

# APPENDICES

## PHOTOGRAPHS

## CALIBRATION CHARTS

## TEST RESULTS



*Aerial view of the Chimney and collapsed flume.*



*Chimney view from access road.*



*Corner Building walls.*



*Corner Building walls.*





*Brick delamination in the Chimney-Flume transition.*



*Detail of the brick delamination.*



*Partially collapsed masonry roof of the Flume.*



*Detail of the exposed Flume tensioned cables.*



*Flume collapsed section.*



*Flume tensioned cables and rock block wall.*









*Rock masonry wall of the smelter complex.*



*Washed mortar and salt deposits on masonry wall.*



*Crack along the masonry wall.*





*Slag tailings field.*



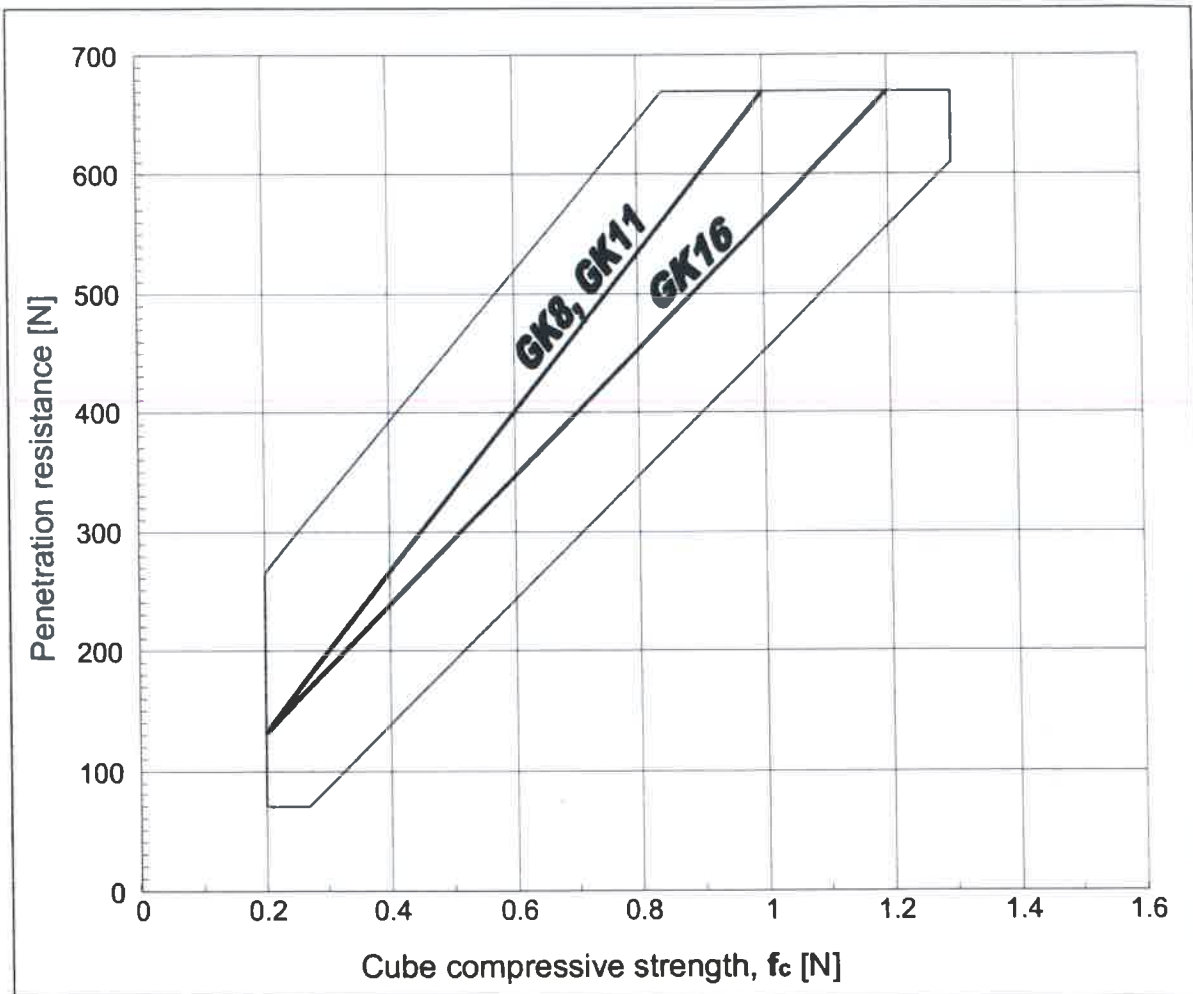
*Detail of slag deposit.*



## Ø3 Penetration Needle Calibration Curves \*

## FX-2

Date:	Air temperature:	Mix temperature:	Test by:
Gallery/tunnel	Station:	Location:	
Aggregate size:	Cement:	Accelerator:	
Time guniting completed:			

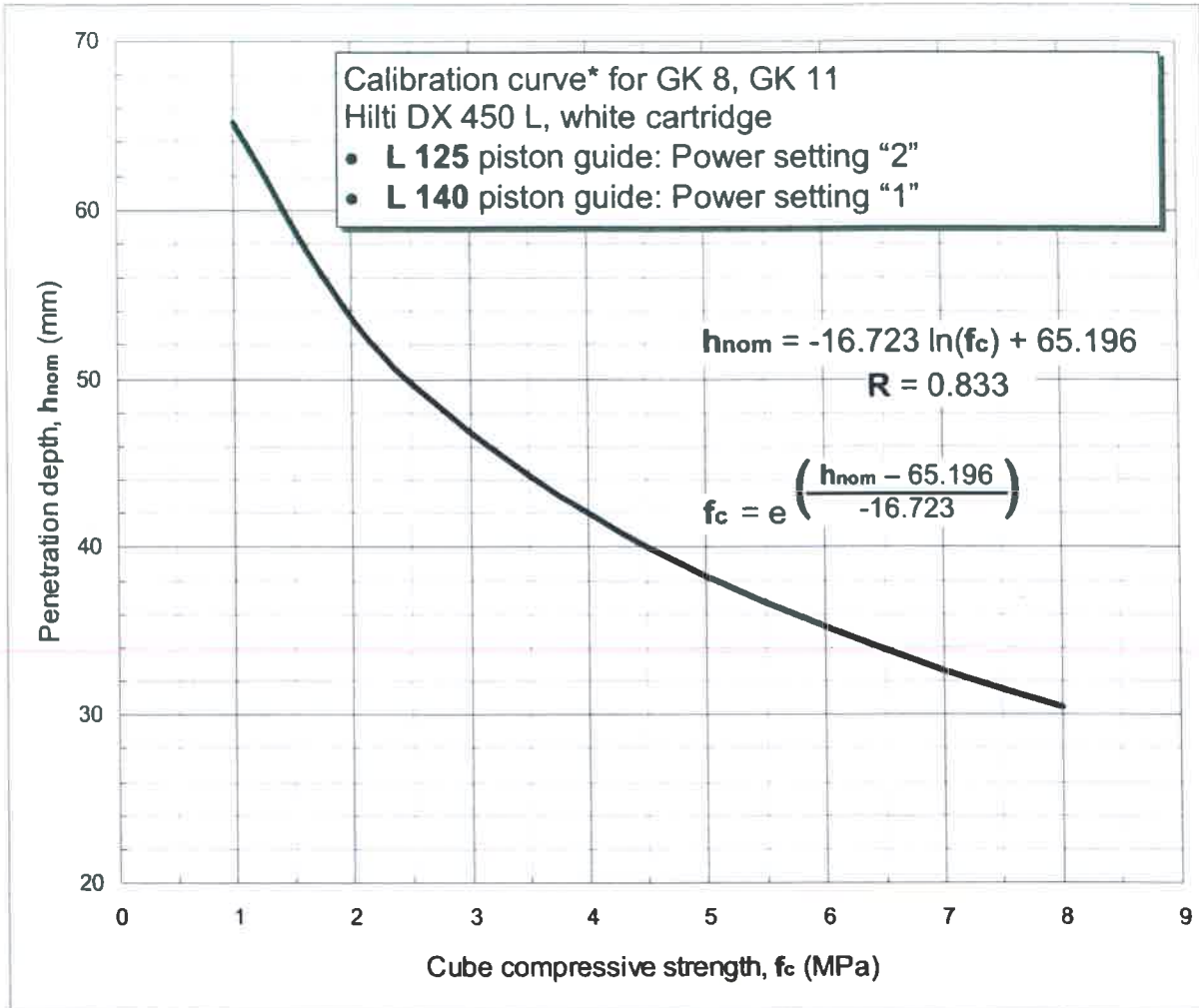


\* The source of this calibration diagramme is Sprayed Concrete Guideline – Application and Testing, March 1999, Österreichischer Betonverein. Its accuracy depends on the characteristics of the gunite or concrete actually used and its applicability is therefore limited. Hilti recommends that project-specific calibration diagramme(s) be generated.



## Calibration Curve DX 450 (with L Equipment), White Cartridge

FX-6



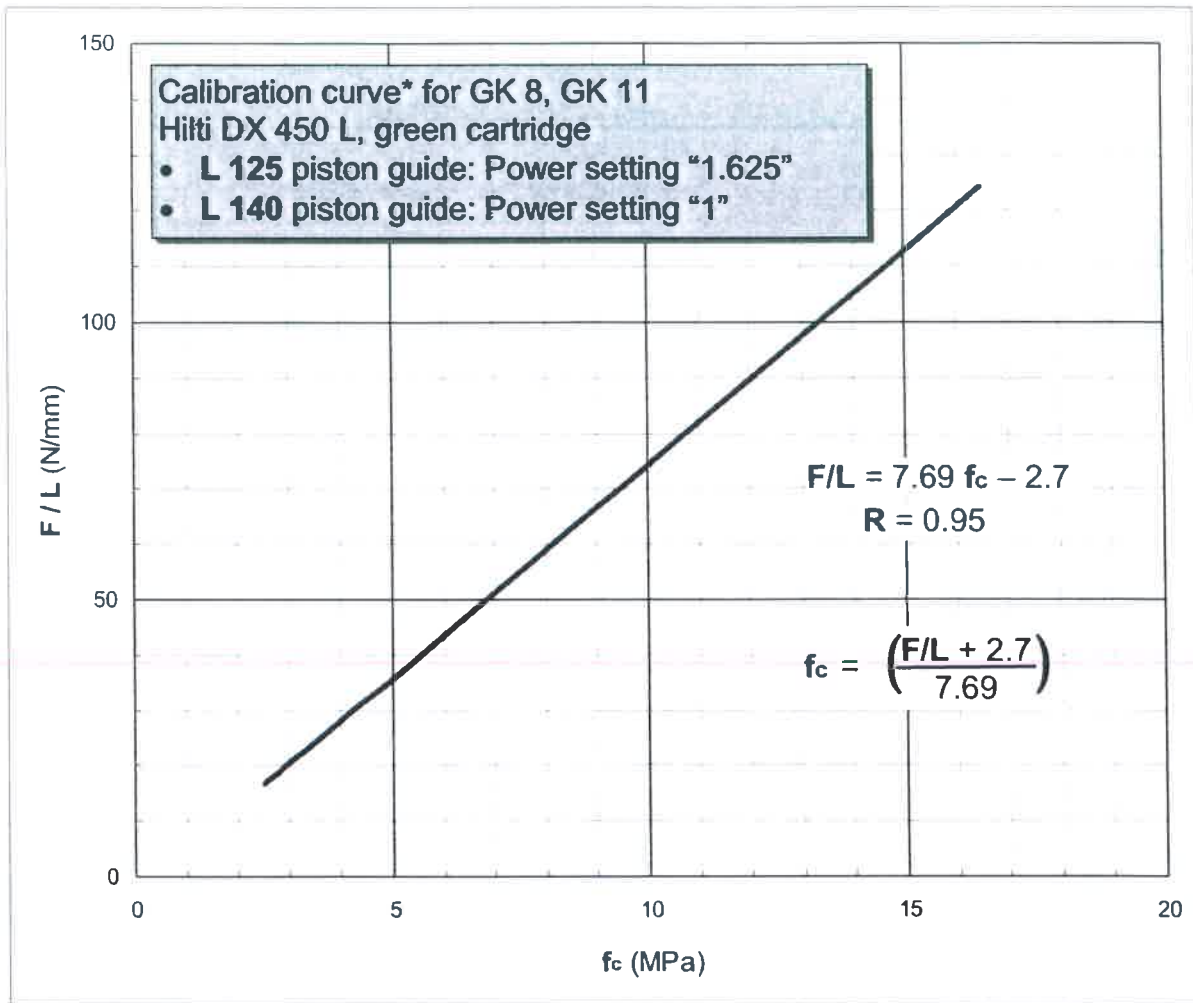
\* The source of this calibration diagramme is Sprayed Concrete Guideline – Application and Testing, March 1999, Österreichischer Betonverein. Its accuracy depends on the characteristics of the gunite or concrete actually used and its applicability is therefore limited. Hilti recommends that project-specific calibration diagramme(s) be generated.





## Calibration Curve DX 450 (with L Equipment), Green Cartridge

FX-7



\* The source of this calibration diagramme is Sprayed Concrete Guideline – Application and Testing, March 1999, Österreichischer Betonverein. Its accuracy depends on the characteristics of the gunite or concrete actually used and its applicability is therefore limited. Hilti recommends that project-specific calibration diagramme(s) be generated.



## 12 TON - 5000

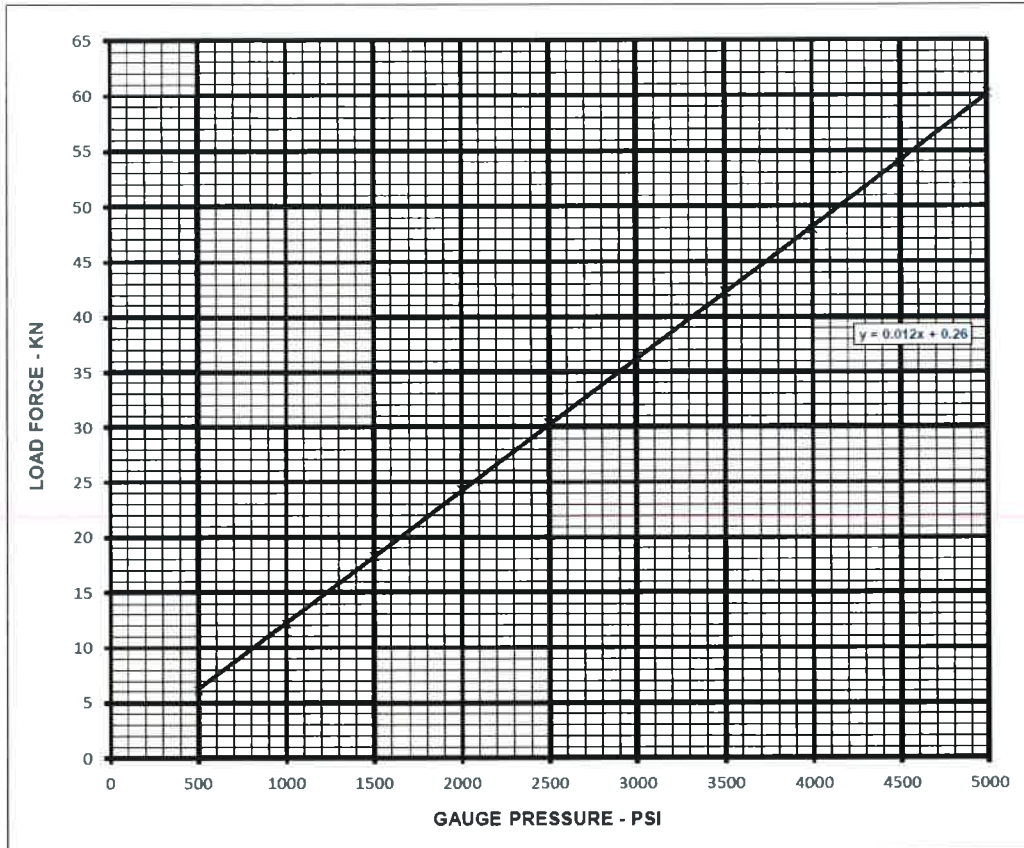
PULL TEST RAM/GAUGE CALIBRATION

DATE: Oct 28, 2016

REFERENCE: GAUGE # 5,000 DIGITAL  
 RAM# 12 Ton Simplex RC121

GAUGE TYPE: 5,000 PSI DIG

CALIBRATED BY: GP



GAUGE - PSI	KN	KN	KN	LBF	KN
	Trial	Trial	Trial		
500	6.1	6.1	6.1	1371	6.1
1000	12.1	12.2	12.2	2731	12.2
1500	18.2	18.3	18.3	4103	18.3
2000	24.3	24.3	24.3	5463	24.3
2500	30.4	30.3	30.4	6823	30.4
3000	36.5	36.3	36.4	8183	36.4
3500	42.3	42.1	42.2	9487	42.2
4000	48.3	47.5	47.9	10768	47.9
4500	54.4	53.4	53.9	12117	53.9
5000	60.4	60.1	60.3	13545	60.3

NOTES: CALIBRATED USING CERTIFIED 0 - 90kN Honeywell Load Cell

CERTIFIED BY:   
 GLEN PEDERSON, ASCT





COMPRESSION TEST							
Location	Specimen	Length (mm)	Width (mm)	Area (mm <sup>2</sup> )	Load (kN)	Load (N)	Compressive Strength N/mm <sup>2</sup> (MPa)
Corner Building	1A	204	96	19584	380.3	380300	19.4
	2A	195	120	23400	307	307000	13.1
	1	205	100	20500	428.4	428400	20.9
	2	200	101	20200	342.8	342800	17.0
Chimney	3	220	100	22000	693.6	693600	31.5
	4	210	100	21000	867	867000	41.3
	5	223	100	22300	731.2	731200	32.8
	6	180	120	21600	455.3	455300	21.1
<b>Avg Compressive Strength (MPa)</b>							<b>24.6</b>