

Mailing Address: box 1410  
City: Paducah State: KY Zip: 42001  
Phone: (502) 441-6000

(3) WELL RECORD LABEL LOCATION:  
 Well casing  other

(4) WELL LOCATION:  
USGS Quadrangle Name: Heath  
County: McCracken  
Elevation: 381.23 ft. ( ) map ( ) altimeter ( ) other survey  
Latitude: 37 06 54 Longitude: 88 48 42  
Physiographic or Hydrologic Region:  
 Blue Grass  Ohio River Alluvium  E. Coal Field  
 Miss. Plateau  Jackson Purchase  W. Coal Field

(7) WELL USE:  
 domestic  public  irrigation  
 industrial  livestock  monitoring  
 unused  other  
PWSID #:  
Water Withdrawal Permit #:

(10) TYPE OF TREATMENT SYSTEM:  
 none  
 water softener  
 ultra violet  
 chlorination  
 aeration  
 charcoal filter  
 sand filter  
 iron inhibitor  
 other

(5) WELL CHARACTERISTICS:  
Is this a hand dug well? ( ) yes ( ) no ( ) unknown  
Who constructed well? CH 2 M Hill ( ) unknown  
Address:  
City: Oak Ridge State: TN Zip:  
Date well was completed: 01 16 91 ( ) unknown  
Month Day Year

(8) WELL SERVICE:  
Number of people served: NA  
Number of service connections:  
Any quantity problems? ( ) yes ( ) no  
Any quality problems? ( ) yes ( ) no  
Describe:

Is a treatment bypass available? ( ) yes ( ) no  
Describe water quality problem requiring treatment:

Total depth: 37.5 ft. ( ) measured ( ) reported ( ) unknown  
Does the casing extend above the ground? ( ) yes ( ) no ( ) unknown  
36 in.

(9) COMPLIANCE TO STANDARDS:  
Is this well in compliance with state water well construction standards? ( ) yes ( ) no ( ) unknown  
If no, describe deficiencies:

Casing Type(s)	Casing Inside Diameter (in)	Feet Below Surface		Casing Wall Thickness
		From	To	
1. 5" steel	2	-3'	32.5'	
2. 2" screen	2	32.5'	37.5'	
3.				
4.				

(11) INSPECTION INFORMATION:  
Date of Inspection: 9 22 92  
Month Day Year  
Check one: ( ) original inspection ( ) re-inspection

Is the well located in a pit? ( ) yes ( ) no ( ) unknown  
Is the water discharge pipe below ground surface? ( ) yes ( ) no ( ) unknown  
Is a pitless adapter used? ( ) yes ( ) no ( ) unknown  
Well yield: ( ) gpm ( ) gph ( ) gpd ( ) unknown  
( ) measured ( ) estimated  
Surface annular material: ( ) clay ( ) sand ( ) cement ( ) unknown  
( ) drill cuttings ( ) gravel ( ) open annulus ( ) other

Was a water quality sample taken as part of this inspection? ( ) yes ( ) no  
Reason for inspection (check all that are applicable):  
 general water quality analysis requested  
 specific complaint investigation  
 general survey  
 ambient groundwater monitoring  
 other

Well head (casing top): ( ) well cap ( ) sanitary seal ( ) open ( ) other  
Pump type: ( ) jet ( ) submersible ( ) hand pump ( ) turbine ( ) none ( ) bailer/bucket ( ) other  
Level of pump intake: NA ft. ( ) unknown  
Age of pump: yrs. ( ) unknown

Other ID #: MW 176  
Other ID #:  
Well inventory #:  
Permit/Program Name

Electric connection for pump: ( ) 2 wire, 110V ( ) 3 wire, 220V ( ) unknown  
Static water level: 37.55 ft. below surface ( ) measured ( ) reported ( ) can't be measured ( ) not measured 5142  
Does the owner have any log or record concerning this well? ( ) yes ( ) no If yes, specify:

(12) OPTIONAL USE:  
Will well owner allow state monitoring? ( ) yes ( ) no ( ) unknown  
Extent of monitoring allowed: ( ) collect sample ( ) measure static water level ( ) pump well ( ) remove well cap ( ) other  
Monitoring feasibility: high

(6) SKETCH MAP:  
West side of C-400

(13) COMMENTS:

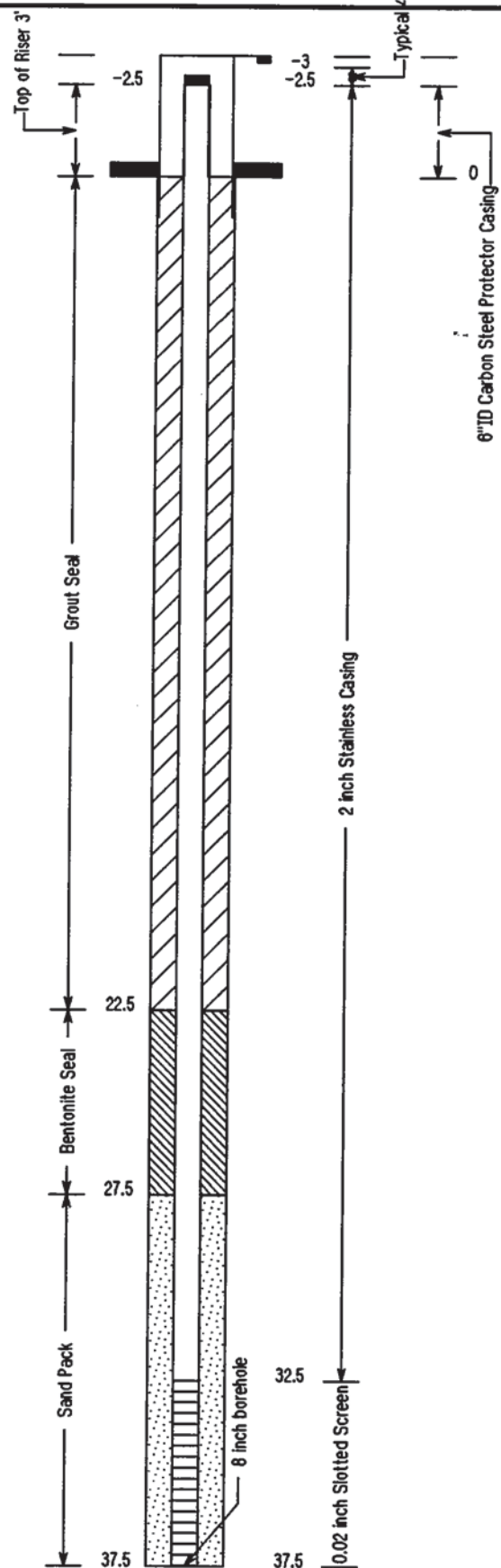
(14) INSPECTOR IDENTIFICATION:  
Name: Bell Jarrod C. 3031  
Last First MI Inspector ID #  
Agency: ( ) CHR ( ) DOW ( ) DWM ( ) KGS ( ) SOAP ( ) Other  
Signature of Inspector:

Date: 9 22 92  
Month Day Year  
Number of Attached pages:

(See Logbook # 25)



GROUND SURFACE



**WELL CONSTRUCTION DETAILS**

**WELL MW-176**

**ELEVATION: 2' TOC 38L23 ft. MSL**

**PGDP Phase II  
Paducah, Kentucky**

Table 4-1 Stage A Monitoring Well Location Data PGDP Phase II Site Investigation										Page 2 of 3
Well Group Number	Well Group Location	Well No.	Plant Grid Coordinates		Top of 2" casing Elevation (ft msl)	Hydrogeologic Unit	Screened Interval (ft bgs)	Reasons for Well Locations		
			N	E						
8	WMU 2 and 3-Downgradient	MW-171	S0471	W5418	374.63	Shallow gs	18 - 23	Evaluate water quality downgradient from WMU 2 and3		
9	WMU 2 and 3-Downgradient	MW-172	S0192	W5978	373.79	Shallow gs	22 - 27	Evaluate water quality downgradient from WMU 2 and3		
10	WMU 17 and 18-Upgradient of Lagoons	MW-173 MW-174	N1020 N1021	W5290 W5307	373.30 373.29	Upper RGA Shallow gs	53 - 58 23 - 28	upgradient coverage for C-616 lagoons		
11	WMU 47- Tc99 Tank	MW-175 MW-176	S1428 S1444	W4379 W4380	381.18 381.23	Upper RGA Shallow gs	75 - 80 32.5-37.5	Evaluate migration of contaminants from C-400		
12	WMU 40-Neutralization Tank	MW-177 MW-178	S1228 S1216	W4074 W4073	379.74 378.80	Shallow gs Upper RGA	39.5-44.5 62.5-67.5	Evaluate migration of contaminants from C-400		
13	WMU 10- Inert Landfill	MW-179 MW-180	N4639 N4627	W3266 W2494	358.60 358.11	Upper RGA Shallow gs	52 - 57 22 - 27	Evaluate migration of contaminants from landfill		
14	WMU 9- Residential Landfill	MW-181 MW-182	N3107 N3107	W3043 W3027	370.84 371.15	Upper RGA Shallow gs	52 - 57 15 - 20	Evaluate migration of contaminants from landfill		

**Table 4-3**  
**Stage A Monitoring Well Development Data**  
**PGDP Phase II Site Investigation**

Well No.	Well Screen Zone	Gals. Removed	Hrs. Surge/Bail	Hrs. Pump	Parameters			Color	Comments
					pH (SU)	Cond. (Umho)	Temp. (°C)		
MW-172	Shallow gs	73	6	0	6.9 6.4 7.4	250 245 250	15 15 10	Fairly clear	Well developed on 02-14-91. Bails dry.
MW-173	RGA	560	3.5	15	7.1 7.3 7.4	220 220 225	10 10 10	Light brown	Well developed on 02-14-91
MW-174	Shallow gs	29.5	5.5	0	6.9 6.8 6.8	445 450 470	13 14 14	murky	Well developed on 02-14-91 Bails dry.
MW-175	RGA	830	3	19	7.6 7.6 7.6	500 490 480	17 17 17	Light brown alternates with clear	Well developed on 02-25-91 No gravel pack in well; formation caved around
<b>MW-176</b>	Shallow	0	3	0					Well is dry
MW-177	Shallow gs	14.75	6.25	0	6.6 6.6 6.7	350 355 355	18 18 18	Murky brown	Only 4' water in well. Well developed on 03-05-91
MW-178	RGA	410	2	11	7.7 6.9 7.0	432 430 420	20 20 19	Clear	Well developed 02-20-91 Problems with pH meter so brought new pH meter
MW-179	RGA	276	2.5	5.5	7.5 6.9 6.7	600 650 650	12 14 14	Light orange	Well developed on 02-28-91
MW-180	Shallow gs	22.5	6	0	6.9 6.9 7.0	580 585 590	15 15 15	Murky light brown	Only recovers partially in 24 hours.

Attachment 4-A (Continued)  
Field Exploration Information

WELL GROUP NO. 11: WMU 47 - Tc-99 Tank; NW of C-400

MW-175	Equipment	Onsite Personnel
installation: 01-09-91/01-15-91	CME 75 rig	J. Anderson (STL-CH) B. Souza (ST-CH)
development: 02-20-91/02-26-91	12 " continuous flight augers to 40'	D. Spencer (escort-CH) A. Grigsby (IH/HP-EB) C. Faus (BR)
Well TD = 80' below pad surface	7-3/4" O.D. hollow stem augers to 80'  5' x 3" ID CME continuous sampler	R. Dependahl (BR) R. Holder (BR) H. Fowler (escort-CH)

MW-176	Equipment	Onsite Personnel
installation: 01-16-91/01-16-91	CME 75 rig	(see MW-175) except B. Souza (ST-CH)
development: 02-20-91	7-3/4" O.D. hollow stem augers to 37.5'	D. Spencer (escort-CH)
Well TD = 37.5' below pad surface	5' x 3" ID CME continuous sampler	

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19

a REGION  
b H219 IS

**LEGEND**

C-333

12

H219



STAC  
WE