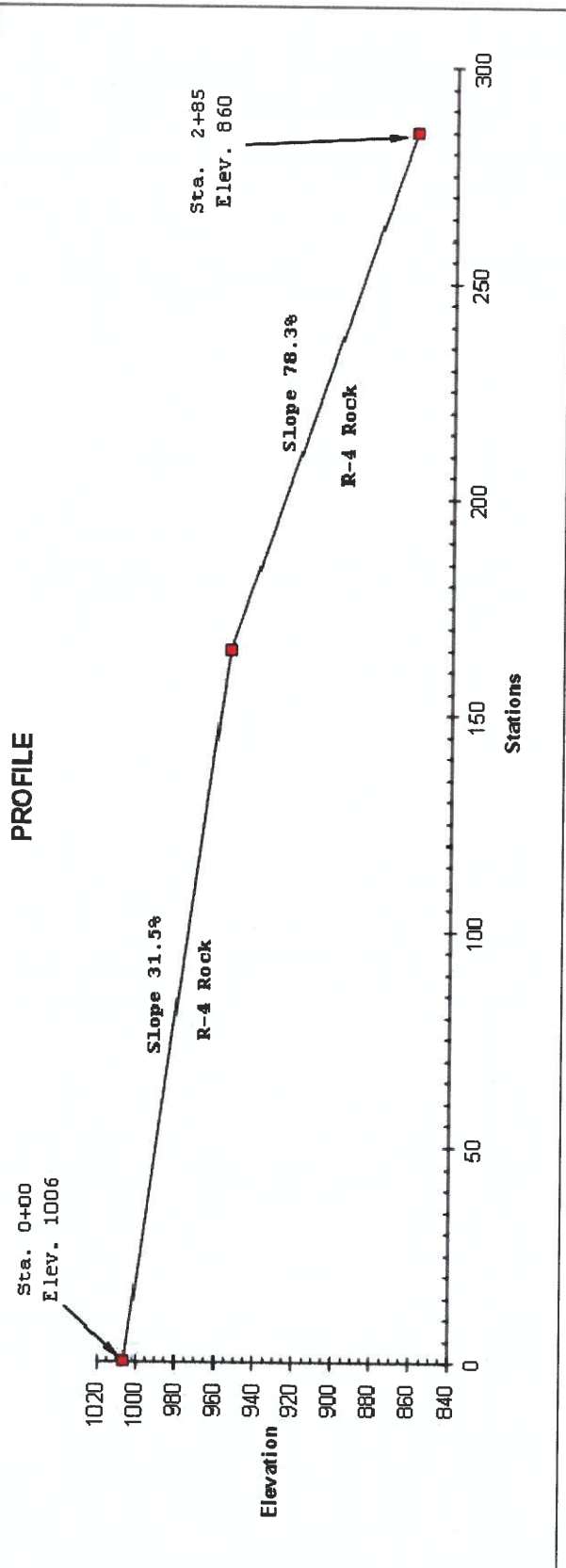


5600-PM-8MPO315-12 Rev. 1/2014

**MODULE 12.1 DIVERSION/COLLECTION DITCH DATA SHEET**

Type Ditch:	Earthren Berm B-1	Mine Operation Name:	Maggie Lynn Underground Mine	Company:	Neiswonger Construction, Inc.	Surface Mine Permit Number:	63192001
Prepared By:	GeoTech Engineering, Inc.	Telephone Number:	(814) 342-7090	Date:	10-2010	Sheet:	
Channel Cross-section Type:	Triangular						

STATION	ELEV.	DRAINAGE AREA (acres)	DESIGN STORM (yrs)	AVERAGE WATERSHED SLOPE (%)	CURVE NO.	PEAK DISC. Q (cfs)	CHANNEL BED SLOPE (%)	FREE BOARD (ft)	CHANNEL LINING	MANNING'S COEFF. (n)	CHANNEL BOTTOM WIDTH (ft)	CHANNEL SIDE SLOPES (ft:1)	FLOW AREA (sq ft)	FLOW DEPTH (ft)	FLOW WIDTH (ft)	FLOW VELOCITY (fps)	Q AVAIL (cfs)	WITH FREEBOARD		
																		CHANNEL DEPTH (ft)	TOP CHANNEL WIDTH (ft)	Q AVAIL (cfs)
0	1006	1.0	2	Steep	85	5.7	31.5	0.5	R-4 Rock	0.063	0	5:2	1.26	0.6	4.2	5.8	7.3	1.1	7.7	36.8
165	954	1.0	2	Steep	85	5.7	78.3	0.5	R-4 Rock	0.063	0	5:2	0.98	0.5	3.5	8.1	7.1	1.0	7.0	44.8



DITCHING ADDITIONS ON THE FORMER HAWKINS PERMIT

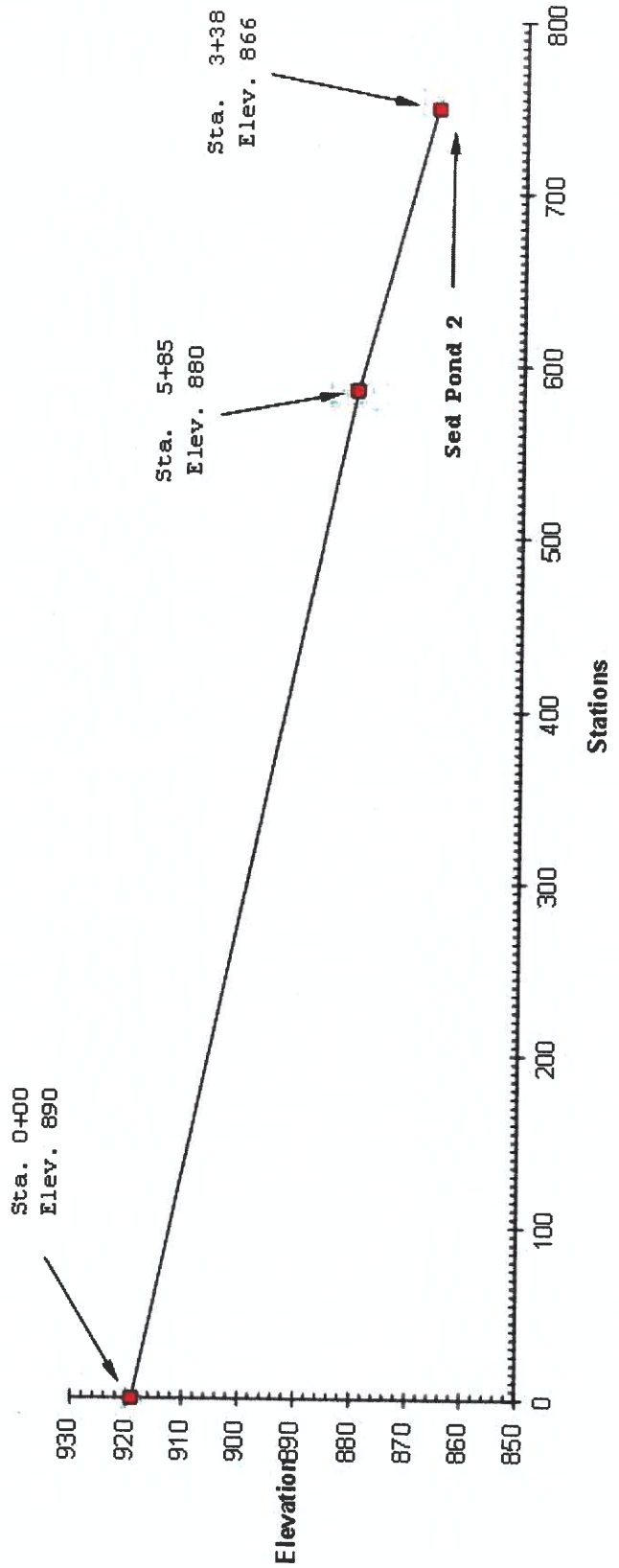
5600-PM-MR0311 Rev. 3/2001

**MODULE 12.1 DIVERSION/COLLECTION DITCH DATA SHEET**

Type Ditch:	Collection Ditch CD-4	Mine Operation Name:	Maggie Lynn Mine	Company:	Neiswonger Construction Inc	Surface Mine Permit Number:	693192001
Prepared By:	GeoTech Engineering, Inc.	Telephone Number:	(814) 371-4660	Date:	April 2024	Sheet:	
Channel Cross-section Type:	V-Ditch						

STATION	START	END	DRAINAGE AREA (acres)	DESIGN STORM (ins)	AVERAGE WATERSHED SLOPE (%)	CURVE NO.	PEAK DISC. (cfs)	CHANNEL BED SLOPE (%)	FREE BOARD (ft)	CHANNEL LINING	MANNING'S COEFF. (n)	CHANNEL BOTTOM WIDTH (ft)	CHANNEL SIDESLOPES (H:1)	FLOW AREA (sq ft)	FLOW DEPTH (ft)	TOP FLOW WIDTH (ft)	FLOW VELOCITY (ft/sec)	Q AVAIL. (cfs)	WITH FREE BOARD		
																			CHANNEL DEPTH (ft)	TOP CHANNEL WIDTH (ft)	Q AVAIL. (cfs)
0	595	750	0.5	10	11	85	1.8	6.7	0.5	R-2 Rock	0.045	0	5,2	0.88	0.5	3.5	3.25	2.9	1	7	18.31
			5	10	11	85	14	1.9	0.5	R-2 Rock	0.045	0	5,2	5.92	1.3	9.1	3.28	19.48	1.8	13.6	46.27

**PROFILE**



5500-PM-MRND311 Rev. 3/2021

**MODULE 12.1 DIVERSION/COLLECTION DITCH DATA SHEET**

Type Ditch: Collection Ditch CD-5	Mine Operation Name: Maggie Lynn Mine	Company: Neiswonger Construction Inc.	Surface Mine Permit Number: 631520C1
Prepared By: GeoTech Engineering, Inc.	Telephone Number: (314) 371-4660	Date: April 2024	Sheet: 1 of 1
Channel Cross-section Type: V Ditch			

STATION	PERFORMANCE AREA (acres)	DESIGN STORM (year)	AVERAGE WATERWAY SLOPE (%)	CURVE NO.	PEAK DISCH (cfs)	CHANNEL BED SLOPE (%)	FREE BOARD (ft)	CHANNEL LINING	MANHOLE COEFF. (ft)	CHANNEL BOTTOM WIDTH (ft)	CHANNEL SLOPE (ft/ft)	FLOW AREA (sq ft)	FLOW DEPTH (ft)	FLOW WIDTH (ft)	FLOW VELOCITY (fps)	N AVAL (deg)	N AVAL (ft)	CHAMBER DEPTH (ft)	TOP CHAMBER WIDTH (ft)	N AVAL (ft)
0	1.3	10	11	85	5.5	2.0	0.5	2-2 Rock	0.045	0	5.2	1.26	0.6	4.2	6.56	R 27	1.1	1.1	7.7	41.54
180	3.8	10	11	85	10.5	1.8	0.5	2-2 Rock	0.045	0	5.2	4.24	1.1	7.7	2.96	12.13	1.6	11.2	32.6	

**PROFILE**

