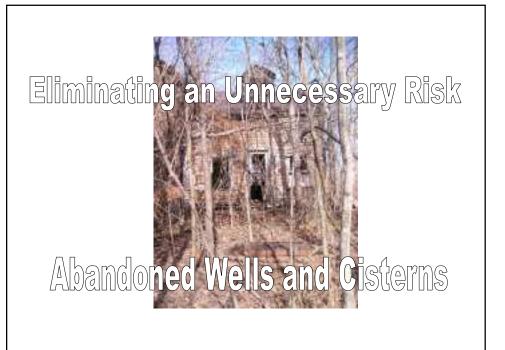
# Missouri Department of Natural Resources

Division of Environmental Quality Wellhead Protection Section





#### 10 CSR 23-3.110 Plugging of Wells

Any well which is to be abandoned must be plugged in accordance with these rules. If a well has been determined to present a threat to the groundwater, the division may order that the well be permanently plugged. If a well is in such a state of disrepair that continued use for purposes of obtaining groundwater is impractical and which has not been in use for a period of two (2) years or more, the division may order that the well be permanently plugged.

Wells abandoned by landowners after August 28, 1991, shall be plugged or cause to be plugged, in accordance with this rule. Landowners may plug their own wells located on property they own or lease, if the wells were intended for use only in single-family houses which are their permanent residences or were intended for use only for farming purposes on their farms, and where the waters that were produced were not intended for use by the public or in any residence other than their own.

#### HAND DUG WELLS AND CISTERNS

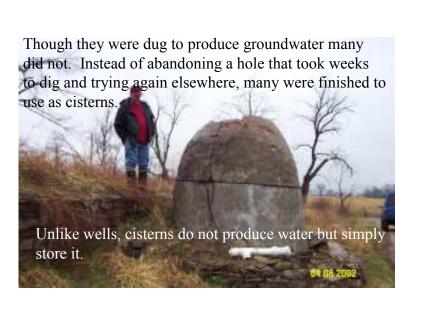
The early wells and cisterns constructed in Missouri bear little resemblance to their modern counterparts. These early wells were dug and constructed by hand with pick and shovel.





Most hand dug wells are from three to six feet in diameter unlike modern wells, they do not contain casing. Brick or field stones were used to line the well, holding the materials in place while allowing water to enter.

Their depths are variable; if ample water was encountered at a shallow depth there was little need to dig deeper. Some bottomed no more than ten feet below land surface, while others are more than 30-40 feet deep.



Locally, dug wells which produced groundwater are referred to as "living wells".





Cisterns are often called "wells" even though they are only a storage structure.



Nearly every northern and western Missouri farmstead had one or more wells or cisterns.



As a result, many of the wells and cisterns that were so important a few decades ago are no longer used or needed. In fact, they are no longer an asset but a serious liability.



Abandoned large-diameter dug wells and cisterns are a very real and deadly threat to the residents of rural Missouri.





When properly maintained dug wells and cisterns present little risk, but when abandoned they become potential traps, and are an unnecessary risk to human life.

FELL SAME LINES

Dug wells commonly are three to six feet in diameter, often larger at the bottom than at the top, and may be from ten feet to 40 feet deep. They typically produce less than three gallons of water per minute, but because of there large volume, can store several thousand gallons of water.

Dug wells and cisterns still in service should have a sturdy cover, preferably made of reinforced concrete. The covers should be securely fastened, or be heavy enough to keep curious children from removing them.



#### Plugging the well or cistern:

This well will be plugged in accordance with 10 CSR 23-3.110. The property-owner or a contractor may perform the plugging of a hand-dug well. However if the well is over 80 feet to total depth the owner or a permitted contractor is required when plugging the well

Step 1: Remove all pumps, pipe, and debris.

Step 2a: If the well contains water add the appropriate amount of chlorine. As the fill material is poured into the well, it is disinfected as it comes in contact, with the chloring text water.

Step 2b: If there is no after in the well chlorine must be added to water in a sprayer. As the material is poured into the well the fill is sprayed and becomes disinfected as it comes into contact with the chlorinated water.

Push in top three feet (3') of well lining. Lining may be composed of rock, brick, or tile.





Fill the well to within three feet of the surface with clean fill material such as gravel, sand, or varied size agricultural lime.



Submit abandonment registration record to the division.



Bored wells are constructed with an auger, scoop, drag-line, or some similar machine.

They are the modern equivalent of the old, hand-dug wells.

These wells are relatively large-diameter, usually two to four feet, and may be 20-80 feet deep, and total depth is usually at the top of bedrock.

Older bored wells are commonly lined with

sections of clay or tin pipe; newer bored wells are usually lined with concrete pipe.

If properly constructed and covered, they can provide a satisfactory water supply and present no special

hazard.



Abandoned, they are as dangerous as dug wells and cisterns, and should be plugged.

Bored wells can be plugged using the same methods as those described for dug wells and cisterns.

Dig around the casing and remove the top three feet (3') of casing. The remaining hole must be at least two feet (2') in diameter larger than the casing.

Disinfect fill material. If there is water in the well, you must add chlorine bleach (5.25 to 6%) to the water bringing it to a concentration of at least one hundred (100) PPM. As the fill material is poured into the well, it is disinfected as it comes in contact with the chlorinated water.

In agricultural or yard settings, the plug must terminate at least two feet (2') below the finished surface grade and the remaining hole filled with soil. In other settings, the remaining hole may be filled with clean fill if the well site is to be paved.

Submit registration report form to the division.

























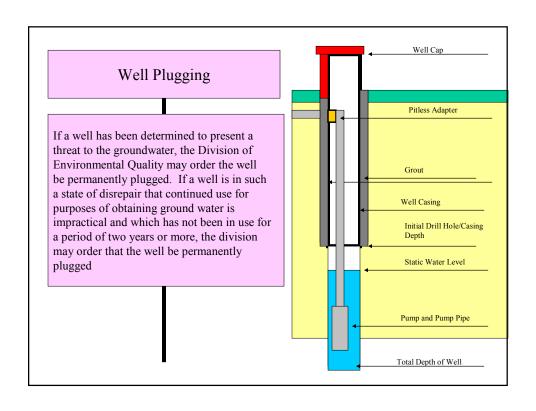




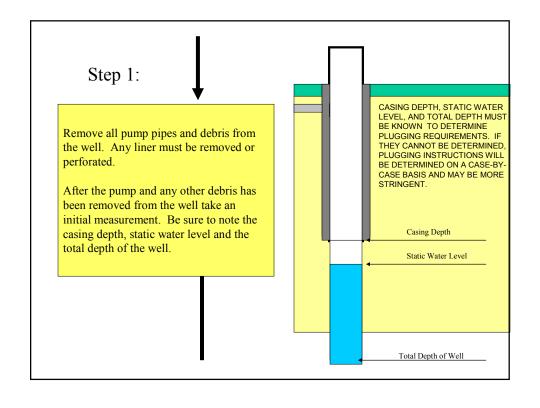


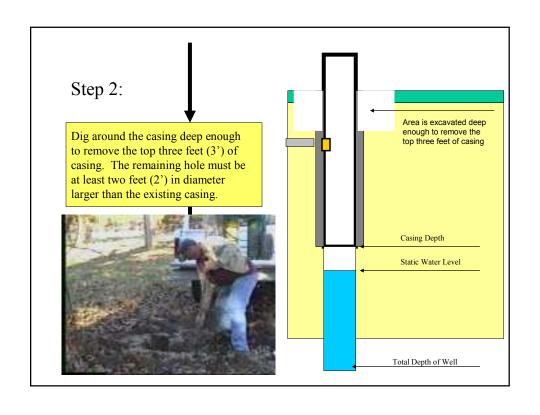


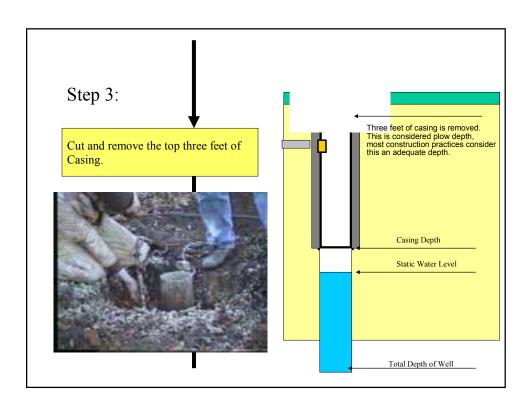
# Drilled Wells

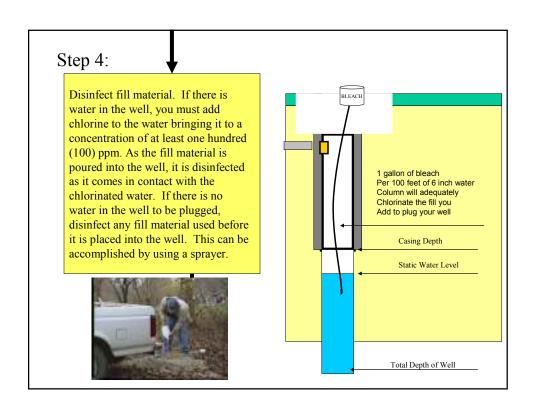


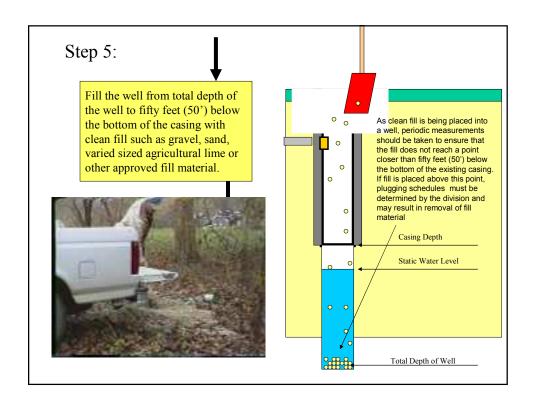


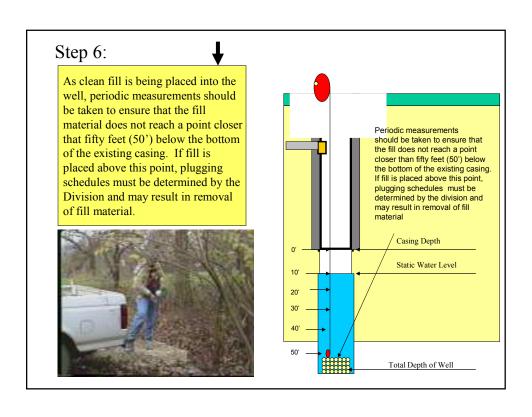


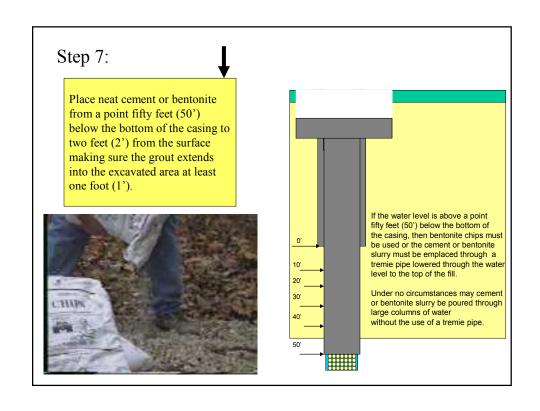


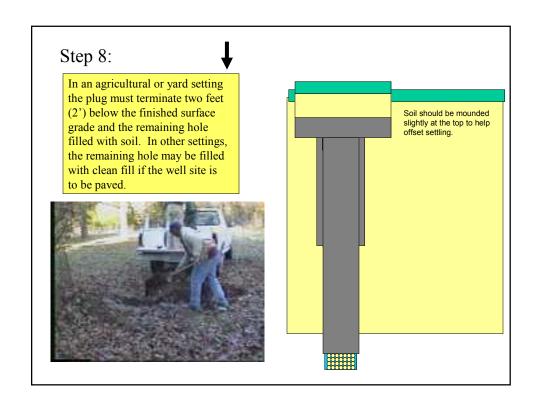












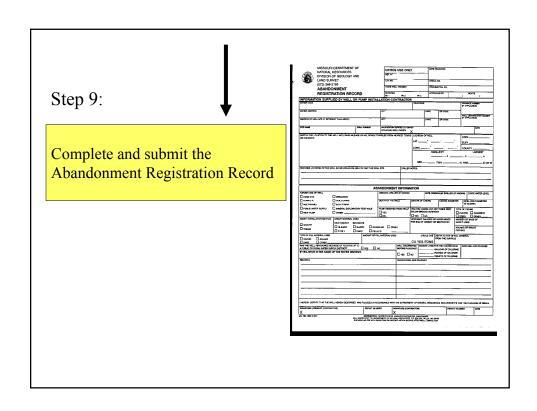
#### **Common Questions**

If a well is located in a well house and it has a concrete floor. If the owner wishes to fill the well to floor level. A variance from the division is required to use cement to fill the remaining hole at the level of the concrete floor.

For those wells which casing depth, water level and total depth are not known and cannot be determined, plugging instructions will be determined on a case by case basis by the division and may be more stringent. Usually this will consist of the well being plugged by filling the well via tremie or pressure grouting from total depth to 2' from the surface.

Neat cement is a grout, this is a 94lb mix of cement to 6 gallons of water. Concrete is not a grout. Under no circumstances may cement be poured through large columns of water without the use of a tremie pipe (well contains water that is above a point 50 feet below the bottom of the casing or liner). The well must be plugged in one continuous pour.

A landowner may plug his own well as described earlier. He may contract the plugging of a hand dug or bored well less than 80 feet in total depth with any contractor. If the well is drilled or a hand dug/bored well is over 80 feet he must hire a Missouri well installation contractor or a Missouri pump installation contractor to plug the well.



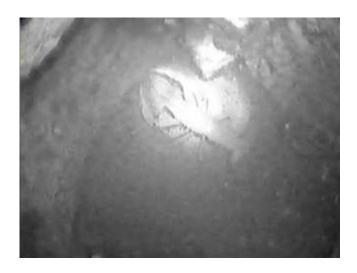












## **Determining Materials**

- The quantities listed on this chart are estimates. They were estimated for a smooth bore hole. Since most wells do not have a smooth bore hole, it is suggested to add at least 10 percent or a few extra bags to the totals.
- Always keep a good measurement as you add the fill material. Do not go above the stated depths with the fill material.
- If you have 6 inch casing you need to have at least a 50-foot measurement below the casing for a grout plug.
- If fill is allowed to go above this point, contact the Division for directions on how to proceed.

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		3/8Baroid Pe			0	NE Sec 12/30N/23 W	
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	arcaraia.	Benseal			0		
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		Baroid			0		
		Hi-yield			0		
		Wyobend			0		
		Volclay		-	U	<del></del>	
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		al(cubic ya	rds):		5.280		
mount of I	Fill Materi	al(tons):			6.415		

#### **PLUGING**

36
15
20
10
0

This information is directly from your measurements of the well:

Diameter of Casing is in inches.

Amount of Casing is in feet.

Total Depth is in feet.

Static Water Level is distance in feet from the surface.

Amount of grout/grout plug needed is in feet:

			Bags	Cubic Yrd
	Neat Cem	ent:	0	
	Bentonite			
	Pellets			
		1/2Baroid Pellets	0	
		3/8Baroid Pellets	0	
		1/4Baroid Pellets	0	
		Wyo-Bend Tablets	0	
		Volclay 1/2	0	
		Volclay 3/8	0	
		Volclay 1/4	0	
	Chips			
		Baroid HolePlug	0	
		Wyo-bend Coarse	0	
		Wyo-bend Medium	0	
		Volclay Coarse	0	
		Volclay Medium	0	
	Granular			
		Benseal	0	
		Wyo-bend No.8	0	
		Wyo-bend No.16	0	
	Slurry			
		Baroid	0	
		Hi-yield	0	
		Wyobend	0	
		Volclay	0	
mount o	of Chlorine (	5.25 to 6%)(gallons):	1.070	
			1.070	
nount c	of Fill Materi	al(cubic yards):	5.280	
mount c	of Fill Materi	al(tons):	6.415	

Estimates of material are Listed here by type.

If Neat Cement (no sand or gravel added is added) the mix is one 94lb bag to 6 gallons of water.

Bentonite: There are different grades of bentonite, be sure this type is used for sealing, not food grade fill. Chips are the common type used for plugging wells. The bags are measured at 50lb.

A bentonite slurry is used to plug wells usually with the use of a tremie pipe. 50lb bag mixed with 20-25 gallons of water

Chlorine is a typical household bleach measured in gallons.

Fill material usually consists of Gravel 1/2inch minus/Ag-Lime/or Sand and can be measure in cubic yards or tons.

# Filling out the Abandonment Registration Record

• Considered the most difficult part of the task-----but the job is not done until the paperwork is completed......

WATER PROTECTION PROG WELLHEAD PROTECTION SE ABANDONMENT	CTION SUMME		NAME NO.	Mouffe	
REGISTRATION RECOR		Pt2 Pts			
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☐ Public Water Supply ☐ Heat Pump	PUMP REMOVED	D FROM WAS THE CASING OF FEET BELOW GROUN		n: OF CROME	
Mineral Exploratory Test Hole	U Yes	THE TREATM GROUN	- 1	Plastic Concrete	
Other	□ No	Removed		Steel Other	
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☐ Gravity Neat Cement. B			BALLOWS OF ED PER BAG OF ENTOMITE?		
	Sturry Granut	ar Pollets		FOUNDS OF GHOUT PER BAG	
Type 1 Type 1	Chips Other	26	744	THE TOTOP OF FILL MATERIAL PROF	-
☐ Gravel ☐ Ag-Lime	CONTROL OF PERCENTAGE OF	ito.	THE	PLRIFACE	
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☐ Yes ☐ No		☐ Gali	ons of Chlorine arts of Chlorine		
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REMARKS					
I hereby certify that the well herein describe	d was plugged in acco	ordance with the Denorter	ent of Natural	Resources mouirements f	и
the plugging of wells.	program at 60.00				
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SIGNATURE (APPRILIATION)	PERMIT NUMBER				
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SO THE HEISPING RETURN COMPLETED	FORM TO WELLHEAD PROFE	ECTION SECTION, P.O. ROX 250, RI	LLA, MO 85402 572	USB-2150	

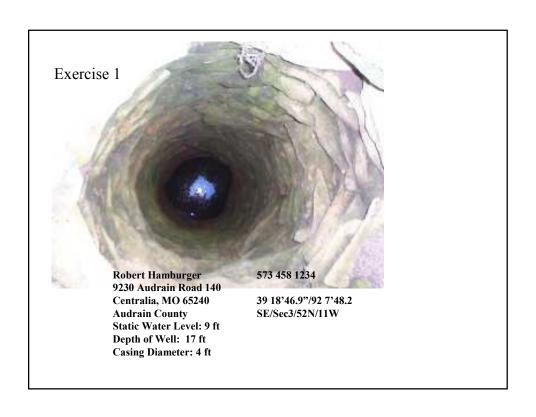
MISSOURI DEPARTMENT OF NATURAL RESOURCES WATER PROTECTION PROGR		REF NO					
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Tony Braum			417_83	6 98 <u>7</u> 6	ITH AREA CODE		
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□ Domestic	☐ Soil Boring/Geoprobe	DEPTH OF THE WELL	LENGTH OF CASING	CASING	DIAMETER	DRILL HOLE DIAMETER (IF KNOWN)
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☐ Mineral Exploratory	Test Hole	∑iYes	X Yes ☐ No		☐ Steel	[A] Concrete
☐ Other		□ No	Removed		☐ Other _	

☐ Tremie ☐ Excavation		Bentonite		WATER MIXED PER BAG OF CEMENT OR BENTONITE?	1.	
☐ Excavation	☐ Hi-Early	Slurry Gran	nular 🔲 Pellets		POUNDS O	F GROUT PER BAG
	☐ Type 1	☐ Chips ☐ Othe				
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WATER SUPPLY DISTRICT?	∕es 🖸 No		Yes 🗌 No	☐ Tablets of Chloris		1,1,10
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REMARKS			No longer	used.		

SIGNATURE (PRIMARY CONTRACTOR)	PERMIT NUMBER	SIGNATURE (CONTRACTOR) Owner Signature	Owner Owner	DATE
SIGNATURE (APPRENTICE)	PERMIT NUMBER			
MO 780-1603 (06-09) RETUR	N COMPLETED FORM TO WELLHEAD PRO	OTECTION SECTION, P.O. BOX 250, ROLLA, MI	O 65402 573-368-2165	

# Exercises



— i			Grout Chart for Plug	SING				
				ging wells			_	
	Diameter	of Casing: f Casing:			-	48 17		
	Total Dep	th:	. 1 1		-	17		
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		Bentonite						
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			3/8Baroid Pellets 1/4Baroid Pellets		0			
			Wyo-Rend Tablets		0			
			Volclay 1/2 Volclay 3/8 Volclay 1/4	ļ	0 .		-	
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		Chips						
			Baroid HolePlug Wyc-bend Coarse		0		[	
			Wyo-bend Medium		0			
			Volclay Coarse Volclay Medium		0			
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		_	Wyo-bend No.8 Wyo-bend No.16		0			
			in you do no no no					
		Slurry	Baroid		0		-	
			Baroid Hi-yield Wyobend	-	0			
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MISSOURI DEPARTIVE NATURAL RESOURCE		C.R.NO.	7 27	CERCKNO	. 10	-		
WATER PROTECTION WELLHEAD PROTECT	PROGRAM ON SECTION	BIANE WELL	NUMBER	PENDALE NO		X .	7.77.77	
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MO 760 1635 (26-02) RETURN COM								
MO 760 1615 (76-05) RETURN CON								

	COST SH	ARE			
MISSOURI DEPARTMENT NATURAL RESOURCES WATER PROTECTION PF WELLHEAD PROTECTION ABANDONMENT	ROGRAM N SECTION	The state	i trach		
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		ERHONE NUMBER WITH AREA CODE	4	4	
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STERME	WOULNUMBER NEGRALES OWNERS	ON VENITHED BY CHANGE SIGNATURE	MELL DATE //5//0		
SMALLËST LAF	SGEST LOCATION	OF BITLL	AREA	7	
Sec. 3 Township 52 North // Ran		7 . 18 . 46.9 .	ELEV		
	LONG.	1207.48.2.	AUDRAIN)		
WILL CHITIFICATION NUMBER OF APPLICABLE)		NUMBER (IF APPLICABLE)			
ABANDONMENT INFORMATION FOR		1000	COLUMN THE		
Hand Dug Irrigation	Contract District Or Michael	(BE KENDAM)	/	1	
☐ Domestic ☐ Soil Borings ☐ Multi-Family ☐ Monitoring		estin or dalaes Casino Divis 48	CRILL HOLE DAMETER	7	
Public Water Supply Heat Pump		STREEMS NO CUT OFF THREE I TV	PEOF CASHS	┪	
☐ Mineral Exploratory Test Hole			Plastic Concrete		
☐ Other		Removed EX	Steel Other Rock		
CROUT INSTALLATION NETWOO GROUT MATERIA	AL URED	HOW MARY GILLONS OF WATER MIXED PER BAS OF CRIMENT OR SENTONITE?	MUMBER OF BAGS OF GROUT USED	<u></u>	
☐ Gravity Neat Cemer ☐ Tremie ☐ Hi-Early	nt Bentonite Slurry Granular Pellet:	GEMENT OR SENTONITE?	POUNDS OF BROOM PER 843	-	
☐ Excavation ☐ Tune 1	Chins Cl Other				
TYPE OF FILL MATTERNAL USESS  X Growel	ANDUNT OF FILL WATERIAL USED	DEP THE	H TO TOP OF FILL MATERIAL PROM SURFACE	'	
Sand Other	9/z Cu. Yds. ATons		3′		
		ANGUNT USED FOR THE CHIC	2   PLUGGEO ,		
☐ Yes ☑ No WAS THE WELL REMOCRISE DECAUSE OF HOCKING WATER SUPPLY DESTRICT? ☐ Yes ☑ No IF YES, PROVIDE THE NAME OF THE WATER DISTRICT	UP TO A PLEUC ON NUMBER  TO REACON WELL WA	Pounds of Chlorine	1/14/10		
TICMAPKS	HAZARD				
I hereby certify that the well herein desc	cribed was plugged in accordance with	the Department of Natural	Resources requirements for	DY .	
the plugging of wells.		пофиястон гелип			
	1 / hu		VER 1/15/10		
SIGNATURE (APPRENTICE)	PERMIT NUMBER	, 0			
NO 760 1605 (06-09) RETURN COMPL	LETED FORM TO WELLHEAD PROTECTION SECTION	L P.O. IIOX 950, ROLLA, WO 65403 570	368-2165		

Exercise 2



William Rebate 13689 Ballard Blvd Hardin, MO 64035 Ray County

Ray County Static Water Level: 7ft Depth of Well: 15ft Casing Diameter: 8ft

PLUGING
I for Plugging Wells
3d
15

		Grout Chart to	or Plugging Well	s	
	_				
Diameter	of Casing:				96
Amount o	f Casing:				15
Total Der	oth:				15
	ter Level:				7
		terial Needed (II	near feet):		O.
	[			_	_
Amount o	f Grout Ma	terial Needed (b	ags or cubic yar	ds)	
	T			Bags	C
	Neat Cen	nent:		0	
	Bentonite				
	Pellets				- T
		1/2Baroid Pellets		0	
	_	3/8Baroid Pellets		0	
		1/4Baroid Pellets		0	_
		Wyo-Bend Tablets	S	0	
		Voiclay 1/2		0	
		Voiclay 3/8 Voiclay 1/4		0	$\rightarrow$
		Voiciay 1/4			
	Chips				1
	U.I.po	Baroid HotePlug		0	_
	1	Wvo-bend Coarse		0	_
		Wyo-bend Mediur	T)	0	
	1	Voiclay Coarse		0	
	Î	Volclay Medium		0	
	1				
	Granular	Benseal		0	_
	_	Wvo-bend No.8		0 1	
-	-	Wyo-bend No.8 Wyo-bend No.16		0	_
	_	ssycholid No.16			
	Sturry				
	J	Baroid		0	
		(HI-Vield		0	- +
		Wyobend		0	
		Volclay		0	
Amount o	f Chlorine	(5.25 to 6%)(gal	lons):	6.089	
					_
Amount o	f Fill Mater	ial(cubic yards):		28.162	
	f Fill Mater	ial(tone):	1	34.214	

Page 1

			OFFICE	SE ONL	y DAT	ERECENTE	78 . Sig	1187 14900
( → Matural P	DEPARTMENT OR RESOURCES		CR NO.	200 (m) 11 m 27	100	EKNO.		
WATER PR	OTECTION PRO	GRAM	STATE MOLL		REV	EVALUE NO.		2 474
ABANDO	NMENT		*NTSHIP		89	ecuen :		Acute
INFORMATION SUPPLI	ATION RECO		Pho P	te P	ta	1. 1		1,7112,00
OWNER MANE	ED BY WELL OF	- PUMP IN	STALLATION		ELEP-CIVE NUMBER	MINAREA	200F	A 18 11 12 1
OWNER ADDRESS					<u> </u>	STATE	[200	or .
							- 1	
ADDRESS OF WELL SHE IN DIFFE	SPENT THAN ABOVE: "		- 6			STATE	200	
SITE NAME		MELI	HUMBER	DWMD/0	AHON VERFIED BY C	OWNER BONA	TURE (MELL	DATE
94	ALLEST LARGE				N OF WILL		ARE	
Sec. Township No	14 14 1 orth Range	%i □ □ E	ast 🗆 West	LAT.	_ °_ ′		ELE	
				LONG			COUR	ITV
WELL CERTIFICATION NUMBER (8	F APPLICABLE)			VARIAN	ENUMBER IF ATTL	JCABLE)		
ABANDONMENT INFOF	MATION	46.74	OHORA IMALE	R of life and	77852 2	DATE OFFICE	NALLY DINELES	STATIC WATER LE
☐ Hand Dug	☐ Imigation					III- KHOMNA		1
	Soil Boring/Gs Monitoring	oprobe	DEPTH OF THE W	61 1	LENGTH OF CASING	CASNO	CHAMETER	(F KNOWN)
Public Water Supply	☐ Heat Pump		PINAP REMOVED WELL?	FROM S	NAS THE CASING CO	T OFF THREE	TWN OF C	
Mineral Exploratory T	est Hale		☐ Yes		Yes No		☐ Steel	ic Concrete
GROUT INSTALLATION METHOD	GROUT WATERWALD		□ No	[1	Removed	0.0147567.00	Othe	r SF OF BAGS OF BROUT I
Gravity	Neat Coment	Bentonite				CALLONS OF ED PER BAG O TOLNTOM TE?	×	
☐ Tromie ☐ Excavation			Granular		otc		POUND	S OF GHOUT PER BAS
TYPE OF FILL MATERIAL USED	Type 1	With the P	Other	0			DEPTH TO THE	OP OF FILL MATERIAL FOR
☐ Gravel ☐ Ag-Lime ☐ Sand ☐ Other	İ		Cu. Yds.	Tone				
SULTIFIE WELLS			ME ME	LL CHLORING CHE PLUSG		JISSO FOR 116	CHAIRMANC Original	N DATE WELL WAS PLUGGED
Yes No HING THE WELL ARABDONED HIS HINTER BUFFLY DISTRICTY	Will OF FROMING IN	TOARBUCC		Yes 🗀 N	. □ Pour	nds of Chil	orine	
P YES, PROVIDE THE NAME OF TH	HE WATER ONE TRICT.				MAS PLUSINED	iets of Chic	orine	
REMARKS								
							_	
I hereby certify that the w the plugging of wells.	rell herein describ	ed was plu	gged in acco	rdance w	ith the Departm	ent of Nat	ural Resou	rces requirements
EVENUATURE OPERANDO CONTRACT	ron;	PERMIT NU	MECR	SIGNATUR	E (CONTRACTOR)	PE	FINE NUMBER	DATE
SIGNATURE (APPRILIATIONS		PERMITNU	woch .	-				
MC 760-1605 (56-0)g	RETURN COMPLETE	D FORM TO W	CLUNCAD PROTES	TION SECTION	ON, F.O. BOX 250, FIG	DULA, MO 6840	E 519-369-276	-

→ IIII NATURAL	DEPARTMENT OF RESOURCES	COST DEFICE U	SIMPS EDNLY				
ABANDO REGISTR	OTECTION PROGRAM PROTECTION SECTION NMENT IATION RECORD	ALL ATON	CONTRACTOR				
William Re	bate	and the same	TELETHCHE MUMBER WITH	AREA OUR	A STATE OF THE PARTY OF THE PAR		
13689 Ball	ard Blvd	or 2	Jardin .	MO E	64035		
SITE WARE	WELL	NUMBER	Bell Hard	MODERATURE (WELL	1/4/10		
Sec. Z. Township 52 N	MLEST LARGEST  14 14 SGUA	est 🗐 West	LAT. 39 0 20 18 3	ARE			
меш святи сключими и с		est El Mest	LONG. <u>93</u> ° <u>47</u> · <u>4/</u>	COLW	AV &		
i i		No. of Contract					
☐ Domestic		DEPTH OF THE WO		AMERICAN CHANGE TOR	STATIC WATER LEVEL "7"  DRILL HOLE CHAMETER IN SHOWING		
Public Water Supply	☐ Monitoring ☐ Heat Pump	15 FUNFREMOVEO F VALLE	TEM WAS THE CASING OUT OFF	76" THIBE TYPEGEC	SING		
☐ Mineral Exploratory 1		□ Yes □ No	☐ Yes ☐ No ☐ Removed	☐ Steel			
Gravity Tromio	Neat Cement Bentonite	☐ Granular	HOW MARY CALLS WATER MIXED AND CEMENT OR BRINT	BAG OF OMITE?	R OF SACS OF GROUT USED		
Excavation Type of FILL MATERIAL Used	☐ Type 1 ☐ Chips	Other USED		DEPTH TO TO	P OF FILL MATERIAL FROM		
Gravel M Ag-Lime Sand Other	34 c	Cu. Yds. K	Tons	OR THE CHLORINATIO	3'		
☐ Yes XX No	AUSE OF PODENIA OF TO A PUBLIC O		REPUGGNO?	f Chlorine 6			
	NUES OF PROMINENT TO A PUBLIC OF YES NO NO WORDS DESTRICT	5	Yes No Tablets of		. , ,		
ROMARIS							
I hereby certify that the v	rell herein described was plu	gried in accom	ance with the Department	f Natural Resou	roes requirements for		
the plugging of wells.			ызмунуу/стопу	FERVIT NUMBER	10436		
SIGNATURE (APPRENIEE)	PERMIT NO	/BEA	<u> BUKHAMIN</u>	DOWER	1/14/10		
NO 100 (00) (00)	PRETURN COMPLETED FORM TO NO	ELLINEAD PROTEC	ION SECTION, P.O. BOX 256, ROLLA,	ão esasz 573-068-278			



Alex Leavi 260 SR 6

40 8'40.1"/92 0' 32.7" SE Sec 28/62N/10W

Knox City, MO 63446 40 83
Knox County SE Sc
Static Water Level: 75ft
Depth of Well: 100ft
Casing Diameter: 12in/Depth: 100ft

		F	LUGING				
		Grout Chart for P	lugging Well:	8		]	
-	Diameter of Casing				12	1	
	Amount of Casing:				100	1	
	Total Depth;				100		
	Static Water Level:	aterial Needed (linea	r footh:		75	ł	
		T				1	
	Amount of Grout M	aterial Needed (bags	or cubic yar	ds)		1	
	Neat Cer	ment.	1	Bags 0	Cubic Yrds	1	
	Bentonite					1	
	Pellets	1/2Baroid Pellets		0		4	
. =		3/8Barold Pettets		0		1	
		1/4Baroid Pellets Wyo-Bend Tablets	+	0		1	
	i	Volclay 1/2		0		1	
		Volclay 3/8 Volclay 1/4	+	0		-	
		Voiciny 1/4		<u> </u>		1	
	Ohips	Baroid HolePlug		0		1	
		Wyo-bend Coarse		0		1	
		Wyo-bend Medium Voiclay Coarse	- !	0	-	1	
		Voiclay Medium		0		1	
	Granular	+		_		1	
		Benseal Wyo-bend No.8		0		-	
		Wyo-bend No.16		0		1	
	Slurry					}	
	Jointy	Baroid		0		j	
		Hi-yield Wyobend	1	0		1	
		Volclay		ö		1	
	Amount of Chlorine	(5.25 to 6%)(gallons	0:	0.297		1	
			"			1	
		rial(cubic varde):		2.934		1	
	Amount of Fill Mate Amount of Fill Mate	rial(tons):		3.504			

MISSOURI DEP NATURAL RESI WATER PROTE WELLHEAD PR ABANDONM	OURCES ECTION PROGRAM IOTECTION SECTION	787 19		REVENUE NO				
REGISTRATI	ION RECORD	ENTERED FE	tic Pto	APPREATED	- 4	Bone		
INFORMATION SUPPLIED I	BY WELL OR PUMP	INSTALLATIO		OR ONE NUMBER WITH AR		141 47		
1								
OWNER ADDRESS		٥	TY	STA	1			
ADDRESS OF WELL SITE OF DIFFERENT	T THAN ABOVE	0	TY	STA	TE ZIP COD	ie –	1	
SITE NAME	w	ELL NUMBER	INFORMATION V	ERIFIED BY OWNER SIG	MATURE (WELL	DATE	1	
SMALLE			LOCATION OF W		AREA		7	
Sec. Township North	% % Range	East 🗆 West	LAT°	` <del>~</del> '— '	ELEV		]	
	-		LONG.		COUNT	Y	_	
WELL CERTIFICATION NUMBER (F APP			ļ	BER (IF APPLICABLE)				
ABANDONMENT INFORMA FORMER USE OF WELL	ATION	ORIGINAL DRILLE	R (IF KNOWN)	DATE OF	DUNNALLY DRILLED	STATIC WATER LEVEL	<u>a</u>	
	Irrigation			(F KNOV			<u>_</u>	
	Soil Boring/Geoprobe Monitorina	DEPTH OF THE W	IELL LENGTH	OF CASING CAS	ENG DIAMETER	DRILL HOLE DIAMETER (IF KNOWN)		
☐ Public Water Supply ☐ F		PUMP REMOVED WELL?	FROM WAS THE	E CASING OUT OFF THE LOW GROUND SURFAC	E TYPE OF CAS	MS Concrete	1	
☐ Mineral Exploratory Test I	Hole	☐ Yes		s □ No	☐ Steel	_ CONGRESS		
GROUT INSTALLATION METHOD   G	ROUT MATERIAL USED	□ No	∐ Re	MOVED HAVE GALLONS WATER NOVED PER BATCHMENT OR BENTONE	Of NUMBER	OF BAGS OF GROUT USED	5	
	leat Cement Benton	ite rv □ Granula		CEMENT OF BENTON	RE?	OF GROUT PER BAG		
☐ Excavation ☐	Type 1 □ Chia	s 🗍 Other	_					
TYPE OF FILL MATERIAL USED Gravel Ag-Lime	AMOUNTO	FILL MATERIAL USE	D		THE SURFACE	OF FILL MATERIAL FROM		
Sand Other		Cu. Yds.	Tons	AMOUNT USED FOR		Theres was		
□ Ves □ No			UL CHLOPINATED FORE PLUGGING?	☐ Gallons of C	hlorine	DATE WELL WAS PLUGGED		
WAS THE WELL ARRANDONED RECAUSE WATER SUPPLY DISTRICT? YOU IF YES, PROVIDE THE NAME OF THE WA	S No	CORRIENI [	Yes 🗌 No	☐ Pounds of C				
1	nundomo:	RE	ASON WELL WAS PLI	UGGED				
REMARKS								
I hereby certify that the well in the plugging of wells.	herein described was	olugged in acco	rdance with the	Department of N	latural Resource	es requirements for	7	
SIGNATURE (PRIMARY CONTRACTOR)	PERMIT	NUMBER .	SIGNATURE (CON	TRACTOR	PERMIT NUMBER	DATE	-	
SIGNATURE (APPRENTICE)	PERMIT	NUMBER					┥	
MO 780-1903 (06-09) Ri	ETURN COMPLETED FORM TO	WELLHEAD PROTEI	TION SECTION, P.O.	BOX 250, ROLLA, MO	8402 573-369-2166		7	

PET BECON BISONED SUPPACE  Yes No Permoved    Removed	AREA ELEV SOUNT KAKOK  STREET
Transport assessment of the Control of the Contro	G34HG service  AREA LEV COMMY AND
March	G34HG service  AREA LEV COMMY AND
Consider of the control of the contr	G34HG service  AREA LEV COMMY AND
By West   John St.   St.	STORE DESCRIPTION OF THE PROPERTY OF THE PROPE
When I was a construction of the construction	ANEA ELEV COMMY KANCK  FOREIGN DIAG MASSELLINE TO STATE OF THE STATE O
When I 148 1. 481 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7. 181 7	ANEA ELEV COMM KANCK  TO BLICE  TO BLICE  TO COMM CANCEL  TO C
When the second	COMPY KANCE CONCERNS AND CONCER
When the second	TOURNESS OF THE STATE OF THE ST
SWEETE BASES OF PROCEEDS  WE SCHOOL TO THE BASE OF THE	FIGURE OF THE STATE OF THE STAT
Condens of Parket	WITTER CONTROL CONCRETE    Plastic Concrete   Steel Concrete   Steel Concrete Concrete   Steel Concrete Concret
Constitution of the consti	WITTER CONTROL CONCRETE    Plastic Concrete   Steel Concrete   Steel Concrete Concrete   Steel Concrete Concret
IN CIT THE WILL LEARNING OF CREATE CONTROL OF CR	Units   Circl Note transcript   Presente   P
Peleton	Presence     Plastic   Concrete     Steel     Other 7/16     Supplementary   Concrete     Supplementary   Concrete     Concrete   Concrete     Concr
The second control of	Plastic   Concrete     Steel     Other 7/46     Sunset of anous used
Yes   Yes   No   No   Removed   Pelses    Steel SOther 7/16 SUMER FAMILIE GROUP USED	
No Premoved    How services confidence     How services     How services confidence     How services     How servi	Other TILE NUMBER OF RANGE OF GROUP USED
Witten assets rein and on committee or commi	
Oranuter   Pellets	Trouble OF DEPOUT PICK DAD
Othor	
1700 - Con	
Tr. Delta Control	PTH TO TER OF FILL MATERIAL PITCH & SURPACE
. Yde. ATons	3f
	LOTINATION   DATE WHALL WAS
Yes No Tablets of Chlorin	19/11/07
REASON WELL WAS PLUSSIFD	
ed in accordance with the Department of Natura	al Resources requirements for
	TINUMER DATE CONTA
My Beau Ou	NER 12/20/09
Land of the same	m venus
	Section of Chicago

## Exercise 4



**Peter Podickles** 10439 Cordia Hollow Rd Richwoods, MO 63071 **Washington County** Static Water Level: 60ft

Depth of Well: 290ft Steel Casing-Diameter: 6in/Depth: 80ft Drilled in 1958 by Wild Bill Drilling

38 8'22.7"/90 52'11.4" SE Sec 1/39N/1E

			IGING				
		Grout Chart for Plu	gging Wells	- "	_		
D	ameter of Casing:				6		
A	mount of Casing: otal Depth:				80 290		
St	tatic Water Level:		-		60		
A	mount of Grout Ma	terial Needed (linear f	eet):		130		
— · I	mount of Grout Ma	terial Needed (bags o	r oubic uard	e)			
			Euroic yard	Bags		Cubic Yrds	
	Neat Cem			20		0.9534096	
— I ·	Bentonite Pellets				_		
		1/2Baroid Pellets		35			
		3/8Beroid Pellets 1/4Baroid Pellets		36			
		Wyo-Bend Tablets Volclay 1/2		39 39			
		Volclay 3/8		40			
$ \tau$		Volclay 1/4		42			
	Chips						
		Baroid HolePlug Wyo-bend Coarse		37 31			
		Wyn-bend Medium		32			
		Voiclay Coarse Voiclay Medium		34 35			
	Granular	Benseal		32			
		Wyo-bend No.8		31			
		Wyo-bend No.16		31			
_ [-	Slurry			- :			
f		Baroid Hi-yield	-	6		-	
		Wyobend		8 7			
-1		Volciay					
Ār	nount of Chlorine (	5.25 to 6%)(gallons):		0.684			
	nount of Fill Materi	al(cubic vards):	<del></del>	1,173			
Ar				1.426	_		
0.0	nount of Fill Materi	ai(cubic yards):			_	-	

MISSOURI DEP NATURAL RESI WATER PROTE WELLHEAD PR ABANDONM	OURCES ECTION PROGRAM IOTECTION SECTION	787 19		REVENUE NO				
REGISTRATI	ION RECORD	ENTERED FE	tic Pto	APPREATED	- 4	Bone		
INFORMATION SUPPLIED I	BY WELL OR PUMP	INSTALLATIO		OR ONE NUMBER WITH AR		141 47		
1								
OWNER ADDRESS		٥	TY	STA	1			
ADDRESS OF WELL SITE OF DIFFERENT	T THAN ABOVE	0	TY	STA	TE ZIP COD	ie –	1	
SITE NAME	w	ELL NUMBER	INFORMATION V	ERIFIED BY OWNER SIG	MATURE (WELL	DATE	1	
SMALLE			LOCATION OF W		AREA		7	
Sec. Township North	% % Range	East 🗆 West	LAT°	` <del>~</del> '— '	ELEV		]	
	-		LONG.		COUNT	Y	_	
WELL CERTIFICATION NUMBER (F APP			ļ	BER (IF APPLICABLE)				
ABANDONMENT INFORMA FORMER USE OF WELL	ATION	ORIGINAL DRILLE	R (IF KNOWN)	DATE OF	DUNNALLY DRILLED	STATIC WATER LEVEL	<u>a</u>	
	Irrigation			(F KNOV			<u>_</u>	
	Soil Boring/Geoprobe Monitorina	DEPTH OF THE W	IELL LENGTH	OF CASING CAS	ENG DIAMETER	DRILL HOLE DIAMETER (IF KNOWN)		
☐ Public Water Supply ☐ F		PUMP REMOVED WELL?	FROM WAS THE	E CASING OUT OFF THE LOW GROUND SURFAC	E TYPE OF CAS	MS Concrete	1	
☐ Mineral Exploratory Test I	Hole	☐ Yes		s □ No	☐ Steel	_ CONGRESS		
GROUT INSTALLATION METHOD   G	ROUT MATERIAL USED	□ No	∐ Re	MOVED HAVE GALLONS WATER NOVED PER BATCHMENT OR BENTONE	Of NUMBER	OF BAGS OF GROUT USED	5	
	leat Cement Benton	ite rv □ Granula		CEMENT OF BENTON	RE?	OF GROUT PER BAG		
☐ Excavation ☐	Type 1 □ Chia	s 🗆 Other	_					
TYPE OF FILL MATERIAL USED Gravel Ag-Lime	AMOUNTO	FILL MATERIAL USE	D		THE SURFACE	OF FILL MATERIAL FROM		
Sand Other		Cu. Yds.	Tons	AMOUNT USED FOR		Theres was		
□ Ves □ No			UL CHLOPINATED FORE PLUGGING?	☐ Gallons of C	hlorine	DATE WELL WAS PLUGGED		
WAS THE WELL ARRANDONED RECAUSE WATER SUPPLY DISTRICT? YOU IF YES, PROVIDE THE NAME OF THE WA	S No	CORRIENI [	Yes 🗌 No	☐ Pounds of C				
1	nundomo:	RE	ASON WELL WAS PLI	UGGED				
REMARKS								
I hereby certify that the well in the plugging of wells.	herein described was	olugged in acco	rdance with the	Department of N	latural Resource	es requirements for	7	
SIGNATURE (PRIMARY CONTRACTOR)	PERMIT	NUMBER .	SIGNATURE (CON	TRACTOR	PERMIT NUMBER	DATE	-	
SIGNATURE (APPRENTICE)	PERMIT	NUMBER					┥	
MO 780-1903 (06-09) Ri	ETURN COMPLETED FORM TO	WELLHEAD PROTEI	TION SECTION, P.O.	BOX 250, ROLLA, MO	8402 573-369-2166		7	

	COST SHARE			
MISSOURI DEPARTMENT I				
WATER PROTECTION PRO	OGRAM			
ABANDONMENT	and the second s			
REGISTRATION RECO	ORD			
INFORMATION SUPPLIED BY WELL OF CONTROL WARE  PETER PODICIES	314 896 - 1267	EA CODE		
DIRPETI ADDRESS		at zr coce		
18439 Cordia Hallos Harrista Wellen Corona Corona Turki Market	WK9 KKWOOds //		i	
SITE NAME	WELL MANUER MECHANICAL PROPERTY OF THE POST OF THE POS	SQUATURE ONELL CARE		
SMALLEST LARG	EST LOOMEDIC WELL			
Sec. / Township 39 North / Rang	N LAT. 38 9 8 - 22-7		l	
1	LONG. 10 0 32 1 1/1.9	WASHINGTON	l	
WELL CERTIFICATION NUMBER (IF APPLICABLE)	VARACE NUMBER (F. APPLICATE)			
ABANDONMENT INFORMATION	ORGAN, CHRISTIC WOMEN DATE OF	ROSAMLY POPULED STATE METER LEVEL	l .	
⊠ Hand Dug ☐ Imigation	WILD BILL DELLING	ROBBILLY POLLED STATIC MUTER LEVEL  1957 GO  ENG ENGLED CHILL POLL DAMETER	l	
☐ Domestic ☐ Soil Boring/G	290 80	6	1	
☐ Public Water Supply ☐ Heat Pump ☐ Mineral Exploratory Test Hole	PUMP REMOVED FROM WAS THE DASING OUT OFF THE WELL? PRICE BELOW GROUND SURFACE	REE THEOROGONS ON Plastic Concrete		
Other	Yes	□ Plastic □ Concrete □ Steel □ Other		
GRAVITY METHOD GROUT MATERIAL    Gravity Neat Coment	USED HOW MANY GALLONS	NAMED OF BACK OF CHOOL OF USED	İ	
☐ Tremie ☐ Hi-Early	☐ Slurry ☐ Granular ☐ Pollets ☐	FOLNOS OF GROUP FOR BAG 50	1	
Type 1	MI Chips Other ANDON OF PEL MATHRIEL USED	DEPENTS FOR OF FILL MATERIAL FROM	1	
Z Gravet ☐ Ag-Lime		/30		
Sand Other		THE DISCITISATION   DATE WILLIAMS	i	
☐ Yes ☑ No  WAS THE WELL ASMOCRACE DECAMPS OF HOOKING OF WATER SUPPLY CHEMICATOR IF YES, PROVIDE THE NAME OF THE SEATER DISTRICT:	Propertusioner     Salions of C	Chlorine ////o		
If YES, PROVIDE THE NAME OF THE MAKES DISTRICT:		anonne 17		
REMORES	NO LONGER USEO, WELL	DRILLED NEW	1	
	2000			
I beenly cartify that the well began descri-	bed was plugged in accordance with the Department of t	Natural Resources meninoments for	1	
the plugging of wells.			]	
	PETER POSICIONES	DUNSIR 1/5/10		
SIGNATURE (APPRENDICE)	PERSON NUMBER			
NU SELENT SECURIT SECURIT SECURIT SEC	TEO PORM TO WILL HEAD PROTECTION ELECTION, N.O. WOX SHE, WOLLA, MO	STATE COLUMNIC		

### Exercise 5



Mick Gilliam 417 833 4719

6923 CR 1940

(Well Location: 5816 SR 17) Peace Valley, MO 65788 Howell County

Static Water Level: 55 ft Depth of Well: 150ft Casing Depth: ? Steel

Drilled in October of 1969 by ?

Diameter of Casing:				GING				1
Continue of Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Calcard   Ca			1	Jyniy WeilS				1
Total Depth:   150	Dia Am	meter of Casing			— <b>⊦</b>	6	. —	-
Amount of Grout Material Needed (inear feet):  Amount of Grout Material Needed (inear feet):  Nat Cameria:  Bortonics:  Points:  1785and Pelles:  42  1785and Pelles:  42  1785and Pelles:  42  1785and Pelles:  45  1785and Pelles:  46  1785and Pelles:  47  1885and Pelles:  48  1885and Pelles:  48  1885and Pelles:  49  1885and Pelles:  40  1885and Pelles:  41  42  43  44  44  45  47  47  47  47  48  48  49  49  40  40  41  41  41  41  41  41  42  43  44  44  44  45  46  47  47  48  48  48  48  48  48  48  48	Tot	al Depth:	+ .					
Amount of Grout Material Needed (bage or cubic yards)  Neat Coment: 23 1.100266  Borttonits: 23 1.100266  Felicist 17 Febroit Pelicis 40 1.00266  988-2007 Pelicist 40 1.00266  Wys. Bear of Pelicist 40 1.00266  Wys. Bear of Bear of Pelicist 40 1.00266  Wys. Bear of Bear of Pelicist 40 1.00266  Wys. Bear of Bear of Pelicist 40 1.00266  Wys. Bear of Bear of Pelicist 40 1.00266  Craps: 45 1.00266  Craps: 45 1.00266  Craps: 46 1.00267  Wys. Bear of Bear of Pelicist 1.00266  Wys. Bear of Bear of Pelicist 1.00266  Wys. Bear of Bear of Bear of Pelicist 1.00266  Wys. Bear of Bear of Bear of Pelicist 1.00266  Wys. Bear of Bear of Pelicist 1.00266  Wys. Bear of Bear of Pelicist 1.00266  Wys. Bear of Bear of Pelicist 1.00266  Wys. Bear of Pelicist 1.00266  Wys. Bear of Pelicist 1.00266  Wys. Bear of Pelicist 1.00266  Wys. Bear of Pelicist 1.00266  Wys. Bear of Pelicist 1.00266  Wys. Bear of Pelicist 1.00266  Wys. Bear of Pelicist 1.00266  Wys. Bear of Pelicist 1.00266  Wys. Bear of Pelicist 1.00266  Wys. Bear of Pelicist 1.00266  Amount of Chlorine (5.25 to 6%)(gallons); 0.282	Sta	tic Water Level:				55		
Neat Coment:   23   1.100088	Am	ount of Grout Ma	aterial Needed (linear li	90t):	L	150		-{
Neat Cement   23   1.100088   Bortonits	Am	ount of Grout Ma	aterial Needed (bags or	cubic yards)				
Bortonte		Most Car	ment	Ba				
Pelate   Titlearod Pellets		Bentonite	IREIT.		23		1.100000	1
398and Pallets								1
1/45enot Pelilitis		-	3/8Baroid Pellets	-	40	-		1
Vocaty 12	- 1		1/4Baroid Pellets		42	. =		1
Violary 36		_	Voiclay 1/2	·	45			1
Crap   Sarout Incelling   43			Voiclay 3/8		46			4
Baroot trois*Plug   Wys-beam Course   36     Wys-beam Course   36     Wys-beam Medium   37     Violaty Learne   40     Violaty Medium   41     Granuate   37     Wys-beam Miss   36     Wys-beam Miss   37     Wys-beam Miss   36     Wys-beam Miss   37     Wys-beam Miss   7     Wysband   9     Tyrus   7     Wysband   9			YORKS 1/4		40			1
Wyselent Course   36   36   37   37   37   37   37   38   38   38		Chips	Baroid HolePluo		43			-1
Voiciny Medium			Wyo-band Coarse		36			1
Voiciny Medium			Wyo-bend Medium Volclay Coarse					-
Grant			Volclay Medium					1
Wyc-berd No.5   36		Granutar				_		1
Wyc, bend No 16   36			Benseal		37	_		1
Stury   Bared   9	- 1		Wyo-bend No.16		36			
Baroid   9		Churn						-
Wycoend 9		Siony	Baroid		9			1
Voiday 8 Amount of Chlorine (5.25 to 6%)(gallons): 0.282			Wyobend	-	9 i			-
			Volclay		8			4
	Am	ount of Chlorine	(5.25 to 6%)(gallens):		0.282	-		╡
Amount of Fill Material(cubic yards): 0.000 Amount of Fill Material(tons): 0.000								1
	Am	ount of Fill Mate	rial(cubic yards):		0.000			+
		Sant St. III Water	- Controlled		0.000			1
			Pa	ge 1				

36 50'37.3"/91 47'13.7" NE Sec 14/25N/8W

MISSOURI DEPARTMENT	OE	OFFICE U	SE ONLY	DATE	RECEIVED	7.49.	<b>3</b> /40/75	]
NATURAL RESOURCES		G.R.NO	1.37	Chillia	XNO.	1 1		. 7
WATER PROTECTION PROTECTION		STATE WELL	NUMBER .	FEVE	MENO.	- 2	7 12 17 1	
ABANDONMENT REGISTRATION RECO		ENTOPEO	N. S. 100 100	42*	NOVED :		NOUTE	1
INFORMATION SUPPLIED BY WELL O		PM P					<del></del>	-
COMPANION SUPPLIED BY WELL C	H PUMP INS	ALLATION		PHONE NAMED	WITH AREA D	00F		-
DANCH ADURESS		CI	TY		STATE	28P (300)	E	
ADDRESS OF WELL SITE OF DETICIENT THAN ABOVED			14		STATE	ZIPCUD	-	†
STÉNAME	WELLH	MEETO	LINCORMANIC	IN VERIFIED BY O	WHEN SIDNAT	I DE MELL	DATE	_
			OWNER)		and deposed			_
SMALLEST EARC	esr Vá		LOCATION C	F WELL		AREA		_
Sec. Township North Ran		t 🗆 West	LAT.		—·.	ELEV		_
			ì	°		COUNT	. –	
WELL CERTIFICATION NUMBER (F APPLICABLE)		_	VARIANCE	UMBER OF APPLI	CABLE)		-	
ABANDONMENT INFORMATION	1 8475547		10.00	78551124	. 5 4	MLY DRILLED	The latest with	<u> </u>
FORMER USE OF WELL  Hand Dug Imigation	0	CORNE UNILLE	ROFFRONTO		DATE OFFICIAL	MITA DHETTER	STATIC WATER LEVEL	7
☐ Domestic ☐ Soil Boring/0	iennroho D	ртн о≓ Тн∉ w	ni Tina	THOF CASING	CASING	CLAMETER	DRIEL HOLD DIAMETER	-
☐ Multi-Family ☐ Monitoring	- avploce						(IN KHOWN)	
☐ Public Water Supply ☐ Heat Pump	P	UP REMOVED	FROM WAS	THE CASING CUT BELOW GROUNS	OFF THREE	TWILD CAS		1
Mineral Exploratory Test Hole		l Yes		Yes 🗆 No	J 4018 -10C	☐ Plastic ☐ Steel	☐ Concrete	
Other		No.		Removed		□ Other	_	1
6AOUT WSTALLATION MCTHOD GROUT MATERIAL  Gravity Neat Cerneni				HOW MANY II WATER MIKE	DALLONS OF DIPER BAG OF BENTOMES?	NUMBER	OF BAGS OF BROUT USED	٥ -
Gravity Neat Cement ☐ Tromic ☐ Hi-Early	☐ Sturry	7.0	CT Dellare		BENTOMIE?		OF SHOUT PER BAS	-
D Excavation D Type 1	□ Chips I	Other						
TYPE OF FILE MATERIAL USED  Gravel Ag-Lime	AMOUNT OF FILL	KATEFINE USE	0			DEPTH TO TOP THE SUPPACE	OF FILL MATERIAL PROM	7
☐ Graver ☐ Ag-Lime	П.	>u. Yds. □	7 tons		i			
MULTIPLE WELLS	L.	Zu. Tus. L	LL CHLOPINATO ORE PLUGGING	AMOUNTO		CHLORINATION	PLUGGEO	7
Yes No	TO A PR burse do		CHE PLEASURE	□ Gait	ns of Chlo			1
WAS THE WELL ASMOGNED BECAUSE OF PROMING UN WATER SUPPLY DISTRICTY YES NO. IF YES, PROVIDE THE NAME OF THE WATER ORSTHICT,	TO AT USUAL DRIV		Yes 🗋 No	☐ Table	ets of Chilo		I	
		REA	ASON WELL WAS	PLUGGED				
PEMARKS								
I hereby certify that the well herein describe plugging of wells.	bed was plug	ged in accor	rdance with	the Departm	ent of Natu	iral Resourc	es requirements for	1
SIGNATURE (PRIMARY CONTRACTOR)	PEHMIT NUMB	IR.	SIGNAZURE (I	CONTRACTORS	PER	MAT NUMBER	DATE	7
SIGNATURE (APPRINTICES	PERMIT'NUMB	eA ···			_			-
MO 780-1605 (08-02) RETURN COMPLE	TED FORM TO WEL	HEAD PROTEC	TION SECTION.	P.O. BOX 250, FIO	LLA, 180 85405	s79-369-21 <del>65</del>		_

L'03	OFFICE USE ONLY	DATE RECEIVED	7	
MISSOURI DEPARTMENT OF NATURAL RESOURCES	REF NO.	GREEKIN.	4	
WATER PROTECTION DODGE AN	STATE WELL HUNGER	REVENUE NO.	-	
ABANDONMENT	STATE WELL HOSPICAL	ANTHOUSE HOUSE	1	
REGISTRATION RECORD  INFORMATION SUPPLIED BY WELL OR PUMP INS	Phot Pine Pins		_	
OWNER NAME	TOLOPHONE	NUMBER WITH AREA CORF	~	
DICK GILLIAM	4/7-8	33 - 47/9 state 2000		
6923 PR 1940	PEACE VALL	EY MO 65788		
STENSINE SR 17	DEACE VA	LEY MO 65788		
BITE NAME MELL	SOUTH INCOME TWO DESCRIPTIONS	SET AND REPORT OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF		
SMALLEST LARGEST	LOCATION OF MELL	AREA 1/15/09	-	
N NEW Sec./4/Township,25North & Range □Es	LAT.36 ° S	0 37.3 FLEV	1	
Sec./9 Township 25 North & Range □ Ea	LONG. 91 °	47 B.7 · COMMY HOWELL	7	
WELL CERTIFICATION MANSER (F. 4/FLICARLE)	VARIANCE NUMBER		†	
ABANDONMENT INFORMATION		DATE DEDINALLY DELLED   STATE WATER LEVEL	<u> </u>	
FORMER USE OF WELL	HOINAL DRILLERI (F KNOWN)	DATE GRIDINALLY DRILLED GTATIC WATER LEVEL (IF TRACKING) 69 55	ባ	
	PRHOF THE WELL 1 LENGTH OF	CASING CASING DIAMETER CRIST HOLD DIAMETERS	-	
☐ Multi-Paristy ☐ Monitoring	150	6		
☐ Public Water Supply ☐ Heat Pump	MP NEMOVED FROM WAS THE CA	SNS CUT OFF THREE TUPE OF CASING ORGENS SUPFACE PROSTICE COncrete	7	
☐ Mineral Exploratory Test Hole	Yes Myes I			
Cther	No □ Remo	ved Domer		
GROUT INSTALLATION METHOD GROUT MATERIAL ISSUE  Mest Cement Bentonite	HC/ WA	NAMES OF BASS OF CHOUT USED AND OF BASS OF CHOUT USED AND OF BASS OF CHOUT USED AND OF BASS OF CHOUT USED	D .	
☐ Tremie ☐ Hi-Early ☐ Sturry		POLYIDE OF CINOUT PER WAS	-	
☐ Excavation ☐ Type 1 Ki Chins		50	_	
Gravel Ag-Urae	N/A	DISPTH TO TOP DY FILL MATERIAL FROM THE SURFACE		
□ Sand □ Other □	Qu. Yds. Tons	N/A		
MULTIPLE WOLLS	WELL CHILDRINATED AN	Gallons of Chiorina 2-		
	TOTAL CO. C.	Pounds of Chlorine // 18/10		
WATER SUPPLY DISTRICTY YES NO IF YES, PROJUCE THE NAME OF THE MATER DISTRICT:	REASON WELL WAS PLUGG	Tablets of Chlorine	-	
REMARKS	Nor USED			
PLUGGED FULL LENGTH				
CASING DEPTH UNKNOWN				
I hereby cartify that the well herein described was plug the plugging of wells.	ged in accordance with the De	spartment of Natural Resources requirements for	7	
SIGNATURE (PRIMARY CONTRACTION) POINT IS IN	" 3970 Y T TY	CTCOR DEPOSIT NOTE ONTE 1/18/09	7	
SIGNATURE (APPRENTICE) PERMIT HEM	///ide/j.//e	w 10000x 1/18/07	-	
	PEAD FROTECTION SECTION, P.O. BO.	C252 FOLLA NO 65402 573-368-2116	_	



Division of Environmental Quality

Wellhead Protection Section

# Thank You

If you have any questions in the future please feel free to contact our office at (573) 368-2165