Figure 1

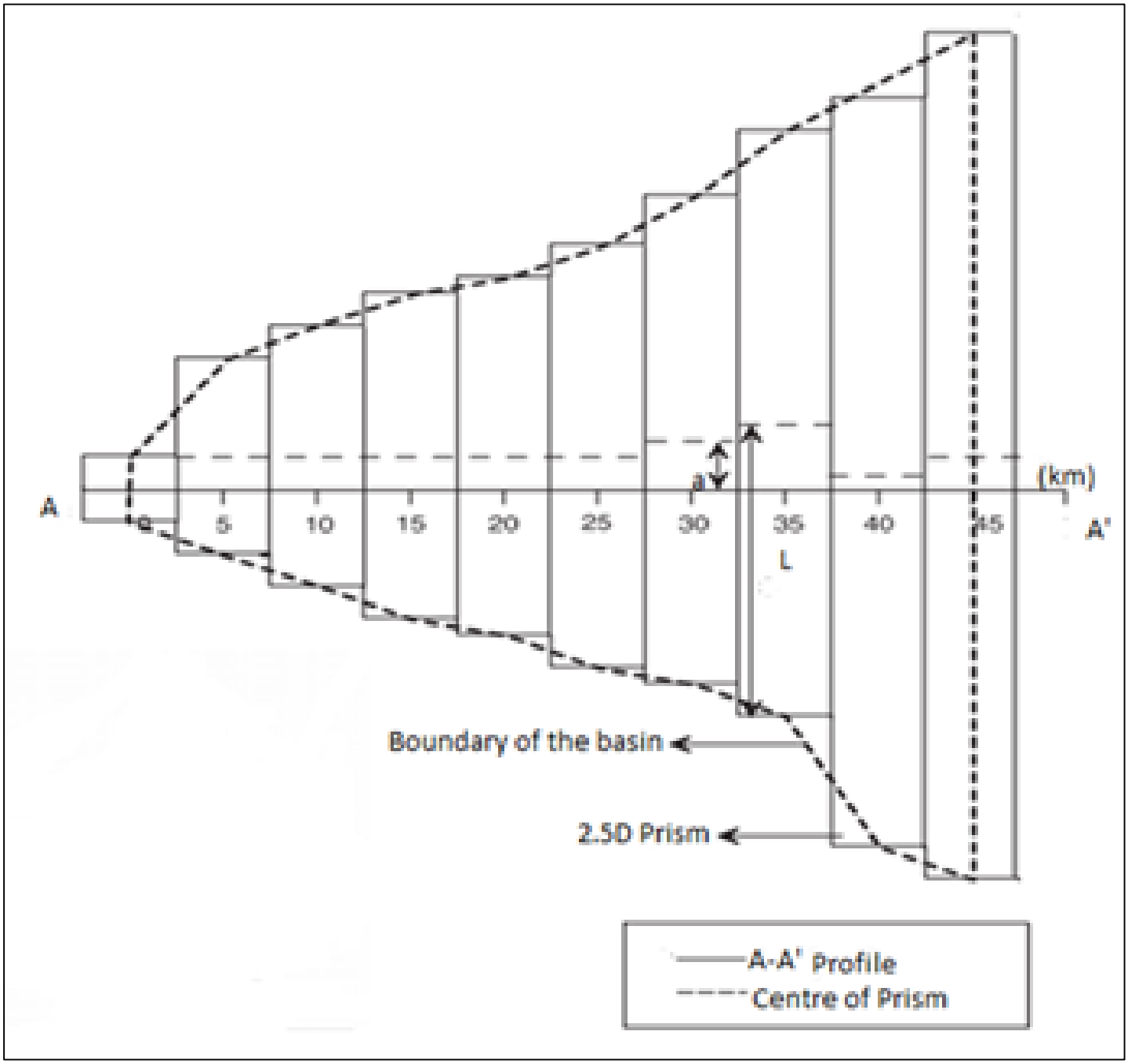

A
0
5
10
15
20
25
30
35
40
45
A'
(km)
L
Boundary of the basin
2.5D Prism
A-A' Profile
Centre of Prism

Figure 2

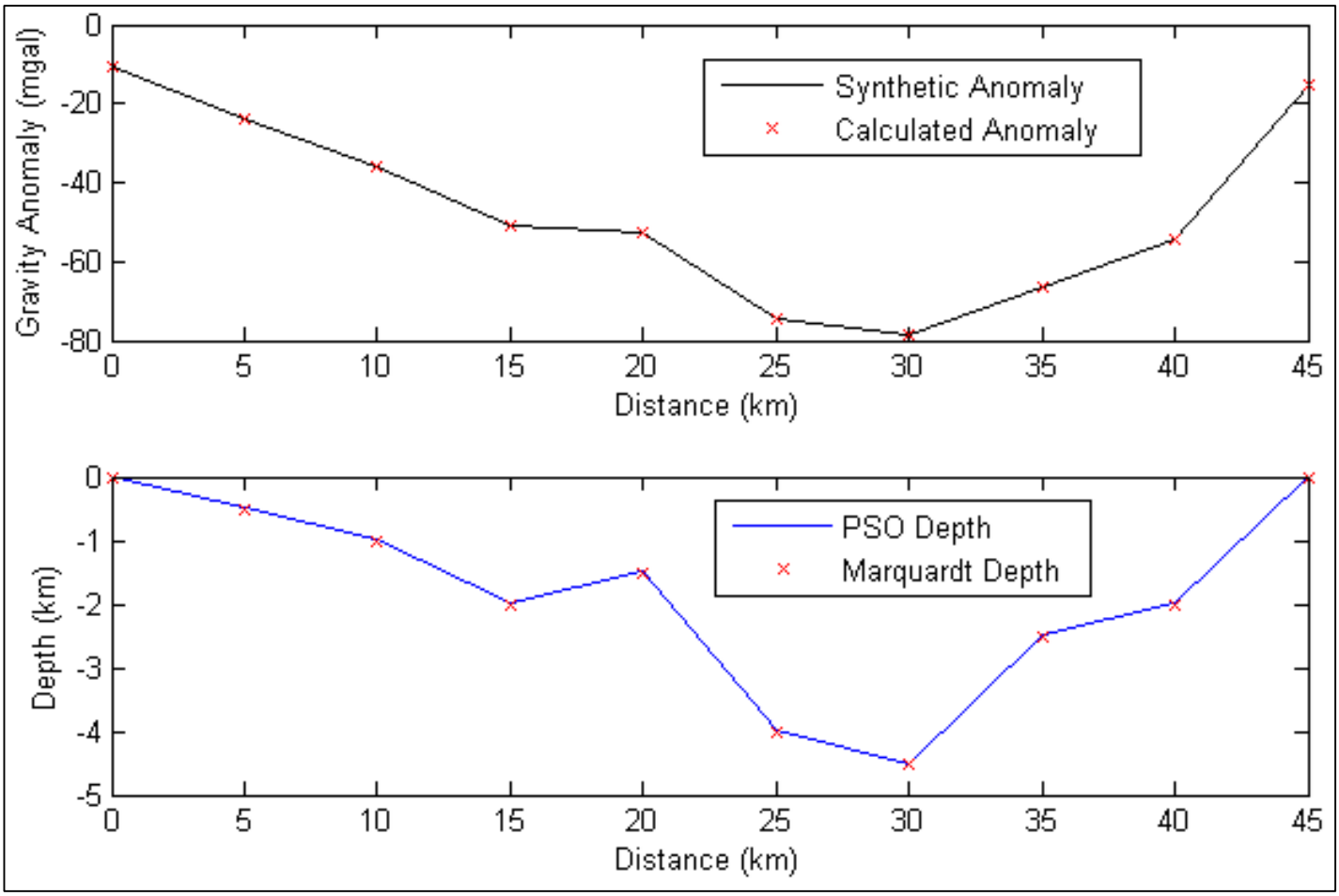

Gravity Anomaly (mgal)
0
-20
-40
-60
-80
0
5
10
15
20
25
30
35
40
45
Distance (km)
Synthetic Anomaly
Calculated Anomaly
Depth (km)
0
-1
-2
-3
-4
-5
0
5
10
15
20
25
30
35
40
45
Distance (km)
PSO Depth
Marquardt Depth

Figure 3

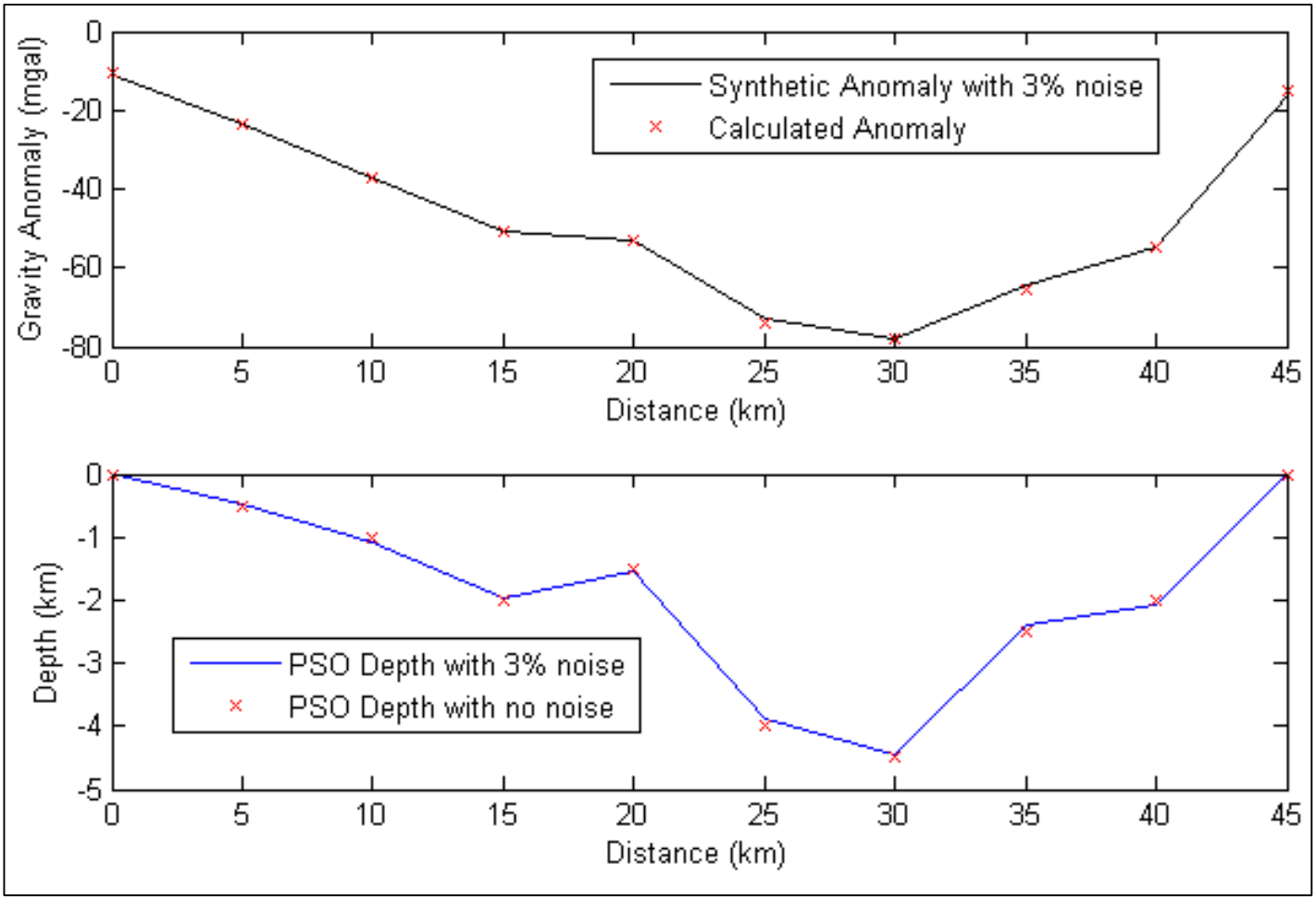

Gravity Anomaly (mgal)
0
-20
-40
-60
-80
0
5
10
15
20
25
30
35
40
45
Distance (km)
Synthetic Anomaly with 3% noise
Calculated Anomaly
Depth (km)
0
-1
-2
-3
-4
-5
0
5
10
15
20
25
30
35
40
45
Distance (km)
PSO Depth with 3% noise
PSO Depth with no noise

Figure 4

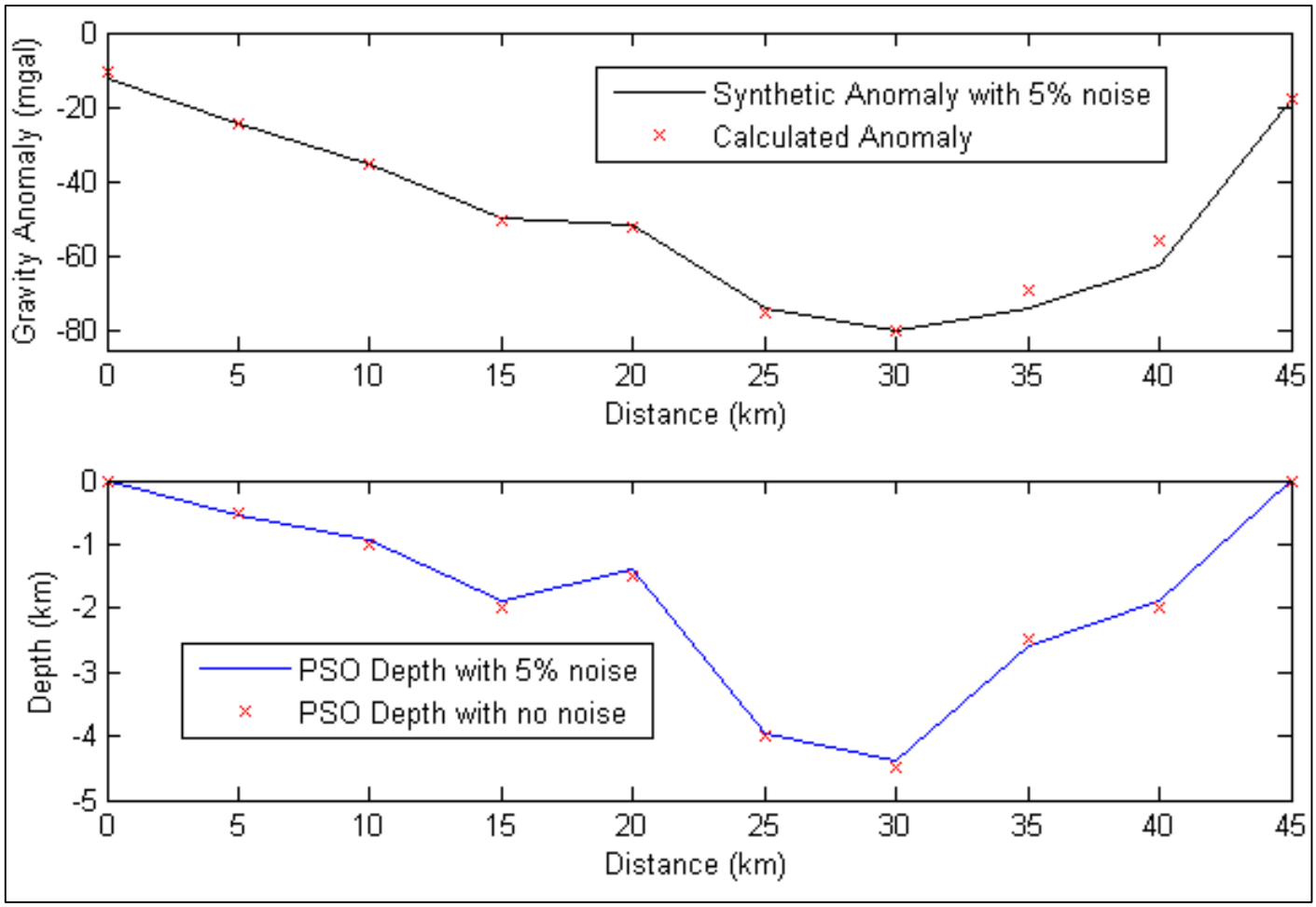

Gravity Anomaly (mgal)
0
-20
-40
-60
-80
Synthetic Anomaly with 5% noise
Calculated Anomaly
0
5
10
15
20
25
30
35
40
45
Distance (km)
Depth (km)
0
-1
-2
-3
-4
-5
PSO Depth with 5% noise
PSO Depth with no noise
0
5
10
15
20
25
30
35
40
45
Distance (km)

Figure 5

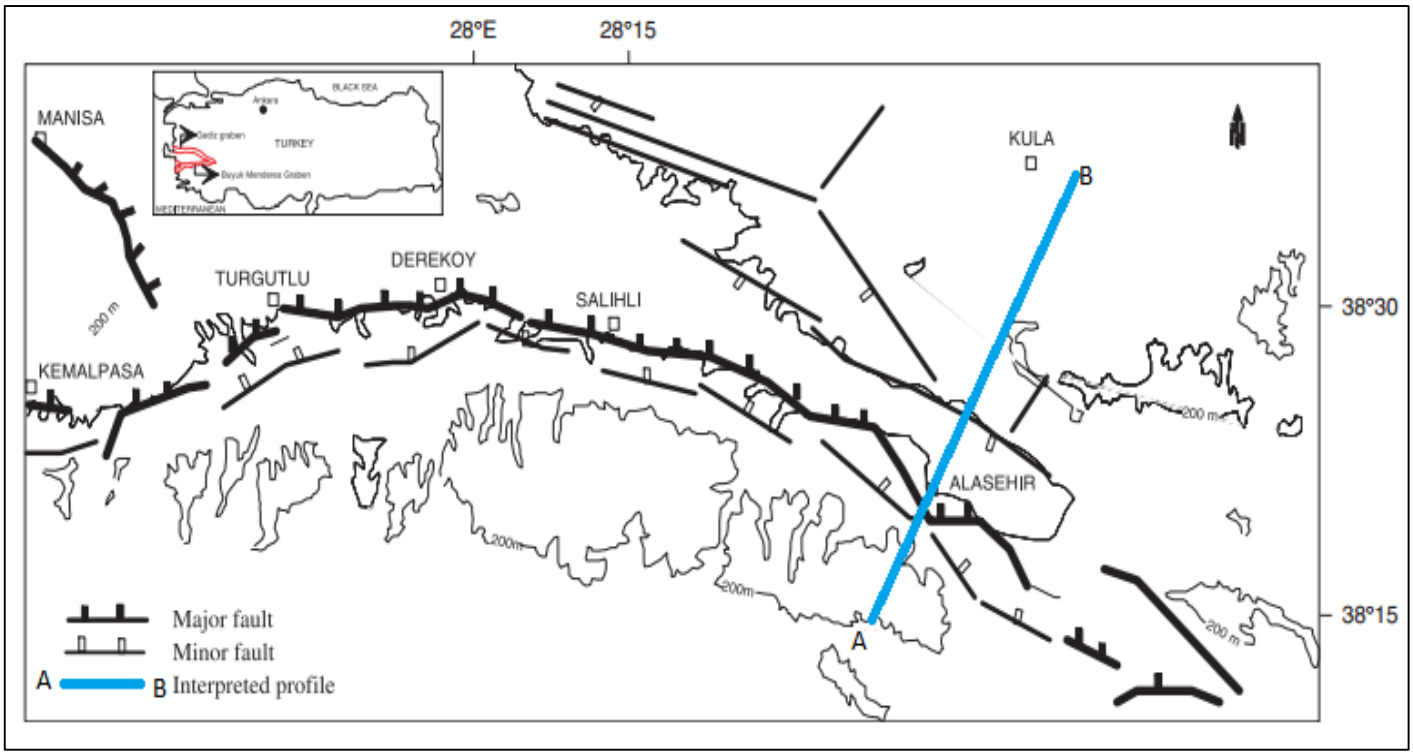

28°E
28°15
MANISA
BLACK SEA
Ankara
Gediz graben
TURKEY
Büyük Menderes Graben
MEDITERRANEAN
KULA
B
TURGUTLU
DEREKOY
SALIHLI
38°30
200 m
KEMALPASA
200 m
ALASEHIR
200m
200m
200 m
38°15
A
Major fault
Minor fault
A B Interpreted profile

Figure 6

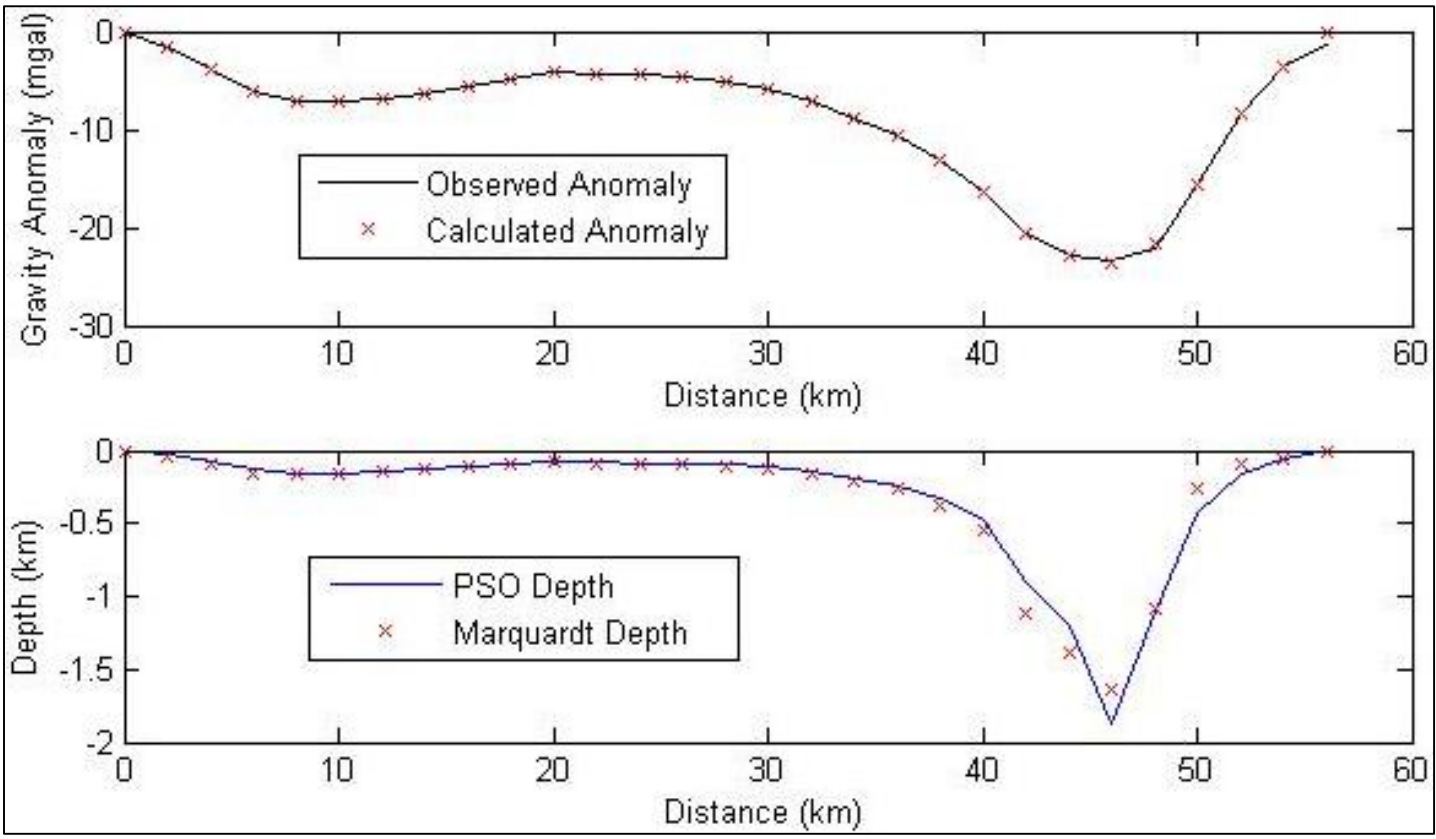

Gravity Anomaly (mgal)
0
-10
-20
-30
Observed Anomaly
Calculated Anomaly
0
10
20
30
40
50
60
Distance (km)
Depth (km)
0
-0.5
-1
-1.5
-2
PSO Depth
Marquardt Depth
0
10
20
30
40
50
60
Distance (km)

Figure 7

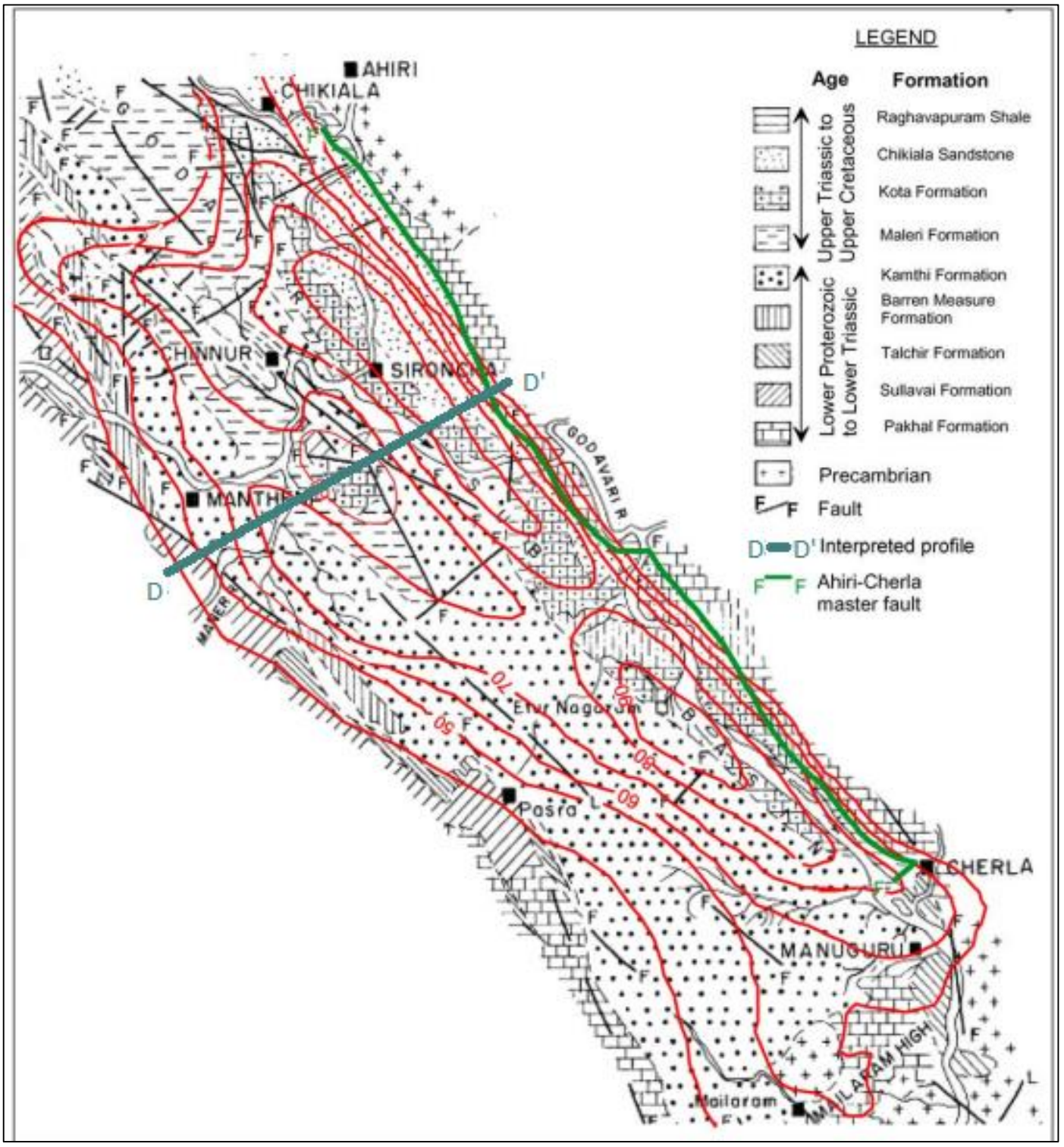
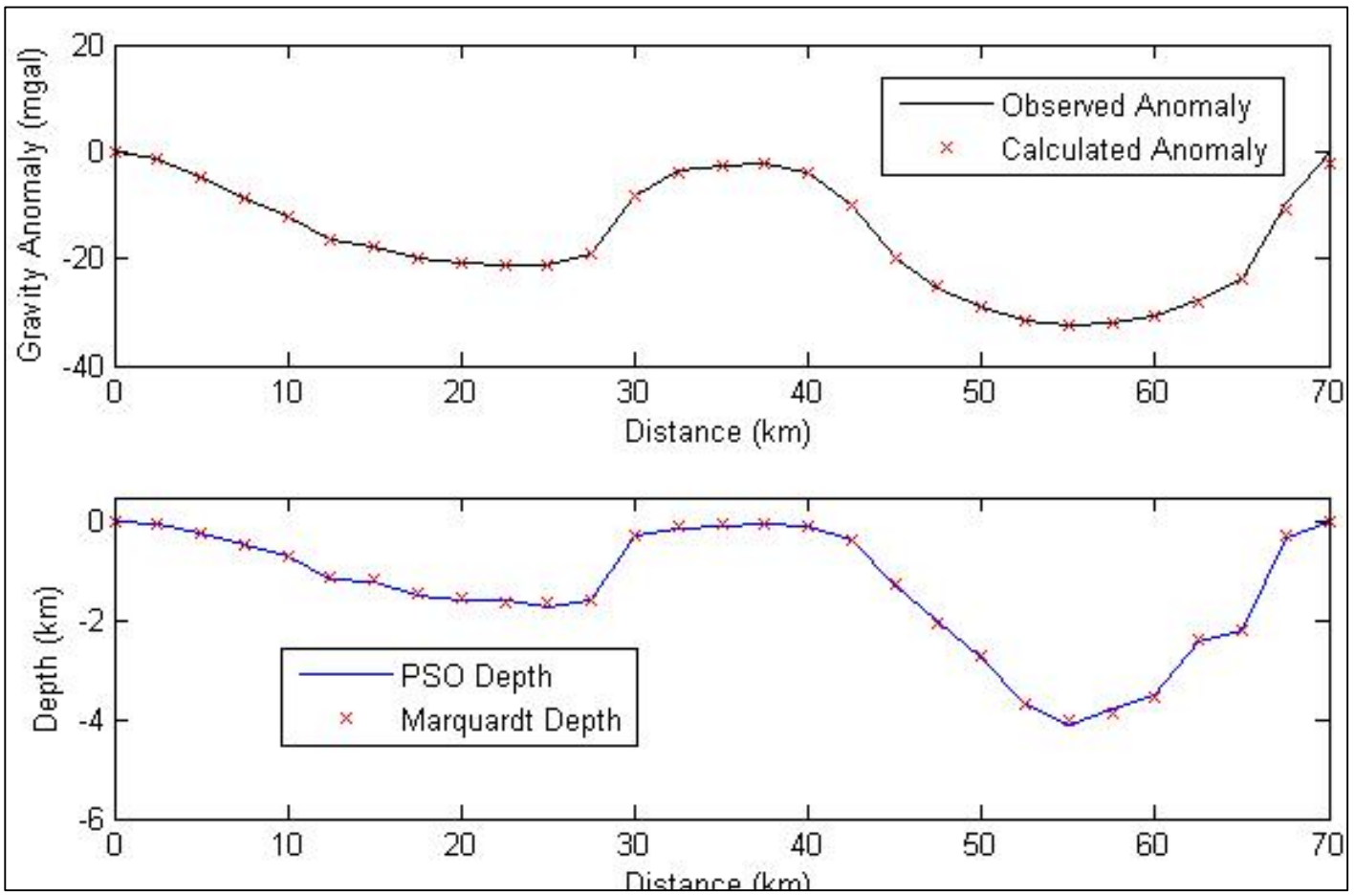

LEGEND
Age
Formation
Upper Triassic to Upper Cretaceous
Raghavapuram Shale
Chikiala Sandstone
Kota Formation
Maleri Formation
Lower Proterozoic to Lower Triassic
Kamthi Formation
Barren Measure Formation
Talchir Formation
Sullavai Formation
Pakhal Formation
Precambrian
Fault
Interpreted profile
Ahiri-Cherla master fault
AHIRI
CHIKIALA
CHINNUR
SIRONCHA
MANTHE
GODAVARI R.
MANUGURU
CHERLA
Pasra
Mailaram
D
D'

Figure 8


Gravity Anomaly (mgal)
20
0
-20
-40
0
10
20
30
40
50
60
70
Distance (km)
Observed Anomaly
Calculated Anomaly
Depth (km)
0
-2
-4
-6
PSO Depth
Marquardt Depth
Distance (km)