



Fire Assessment, management and Identified Risks - Mine Tenement

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Abbreviations

CMSMS	Combe Martin Silver Mine Society
BS	Blacksmiths Shop
FS	Fergie Store
CS	Cement Store
MS	Middle Shed (Franks)
NS	Normans Shed













Part1 Mine Tenement Above Ground Report (Excl Harris's Enclosure)

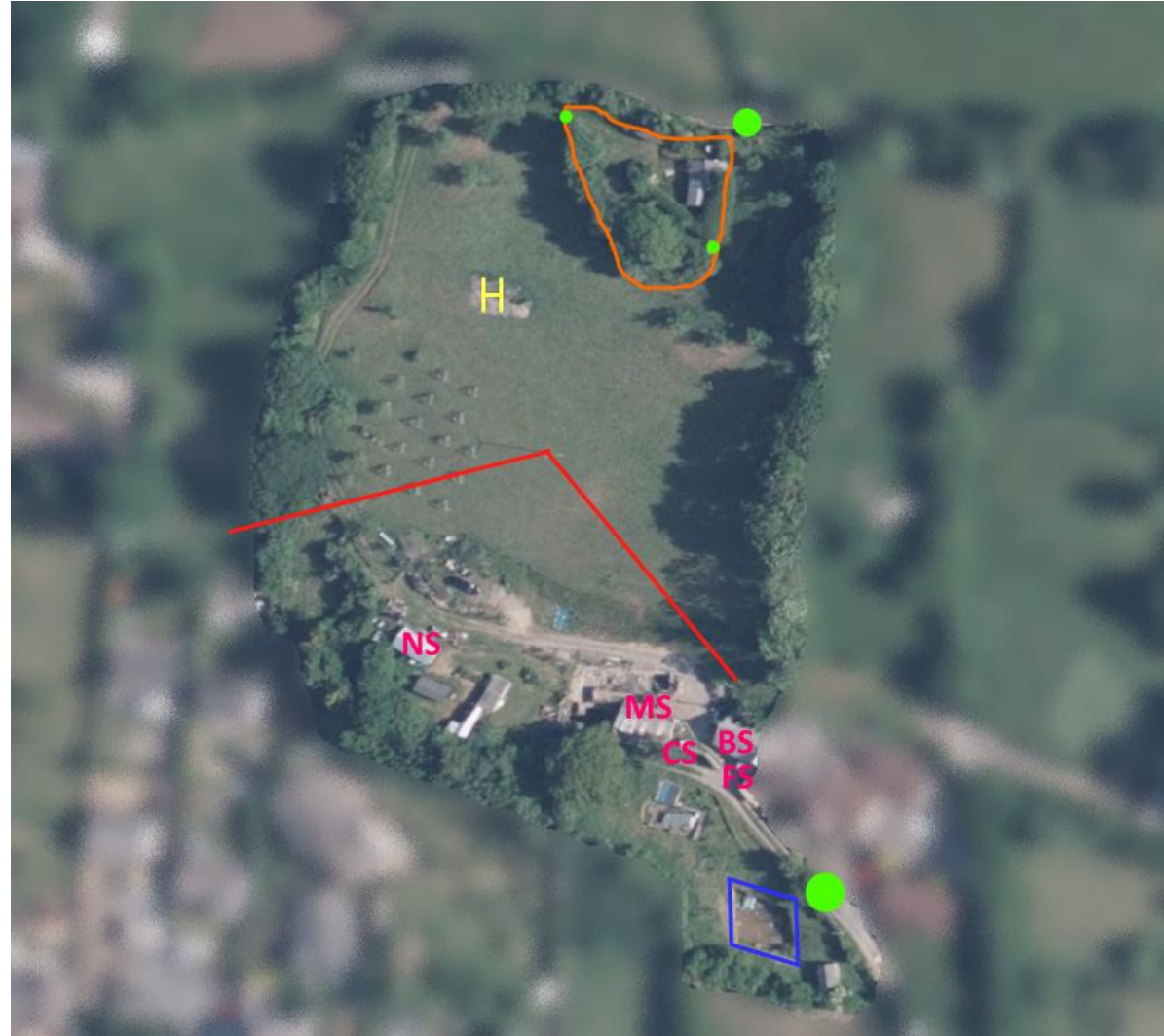
Location and Description

Mine Tenement is located at Bowhay Lane, Combe Martin, EX34 0JN. This is the main access to the site grid reference (SS 58905 46416). There is a second entrance at the top of the property from an unadopted green lane, Corner Lane, Combe Martin, grid reference (SS 58896 46560), access to this point requires the use of off-road capable vehicle. There is also an unregistered helicopter landing point of flat ground in the field, grid reference (SS 58848 46531), built by CMSMS to facilitate emergency rescue efforts.

Mine tenement is the site of old lead/ silver mine workings consisting of mine related and agricultural, ruined and intact buildings of stone and timber construction. Several of the buildings are grade 2 listed, including the powder house, black smiths and engine house. The blacksmith shop is the only building that shares a connection with neighbours' property. A dry, mill or water reservoir/ pond, and mostly open agricultural land and orchard. The boundary line is of Devon earth bank and stone hedging with standard trees. A power line intersects the field (see site plan view).

Site Plan

Site Plan Key 2023	
	Green Dot Site Access Points
	Helicopter Pad
	Over Head Power Cable
	Enclosure, Dry Pond/ Reservoir (covered shaft in centre of pond)
	Enclosure Harris's Workings
	Blacksmith shop
	Fergie Store
	Cement Store
	Middle Shed
	Norman's Shed





COMBE MARTIN SILVER MINE SOCIETY

Health and Safety
Executive

Fire Risk Assessment

Ignition or Source	Location	Risk Level	Likely-hood	What is already being done	What further action could be taken to control risk	Who needs to carry out the action?	When is the action needed by?	Done
Electrical Mains Power	Black smiths shop	L	L	Up to date fuse board	Electrical test of system Correct fire extinguisher Warning system	Qualified Electrician CMSMS Member	No date required	No
	Cement Store	L	L	Connection from BS	Electrical test of system	Qualified Electrician	No date required	No
	Middle Stable (franks shed)	L	L	Connection from BS	Electrical test of System	Qualified Electrician	No date required	No
	Normans Shed	L	L	Supple from BS, has own fuse board. Recent install	Electrical test of system	Qualified electrician	No date required	No
Gas bottle	Black smiths	L	L	Gas bottle is stored safely and turned off after each use	Kept away from sources of ignition Warning system	CMSMS Member	NA	YES
Forge open fire	Black smiths	H	M	Enclosed on one side. Fire extinguished out of hours, person to be around site when in use	Combustibles kept away from forge. Flames extinguished out of hours. Warning system	CMSMS Member Qualified Electrician	ASAP combustibles	NO
Welding and grinding	Black smiths	M	M	Clear area of combustibles before welding. Suitable extinguisher.	Warning system	Qualified Electrician	No date required	NO



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Ignition or Source	Location	Risk Level	Likelihood	What is already being done	What further action could be taken to control risk	Who needs to carry out the action?	When is the action needed by?	Done
Welding and grinding	Outdoors	L	M	Clear area of combustibles. Suitable extinguisher to hand	None	CMSMS members	None	Yes
Petrol and Fuels	Normans shed	M	L	Fuel kept in suitable containers. Kept away from sources of ignition.	Fuels could be kept in metal cabinet	CMSMS members	None	Yes
Paints, oils, solvents	Black Smiths	L	L	Keep away from sources of ignition	Could be kept in metal cabinet or Fergie store	None	None	Yes
	Fergie Store	L	L	No sources of ignition	None	None	None	Yes
	Cement Store	L	L	No sources of ignition	None	None	None	Yes
	Normans Shed	L	L	Kept away from sources of ignition	None	CMSMS members	None	Yes
Warning System	All	NA	NA	Verbal, hand to hand	Warning bell, siren	CMSMS member	Discuss at CM	No



Management and Conclusion

Overall, the general risk and likelihood of incidence from fire remains low at Mine Tenement. Exceptions are in the black smiths shop during operations with the forge and hot works including welding, grinding and use of the blow torch. There is a medium risk but low chance of incidence with petrol and diesel fuel stored in Normans Shed.

Activities on site that pose an ignition risk are only during CMSMS open hours. CMSMS members are present during those times, therefore a low need for an automatic detection and warning systems is required. The exception here is in the blacksmiths, where a shared (semi terrace) connection with our neighbours' property. It could be beneficial to have an early detection and warning system installed. However due to the use of the blacksmiths a smoke detection system would not work and advice from a proficient person on the use of heat detection system would be required.

It would be beneficial if a warning system could be installed to alert the site as a whole, either a hand bell or hand cranked siren/alarm would work or a manually triggered electrical alarm system.

Buildings that do not contain sources of ignition and/ or any highly inflammable materials have not been mentioned in detail.

Emergency Plan

An emergency plan is available to view in the blacksmith shop by the signing in book.

An emergency plan should be kept in any location alongside this document when printed.



Part 2 Below Ground and Harris's Workings Enclosure

Locations and descriptions.

Harris's Shaft is the only point of access to the underground workings, grid reference (SS 58885 46552). The area is enclosed by drystone wall, earth banks, shrubbery and some standard trees. There are two points of access into the enclosure through wooden gates (see site plan). Above ground consists of modern brick/ block, timber buildings roofed with corrugated steel and the winch headframe, fabricated from scaffold and steels.

Harris's shaft is accessed through a locked, twin barn door constructed of timber and corrugated steel. The shaft is capped with twin hinged cellar doors, a padlocked scaffold bar covers both and a steel trap door leading to the ladder way. A small door way to the right up a short ladder gains access to the diesel-powered winding engine. To the right of Harris's shaft is a building containing a diesel-powered air compressor and a room for hand tools.

Below ground there are various level accessed by steel, aluminium and timber ladders, on steel and scaffold platforms. The shaft is fenced with steel netting and timber cladding except above the 28 fathom which has an open section then timber cladding. There is currently no electric supply, lighting is by battery torches, and power tools used are pneumatic or battery. There is no quantity of naturally occurring combustible gases present in the mine, with the exception of minimal timber decay producing methane.

There is currently no electric supply in this area.



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Health and Safety
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Fire Risk Assessment

Ignition or Source	Location	Risk Level	Likely-hood	What is already being done	What further action could be taken to control risk	Who needs to carry out the action?	When is the action needed by?	Done
Diesel Engines	Winch Room	L	L	No combustibles are near the winch. Water to hand outside	Fire extinguisher to be kept near	CMSMS members	For discussion	YES
	Compressor building	L	L	Compressor is enclosed in steel case. No combustibles are stored by compressor. Water to hand outside.	Fire extinguisher to be kept near	CMSMS members	For discussion	YES
Diesel Fuel	Compressor building	L	L	Kept in suitable container stored in the side room	None	None	None	Yes
Lubricant and paint cans	Winch room	L	L	Stored away from winch	None	None	None	Yes
Combustible gas	Below ground	L	L	None	Gas testing periodically	None	For discussion	Yes



Management and Conclusion

Above ground there is very low risk of a fire incidence occurring. Diesel fuel has a relatively high flash point and there are no sources of ignition if diesel vapor were released from the engines. The engines themselves do not get particularly hot during operation and pose a very low risk of ignition. The stored diesel is in steel containers, as are the lubricants and paints.

Below ground the atmosphere is quite damp and the lower levels quite wet. Therefore, any combustible materials like timber pose little chance of catching alight. There are no sources of ignition except when people are in the mine, it is then only low voltage, battery powered tools and torches. Smoking and fires are prohibited under ground. There are currently no naturally occurring inflammable gasses of any quantity in the mine, therefore electrical equipment used does not need to be explosion proof (ATEX or EX, Hazard of explosive atmospheres).

Emergency Plan

An emergency plan is available to view on the notice board to the right of the shaft.

An emergency plan should be kept in any location alongside this document when printed.



Part 3 Identified Risks Requiring Action

Currently there are no identified risks that require immediate action. There are some moderate risks activities that can be managed through adequate training, supervision, good practices and general housekeeping.

What has been identified for possible and/or future action/ committee discussion are as follows.

- Inspection and testing of electrical system
- Manual Alarm system to raise attention
- Automatic detection alarm system in blacksmiths
- Adequate fire extinguishers
- Adequate storage for combustible and inflammable materials
- Need for Gas testing below ground