

Share Price	\$0.77
Valuation	\$1.32
Price Target (12 month)	\$1.42

Brief Business Description:

Australian base metals producer and developer, with a noteworthy record in underground mine rejuvenation and operation.

Hartleys Brief Investment Conclusion

Increasing copper inventory and production from Nifty, with exploration upside, to drive MLX forward in 2018.

Chairman & MD

Peter Newton (Chairman)
Warren Hallam (Executive Director and CEO)

Top Shareholders

BlackRock Group	9.3%
Apac Resources Limited	9.2%
Jinchuan Group Limited	7.3%
Ausbil Investment Management Limited	5.1%

Company Address

Level 5, 197 St Georges Tce
Perth, WA 6000

Issued Capital	612m
- fully diluted	627m

Market Cap	A\$471m
- fully diluted	A\$483m

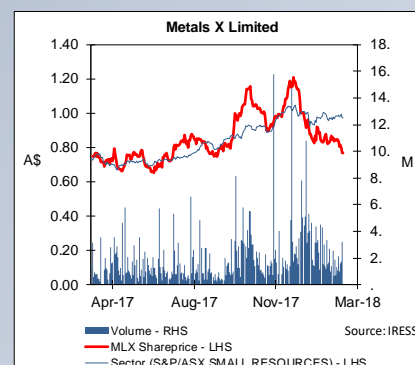
Cash + WC (31 Dec 17)	A\$90m
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Debt (31 Dec 17)	A\$0m
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EV	A\$381m
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	Prelim. (A\$m)	FY17	FY18e	FY19e
Prod (kt Cu)	24.8	19.7	37.5	37.5
Prod (t Sn)	3522	3615	4028	4028
Op Cash Flw (A\$m)	50	30	177	177
Norm NPAT (A\$m)	13	-8.4	133	133
CF/Share (cps)	8.2	4.8	28.9	28.9
EPS (cps)	2.2	-1.4	21.7	21.7
P/E	0.0	0.0	0.0	0.0

	Cu	Sn
Resources (kt)	1179	157
Reserves (kt)	238	85



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The analyst travelled to site at the expense of MLX, with all associated costs being covered by MLX.

METALS X LIMITED (MLX)

Nifty review – site visit notes

Underground drilling continues to improve the understanding of key structural controls on mineralisation, increasing confidence in mine plans. Resources up plunge (west) have been firmed up, with added tonnes on the back of recent drilling. The down plunge potential beyond current reserves will be further tested by underground drilling from a drive to be completed mid year.

Plenty happening at surface

Infrastructure refurbishment is substantially complete and there is almost a full complement of equipment and people in place. Competition for workers has caused some problems through no shows and generally higher turnover. New loaders and charge up machines are on site. All critical spares are on hand. The hot end of the power plant's gas turbine is being rebuilt. A new belt will be installed on the underground conveyor in April. The concentrator has been running on a continuous roster since November, predominantly on SAG mill only, with the ball mill ready to come on line as mine production increases.

Costs, working capital under control

Capital expensed at surface and underground remains relatively light. Costs are about 70% fixed. In cash terms Nifty has covered costs including capital for all but the month of September 2017, when the mine closed to repair the escapeway ladder. Each concentrate shipment from Nifty contains about 4,200t of Cu, or +A\$30M in receivable payment, and MLX maintains working capital well above this level.

Slow start puts June quarter in spotlight

The ramp up since acquisition has been slower than expected. Coming to grips with the mining sequence has taken more time and resources than planned. As a result Dec17 half ore grade averaged 1.3% Cu rather than 1.6% budget. Mined ore tonnages also fell marginally short of target. 60% of mine development in CY2018 will be in new areas, away from the troublesome Checkerboard remnant stopes. Currently there are 5-6 working areas and the objective is to have 8 going. Focus in the June quarter is on increasing tonnes to the mill. Ore grades should gradually rise to reserve grade as the proportion of ore from new areas increases.

MLX expects a lift in output in the June18 qtr, with guidance indicating 35ktpa copper in concentrate rate achieved by June 30 and 40ktpa by end of Dec18. Our projections are in line with the Company's.

In summary - maintain Accumulate recommendation

No change to our long view. Reserve potential seems to have been reaffirmed with infill drilling and reinterpretation, mine output targets remain achievable and costs are still contained. The operation continues to wash its face financially, at less than half capacity.

We can see nothing in terms of geology, mining or processing capability, standing in the way of MLX eventually achieving its goals at Nifty. Progress is qualitative, not quantitative at this stage and the market is waiting to see the latter. Risk of further ramp up delays remains, which, in the event, we would regard as a buying opportunity.

SUMMARY MODEL

Metals X MLX								Recommendation Accumulate							
Market information								Directors							
Share price	\$0.77							Peter Newton (Chairman)							
Market Capitalisation	\$483m							Warren Hallam (Executive Director and CEO)							
Net cash (debt)	\$95m							Simon Heggen (Non-Exec Director)							
Issued Capital (fully paid)	612m							Yimin Zhang (Non-Exec Director)							
Issued Capital (fully diluted)	627m							Stephen Robinson (Non-Exec Director)							
EV	\$388m							Milan Jerkovich (Non-Exec Director)							
Valuation	\$1.32							www.metalsx.com.au							
12 month price target	\$1.42														
Spot Valuation	\$1.37														
Profit & Loss								Top Shareholders							
	Unit	Jun 17	Jun 18	Jun 19	Jun 20	Jun 21	Jun 22	m shares %							
Net Revenue	ASM	277	264	432	450	449	457	BlackRock Group 59 9.3							
Forward sales	ASM		-8	0				Apac Resources Limited 58 9.2							
Total Costs	ASM	-226	-243	-255	-260	-261	-247	Jinchuan Group Limited 46 7.3							
EBITDA	ASM	50	13	176	190	188	208	Ausbil Investment Management Limited 32 5.1							
- margin	ASM	18%	5%	41%	42%	42%	46%								
Depreciation/Amort	ASM	-38	-21	-33	-32	-30	-28								
EBIT	ASM	12	-8	144	159	158	180								
Net Interest	ASM	1													
Pre-Tax Profit	ASM	13	-8	144	159	158	180								
Tax Expense	ASM	-11	-11	-13	-13	-13	-26								
NPAT	ASM	13	-8	133	146	145	154								
Abnormal Items	ASM														
Reported Profit	ASM	13	-8	133	146	145	154								
Balance Sheet								Production Summary							
	Unit	Jun 17	Jun 18	Jun 19	Jun 20	Jun 21	Jun 22	Unit	Jun 17	Jun 18	Jun 19	Jun 20	Jun 21	Jun 22	
Cash	ASM	111	95	152	212	269	336	Nifty throughput	Mt	1.54	1.60	2.55	2.60	2.60	2.60
Other Current Assets	ASM	46	46	46	46	46	46	Mined grade	%Cu	1.77	1.39	1.65	1.71	1.71	1.71
Total Current Assets	ASM	157	141	198	258	315	382	Combined Recovery & Payability		0.90	0.89	0.89	0.89	0.89	0.89
Property, Plant & Equip.	ASM	182	204	187	188	180	164	Copper prodn	(kt)	25	20	37	39	39	39
Investments/other	ASM	10	10	10	10	10	10	Mine Life	yr	13.0	11.5	6.2	5.1	4.1	3.1
Total Non-Curr. Assets	ASM	192	214	207	198	190	174	Renison throughput (whole project)	Mt	0.75	0.77	0.92	0.92	0.92	0.92
Total Assets	ASM	348	355	406	456	505	556	Mined grade	%Sn	1.29	1.29	1.29	1.29	1.29	1.29
Short Term Borrowings	ASM	2	2	2	2	2	2	Combined Recovery & Payability		0.73	0.72	0.68	0.68	0.68	0.68
Other	ASM	32	32	32	32	32	32	Tin prodn (MLX share)	(kt)	3,522	3,015	4,028	4,028	4,028	4,028
Total Curr. Liabilities	ASM	33	33	33	33	33	33	Mine Life	yr	12.6	11.1	8.4	7.4	6.4	5.4
Long Term Borrowings	ASM	6	6	6	6	6	6	Costs							
Other	ASM	40	40	40	40	40	40		Jun 17	Jun 18	Jun 19	Jun 20	Jun 21	Jun 22	
Total Non-Curr. Liabil.	ASM	46	46	46	46	46	46	Nifty							
Total Liabilities	ASM	79	79	79	79	79	79	Cost / milled tonne	AS/t	99	103	91	91	91	91
Net Assets	ASM	269	275	326	377	425	477	EBITDA / tonne milled ore	AS/t	14	-2	30	34	34	36
Cashflow								Cash costs incl. royalty							
	Unit	Jun 17	Jun 18	Jun 19	Jun 20	Jun 21	Jun 22		Jun 17	Jun 18	Jun 19	Jun 20	Jun 21	Jun 22	
Operating Cashflow	ASM	50	30	177	190	188	208	+ deprin & amortn	AS/lb Cu	3.43	4.12	3.12	3.03	3.02	3.01
Income Tax Paid	ASM				-11	-13	-13	US\$/lb	2.59	3.23	2.38	2.31	2.33	2.34	
Hedging	ASM		-8	0				Renison							
Interest & Other	ASM	1						Renison cost / milled tonne	AS/t	137	129	115	118	120	122
Operating Activities	ASM	51	22	176	180	176	195	EBITDA / tonne milled ore	AS/t	24	25	25	25	25	24
Property, Plant & Equip.	ASM	-12	-33	-16	-12	-12	-12	Cash costs incl. royalty	AS/kt Sn	16.3	15.7	15.0	15.3	15.6	15.8
Exploration	ASM							+ supst capital	AS/kt Sn	18.0	20.3	17.0	16.9	17.1	17.3
Asset sales	ASM							US\$/kt	13.6	15.9	13.0	12.9	13.2	13.5	
Investments	ASM							Price Assumptions							
Investment Activities	ASM	-12	-33	-16	-12	-12	-12		Unit	Jun 17	Jun 18	Jun 19	Jun 20	Jun 21	Jun 22
Borrowings	ASM							AUDUSD		0.754	0.786	0.763	0.763	0.772	0.778
Equity/dividend	ASM		-4		-19	-20	-31	Copper	US\$/lb	2.52	3.06	3.00	3.00	3.02	3.10
Financing Activities	ASM		-4		-19	-20	-31	Tin	AS/lb	3.34	3.90	3.93	3.93	3.92	3.99
Net Cash Change	ASM	40	-16	160	148	143	152	US\$/kt	20.0	20.5	20.0	20.3	20.5	20.5	
Shares								Sensitivity Analysis							
	Unit	Jun 17	Jun 18	Jun 19	Jun 20	Jun 21	Jun 22	Valuation 1.32 FY18 NPAT -8.4							
Ordinary Shares - End	M	609	612	612	619	627	627	US Cu price +/-10%	Sens	-10%	+10%	Sens	-10%	+10%	
Diluted Shares - End	M	627	627	627	627	627	627	US Sn price +/-10%	24%	1.01	1.64	19%	-6.8	-10.0	
Ratio Analysis								AUDUSD +/- 10%							
	Unit	Jun 17	Jun 18	Jun 19	Jun 20	Jun 21	Jun 22	Production +/-10%	4%	1.27	1.38	13%	-7.3	-9.5	
GCFPS	Ac	8.2	4.8	28.9	31.1	30.8	34.0	Operating Costs +/-10%	22%	1.03	1.61	31%	-5.8	-11.0	
CFR	X							Unpaid Capital							
EPS	Ac	2.2	-1.4	21.7	23.9	23.7	25.2	Expiry year	No. (M)	\$M	Avg ex.	% ord			
PER	X							30-Jun-18							
DPS	%	1.0	-	4.0	5.0	5.0	5.0	30-Jun-19	7	6	0.76	1.2%			
Yield	%	-	1.3	-	5.2	6.5	6.5	30-Jun-20	8	11	1.32	1.3%			
Interest Cover	x	na	-	-	-	-	-	Total	15	16	1.06	2.5%			
ROE	%	6%	-4%	69%	80%	83%	103%	Reserves & Resources							
ROCE	%	5%	-3%	44%	42%	37%	38%		Mt	%	kt				
Gearing	%	2.2%	2.2%	1.8%	1.6%	1.4%	1.3%	NIFTY sulphide Cu (Aug 2017)	48.4	1.4	694				
Share Price Valuation (NAV)								Measured							
	Est. AS/share							Indicated							
100% Nifty after tax 7% DR	310	0.51						Inferred							
100% Maroochydore	31	0.05						INCLUDES TOTAL RESERVE							
50% Renison after tax 7% DR	173	0.28						MAROOCHYDORE Cu							
Rentalls 50%	43	0.07						Indicated							
Wingellina 100%	65	0.11						Inferred							
Exploration	72	0.12						RENISON Sn (MLX 50% June 2017)							
Corporate overheads	-38	-0.06						Renison Bell resource							
Net cash (Jun 18)	95	0.15						Mt Bischoff							
Tax benefit	65	0.11						Rentalls resource							
Hedging	0	0.00						INCLUDES TOTAL RESERVE							
Option value	-7	-0.01						Renison Bell Sn (MLX 50%)							
Total	810	1.32						Rentalls Sn (MLX 50%)							
								Hartleys model June '17							
								TOTAL NIFTY INVENTORY							
								TOTAL RENISON INVENTORY MLX share							
								Mt % kt							
								20.0 1.7 335 Cu							
								4.7 1.3 60 Sn							

Source: Hartleys Research.

PRODUCTION AND COSTS

Fig. 1: Production forecasts.

Production Summary	Unit	Jun 17	Jun 18	Jun 19	Jun 20	Jun 21	Jun 22
Nifty throughput	Mt	1.54	1.60	2.55	2.60	2.60	2.60
Mined grade	%Cu	1.77	1.39	1.65	1.71	1.71	1.71
Combined Recovery & Payability		90%	89%	89%	89%	89%	89%
Copper prodn	(kt)	25	20	37	39	39	39
Mine Life	yr	13.0	11.5	6.2	5.1	4.1	3.1
Inventory tonnes	Mt	20.0	18.4	15.8	13.2	10.6	8.0
Inventory grade	%Cu	1.68	1.70	1.71	1.71	1.71	1.71
Renison throughput (w hole project)	Mt	0.75	0.77	0.92	0.92	0.92	0.92
Mined grade	%Sn	1.29	1.29	1.29	1.29	1.29	1.29
Combined Recovery & Payability		73%	72%	68%	68%	68%	68%
Tin prodn (MLX share)	(kt)	3,522	3,615	4,028	4,028	4,028	4,028
Mine Life	yr	12.6	11.1	8.4	7.4	6.4	5.4
Inventory tonnes	Mt	9.4	8.6	7.7	6.8	5.9	4.9
Inventory grade	%Sn	1.29	1.28	1.28	1.28	1.28	1.28

Source: Hartleys Research.

Fig. 2: Cost forecasts.

Costs		Jun 17	Jun 18	Jun 19	Jun 20	Jun 21	Jun 22
Nifty							
Cost / milled tonne	A\$/t	99	103	91	91	91	91
EBITDA / tonne milled ore	A\$/t	14	-2	30	34	34	36
Cash costs incl. royalty	A\$/lb Cu	2.94	3.98	2.99	2.91	2.90	2.90
	US\$/lb	2.22	3.12	2.28	2.22	2.24	2.25
+ deprn & amortn	A\$/lb Cu	3.43	4.12	3.12	3.03	3.02	3.01
	US\$/lb	2.59	3.23	2.38	2.31	2.33	2.34
Renison							
Renison cost / milled tonne	A\$/t	137	129	115	118	120	122
EBITDA / tonne milled ore	A\$/t	24	25	25	25	25	24
Cash costs incl. royalty	A\$/t Sr	16.3	15.7	15.0	15.3	15.6	15.8
	US\$/t	12.3	12.3	11.4	11.7	12.0	12.3
+ sust capital	A\$/t Sr	18.0	20.3	17.0	16.9	17.1	17.3
	US\$/t	13.6	15.9	13.0	12.9	13.2	13.5

Source: Hartleys Research.

Hartleys' 12 month price target is \$1.42 per share.

VALUATION AND PRICE TARGET

Key model assumptions;

1. Nifty 20.0 Mt inventory at 1.7% Cu, mined at 2.5 Mtpa from July 2018. 91% met/payable recovery.
The inventory is 1.5 times the August 2017 reserve, in terms of contained copper. Capital costs of definition and development are included in the model. The mine life is assumed to extend to 2025.
2. Nifty site cost of \$A65/t of milled ore at full capacity, US\$82/t concs transport, US\$95, 0.09 TCRC, 97% payability → A\$2.60/lb C3 (C1+royalty+deprn, AUDUSD 0.78).
3. Cu price as per summary table. (US\$3.00/lb long run).
4. Renison 9.4Mt inventory at 1.3% Sn, mined at 920ktpa, 68% sorting/met recovery. The modelled inventory contains 67% more contained tin than the June 2017 reserves. Ore definition at Renison progresses with mining. Capital costs of definition and development are included in the model. The mine life is assumed to extend to 2027.
5. Site cost of A\$100-110/t crushed ore, US\$110 concs transport, 92% net pay. US\$1.9Mpa Cu revenue → A\$17,300/t AISC.
6. Sn price as per summary table; US\$19,500/t long run.
7. AUDUSD 0.78 long run.
8. A corporate overheads liability is included in the valuation to reflect the cost of management over the operational life of the company. Corporate overhead costs are estimated at A\$7Mpa.

Hartleys' estimated NAV for MLX is 132cps, using price forecasts similar to consensus as set out in the summary model page. Our long run base case copper price assumptions have been lifted from US\$2.80/lb to US\$3.00/lb. Hartleys' long run tin price assumption has been raised from US\$19,100/t to US\$19,500/t. Exchange rate assumptions are unchanged.

A real, after tax discount rate of 7% is used.

At real spot price assumptions the MLX NAV estimate increases to 137cps, with MLX's share of Renison increasing (to 32cps) and minor copper price changes leading to a slightly lower valuation for Nifty (50cps). Undeveloped projects Maroochydore, Wingellina and Rentails are valued informally or in relative terms, and as if they were in separate unfunded entities. The value attributed to exploration (12cps) is intended to account for all prospects outside of modelled inventory or nominated exploration projects. Both Nifty and Renison have substantial associated exploration tenure and prospects.

At the end of December 2017 MLX had cash and working capital of \$90M, of which over \$40M was unsold concentrate at various stages of sale. Unsold inventory is valued by MLX at spot prices at the end of accounting periods.

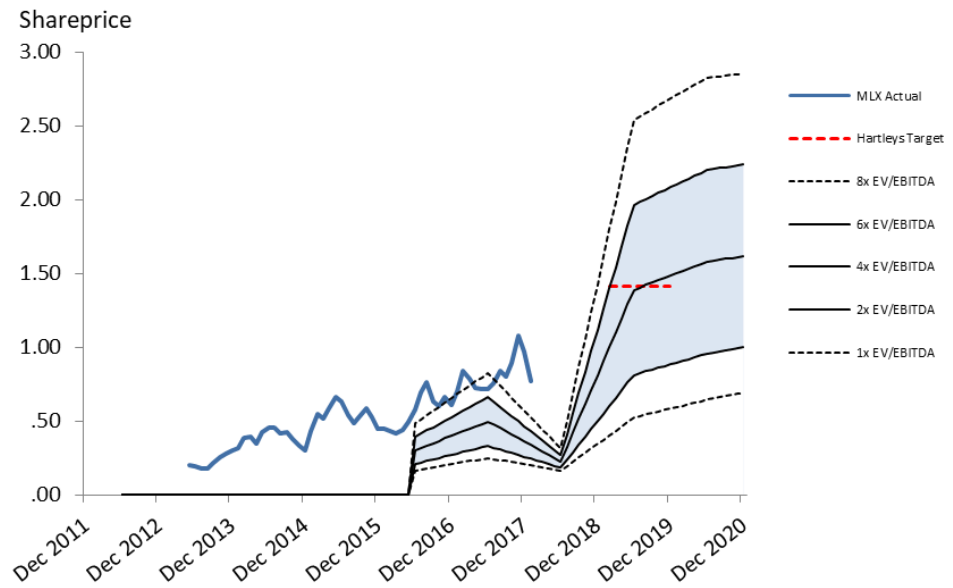
MLX owns 6.7% of Brainchip (BRN.ASX); a holding that has a market value of A\$9M at 17cps.

The 12 month price target for MLX is 7% more than the estimated NAV, or 142 cps.

MLX completed a demerger in December 2016, splitting its gold assets into Westgold Resources (WGX.ASX).

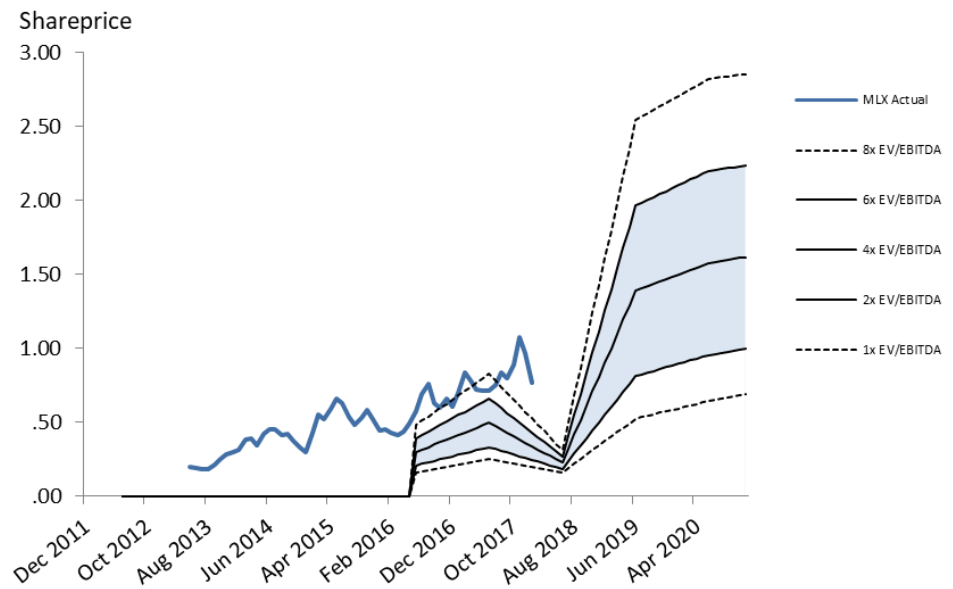
EV/EBITDA BANDS

Fig. 3: EV/EBITDA base case assumptions.



Source: Hartleys.

Fig. 4: EV/EBITDA spot price assumptions.



Source: Hartleys.

RISKS

Key assumptions and risks for valuation

Assumption	Risk of not realising assumption	Risk to valuation if assumption is incorrect	Comment
Copper price	Medium	Industry	The current spot price is similar to our LT assumptions. Current settings are considered insufficient to encourage supply growth and meet future demand.
Tin price	Medium	Industry	A marginal tin supply response is expected, bringing the tin price down to ~\$19,500/t.
Nifty reserve extension	Low	High	Nifty is open down plunge and exploration drilling has begun to scope the project's potential.
Nifty costs	Medium	Medium	MLX has demonstrated unit costs at Nifty over several quarters. Costs are broadly in line with other bulk tonnage underground mines.
Renison reserve extension	Low	Medium	Renison reserves progress with mine development internally and around the margins of the resource.

Conclusion

Risks are predominantly commodity price and geological, and each has a counter balancing opportunity. Both Nifty and Renison are considered middle to lower cost curve producers in their respective markets, with long term mine life potential.

Source: Hartleys Research

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Hartleys Recommendation Categories

Buy	Share price appreciation anticipated.
Accumulate	Share price appreciation anticipated but the risk/reward is not as attractive as a "Buy". Alternatively, for the share price to rise it may be contingent on the outcome of an uncertain or distant event. Analyst will often indicate a price level at which it may become a "Buy".
Neutral	Take no action. Upside & downside risk/reward is evenly balanced.
Reduce / Take profits	It is anticipated to be unlikely that there will be gains over the investment time horizon but there is a possibility of some price weakness over that period.
Sell	Significant price depreciation anticipated.
No Rating	No recommendation.
Speculative Buy	Share price could be volatile. While it is anticipated that, on a risk/reward basis, an investment is attractive, there is at least one identifiable risk that has a meaningful possibility of occurring, which, if it did occur, could lead to significant share price reduction. Consequently, the investment is considered high risk.

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The analyst travelled to site at the expense of MLX, with all associated costs being covered by MLX.

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