SPRU EEC-20-001
RCRA ICM REPORT FOR SPRU FACILITY

Attachment 9
Well Decommissioning Documentation

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ATTACHMENT 9
RCRA ICM REPORT FOR SPRU FACILITY
SPRU-AREA WELL CLOSURE REPORT

This report details the disposition of wells on the SPRU Upper Level. It is presented as part of the Interim Corrective Measures Report for the SPRU Upper Level SWMUs.

Wells were closed in accordance with New York State Department of Environmental Conservation requirements set forth in CP-43, *Groundwater Monitoring Well Decommissioning Policy*. They have been dispositioned in two general approaches. The majority of wells, as listed in Table 1, were grouted after removal of the top of the casing. Well decommissioning records (logs) are included with this Attachment. Several wells, listed in Table 2, were definitively within the excavation footprint and are known to have been removed during the demolition and excavation of the SPRU facilities. These wells are considered closed with complete casing recovery.

Three wells (MW-1, MW-2, and MW-24) were located within or near the layback of the excavation. The three wells were within the footprint of the H2 ventilation pad. While no record of their decommissioning is available, at least at some near-surface portion of the casings of those wells would have been removed to enable construction of the concrete pad. It is possible that one or more of the wells may have been entirely removed during the SPRU excavation. This is most likely for MW-24, which was the closest to the main excavation of the three.

Exploratory excavations were conducted to attempt (unsuccessfully) to locate wells MW-26 and MW-27, both of which were 1” PVC, in the vicinity of the French drain. The exploratory digging extended only slightly below the French drain in order to avoid potential impacting the VOC plume. During the excavation looking for MW-6, that 1” PVC well casing was easily removed by the excavator and this is what is believed to have happened to both MW-26 and MW-27.

The five wells that could not be absolutely determined to have been removed, (MW-1, -2, -24, -26, and -27, listed in Table 3), were located in what would be the primary excavation area for the future remediation of the VOC AOC soil contamination. In the event that any of these wells do remain in place, they would be removed during the remediation of the soil. These four wells do not penetrate through the native till, and thus do not connect to deeper groundwater.

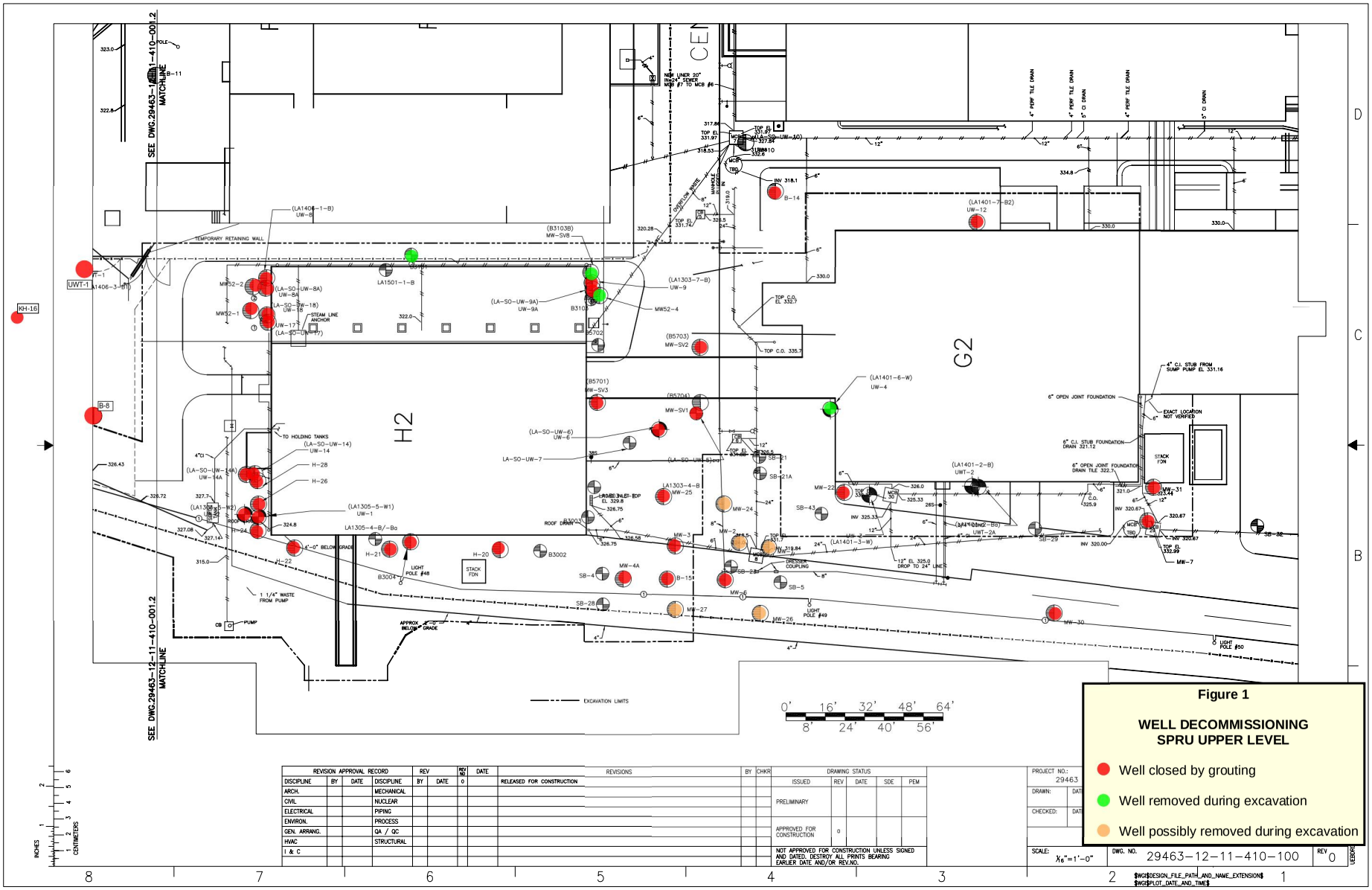
A map is provided as Figure 1 showing the location of the wells and indicating by color code each well’s disposition.

Well MW-SV8 was recorded as having been decommissioned in 2010 along with 29 other wells. However, no record can be found of the decommissioning. That well was located at the south end of the H2 Tank Vault, adjacent to MW-52-4, which was removed during the demolition and excavation around the Tank Vaults in 2018. No evidence of MW-SV8 was observed at that time. In the absence of other data, this report considers that MW-SV8 was removed by excavation.

TABLE 1 Decommissioned Monitoring Wells		
B-14	MW-3	UW-12
B-15	MW-30	UW-14
B-3004	MW-31	UW-14A
B-8	MW-4A	UW-17
H-20	MW52-1	UW-18
H-21	MW52-2	UW-2
H-22	MW-6	UW-6
H-24	MW-7	UW-8
H-26	MW-SV1	UW-8A
H-28	MW-SV2	UW-9
KH-16	MW-SV3	UW-9A
MW-22	UW-1	UWT-1
MW-25		

TABLE 2 Monitoring Wells Removed During Excavation	
MW-52-4	MW #3
MW-SV8	UW-4

TABLE 3 Monitoring Wells Possibly Removed During Excavation	
MW-1	MW-26
MW-2	MW-27
MW-24	


H2
G2
SEE DWG.29463-12-11-410-001.2 MATCHLINE
SEE DWG.29463-12-11-410-001.2 MATCHLINE
EXCAVATION LIMITS
0' 16' 32' 48' 64'
8' 24' 40' 56'
Figure 1
WELL DECOMMISSIONING
SPRU UPPER LEVEL
Well closed by grouting
Well removed during excavation
Well possibly removed during excavation
REVISION APPROVAL RECORD
REVISIONS
DRAWING STATUS
RELEASED FOR CONSTRUCTION
PRELIMINARY
APPROVED FOR CONSTRUCTION
NOT APPROVED FOR CONSTRUCTION UNLESS SIGNED AND DATED. DESTROY ALL PRINTS BEARING EARLIER DATE AND/OR REV.NO.
PROJECT NO.: 29463
SCALE: 1/16"=1'-0"
DWG. NO. 29463-12-11-410-100
REV 0
WGIDESIGN_FILE_PATH_AND_NAME_EXTENSION$
WGIPLOT_DATE_AND_TIME$

ATTACHMENT 9

SPRU-AREA WELL CLOSURE REPORT

ATTACHMENT 9-A

Well Decommissioning Logs

2010

WELLS

MW-22
MW-7
MW-31
UW-12
MW-SV2
MW-SV1
UW-6
MW-SV3
MW-25
MW-4A
H-20
B-3004
H-21
H-22
UW-14A
UW-14
UW-2
UW-1
H-24
H-26
H-28
MW-52-1
MW-52-2
UW-9A
UW-9
UW-8
UW-8A
UW-18
UW-17

Item 7

Day 1

(1)

WELL DECOMMISSIONING RECORD

Site Name: SPRU – Well Abandonment	Well I.D.: MW-22
Site Location: NW Corner GZ	Driller: SJB – Ralph & Ron
Drilling Co.: SJB Services	Inspector: Kevin T. Misiaszek (KTM
	Date: 8/16/10 (Mon. - Am)

DECOMMISSIONING DATA
(Fill in all that apply)

OVERDRILLING

Interval Drilled	
Drilling Method(s)	
Borehole Dia. (in.)	
Temporary Casing Installed? (y/n)	
Depth temporary casing installed	
Casing type/dia. (in.)	
Method of installing	

CASING PULLING

Method employed	Grouting In place Followed by Casing Pulling
Casing retrieved (feet)	23'
Casing type/dia. (in)	1" / PVC

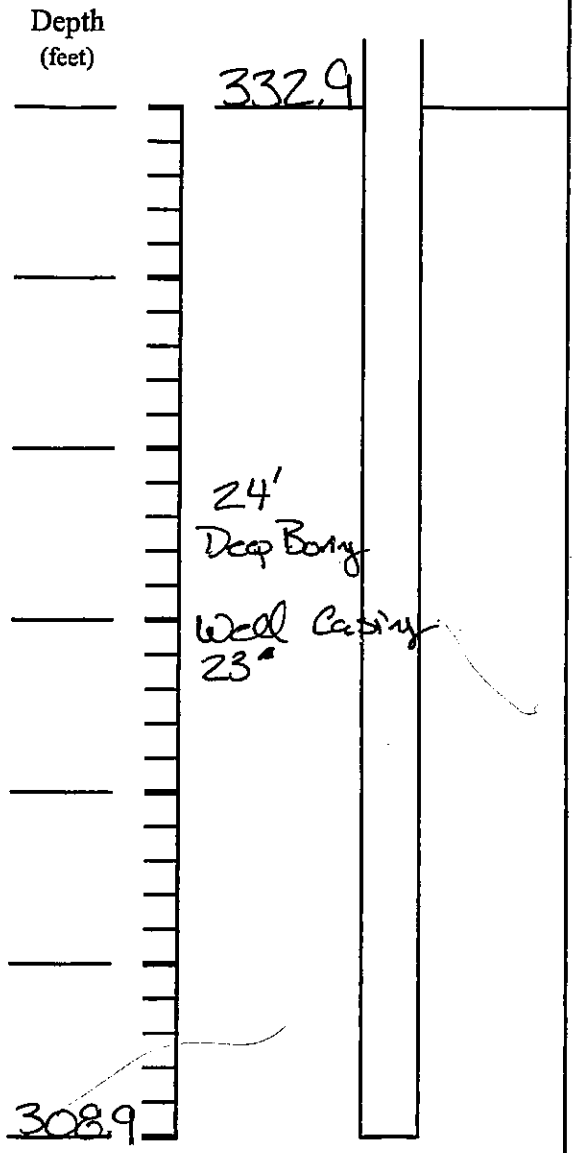
CASING PERFORATING

Equipment used	
Number of perforations/foot	
Size of perforations	
Interval perforated	

GROUTING

Interval grouted (FBLS)	24'
# of batches prepared	1
For each batch record:	
Quantity of water used (gal.)	7.8
Quantity of cement used (lbs.)	94
Cement type	Type I
Quantity of bentonite used (lbs.)	3.9
Quantity of calcium chloride used (lbs.)	—
Volume of grout prepared (gal.)	10
Volume of grout used (gal.)	4-5

WELL SCHEMATIC*



COMMENTS: 24' Deep Well - 23' of Well Casing. Blew out Bottom w/ 25' of well w/ 25' of Rod - Recovered 23' of 1" PVC. Grouted / Closed

* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Drilling Contractor

Department Representative

Day 1 (2)

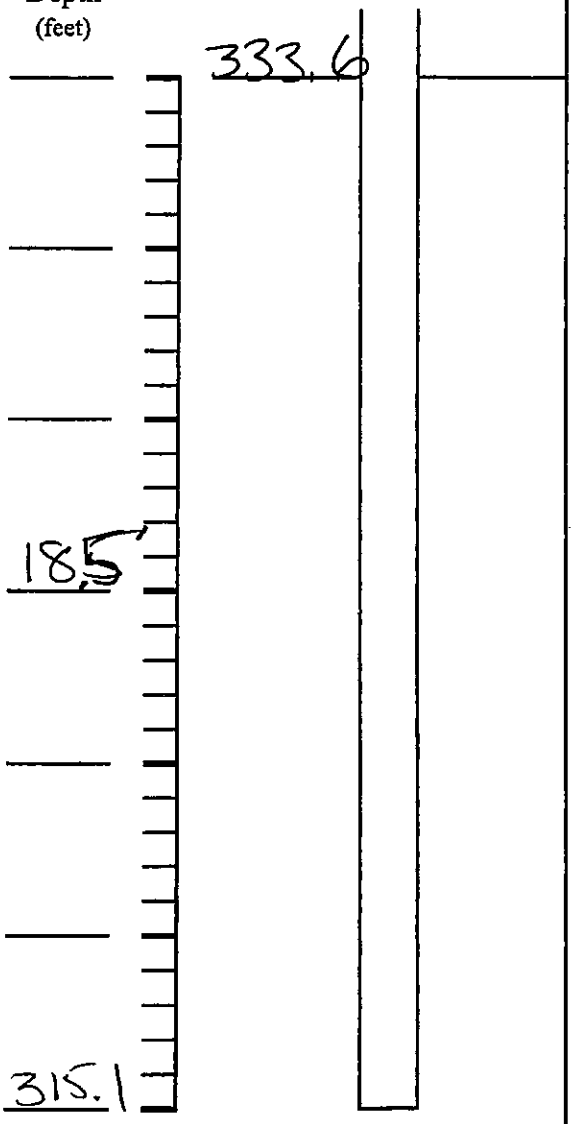
WELL DECOMMISSIONING RECORD

Site Name: SPRU - Well Abandonment	Well I.D.: MW-7
Site Location: SW Corner GC	Driller: SJB - Ralph/Ron
Drilling Co.: SJB	Inspector: KJM
	Date: 8/16/10 (Mon - PM)

DECOMMISSIONING DATA
(Fill in all that apply)

OVERDRILLING	
Interval Drilled	
Drilling Method(s)	
Borehole Dia. (in.)	
Temporary Casing Installed? (y/n)	
Depth temporary casing installed	
Casing type/dia. (in.)	
Method of installing	
CASING PULLING	
Method employed	Grouting In Place/followed by Casing Pulling
Casing retrieved (feet)	18.5'
Casing type/dia. (in)	1" PVC
CASING PERFORATING	
Equipment used	
Number of perforations/foot	
Size of perforations	
Interval perforated	
GROUTING	
Interval grouted (FBLS)	18.5'
# of batches prepared	1
For each batch record:	
Quantity of water used (gal.)	7.8
Quantity of cement used (lbs.)	94
Cement type	Type I
Quantity of bentonite used (lbs.)	3.9
Quantity of calcium chloride used (lbs.)	—
Volume of grout prepared (gal.)	10
Volume of grout used (gal.)	4-5

WELL SCHEMATIC*



COMMENTS: 18.5' Deep Well - 1" PVC well - 20' of steel Rod used to blow out Bottom - 18.5' of PVC Casing Pulled - Grouted Closed.

* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Drilling Contractor

Department Representative

Day 1 (3)

WELL DECOMMISSIONING RECORD

Site Name:	SPRU-Well Abandonment	Well I.D.:	MW-31
Site Location:	SW Corner G-2	Driller:	Ralph/Roi
Drilling Co.:	STB	Inspector:	Kevin Misiaszek
		Date:	8/16/2010 (PM)

DECOMMISSIONING DATA
(Fill in all that apply)

OVERDRILLING

Interval Drilled	
Drilling Method(s)	
Borehole Dia. (in.)	
Temporary Casing Installed? (y/n)	
Depth temporary casing installed	
Casing type/dia. (in.)	
Method of installing	

CASING PULLING

Method employed	Cable Boom
Casing retrieved (feet)	14.6
Casing type/dia. (in)	1" PVC

CASING PERFORATING

Equipment used	
Number of perforations/foot	
Size of perforations	
Interval perforated	

GROUTING

Interval grouted (FBLS)	15.5'
# of batches prepared	2
For each batch record:	
Quantity of water used (gal.)	7.8
Quantity of cement used (lbs.)	94#
Cement type	Type I
Quantity of bentonite used (lbs.)	3.9
Quantity of calcium chloride used (lbs.)	—
Volume of grout prepared (gal.)	10
Volume of grout used (gal.)	4.5 gal.

WELL SCHEMATIC*

Depth (feet)

335.4

15.5

319.9

* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

COMMENTS: 15.5' Deep Well - 1" PVC
14.6' of Casing Pulled
Tremmy Grout to Surface
Closed

Drilling Contractor

Department Representative

Day 1
(4) complete

WELL DECOMMISSIONING RECORD

Site Name: SPRU - Well Abandonment	Well I.D. UW-12
Site Location: East Side - GZ	Driller: Ralph / Ron
Drilling Co.: SJB	Inspector: Kevin Maynard
	Date: 8/16/2010 (DH)

DECOMMISSIONING DATA
(Fill in all that apply)

OVERDRILLING

Interval Drilled	
Drilling Method(s)	
Borehole Dia. (in.)	
Temporary Casing Installed? (y/n)	
Depth temporary casing installed	
Casing type/dia. (in.)	
Method of installing	

CASING PULLING

Method employed	Cable/Boom
Casing retrieved (feet)	10'
Casing type/dia. (in)	1" PVC

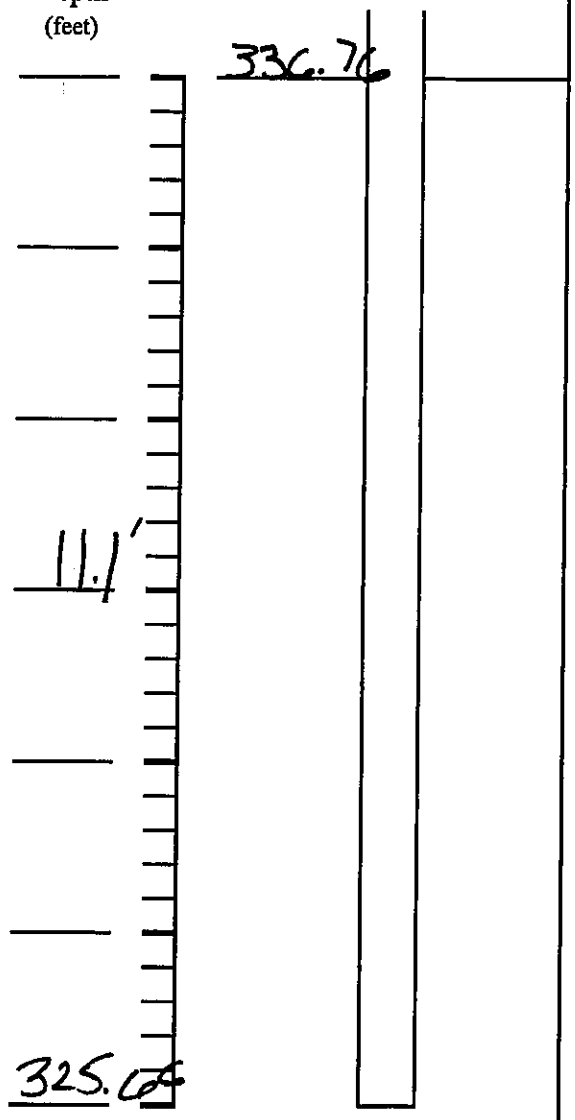
CASING PERFORATING

Equipment used	
Number of perforations/foot	
Size of perforations	
Interval perforated	

GROUTING

Interval grouted (FBLS)	11.1
# of batches prepared	2
For each batch record:	
Quantity of water used (gal.)	7.8
Quantity of cement used (lbs.)	94
Cement type	Type I
Quantity of bentonite used (lbs.)	3.9
Quantity of calcium chloride used (lbs.)	
Volume of grout prepared (gal.)	10
Volume of grout used (gal.)	8.45

WELL SCHEMATIC*



COMMENTS: 11.1' Deep - 1" PVC Casing
Removed 10.8' of Casing
Blow out Bottom w/ 18' of casing
Tremie Grouted / Closed

* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Drilling Contractor

Department Representative

Day 2
(1)

WELL DECOMMISSIONING RECORD

Site Name: 5YRU - Well Abandonment	Well I.D.: MW-5V2
Site Location: 62/4L Tunnel Area - mid section	Driller: Ralph / Ron
Drilling Co.: SJB	Inspector: Kevin Mirabile
	Date: 8/17/10 Tues AM

DECOMMISSIONING DATA
(Fill in all that apply)

OVERDRILLING

Interval Drilled	
Drilling Method(s)	
Borehole Dia. (in.)	
Temporary Casing Installed? (y/n)	
Depth temporary casing installed	
Casing type/dia. (in.)	
Method of installing	

CASING PULLING

Method employed	Cable/Boom
Casing retrieved (feet)	15.48 (15.5)
Casing type/dia. (in)	2" PVC

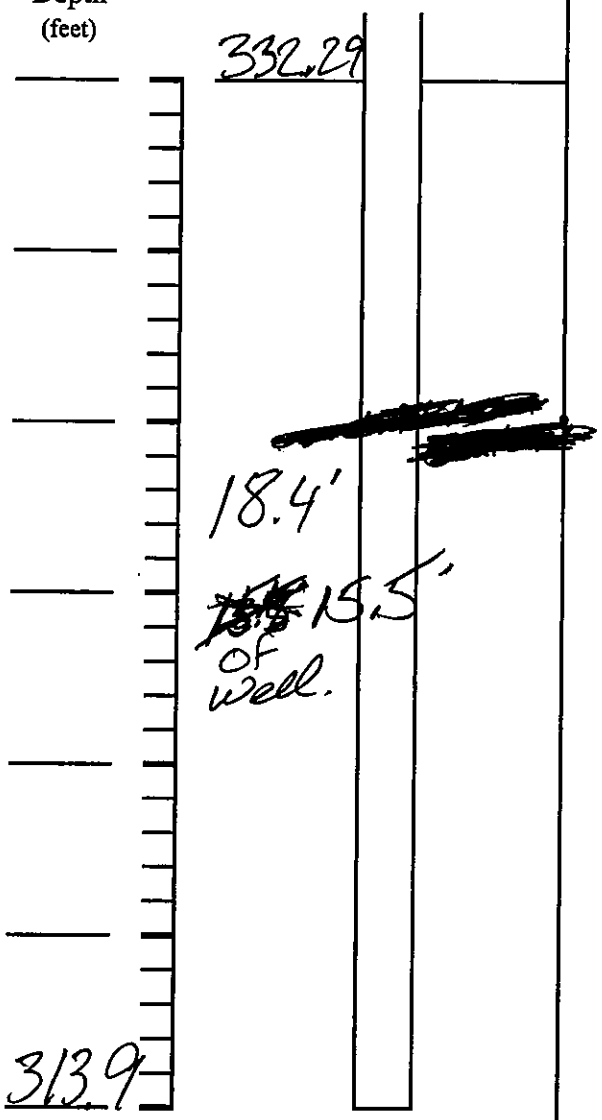
CASING PERFORATING

Equipment used	
Number of perforations/foot	
Size of perforations	
Interval perforated	

GROUTING

Interval grouted (FBLS)	18.4'
# of batches prepared	3rd
For each batch record:	
Quantity of water used (gal.)	7.8
Quantity of cement used (lbs.)	94
Cement type	Type I
Quantity of bentonite used (lbs.)	3.9
Quantity of calcium chloride used (lbs.)	—
Volume of grout prepared (gal.)	10
Volume of grout used (gal.)	9.9 gal

WELL SCHEMATIC*



COMMENTS: 18.4' Deep well 2" PVC Casing
2" PVC - Casing Grouted Closed
18.4' - 5' of Bentonite at Bottom
1 leg of Rod Inserted - Removed Post 15
Stick out Bottom 2" PVC Casing Grouted Closed

* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Drilling Contractor

Department Representative

Day 2

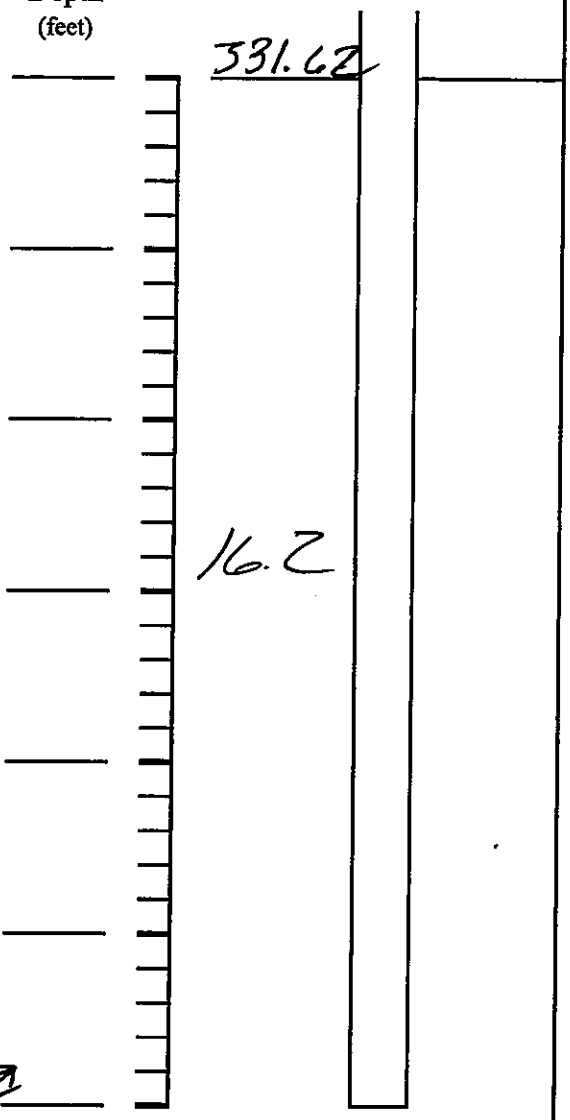
WELL DECOMMISSIONING RECORD

Site Name: SPRU - Well Abandonment	Well I.D.: MW-3V-1
Site Location: CZ/HZ Tunnel Mid Area	Driller: Rotech / Ron
Drilling Co.: S J B	Inspector: Kevin Mistysack
	Date: 8/17/10 AM

DECOMMISSIONING DATA
(Fill in all that apply)

OVERDRILLING	
Interval Drilled	
Drilling Method(s)	
Borehole Dia. (in.)	
Temporary Casing Installed? (y/n)	
Depth temporary casing installed	
Casing type/dia. (in.)	
Method of installing	
CASING PULLING	Pulled Casing & Grouted in place
Method employed	Pulled
Casing retrieved (feet)	13.5
Casing type/dia. (in)	2" PVC
CASING PERFORATING	
Equipment used	
Number of perforations/foot	
Size of perforations	
Interval perforated	
GROUTING	
Interval grouted (FBLS)	13.5
# of batches prepared	4
For each batch record:	
Quantity of water used (gal.)	7.8
Quantity of cement used (lbs.)	94
Cement type	Type I
Quantity of bentonite used (lbs.)	3.9
Quantity of calcium chloride used (lbs.)	—
Volume of grout prepared (gal.)	7 gal
Volume of grout used (gal.)	315.4

WELL SCHEMATIC*



COMMENTS: No 2 deep well Abd w/ Bentonite From 13.5' ⇒ 16.2' 13.5 deep well - 3.7 of Bent. 2" PVC Casing Grouted in place Blow out Bottom Cleaned

* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Drilling Contractor

Department Representative

Day 2 (3)

WELL DECOMMISSIONING RECORD

Site Name: SPRU-Well Abandonment	Well I.D.: UW-6
Site Location: 02/12 Twadell-west	Driller: Ralph / Ron
Drilling Co.: STB	Inspector: Kevin Misiaszek
	Date: 8/17/10 AM

DECOMMISSIONING DATA
(Fill in all that apply)

OVERDRILLING

Interval Drilled	
Drilling Method(s)	
Borehole Dia. (in.)	
Temporary Casing Installed? (y/n)	
Depth temporary casing installed	
Casing type/dia. (in.)	
Method of installing	

CASING PULLING

Method employed	pulled casing grouted in place CAS/E/Room
Casing retrieved (feet)	7.3'
Casing type/dia. (in)	1" PVC

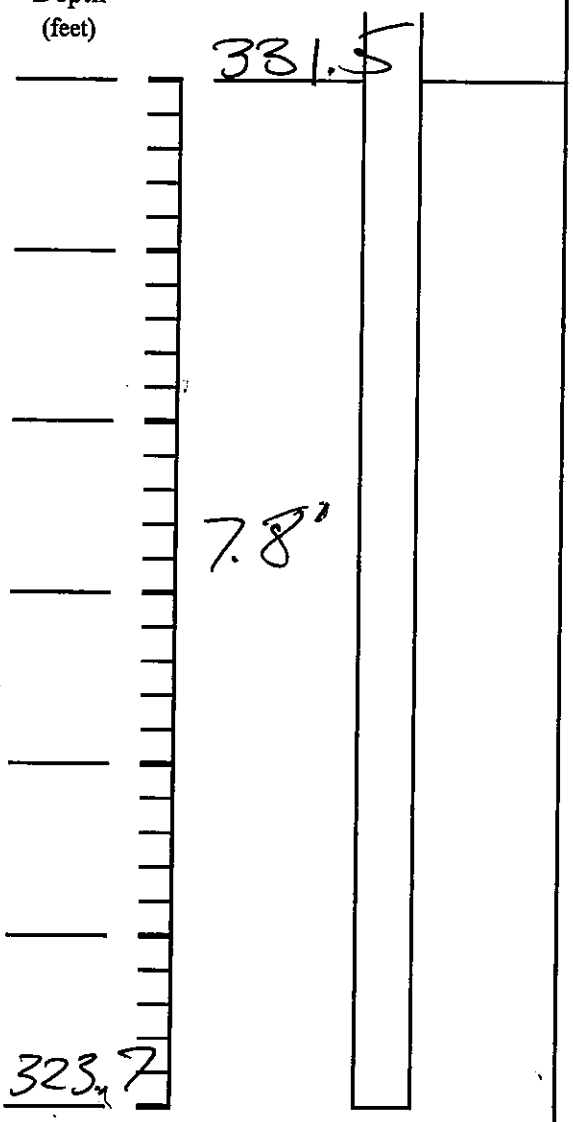
CASING PERFORATING

Equipment used	
Number of perforations/foot	
Size of perforations	
Interval perforated	

GROUTING

Interval grouted (FBLS)	7.8
# of batches prepared	1
For each batch record:	
Quantity of water used (gal.)	7.8
Quantity of cement used (lbs.)	94
Cement type	Type I
Quantity of bentonite used (lbs.)	3.9
Quantity of calcium chloride used (lbs.)	
Volume of grout prepared (gal.)	12 gal
Volume of grout used (gal.)	3 gal

WELL SCHEMATIC*



COMMENTS: 1" PVC Casing
10' of rod - Blew out Bottom
7.3' of Casing recard
Blew out Bottom Grouted Closed

* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Drilling Contractor

Department Representative

Day 4 (4)

WELL DECOMMISSIONING RECORD

Site Name: SPRU-well Abandonment	Well I.D.: MW-SV3
Site Location: South H2	Driller: Ralph / Ron
Drilling Co.: SJB	Inspector: Kevin Mitchell
	Date: 8/17/10 early AM

DECOMMISSIONING DATA
(Fill in all that apply)

OVERDRILLING

Interval Drilled	
Drilling Method(s)	
Borehole Dia. (in.)	
Temporary Casing Installed? (y/n)	
Depth temporary casing installed	
Casing type/dia. (in.)	
Method of installing	

CASING PULLING — pulled casing grouted in place.

Method employed	Cable/Rope
Casing retrieved (feet)	23.1'
Casing type/dia. (in)	2" PVC

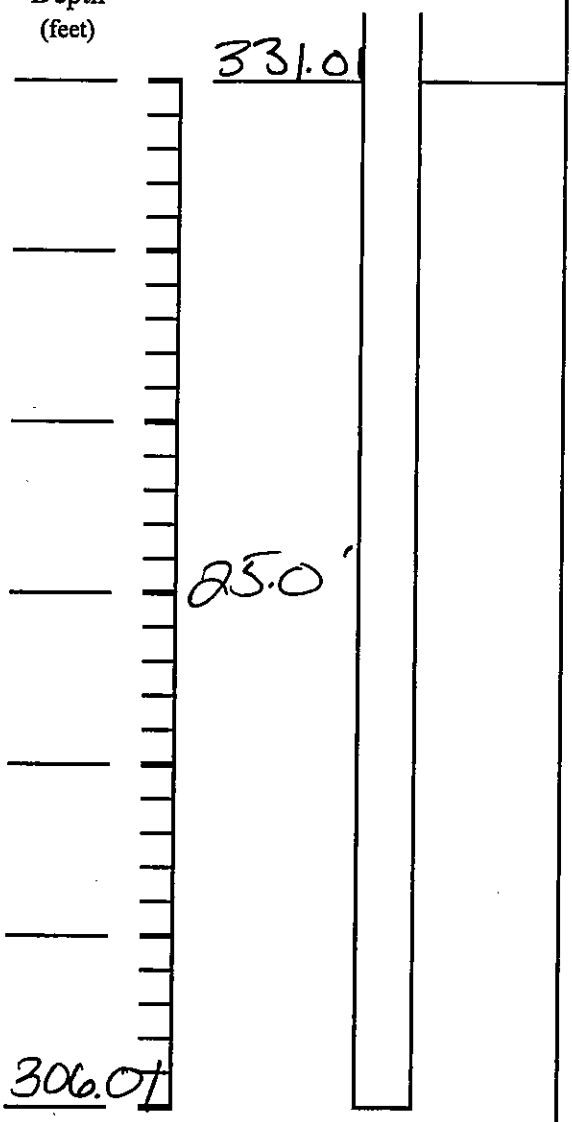
CASING PERFORATING

Equipment used	
Number of perforations/foot	
Size of perforations	
Interval perforated	

GROUTING

Interval grouted (FBLS)	25.0
# of batches prepared	5
For each batch record:	
Quantity of water used (gal.)	7.8+7.8 15.6
Quantity of cement used (lbs.)	94+94=188
Cement type	Type I
Quantity of bentonite used (lbs.)	3.9x2=7.8
Quantity of calcium chloride used (lbs.)	—
Volume of grout prepared (gal.)	20
Volume of grout used (gal.)	15 gal

WELL SCHEMATIC*



COMMENTS: 23.5' Feet of Well
2" PVC Well Blow out Bottom
23.1' of 2" PVC Casing Pulled
23.1' of 2" PVC Casing Pulled
Grouted Closed

Drilling Contractor

Department Representative

* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

(4) 4 Bags of Bentonite chips used, 1/0 in well area

Day 2 (5)

WELL DECOMMISSIONING RECORD

Site Name: SPRU Well	Well I.D.: MW-25
Site Location: South HE - West of 64 HE Tunnel	Driller: Ralph / Ron
Drilling Co.: STB	Inspector: Kevin Mississippi
	Date: 8/17/10 PM

DECOMMISSIONING DATA
(Fill in all that apply)

OVERDRILLING

Interval Drilled	
Drilling Method(s)	
Borehole Dia. (in.)	
Temporary Casing Installed? (y/n)	
Depth temporary casing installed	
Casing type/dia. (in.)	
Method of installing	

CASING PULLING — Pulled casing grouted in place

Method employed	Cable/Boom
Casing retrieved (feet)	19.3
Casing type/dia. (in)	2" PVC

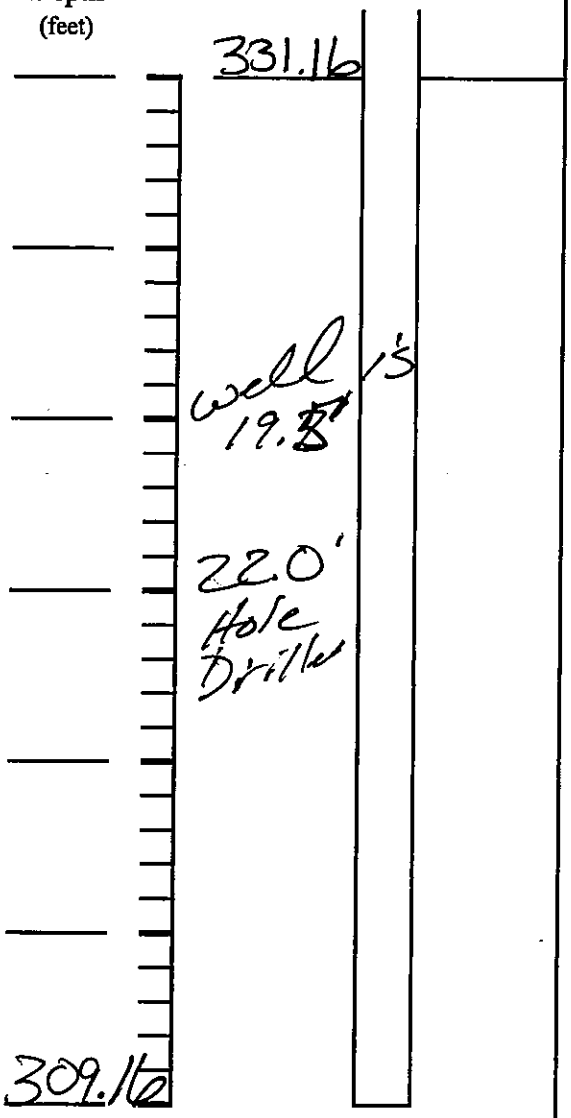
CASING PERFORATING

Equipment used	
Number of perforations/foot	
Size of perforations	
Interval perforated	

GROUTING

Interval grouted (FBLS)	~~19.3'~~
# of batches prepared	~~1~~
For each batch record:	
Quantity of water used (gal.)	7.8
Quantity of cement used (lbs.)	94#
Cement type	Type I
Quantity of bentonite used (lbs.)	3.9#
Quantity of calcium chloride used (lbs.)	—
Volume of grout prepared (gal.)	10 gal
Volume of grout used (gal.)	7 gal

WELL SCHEMATIC*



COMMENTS: 2" PVC well
19.5' Deep well 19.3' feet of
Blow out Bottom 19.3 2" PVC
Grouted Closed Casing Recovered
9.2
10.1
19.3

* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Drilling Contractor

Department Representative

Checked for VOCs — no measurements - did not have any readings - clear

9.7
9.4
17.1

Day 2
6

WELL DECOMMISSIONING RECORD

Site Name: SPRU Well Abandonment	Well I.D.: MW-4A
Site Location: South HC & West of Tunnel 62/147	Driller: Ralph Ross
Drilling Co.: Southwest Corner Area / HC	Inspector: Kevin Mirabella
	Date: 8/17/10 PM

DECOMMISSIONING DATA
(Fill in all that apply)

OVERDRILLING

Interval Drilled	
Drilling Method(s)	
Borehole Dia. (in.)	
Temporary Casing Installed? (y/n)	
Depth temporary casing installed	
Casing type/dia. (in.)	
Method of installing	

CASING PULLING

Method employed	Pulled casing grouted in Place / Bow Cable
Casing retrieved (feet)	17 ft
Casing type/dia. (in)	1" PVC

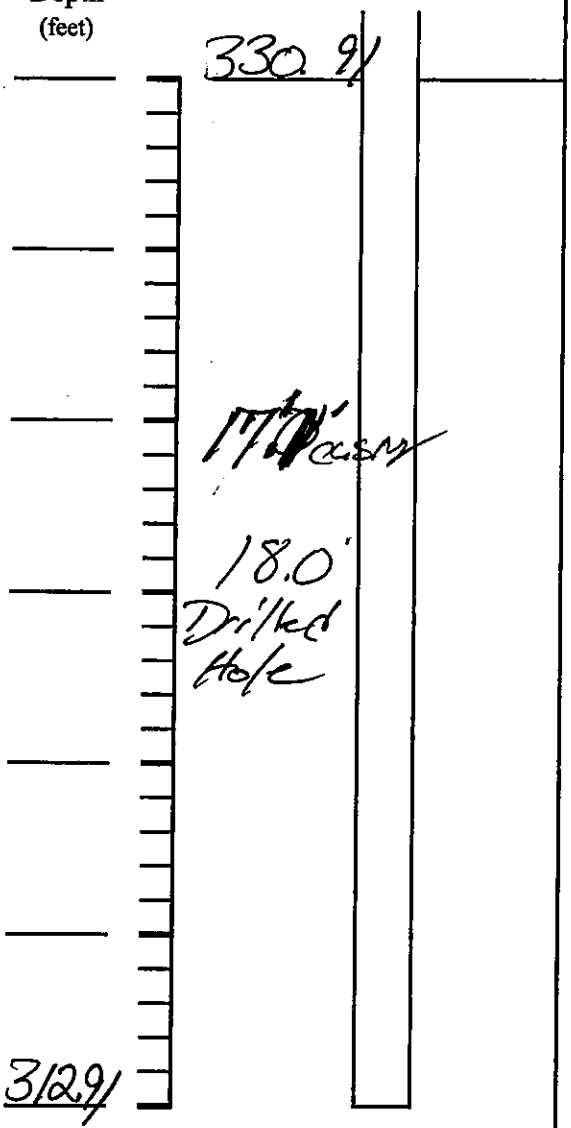
CASING PERFORATING

Equipment used	
Number of perforations/foot	
Size of perforations	
Interval perforated	

GROUTING

Interval grouted (FBLS)	17
# of batches prepared	1 of 8
For each batch record:	
Quantity of water used (gal.)	7.8
Quantity of cement used (lbs.)	94
Cement type	Type I
Quantity of bentonite used (lbs.)	3.9
Quantity of calcium chloride used (lbs.)	←
Volume of grout prepared (gal.)	10
Volume of grout used (gal.)	

WELL SCHEMATIC*



COMMENTS: 1" PVC Well Casing
18' Hole - 17.0' Well Casing
Blow out Bottom - 1' of 1" Pipe Installed
Grouted Closed -

* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Drilling Contractor

Department Representative

Day 3

(1)

WELL DECOMMISSIONING RECORD

Site Name: SPRU - well Abandonment	Well I.D.: H-20
Site Location: West of H2	Driller: Ralph / Ron
Drilling Co.: STB	Inspector: Kevin Misiaszek
	Date: 8/18/10 Am

DECOMMISSIONING DATA
(Fill in all that apply)

OVERDRILLING

Interval Drilled	
Drilling Method(s)	
Borehole Dia. (in.)	
Temporary Casing Installed? (y/n)	
Depth temporary casing installed	
Casing type/dia. (in.)	
Method of installing	

CASING PULLING

Method employed	grouted in Place No Pull
Casing retrieved (feet)	0
Casing type/dia. (in)	3" ~~Gray~~ White PVC

CASING PERFORATING

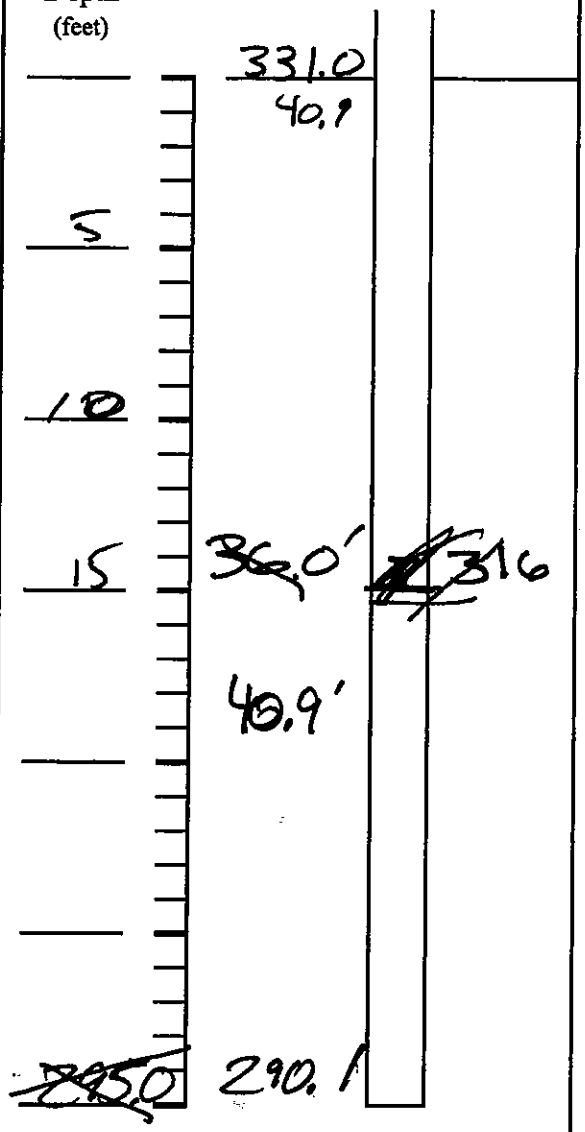
Equipment used	
Number of perforations/foot	
Size of perforations	
Interval perforated	

GROUTING

Interval grouted (FBLS)	40.9'
# of batches prepared	2 - 8/10
For each batch record:	
Quantity of water used (gal.)	~~140~~ 136
Quantity of cement used (lbs.)	188
Cement type	Type 1
Quantity of bentonite used (lbs.)	7.8
Quantity of calcium chloride used (lbs.)	
Volume of grout prepared (gal.)	20 gal
Volume of grout used (gal.)	16 gal

Open hole into

WELL SCHEMATIC*



COMMENTS: ~~Back~~ well - 3" Gray PVC.
36' Depth.
44' of Stick - 3.1 = 40.9 Deep
Rebuilt Cork Botton

* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Drilling Contractor

Grouted Closed

Department Representative

1 1/2" steel Pipe
1' Extended above grade

No Cap on Bottom; Pierced into Gray till 2.5'

Day 3 (2)

WELL DECOMMISSIONING RECORD

Site Name: SPRU Well Decommission	Well I.D.: B-3004
Site Location: Westside #2	Driller: Ralph / RC
Drilling Co.: SJB	Inspector: Kevin Mizelseck
	Date: 8/16/10 AM

DECOMMISSIONING DATA
(Fill in all that apply)

OVERDRILLING

Interval Drilled	
Drilling Method(s)	
Borehole Dia. (in.)	
Temporary Casing Installed? (y/n)	
Depth temporary casing installed	
Casing type/dia. (in.)	
Method of installing	

CASING PULLING

Method employed	Pulled casing - grouted in Place / Cable/Boom
Casing retrieved (feet)	22'
Casing type/dia. (in)	1" Wh PVC

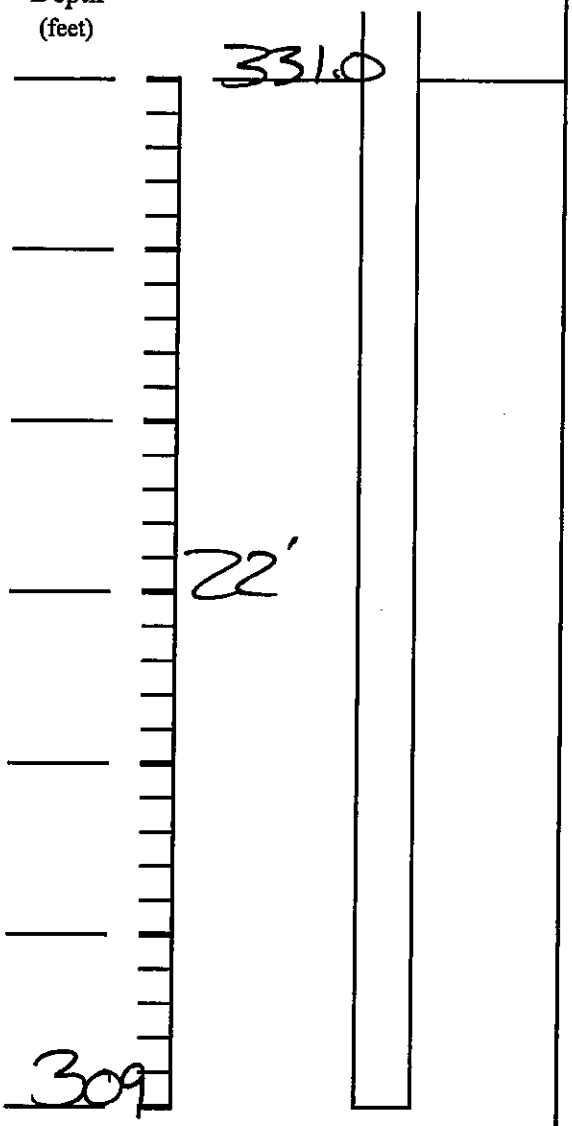
CASING PERFORATING

Equipment used	
Number of perforations/foot	
Size of perforations	
Interval perforated	

GROUTING

Interval grouted (FBLS)	22
# of batches prepared	10
For each batch record:	
Quantity of water used (gal.)	7.8
Quantity of cement used (lbs.)	94#
Cement type	Type I
Quantity of bentonite used (lbs.)	3.9
Quantity of calcium chloride used (lbs.)	—
Volume of grout prepared (gal.)	4
Volume of grout used (gal.)	4

WELL SCHEMATIC*



COMMENTS: 22.0 Deep 1" PVC well Pulled 22 ft 1" Casing Grouted Closed

* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Drilling Contractor

Department Representative

Day 3 (3)

WELL DECOMMISSIONING RECORD

Site Name: SPRU - Well Abandonment	Well I.D.: H-21
Site Location: Westside H-2	Driller: Ralph/Ron
Drilling Co.: SJB	Inspector: Kevin Misinseck
	Date: 8/18/10 AM

DECOMMISSIONING DATA
(Fill in all that apply)

OVERDRILLING

Interval Drilled	
Drilling Method(s)	
Borehole Dia. (in.)	
Temporary Casing Installed? (y/n)	
Depth temporary casing installed	
Casing type/dia. (in.)	
Method of installing	

CASING PULLING

Method employed	Grouted in place
Casing retrieved (feet)	0
Casing type/dia. (in)	3" PVC

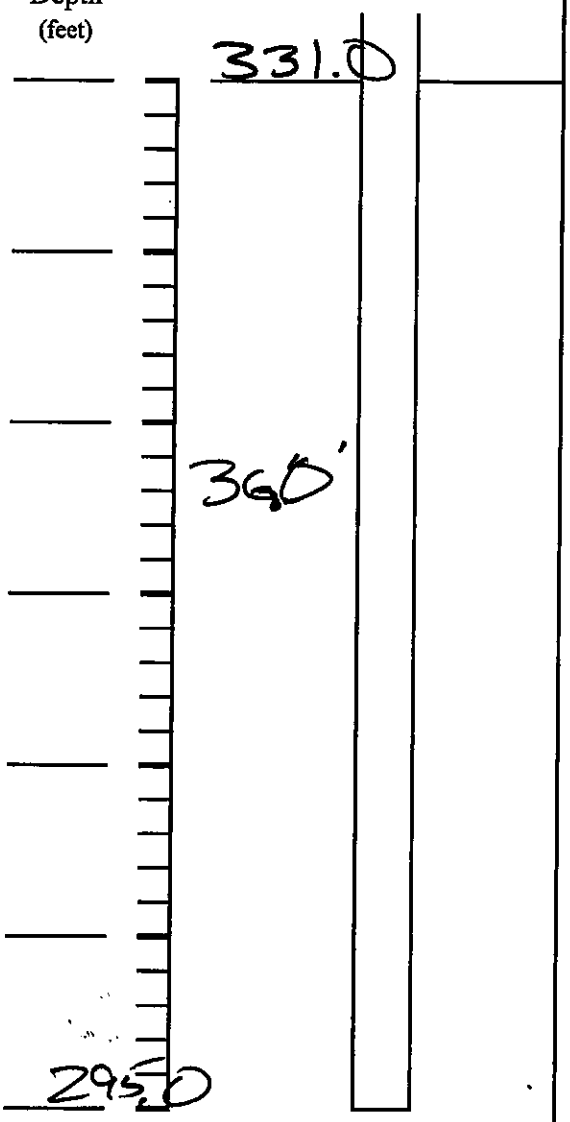
CASING PERFORATING

Equipment used	
Number of perforations/foot	
Size of perforations	
Interval perforated	

GROUTING

Interval grouted (FBLS)	36.0'
# of batches prepared	11 & 12
For each batch record:	
Quantity of water used (gal.)	15.6
Quantity of cement used (lbs.)	188
Cement type	Type I
Quantity of bentonite used (lbs.)	7.8
Quantity of calcium chloride used (lbs.)	
Volume of grout prepared (gal.)	20 gal
Volume of grout used (gal.)	20 gals

WELL SCHEMATIC*



COMMENTS: Open End in Grey Till
Grouting in place / 36' deep Well.
No casing Pulled
Grouting Closed

* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Drilling Contractor

Department Representative

Day 3 (4)

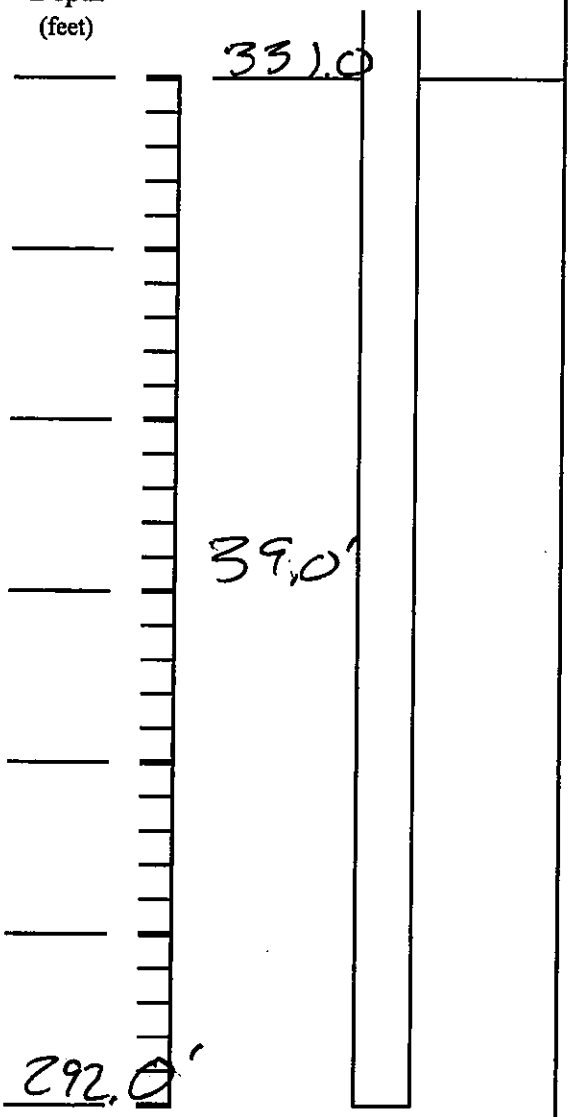
WELL DECOMMISSIONING RECORD

Site Name:	Well I.D.: H-22
Site Location: Northwest/Westside #2	Driller: Ralph / Ron
Drilling Co.:	Inspector: Kevin Misiaszek
	Date: 8/18/10 PM

DECOMMISSIONING DATA
(Fill in all that apply)

OVERDRILLING	
Interval Drilled	
Drilling Method(s)	
Borehole Dia. (in.)	
Temporary Casing Installed? (y/n)	
Depth temporary casing installed	
Casing type/dia. (in.)	
Method of installing	
CASING PULLING	
Method employed	Grout in Place
Casing retrieved (feet)	0
Casing type/dia. (in)	3" PVC
CASING PERFORATING	
Equipment used	
Number of perforations/foot	
Size of perforations	
Interval perforated	
GROUTING	
Interval grouted (FBLS)	39.0'
# of batches prepared	13 & 14
For each batch record:	
Quantity of water used (gal.)	15.6
Quantity of cement used (lbs.)	188
Cement type	Type I
Quantity of bentonite used (lbs.)	7.8
Quantity of calcium chloride used (lbs.)	—
Volume of grout prepared (gal.)	20
Volume of grout used (gal.)	20

WELL SCHEMATIC*



COMMENTS: Open End in Grey Till
Grouting in place
No Casing Pulled
Grouted Closed

* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Drilling Contractor

Department Representative

Day 3 (5)

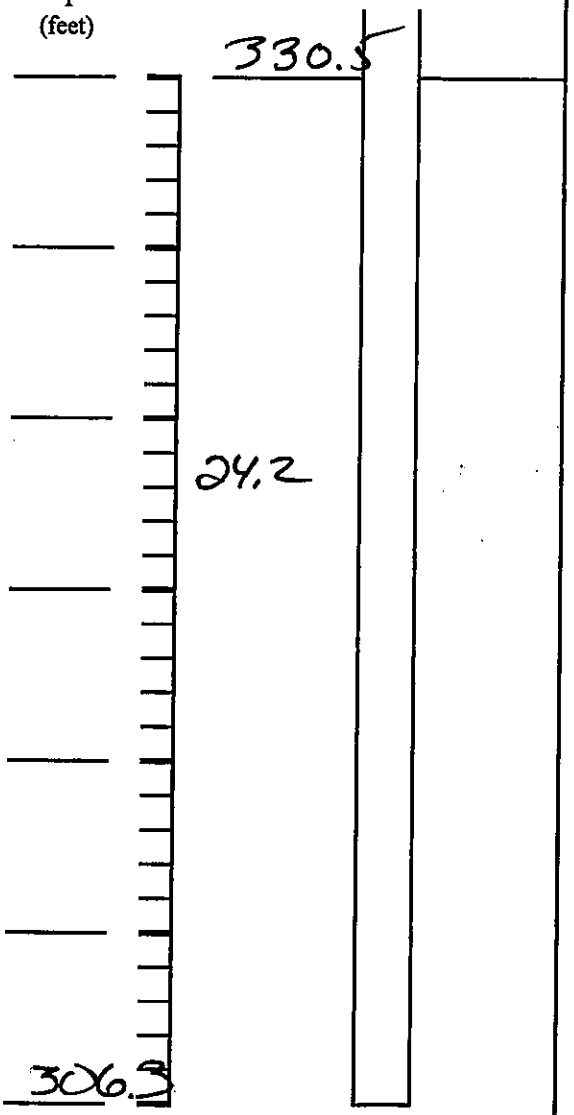
WELL DECOMMISSIONING RECORD

Site Name: SPR Well Abandonment	Well I.D.: UW-14A
Site Location: North side H2	Driller: Ralph / Ron
Drilling Co.: SJB	Inspector: Kevin Mirabassi
	Date: 8/18/10 PM

DECOMMISSIONING DATA
(Fill in all that apply)

OVERDRILLING	
Interval Drilled	
Drilling Method(s)	
Borehole Dia. (in.)	
Temporary Casing Installed? (y/n)	
Depth temporary casing installed	
Casing type/dia. (in.)	
Method of installing	
CASING PULLING	
Method employed (Pulled casing/grouted in place.)	CABLE/Boom
Casing retrieved (feet)	7.5'
Casing type/dia. (in)	1" PVC
CASING PERFORATING	
Equipment used	
Number of perforations/foot	
Size of perforations	
Interval perforated	
GROUTING	
Interval grouted (FBLS)	24.2
# of batches prepared	15
For each batch record:	
Quantity of water used (gal.)	2.8
Quantity of cement used (lbs.)	94
Cement type	Type I
Quantity of bentonite used (lbs.)	3.9
Quantity of calcium chloride used (lbs.)	—
Volume of grout prepared (gal.)	10 yd
Volume of grout used (gal.)	5

WELL SCHEMATIC*



COMMENTS: 24.2' 1" PVC Casing Blow out Bottom w/ 25.4 cf 1" Steel Rod Blow out Bottom Grouted / Closed

* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Drilling Contractor

Department Representative

Day 3 ②

WELL DECOMMISSIONING RECORD

Site Name: SPRO Well Abandonment	Well I.D.: UW-14
Site Location: North Side HZ	Driller: Ralph / Ron
Drilling Co.: SJTB	Inspector: Kevin Misiaszek
	Date: 8/19/10 FM

DECOMMISSIONING DATA
(Fill in all that apply)

OVERDRILLING

Interval Drilled	
Drilling Method(s)	
Borehole Dia. (in.)	
Temporary Casing Installed? (y/n)	
Depth temporary casing installed	
Casing type/dia. (in.)	
Method of installing	

CASING PULLING

Pulled casing / Grouted In Place

Method employed	Crane/Boom
Casing retrieved (feet)	27.5
Casing type/dia. (in)	1" PVC

CASING PERFORATING

Equipment used	
Number of perforations/foot	
Size of perforations	
Interval perforated	

GROUTING

Interval grouted (FBLS)	28.6
# of batches prepared	15
For each batch record:	
Quantity of water used (gal.)	7.8
Quantity of cement used (lbs.)	44
Cement type	Type I
Quantity of bentonite used (lbs.)	3.9
Quantity of calcium chloride used (lbs.)	—
Volume of grout prepared (gal.)	10 gal.
Volume of grout used (gal.)	5 gal

WELL SCHEMATIC*

Depth (feet)

330.76

28.6

302.16

COMMENTS: 28.6' 1" PVC Used 30' of 1" steel Rod Blew out Bottom, Pulled 27.5' Casing Grouted Closed

* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Drilling Contractor

Department Representative

Day 4 ①

WELL DECOMMISSIONING RECORD

Site Name: SPRR – Well Abandonment	Well I.D.: UW-2
Site Location: North side (NW corn.) H2	Driller: Ralph / Tim Vincent
Drilling Co.: SJB	Inspector: Kevin Misiaszek
	Date: 8/19/10 AM

DECOMMISSIONING DATA
(Fill in all that apply)

OVERDRILLING

Interval Drilled	
Drilling Method(s)	
Borehole Dia. (in.)	
Temporary Casing Installed? (y/n)	
Depth temporary casing installed	
Casing type/dia. (in.)	
Method of installing	

CASING PULLING

Method employed Grouted in place	Cable / Boom
Casing retrieved (feet)	3'
Casing type/dia. (in)	2" PVC

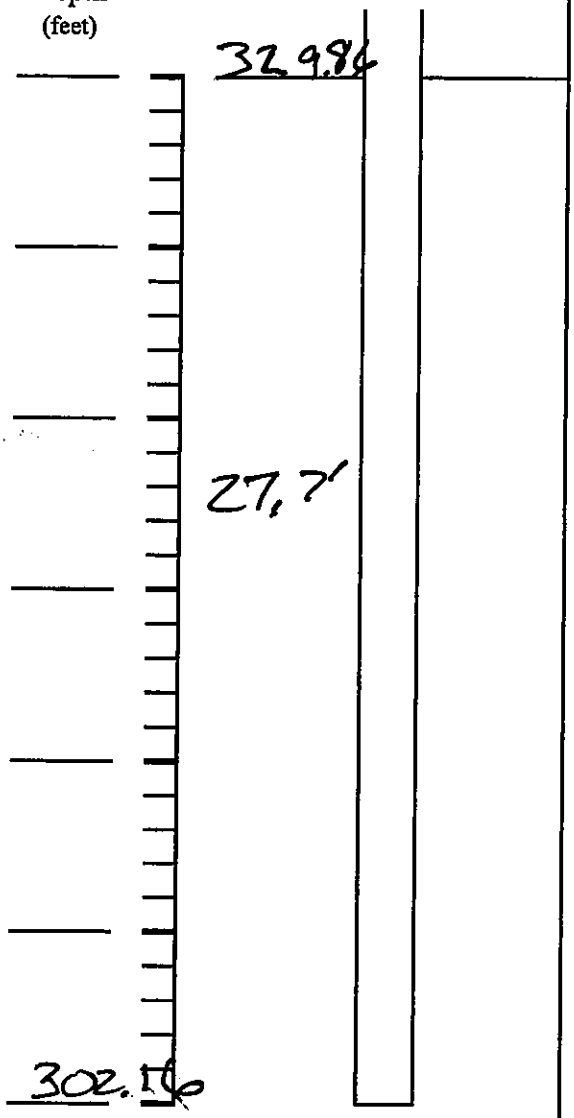
CASING PERFORATING

Equipment used	
Number of perforations/foot	
Size of perforations	
Interval perforated	

GROUTING

Interval grouted (FBLS)	27.7
# of batches prepared	11e
For each batch record:	
Quantity of water used (gal.)	7.8
Quantity of cement used (lbs.)	94
Cement type	Type I
Quantity of bentonite used (lbs.)	3.9
Quantity of calcium chloride used (lbs.)	—
Volume of grout prepared (gal.)	10
Volume of grout used (gal.)	6 gal

WELL SCHEMATIC*



COMMENTS: 2" PVC Well 27.7' Deep Blew out Bottom w 28' of 1.5" Steel Rod 3' feet of Red Casing Pulled Broke off 3' B.G. Grouted in place/closed.

Grouted Closed

* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Drilling Contractor

Department Representative

Day 4 (2)

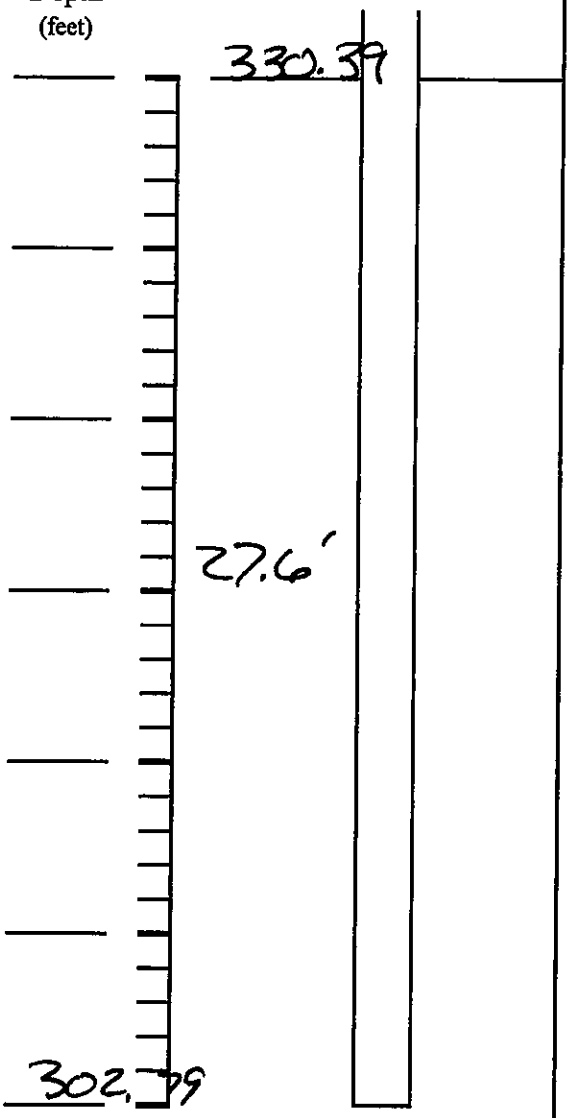
WELL DECOMMISSIONING RECORD

Site Name:	SPRU - Well Abandonment	Well I.D.:	DW-1
Site Location:	NW corner / Northside H2	Driller:	Ralph / Jim
Drilling Co.:	SJB	Inspector:	Kevin Misiaszek
		Date:	8/19/10 AM

DECOMMISSIONING DATA
(Fill in all that apply)

OVERDRILLING	
Interval Drilled	
Drilling Method(s)	
Borehole Dia. (in.)	
Temporary Casing Installed? (y/n)	
Depth temporary casing installed	
Casing type/dia. (in.)	
Method of installing	
CASING PULLING	
Method employed	Cable / Boom
Casing retrieved (feet)	26"
Casing type/dia. (in)	2" PVC
CASING PERFORATING	
Equipment used	
Number of perforations/foot	
Size of perforations	
Interval perforated	
GROUTING	
Interval grouted (FBLS)	27.6
# of batches prepared	17
For each batch record:	
Quantity of water used (gal.)	7.8
Quantity of cement used (lbs.)	94
Cement type	Type I
Quantity of bentonite used (lbs.)	3.9
Quantity of calcium chloride used (lbs.)	—
Volume of grout prepared (gal.)	10
Volume of grout used (gal.)	10

WELL SCHEMATIC*



COMMENTS: 2" PVC Casing 27.6' Deep Blew out Bottom w/ 2.8' of .5" Steel Rod Blew out Bottom 26' of 2" PVC Casing Recovered.

* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Drilling Contractor

Department Representative

Day 4 (3)

WELL DECOMMISSIONING RECORD

Site Name: SPRU/Well Abandonment	Well I.D.: H-24
Site Location: Northside (NW corner) H2	Driller: Ralph ~~Ron~~ Jim
Drilling Co.: SJB	Inspector:
	Date: 8/19/10 AM

DECOMMISSIONING DATA
(Fill in all that apply)

OVERDRILLING

Interval Drilled	
Drilling Method(s)	
Borehole Dia. (in.)	
Temporary Casing Installed? (y/n)	
Depth temporary casing installed	
Casing type/dia. (in.)	
Method of installing	

CASING PULLING

Method employed	Grouted In Place
Casing retrieved (feet)	0
Casing type/dia. (in)	3" PVC

CASING PERFORATING

Equipment used	
Number of perforations/foot	
Size of perforations	
Interval perforated	

GROUTING

Interval grouted (FBLS)	41.0
# of batches prepared	18 & 19
For each batch record:	
Quantity of water used (gal.)	15.6
Quantity of cement used (lbs.)	188
Cement type	Type I
Quantity of bentonite used (lbs.)	7.8
Quantity of calcium chloride used (lbs.)	—
Volume of grout prepared (gal.)	20 gal
Volume of grout used (gal.)	24 gal

WELL SCHEMATIC*

Depth (feet)

331.0

41.0'

290.0

Open end well

COMMENTS: 3" PVC – No Recovery
MD 3' Above grade
Grout in Place C/OFF Below Grade
Well Closed

* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Drilling Contractor

Department Representative

Day 4 (4)

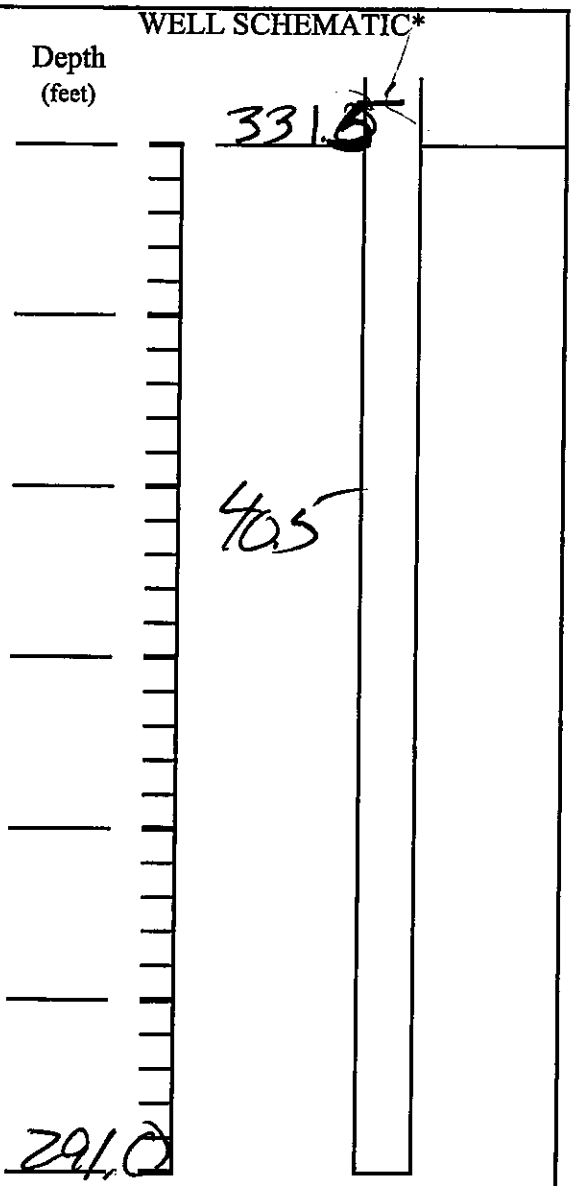
WELL DECOMMISSIONING RECORD

Site Name: SPRU Well Abandonment	Well I.D.: H-26
Site Location: Northside (NW corner) H2	Driller: Ralph / Jim
Drilling Co.: SJB	Inspector: Kevin Mirabassi
	Date: 8/19/10

DECOMMISSIONING DATA
(Fill in all that apply)

OVERDRILLING	
Interval Drilled	
Drilling Method(s)	
Borehole Dia. (in.)	
Temporary Casing Installed? (y/n)	
Depth temporary casing installed	
Casing type/dia. (in.)	
Method of installing	
CASING PULLING	
Method employed (Grout in place)	Grout in Place
Casing retrieved (feet)	0
Casing type/dia. (in)	3" PVC
CASING PERFORATING	
Equipment used	
Number of perforations/foot	
Size of perforations	
Interval perforated	
GROUTING	
Interval grouted (FBLS)	40.5
# of batches prepared	2 of 21
For each batch record:	
Quantity of water used (gal.)	15.6
Quantity of cement used (lbs.)	188
Cement type	Type I
Quantity of bentonite used (lbs.)	7.8
Quantity of calcium chloride used (lbs.)	—
Volume of grout prepared (gal.)	20
Volume of grout used (gal.)	20

WELL SCHEMATIC*



COMMENTS: 40.5 of 3" PVC casing open ended
0' recovery grouted in place
3' Above ground Top off
Well - Closed Not Grouted

* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Drilling Contractor

Department Representative

Grouted
Closed
Well Closed.

Day 4 (5)

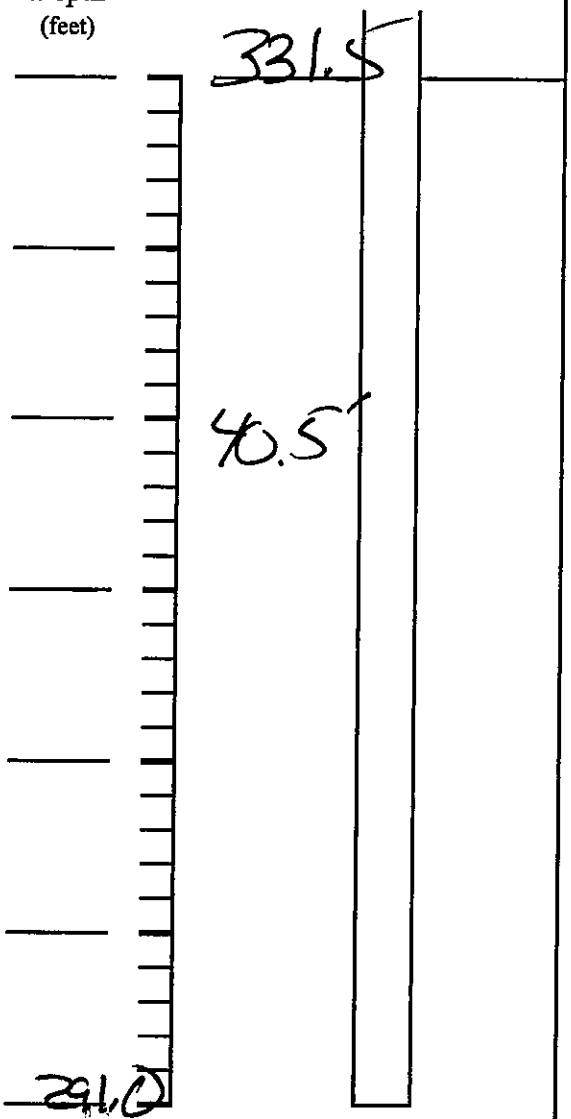
WELL DECOMMISSIONING RECORD

Site Name:	SPRU well Abandonment	Well I.D.:	A-28
Site Location:	Northside - H2 near slurry Bldg	Driller:	Ralph / Tom
Drilling Co.:	SJB	Inspector:	Kevin Mitchell
		Date:	8/19/20 PM

DECOMMISSIONING DATA
(Fill in all that apply)

OVERDRILLING	
Interval Drilled	
Drilling Method(s)	
Borehole Dia. (in.)	
Temporary Casing Installed? (y/n)	
Depth temporary casing installed	
Casing type/dia. (in.)	
Method of installing	
CASING PULLING	
Method employed	Grout in place
Casing retrieved (feet)	0
Casing type/dia. (in)	3" PVC
CASING PERFORATING	
Equipment used	
Number of perforations/foot	
Size of perforations	
Interval perforated	
GROUTING	
Interval grouted (FBLS)	40.5
# of batches prepared	22423
For each batch record:	
Quantity of water used (gal.)	15.6
Quantity of cement used (lbs.)	188
Cement type	Type I
Quantity of bentonite used (lbs.)	7.8
Quantity of calcium chloride used (lbs.)	—
Volume of grout prepared (gal.)	20
Volume of grout used (gal.)	20 gal

WELL SCHEMATIC*



COMMENTS: 40.5' of 3" PVC Grout Open-End well 0 Recovery Grouted in Place Grout Closed / well Closed

* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Drilling Contractor

Department Representative

Day 5 (1)

WELL DECOMMISSIONING RECORD

Am

(Reference Health Physics Well #1)

Site Name: SPRU - Well Abandonment	Well I.D.: MW-52-1
Site Location: Northside / #2 Tank Farm	Driller: Ralph / Ron
Drilling Co.: SJB	Inspector: Kevin Mizerek
	Date: 8/31/10 Am

DECOMMISSIONING DATA
(Fill in all that apply)

OVERDRILLING	
Interval Drilled	
Drilling Method(s)	
Borehole Dia. (in.)	
Temporary Casing Installed? (y/n)	
Depth temporary casing installed	
Casing type/dia. (in.)	
Method of installing	
CASING PULLING	
Method employed	Grout In Place -
Casing retrieved (feet)	0
Casing type/dia. (in)	6" Steel Casing
CASING PERFORATING	
Equipment used	
Number of perforations/foot	
Size of perforations	
Interval perforated	
GROUTING	
Interval grouted (FBLS)	28.2
# of batches prepared	2 @ 20 = 40 gal.
For each batch record:	
Quantity of water used (gal.)	31.2
Quantity of cement used (lbs.)	376
Cement type	Type I
Quantity of bentonite used (lbs.)	15.6
Quantity of calcium chloride used (lbs.)	—
Volume of grout prepared (gal.)	40 gal
Volume of grout used (gal.)	40 gal.

WELL SCHEMATIC*

Depth (feet)

334.0 - original elevation

323.5 - grade when overburden removed & grouting in place occur

10.5' of Pipe cut.

387' Deep well.

Net 28.2' of well to Grout.

295.3'

COMMENTS: Original well depth 38.7' ~~ft~~ Then overburden soil removed on tank farm, 10.5' of 6" steel casing cut. Top of Well = 323.5 when well closed. Method chosen is to grout in place. Well closed and dished at top for mushroom grout cover.

* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Drilling Contractor

Department Representative

WELL DECOMMISSIONING RECORD

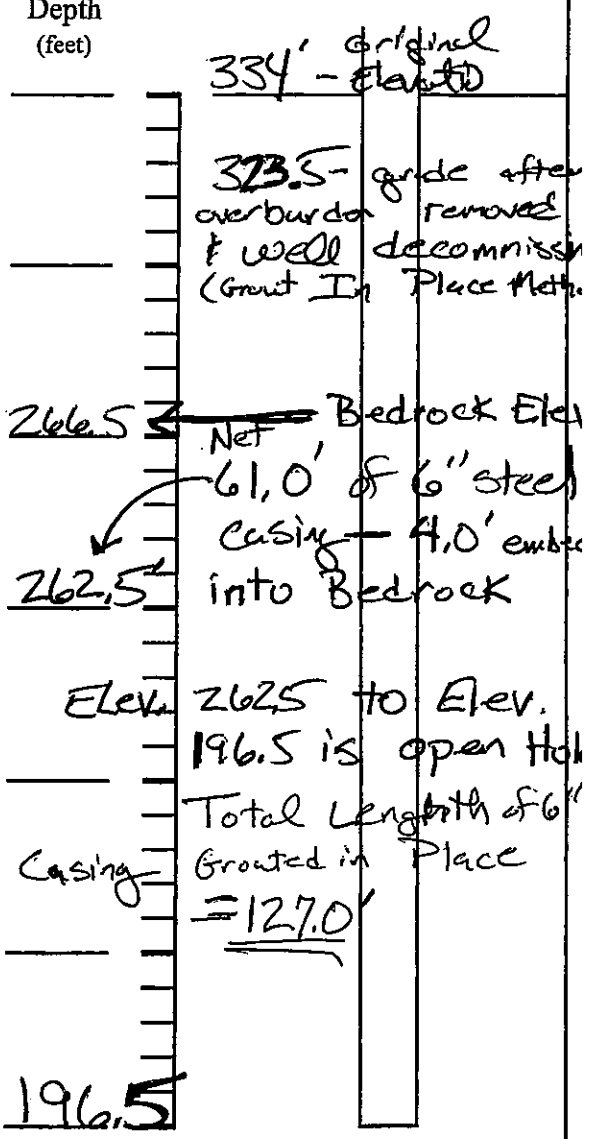
(Reference Health Physics Well #2)

Site Name: SPRU - Well Abandonment	Well I.D.: MW-52-2
Site Location: Northside HZ Tank Farm	Driller: Ralph / Ron
Drilling Co.: SJB	Inspector: Kevin Misiaszek
	Date: 8/31/10 PM

DECOMMISSIONING DATA
(Fill in all that apply)

OVERDRILLING	
Interval Drilled	
Drilling Method(s)	
Borehole Dia. (in.)	
Temporary Casing Installed? (y/n)	
Depth temporary casing installed	
Casing type/dia. (in.)	
Method of installing	
CASING PULLING Deep Well in Bedrock (*)	
Method employed	Grout In place
Casing retrieved (feet)	0
Casing type/dia. (in)	6" Steel Casing
CASING PERFORATING	
Equipment used	
Number of perforations/foot	
Size of perforations	
Interval perforated	
GROUTING	
Interval grouted (FBLS)	127.0'
# of batches prepared	7 @ 30 gal
For each batch record:	
Quantity of water used (gal.)	54.6
Quantity of cement used (lbs.)	658 #
Cement type	Type I
Quantity of bentonite used (lbs.)	27.3
Quantity of calcium chloride used (lbs.)	—
Volume of grout prepared (gal.)	210
Volume of grout used (gal.)	≈200 gal

WELL SCHEMATIC*



(*) COMMENTS: Deep Well in Bedrock (4'). Original Well Depth = 71.5'. After overburden removed well Depth = 61.0'. 6" Steel Casing. Method Chosen was to Grout in Place. Well Closed and dished at top for mushroom cast cover

* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Drilling Contractor

Department Representative

WELL DECOMMISSIONING RECORD

Site Name: SRRU - Well Abandonment	Well I.D.: UW-9A (LA-5000-9)
Site Location: H2 Tank Farm / South End	Driller: ADT
Drilling Co.: ADT	Inspector: Adrian Bilger
	Date: 08-09

DECOMMISSIONING DATA
(Fill in all that apply)

OVERDRILLING

Interval Drilled	
Drilling Method(s)	
Borehole Dia. (in.)	
Temporary Casing Installed? (y/n)	
Depth temporary casing installed	
Casing type/dia. (in.)	
Method of installing	

CASING PULLING

Method employed	Grout In Place
Casing retrieved (feet)	0
Casing type/dia. (in)	1" PVC

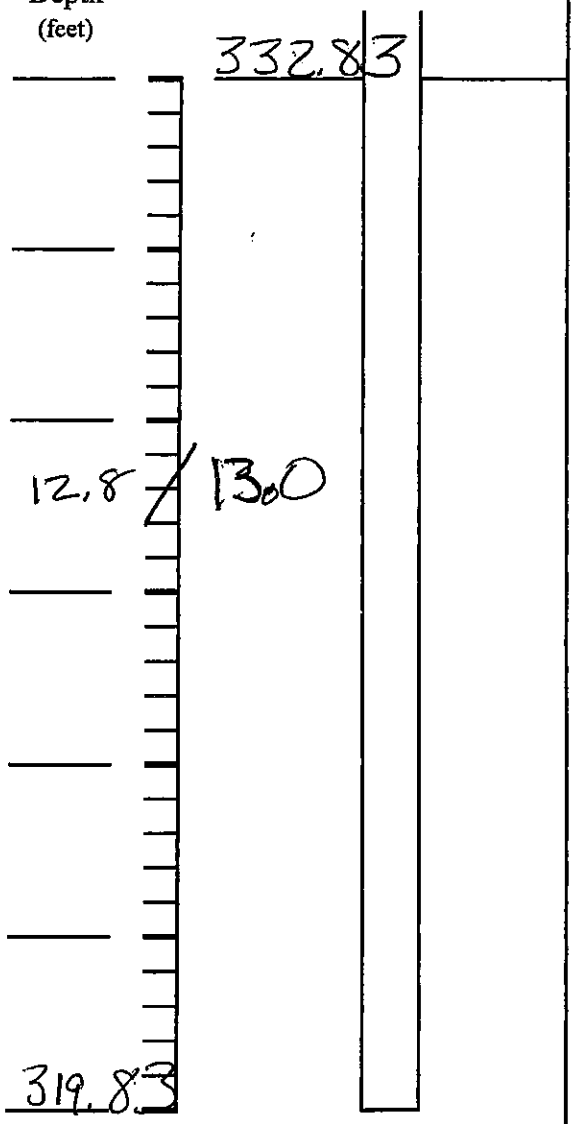
CASING PERFORATING

Equipment used	
Number of perforations/foot	
Size of perforations	
Interval perforated	

GROUTING

Interval grouted (FBLS)	13.0
# of batches prepared	
For each batch record:	
Quantity of water used (gal.)	
Quantity of cement used (lbs.)	
Cement type	
Quantity of bentonite used (lbs.)	
Quantity of calcium chloride used (lbs.)	
Volume of grout prepared (gal.)	
Volume of grout used (gal.)	

WELL SCHEMATIC*



COMMENTS:

(*) Well Removed Completely When Tank Farm Overburden/Soil Excavated / Well Closed & Removed

* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Drilling Contractor

Department Representative

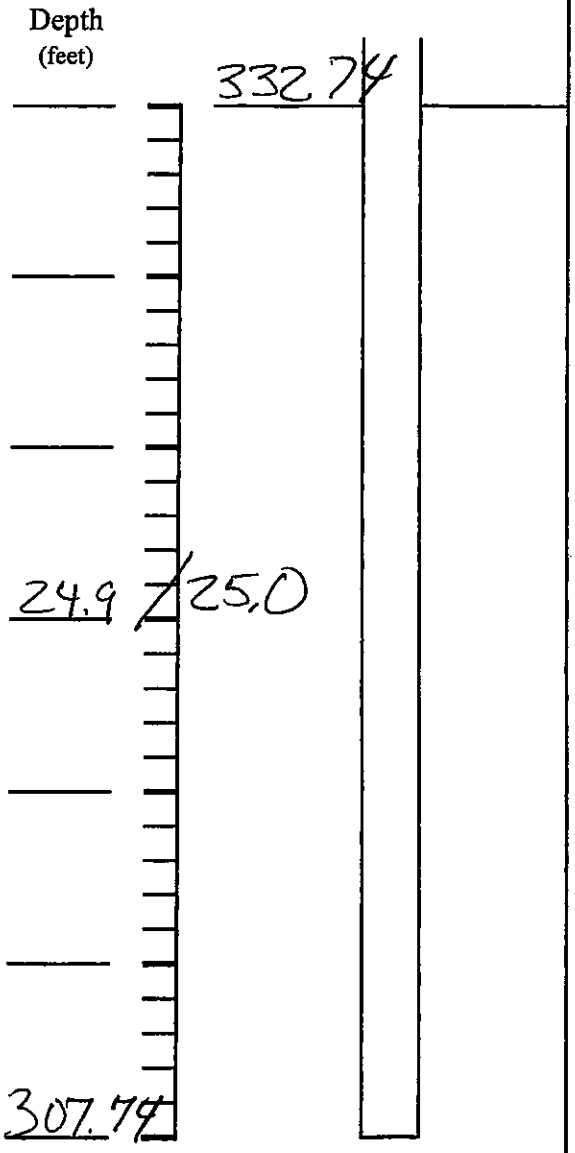
WELL DECOMMISSIONING RECORD

Site Name: SPRU-Well Abandonment	Well I.D.: UW-9
Site Location: H2 Tank Farm/South End	Driller: ADT
Drilling Co.: ADT	Inspector: Adrian Rilger
	Date: 08/09

DECOMMISSIONING DATA
(Fill in all that apply)

OVERDRILLING	
Interval Drilled	
Drilling Method(s)	
Borehole Dia. (in.)	
Temporary Casing Installed? (y/n)	
Depth temporary casing installed	
Casing type/dia. (in.)	
Method of installing	
CASING PULLING	
Method employed	Grout In Place
Casing retrieved (feet)	0
Casing type/dia. (in)	1" PVC
CASING PERFORATING	
Equipment used	
Number of perforations/foot	
Size of perforations	
Interval perforated	
GROUTING	
Interval grouted (FBLS)	25.0'
# of batches prepared	
For each batch record:	
Quantity of water used (gal.)	
Quantity of cement used (lbs.)	
Cement type	
Quantity of bentonite used (lbs.)	
Quantity of calcium chloride used (lbs.)	
Volume of grout prepared (gal.)	
Volume of grout used (gal.)	

WELL SCHEMATIC*



COMMENTS:
Well Closed / Grouted In Place

* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Drilling Contractor

Department Representative

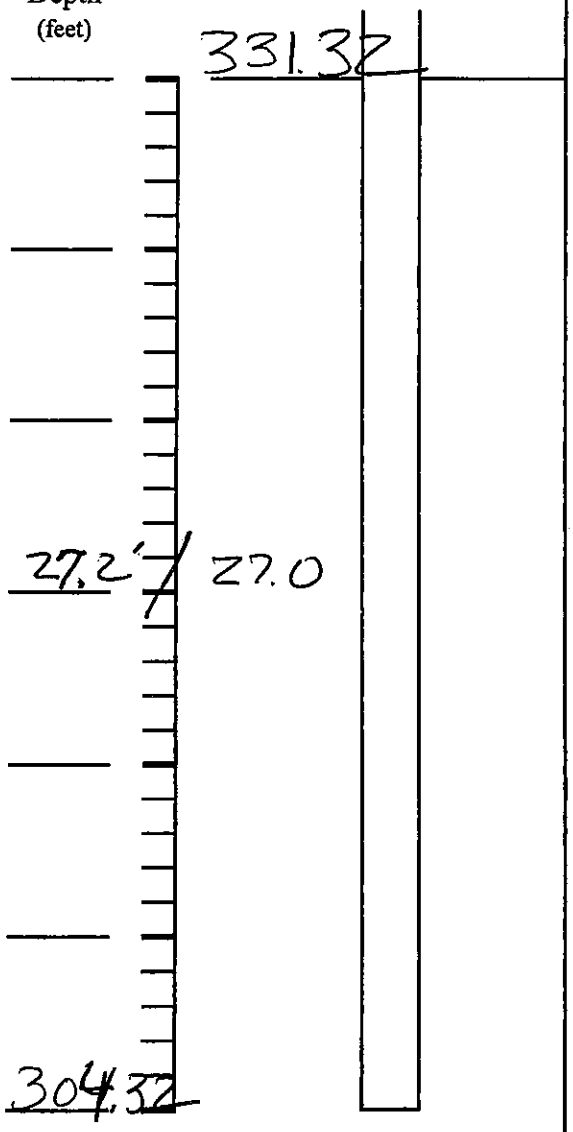
WELL DECOMMISSIONING RECORD

Site Name: SPRU Well Abandonment	Well I.D.: UW-8
Site Location: H2 Tank Farm / North End	Driller: ADT
Drilling Co.: ADT	Inspector: Adrian Bilga
	Date:

DECOMMISSIONING DATA
(Fill in all that apply)

OVERDRILLING	
Interval Drilled	
Drilling Method(s)	
Borehole Dia. (in.)	
Temporary Casing Installed? (y/n)	
Depth temporary casing installed	
Casing type/dia. (in.)	
Method of installing	
CASING PULLING	
Method employed	Grout In Place
Casing retrieved (feet)	0
Casing type/dia. (in)	1" PVC
CASING PERFORATING	
Equipment used	
Number of perforations/foot	
Size of perforations	
Interval perforated	
GROUTING	
Interval grouted (FBLS)	27
# of batches prepared	
For each batch record:	
Quantity of water used (gal.)	
Quantity of cement used (lbs.)	
Cement type	
Quantity of bentonite used (lbs.)	
Quantity of calcium chloride used (lbs.)	
Volume of grout prepared (gal.)	
Volume of grout used (gal.)	

WELL SCHEMATIC*



COMMENTS: Well Closed / Grout In Place

* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Drilling Contractor

Department Representative

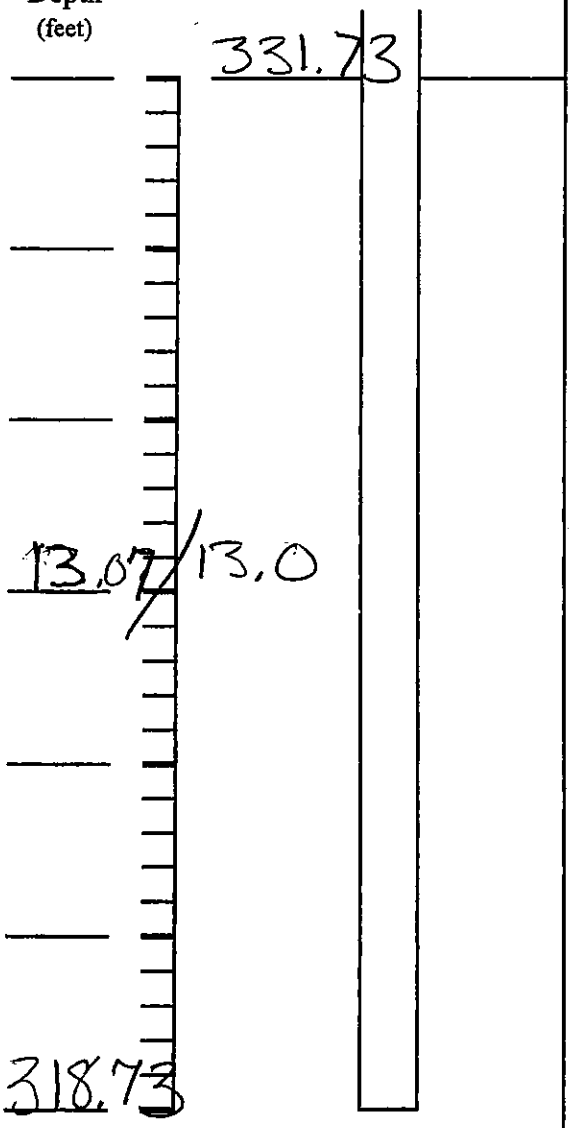
WELL DECOMMISSIONING RECORD

Site Name: SPRU - Well Abandonment	Well I.D.: UW - 8A
Site Location: H2 Tank Farm - North End	Driller: ADT
Drilling Co.: ADT	Inspector: Adrian Bilger
	Date: 08/09

DECOMMISSIONING DATA
(Fill in all that apply)

OVERDRILLING	
Interval Drilled	
Drilling Method(s)	
Borehole Dia. (in.)	
Temporary Casing Installed? (y/n)	
Depth temporary casing installed	
Casing type/dia. (in.)	
Method of installing	
CASING PULLING	
Method employed	Grout In Place
Casing retrieved (feet)	0
Casing type/dia. (in)	1" - PVC
CASING PERFORATING	
Equipment used	
Number of perforations/foot	
Size of perforations	
Interval perforated	
GROUTING	
Interval grouted (FBLS)	13.0
# of batches prepared	
For each batch record:	
Quantity of water used (gal.)	
Quantity of cement used (lbs.)	
Cement type	
Quantity of bentonite used (lbs.)	
Quantity of calcium chloride used (lbs.)	
Volume of grout prepared (gal.)	
Volume of grout used (gal.)	

WELL SCHEMATIC*



COMMENTS: Well Closed/Grouted In Place
Well Removed as part of Tank Farm Soil Overburden Removal

* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Drilling Contractor

Department Representative

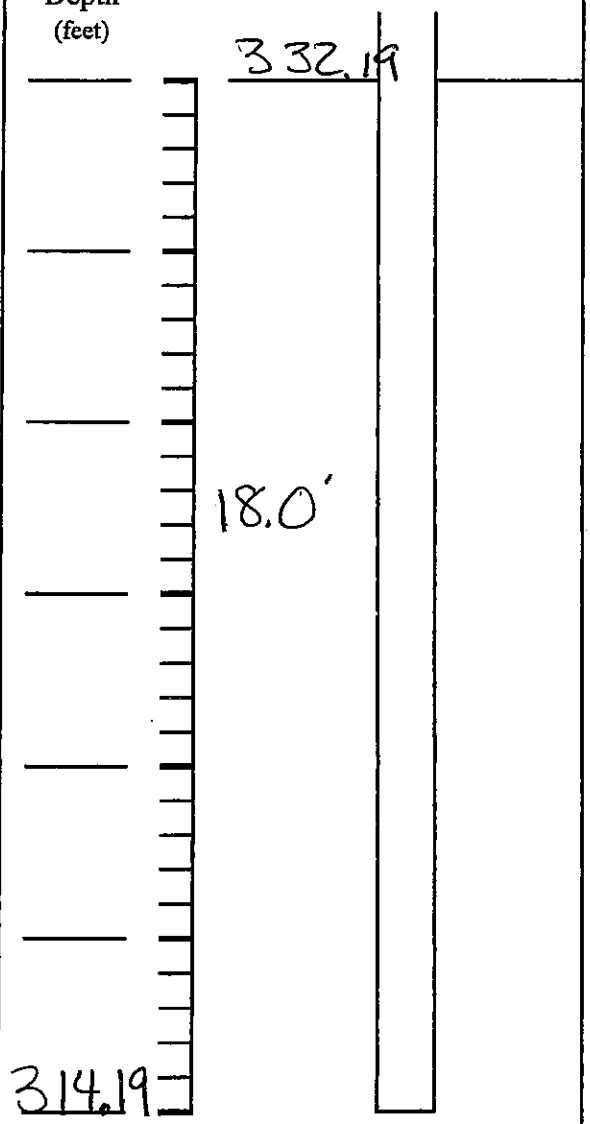
WELL DECOMMISSIONING RECORD

Site Name: SPRU - Well Abandonment	Well I.D.: UW-18
Site Location: #2 Tank Farm / North End	Driller: ADJ
Drilling Co.: ADJ	Inspector: Adrian Bilger
	Date: 08/09

DECOMMISSIONING DATA
(Fill in all that apply)

OVERDRILLING	
Interval Drilled	
Drilling Method(s)	
Borehole Dia. (in.)	
Temporary Casing Installed? (y/n)	
Depth temporary casing installed	
Casing type/dia. (in.)	
Method of installing	
CASING PULLING	
Method employed	Grout In Place
Casing retrieved (feet)	0
Casing type/dia. (in)	1" PVC
CASING PERFORATING	
Equipment used	
Number of perforations/foot	
Size of perforations	
Interval perforated	
GROUTING	
Interval grouted (FBLS)	18.0'
# of batches prepared	
For each batch record:	
Quantity of water used (gal.)	
Quantity of cement used (lbs.)	
Cement type	
Quantity of bentonite used (lbs.)	
Quantity of calcium chloride used (lbs.)	
Volume of grout prepared (gal.)	
Volume of grout used (gal.)	

WELL SCHEMATIC*



COMMENTS: Well Closed / Grout In Place

* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Drilling Contractor

Department Representative

WELL DECOMMISSIONING RECORD

Site Name: SPRU Well Abandonment	Well I.D.: UW-17
Site Location: H2 Tank Farm / North End	Driller: ADT
Drilling Co.: ADT	Inspector: Adrian Bilger
	Date: 08/09

DECOMMISSIONING DATA
(Fill in all that apply)

OVERDRILLING

Interval Drilled	
Drilling Method(s)	
Borehole Dia. (in.)	
Temporary Casing Installed? (y/n)	
Depth temporary casing installed	
Casing type/dia. (in.)	
Method of installing	

CASING PULLING

Method employed	Grout In Place
Casing retrieved (feet)	0
Casing type/dia. (in)	1" PVC

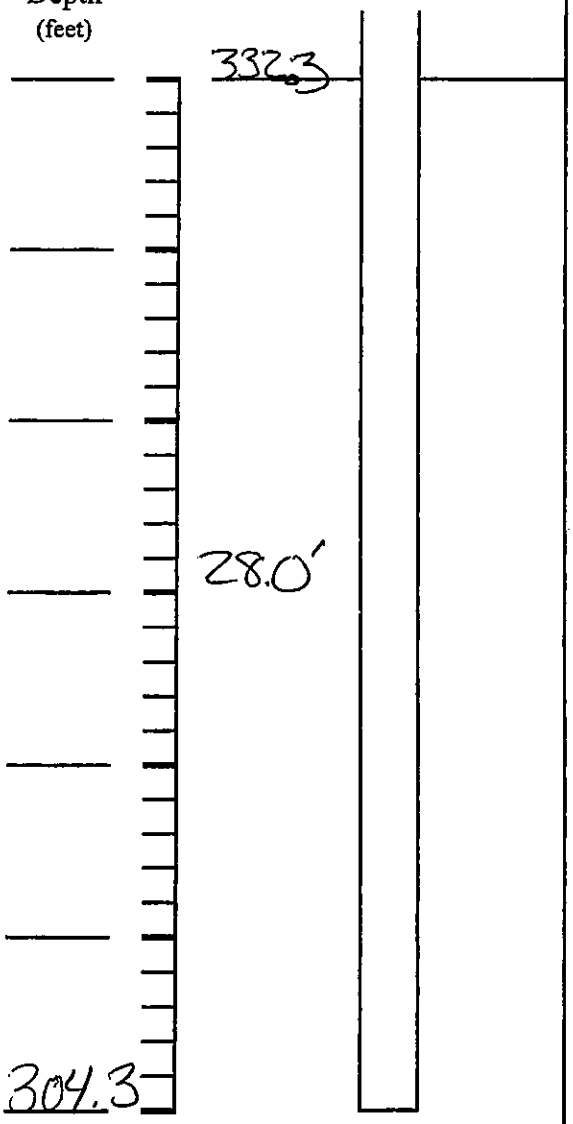
CASING PERFORATING

Equipment used	
Number of perforations/foot	
Size of perforations	
Interval perforated	

GROUTING

Interval grouted (FBLS)	28.0
# of batches prepared	
For each batch record:	
Quantity of water used (gal.)	
Quantity of cement used (lbs.)	
Cement type	
Quantity of bentonite used (lbs.)	
Quantity of calcium chloride used (lbs.)	
Volume of grout prepared (gal.)	
Volume of grout used (gal.)	

WELL SCHEMATIC*



COMMENTS: Well Closed / Grouted In Place.

* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Drilling Contractor

Department Representative

ATTACHMENT 9

SPRU-AREA WELL CLOSURE REPORT

ATTACHMENT 9-B

Well Decommissioning Logs

2011

WELLS

B-8
UWT-1

FIGURE 3

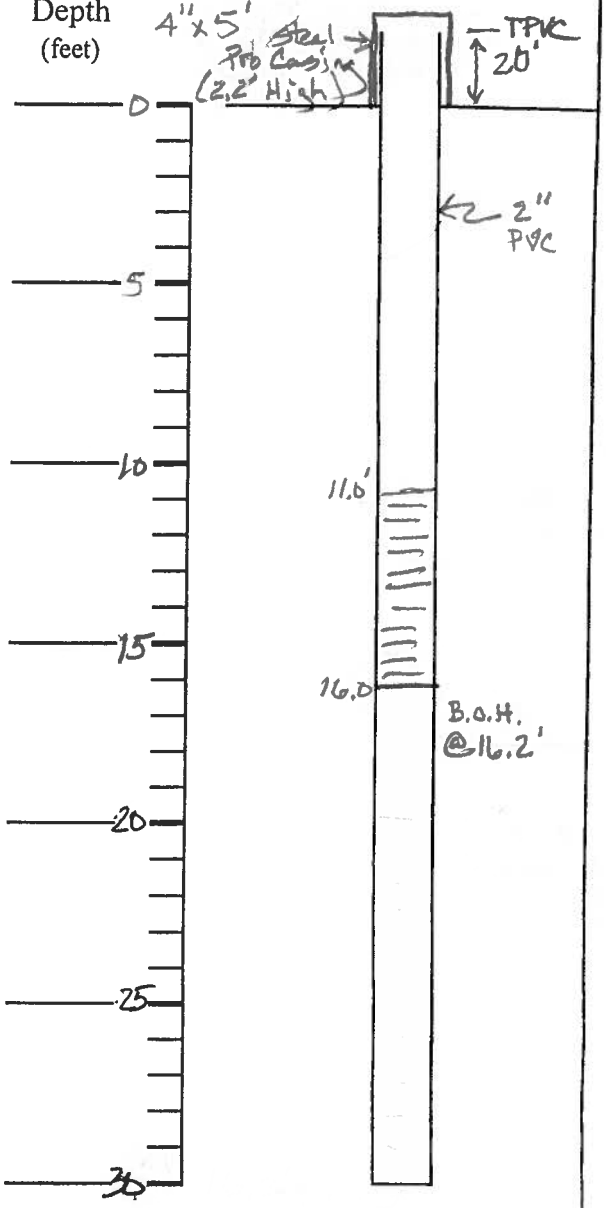
WELL DECOMMISSIONING RECORD

Site Name: KAPL - SPRU Project	Well I.D.: UNIT-1
Site Location: Nikaryuna, AK	Driller: R. Ciccatesi
Drilling Co.: SJB Services, Inc.	Inspector: J. Vincent
	Date: 6/1/11

DECOMMISSIONING DATA
(Fill in all that apply)

OVERDRILLING	
Interval Drilled	
Drilling Method(s)	
Borehole Dia. (in.)	
Temporary Casing Installed? (y/n)	
Depth temporary casing installed	
Casing type/dia. (in.)	
Method of installing	
CASING PULLING	
Method employed	Pierce & Pull
Casing retrieved (feet)	18.0'
Casing type/dia. (in)	2" PVC
CASING PERFORATING	
Equipment used	
Number of perforations/foot	
Size of perforations	
Interval perforated	
GROUTING	
Interval grouted (FBLS)	4'-16.2'
# of batches prepared	1
For each batch record:	
Quantity of water used (gal.)	10 gals
Quantity of cement used (lbs.)	94 lbs
Cement type	Type I/II
Quantity of bentonite used (lbs.)	5 lbs
Quantity of calcium chloride used (lbs.)	—
Volume of grout prepared (gal.)	± 20 gals
Volume of grout used (gal.)	± 10 gals

WELL SCHEMATIC*



COMMENTS: Removed 4" Pro Casing (hoisted), pierced bottom of well w/ probe rods, place bentonite cement grout via tremie hose, removed 2" PVC well casing & screen from bore hole, & topped off with grout to 4'
SJB Services, Inc.
↳ to 4' below grade for near future excavation of conduit trench through this area. Jason Litwiller 6-1-11

* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Drilling Contractor

Department Representative

FIGURE 3

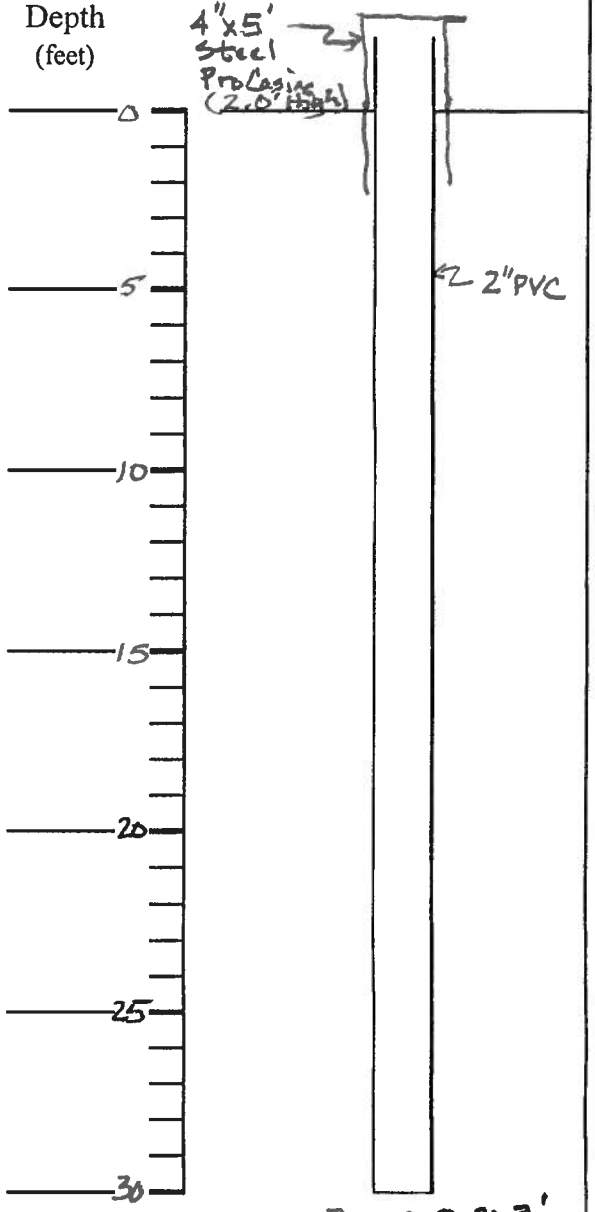
WELL DECOMMISSIONING RECORD

Site Name: KAPL - SPRU Project	Well I.D.: B-B
Site Location: Niskayuna, NY	Driller: R. Ciccaterri
Drilling Co.: SJB Services, Inc.	Inspector: J. Vincent
	Date: 6/1/11

DECOMMISSIONING DATA
(Fill in all that apply)

OVERDRILLING	
Interval Drilled	
Drilling Method(s)	
Borehole Dia. (in.)	
Temporary Casing Installed? (y/n)	
Depth temporary casing installed	
Casing type/dia. (in.)	
Method of installing	
CASING PULLING	
Method employed	
Casing retrieved (feet)	
Casing type/dia. (in)	
CASING PERFORATING	
Equipment used	
Number of perforations/foot	
Size of perforations	
Interval perforated	
GROUTING	
Interval grouted (FBLS)	
# of batches prepared	
For each batch record:	
Quantity of water used (gal.)	10 gals
Quantity of cement used (lbs.)	94 lbs
Cement type	I/II
Quantity of bentonite used (lbs.)	6 lbs
Quantity of calcium chloride used (lbs.)	—
Volume of grout prepared (gal.)	±20 gals
Volume of grout used (gal.)	

WELL SCHEMATIC*



COMMENTS: Excavate to 5.3' BGS around well and removed 4" pro casing & upper 2.3' of 2" PVC well casing. Place bentonite cement grout via tremie hose to top of 2" PVC and overflowed into excavation.

* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

SJB Services, Inc.
Drilling Contractor

Department Representative

ATTACHMENT 9

SPRU-AREA WELL CLOSURE REPORT

ATTACHMENT 9-C

Well Decommissioning Logs

2019

WELLS

KH-16
B-14
B-15
MW-6
MW-3
MW-30

FIGURE 3

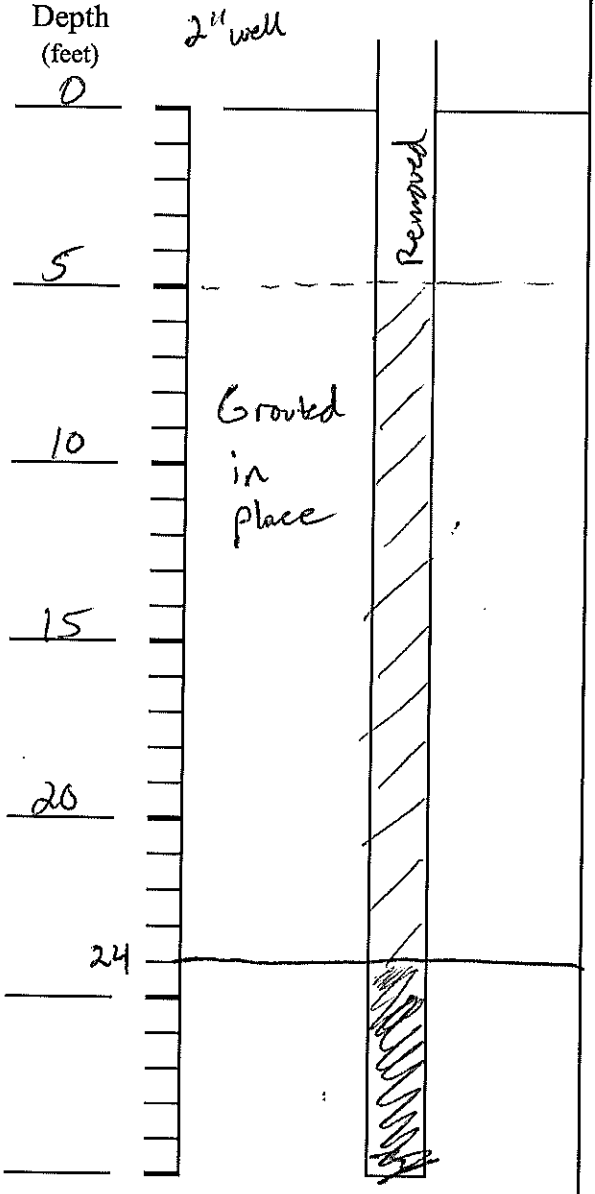
WELL DECOMMISSIONING RECORD

Site Name: KAPL	Well I.D.: #1 KH-16
Site Location: Niskayuna, NY	Driller: Zack Fordley
Drilling Co.: Cascade	Inspector: Jesse Wolfe
	Date: 6-13-19

DECOMMISSIONING DATA
(Fill in all that apply)

OVERDRILLING	
Interval Drilled	
Drilling Method(s)	
Borehole Dia. (in.)	
Temporary Casing Installed? (y/n)	
Depth temporary casing installed	
Casing type/dia. (in.)	2"
Method of installing	
CASING PULLING	
Method employed	
Casing retrieved (feet)	
Casing type/dia. (in)	
CASING PERFORATING	
Equipment used	
Number of perforations/foot	
Size of perforations	
Interval perforated	
GROUTING	
Interval grouted (FBLS)	0'-24'
# of batches prepared	1
For each batch record:	
Quantity of water used (gal.)	3.5
Quantity of cement used (lbs.)	23
Cement type	Portland
Quantity of bentonite used (lbs.)	1
Quantity of calcium chloride used (lbs.)	
Volume of grout prepared (gal.)	5
Volume of grout used (gal.)	5

WELL SCHEMATIC*



COMMENTS:

* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Drilling Contractor

Department Representative

FIGURE 3

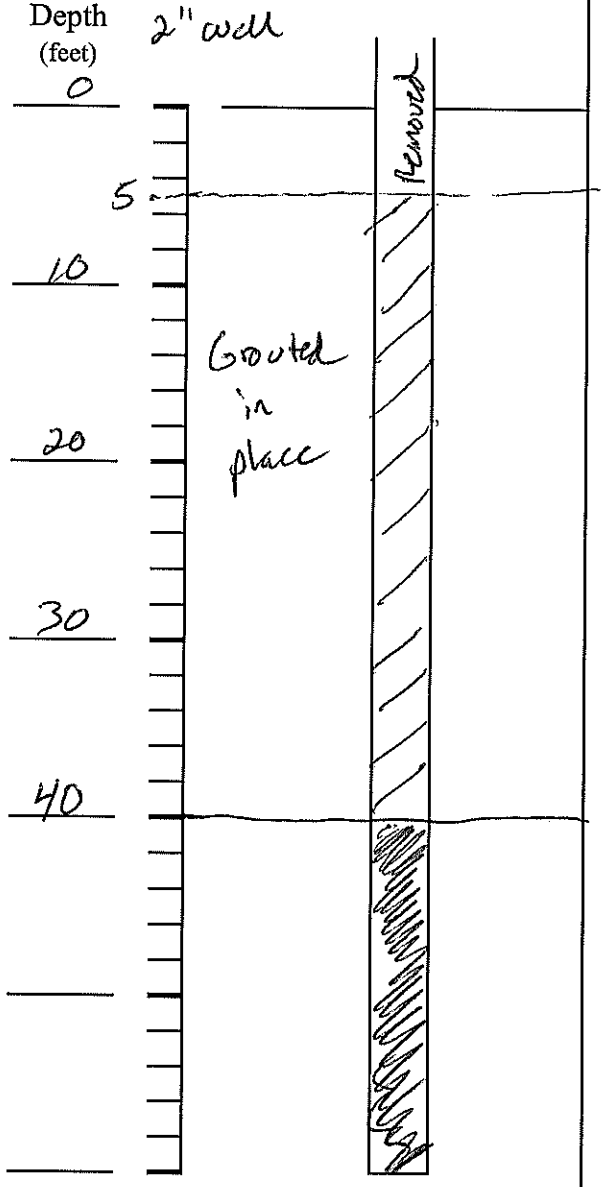
WELL DECOMMISSIONING RECORD

Site Name: KAPL	Well I.D.: #2 B-14
Site Location: Niskayuna, NY	Driller: Zack Fordley
Drilling Co.: Cascade	Inspector: Jesse Wolfe
	Date: 6-13-19

DECOMMISSIONING DATA
(Fill in all that apply)

OVERDRILLING	
Interval Drilled	
Drilling Method(s)	
Borehole Dia. (in.)	
Temporary Casing Installed? (y/n)	
Depth temporary casing installed	
Casing type/dia. (in.)	
Method of installing	
CASING PULLING	
Method employed	
Casing retrieved (feet)	
Casing type/dia. (in)	
CASING PERFORATING	
Equipment used	
Number of perforations/foot	
Size of perforations	
Interval perforated	
GROUTING	
Interval grouted (FBLS)	0'- 40'
# of batches prepared	1
For each batch record:	
Quantity of water used (gal.)	95
Quantity of cement used (lbs.)	47
Cement type	Portland
Quantity of bentonite used (lbs.)	2
Quantity of calcium chloride used (lbs.)	
Volume of grout prepared (gal.)	9
Volume of grout used (gal.)	8

WELL SCHEMATIC*



COMMENTS:

* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Drilling Contractor

Department Representative

FIGURE 3

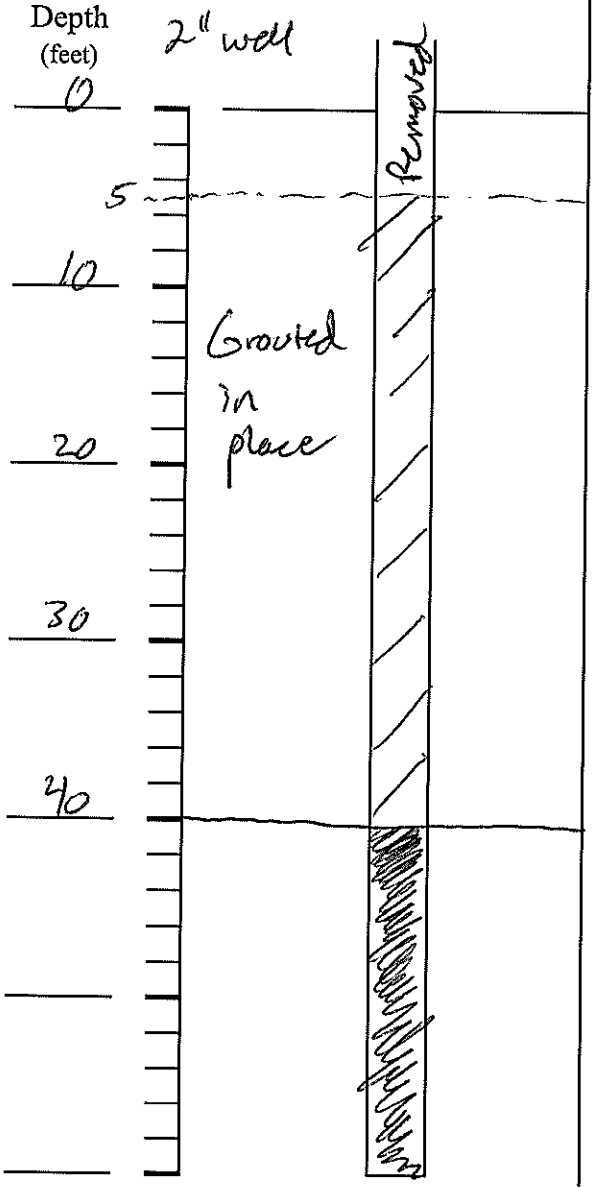
WELL DECOMMISSIONING RECORD

Site Name: LAPL	Well I.D.: #3 B-15
Site Location: Niskayuna, NY	Driller: Fordley
Drilling Co.: Cascade	Inspector: Jesse Wolfe
	Date: 6-13-19

DECOMMISSIONING DATA
(Fill in all that apply)

OVERDRILLING	
Interval Drilled	
Drilling Method(s)	
Borehole Dia. (in.)	
Temporary Casing Installed? (y/n)	
Depth temporary casing installed	
Casing type/dia. (in.)	
Method of installing	
CASING PULLING	
Method employed	
Casing retrieved (feet)	
Casing type/dia. (in)	
CASING PERFORATING	
Equipment used	
Number of perforations/foot	
Size of perforations	
Interval perforated	
GROUTING	
Interval grouted (FBLS)	0'-40'
# of batches prepared	1
For each batch record:	
Quantity of water used (gal.)	5
Quantity of cement used (lbs.)	47
Cement type	Portland
Quantity of bentonite used (lbs.)	2
Quantity of calcium chloride used (lbs.)	
Volume of grout prepared (gal.)	9
Volume of grout used (gal.)	8

WELL SCHEMATIC*



COMMENTS:

* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Drilling Contractor

Department Representative

FIGURE 3

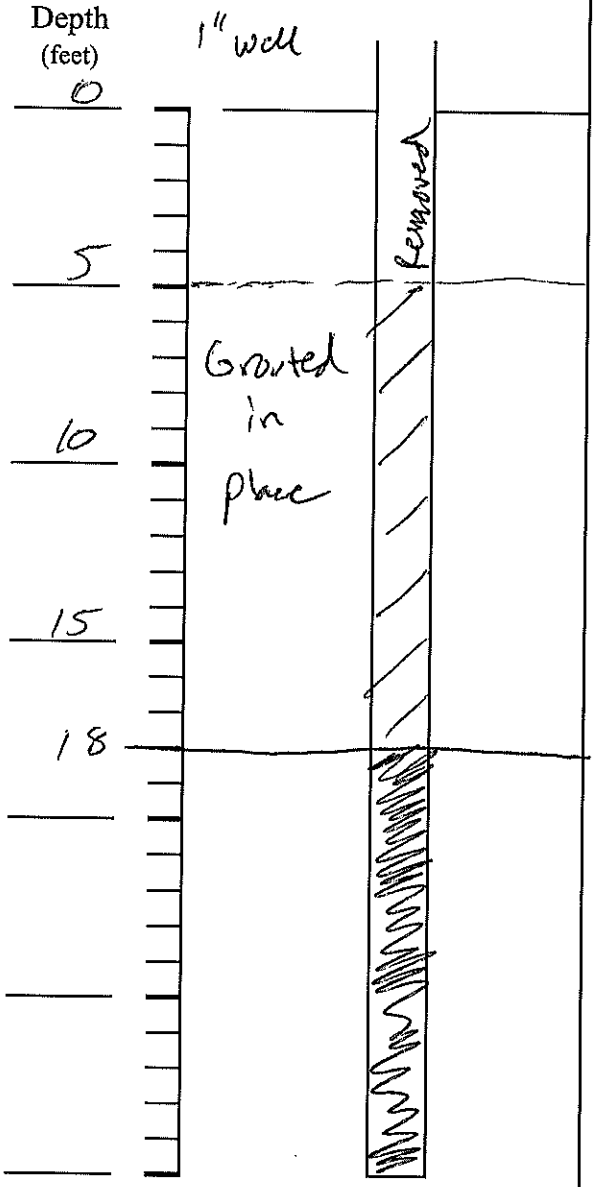
WELL DECOMMISSIONING RECORD

Site Name: KAPL	Well I.D.: #4 MW-6
Site Location: Niskayuna, NY	Driller: Zade Fordley
Drilling Co.: Cascade	Inspector: Jesse Wolfe
	Date: 6-13-19

DECOMMISSIONING DATA
(Fill in all that apply)

OVERDRILLING	
Interval Drilled	
Drilling Method(s)	
Borehole Dia. (in.)	
Temporary Casing Installed? (y/n)	
Depth temporary casing installed	
Casing type/dia. (in.)	
Method of installing	
CASING PULLING	
Method employed	
Casing retrieved (feet)	
Casing type/dia. (in)	
CASING PERFORATING	
Equipment used	
Number of perforations/foot	
Size of perforations	
Interval perforated	
GROUTING	
Interval grouted (FBLS)	0-18
# of batches prepared	1
For each batch record:	
Quantity of water used (gal.)	3
Quantity of cement used (lbs.)	20
Cement type	Portland
Quantity of bentonite used (lbs.)	1
Quantity of calcium chloride used (lbs.)	
Volume of grout prepared (gal.)	4
Volume of grout used (gal.)	2.5

WELL SCHEMATIC*



COMMENTS:

* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Drilling Contractor

Department Representative

FIGURE 3

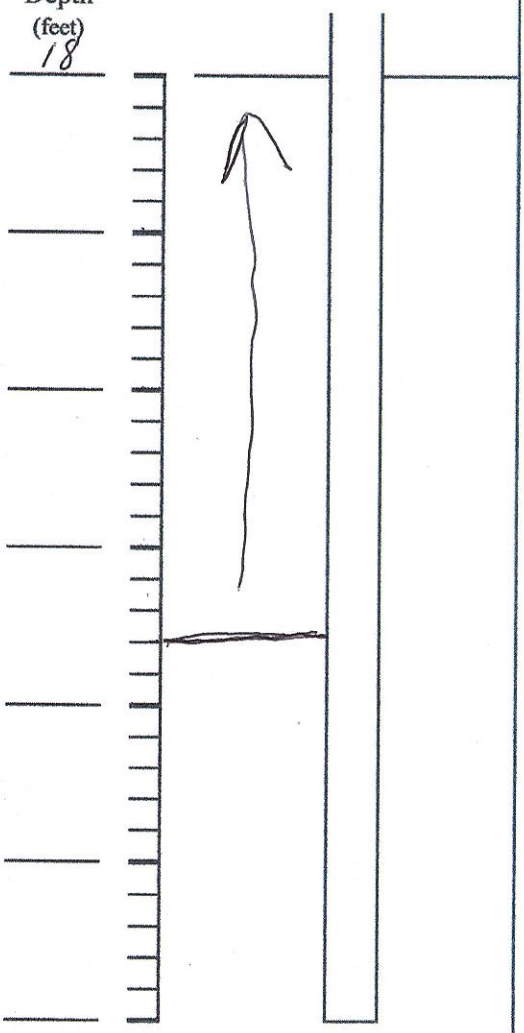
WELL DECOMMISSIONING RECORD

Site Name: KAPL	Well I.D.: MW-3
Site Location: Niskayuna N.Y.	Driller: Roger Baley
Drilling Co.: Cascade	Inspector:
	Date: 6-28-19

DECOMMISSIONING DATA
(Fill in all that apply)

OVERDRILLING	
Interval Drilled	
Drilling Method(s)	
Borehole Dia. (in.)	
Temporary Casing Installed? (y/n)	
Depth temporary casing installed	
Casing type/dia. (in.)	
Method of installing	
CASING PULLING	
Method employed	
Casing retrieved (feet)	
Casing type/dia. (in)	
CASING PERFORATING	
Equipment used	
Number of perforations/foot	
Size of perforations	
Interval perforated	
GROUTING	
Interval grouted (FBLS)	18ft.
# of batches prepared	1
For each batch record:	
Quantity of water used (gal.)	1 gal
Quantity of cement used (lbs.)	10
Cement type	Portland
Quantity of bentonite used (lbs.)	1/4
Quantity of calcium chloride used (lbs.)	
Volume of grout prepared (gal.)	2 1/2
Volume of grout used (gal.)	2 1/2

WELL SCHEMATIC*



COMMENTS: 1 inch PVC Removed
Bore hole grouted to surface

* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Roger Baley
Drilling Contractor

Department Representative

FIGURE 3

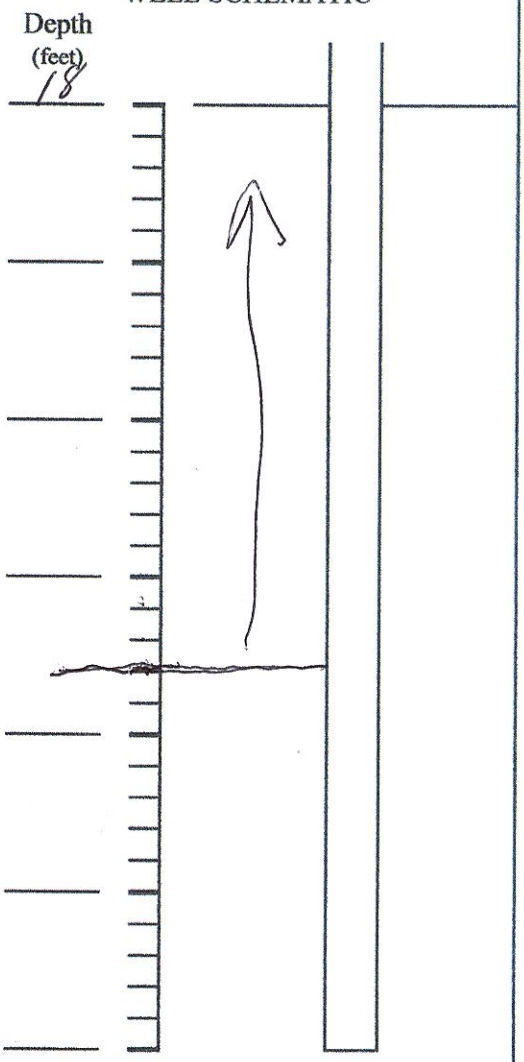
WELL DECOMMISSIONING RECORD

Site Name: KAPL	Well I.D.: MW-30
Site Location: Wiskayaana	Driller: Roger Buley
Drilling Co.: Cascade Technical Services	Inspector:
	Date: 6-28-19

DECOMMISSIONING DATA
(Fill in all that apply)

OVERDRILLING	
Interval Drilled	
Drilling Method(s)	
Borehole Dia. (in.)	
Temporary Casing Installed? (y/n)	
Depth temporary casing installed	
Casing type/dia. (in.)	
Method of installing	
CASING PULLING	
Method employed	
Casing retrieved (feet)	
Casing type/dia. (in)	
CASING PERFORATING	
Equipment used	
Number of perforations/foot	
Size of perforations	
Interval perforated	
GROUTING	
Interval grouted (FBLS)	18 BF
# of batches prepared	1
For each batch record:	
Quantity of water used (gal.)	1gal
Quantity of cement used (lbs.)	10
Cement type	Portland
Quantity of bentonite used (lbs.)	1/4
Quantity of calcium chloride used (lbs.)	
Volume of grout prepared (gal.)	2 1/2
Volume of grout used (gal.)	2 1/2

WELL SCHEMATIC*



COMMENTS: 1 in PVC Removed
Boar hole grouted to Surface

* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Roger Buley
Drilling Contractor

Department Representative