0
trichlorofluoromethane	<1	"	0
1,1-dichloroethylene	<1	"	0
1,1-dichloroethane	<1	"	0
trans-1,2-dichloroethylene	<1	"	0
chloroform	<1	"	0
1,2-dichloroethane	<1	"	0
1,1,1-trichloroethane	6	"	18
carbon tetrachloride	<1	"	0
bromodichloromethane	<1	"	0
1,2-dichloropropane	<1	"	0
cis-1,3-dichloropropylene	<1	"	0
trichloroethylene	<1	"	0
trans-1,3-dichloropropylene	<1	"	0
1,1,2-trichloroethane	<1	"	0
dibromochloromethane	<1	"	0
bromoform	<1	"	0
tetrachloroethylene	2	"	67
1,1,2,2-tetrachloroethane	<1	"	0
chlorobenzene	<1	"	0
2-chloroethyl vinyl ether	<1	"	0
dichlorobenzenes	<1	"	0
benzene	<1	"	0
toluene	<1	"	0
ethylbenzene	<1	"	0
xylenes	<1	"	0

R.I. ANALYTICAL LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

Engelhard Corporation
Date Reported: 12/31/91
Invoice #: D5709

FIELD DUPICATE RESULTS

PARAMETER	MW 15		RELATIVE % DIFFERENCE
Volatile Organic Compounds (Method #624) :			
chloromethane	<10	µg/l	0
bromomethane	<10	"	0
vinyl chloride	<10	"	0
chloroethane	<10	"	0
methylene chloride	<10	"	0
trichlorofluoromethane	<10	"	0
1,1-dichloroethylene	205	"	20
1,1-dichloroethane	66	"	11
trans-1,2-dichloroethylene	<10	"	0
chloroform	<10	"	0
1,2-dichloroethane	<10	"	0
1,1,1-trichloroethane	7,400	"	15
carbon tetrachloride	<10	"	0
bromodichloromethane	<10	"	0
1,2-dichloropropane	<10	"	0
cis-1,3-dichloropropylene	<10	"	0
trichloroethylene	1,800	"	10
trans-1,3-dichloropropylene	<10	"	0
1,1,2-trichloroethane	<10	"	0
dibromochloromethane	<10	"	0
bromoform	<10	"	0
tetrachloroethylene	18,000	"	28
1,1,2,2-tetrachloroethane	<10	"	0
chlorobenzene	<10	"	0
2-chloroethyl vinyl ether	<10	"	0
dichlorobenzenes	<10	"	0
benzene	<10	"	0
toluene	<10	"	0
ethylbenzene	<10	"	0
xylenes	<10	"	0

R.I. ANALYTICAL LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

Engelhard Corporation
Date Reported: 12/31/91
Invoice #: D5709

		BAILER BLANK
	DATE SAMPLED	**11/12/91**
	DATE ANALYZED	**12/09/91**
PARAMETER		
Metals (soluble):		
Antimony	<0.005	mg/l
Arsenic	<0.005	"
Beryllium	<0.01	"
Cadmium	<0.01	"
Copper	<0.05	"
Chromium	<0.03	"
Copper	<0.05	"
Lead	<0.04	"
Mercury	<0.0005	"
Nickel	<0.02	"
Selenium	<0.005	"
Silver	<0.02	"
Thallium	<0.005	"
Zinc	<0.02	"

R.I. ANALYTICAL LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

Engelhard Corporation
Date Reported: 12/31/91
Invoice #: D5709

	BAILER BLANK		TRIP BLANK	
DATE SAMPLED	11/12/91		11/12/91	
DATE ANALYZED	11/15/91		11/15/91	
PARAMETER				
Volatile Organic Compounds (Method #624) :				
chloromethane	<1	µg/l	<1	µg/l
bromomethane	<1	"	<1	"
vinyl chloride	<1	"	<1	"
chloroethane	<1	"	<1	"
methylene chloride	<1	"	<1	"
trichlorofluoromethane	<1	"	<1	"
1,1-dichloroethylene	<1	"	<1	"
1,1-dichloroethane	<1	"	<1	"
trans-1,2-dichloroethylene	<1	"	<1	"
chloroform	<1	"	<1	"
1,2-dichloroethane	<1	"	<1	"
1,1,1-trichloroethane	<1	"	<1	"
carbon tetrachloride	<1	"	<1	"
bromodichloromethane	<1	"	<1	"
1,2-dichloropropane	<1	"	<1	"
cis-1,3-dichloropropylene	<1	"	<1	"
trichloroethylene	<1	"	<1	"
trans-1,3-dichloropropylene	<1	"	<1	"
1,1,2-trichloroethane	<1	"	<1	"
dibromochloromethane	<1	"	<1	"
bromoform	<1	"	<1	"
tetrachloroethylene	<1	"	<1	"
1,1,2,2-tetrachloroethane	<1	"	<1	"
chlorobenzene	<1	"	<1	"
2-chloroethyl vinyl ether	<1	"	<1	"
dichlorobenzenes	<1	"	<1	"
benzene	<1	"	<1	"
toluene	3	"	<1	"
ethylbenzene	<1	"	<1	"
xylenes	<1	"	<1	"

R.I. ANALYTICAL LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

Engelhard Corporation
Date Reported: 12/31/91
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	BAILER BLANK		TRIP BLANK	
DATE SAMPLED	11/13/91		11/13/91	
DATE ANALYZED	11/19/91		11/19/91	
PARAMETER				
Volatile Organic Compounds (Method #624) :				
chloromethane	<1	µg/l	<1	µg/l
bromomethane	<1	"	<1	"
vinyl chloride	<1	"	<1	"
chloroethane	<1	"	<1	"
methylene chloride	<1	"	<1	"
trichlorofluoromethane	<1	"	<1	"
1,1-dichloroethylene	<1	"	<1	"
1,1-dichloroethane	<1	"	<1	"
trans-1,2-dichloroethylene	<1	"	<1	"
chloroform	<1	"	<1	"
1,2-dichloroethane	<1	"	<1	"
1,1,1-trichloroethane	<1	"	<1	"
carbon tetrachloride	<1	"	<1	"
bromodichloromethane	<1	"	<1	"
1,2-dichloropropane	<1	"	<1	"
cis-1,3-dichloropropylene	<1	"	<1	"
trichloroethylene	<1	"	<1	"
trans-1,3-dichloropropylene	<1	"	<1	"
1,1,2-trichloroethane	<1	"	<1	"
dibromochloromethane	<1	"	<1	"
bromoform	<1	"	<1	"
tetrachloroethylene	<1	"	<1	"
1,1,2,2-tetrachloroethane	<1	"	<1	"
chlorobenzene	<1	"	<1	"
2-chloroethyl vinyl ether	<1	"	<1	"
dichlorobenzenes	<1	"	<1	"
benzene	<1	"	<1	"
toluene	5	"	<1	"
ethylbenzene	<1	"	<1	"
xylenes	<1	"	<1	"

R.I. ANALYTICAL LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

Engelhard Corporation
Date Reported: 12/31/91
Invoice #: D5709

MONITORING WELL DATA

WELL NO.	DEPTH OF WELL (ft)	DIAMETER OF CASING (IN.)	WATER LEVEL (FT.)	VOLUME REQUIRED (GAL.)	VOLUME BAILED (GALS)
1	17.0	2	9.0	4.4	4.5
3	27.0	2	10.5	5.14	5.5
4	26.5	2	5.5	2.69	3.0
5	22.0	2	14.0	6.85	7.0
6	19.0	2	15.0	7.34	7.5
7	21.5	2	9.0	4.4	4.5
8	21.1	2	15.5	7.58	8.0
9	21.0	2	15.0	7.34	7.5
12	24.5	2	6.5	3.18	3.5
13	37.0	4	25.0	49.0	49.0
14	34.0	4	17.0	33.3	33.5
15	39.0	4	20.0	39.2	39.5
16	72.0	4	57.0	111	112
17	74.0	4	54.0	106	106
18	42.0	4	34.0	66.6	67.0
19	39.0	4	33.5	65.63	66.0
20A	10.0	4	4.0	7.83	8.0
20B	47.0	4	43.0	84.24	84.5
21A	10.0	4	4.0	7.83	8.0
21B	52.0	4	46.0	90.1	90.0
22A	8.5	4	3.5	6.86	7.0
22B	54.0	4	49.0	96.0	96.0
23A	9.5	4	5.0	9.79	10.0
23B	50.0	4	47.0	92.07	92.0
24A	15.5	4	3.0	1.46	1.5
24B	53.0	4	44.0	86.2	86.5

R.I. ANALYTICAL LABORATORIES, INC.