TAB 15

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TABLE 15-3
Summary of Ground Water Monitoring Sites, Yoast Mine

Well Number	USGS Number	Coordinates	Formation Completed In	Well Depth (ft)	Casing Dia. (in)	Surface Elev. (ft)	Remarks	Historic Water Quality Data
YSAL1	A1	S 35,180.90 W 9,544.48	Sage Creek Alluvium	39.1	4	7174.93	Discontinued, Abandon 2025	Yes
YSAL2	A2	S 35,020.85 W 9,344.12	Sage Creek Alluvium	40.0	2	7179.47	Discontinued, Abandon 2025	No
YSAL3	A3	S 36,967.39 W 8,585.95	Sage Creek Alluvium	44.0	2	7223.53	Point of compliance well	Yes
YSAL4	A4	S 37,206.98 W 8,443.68	Sage Creek Alluvium	59.0	2	7230.80	Discontinued, Abandon 2025	No
YSAL5	A5	S 37,224.27 W 8,393.76	Sage Creek Alluvium	45.0	2	7233.33	Discontinued, Abandon 2025	No
YSAL6	A6	S 39,713.05 W 8,935.08	Sage Creek Alluvium	40.0	2	7318.08	Discontinued, Abandon 2025	No
YSAL7	A7	S 39,717.24 W 8,836.39	Sage Creek Alluvium	45.0	2	7325.21	Discontinued 10/95, duplicate well	No
YSAL8	A8	S 39,707.34 W 8,840.15	Sage Creek Alluvium	20.0	4	7324.76	Discontinued, Abandon 2025	Yes
YSAL9	A9	S 39,697.69 W 8,842.49	Sage Creek Alluvium	20.0	4	7324.52	Discontinue 10/95, duplicate well	No
YSAL10	A10	S 39,715.52 W 8,732.48	Sage Creek Alluvium	53.0	2	7330.13	Abandoned 10/01 (TR 22)	No
YSAL11	A11	S 41,880 W 9,200	Sage Creek Alluvium	40.0	2	7382	Well destroyed by farming, location and elevation estimated Last data 8/83	No
YSAL12	A12	S 41,972.54 W 9,052.38	Sage Creek Alluvium	40.0	4	7381.13	Discontinued, Abandon 2025	Yes
YSAL13	A13	S 42,025.40 W 8,963.62	Sage Creek Alluvium	30.0	2	7384.23	Casing damaged by farming, well abandoned 8/96	No

TABLE 15-3
(Continued)

Well Number	USGS Number	Coordinates	Formation Completed In	Well Depth (ft)	Casing Dia. (in)	Surface Elev. (ft)	Remarks	Historic Water Quality Data
YAAL14	N/A	S 30,718.62 W 3,904.05	Annand Draw Alluvium	22.3	4	6971.97	Discontinued, Abandon 2025	Yes
YGAL15	N/A	S 34,182.12 E 4,745.60	Grassy Creek Alluvium	12.5	4	6909.16	Discontinued, Abandon 2025	Yes
YGAL16	N/A	S 35,257.00 E 2,400.86	Grassy Creek Trib. Alluvium	28.7	4	6982.12	Discontinued, Abandon 2025	Yes
YGAL17	N/A	S 40,670.06 W 1,816.56	Grassy Creek Trib. Alluvium	27.4	4	7178.04	Discontinued 11/99	Yes
YGAL18	N/A	S 43,243.86 W 2,521.10	Grassy Creek Trib. Alluvium	48.6	4	7302.09	Discontinued 11/99	Yes
WSAL12	N/A	S 28,958.95 W 18,280.44	Sage Creek Alluvium	20.2	4	6859.14	Also part of Seneca II-W monitoring program	Yes
YOV1	1	S 37,279.85 W 7,174.11	Wadge Overburden	62.0	4	7329.35	Some cement may be present in gravel pack. Bottom 8 ft of casing filled in. Abandoned 7/99	Yes
YW2	2	S 37,352.29 W 7,149.85	Wadge Coal	58.5	2	7325.36	Abandoned 7/99	Yes
YLOV3	3	S 37,270.86 W 7,684.96	Lennox Overburden	47.0	4	7282.36	Abandoned 7/99	Yes
YLOV4	4	S 37,280.56 W 7,685.00	Lennox Overburden	47.0	4	7282.45	Abandoned 7/99	Yes
YL5	5	S 37,257.28 W 7,641.88	Lennox Coal	54.0	4	7283.38	Abandoned 7/99	Yes
YL6	6	S 37,266.04 W 7,644.64	Lennox Coal	54.0	4	7282.86	Abandoned 7/99	Yes
YW7	7	S 39,849.88 W 7,096.90	Wadge Coal	146.3	4	7591.99	Some cement may be present in gravel pack	Yes

TABLE 15-3
(Continued)

Well Number	USGS Number	Coordinates	Formation Completed In	Well Depth (ft)	Casing Dia. (in)	Surface Elev. (ft)	Remarks	Historic Water Quality Data
YOV8	8	S 39,854.09 W 7,115.76	Wadge Overburden	133.0	2	7590.52	Some cement may be present in gravel pack. Discontinued monitoring 9/94	No
YOV9	9	S 39,843.92 W 7,121.53	Wadge Overburden	135.0	4	7589.94	Discontinued, Abandon 2025	Yes
YOV10	10	S 39,847.96 W 7,131.91	Wadge Overburden	135.0	4	7588.97	Pump test observation well for YOV9. Discontinue monitoring 9/94	No
YW11	11	S 39,840.76 W 7,098.58	Wadge Coal	151.0	4	7592.33	Bottom 5' of 10' of completion zone has filled in. Discontinue monitoring 9/94	No
YW12	12	S 39,835.67 W 7,090.33	Wadge Coal	151.0	4	7592.91	Discontinue monitoring 8/93. June '90 total depth (130') is higher than top of completion zone (141')	No
YWU13	13	S 39,832.10 W 7,082.54	Wadge Underburden	170.0	4	7593.59	Discontinue monitoring 8/93. Well partially filled in. Better underburden data exists at adjacent Well YWU30	No
YW14	14	S 42,573.41 W 7,071.19	Wadge Coal	26.3	2	7721.19	Discontinued 7/01 (TR 22)	No
YOV15	15	S 42,548.14 W 7,070.48	Wadge Overburden	9.5	4	7720.87	Discontinued 7/01 (TR 22)	No
YWU16	16	S 42,871.69 W 4,687.51	Wadge Underburden	65.0	4	7975.23	Discontinued, Abandon 2025	No
YWU17	17	S 40,156.52 W 4,335.27	Wadge Underburden	48.0	4	7797.00	Some cement may have flowed past packer into completion Zone, abandoned 6/00	No
YW18	18	S 36,987.99 W 4,821.26	Wadge Coal	37.4	4	7679.24	Discontinued 10/99, mined out 12/99.	Yes

TABLE 15-3
(Continued)

Well Number	USGS Number	Coordinates	Formation Completed In	Well Depth (ft)	Casing Dia. (in)	Surface Elev. (ft)	Remarks	Historic Water Quality Data
YOV19	19	S 36,982.28 W 4,814.65	Wadge Overburden	27.0	2	7679.32	Discontinued 10/99, mined out 12/99.	No
YOV20	20	S 34,968.70 W 4,859.54	Wadge Overburden	85.7	2	7550.96	Discontinued monitoring 8/83. June '90 total depth (32') is higher than top of completion zone (56'). Abandoned 8/98.	No
YW21	21	S 34,986.14 W 4,863.92	Wadge Coal	100.5	4	7551.62	Bottom 3' of 4' of completion zone has filled in. Abandoned 8/98.	No
YOV22	22	S 33,645.85 W 4,824.44	Wadge Overburden	79.3	4	7376.95	Improper completion (see construction form). Abandoned 8/98.	No
YW23	23	S 33,632.52 W 4,804.15	Wadge Coal	104.0	4	7375.35	Abandoned 8/98.	Yes
YW24	24	S 33,749.35 W 1,021.11	Wadge Coal	108.8	2	7560.09	Discontinued monitoring 10/91. June '90 total depth (67') is higher than top of completion zone (103'). Mined out 1998.	No
YOV25	25	S 33,767.84 W 1,009.79	Wadge Overburden	90.0	4	7559.71	Discontinued monitoring 9/94. June '90 total depth (47') is higher than top of completion zone (50'). Mined out 1998.	Yes
YW26	26	S 34,985.61 W 1,042.53	Wadge Coal	43.0	4	7746.39	Mined out 8/97	No
YOV27	27	S 35,000.07 W 1,025.40	Wadge Overburden	25.0	2	7746.79	Mined out 8/97	No
YOV28	N/A	S 32,950.98 W 798.11	Wadge Overburden	305.0	4	7503.05	Discontinued, Abandon 2025	Yes
YW28	N/A	S 32,952.04 W 777.41	Wadge Coal	323.0	4	7503.33	Discontinued, Abandon 2025	Yes
YWU28	N/A	S 32,943.32 W 744.56	Wadge Underburden	383.5	4	7503.13	Discontinued, Abandon 2025	Yes

TABLE 15-3
(Continued)

Well Number	USGS Number	Coordinates	Formation Completed In	Well Depth (ft)	Casing Dia. (in)	Surface Elev. (ft)	Remarks	Historic Water Quality Data
YOV29	N/A	S 36,561.00 W 5,654.38	Wadge Overburden	221.0	4	7705.67	Discontinued, Abandon 2025	No
YW29	N/A	S 36,545.45 W 5,646.88	Wadge Coal	259.0	4	7705.53	Discontinued, Abandon 2025	Yes
YWU29	N/A	S 36,520.99 W 5,635.87	Wadge Underburden	303.9	4	7705.87	Discontinued, Abandon 2025	Yes
YOV30	N/A	S 39,202.68 W 7,083.35	Wadge Overburden	141.0	4	7585.45	Discontinued, Abandon 2025	Yes
YW30	N/A	S 39,175.95 W 7,075.14	Wadge Coal	208.0	4	7586.49	Discontinued, Abandon 2025	Yes
YWU30	N/A	S 39,189.87 W 7,078.95	Wadge Underburden	261.0	4	7586.62	Discontinued, Abandon 2025	Yes
YWC31	N/A	S 41,334.97 W 4,798.52	Wolf Creek Coal	108.0	4	7809.03	Abandoned 10/01	Yes
YWCU31	N/A	S 41,325.10 W 4,801.04	Wolf Creek Underburden	180.0	4	7808.61	Abandoned 10/01	No
YTM32	N/A	S 26,947.95 W 2,107.89	Twentymile Sandstone	1000.0	5	6856.13	Shop Well, currently not in service	No
YWC33	N/A	S 39,868.44 W 7,128.03	Wolf Creek Coal	309.38	3	7588.39	Replaces YWC31, drilled 8/02	No
YWCU33	N/A	S 39,883.37 W 7,122.79	Wolf Creek Underburden	391.61	3	7587.79	Replaces YWCU31, drilled 8/02	No
SGAL70	**N/A**	**S 12,889.99 W 4,358.42**	**Grassy Creek Alluvium**	**22.0**	**4**	**6537.04**	**Discontinue 2025, POC well (also downstream of Seneca II Mine)**	**Yes**

TABLE 15-8

Ground Water Monitoring Frequencies

Yoast Mine

Site Name	Water Levels	Water Quality
~~YSAL1~~	~~Abandoned~~	~~Annual - A~~
~~YSAL2~~	~~Abandoned~~	
~~YSAL3~~	~~Abandon 2025~~	~~**Annual** - A **(POC)**~~
~~YSAL4~~	~~Abandon~~	
~~YSAL5~~	~~Abandon~~	
~~YSAL6 to YSAL10~~	~~Abandon~~	
~~YSAL12~~	~~Abandon 2025~~	~~Semiannual~~
~~YAAL14~~	~~Abandon 2025~~	~~Annual - A~~
~~YGAL15~~	~~Semiannual~~	~~Semiannual~~
~~YGAL16~~	~~Abandon 2025~~	~~Annual - A~~
~~YGAL17,YGAL18~~	~~Abandoned~~	
~~YW7,YOV8,YOV9,YOV10~~	~~Abandoned~~	
~~YW11,YW12,YWU13~~	~~Abandoned~~	
~~YW14,YOV15~~	~~Abandoned~~	
~~YWU16~~	~~Abandon 2025~~	
~~YOV28~~	~~Abandon 2025~~	~~Annual~~
~~YW28~~	~~Abandon 2025~~	~~Annual~~
~~YWU28~~	~~Abandon 2025~~	~~Annual~~
~~YOV29~~	~~Abandon 2025~~	~~Annual~~
~~YW29~~	~~Abandon 2025~~	~~Annual~~
~~YWU29~~	~~Abandon 2025~~	~~Annual~~
~~YOV30~~	~~Abandon 2025~~	~~Annual - A~~
~~YW30~~	~~Abandon 2025~~	~~Annual - A~~
~~YWU30~~	~~Abandon 2025~~	~~Annual - A~~
~~YWC33~~	~~Abandon 2025~~	~~Annual - B~~
~~YWCU33~~	~~Abandon 2025~~	~~Annual - B~~

TABLE 15-8

Ground Water Monitoring Frequencies

Yoast Mine

(Continued)

Site Name	Water Levels	Water Quality
YTM32 (Shop Well)	Discontinue	Annual [A]
SGAL70 (Seneca II Well GW-S70-A)	Discontinue	Annual - A (POC)

- Indicates no monitoring

Annual: May/June

~~Semiannual: May/June, September/October~~

Water samples will be analyzed according to the (A) Ground Water Long Parameter List (Table 15-4) or the (B) Ground Water Short Parameter List (Table 15-4a).

Wells with a strikethrough, and an 'Abandon' in the 'Water Levels' column, will be abandoned.

[(A)]Contingent upon SCC's decision to put this well into service.

but since the adjacent Y..30 wells monitor the same strata, YW7 and YOV9 are no longer necessary.

- Wells YW14 and YOV15 (old USGS wells nested together): These wells exist in an isolated (ie, not hydraulically connected) block of coal in the southwest corner of the permit area that was never mined. YW14 never had more than 2.3 feet of water in the well. YOV15 was often dry, but never had more than 0.68 feet of water in the well.

Yoast Technical Revision 54 (2025) Monitoring Program Reductions

Discontinue all ground water monitoring in preparation for abandonment procedures to take place prior to final release of SL8 mid 2025. Past Annual Hydrology Reports show ground water is with in compliance and stable at the site.

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