

## Appenix (1a) narrative for profile 01

Profile No.	01
Date	06\03\2012
Surveyor	Ah.Ha
GPS E	0452118
GPS N	1751061
Topography	Flat
Slope, %	0
Site	Flat
Landform	Plain
Surface cracks	0
mulch	0
other	None
Microrelief	0
Termitaria per ha	0
Water erosion	0
Wind erosion	0
Trees per ha	0
Tree species	N
Shrubs per ha	0
Shrub species	0
Grasses per ha	0
Grass species	N
Land use	Alfa alfa ,abusabaein
Water table, cm	None
Drainage class	well
Parent material	Alluvium
Other	None

### Depth, cm      Profile description

0-20	Dark grayish brown (10YR 4/2) moist, light clay loam; coarse medium sub angular blocky structure sticky plastic friable moist; hard dry; few fine short cracks few fine pores; slightly calcareous; common medium and fine roots; clear smooth boundary.
20 – 45	Very dark grayish brown (10YR 3/2) moist, clay/ silty clay loam; massive structure; sticky plastic friable moist; hard dry; very few fine pores; slightly calcareous; common medium and fine roots; clear smooth boundary.
45 – 65	Very dark grayish brown (10YR 3/2) moist, clay/ silty clay loam; massive structure; sticky plastic friable to firm moist; hard dry; very few fine pores; few small soft wight salt; slightly calcareous; common medium and fine roots; gradual smooth boundary.
65-90	Very dark grayish brown (10YR 3/2) moist, clay/ silty clay loam; massive structure; sticky plastic friable to firm moist; hard dry; very few fine pores; few small soft wight salt; very few fine gypsum; slightly calcareous; common medium and fine roots; gradual smooth boundary.
90-115	Very dark grayish brown (10YR 3/2) moist, silty clay loam; massive structure; slightly sticky; slightly plastic; friable moist; slightly hard dry; very few fine pores; very few fine gypsum; slightly calcareous.
Soil Taxonomy	Vertic Torrifluvents

# Appendix (1b): Analytical Data of profile NO 01

Pit No	Depth cm	Sand %	Silt %	Clay %	pH 1:5	ECe dS/m	EC 1:5 dS/m	Exch cations, cmol(+) kg-1				CEC cmol kg-1	OC %	Total N %
								Na	K	+Ca Mg	sum			
01	0 - 20	14	44	42	7.8	1.4	0.3	11.74	0.17	22.00	33.91	55	1.0	0.04
	20 - 45	33	27	40	8.1	1.2	0.3	12.17	0.15	32.00	44.32	50	0.9	0.02
	45 - 65	8	54	38	7.3	0.9	0.2	14.26	0.11	23.50	37.87	47	0.8	0.03
	65- 90	13	52	35	7.9	0.5	0.2	11.57	0.10	33.00	44.67	40	0.6	0.01
	9.-115	10	42	45	7.9	0.5	0.2	11.57	0.20	30.00	41.77	40	0.6	

Pit No	Depth cm	CaCO <sub>3</sub> %	Olsen p ppm	ESP	SAR	Soluble cations (meq/l)				Soluble anions (meq/l)				
						Ca+ Mg	Na	K	sum	CO <sub>3</sub>	HCO <sub>3</sub>	Cl <sub>2</sub>	SO <sub>4</sub>	sum
01	0 - 20	1	3.1	21.3	5.0	2.0	4.2	0.06	6.26	0	0	0.6	0	0.6
	20 - 45	1	4.3	24.3	4.3	3.50	15.6	0.07	19.17	0	0	0.5	0	0.5
	45 - 65	0	2.2	30.3	5.9	4.50	25.5	0.06	30.06	0	0	0.3	0	0.3
	65- 90	0	1.4	28.9	4	2.00	15.4	0.12	17.52	0	0	0.4	0	0.4
	9.-115	0	1.4	25.9	4	2.00	13.4	0.12	15.52	0	0	0.3	0	0.3



## Appendix (1c): morphology of profile NO 01

### 54 Appendix (2a) narrative for profile 02

Survey area	El-Faky.H
Profile No.	02
Date	06\03\2012
Surveyor	Ah.H
GPS E	0451950
GPS N	1750886
Topography	Flat
Slope, %	0
Site	Flat
Landform	Plain
Surface cracks	0
mulch	0
other	None
Microrelief	0
Termitaria per ha	0
Water erosion	0
Wind erosion	0
Trees per ha	3
Tree species	mangos
Shrubs per ha	0
Shrub species	0
Grasses per ha	0
Grass species	N
Land use	Mango
Water table, cm	None
Drainage class	Moderate
Parent material	Alluvium
Other	No

#### Depth, cm

#### Profile description

0-15	Dark grayish brown (10YR 4/2) moist, light clay loam; coarse medium sub angular blocky structure sticky plastic friable moist; hard dry; few fine short cracks few fine pores; slightly calcareous; common medium and fine roots; clear smooth boundary.
15 – 40	Very dark grayish brown (10YR 3/2) moist, clay/ silty clay loam; massive structure; sticky plastic friable moist; hard dry; very few fine pores; slightly calcareous; common medium and fine roots; clear smooth boundary.
40 – 65	Very dark grayish brown (10YR 3/2) moist, clay/ silty clay loam; massive structure; sticky plastic friable to firm moist; hard dry; very few fine pores; few small soft wight salt; slightly calcareous; common medium and fine roots; gradual smooth boundary.
65-90	Very dark grayish brown (10YR 3/2) moist, clay/ silty clay loam; massive structure; sticky plastic friable to firm moist; hard dry; very few fine pores; few small soft wight salt; very few fine gypsum; very few fine pores slightly calcareous; common medium and fine roots; gradual smooth boundary.
90-115	Very dark grayish brown (10YR 3/2) moist, silty clay loam; massive structure; slightly sticky; slightly plastic; friable moist; slightly hard dry; very few fine pores; very few fine gypsum; slightly calcareous.

#### Soil Taxonomy

Vertic Torrifuvents



**Appendix (2b): Analatical Data of profile NO 02**

Pit No	Depth cm	Sand %	Silt %	Clay %	pH 1:5	ECe dS/m	EC 1:5 dS/m	Exch cations, cmol(+) kg-1				CEC cmol kg-1	OC %	Total N %
								+Ca Mg	K	Na	sum			
02	0-15	9	52	39	7.8	1.3	0.3	48.3	1.8	4.9	55.0	55	0.9	0.04
	15-40	9	52	39	8.0	1.2	0.3	53.1	1.4	3.5	58.0	50	0.8	0.02
	40-65	15	44	41	7.3	0.9	0.2	44.7	1.4	18.3	63.0	43	0.7	0.03
	65-90	22	34	44	7.9	0.4	0.2	41.2	2.1	13.7	57.0	43	0.6	0.01
	90-115	23	37	40	7.3	0.9	0.2	53.1	1.4	3.5	58.0	43	0.9	

Pit No	Depth cm	CaCO <sub>3</sub> %	Olsen p ppm	ESP	SAR	Soluble cations (meq/l)				Soluble anions (meq/l)				
						Ca+ Mg	K	Na	sum	CO <sub>3</sub>	HCO <sub>3</sub>	Cl <sub>2</sub>	SO <sub>4</sub>	sum
02	0-15	1	7.8	9	5.6	3.7	0.5	5.0	9.2		3.4	0	1.1	4.5
	15-40	1	3.2	6	6.5	3.5	0.3	12.1	15.9	0	2.4	0	1.0	3.4
	40-65	1	4.3	29	6.9	4.9	0.4	14.0	19.3	0	6.4	0	0.6	3.0
	65-90	1	3.5	24	5.6	4.0	0.6	17.6	22.2	0	5.4	0	2.1	7.5
	90-115	1	7.8	9	4.5	3.7	0.5	5.0	9.2	0	3.3	0	1.3	4.6



**Appendix (2c): morphology of profile NO 02**

### Appendix (3a) narrative for profile 03

Survey area	El-Faky.H
Profile No.	03
Date	06\03\2012
Surveyor	Ah.Ha
GPS E	0451792
GPS N	1751041
Topography	Flat
Slope, %	0
Site	Flat
Landform	Plain
Surface cracks	0
mulch	N
other	None
Microrelief	0
Termitaria per ha	0
Water erosion	0
Wind erosion	0
Trees per ha	3
Tree species	mango
Shrubs per ha	0
Shrub species	0
Grasses per ha	0
Grass species	N
Land use	Mango
Water table, cm	None
Drainage class	Moderate
Parent material	Alluvium
Other	None

Depth, cm		Profile description
0 - 20	A1	Dark grayish brown (10YR 4/2) moist, clay loam; sub angular blocky structure sticky plastic friable moist; hard dry; few fine short cracks few fine pores; slightly calcareous; common medium and fine roots; clear smooth boundary.
20 - 50	C1	Very dark grayish brown (10YR 3/2) moist, clay/ silty clay loam; massive structure; sticky plastic friable moist; hard dry; very few fine pores; slightly calcareous; common medium and fine roots; clear smooth boundary.
50 -90	C2	Very dark grayish brown (10YR 3/2) moist, clay/ silty clay loam; sub angular blocky structure; sticky plastic friable to firm moist; hard dry; very few fine pores; few small soft wight salt; slightly calcareous; common medium and fine roots; gradual smooth boundary.
90 -120	C3	Very dark grayish brown (10YR 3/2) moist, silty clay loam; sub angular blocky structure; slightly sticky; slightly plastic; friable moist; slightly hard dry; very few fine pores; very few fine gypsum; slightly calcareous. Vertic Torrifluvents
Soil Taxonomy		Vertic Torrifluvents

**Appendix (3b): Analatical Data of profile NO 03**

Pit No	Depth cm	Sand %	Silt %	Clay %	pH 1:5	ECe dS/m	EC 1:5 dS/m	Exch cations, cmol(+) kg-1				CEC cmol kg-1	OC %	Total N %
								+Ca Mg	K	Na	sum			
03	0-20	11	50	39	7.8	1.2	0.3	38.4	1.6	3.0	43.0	55	0.9	0.04
	20-50	20	40	40	8.1	1.2	0.3	35.2	1.3	6.5	43.0	50	0.7	0.02
	50-90	15	44	41	7.1	0.9	0.2	26.5	1.6	7.9	36.0	47	0.7	0.03
	90-120	22	33	42	7.9	0.5	0.2	21.7	1.2	8.1	31.0	40	0.6	0.01

Pit No	Depth cm	CaCO <sub>3</sub> %	Olsen p ppm	ESP	SAR	Soluble cations (meq/l)				Soluble anions (meq/l)				
						Ca+ Mg	K	Na	sum	CO <sub>3</sub>	HCO <sub>3</sub>	Cl <sub>2</sub>	SO <sub>4</sub>	sum
	0-20	1	8.0	21	6.5	2.6	0.4	3.1	7.6	0	2.9	0.5	1.8	4.3
03	20-50	1	2.7	19	6.9	1.8	0.1	7.0	8.9	0	5.5	0.5	3.9	9.9
	50-90	1	3.4	29	5.6	2.5	0.4	13.3	16.2	0	5.3	0.4	2.6	8.3
	90-120	0	3.5	24	6.2	13.9	0.8	67.0	81.7	0	5.0	0.8	6.4	12.2



**Appendix (3c): morphology of profile NO 03**

## Appendix (4a) narrative for profile 04

Survey area	El-Faky.H
Profile No.	04
Date	06\03\2012
Surveyor	Ahmed
GPS E	0451581
GPS N	1751010
Topography	Flat
Slope, %	0
Site	Flat
Landform	Plain
Surface cracks	0
mulch	N
other	None
Microrelief	0
Termitaria per ha	0
Water erosion	0
Wind erosion	0
Trees per ha	3
Tree species	mango
Shrubs per ha	0
Shrub species	0
Grasses per ha	0
Grass species	N
Land use	Mango
Water table, cm	None
Drainage class	Moderate
Parent material	Alluvium
Other	None

Depth, cm		Profile description
0 - 25	A1	Dark brown (2.5Y3/3) moist; sandy clay loam; sub angular blocky structure; slightly sticky; slightly plastic; friable moist; slightly hard dry; few and very short cracks 20cm; few fine pores; slightly calcareous; common medium roots; clear smooth boundary.
25 - 60	C1	Dark brown (2.5Y3/3) moist; sandy clay loam; sub angular blocky structure; slightly sticky; slightly plastic; friable moist; slightly hard dry; common fine pores; slightly calcareous; common medium roots; gradual smooth boundary.
60 -90	C2	Dark brown (2.5Y3/3) moist; fine sandy loam; massive structure; slightly sticky; slightly plastic; friable moist; slightly hard dry; common fine pores; non calcareous; common fine roots; clear smooth boundary.
90 -115	C3	Dark brown (2.5Y3/3) moist; fine sandy loam; massive structure; slightly sticky; slightly plastic; friable moist; slightly hard dry; common fine pores; common medium roots; slightly calcareous.
Soil Taxonomy		Typic Torrifluvents



**Appendix (4b): Analatical Data of profile NO 04**

Pit No	Depth cm	Sand %	Silt %	Clay %	pH 1:5	ECe dS/m	EC 1:5 dS/m	Exch cations, cmol(+) kg-1				CEC cmol kg-1	OC %	Total N %
								+Ca Mg	K	Na	sum			
04	0-25	22	38	40	7.8	1.4	0.3	36.8	2.3	2.9	42.0	40	0.9	0.13
	25-60	23	37	40	8.3	1.2	0.3	34.9	1.2	5.9	42.0	32	0.8	0.20
	60-90	15	44	41	7.1	0.9	0.2	26.1	0.9	10.0	37.0	37	0.7	0.10
	90-115	9	48	43	7.9	0.5	0.2	32.5	1.0	9.5	43.0	42	0.6	0.08

Pit No	Depth cm	CaCO <sub>3</sub> %	Olsen p ppm	ESP	SAR	Soluble cations (meq/l)				Soluble anions (meq/l)				
						Ca+ Mg	K	Na	sum	CO <sub>3</sub>	HCO <sub>3</sub>	Cl <sub>2</sub>	SO <sub>4</sub>	sum
	0-25	1	4.7	29	6.5	4.8	0.5	5.7	11.0	0	5.7	0.4	6.0	12.1
04	25-60	1	5.0	24	6.9	3.0	0.2	11.3	14.5	0	6.2	0.4	6.0	12.6
	60-90	1	5.8	20	5.6	11.7	1.2	39.2	47.0	0	7.7	0.4	6.0	14.1
	90-115	0	5.9	29	6.2	14	1.86	80	115.9	0	6.5	0.4	6.0	12.9



**Appendix (4c): morphology of profile NO 04**

## Appendix (5a): narrative for profiles 05

Survey area	El-Faky.H
Profile No.	05
Date	01\10\2012
Surveyor	Ahmed
GPS E	0451405
GPS N	1751156
Topography	Flat
Slope, %	0
Site	Flat
Landform	Plain
Surface cracks	0
mulch	N
other	None
Microrelief	0
Termitaria per ha	0
Water erosion	0
Wind erosion	0
Trees per ha	3
Tree species	mango
Shrubs per ha	0
Shrub species	0
Grasses per ha	0
Grass species	N
Land use	Alfa alfa
Water table, cm	None
Drainage class	Moderate
Parent material	Alluvium
Other	None

### Depth, cm

### Profile description

0-30 A1	Dark brown (10YR 3/3) moist, silty loam; moderate fine subangular blocky structure; very friable, slightly sticky slightly plastic; non calcareous; common medium roots; clear smooth boundary.
30 – 60 C1	Dark brown (10YR 3/3) moist, silty loam; weak fine subangular to angular blocky structure; common fine channels common very fine roots; gradual wavy boundary.
60 – 85 C2	Dark brown (10YR 3/3) moist; silt loam; massive structure; friable moist; slightly hard dry; slightly sticky; non plastic; common fine pores; few fine roots; clear wavy boundary.
85-98 C3	Dark brown (10Y R 3/3) most, silt loam; massive structure; slight sticky non plastic; friable moist slightly hard dry; common fine roots; common krsotovina clear wavy boundary.
98-120 C4	Dark brown (10Y R 3/3) most, silt loam; massive structure; slight sticky non plastic; friable moist slightly hard dry; common fine roots; clear wavy boundary.
Soil Taxonomy	Typic Torrifluvents

Appendix (5b): Analatical Data of profile NO 05

Pit No	Depth cm	Sand %	Silt %	Clay %	pH 1:5	ECe dS/m	EC 1:5 dS/m	Exch cations, cmol(+) kg-1				CEC cmol kg-1	OC %	Total N %
								Na	K	+Ca Mg	sum			
05	0-30	6	72	22	8.2	1.7	0.4	48.3	1.8	4.9	55.0	50	1.0	0.08
	30-60	15	57	28	8.7	1.3	0.3	53.1	1.4	3.5	58.0	53	0.9	0.18
	60-85	20	39	41	8.6	2.0	0.8	44.7	1.4	18.3	63.0	43	0.8	0.12
	85-120	17	47	38	8.3	3.5	2.0	41.2	2.1	13.7	57.0	57	0.6	0.08

Pit No	Depth cm	CaCO <sub>3</sub> %	Olsen p ppm	ESP	SAR	Soluble cations (meq/l)				Soluble anions (meq/l)				
						Ca+ Mg	K	Na	sum	CO <sub>3</sub>	HCO <sub>3</sub>	Cl <sub>2</sub>	SO <sub>4</sub>	sum
05	0-30	4	2.1	23	7	4.9	0.1	8.1	13.1	0	6.7	0.4	6.0	13.1
	30-60	5	1.4	24	5	4.6	1.1	24.6	30.3	0	4.9	0.3	25.1	30.3
	60-85	6	1.7	19	16	11.7	1.0	44.0	56.7	0.6	4.9	0.4	51.4	56.7
	85-120	4	1.2	26	18	4.9	0.1	8.1	13.1	0	4.6	0.7	20.4	25.7



Appendix (5c): morphology of profile NO 0

