

**2013 NACTA SOILS JUDGING  
2 YEAR DIVISION**

**SOILS JUDGING SCORECARD**

Host: Texas Tech University - Lubbock, Texas

SITE NO. NRM-1

CONTESTANT I.D. \_\_\_\_\_

Describe soil to 26 cm. Red marker in 3<sup>rd</sup> layer at 45 cm.

TOTAL SCORE \_\_\_\_\_

**PART I**

Layer / Horizon (2 pts.)	Lower Depth (cm) (2 pts.)	Boundary Distinctness (2 pts.)	Moist Consistency (2 pts.)	Color (2 pts.)	Accumulations or Mottles (2 pts.)	Coarse Fragments (2 pts.)	Texture (5 pts.)	Structure Shape (5 pts.)	Score
1. A	20	C	FR	D	-	-	SL	SBK	
2. B	41	G	FR	MB	-	-	SCL	PR, SBK	
3. B	57	G	FR	MB	-	-	SCL	PR, SBK	
4. B	87	C	FR	MB	-	-	SCL	PR, SBK	
5. B	126	C	FI	MB	-	-	CL	PR, SBK	
A	Record lower depth in cm	Abrupt (A) Clear (C) Gradual (G) Diffuse (D) None (-)	Loose (L) V. Friable (VFR) Friable (FR) Firm (FI) V. Firm (VFI) Ext. Firm (EFI)	Dark (D)  Medium & Bright (MB)  Medium & Dull (MD)  Light (L)	None (-) Concentrations (C) Depletions (D) White (W)	None (-) Gravelly (GR) V. Gravelly (VGR) Extremely Gravelly (EGR)	S, LS, SL, L, SCL, SI, SIL, CL, C, SICL, SIC, SC	GR, PL, SBK, ABK, PR, CO, MA, SGR	

**Use abbreviations for all columns except depth.**

SCORE PART I \_\_\_\_\_

Part II - SITE AND SOIL CHARACTERISTICS

A. PARENT MATERIAL (5 pts each correct)

- Alluvium
- Glacial outwash
- Glacial till
- Beach deposit
- Colluvium
- Loess
- Lacustrine
- Eolian sand
- Residuum

B. LOCAL LAND FORM (5)

- Flood plain
- Stream terrace
- Outwash plain
- Kame/esker
- Till plain/drumlin/moraine
- Beach ridge
- Alluvial fan
- Loess hillslope/plain
- Lake plain
- Sand dune
- Upland

C. SLOPE (5)

- Concave
- < 1% 0.87%
- 1 - <5%
- 5 - <10%
- 10 - <15%
- 15 - 20%
- > 20%

D. SURFACE RUNOFF (5)

- Negligible
- Very Low
- Low
- Medium
- High
- Very High

E. DEGREE OF EROSION (5)

- Deposition Original
- None to Slight (class I) Surface
- Moderate (class II)
- Severe (class III) 15cm
- Very Severe (class IV)

F. SOIL WETNESS CLASS (5)

- Not wet above 150 cm
- Wet between 100 to <150 cm
- Wet between 50 to <100 cm
- Wet between 25 to <50 cm
- Wet above 25 cm

G. SOIL DEPTH (5)

- Very Shallow (< 25 cm.)
- Shallow (25 - <50 cm.)

- Moderately Deep (50 - <100 cm.)
- Deep (100 - 150 cm.)
- Very Deep (> 150 cm.)

8. PERMEABILITY/SURFACE (5)

- Slow
- Moderate
- Rapid

9. PERMEABILITY/LIMITING (5)

- Slow
- Moderate
- Rapid

10. WATER RETENTION DIFFERENCE (5)

- Very Low (<7.5 cm.)
- Low (7.5 - <15 cm.)
- Moderate (15 - 22.5 cm.)
- High (> 22.5 cm.)

Part III - INTERPRETATIONS

1. LAND CAPABILITY CLASS (5)

- Class I
- Class II
- Class III
- Class IV
- Class V
- Class VI
- Class VII

2. LAND CAPABILITY SUBCLASS (5)

- e - Subclass
- w - Subclass
- s - Subclass
- c - Subclass
- No Subclass

3. ROADFILL (5)

- Good
- Fair
- Poor
- Low Strength Feature

4. SEPTIC TANK ABSORPTION FIELDS (5)

- Slight
- Moderate
- Severe
- Percs Slowly Feature

5. SEWAGE LAGOONS (5)

- Slight
- Moderate
- Severe
- Seepage Feature

Tie Breaker (Surface)

% clay 17

% sand 62

SCORE PARTS II & III \_\_\_\_\_



**2013 NACTA SOILS JUDGING  
2 YEAR DIVISION**

**SOILS JUDGING SCORECARD**

Host: Texas Tech University – Lubbock, Texas

SITE NO. NRM-2

CONTESTANT I.D. \_\_\_\_\_

Describe soil to 150 cm. Red marker in 3<sup>rd</sup> layer at 42 cm.

TOTAL SCORE \_\_\_\_\_

**PART I**

Layer / Horizon (2 pts.)	Lower Depth (cm) (2 pts.)	Boundary Distinctness (2 pts.)	Moist Consistency (2 pts.)	Color (2 pts.)	Accumulations or Mottles (2 pts.)	Coarse Fragments (2 pts.)	Texture (5 pts.)	Structure Shape (5 pts.)	Score
1. A	15	C	FR	D	-	-	L, SL	SBK	
2. B	39	A	FR	D	-	-	SL	PR, SBK	
3. B	75	C	-	-	-	-	-	-	
4. B	118	C	FI	L	-	-	SCL	MA	
5. B	150	-	FI	L	-	-	SCL	MA	
A	Record lower depth in cm	Abrupt (A) Clear (C) Gradual (G) Diffuse (D) None (-)	Loose (L) V. Friable (VFR) Friable (FR) Firm (FI) V. Firm (VFI) (VFI) Ext. Firm (EFI)	Dark (D)  Medium & Bright (MB)  Medium & Dull (MD)  Light (L)	None (-) Concentrations (C) Depletions (D) White (W)	None (-) Gravelly (GR) V. Gravelly (VGR) Extremely Gravelly (EGR)	S, LS, SL, L, SCL, SI, SIL, CL, C, SICL, SIC, SC	GR, PL, SBK, ABK, PR, CO, MA, SGR	

**Use abbreviations for all columns except depth.**

SCORE PART I \_\_\_\_\_

Part II - SITE AND SOIL CHARACTERISTICS

A. PARENT MATERIAL (5 pts each correct)

- Alluvium
- Glacial outwash
- Glacial till
- Beach deposit
- Colluvium
- Loess
- Lacustrine
- Eolian sand
- Residuum

B. LOCAL LAND FORM (5)

- Flood plain
- Stream terrace
- Outwash plain
- Kame/esker
- Till plain/drumlin/moraine
- Beach ridge
- Alluvial fan
- Loess hillslope/plain
- Lake plain
- Sand dune
- Upland

C. SLOPE (5)

- Concave
- < 1%
- 1 - <5% 3.2%
- 5 - <10%
- 10 - <15%
- 15 - 20%
- > 20%

D. SURFACE RUNOFF (5)

- Negligible
- Very Low
- Low
- Medium
- High
- Very High

E. DEGREE OF EROSION (5)

- Deposition
- None to Slight (class I) Original Surface
- Moderate (class II)
- Severe (class III)
- Very Severe (class IV) 15cm

F. SOIL WETNESS CLASS (5)

- Not wet above 150 cm
- Wet between 100 to <150 cm
- Wet between 50 to <100 cm
- Wet between 25 to <50 cm
- Wet above 25 cm

G. SOIL DEPTH (5)

- Very Shallow (< 25 cm.)
- Shallow (25 - <50 cm.)

- Moderately Deep (50 - <100 cm.)
- Deep (100 - 150 cm.)
- Very Deep (> 150 cm.)

8. PERMEABILITY/SURFACE (5)

- Slow
- Moderate
- Rapid

9. PERMEABILITY/LIMITING (5)

- Slow
- Moderate
- Rapid

10. WATER RETENTION DIFFERENCE (5)

- Very Low (<7.5 cm.)
- Low (7.5 - <15 cm.)
- Moderate (15 - 22.5 cm.)
- High (> 22.5 cm.)

Part III - INTERPRETATIONS

1. LAND CAPABILITY CLASS (5)

- Class I
- Class II
- Class III
- Class IV
- Class V
- Class VI
- Class VII

2. LAND CAPABILITY SUBCLASS (5)

- e - Subclass
- w - Subclass
- s - Subclass
- c - Subclass
- No Subclass

3. ROADFILL (5)

- Good
- Fair
- Poor
- Depth to Rock Feature

(5)

4. SEPTIC TANK ABSORPTION FIELDS (5)

- Slight
- Moderate
- Severe
- Depth to Rock Feature

(5)

5. SEWAGE LAGOONS (5)

- Slight
- Moderate
- Severe
- Depth to Rock Feature

(5)

Tie Breaker (Surface)

% clay 14

% sand 52

SCORE PARTS II & III \_\_\_\_\_





**2013 NACTA SOILS JUDGING  
2 YEAR DIVISION**

**SOILS JUDGING SCORECARD**

Host: Texas Tech University – Lubbock, Texas

SITE NO. NRM-3

CONTESTANT I.D. \_\_\_\_\_

Describe soil to 117 cm. Red marker in 3<sup>rd</sup> layer at 50 cm.

TOTAL SCORE \_\_\_\_\_

**PART I**

Layer / Horizon (2 pts.)	Lower Depth (cm) (2 pts.)	Boundary Distinctness (2 pts.)	Moist Consistency (2 pts.)	Color (2 pts.)	Accumulations or Mottles (2 pts.)	Coarse Fragments (2 pts.)	Texture (5 pts.)	Structure Shape (5 pts.)	Score
1. A	20	C	FR	D	-	-	SL	SBK	
2. B	37	C	FR	MB	-	-	SL	PR, SBK	
3. B	60	C	FR	MB	-	-	SCL	PR, SBK	
4. B	82	C	FR	MB	-	-	SCL	PR, SBK	
5. B	117	A	FI	MB	-	-	SCL	PR, SBK	
A	Record lower depth in cm	Abrupt (A) Clear (C) Gradual (G) Diffuse (D) None (-)	Loose (L) V. Friable (VFR) Friable (FR) Firm (FI) V. Firm (VFI) Ext. Firm (EFI)	Dark (D) Medium & Bright (MB) Medium & Dull (MD) Light (L)	None (-) Concentrations (C) Depletions (D) White (W)	None (-) Gravelly (GR) V. Gravelly (VGR) Extremely Gravelly (EGR)	S, LS, SL, L, SCL, SI, SIL, CL, C, SICL, SIC, SC	GR, PL, SBK, ABK, PR, CO, MA, SGR	

**Use abbreviations for all columns except depth.**

SCORE PART I \_\_\_\_\_

Part II - SITE AND SOIL CHARACTERISTICS

A. PARENT MATERIAL (5 pts each correct)

- Alluvium
- Glacial outwash
- Glacial till
- Beach deposit
- Colluvium
- Loess
- Lacustrine
- Eolian sand
- Residuum

- Moderately Deep (50 - <100 cm.)
- Deep (100 - 150 cm.)
- Very Deep (> 150 cm.)

B. LOCAL LAND FORM (5)

- Flood plain
- Stream terrace
- Outwash plain
- Kame/esker
- Till plain/drumlin/moraine
- Beach ridge
- Alluvial fan
- Loess hillslope/plain
- Lake plain
- Sand dune
- Upland

8. PERMEABILITY/SURFACE (5)

- Slow
- Moderate
- Rapid

9. PERMEABILITY/LIMITING (5)

- Slow
- Moderate
- Rapid

10. WATER RETENTION DIFFERENCE (5)

- Very Low (<7.5 cm.)
- Low (7.5 - <15 cm.)
- Moderate (15 - 22.5 cm.)
- High (> 22.5 cm.)

C. SLOPE (5)

- Concave
- < 1% 0.8%
- 1 - <5%
- 5 - <10%
- 10 - <15%
- 15 - 20%
- > 20%

Part III - INTERPRETATIONS

1. LAND CAPABILITY CLASS (5)

- Class I
- Class II
- Class III
- Class IV
- Class V
- Class VI
- Class VII

D. SURFACE RUNOFF (5)

- Negligible
- Very Low
- Low
- Medium
- High
- Very High

2. LAND CAPABILITY SUBCLASS (5)

- e - Subclass
- w - Subclass
- s - Subclass
- c - Subclass
- No Subclass

E. DEGREE OF EROSION (5)

- Deposition Original
- None to Slight (class I) Surface
- Moderate (class II)
- Severe (class III)
- Very Severe (class IV) 15cm

3. ROADFILL (5)

- Good
- Fair
- Poor
- Low Strength Feature

(5)

4. SEPTIC TANK ABSORPTION FIELDS (5)

- Slight
- Moderate
- Severe
- Percs Slowly Feature

(5)

5. SEWAGE LAGOONS (5)

- Slight
- Moderate
- Severe
- Seepage Feature

(5)

F. SOIL WETNESS CLASS (5)

- Not wet above 150 cm
- Wet between 100 to <150 cm
- Wet between 50 to <100 cm
- Wet between 25 to <50 cm)
- Wet above 25 cm

G. SOIL DEPTH (5)

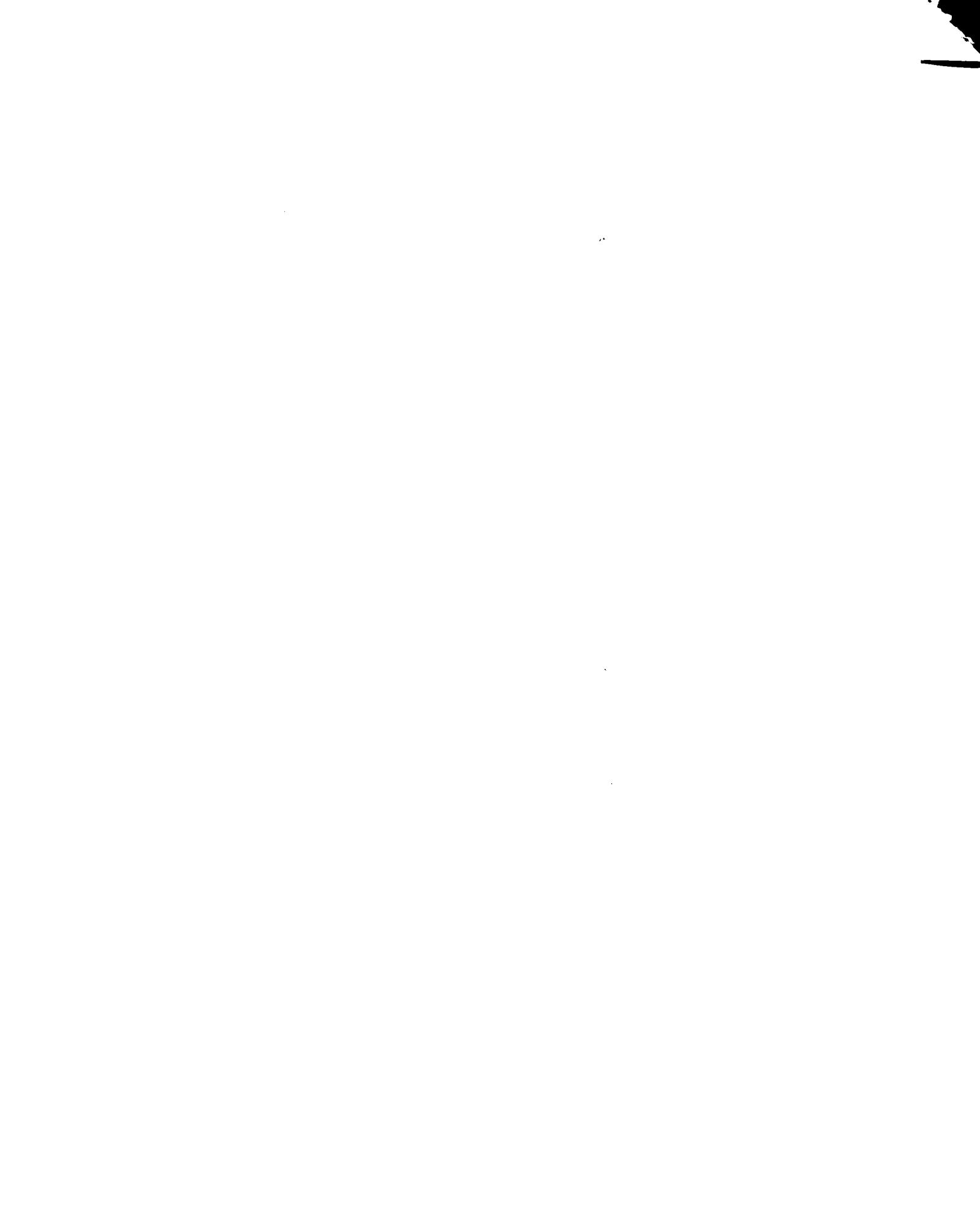
- Very Shallow (< 25 cm.)
- Shallow (25 - <50 cm.)

Tie Breaker (Surface)

% clay 10

% sand 61

SCORE PARTS II & III \_\_\_\_\_



**2013 NACTA SOILS JUDGING  
2 YEAR DIVISION**

**SOILS JUDGING SCORECARD**

Host: Texas Tech University - Lubbock, Texas

SITE NO. ARM-4

CONTESTANT I.D. \_\_\_\_\_

Describe soil to 22 cm. Red marker in 3<sup>rd</sup> layer at 54 cm.

TOTAL SCORE \_\_\_\_\_

**PART I**

Layer / Horizon (2 pts.)	Lower Depth (cm) (2 pts.)	Boundary Distinctness (2 pts.)	Moist Consistency (2 pts.)	Color (2 pts.)	Accumulations or Mottles (2 pts.)	Coarse Fragments (2 pts.)	Texture (5 pts.)	Structure Shape (5 pts.)	Score
1. A	28	C	FR	D	-	-	C	SBK	
2. B	45	C	FR	D	-	-	CL	SBK	
3. A	66	G	FI	D	-	-	SCL	PR	
4. B	93	G	FI	MB	-	-	SCL	SBK	
5. B	122	G	FI	MB	-	-	CL	SBK	
A	Record lower depth in cm	Abrupt (A) Clear (C) Gradual (G) Diffuse (D) None (-)	Loose (L) V. Friable (VFR) Friable (FR) Firm (FI) V. Firm (VFI) Ext. Firm (EFI)	Dark (D) Medium & Bright (MB) Medium & Dull (MD) Light (L)	None (-) Concentrations (C) Depletions (D) White (W)	None (-) Gravelly (GR) V. Gravelly (VGR) Extremely Gravelly (EGR)	S, LS, SL, L, SCL, SI, SIL, CL, C, SICL, SIC, SC	GR, PL, SBK, ABK, PR, CO, MA, SGR	

**Use abbreviations for all columns except depth.**

SCORE PART I \_\_\_\_\_

Part II - SITE AND SOIL CHARACTERISTICS

A. PARENT MATERIAL (5 pts each correct)

- Alluvium
- Glacial outwash
- Glacial till
- Beach deposit
- Colluvium
- Loess
- Lacustrine
- Eolian sand
- Residuum

- Moderately Deep (50 - <100 cm.)
- Deep (100 - 150 cm.)
- Very Deep (> 150 cm.)

B. LOCAL LAND FORM (5)

- Flood plain
- Stream terrace
- Outwash plain
- Kame/esker
- Till plain/drumlin/moraine
- Beach ridge
- Alluvial fan
- Loess hillslope/plain
- Lake plain
- Sand dune
- Upland

8. PERMEABILITY/SURFACE (5)

- Slow
- Moderate
- Rapid

9. PERMEABILITY/LIMITING (5)

- Slow
- Moderate
- Rapid

C. SLOPE (5)

- Concave
- < 1%
- 1 - <5% 2.0%
- 5 - <10%
- 10 - <15%
- 15 - 20%
- > 20%

10. WATER RETENTION DIFFERENCE (5)

- Very Low (<7.5 cm.)
- Low (7.5 - <15 cm.)
- Moderate (15 - 22.5 cm.)
- High (> 22.5 cm.)

D. SURFACE RUNOFF (5)

- Negligible
- Very Low
- Low
- Medium
- High
- Very High

Part III - INTERPRETATIONS

1. LAND CAPABILITY CLASS (5)

- Class I
- Class II
- Class III
- Class IV
- Class V
- Class VI
- Class VII

2. LAND CAPABILITY SUBCLASS (5)

- e - Subclass
- w - Subclass
- s - Subclass
- c - Subclass
- No Subclass

3. ROADFILL (5)

- Good
- Fair
- Poor
- Shrink - Swell Feature

(5)

4. SEPTIC TANK ABSORPTION FIELDS (5)

- Slight
- Moderate
- Severe
- Flooding Feature

(5)

5. SEWAGE LAGOONS (5)

- Slight
- Moderate
- Severe
- Flooding Feature

(5)

E. DEGREE OF EROSION (5)

- Deposition Original
- None to Slight (class I) Surface
- Moderate (class II)
- Severe (class III)
- Very Severe (class IV) 15cm

F. SOIL WETNESS CLASS (5)

- Not wet above 150 cm
- Wet between 100 to <150 cm
- Wet between 50 to <100 cm
- Wet between 25 to <50 cm
- Wet above 25 cm

G. SOIL DEPTH (5)

- Very Shallow (< 25 cm.)
- Shallow (25 - <50 cm.)

Tie Breaker (Surface)

% clay 58

% sand 13

SCORE PARTS II & III \_\_\_\_\_





**2013 NACTA SOILS JUDGING  
2 YEAR DIVISION  
SOILS JUDGING SCORECARD**

Host: Texas Tech University – Lubbock, Texas

SITE NO. NRM-5

CONTESTANT I.D. \_\_\_\_\_

Describe soil to 12 cm. Red marker in 3<sup>rd</sup> layer at 55 cm.

TOTAL SCORE \_\_\_\_\_

**PART I**

Layer / Horizon (2 pts.)	Lower Depth (cm) (2 pts.)	Boundary Distinctness (2 pts.)	Moist Consistency (2 pts.)	Color (2 pts.)	Accumulations or Mottles (2 pts.)	Coarse Fragments (2 pts.)	Texture (5 pts.)	Structure Shape (5 pts.)	Score
1. A	19	C	VFR	D	-	-	SCL	SBK	
2. B	46	C	FR	MB	-	-	SCL	PR, SBK	
3. B	65	C	FI	MB	-	-	C, CL	SBK	
4. B	85	G	FI	MB	-	-	CL	SBK	
5. B	112	G	FI	MB	-	-	CL	SBK	
A	Record lower depth in cm	Abrupt (A) Clear (C) Gradual (G) Diffuse (D) None (-)	Loose (L) V. Friable (VFR) Friable (FR) Firm (FI) V. Firm (VFI) Ext. Firm (EFI)	Dark (D) Medium & Bright (MB) Medium & Dull (MD) Light (L)	None (-) Concentrations (C) Depletions (D) White (W)	None (-) Gravelly (GR) V. Gravelly (VGR) Extremely Gravelly (EGR)	S, LS, SL, L, SCL, SI, SIL, CL, C, SICL, SIC, SC	GR, PL, SBK, ABK, PR, CO, MA, SGR	

**Use abbreviations for all columns except depth.**

Part II - SITE AND SOIL CHARACTERISTICS

A. PARENT MATERIAL (5 pts each correct)

- Alluvium
- Glacial outwash
- Glacial till
- Beach deposit
- Colluvium
- Loess
- Lacustrine
- Eolian sand
- Residuum

B. LOCAL LAND FORM (5)

- Flood plain
- Stream terrace
- Outwash plain
- Kame/esker
- Till plain/drumlin/moraine
- Beach ridge
- Alluvial fan
- Loess hillslope/plain
- Lake plain
- Sand dune
- Upland

C. SLOPE (5)

- Concave
- < 1%
- 1 - <5% 1.5%
- 5 - <10%
- 10 - <15%
- 15 - 20%
- > 20%

D. SURFACE RUNOFF (5)

- Negligible
- Very Low
- Low
- Medium
- High
- Very High

E. DEGREE OF EROSION (5)

- Deposition
- None to Slight (class I) Original
- Moderate (class II) Surface
- Severe (class III)
- Very Severe (class IV) 10cm

F. SOIL WETNESS CLASS (5)

- Not wet above 150 cm
- Wet between 100 to <150 cm
- Wet between 50 to <100 cm
- Wet between 25 to <50 cm
- Wet above 25 cm

G. SOIL DEPTH (5)

- Very Shallow (< 25 cm.)
- Shallow (25 - <50 cm.)

- Moderately Deep (50 - <100 cm.)
- Deep (100 - 150 cm.)
- Very Deep (> 150 cm.)

8. PERMEABILITY/SURFACE (5)

- Slow
- Moderate
- Rapid

9. PERMEABILITY/LIMITING (5)

- Slow
- Moderate
- Rapid

10. WATER RETENTION DIFFERENCE (5)

- Very Low (<7.5 cm.)
- Low (7.5 - <15 cm.)
- Moderate (15 - 22.5 cm.)
- High (> 22.5 cm.)

Part III - INTERPRETATIONS

1. LAND CAPABILITY CLASS (5)

- Class I
- Class II
- Class III
- Class IV
- Class V
- Class VI
- Class VII

2. LAND CAPABILITY SUBCLASS (5)

- e - Subclass
- w - Subclass
- s - Subclass
- c - Subclass
- No Subclass

3. ROADFILL (5)

- Good
- Fair
- Poor
- Low Strength / Shrink-Swell Feature

4. SEPTIC TANK ABSORPTION FIELDS (5)

- Slight
- Moderate
- Severe
- Peres Slowly Feature

5. SEWAGE LAGOONS (5)

- Slight
- Moderate
- Severe
- \_\_\_\_\_ Feature

Tie Breaker (Surface)

% clay 21

% sand 53

SCORE PARTS II & III \_\_\_\_\_



**2013 NACTA SOILS JUDGING  
2 YEAR DIVISION**

**SOILS JUDGING SCORECARD**

Host: Texas Tech University – Lubbock, Texas

SITE NO. NRM-6

CONTESTANT I.D. \_\_\_\_\_

Describe soil to 16 cm. Red marker in 3<sup>rd</sup> layer at 45 cm.

TOTAL SCORE \_\_\_\_\_

**PART I**

Layer / Horizon (2 pts.)	Lower Depth (cm) (2 pts.)	Boundary Distinctness (2 pts.)	Moist Consistency (2 pts.)	Color (2 pts.)	Accumulations or Mottles (2 pts.)	Coarse Fragments (2 pts.)	Texture (5 pts.)	Structure Shape (5 pts.)	Score
1. A	14	C	VFR	D	-	-	SL	SBK	
2. B	39	G	FR	MB	-	-	SCL	PR, SBK	
3. B	68	G	FR	MB	-	-	SCL	PR, SBK	
4. B	82	G	FR	MB	-	-	SCL	PR, SBK	
5. B	116	C	FI	L	-	-	C	SBK	
A	Record lower depth in cm	Abrupt (A) Clear (C) Gradual (G) Diffuse (D) None (-)	Loose (L) V. Friable (VFR) Friable (FR) Firm (FI) V. Firm (VFI) (VFI) Ext. Firm (EFI)	Dark (D)  Medium & Bright (MB)  Medium & Dull (MD)  Light (L)	None (-) Concentrations (C) Depletions (D) White (W)	None (-) Gravelly (GR) V. Gravelly (VGR) Extremely Gravelly (EGR)	S, LS, SL, L, SCL, SI, SIL, CL, C, SICL, SIC, SC	GR, PL, SBK, ABK, PR, CO, MA, SGR	

**Use abbreviations for all columns except depth.**

SCORE PART I \_\_\_\_\_

Part II - SITE AND SOIL CHARACTERISTICS

A. PARENT MATERIAL (5 pts each correct)

- Alluvium
- Glacial outwash
- Glacial till
- Beach deposit
- Colluvium
- Loess
- Lacustrine
- Eolian sand
- Residuum

B. LOCAL LAND FORM (5)

- Flood plain
- Stream terrace
- Outwash plain
- Kame/esker
- Till plain/drumlin/moraine
- Beach ridge
- Alluvial fan
- Loess hillslope/plain
- Lake plain
- Sand dune
- Upland

C. SLOPE (5)

- Concave
- < 1% 0.8%
- 1 - <5%
- 5 - <10%
- 10 - <15%
- 15 - 20%
- > 20%

D. SURFACE RUNOFF (5)

- Negligible
- Very Low
- Low
- Medium
- High
- Very High

E. DEGREE OF EROSION (5)

- Deposition
- None to Slight (class I) Original
- Moderate (class II) Surface
- Severe (class III) Sem
- Very Severe (class IV)

F. SOIL WETNESS CLASS (5)

- Not wet above 150 cm
- Wet between 100 to <150 cm
- Wet between 50 to <100 cm
- Wet between 25 to <50 cm
- Wet above 25 cm

G. SOIL DEPTH (5)

- Very Shallow (< 25 cm.)
- Shallow (25 - <50 cm.)

- Moderately Deep (50 - <100 cm.)
- Deep (100 - 150 cm.)
- Very Deep (> 150 cm.)

8. PERMEABILITY/SURFACE (5)

- Slow
- Moderate
- Rapid

9. PERMEABILITY/LIMITING (5)

- Slow
- Moderate
- Rapid

10. WATER RETENTION DIFFERENCE (5)

- Very Low (<7.5 cm.)
- Low (7.5 - <15 cm.)
- Moderate (15 - 22.5 cm.)
- High (> 22.5 cm.)

Part III - INTERPRETATIONS

1. LAND CAPABILITY CLASS (5)

- Class I
- Class II
- Class III
- Class IV
- Class V
- Class VI
- Class VII

2. LAND CAPABILITY SUBCLASS (5)

- e - Subclass
- w - Subclass
- s - Subclass
- c - Subclass
- No Subclass

3. ROADFILL (5)

- Good
- Fair
- Poor Shrink - Swell Feature

4. SEPTIC TANK ABSORPTION FIELDS (5)

- Slight
- Moderate
- Severe Percs Slowly Feature

5. SEWAGE LAGOONS (5)

- Slight
- Moderate Seepage Feature
- Severe

Tie Breaker (Surface)

% clay 17

% sand 61

SCORE PARTS II & III \_\_\_\_\_





**2013 NACTA SOILS JUDGING  
2 YEAR DIVISION**

**SOILS JUDGING SCORECARD**

Host: Texas Tech University – Lubbock, Texas

SITE NO. ARM-7

CONTESTANT I.D. \_\_\_\_\_

Describe soil to 30 cm. Red marker in 3<sup>rd</sup> layer at 50 cm.

TOTAL SCORE \_\_\_\_\_

**PART I**

Layer / Horizon (2 pts.)	Lower Depth (cm) (2 pts.)	Boundary Distinctness (2 pts.)	Moist Consistency (2 pts.)	Color (2 pts.)	Accumulations or Mottles (2 pts.)	Coarse Fragments (2 pts.)	Texture (5 pts.)	Structure Shape (5 pts.)	Score
1. A	15	C	VFR	MB	-	-	SL, L	SBK	
2. B	42	G	FR	MB	-	-	SL	PR, SBK	
3. B	68	C	FR	MB	-	-	SCL	PR, SBK	
4. B	95	G	FR	MB	-	-	SCL	PR, SBK	
5. B	130	C	FR	MB	-	-	SL	PR, SBK	
A	Record lower depth in cm	Abrupt (A) Clear (C) Gradual (G) Diffuse (D) None (-)	Loose (L) V. Friable (VFR) Friable (FR) Firm (FI) V. Firm (VFI) (VFI) Ext. Firm (EFI)	Dark (D)  Medium & Bright (MB)  Medium & Dull (MD)  Light (L)	None (-) Concentrations (C) Depletions (D) White (W)	None (-) Gravelly (GR) V. Gravelly (VGR) Extremely Gravelly (EGR)	S, LS, SL, L, SCL, SI, SIL, CL, C, SICL, SIC, SC	GR, PL, SBK, ABK, PR, CO, MA, SGR	

**Use abbreviations for all columns except depth.**

SCORE PART I \_\_\_\_\_

Part II - SITE AND SOIL CHARACTERISTICS

- A. PARENT MATERIAL (5 pts each correct)
- Alluvium
  - Glacial outwash
  - Glacial till
  - Beach deposit
  - Colluvium
  - Loess
  - Lacustrine
  - Eolian sand
  - Residuum

- B. LOCAL LAND FORM (5)
- Flood plain
  - Stream terrace
  - Outwash plain
  - Kame/esker
  - Till plain/drumlin/moraine
  - Beach ridge
  - Alluvial fan
  - Loess hillslope/plain
  - Lake plain
  - Sand dune
  - Upland

- C. SLOPE (5)
- Concave
  - < 1% 0.5%
  - 1 - <5%
  - 5 - <10%
  - 10 - <15%
  - 15 - 20%
  - > 20%

- D. SURFACE RUNOFF (5)
- Negligible
  - Very Low
  - Low
  - Medium
  - High
  - Very High

- E. DEGREE OF EROSION (5)
- Deposition
  - None to Slight (class I) Original Surface
  - Moderate (class II)
  - Severe (class III)
  - Very Severe (class IV)

- F. SOIL WETNESS CLASS (5)
- Not wet above 150 cm
  - Wet between 100 to <150 cm
  - Wet between 50 to <100 cm
  - Wet between 25 to <50 cm
  - Wet above 25 cm

- G. SOIL DEPTH (5)
- Very Shallow (< 25 cm.)
  - Shallow (25 - <50 cm.)

- Moderately Deep (50 - <100 cm.)
- Deep (100 - 150 cm.)
- Very Deep (> 150 cm.)

8. PERMEABILITY/SURFACE (5)
- Slow
  - Moderate
  - Rapid

9. PERMEABILITY/LIMITING (5)
- Slow
  - Moderate
  - Rapid

10. WATER RETENTION DIFFERENCE (5)
- Very Low (<7.5 cm.)
  - Low (7.5 - <15 cm.)
  - Moderate (15 - 22.5 cm.)
  - High (> 22.5 cm.)

Part III - INTERPRETATIONS

1. LAND CAPABILITY CLASS (5)
- Class I
  - Class II
  - Class III
  - Class IV
  - Class V
  - Class VI
  - Class VII

2. LAND CAPABILITY SUBCLASS (5)
- e - Subclass
  - w - Subclass
  - s - Subclass
  - c - Subclass
  - No Subclass

3. ROADFILL (5)
- Good
  - Fair
  - Poor
- (5) Low Strength Feature

4. SEPTIC TANK ABSORPTION FIELDS (5)
- Slight
  - Moderate
  - Severe
- (5) Peres Slowly Feature

5. SEWAGE LAGOONS (5)
- Slight
  - Moderate
  - Severe
- (5) Seepage Feature

Tie Breaker (Surface)

% clay 15

% sand 53

SCORE PARTS II & III \_\_\_\_\_



**2013 NACTA SOILS JUDGING  
2 YEAR DIVISION**

**SOILS JUDGING SCORECARD**

Host: Texas Tech University – Lubbock, Texas

SITE NO. ARM-8

CONTESTANT I.D. \_\_\_\_\_

Describe soil to 40 cm. Red marker in 3<sup>rd</sup> layer at 47 cm.

TOTAL SCORE \_\_\_\_\_

**PART I**

Layer / Horizon (2 pts.)	Lower Depth (cm) (2 pts.)	Boundary Distinctness (2 pts.)	Moist Consistency (2 pts.)	Color (2 pts.)	Accumulations or Mottles (2 pts.)	Coarse Fragments (2 pts.)	Texture (5 pts.)	Structure Shape (5 pts.)	Score
1. A	11	C	FR	D	-	-	SCL	SBK	
2. A	38	C	FR	D	-	-	SL	PR, SBK	
3. B	76	G	FR	D	-	-	SCL	PR, SBK	
4. B	112	G	FI	MB	-	-	SC, SCL	PR, SBK	
5. B	140	G	FI	MB	-	-	SCL, SL	PR, SBK	
A	Record lower depth in cm	Abrupt (A) Clear (C) Gradual (G) Diffuse (D) None (-)	Loose (L) V. Friable (VFR) Friable (FR) Firm (FI) V. Firm (VFI) (VFI) Ext. Firm (EFI)	Dark (D)  Medium & Bright (MB)  Medium & Dull (MD)  Light (L)	None (-) Concentrations (C) Depletions (D) White (W)	None (-) Gravelly (GR) V. Gravelly (VGR) Extremely Gravelly (EGR)	S, LS, SL, L, SCL, SL, SIL, CL, C, SICL, SIC, SC	GR, PL, SBK, ABK, PR, CO, MA, SGR	

**Use abbreviations for all columns except depth.**

SCORE PART I \_\_\_\_\_

Part II - SITE AND SOIL CHARACTERISTICS

A. PARENT MATERIAL (5 pts each correct)

- Alluvium
- Glacial outwash
- Glacial till
- Beach deposit
- Colluvium
- Loess
- Lacustrine
- Eolian sand
- Residuum

- Moderately Deep (50 - <100 cm.)
- Deep (100 - 150 cm.)
- Very Deep (> 150 cm.)

8. PERMEABILITY/SURFACE (5)

- Slow
- Moderate
- Rapid

9. PERMEABILITY/LIMITING (5)

- Slow
- Moderate
- Rapid

B. LOCAL LAND FORM (5)

- Flood plain
- Stream terrace
- Outwash plain
- Kame/esker
- Till plain/drumlin/moraine
- Beach ridge
- Alluvial fan
- Loess hillslope/plain
- Lake plain
- Sand dune
- Upland

10. WATER RETENTION DIFFERENCE (5)

- Very Low (<7.5 cm.)
- Low (7.5 - <15 cm.)
- Moderate (15 - 22.5 cm.)
- High (> 22.5 cm.)

Part III - INTERPRETATIONS

1. LAND CAPABILITY CLASS (5)

- Class I
- Class II
- Class III
- Class IV
- Class V
- Class VI
- Class VII

2. LAND CAPABILITY SUBCLASS (5)

- e - Subclass
- w - Subclass
- s - Subclass
- c - Subclass
- No Subclass

3. ROADFILL (5)

- Good
  - Fair
  - Poor
- Low Strength Feature (5)

4. SEPTIC TANK ABSORPTION FIELDS (5)

- Slight
  - Moderate
  - Severe
- Percolates Slowly Feature (5)

5. SEWAGE LAGOONS (5)

- Slight
  - Moderate
  - Severe
- Seepage Feature (5)

C. SLOPE (5)

- Concave
- < 1% 0.8%
- 1 - <5%
- 5 - <10%
- 10 - <15%
- 15 - 20%
- > 20%

D. SURFACE RUNOFF (5)

- Negligible
- Very Low
- Low
- Medium
- High
- Very High

E. DEGREE OF EROSION (5)

- Deposition
  - None to Slight (class I)
  - Moderate (class II)
  - Severe (class III)
  - Very Severe (class IV)
- Original Surface 15cm*

F. SOIL WETNESS CLASS (5)

- Not wet above 150 cm
- Wet between 100 to <150 cm
- Wet between 50 to <100 cm
- Wet between 25 to <50 cm
- Wet above 25 cm

G. SOIL DEPTH (5)

- Very Shallow (< 25 cm.)
- Shallow (25 - <50 cm.)

Tie Breaker (Surface)

% clay 23

% sand 61

SCORE PARTS II & III \_\_\_\_\_





**NACTA SOILS CONTEST**

**2-Year Division**

**SITE CARD**

**SITE NO. NRM - 1**

**Describe 5 horizons to a depth of 126 cm.**

**Red marker is in the third horizon at 45 cm**

**This site floods <1 times within 500 years**

**NACTA SOILS CONTEST**

**2-Year Division**

**SITE CARD**

**SITE NO.       NRM - 2**

**Describe       5       horizons to a depth of       150       cm.**

**Red marker is in the third horizon at       42       cm**

**This site floods       <1       times within       500       years**

**NACTA SOILS CONTEST**

**2-Year Division**

**SITE CARD**

**SITE NO. NRM - 3**

**Describe 5 horizons to a depth of 117 cm.**

**Red marker is in the third horizon at 50 cm**

**This site floods <1 times within 500 years**

**NACTA SOILS CONTEST**

**2-Year Division**

**SITE CARD**

**SITE NO. NRM - 4**

**Describe 5 horizons to a depth of 122 cm.**

**Red marker is in the third horizon at 54 cm**

**This site floods 10 times within 100 years**

**NACTA SOILS CONTEST**

**2-Year Division**

**SITE CARD**

**SITE NO. NRM - 5**

**Describe 5 horizons to a depth of 112 cm.**

**Red marker is in the third horizon at 55 cm**

**This site floods <1 times within 500 years**

**NACTA SOILS CONTEST**

**2-Year Division**

**SITE CARD**

**SITE NO. NRM - 6**

**Describe 5 horizons to a depth of 116 cm.**

**Red marker is in the third horizon at 45 cm**

**This site floods <1 times within 500 years**

**NACTA SOILS CONTEST**

**2-Year Division**

**SITE CARD**

**SITE NO. NRM - 7**

**Describe 5 horizons to a depth of 130 cm.**

**Red marker is in the third horizon at 50 cm**

**This site floods <1 times within 500 years**

**NACTA SOILS CONTEST**

**2-Year Division**

**SITE CARD**

**SITE NO. NRM - 8**

**Describe 5 horizons to a depth of 140 cm.**

**Red marker is in the third horizon at 47 cm**

**This site floods <1 times within 500 years**