

A COMPOSITE STUDY USING GRAVITY, MAGNETIC, AND
RESISTIVITY SURVEYS TO DELINEATE IRON ORE,
SILLANWALI AREA, DISTRICT SARGODHA AND JHANG



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TABLE OF CONTENTS

LIST OF FIGURES		iv
LIST OF TABLES		v
ACKNOWLEDGEMENTS		vi
ABSTRACT		vii
Chapter # 1	INTRODUCTION	01
1.1	Introduction	
1.2	Objective of Study Area	01
1.3	Location	02
1.4	Scope of Study	03
Chapter # 2	STRATIGRAPHIC SEQUENCE	05
2.1	Significance of Pre-Cambrian Rocks	05
2.2	Stratigraphy	06
2.2.1	<u>Kirana Group</u>	06
2.2.1.1	<i>Hachi Volcanics</i>	06
2.2.1.2	<i>Taguwali Phyllites and Slates</i>	07
2.2.1.3	<i>Asianwala Quartzite</i>	07
2.2.2	<u>Sharaban Group</u>	07
2.2.2.1	<i>Hudda Quartzite</i>	08
2.2.2.2	<i>Sharaban Conglomerate</i>	08
2.2.2.3	<i>The Basic Intrusive Igneous Rock</i>	08
Chapter # 3	GRAVITY SURVEY	09
3.1	Principal and Elementary Theory	09
3.2	Field Procedure	10
3.2.1	<i>Base Station Location Selection</i>	10

	3.2.2	<i>Locating the measuring range of the gravity meter</i>	10
	3.2.3	<i>Assessment of Predictable Errors to find Accuracy</i>	11
3.3		Overall Accuracy	12
3.4		Density	13
3.5		Field Procedure	13
3.6		Data Processing and Presentation	14
	3.6.1	<i>Drift Correction</i>	15
	3.6.2	<i>Latitude Correction</i>	15
	3.6.3	<i>Free Air Correction</i>	16
	3.6.4	<i>Bouguer Correction</i>	17
3.7		Data Interpretation	18
Chapter # 4		MAGNETIC SURVEY	19
	4.1	Magnetic Susceptibility	20
	4.2	Data Acquisition and Processing	21
	4.3	Data Processing	21
	4.4	Diurnal Variation Correction	21
	4.5	Geomagnetic Correction	22
	4.6	Elevation and Terrain Correction	23
	4.7	Normal Correction	23
Chapter # 5		REGIONAL – RESIDUAL SEPARATION	25
	5.1	Results	29
Chapter # 6		ELECTRICAL RESISTIVITY	
		SOUNDING SURVEY (ERSS)	31
	6.1	ERS in Study Area	31
Chapter # 7		ELECTRICAL RESISTIVITY SURVEY	34
	7.1	Theory and Instruments	35

7.2	Data Acquisition	37
7.3	Interpretation of Field Data	39
Chapter # 8	ELECTRICAL RESISTIVITY SURVEY	40
8.1	Map at Various Depths	40
CONCLUSIONS		43
REFERENCES		45
ANNEXURE I	Vertical Resistivity Columns	47
ANNEXURE II	Earth Resistivity Models	51

ABSTRACT

Integrated geophysical study comprising Gravity, Magnetic, and Electrical resistivity sounding survey raw data were used to delineate the occurrence of iron ore deposits in the vicinity of Kirana Hills at Silawali area of district Sargoda.

A grid of 200 by 150 meters was laid over the entire area of investigation and 722 stations were established. Gravity and magnetic survey carried out over the same grid patterns, while resistivity survey data acquisition was made randomly at 24 stations keeping in line with the anomalous Zones resulting from the evaluation of the gravity and magnetic data.

Although the magnetic anomaly map resembles with the Bouguer anomaly map, however, the positive value of 30 gammas lie in the middle of the Eastern half of map where gravity values are 2.8m gals, which are not significant as regard to the magnetic anomaly magnitude. Gravity and Magnetic anomalies exhibit a closing trend northwards. A test hole of 200 meters depth can be drilled at line 32 ,station 10 to further contain the interpretative results (i.e., on gravity high zone with low magnetic anomalies).