

**INTERIM CHANGE NOTICE  
(ICN)**

<b>A. Document No.:</b> PNNL-12072 <b>Revision No.:</b> 0		<b>Effective Date of ICN:</b> 1/23/2002
<b>Document Title:</b> RCRA Assessment Plan for Single-Shell Tank Waste Management Area TX-TY at the Hanford Site		<b>Change Requested By:</b> Duane G. Horton
<b>Document's Original Author:</b> F. N. Hodges and C. J. Chou		
<b>B. Action:</b> Add changes defined in Section D below. Attach this ICN to the front of the document. <i>just in front of the title page. lm</i>		
<b>C. Effect of Change:</b> This ICN updates the assessment plan to reflect the current wells in the monitoring system and the current constituent list for WMA TX-TY. This ICN supplements all previous ICN's.		
<b>D. Reason for Change/Description of Change:</b>  <b>Reason for Change:</b> New wells have been constructed at WMA TX-TY and some existing wells have gone dry. Changes to the constituent list are made to correct errors and omissions.  <b>Description of Change:</b> See attached.		
<b>E. Document Management Decisions:</b>  See Attached Distribution List.		
<b>F. Approval Signatures</b> (Please Sign and Date)  Process Quality Department T. G. Walker <i>Thomas G. Walker 2/27/02</i>		<b>Type of Change: (Check one):</b>  <input type="checkbox"/> Minor <input checked="" type="checkbox"/> Major X
<b>Approval Authority:</b> SP Luttrell, project management <i>[Signature]</i>		<b>Date:</b> 2/27/02
<b>Other Approvals:</b> D. G. Horton, Technical <i>D. G. Horton 2/7/02</i> M. J. Hartman, Technical Reviewer <i>Mary J. Hartman 7 Feb 02</i>		<b>Date:</b>

This ICN updates the groundwater monitoring network described in the subject document.

The groundwater monitoring network for single-shell tank Waste Management Area TX-TY currently consists of 15 wells. Figure R1.1.2 shows the monitoring wells in the WMA TX-TY monitoring network and replaces Figure 1.2 (page 1.3), Figure 3.1 (page 3.3), and Figure A.2 (page A.5) in the original plan. The 15 wells in the WMA TX-TY network are listed in Table R1-3.1a, which replaces the Table 3.1a on page 3.2 of the original plan.

Changes to the groundwater monitoring network since the subject assessment plan was written include:

- groundwater monitoring well 299-W15-765 is added to the monitoring network as a new upgradient well replacing well 200-W15-12 which is dry
- monitoring wells 299-W10-27, 299-W14-15, 299-W14-16, 299-W14-17, 299-W14-18, and 299-W15-763 are added to the network as downgradient monitoring wells
- well 299-W14-2 is dropped from the monitoring network because it is dry and replaced with new downgradient well 299-W14-18.

As-built diagrams for the new wells are attached.

Attached Figure R1.1.5 is an updated water table map to replace the water table map shown as Figure 1.5 (page 1.6) in the original plan.

The updated constituent list is shown in Table R1.3.2. This list replaces the list in Table 3.2 (page 3.6) of the original plan. Changes to the constituent list include:

- Removal of total dissolved solids from List A
- Removal of total organic carbon from List B
- Move gross alpha and gross beta from List A to List B
- Move I-129 from List A to List C
- Turbidity is added to List A.

Total dissolved solids is removed from the constituent list because it is a poor indicator parameter compared with turbidity, specific conductance, and alkalinity. Total organic carbon is removed from the constituent list because the carbon tetrachloride plume from Z Plant facilities completely underlies WMA TX-TY such that a release of organics from the WMA would be masked by the carbon tetrachloride plume.

Gross alpha and gross beta are moved from List A to List B and are being analyzed semi-annually because WMA TX-TY is in assessment monitoring and, as such, has samples analyzed for specific isotopes of concern. The indicator parameters gross alpha and gross beta are analyzed semi-annually as a check on the results of analyses for specific isotopes.

Iodine-129 is moved to List C because iodine-129 is only detected in some downgradient wells and is not an appropriate constituent for all wells. Also, turbidity was inadvertently omitted from List A and is, therefore, added to that list.

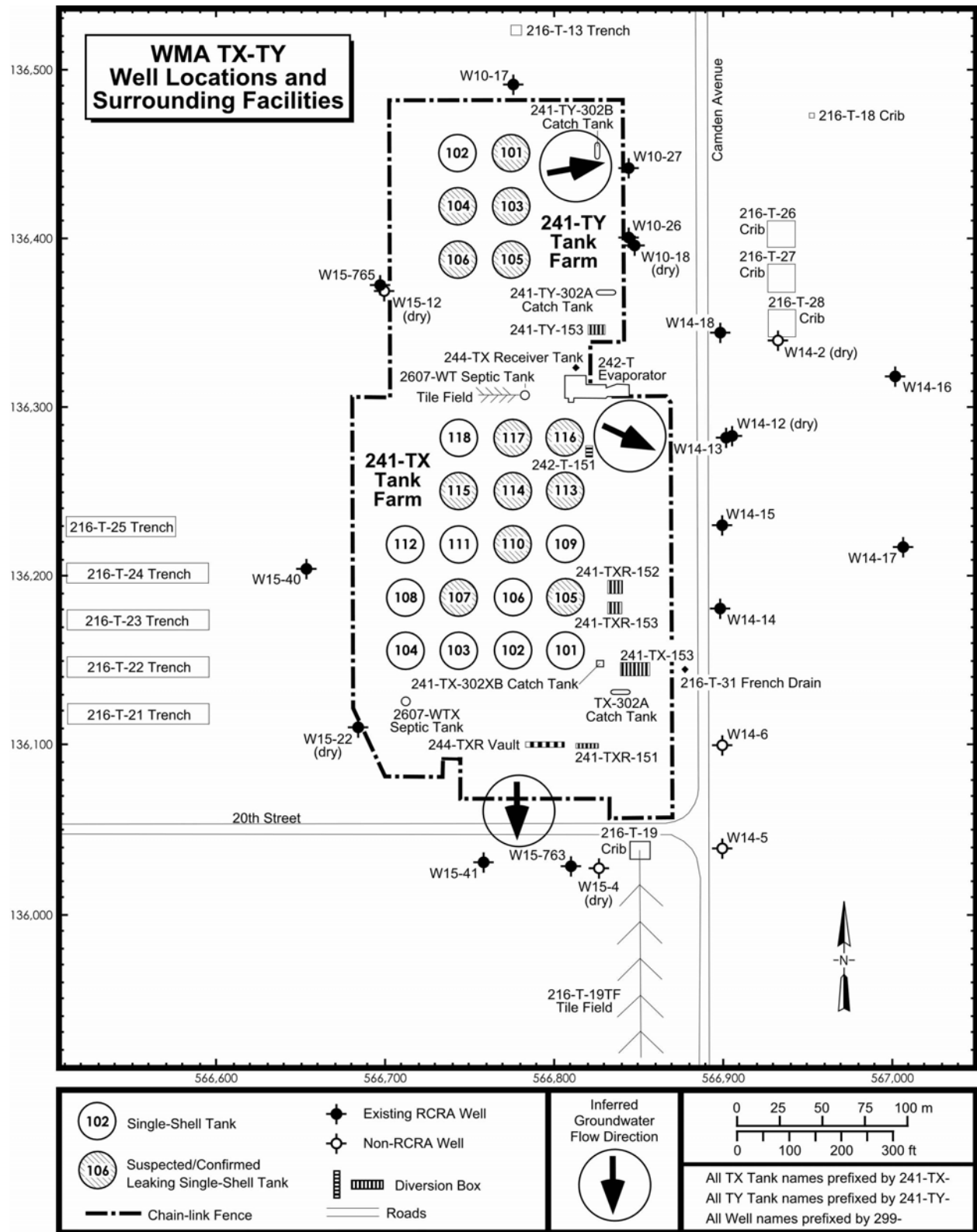
**Table R1.3.1a.** Assessment Monitoring Network, Constituent List and Sampling Frequency for WMA TX-TY

Well Name	RCRA Standard	Sampling Frequency <sup>(a)</sup> and Constituent List <sup>(b)</sup>	Comment
299-W10-17	Y	Q – List A SA – List B	
299-W10-26	Y	Q – List A, List C (I-129) SA – List B, List C (gamma scan)	
299-W10-27	Y	Q – List A SA – List B, List C (gamma scan) A – List C (Sr-90)	New downgradient well
299-W14-5	N	Q – List A SA – List B	
299-W14-6	N	Q – List A SA – List B	
299-W14-13	Y	Q – List A, List C (I-129) SA – List B, List C (gamma scan) A – List C (Sr-90)	
299-W14-14	Y	Q – List A SA – List B, List C (gamma scan)	
299-W14-15	Y	Q – List A, List C (I-129) SA – List B	New downgradient well
299-W14-16	Y	Q – List A, List C (I-129) SA – List B	New downgradient, mid-field well
299-W14-17	Y	Q – List A SA – List B	News downgradient, mid-field well
299-W14-18	Y	Q – List A, List C (I-129) SA – List B, List C (gamma scan)	
299-W15-40	Y	Q – List A SA – List B	
299-W15-41	Y	Q – List A SA – List B, List C (I-129) A – List C (Sr-90)	
299-W15-763	Y	Q – List A SA – List B, List C (gamma scan)	New downgradient well
299-W15-765	Y	Q – List A, List C (I-129) SA – List B	New upgradient well
(a) Q = Quarterly, SA = Semiannually, A = Annually.			
(b) Letters refer to Lists in Table R1.3.2. Specific constituents from List C are indicated.			

**Table R1.3.2.** Analytical Constituents for Waste Management Area TX-TY

List A	List B	List C <sup>(a)</sup>
Turbidity <sup>(b)</sup>	Gross alpha	Strontium-90
Specific conductance <sup>(b)</sup>	Gross beta	Special analyses <sup>(c)</sup>
pH <sup>(a)</sup>		I-129
Temperature <sup>(b)</sup>		Gamma Scan
Inductively coupled plasma metals		
Anions		
Alkalinity		
Technetium-99		
Tritium		
(a) Constituents from List C are individually selected for appropriate wells.		
(b) Field measured parameter.		
(c) Non-routine analyses include ruthenium-101, selenium-79, americium-241, and neptunium-237.		

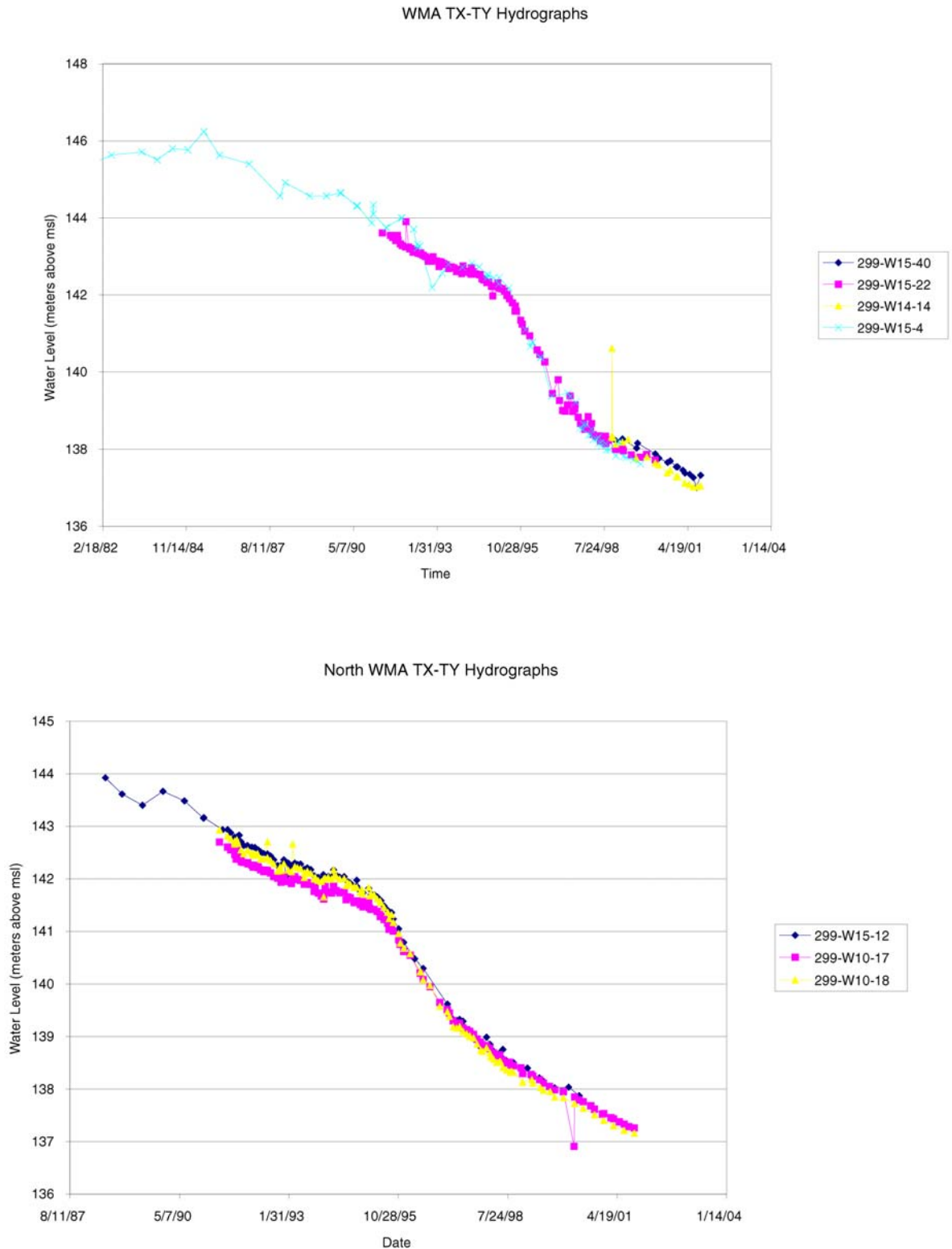
Figure 2.3 in the original assessment plan (Hodges and Chou 2001) shows hydrographs of wells located at WMA T and not WMA TX-TY as originally intended. The figure is corrected and attached Figure R1.2.3 is to replace the original figure on page 2.5. The new hydrographs do not change the discussion in the text.



**Figure R1.1.2.** Map of WMA TX-TY and Wells in the WMA TX-TY Groundwater Monitoring Network



**Figure R1.1.5.** Water Table Map, March and August 2001



**Figure R1.2.3.** Hydrographs for Wells at WMA TX-TY

0526562

WELL CONSTRUCTION AND COMPLETION SUMMARY					
Drilling Method:	Cable Tool/Air Rotary	Sample Method:	Grab/Split Spoon	WELL NUMBER:	299-W14-15 C3114
Drilling Fluid Used:	NA/Air	Additives Used:	None	TEMPORARY WELL NO:	Not Allowed
Driller's Name:	M. Wrasplr	WA State Lic Nr:	1909	Coordinates: N	Not documented
Drilling Company:	RSI	Company Location:	Woodland, Ca.	Coordinates: E	Not documented
Date Started:	17Aug00	Date Completed:	01Sep00	Start Card #:	Ro37802
				Elevation Ground Surface:	

Depth to Water: 219.8 ft 05Sep00 (Ground surface) <b>GENERALIZED STRATIGRAPHY</b>	<b>Geologist's Log</b> <div style="border: 1px solid black; height: 400px; margin-top: 10px;"></div>	Elevation of Reference Point: m Height of Reference Point Above Ground Surface: Depth of Surface Seal: 13.5 ft. Type of Surface Seal: 4x4 Concrete Pad <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; padding: 5px;">Fill</th> <th style="text-align: left; padding: 5px;">Casing</th> <th style="text-align: left; padding: 5px;">Screen</th> </tr> </thead> <tbody> <tr> <td style="vertical-align: top; padding: 5px;">                                 0 - 13.5 ft :                                  12-inch hole                                  Cement Surface Seal                                  13.5 - 20.7 ft :                                  12-inch hole                                  Granular Bentonite                             </td> <td style="vertical-align: top; padding: 5px;">                                 0 - 219.75 ft :                                  4 inch                                  4" 304 SS Sch 5 well csg.                             </td> <td style="vertical-align: top; padding: 5px;"></td> </tr> <tr> <td style="vertical-align: top; padding: 5px;">                                 20.7 - 199.3 ft :                                  9-inch hole                                  Granular Bentonite                             </td> <td style="vertical-align: top; padding: 5px;"></td> <td style="vertical-align: top; padding: 5px;"></td> </tr> <tr> <td style="vertical-align: top; padding: 5px;">                                 199.3 - 209.9 ft :                                  9-inch hole                                  Bentonite Pellets                             </td> <td style="vertical-align: top; padding: 5px;"></td> <td style="vertical-align: top; padding: 5px;"></td> </tr> <tr> <td style="vertical-align: top; padding: 5px;">                                 256.7 - 209.9 ft :                                  9-inch hole                                  10/20 Silica Sand                             </td> <td style="vertical-align: top; padding: 5px;"></td> <td style="vertical-align: top; padding: 5px;">                                 219.75 - 254.62 ft :                                  4 inch                                  SS Wire Wrap                                  .020 slot scrn.                             </td> </tr> <tr> <td style="vertical-align: top; padding: 5px;">                                 260 - 256.7 ft :                                  9-inch hole                                  10/20 Silica Sand                             </td> <td style="vertical-align: top; padding: 5px;">                                 254.62 - 256.7 ft :                                  4 inch                                  4" SS Sump                             </td> <td style="vertical-align: top; padding: 5px;"></td> </tr> </tbody> </table>	Fill	Casing	Screen	0 - 13.5 ft : 12-inch hole Cement Surface Seal 13.5 - 20.7 ft : 12-inch hole Granular Bentonite	0 - 219.75 ft : 4 inch 4" 304 SS Sch 5 well csg.		20.7 - 199.3 ft : 9-inch hole Granular Bentonite			199.3 - 209.9 ft : 9-inch hole Bentonite Pellets			256.7 - 209.9 ft : 9-inch hole 10/20 Silica Sand		219.75 - 254.62 ft : 4 inch SS Wire Wrap .020 slot scrn.	260 - 256.7 ft : 9-inch hole 10/20 Silica Sand	254.62 - 256.7 ft : 4 inch 4" SS Sump	
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260 ft : Borehole drilled depth

0 - 20.7 ft : 12-in. 11-3/4" CS Temp. csg. drl w/cable tool

20.7 - 260 ft : 9-in. 8-5/8" CS Temp. csg. drl w/air rotary (csg hammer)

Drawing By: JEA  
 Reference: Hanford Wells  
 Revision: 0  
 Revision Date: 22Sep00  
 Print Date: 22Sep00

Report Form: WELLS Project File: WELLS.GPJ



SUMMARY OF CONSTRUCTION DATA AND FIELD OBSERVATIONS  
RESOURCE PROTECTION WELL - 299-W14-15

WELL DESIGNATION : 299-W14-15  
CERCLA UNIT :  
RCRA FACILITY :  
DEPTH DRILLED (GS) : 260.0 ft  
MEASURED DEPTH (GS) : 260.0 05Sep00  
AVAILABLE LOGS : Geologist  
DATE EVALUATED : Data not available  
EVAL RECOMMENDATION : Data not available  
LISTED USE : RCRA monitoring/sampling  
  
CURRENT USER : RCRA & Operations  
  
PUMP TYPE : Hydrostar  
MAINTENANCE : Data not available  
COMMENTS : Cable tool to 20.7 ft w/11-3/4" CS csg Air Rotary from 20.7 to 260 ft w/8-5/8" CS csg.

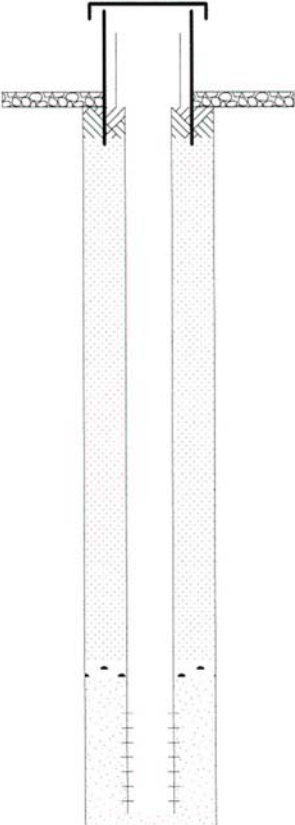

TV SCAN COMMENTS :

Report Form: WELLS, Project File: WELLS.GPJ

Drawing By: JEA  
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Revision: 0  
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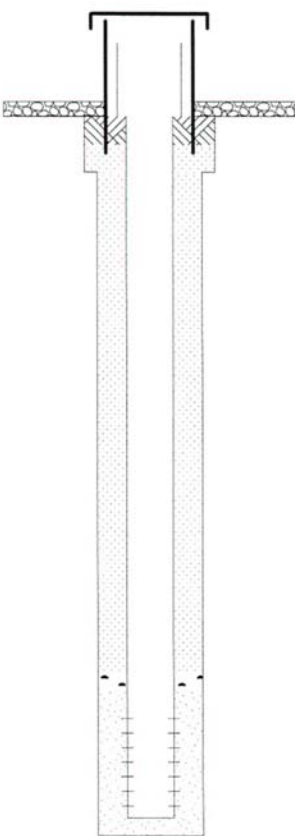



0532873

WELL CONSTRUCTION AND COMPLETION SUMMARY																					
<b>Drilling Method:</b> Drill and Drive Air Rotary <b>Drilling Fluid Used:</b> Air <b>Driller's Name:</b> K. Cowen <b>Drilling Company:</b> RSI <b>Date Started:</b> 25Oct00	<b>Sample Method:</b> Grab/Split Spoon <b>Additives Used:</b> None <b>WA State Lic Nr:</b> Not Available <b>Company Location:</b> Woodland, Ca. <b>Date Completed:</b> 08Nov00	<b>WELL NUMBER:</b> 299-W14-16 C3120 <b>TEMPORARY WELL NO:</b> Not Allowed <b>Coordinates: N</b> Not documented <b>Coordinates: E</b> Not documented <b>Start Card #:</b> Data not available <b>Elevation Ground Surface:</b>																			
<b>Depth to Water:</b> 222.55 ft. 08Nov00 <b>GENERALIZED STRATIGRAPHY</b>		<b>Elevation of Reference Point:</b> m <b>Height of Reference Point Above Ground Surface:</b> <b>Depth of Surface Seal:</b> 11.3 ft. <b>Type of Surface Seal:</b> 4x4 Concrete Pad																			
<b>Geologist's Log</b>  0 - 1.5 ft : Sandy GRAVEL 1.5 - 8 ft : Slightly Silty SAND 8 - 13.5 ft : SAND 13.5 - 34 ft : Silty Sandy GRAVEL  34 - 89 ft : SAND      89 - 99 ft : Sandy SILT 99 - 113 ft : Silty Sandy GRAVEL w/caliche 113 - 124 ft : Silty SAND 124 - 179 ft : Silty Sandy GRAVEL      179 - 184 ft : Gravelly SAND 184 - 265 ft : Sandy GRAVEL		 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; padding: 5px;">Fill</th> <th style="text-align: left; padding: 5px;">Casing</th> <th style="text-align: left; padding: 5px;">Screen</th> </tr> </thead> <tbody> <tr> <td style="padding: 5px;">0 - 11.3 ft : 10.75-inch hole Cement surface seal</td> <td style="padding: 5px;">0 - 222.94 ft : 4 inch 4" 304L SS</td> <td style="padding: 5px;"></td> </tr> <tr> <td style="padding: 5px;">11.3 - 204.5 ft : 10.75-inch hole Granular Bentonite</td> <td style="padding: 5px;"></td> <td style="padding: 5px;"></td> </tr> <tr> <td style="padding: 5px;">204.5 - 210.4 ft : 10.75-inch hole 1/4" Bentonite pellets</td> <td style="padding: 5px;"></td> <td style="padding: 5px;">222.94 - 257.88 ft</td> </tr> <tr> <td style="padding: 5px;">210.4 - 260.06 ft : 10.75-inch hole 10/20 Silica Sand</td> <td style="padding: 5px;"></td> <td style="padding: 5px;">4 inch 4" SS Wire Wrap .020 Slot Scrn.</td> </tr> <tr> <td style="padding: 5px;">260.06 - 265 ft : 10.75-inch hole 10/20 Silica Sand</td> <td style="padding: 5px;"></td> <td style="padding: 5px;">257.88 - 260.06 ft 4 inch 4" SS Sump</td> </tr> </tbody> </table>		Fill	Casing	Screen	0 - 11.3 ft : 10.75-inch hole Cement surface seal	0 - 222.94 ft : 4 inch 4" 304L SS		11.3 - 204.5 ft : 10.75-inch hole Granular Bentonite			204.5 - 210.4 ft : 10.75-inch hole 1/4" Bentonite pellets		222.94 - 257.88 ft	210.4 - 260.06 ft : 10.75-inch hole 10/20 Silica Sand		4 inch 4" SS Wire Wrap .020 Slot Scrn.	260.06 - 265 ft : 10.75-inch hole 10/20 Silica Sand		257.88 - 260.06 ft 4 inch 4" SS Sump
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265 ft : Borehole drilled depth 0 - 265 ft : 10.75-in. 10-3/4" CS Temp. csg set A.R. Drl. & Drive																					
<b>Drawing By:</b> JEA <b>Reference:</b> Hanford Wells <b>Revision:</b> 0 <b>Revision Date:</b> 19Mar01 <b>Print Date:</b> 19Mar01																					

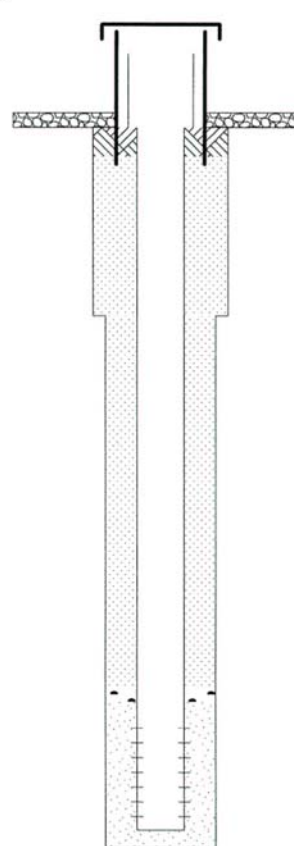

Report Form: WELLS Project File: WELLS.GPJ

0532872


WELL CONSTRUCTION AND COMPLETION SUMMARY																														
<b>Drilling Method:</b> Drill and Drive Air Rotary <b>Drilling Fluid Used:</b> Air <b>Driller's Name:</b> K. Cowden <b>Drilling Company:</b> RSI <b>Date Started:</b> 10Oct00	<b>Sample Method:</b> Grab/Split Spoon <b>Additives Used:</b> None <b>WA State Lic Nr:</b> Not Available <b>Company Location:</b> Woodland, Ca. <b>Date Completed:</b> 24Oct00	<b>WELL NUMBER:</b> 299-W14-17 <b>TEMPORARY WELL NO:</b> C3121 Not Allowed <b>Coordinates: N</b> Not documented <b>Coordinates: E</b> Not documented <b>Start Card #:</b> Not Available <b>Elevation Ground Surface:</b>																												
<b>Depth to Water:</b> 221.69 ft 24Oct00 <b>GENERALIZED STRATIGRAPHY</b> <b>Geologist's Log</b>		<b>Elevation of Reference Point:</b> m <b>Height of Reference Point Above Ground Surface:</b> <b>Depth of Surface Seal:</b> 10.6 ft. <b>Type of Surface Seal:</b> 4x4 Concrete Pad																												
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Report Form: WELLS Project File: WELLS.GPJ

0540441

WELL CONSTRUCTION AND COMPLETION SUMMARY																								
<b>Drilling Method:</b> Cable Tool <b>Drilling Fluid Used:</b> None <b>Driller's Name:</b> M. Waspir <b>Drilling Company:</b> RSI <b>Date Started:</b> 30Aug01	<b>Sample Method:</b> Grab/Split Spoon <b>Additives Used:</b> None <b>WA State Lic Nr:</b> 1909 <b>Company Location:</b> Woodland, Ca. <b>Date Completed:</b> 01Nov01	<b>WELL NUMBER:</b> 299-W14-18 <b>TEMPORARY WELL NO:</b> Not Allowed <b>Coordinates: N</b> Not documented <b>Coordinates: E</b> Not documented <b>Start Card #:</b> R037816 <b>Elevation Ground Surface:</b>																						
<b>Depth to Water:</b> 220.45 ft    07Nov01 <b>GENERALIZED STRATIGRAPHY</b> <b>Geologist's Log</b>		<b>Elevation of Reference Point:</b> m <b>Height of Reference Point Above Ground Surface:</b> <b>Depth of Surface Seal:</b> 10.5 ft <b>Type of Surface Seal:</b> 4x4 Concrete Pad																						
0 - 0.5 ft : Drill Pad Material 0.5 - 8 ft : Silty Sand 8 - 13 ft : Sand 13 - 34 ft : Sandy Gravel  34 - 88.5 ft : Sand  88.5 - 114 ft : Sandy Silt  114 - 120 ft : Silty Sand 120 - 125 ft : Sandy Silt 125 - 145 ft : Gravelly Silt  145 - 155 ft : Silty Gravel 155 - 160 ft : Gravelly Silt 160 - 165 ft : Silty Gravel 165 - 190 ft : Gravelly Silt  190 - 200 ft : Sandy Silt 200 - 205 ft : Gravelly Sandy Silt 205 - 210 ft : Silty Gravel 210 - 215 ft : Sandy Silt 215 - 220 ft : Gravelly Silt 220 - 235 ft : Gravelly Sandy Silt  235 - 240 ft : Gravelly Silt 240 - 261.5 ft : Gravelly Sandy Silt		 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; padding: 5px;">Fill</th> <th style="text-align: left; padding: 5px;">Casing</th> <th style="text-align: left; padding: 5px;">Screen</th> </tr> </thead> <tbody> <tr> <td style="padding: 5px;">0 - 10.5 ft : 11-inch hole Cement Surface Seal</td> <td style="padding: 5px;">0 - 218.06 ft : 4 inch 304L SS sch 5 csg</td> <td></td> </tr> <tr> <td style="padding: 5px;">10.5 - 68.6 ft : 11-inch hole Granular Bentonite</td> <td></td> <td></td> </tr> <tr> <td style="padding: 5px;">68.6 - 203.3 ft : 9-inch hole Granular Bentonite</td> <td></td> <td></td> </tr> <tr> <td style="padding: 5px;">203.3 - 208.4 ft : 9-inch hole 1/4" Bentonite Pellets</td> <td></td> <td></td> </tr> <tr> <td style="padding: 5px;">208.4 - 255.05 ft : 9-inch hole 10/20 Silica Sand</td> <td></td> <td></td> </tr> <tr> <td style="padding: 5px;">255.05 - 261.5 ft : 9-inch hole 10/20 Silica Sand</td> <td style="padding: 5px;">253.05 - 255.05 ft : 4 inch 304L SS Sump</td> <td style="padding: 5px;">218.06 - 253.05 ft : 4 inch 304L SS Wire Wrap .020 slot scrn</td> </tr> </tbody> </table>		Fill	Casing	Screen	0 - 10.5 ft : 11-inch hole Cement Surface Seal	0 - 218.06 ft : 4 inch 304L SS sch 5 csg		10.5 - 68.6 ft : 11-inch hole Granular Bentonite			68.6 - 203.3 ft : 9-inch hole Granular Bentonite			203.3 - 208.4 ft : 9-inch hole 1/4" Bentonite Pellets			208.4 - 255.05 ft : 9-inch hole 10/20 Silica Sand			255.05 - 261.5 ft : 9-inch hole 10/20 Silica Sand	253.05 - 255.05 ft : 4 inch 304L SS Sump	218.06 - 253.05 ft : 4 inch 304L SS Wire Wrap .020 slot scrn
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261.5 ft : Borehole drilled depth 0 - 68.6 ft : 11-in. Cable Tool 10-3/4" CS Temp csg to 68.6 ft 68.6 - 261.5 ft : 9-in. Cable Tool 8-5/8" CS Temp csg to 261.5 ft																								
<b>Drawing By:</b> JEA <b>Reference:</b> Hanford Wells <b>Revision:</b> 0 <b>Revision Date:</b> 13Nov01 <b>Print Date:</b> 13Nov01																								

Report Form: WELLS Project File: WELLS GPJ

SUMMARY OF CONSTRUCTION DATA AND FIELD OBSERVATIONS RESOURCE PROTECTION WELL - 299-W14-18	
WELL DESIGNATION	: 299-W14-18
CERCLA UNIT	:
RCRA FACILITY	:
DEPTH DRILLED (GS)	: 261.5 ft
MEASURED DEPTH (GS)	: 255.05 07Nov01
AVAILABLE LOGS	: Geologist & Geophysical
DATE EVALUATED	: Data not available
EVAL RECOMMENDATION	: Data not available
LISTED USE	: RCRA Monitoring
CURRENT USER	: RCRA & Operations
PUMP TYPE	: Not Documented
MAINTENANCE	: Data not available
COMMENTS	: Cable Tool 10-3/4" CS csg to 68.6 ft & 8-5/8" CS csg to 261.5 ft
TV SCAN COMMENTS	:
<div>Report Form: WELLS Project File: WELLS.GPJ</div> <div><div>Drawing By: JEA Reference: Hanford Wells Revision: 0 Revision Date: 13Nov01 Print Date: 13Nov01</div><div></div></div>	

0532887

WELL CONSTRUCTION AND COMPLETION SUMMARY					
Drilling Method:	Cable Tool	Sample Method:	Grab/Spill Spoon	WELL NUMBER:	299-W15-763
Drilling Fluid Used:	none	Additives Used:	water	TEMPORARY C3339WELL NO.:	Not Allowed
Driller's Name:	M. Wraspir	WA State Lic Nr.:	1909	Coordinates: N	Not documented
Drilling Company:	RSI	Company Location:	Woodland, Ca.	Coordinates: E	Not documented
Date Started:	30Nov00	Date Completed:	17Jan01	Start Card #:	Not Available
				Elevation Ground Surface:	

Depth to Water: 216.97 ft ft 10Apr01 (Ground surface)	Elevation of Reference Point: m	
GENERALIZED STRATIGRAPHY	Geologist's Log	

0 - 4 ft : Gravelly SAND

4 - 4.5 ft : Gravel

4.5 - 8 ft : Slightly Silty SAND

8 - 10.5 ft : Sandy GRAVEL

10.5 - 20 ft : Silty Sandy GRAVEL

20 - 40.5 ft : Sandy GRAVEL

40.5 - 42.5 ft : Silty SAND

42.5 - 94 ft : SAND

94 - 100 ft : SILT

100 - 101.5 ft : Silty SAND

101.5 - 117 ft : Gravelly Silty SAND

117 - 120 ft : Sandy GRAVEL

120 - 142 ft : Silty Sandy GRAVEL

142 - 170 ft : Sandy GRAVEL

170 - 209 ft : Silty Sandy GRAVEL

209 - 211 ft : Gravelly Silty SAND

211 - 230 ft : Silty Sandy GRAVEL

230 - 235 ft : Sandy GRAVEL

235 - 257 ft : Silty Sandy GRAVEL

**Fill**

0 - 9.2 ft : 12-inch hole

Cement Surface Seal

**Casing**

0 - 211.75 ft : 4 inch

4" 304 SS sch 5 csg.

**Screen**

9.2 - 134.2 ft : 12-inch hole

Granular Bentonite

134.2 - 191.1 ft : 9-inch hole

Granular Bentonite

191.1 - 202.4 ft : 9-inch hole

Bentonite Pellets

202.4 - 248.82 ft : 9-inch hole

10/20 Silica Sand

248.82 - 257.6 ft : 9-inch hole

10/20 Silica Sand

211.75 - 248.82 ft : 4 inch

4" 304 SS Wirewrap .020 Slot scrm.

257.6 ft : Borehole drilled depth

0 - 134.2 ft : 12-in. Cable Tool 11-3/4" CS Temp. csg.

134.2 - 257.6 ft : 9-in. Cable Tool 8-5/8" CS Temp. csg.

Drawing By: JEA Reference: Hanford Wells Revision: 0 Revision Date: 17Apr01 Print Date: 17Apr01	
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Report Form: WELLS Project File: WELLS.GPJ



# WELL CONSTRUCTION AND COMPLETION SUMMARY

Drilling Method:

Air Rotary Drl & Drive

Drilling Fluid Used:

Air

Driller's Name:

Mike Gomez

Drilling Company:

RSI

Date Started:

19Sep01

Sample Method:

Grab/Spit Spoon

Additives Used:

None

WA State Lic Nr:

Not Documented

Company Location:

Woodland, Ca.

Date Completed:

04Oct01

WELL NUMBER:

299-W15-765

TEMPORARY C3397WELL NO:

Not Allowed

Coordinates: N

Not documented

Coordinates: E

Not documented

Start Card #:

R037816

Elevation Ground Surface:

Depth to Water:

219.8 ft

27Sep01

GENERALIZED STRATIGRAPHY

Geologist's Log

0 - 2 ft: Drill Pad

2 - 5 ft: Gravelly Sand

5 - 25 ft: Sandy Gravel

25 - 30 ft: Gravel

30 - 35 ft: Silty Gravel

35 - 40 ft: Slightly Silty Gravelly Sand

40 - 92 ft: Sand

92 - 93 ft: Silty Sand

93 - 105 ft: Silt

105 - 110 ft: Gravelly Silt

110 - 117 ft: Sandy Silt

117 - 120 ft: Sand

120 - 125 ft: Sandy Silt

125 - 130 ft: Silt

130 - 135 ft: Sand

135 - 136 ft: Silty Gravel

136 - 140 ft: Gravel

140 - 150 ft: Sandy Gravel

150 - 151 ft: Gravelly Silty Sand

151 - 155 ft: Gravel

155 - 157 ft: Gravelly Sandy Silt

157 - 160 ft: Gravel

160 - 170 ft: Sandy Gravel

170 - 175 ft: Gravel

175 - 180 ft: Silty gravel

180 - 195 ft: Gravelly Sand

195 - 200 ft: Sandy gravel

200 - 220 ft: Silty Gravel

220 - 230 ft: Silty Sandy Gravel

230 - 235 ft: Gravel

235 - 240 ft: Silty Gravel

240 - 250 ft: Silty Sandy Gravel

250 - 255 ft: Gravel

255 - 265 ft: Sandy Gravel

267 ft: Borehole drilled depth

0 - 267 ft: 11-in. air Rotary Drl & Drive

10-5/8" CS Temp csg to 267 ft

Elevation of Reference Point:

m

Height of Reference Point Above Ground Surface:

Depth of Surface Seal:

10.2 ft.

Type of Surface Seal:

4x4 Concrete Pad

Fill

0 - 10.2 ft:

11-inch hole

Cement Surface Seal

Casing

0 - 220 ft:

4 inch

304L SS sch 5 csg

Screen

10.2 - 204.8 ft:

11-inch hole

8/20 Bentonite Crumbles

220 - 255 ft:

4 inch

304L SS Wire Wrap .020 slot scrn

204.8 - 209.5 ft:

11-inch hole

1/4" Bentonite Pellets

209.5 - 257.1 ft:

11-inch hole

10/20 Silica Sand

257.1 - 265 ft:

11-inch hole

10/20 Silica Sand

265 - 267 ft:

11-inch hole

Slough

257.1 - 265 ft:

257.1 ft:

4 inch

304L SS Sump

Drawing By:

JEA

Reference:

Hanford Wells

Revision:


0


Revision Date:

08Nov01

Print Date:

08Nov01



SUMMARY OF CONSTRUCTION DATA AND FIELD OBSERVATIONS RESOURCE PROTECTION WELL - 299-W15-765	
WELL DESIGNATION	: 299-W15-765
CERCLA UNIT	:
RCRA FACILITY	:
DEPTH DRILLED (GS)	: 267.0 ft
MEASURED DEPTH (GS)	: 257.1 27Sep01
AVAILABLE LOGS	: Geologist & Geophysical
DATE EVALUATED	: Data not available
EVAL RECOMMENDATION	: Data not available
LISTED USE	: RCRA Monitoring
CURRENT USER	: RCRA & Operations
PUMP TYPE	: Not Documented
MAINTENANCE	: Data not available
COMMENTS	: Air Rotary Drg & Drive 10-5/8" CS Temp csg to 265 ft
TV SCAN COMMENTS	:
<div>Report Form: WELLS Project File: WELLS.GPJ</div> <div><div>Drawing By: JEA Reference: Hanford Wells Revision: 0 Revision Date: 08Nov01 Print Date: 08Nov01</div><div></div></div>	



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