Table 3-7. 200-ZP-1 OU at a Glance

T Plant operations: 1944 to 1956 (plutonium separation) **PFP operations:** 1949 to 1989			
2014 Groundwater Monitoring			
Contaminant	**Final Cleanup Level**	**Maximum Concentration**	**Plume Area[a] (km^2)**
Carbon tetrachloride	3.4 µg/L	2,000 µg/L (299-W11-90 and 299-W11-87)	9.10[b]
Chromium (trivalent and hexavalent)	100/48 µg/L[c,d]	186/190 µg/L (299-W11-43)	0.33
Iodine-129	1 pCi/L	1.88 pCi/L (299-W11-33Q)	0.06
Nitrate[e]	45 mg/L	536 mg/L (299-W14-13)	8.44
Technetium-99	900 pCi/L	21,500 pCi/L (299-W14-13)	0.03
Trichloroethene	1 µg/L	13 µg/L (299-W17-2)	3.25
Tritium	20,000 pCi/L	14,200 pCi/ (299-W11-90)	0.23

Table 3-7. 200-ZP-1 OU at a Glance

Remediation
200-ZP-1 OU P&T (interim action 1996 to 2012) removed: • 13,718 kg carbon tetrachloride **WMA T P&T (interim action 2007 to 2012) removed:** • 193 kg carbon tetrachloride • 14.5 kg chromium • 84,693 kg nitrate • 81.7 g technetium-99 • 732 g trichloroethene **200-PW-1 OU soil vapor extraction (expedited response action):** • 1991 to 2012, removed 80,107 kg carbon tetrachloride • 2013 and 2014, soil vapor extraction systems offline for rebound study • 200-PW-1 final action ROD (EPA et al., 2011) • 200-ZP-1 final action ROD (EPA et al., 2008) **200 West P&T (final action July 2012 to December 2014) removed:** • 6,478 kg carbon tetrachloride • 166 kg chromium (total and hexavalent) • 242 pCi iodine-129 • 495,682 kg nitrate as nitrate; 111,923 kg nitrate as nitrogen • 175 g technetium-99 • 25.7 kg trichloroethene

Sources:

EPA et al., 2008, *Record of Decision Hanford 200 Area 200-ZP-1 Superfund Site Benton County, Washington.*

EPA et al., 2012, *Record of Decision for Interim Remedial Action, Hanford 200 Area Superfund Site, 200-UP-1 Operable Unit.*

a. Estimated area above listed water quality standard.

b. Area of full plume footprint, all depths in unconfined aquifer.

c. 100 µg/L federal drinking water standard for total chromium.

d. 48 µg/L groundwater cleanup standard for hexavalent chromium.

e. Nitrate as nitrate; 10 mg/L nitrate as nitrogen.

OU = operable unit

P&T = pump and treat

PFP = Plutonium Finishing Plant

WMA = waste management area