ENVIRONMENTAL PROTECTION AGENCY
Box 12, Alexandria, VA 22313 - 703/683-[illegible]

10/14/81 OVA

CHEMICAL RECOVERY - ELYRIA

Sample Number OH-293-20 E0632 145810

ORGANICS ANALYSIS DATA SHEET

LABORATORY NAME ENERGY RESOURCES CO. INC. MARK HUTSON EE/B 487 Well #2 environmental

LAB SAMPLE ID NO. 25-151 F5-8104-5 81MC09 S10

QC REPORT NO. 7 Transmitted 10/15/81 bx

ACID COMPOUNDS

		ug/l
21A	2,4,6- trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2- chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4- dimethylphenol	*
57A	2- nitrophenol	ND
58A	4- nitrophenol	ND
59A	2,4- dinitrophenol	ND
60A	4,6- dinitro-o-cresol	ND
64A	pentachlorophenol	16.
65A	phenol	19.

BASE/NEUTRAL COMPOUNDS

1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4- trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	ND
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	*
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4- dinitrotoluene	ND
36B	2,6- dinitrotoluene	ND
37B	1,2- diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	*
40B	4- chlorophenyl phenyl ether	ND

BASE/NEUTRAL COMPOUNDS - ppb ug/l

41B	4-bromophenyl phenyl ether	ND
42B	bis (2-chloroisopropyl) ether	ND
43B	bis (2-chloroethoxy) methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	29.
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	ND
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis (2-ethylhexyl) phthalate	*
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	*
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	*
73B	benzo(a)pyrene	11.
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	*
76B	chrysene	*
77B	acenaphthylene	ND
78B	anthracene/phenanthrene	*
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	See 78B
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	*

Sample Number
E 0632

ORGANICS ANALYSIS DATA SHEET - Page 2

LABORATORY NAME ENERGY RESOURCES CO. INC.

LAB SAMPLE ID NO. 25-151

EPC REPORT NO. 7

	VOLATILES	ug/l
V	acrolein	ND
V	acrylonitrile	ND
V	benzene	1900.
V	carbon tetrachloride	ND
V	chlorobenzene	ND
0V	1,2-dichloroethane	ND
1V	1,1,1-trichloroethane	2200.
3V	1,1-dichloroethane	5300.
4V	1,1,2-trichloroethane	ND
5V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	10,000.
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	6500
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	4500
87V	trichloroethylene	ND
88V	vinyl chloride	ND

	PESTICIDES	ug/l
89P	aldrin	ND
90P	dieldrin	ND
91P	chlordane	ND
92P	4,4'-DDT	ND
93P	4,4'-DDE	ND
94P	4,4'-DDD	ND
95P	α -endosulfan	ND
96P	β -endosulfan	ND
97P	endosulfan sulfate	ND
98P	endrin	ND
99P	endrin aldehyde	ND
100P	heptachlor	ND
101P	heptachlor epoxide	ND
102P	α -BHC	ND
103P	β -BHC	ND
104P	δ -BHC	ND
105P	γ -BHC	ND
106P	PCB-1242	ND
107P	PCB-1254	*
108P	PCB-1221	ND
109P	PCB-1232	ND
110P	PCB-1248	*
111P	PCB-1260	ND
112P	PCB-1016	ND
113P	toxaphene	ND

	DIOXINS	
129B	2,3,7,8-tetrachlorodibenzo-p-dioxin	ND

*Less than 10 ug/l
(pesticides less than 0.1 ug/l)

ND = Not detected

b NATURAL ENERGY RESOURCES CO., INC.

Report No: 7

Sample Number: E 0632

A. SURROGATE SPIKE RESULTS

COMPOUND	Fraction	Conc. (ug/l)	(Surrogates only) Spike Added (ug/l)	% Recovery
d6-phenol	Acid	23.	100.	23%
fluorophenol	Acid	38.	100.	38%
d8-naphthalene	B/N	51.	100.	51%
d5-nitrobenzene	B/N	65.	100.	65%
d5-pyridine	B/N	5.9	100.	5.9%
d6-benzene	VOA	76.	100.	76%
d8-toluene	VOA	90.	100.	90%

B. TENTATIVELY IDENTIFIED COMPOUNDS

	CAS #	COMPOUND NAME	Fraction	% Maximum Score Attained Mass Matching Routine: HP PBS (specify)
1.	Ref# 20759	R.T. = 9.1 3,3,5-trimethylcyclohexenol	B/N	Ref. book match
2.		R.T. = 9.5 Unknown	B/N	
3.	00001 06445	R.T. = 11.0 4-methyl-phenol	B/N	Computer match 97.86%
4.		R.T. = 12.0 Unknown	B/N	
5.	00001 06627	R.T. = 4.6 2-(2-hydroxypropoxy)-1-propanol	Acid	Computer match 97.63
6.	00542 09295	R.T. = 4.9 (ethylpropoxy) cyclohexene	Acid	Computer match 97.75
7.	00008 72584	R.T. = 6.7 1-methyl 2-pyrrolidinone	Acid	Computer match 97.97
8.	00001 42621	R.T. = 8.2 Hexanoic Acid	Acid	Computer match 97.88
9.	00001 49575	R.T. = 9.4 2-ethyl-hexanoic Acid	Acid	Computer match 97.91
10.		R.T. = 11.0 Cyclohexenebutyl-1,3,5 2,4,6,(oxyles)	Acid	Lit. Ref. 24070 #13421
11.		R.T. = 11.9 Unknown	Acid	
12.		R.T. = 14.9 2-butenyl benzene	Acid	Ref. book match
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				

MARK HUTSON F5-8104-5

U.S. ENVIRONMENTAL PROTECTION AGENCY - HWI Sample Management Office
P.O. Box 818 - Alexandria, Virginia 22313 - 703/557-2490/FTS-8-557-2490 EEIB 487

[redacted] 81-

INORGANICS ANALYSIS DATA SHEET CHEMICAL RECOVERY Well #2

585-180 [redacted] MC09S10 Transmitted 8/24/81

LABORATORY NAME Versar Inc. SAMPLE NO. ME 8265

LAB SAMPLE ID NO. 5651 QC REPORT NO.

TASK 1 (Elements to be identified and measured)

		ug/l			ug/l
1.	Aluminum	347,000.[c]	10.	Nickel	1,040.
2.	Chromium	910.	11.	Manganese	1,980.
3.	Barium	2,740.	12.	Zinc	7,040.
4.	Beryllium	14.	13.	Boron	740.
5.	Cadmium	195.	14.	Vanadium	640.
6.	Cobalt	330.	15.	Calcium	521,000.
7.	Copper	1,340.	16.	Magnesium	240,000.
8.	Iron	926,000.	17.	Sodium	250,000.
9.	Lead	1,160.			

TASK 2 (Elements to be identified and measured)

		ug/l			ug/l
1.	Arsenic	400.[a]	5.	Mercury	3.
2.	Antimony	<20.	6.	Tin	100[b]
3.	Selenium	<200.[a]	7.	Silver	<100.
4.	Thallium	<10.			

TASK 3 (Elements to be identified and measured)

1.	Ammonia	mg/l	4.	Cyanide	mg/l
2.	Fluoride	mg/l	5.	pH	Units
3.	Sulfide	mg/l	6.	TOC	mg/l

COMMENTS:
a) with a detection limit of 200.
b) with a detection limit of 40.
c) with a detection limit of 1,000.
d) analyzed on a sample aliquot preserved with HCl from F/pH sample bottle
e) average of two replicate determinations
f) insufficient sample aliquot