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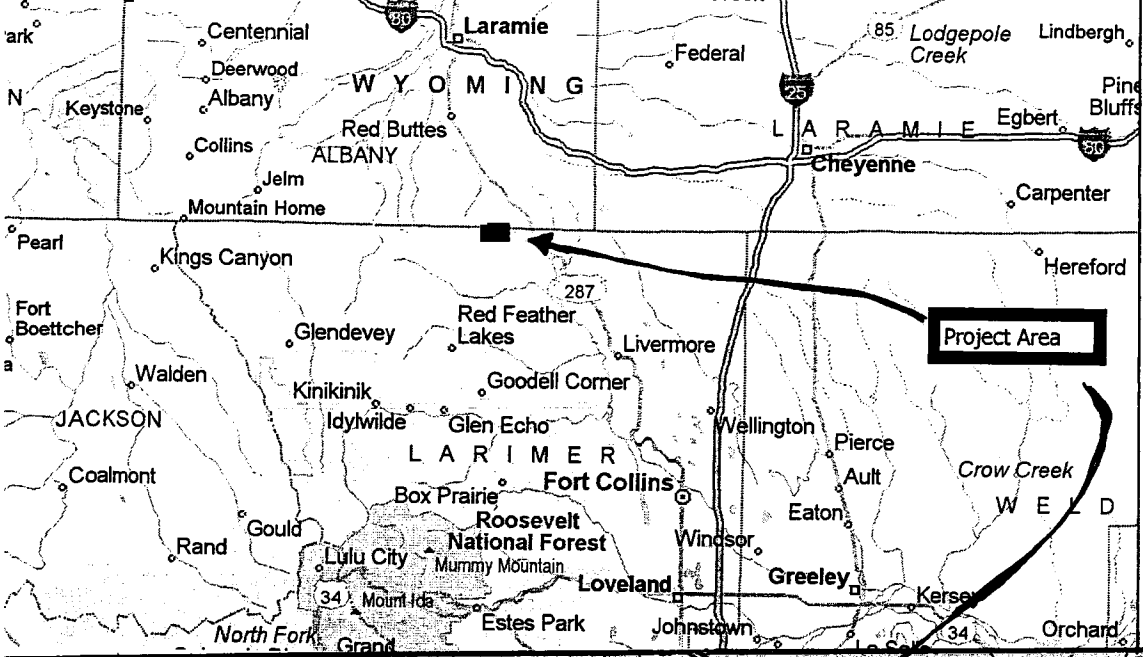

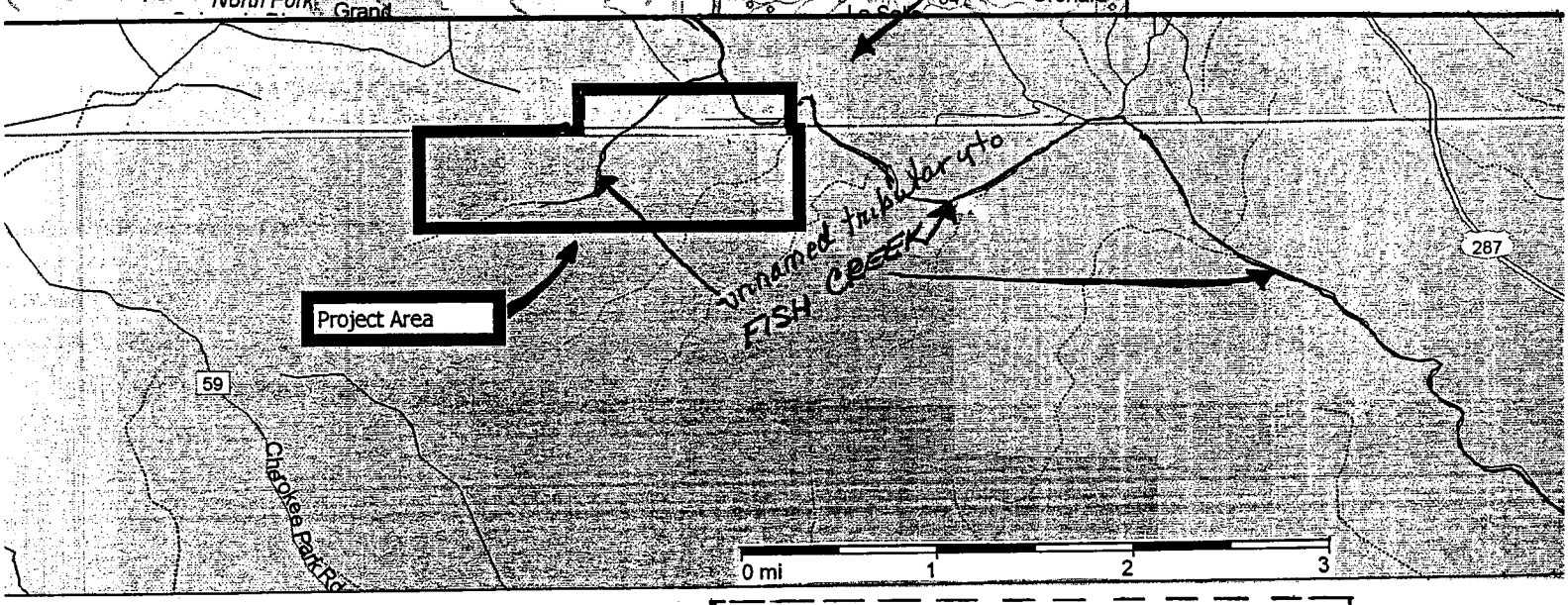

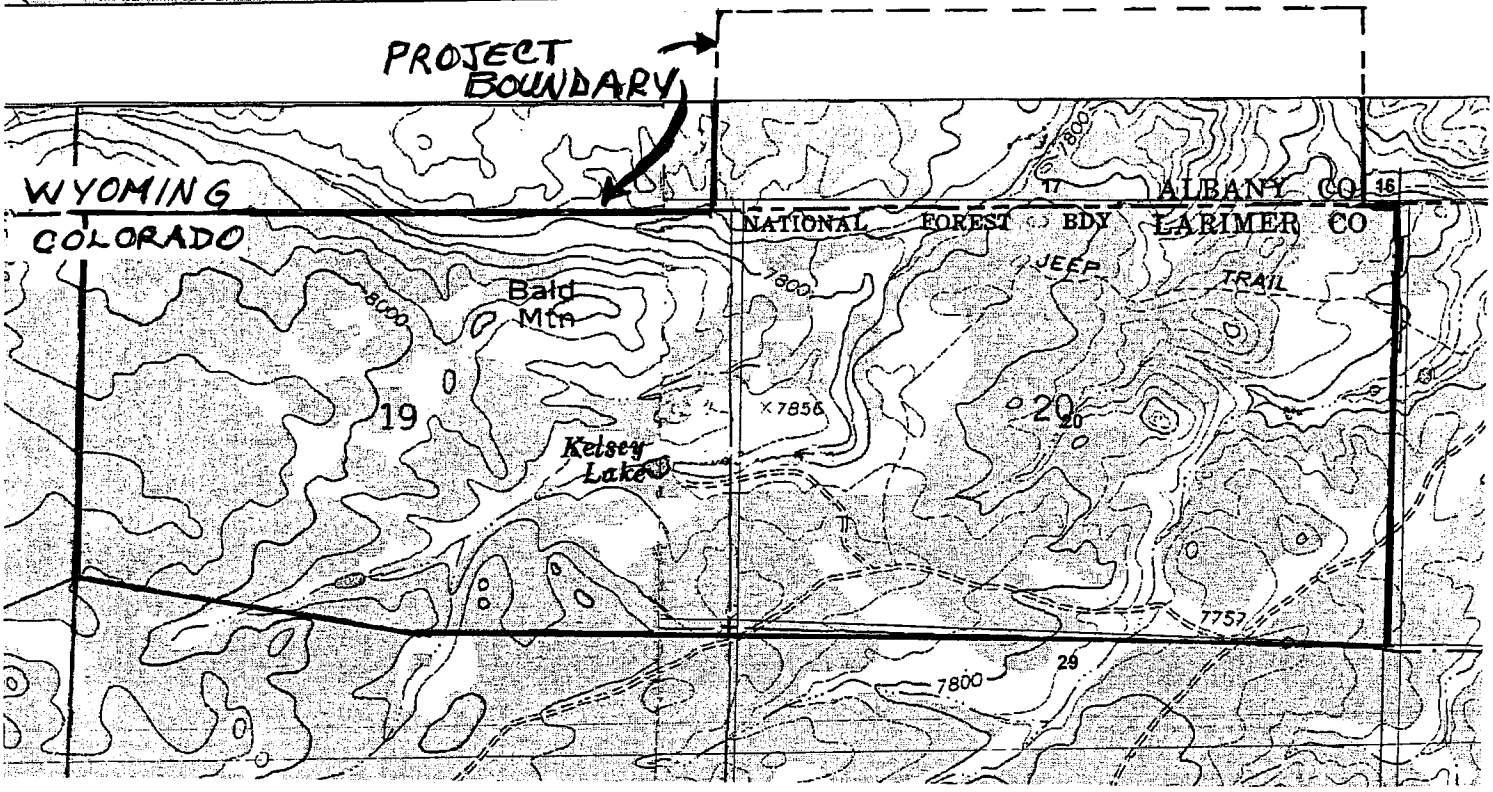

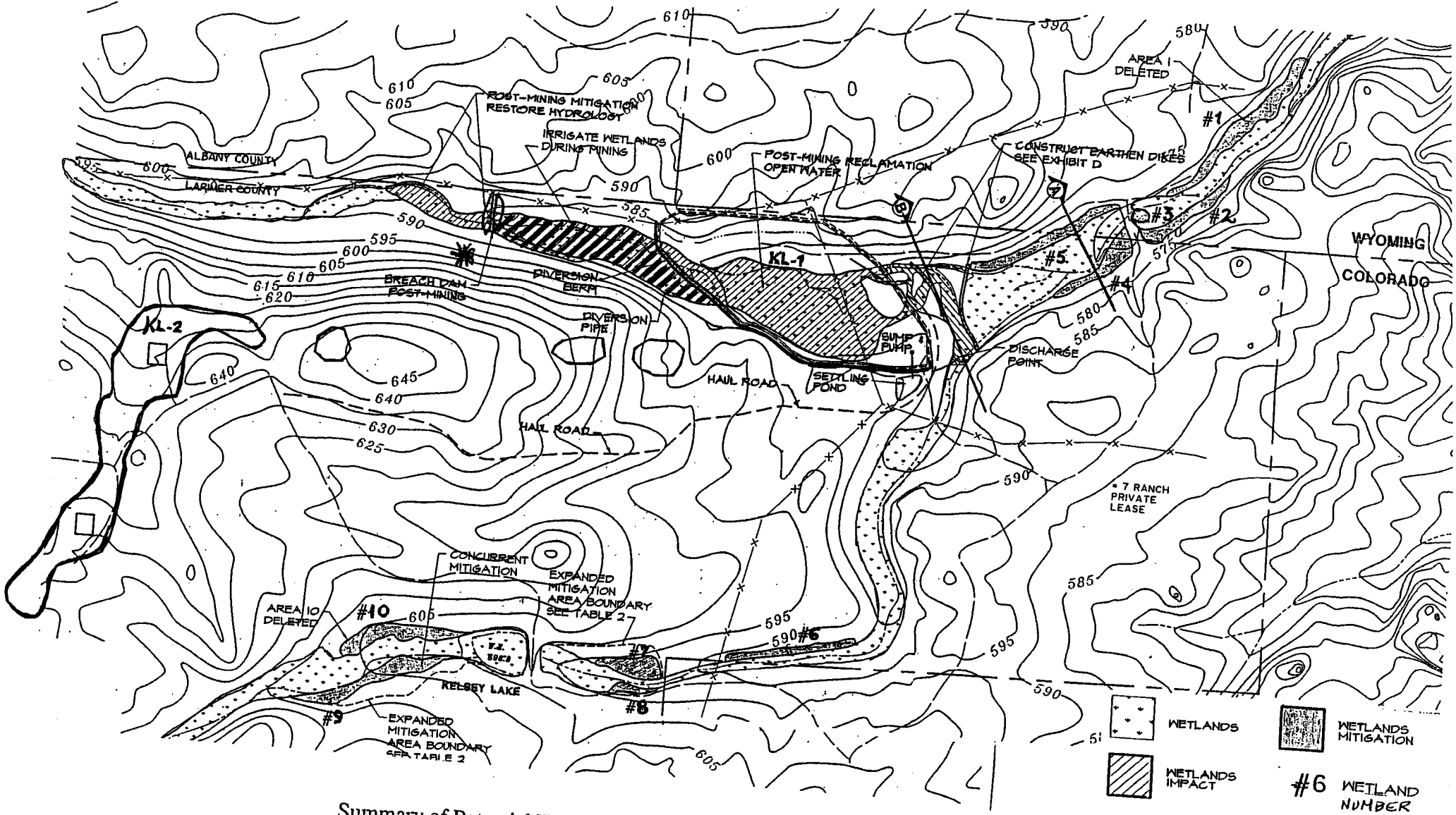

Summary of Potential Wetlands Impacts - ORIGINAL PROJECT

Permanent Impacts - KL-1, dikes, haul road, trench	1.75 acres previously impacted
	3.7 acres future impact
Subtotal	5.5 acres
Temporary Impacts - Slurry wall and pond = DAM	1.1 acres
Potential Temporary Impacts - Dewatering	2.8 acres → 2003 - DID NOT OCCUR - VEGETATION MAINTAINED BY SPRINGS
TOTAL	9.4 acres

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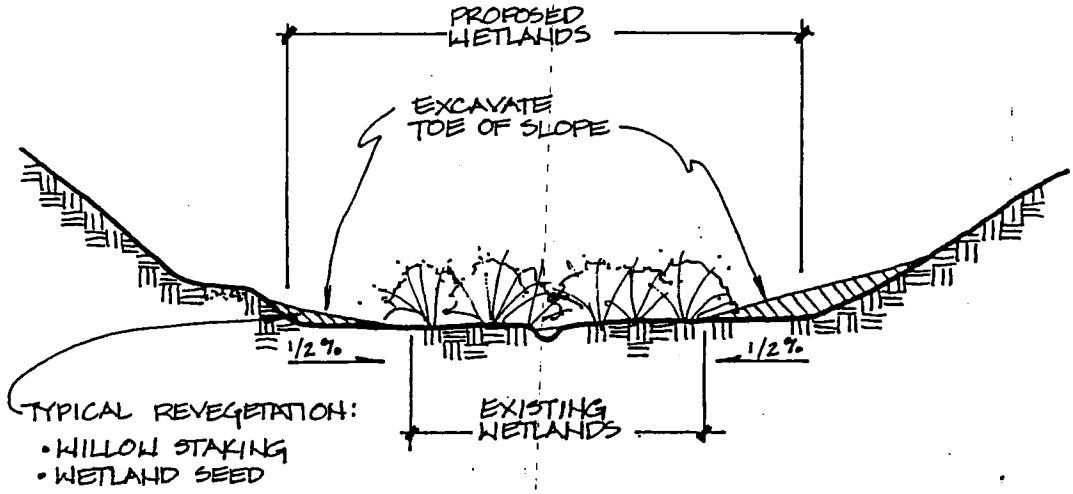
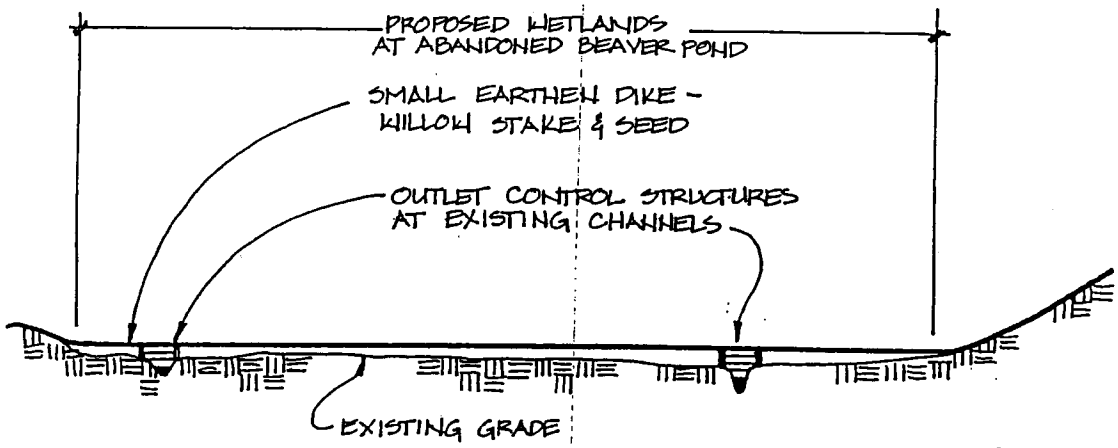


(A) **EXCAVATION SCHEMATIC** - Typical Cross-section
not to scale



2003 - NOT NEEDED NOR WILL IT BE NEEDED

(B) **EARTHEN DIKE SCHEMATIC** - Typical Cross-section
not to scale

Wetland Mitigation Methods

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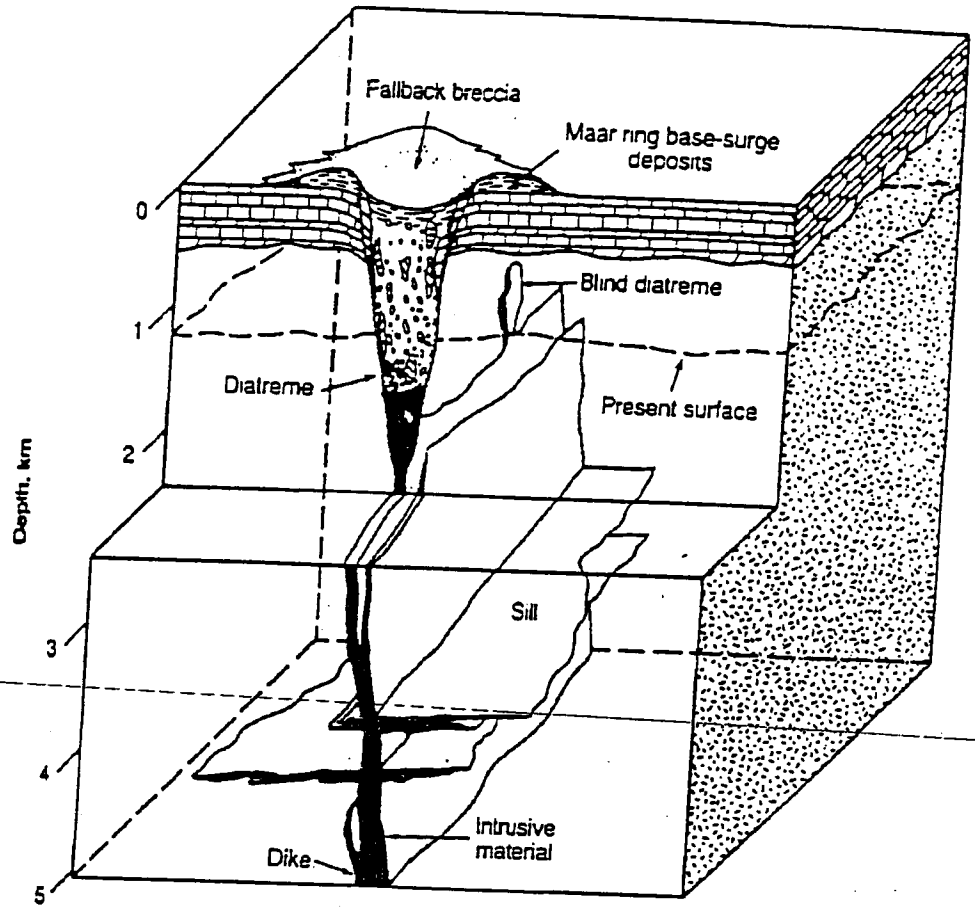
ORIGINAL PROJECT



Legend

- Lower Paleozoic sediments
- Upper Crustal Precambrian crystalline rocks
- Tuffaceous kimberlite
- Intrusive kimberlite breccia
- Massive (hypabyssal) kimberlite

Smith, C. B., M. E. McCallum, H. G. Coopersmith, and D. H. Eggler, 1979. Petrochemistry and structure of kimberlites in the Front Range and Laramie Range, Colorado-Wyoming, pp. 178-189 in F. R. Boyd and H. O. A. Meyer, Eds., Kimberlites, Diatremes, and Diamonds:(I) Their Geology, Petrology, and Geochemistry. Washington D. C.: Amer. Geophys. Union, 400 pp.

Typical Kimberlite Deposit near Kelsey Lake

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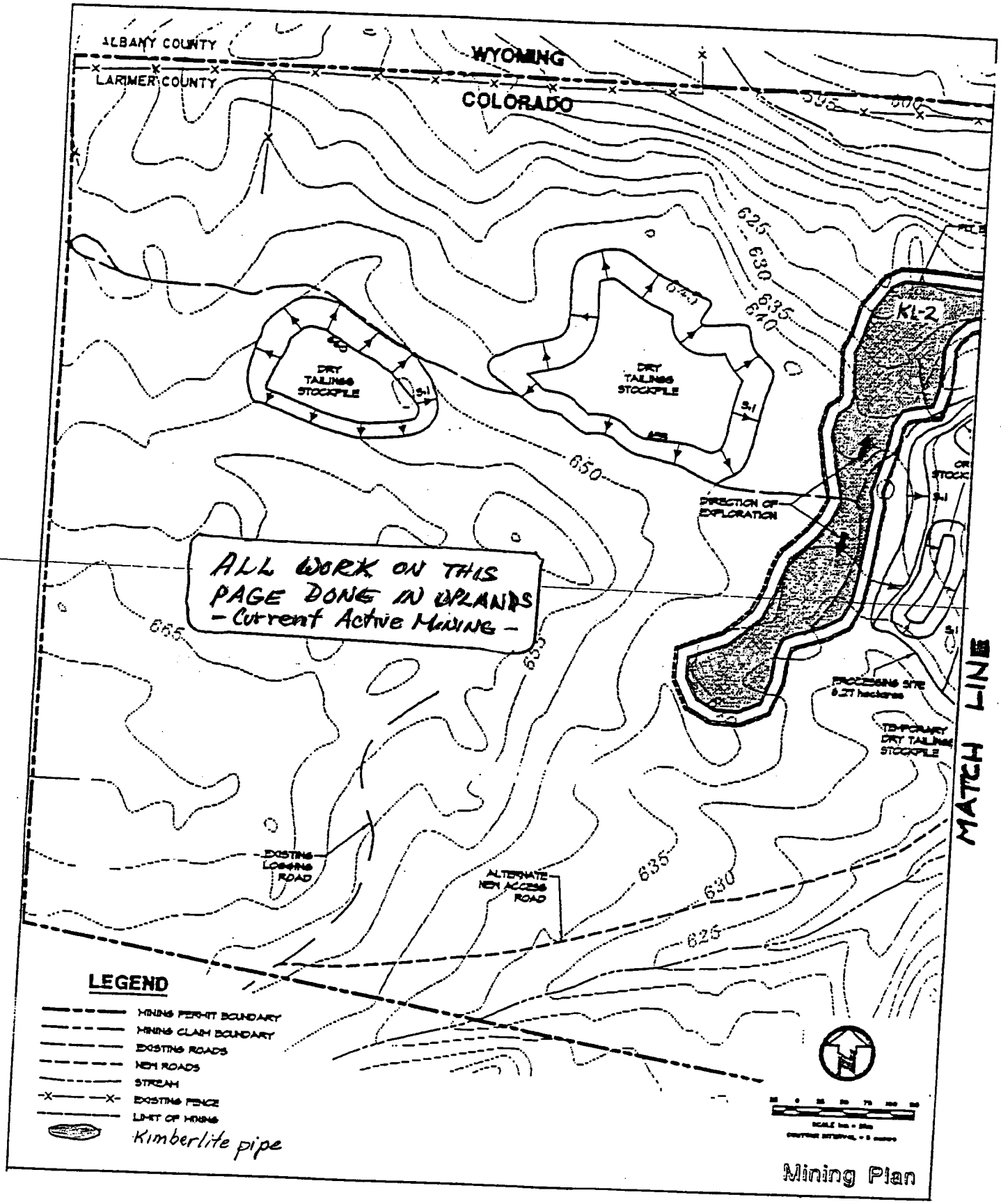

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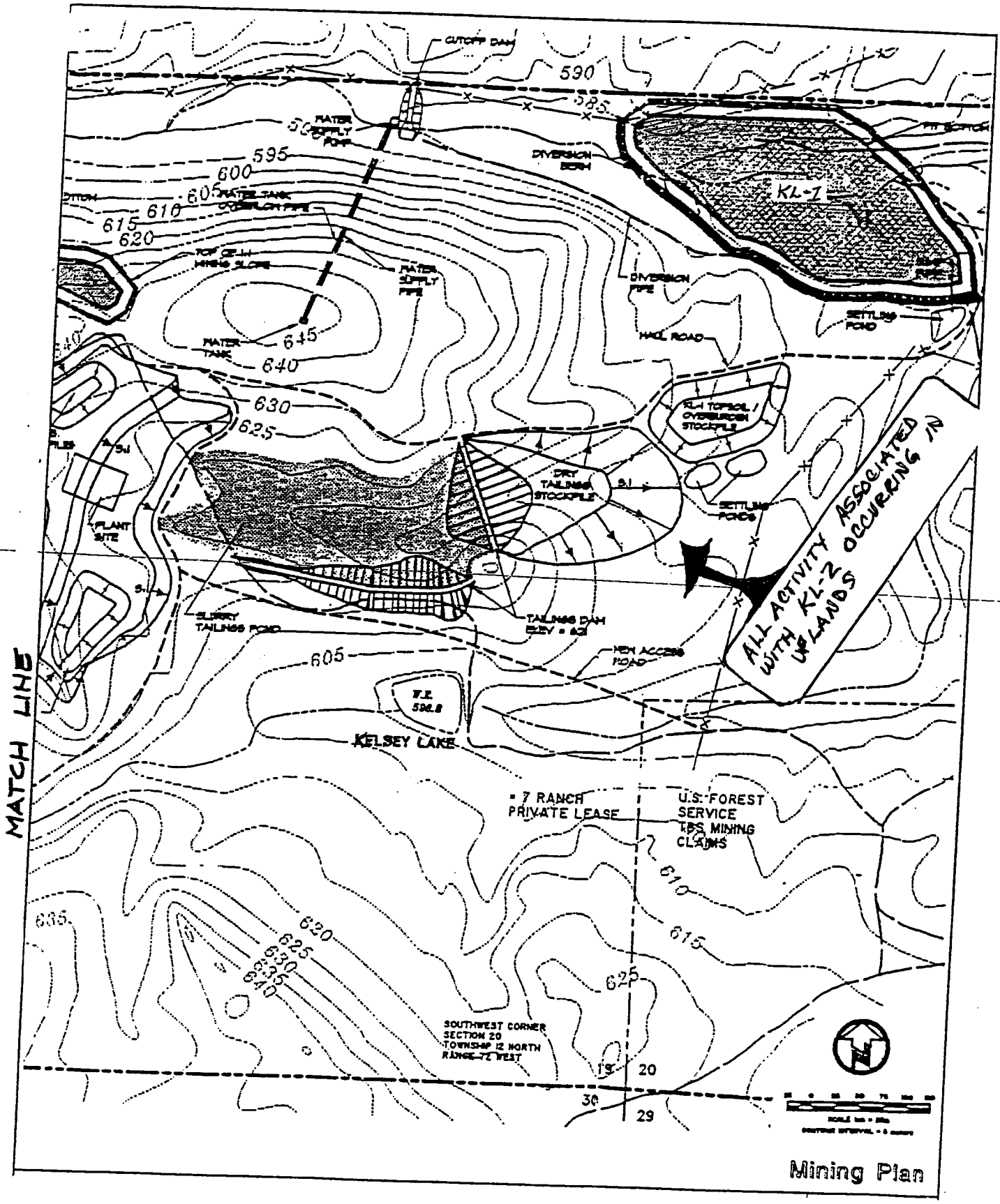

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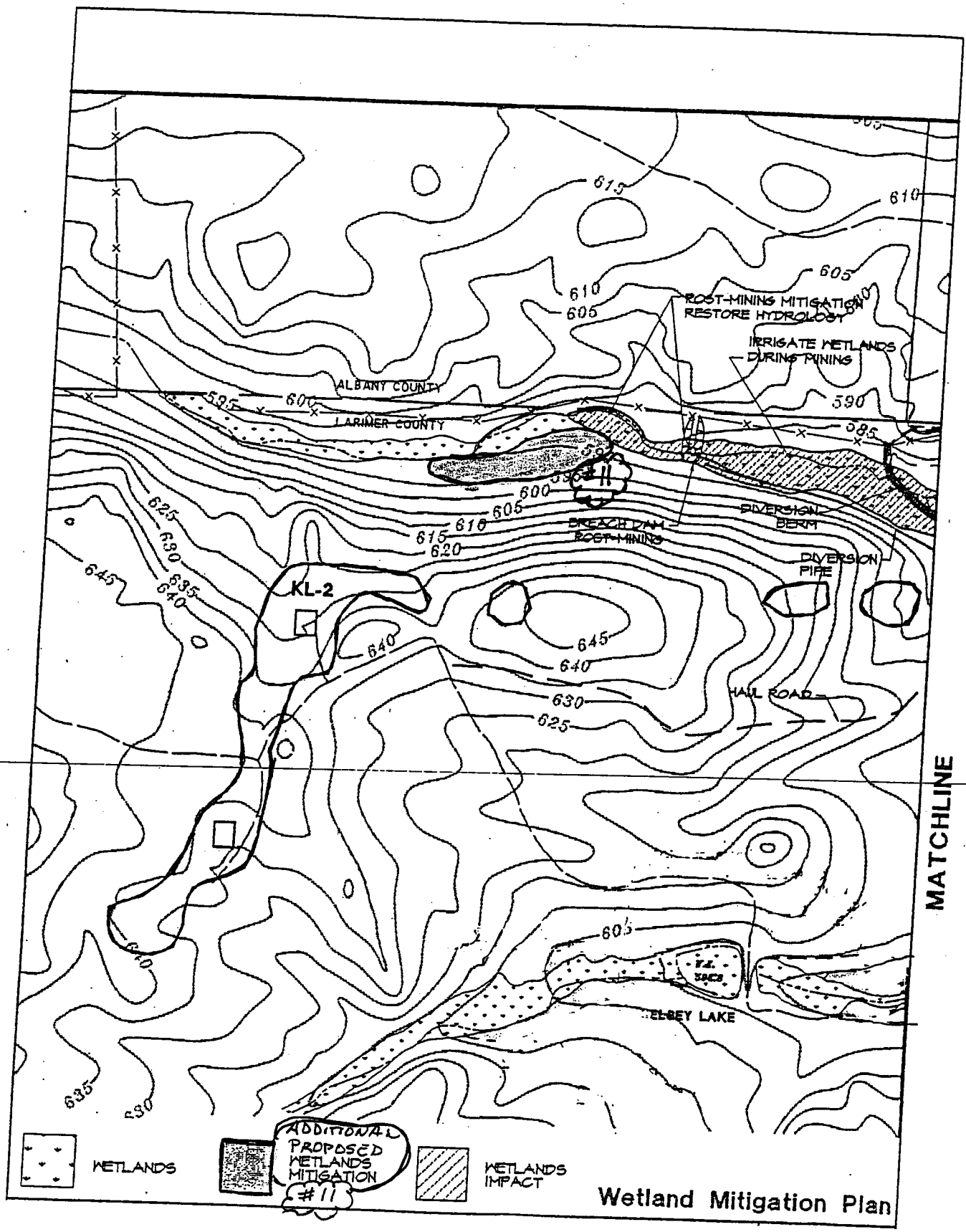

Wetland Mitigation Plan

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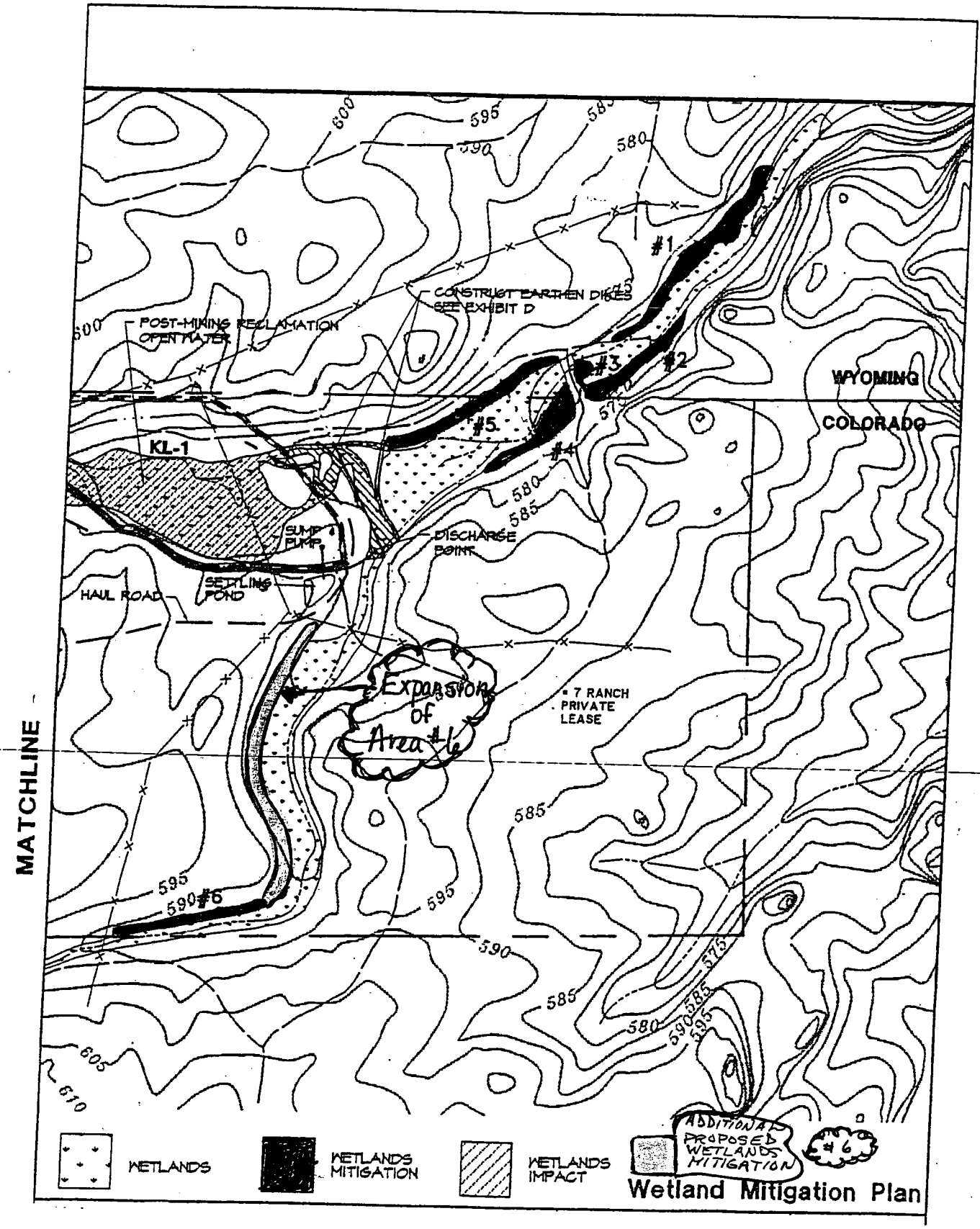

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Wetland Impact Summary ORIGINAL APPLICATION

1) Permanent Impacts
KL-1, dikes, haul road, & trench ... 1.75 ac. Nationwide permit
Future impacts ..... 3.7 ac.
Subtotal 5.45 ac.

2) Temporary Impacts
Slurry wall and pond ..... 1.1 ac.

3) Potential Temporary Impact
Dewatering ..... 2.8 ac.
Total 9.4 ac.

Date of Impact	Activity	Data	Acres Impacted
Pre-1994	KL-1 Pit Exploration		1.75
1996	Haul Road E. of KL-1		0.2
1997	Sump well, pond, dam (partial)		0.5
	Dewatering trench (main) & spoils	10' ave. x 1,600'	0.37
	" "	60' x 200'	0.28
	Lateral trenches & spoils	10' ave. x 260'	0.06
		TOTAL	3.16

current mitigation proposal

Mitigation Area	Expected Wetland Acreage	Actual Wetland Acreage
1	1.03	1.1
2	0.50	0.50
3	0.07	0.07
4	0.57	0
5	0.68	0.05
Total Acreage	2.85	1.72
6	1.00	
7	1.23	
11	0.42	
Grand total	5.50 acres of proposed mitigation	

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