V.D. Underground Mine Corrections Checklist

C-R-S:	PID:	Reviewer:	Date:

If you do not have an underground mine correction on the project, you do not have to fill out this checklist.

Exploration		
	1 Per Section 302.2.1 of the SGE, "Literature Search"; Has the ODNR DGS and ODNR DMRM been consulted regarding the following information:	
Y N X	a existence of recoverable mineral resources within, or adjacent to, the project area?	
Y N X	b mining history within, or adjacent to, the project area?	
Y N X	c records for individual abandoned underground mines within, or adjacent to, the project area?	
Y N X	d permit files for current coal and industrial minerals underground mining operations within, or adjacent to, the project area?	
	2 Have all abandoned underground mine maps obtained from ODNR been reviewed for the following information:	
Y N X	a property lines, section lines and other physical surface features which may facilitate determining the present-day location of the mine	
Y N X	b vertical and lateral extent of mine workings	
Y N X	c locations of mine openings	
Y N X	d elevation of mined interval	
Y N X	e thickness of mined interval	
Y N X	f notations of roof conditions	
Y N X	g notations regarding water infiltration	
Y N X	h notations of adjacent mine workings	
Y N X	l method of mining	
Y N X	j dimensions of mine workings	
Y N X	k secondary or retreat mining	
	3 Have all other forms of information obtained from ODNR been reviewed for the following information:	
Y N X	a the presence of abandoned underground mine workings	

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Y N X		b vertical and lateral extent of abandoned underground mine workings	
Y N X		c locations of mine openings	
Y N X		d elevation of mined interval	
Y N X		e thickness of mined interval	
Y N X		f nature of the overburden overlying the mined interval	
Y N X		g physical conditions and related stability within the abandoned underground mine(s)	
Y N X		h groundwater level	
Y N X		i quality and quantity of water within the abandoned underground mine(s)	
Y N X	4	Has a project plan view consisting of the overlaying of mine information (maps, etc.) on the roadway been developed for planning subsurface explorations?	
Y N X	5	If abandoned underground mines exist beneath the project area, has a Detailed Site Evaluation described in Section 500 of the AUMIRA manual been conducted for the project area?	
	6	Has a subsurface exploration been conducted to define the following abandoned underground mine information:	
Y N X		a the presence of abandoned underground mine workings	
Y N X		b vertical and lateral extent of mine workings	
Y N X		c the depth and nature of the overburden overlying the mine(s)	
Y N X		d physical conditions and related stability within the abandoned underground mine(s)	
Y N X		e quality and quantity of water within the abandoned underground mine(s)	
Y N X		f groundwater level	
Y N X	7	Has a geophysical survey of the project area been conducted?	
		If yes, check the methods utilized:	
		☐ Refractive Seismic Studies ☐ Resistivity	
		☐ Ground penetrating radar ☐ Microgravity	
		☐ Reflective Seismic Studies ☐ Profilometer	
		☐ Electromagnetic Studies ☐ FWD	

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☐ Other	List other items:	

Notes:

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Evaluation				
		8	Has the Site Evaluation defined the following throughout the project area and areas adjacent to the project area:	
Y	N	X	a method(s) of mining and related extraction rates	
Y	N	X	b existence of secondary or retreat mining	
Y	N	X	c physical condition (stability) of abandoned underground mine	
Y	N	X	d mine void height(s)	
Y	N	X	e quality and quantity of water within the abandoned underground mine(s)	
Y	N	X	f possible physical and/or hydraulic connectivity to other adjacent, underlying and/or overlying underground mines	
Y	N	X	g location, nature, and physical condition of all known mine openings	
Y	N	X	h structural strike and dip of all mined mineral seams	

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Remediation Design						
Y	N	X	9		Has all exploration information been analyzed and utilized to develop remediation design recommendations?	
Y	N	X	10		Has a site specific monitoring program been undertaken to ensure the safety of the travelling public until completion of remediation construction?	
			11		Does the recommended remediation design provide for:	
Y	N	X		a	stabilization of all mine voids whose potential collapse could result in surface subsidence that is detrimental to the traveling public	
Y	N	X		b	preventing mine pool blow-outs	
Y	N	X		c	management of any releases of water pooled in the abandoned underground mine	
Y	N	X		d	project area monitoring for mine subsidence induced by project work	
Y	N	X	12		Has groundwater been evaluated to assess the potential for impacts to adjacent properties?	
Y	N	X	13		Has a cost comparison been performed to evaluate the recommended solution compared to others?	

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Plans and Contract Documents					
Y	N	X	14	Has the information obtained from the Site Evaluation and analysis been incorporated into the project plans?	
Y	N	X	15	Has the lateral and vertical extent of the abandoned underground mine been included on the Plan & Profile and Cross Sections sheets?	
Y	N	X	16	Have the plans and construction contract documents been developed so as to comply with all applicable regulations, particularly with environmental regulations?	
Y	N	X	17	Has a site specific monitoring program been undertaken during the development of the plans and construction documents so as to ensure that the design reflects the most current site conditions?	
Y	N	X	18	Have the plans and construction contract documents adequately provided for project specific requirements regarding inspection, testing, record keeping, and site monitoring during construction activities?	
Y	N	X	19	Have the effects of the proposed correction on any structures (e.g., bridges, buildings, culverts, utilities) been evaluated and solutions to any issues incorporated into the final design?	

Notes: