Underground Injection Control Data Management System

File Edit View Help

Edit Well Data [Well ID: TNS0850001, Well Name: INJECTION WELL, Well No: 4 IW, Company: E. I. DUPONT - TN, Permit No.: TNI0006

WELL INFORMATION

EPA ID: TNS0850001 Permit No: TNI0006 Well Name: INJECTION WELL Well No.: 4 IW

Field Name: State or Indian Land: TN

Well Class: 1 County Code: 085 County: HUMPHREYS

Well Type: NON HAZARDOUS Authority: Unauthorized

Status: Plugged and Abandoned Status Date: 10/17/1998

State Permit No.: 78-277 Tank Battery No.: State Name: TENNESSEE

WELL INFORMATION

Federal Land?: No Indian Land?: No Well Ownership: Private

PLUGGING INFORMATION

Date Plugging Plan Approved: 00/00/0000 Who Approved Plugging Plan?:

Date Well Plugged: 10/17/1998 Was Plugging Witnessed?: Yes

MISC

Company Name: E. I. DUPONT - TN Add Operator 269

NORM Identified at Site?: Date Initial Injection: 00/00/0000 Data Source:

ACTION ITEMS

☐ Action Needed(Y/N) PERMIT APPLICATION WAS FOR CLASS I, BUT INJECTING INTO USDW; PLUG DATE FROM TN

Action Comments:

EPA ID	Inspection Date	Status	Inspector
TNS0850001	09/13/1994		
TNS0850001	07/21/1992		
TNS0850001	03/13/1991		
TNS0850001	06/26/1989		
TNS0850001	08/06/1987		

Underground Injection Control Data Management System

File Edit View Help

Edit Well Data | Well ID: TNS0850002, Well Name: INJECTION WELL, Well No: 5 IW, Company: E. I. DUPONT - TN, Permit No.: TNI0007

WELL INFORMATION

EPA ID: TNS0850002 Permit No: TNI0007 Well Name: INJECTION WELL Well No.: 5 IW

Field Name: State or Indian Land: TN

Well Class: 1 County Code: 085 County: HUMPHREYS

Well Type: NON HAZARDOUS Authority: Unauthorized

Status: Plugged and Abandoned Status Date: 11/05/1998

State Permit No.: Tank Battery No.: State Name: TENNESSEE

WELL INFORMATION

Federal Land?: No Indian Land?: No Well Ownership: Private

PLUGGING INFORMATION

Date Plugging Plan Approved: 00/00/0000 Who Approved Plugging Plan?:

Date Well Plugged: 11/05/1998 Was Plugging Witnessed?:

MISC

Company Name: E. I. DUPONT - TN Add Operator 269

NORM Identified at Site?: Date Initial Injection: 00/00/0000 Data Source:

ACTION ITEMS

☐ Action Needed(Y/N)

Action Comments: PERMIT APPLICATION WAS FOR CLASS I, BUT INJECTING INTO USDW; PLUG DATE GIVEN BY TN

EPA ID	Inspection Date	Status	Inspector
TNS0850002	07/21/1992		
TNS0850002	06/26/1989		
TNS0850002	10/18/1988		
TNS0850002	08/06/1987		

Underground Injection Control Data Management System

File Edit View Help

Edit Well Data [Well ID: TNS0850003, Well Name: INJECTION WELL, Well No: 6 IW, Company: E. I. DUPONT - TN, Permit No.: TNI0008

WELL INFORMATION

EPA ID: TNS0850003 Permit No: TNI0008 Well Name: INJECTION WELL Well No.: 6 IW

Field Name: N/A State or Indian Land: TN

Well Class: 1 County Code: 085 County: HUMPHREYS

Well Type: NON HAZARDOUS Authority: Unauthorized

Status: Plugged and Abandoned Status Date: 11/08/1998

State Permit No.: Tank Battery No.: State Name: TENNESSEE

WELL INFORMATION

Federal Land?: No Indian Land?: No Well Ownership: Private

PLUGGING INFORMATION

Date Plugging Plan Approved: 00/00/0000 Who Approved Plugging Plan?:

Date Well Plugged: 11/08/1998 Was Plugging Witnessed?:

MISC

Company Name: E. I. DUPONT - TN Add Operator 269

NORM Identified at Site?: Date Initial Injection: 00/00/0000 Data Source:

ACTION ITEMS

☐ Action Needed(Y/N) PERMIT APPLICATION WAS FOR CLASS I, BUT INJECTING INTO USDW

Action Comments:

EPA ID	Inspection Date	Status	Inspector
TNS0850003	05/25/1995		
TNS0850003	09/23/1992		
TNS0850003	07/21/1992		
TNS0850003	10/27/1989		
TNS0850003	06/29/1989		

File 3815 Dupont

REPORT OF TELEPHONE CONVERSATION

Date 8 Jun 82

Time 11:15 a.m.

Subject UIC Training Courses — Dupont

Person (who called) (~~who was called~~) David Alexander Dupont Co - New Johnsonville, TN

Call (~~made by~~) (received by) John Mann

Summary David inquired about a UIC workshop EPA was sponsoring for the state agencies in June. He ~~was~~ understood that it concerned State UIC program development.

I explained that the well testing workshop to be held at the end of June was the only UIC course I knew EPA. David requested copies of the topics outline for the Well Testing Workshop and the injection well course held here last summer.

I told him I would mail ~~them~~ the outlines as soon a contractor was selected.

Action Necessary

3810

FIA

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

July 1, 1981

DuPont Injection Wells

Chief, Water Supply Branch
Water Division

Mike Tiami

This is in reference to our recent conversations concerning the NPDES permit on these wells. We feel strongly that we cannot use UIC authorities until a UIC program is in place. When a UIC program is in place, the program will require well operators to submit permit applications within a defined and reasonably short time. At that time we propose to investigate all submittals and base our decision on a comparison of the submittal with the UIC regulations.

In the meantime, we suggest the following language be placed in the present permit:

> "The permittee will apply for a permit under the Underground Injection Control Program when such program becomes enforceable in Kentucky."

Donald J. Guinyard

bc: John Mason
John Mann

15

CFFEHN:cmccall:7/1/81:3866:FILE: 3810
DOCUMENT NO. 1783E

CONCURRENCES

SYMBOL	4W-WS	4W-WS						
SURNAME	Fehn	Guinyard						
DATE	7/1							

EPA Form 1320-1 (12-70) OFFICIAL FILE COPY

from Don Rima
phone conversation 10-9-80

Tennessee-Dupont-Johnsonville GDM
Not Ky

Injecting a ferric chloride - ph <1

been injecting since 1970

They have a permit with the state that allows them to have a back-up well. Their existing well is destroyed because the zone collapses. They move to the back-up well & drill another.

The Knox dolomite serves as a USDW for people some miles away in middle Tennessee
??

They have a flowing well on their property which has a depth of ≈2000 (top of the Knox) This should be monitored!!

Intermediate aquifers - should be monitored.

Phone conversation w/ Mr. Davis, Kentucky USGS
This company had an explosion in one of their injection wells
CO_2 vented - break in the lining of the casing - geyser of low PH waste

Knox Dolomite is a paleokarst unit - very permeable

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

May 7, 1982

REF: 4W-WS

Mr. David H. Alexander
E. I. Dupont de Nemours
and Co., Inc.
C D & P Department
Drawer 219
New Johnsonville, TN 37134

Dear Mr. Alexander:

As requested by you, we have enclosed the copy of the EPA Task Order for SMC Martin, Inc. As explained by John Mann during the May 6 telephone conversation with you, this Task Order has been amended to include direct visits to the facilities for information gathering purposes.

We appreciate your cooperation during our preparation period prior to implementing the Underground Injection Control Program in Tennessee.

Sincerely yours,

Curtis F. Fehn, Chief
Groundwater Section

Enclosure

WS/JHMANN:tmclark:05-07-82:3866:FILE: 3815 - Dupont

CONCURRENCES

SYMBOL	4W-WS	4W-WS	4W-WS					
SURNAME	MANN	BROWN	FEHN					
DATE	7 May 82	CSB 5/7/82	CB for CFehn 5/7/82					

EPA Form 1320-1 (12-70)

OFFICIAL FILE COPY

DEC 21 1983

Technical Review of DuPont Preliminary Groundwater
Study of New Johnsonville Plant

Staff Hydrogeologist

John Mason, Leader
Technical Support Unit

I have completed a review of the document and conclude that the report lacks detailed hydrogeologic data to support many of the conclustions and statements of the author. The following is a list of such dericiencies:

1. The author concludes that the shallow aquifer contains an adequate supply of drinking water for future needs. No estimates of water quantity nor future demands for water were given to support this statement.

2. The author consistently mentions low flows in the Knox but the best example of a flow test given shows 21 gpm.

3. The author states that the practical limit for production wells in the area is 300 feet. No clear explanation of why only 300 feet was given.

4. The report contains an illustrated stratigraphic column that lists the Cooper Ridge as a separate group from the Knox group. All geologic available to me lists the Copper Ridge as a formation within the Knox group.

A major deficiency of the report was the lack or detailed information on DuPont's groundwater monitoring program. Details on monitoring construction and samplong are needed to evaluate the validity or their limited data.

The lack of a detailed discussion of confining zones or aquicludes was another serious deficiency in the report. Strong evidence of a confining zone would allay concerns about upward migration of contaminants.

I recommend that we send a letter to David Alexander suggesting that a more detailed groundwater study be completed. Such a study would aid both Dupont and EPA in resolving the status of their wells.

John H. Mann

cc: Gene Coker
Bob DePosa

4WM-WS:JMANN:mr:3866:12-19-83
File: 3815 - DuPont

3815
DuPont

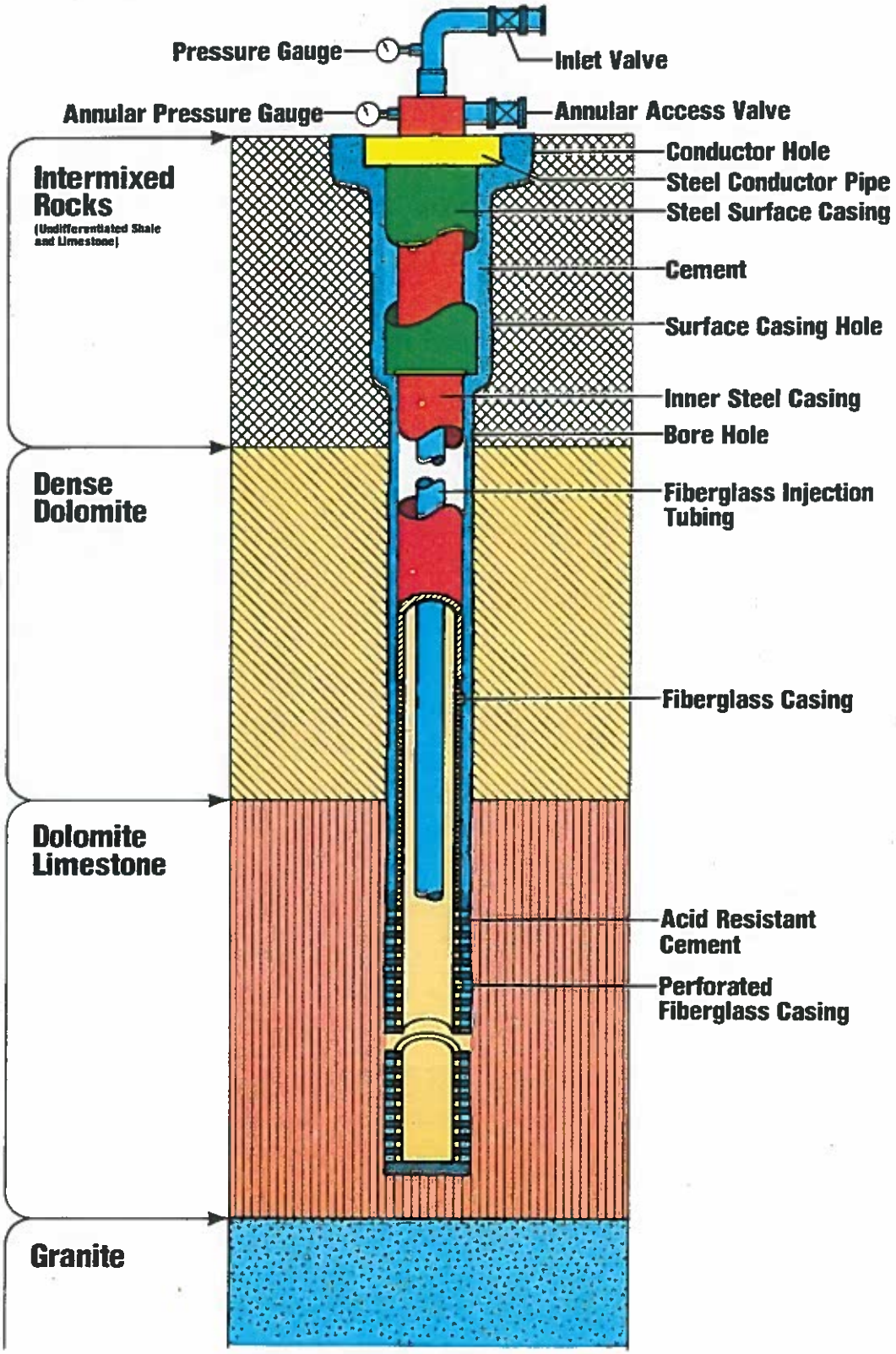
E. I. DuPONT de NEMOURS & COMPANY

GENERAL INFORMATION
AND DESCRIPTION OF INJECTION WELL 1

Current Status:	Plugged
Date Injection Began, Ended:	March 1967 - January 1972
Depth of Injection Zone:	3,000 - 6,734 feet
Injection Rate (maximum):	Up to 600 gpm, average 300 gpm
Maximum Injection Pressure:	Up to ____ psi, average 300 psi
Injection Fluid:	Impure hydrochloric acid and iron chlorides
Total Cumulative Volume:	_____

3815
Dupont

Subsurface Treatment Well



D813
DuPont

E. I. DuPONT de NEMOURS & COMPANY

GENERAL INFORMATION
AND DESCRIPTION OF INJECTION WELL 2

Current Status:	Plugged
Date Injection Began, Ended:	January 1972 - January 1978
Depth of Injection Zone:	3,000 - 7,447 feet
Injection Rate (maximum):	450 gpm
Maximum Injection Pressure:	____ psi
Injection Fluid:	Impure hydrochloric acid and iron chlorides
Total Cumulative Volume:	_____

3815
DuPont

E. I. DuPONT de NEMOURS & COMPANY

GENERAL INFORMATION
AND DESCRIPTION OF INJECTION WELL 3

Current Status:	Plugged
Date Injection Began, Ended:	August 1972 - _____ 1974
Depth of Injection Zone:	3,500 - 6,340 feet
Injection Rate (maximum):	450 gpm
Maximum Injection Pressure:	800 psi
Injection Fluid:	Impure hydrochloric acid and iron chlorides
Total Cumulative Volume:	_____

3815
DuPont

E. I. DuPONT de NEMOURS & COMPANY

GENERAL INFORMATION
AND DESCRIPTION OF INJECTION WELL 4

Current Status:	Active
Date Injection Began:	August 1974
Depth of Injection Zone:	3,650 - 6,502 feet
Injection Rate (maximum):	600 gpm
Maximum Injection Pressure:	____ psi
Injection Fluid:	Impure hydrochloric acid and iron chlorides
Cumulative Volume to Present:	_____

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DuPont

E. I. DuPONT de NEMOURS & COMPANY

GENERAL INFORMATION
AND DESCRIPTION OF INJECTION WELL 5

Current Status:	Active
Date Injection Began:	July 1975
Depth of Injection Zone:	4,150 - 6,910 feet
Injection Rate (maximum):	600 gpm
Maximum Injection Pressure:	____ psi
Injection Fluid:	Impure hydrochloric acid and iron chlorides
Cumulative Volume to Present:	_____

5815
DuPont

E. I. DuPONT de NEMOURS & COMPANY

GENERAL INFORMATION
AND DESCRIPTION OF INJECTION WELL 6

Current Status:	Active
Date Injection Began:	_____
Depth of Injection Zone:	4,400 - 6,508 feet
Injection Rate (maximum):	600 gpm
Maximum Injection Pressure:	____ psi
Injection Fluid:	Impure hydrochloric acid and iron chlorides
Cumulative Volume to Present:	_____

3815
Dupont

E. I. DuPONT de NEMOURS & COMPANY

COMPOSITION OF INJECTION FLUID

Component	Range (Wt. %)
HCl	3-8
$FeCl_x$ ($FeCl_2$ + $FeCl_3$)	12-35
$AlCl_3$	0.3-1.5
$MnCl_2$	0.3-1.5
$CrCl_3$	0.06-0.2
$MgCl_2$	0.1-0.4
Misc. Cl^-	0.1-0.7
H_2O	50-70
TDS	
pH	
Specific Gravity	

Source of Fluid: TiO_2 production by the Chloride Process

The composition of the injection fluid has not changed since injection began.

SMC M[illegible]in Inc.

900 W Valley Forge Road
PO Box 859
Valley Forge, Pennsylvania 19482
Telephone 215 265-2700 or 783-7480

5815
DuPont

April 26, 1982
Ref: 8413-040-94002

Mr. Phil Craig
E.I. DuPont deNemours & Co.
Drawer 219
New Johnsonville, TN 37134

Dear Mr. Craig:

I am looking forward to our meeting at 10:00 a.m., Tuesday, May 12. Bob McKee and Cliff Bole (Tennessee Water Quality Control Division) and John Mann (Ground-water Protection, U.S. Environmental Protection Agency) will also attend.

I have gone through most of the material on DuPont's injection facility in the files of the Water Quality Control Division. I would like to review with you the construction features and operational history of the wells, in addition to the local hydrogeology and monitoring system. I am enclosing for your review a general fact sheet which I have developed for DuPont's injection wells and a description of the injection fluid.

I would be grateful if you could provide me with a small map or sketch showing the location of the injection and monitor wells, plant facilities, and other significant surface facilities.

I am looking forward to meeting you. Should you have any questions, please do not hesitate to contact me.

Very truly yours,

SMC MARTIN INC.

Emily Cord
Hydrogeologist

EC:rm
Enclosure

cc: Robert Bridges
John Mann
Bob McKee
Cliff Bole