DRILLING LOG	DIVISION	INSTALLATION	HOLE No. SB-01	SHEET No. 1 OF 2

1. PROJECT HELSTF Phase III RFI	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)
2. LOCATION (Coordinates or Station)	12. MANUFACTURER'S DESIGNATION OF DRILL
3. DRILLING AGENCY	13. TOTAL No. OF OVERBURDEN SAMPLES TAKEN — DISTURBED — UNDISTURBED
4. HOLE No. (As shown on drawing title and file number) SB-01	14. TOTAL NUMBER CORE BOXES
5. NAME OF DRILLER Raba Kistner	15. ELEVATION GROUND WATER
6. DIRECTION OF HOLE ☒ Vertical ☐ Inclined _____ Degrees from Vertical	16. DATE HOLE — STARTED 11-01-06 0745 — COMPLETED 1100
7. THICKNESS OF OVERBURDEN	17. ELEVATION TOP OF HOLE
8. DEPTH DRILLED INTO ROCK	18. TOTAL CORE RECOVERY FOR BORING
9. TOTAL DEPTH OF HOLE 50' — 10. SIZE AND TYPE OF BIT 6" Φ HSA	19. SIGNATURE OF INSPECTOR T. Thompson

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significent) g	Blow Count
					SB-001 (0.5-1.0)		
	5	ML	Gypsum silt	50	—	Dry	100 @ 1 ft
	10	ML	Gyp. silt light brown silt	100	SB-001 (10-10.5)	Moist	17
	15	CL-ML SP-SM	silty clay w 5% gyp crystals fine sand w/ silt @ 16.5	100	—	Moist	44
	20	CL-ML	silty clay (brown) w/ 20% gyp cry.	100	SB-001 (20-20.5)	Moist	45
	25	CL-ML	silty clay (brown) 10% gyp cry.	100	—	Moist Dry @ 26.7'	47
	30	ML	silt (brown) w/ 5% gyp cry.	100	SB-001 (30-30.5)	Dry	75
	35	SP	very fine sand	50	SB-101 (30-30.5) —	Dry	105
	40	SP	v. fine sand w/ some silt	70	SB-001 (40-40.5)	Dry	64

DRILLING LOG (Continuation Sheet)	INSTALLATION	HOLE No. SB-01	SHEET No. 2 OF 2
1. PROJECT HELSTF Phase III RFI	11. ELEVATION OF TOP HOLE		

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	Blow Count
	45	SP	v. fine sand w/ some silt	60	—	Dry	110
	50	SP SC	v. fine sand w/ silt clayey sand @ 49.5'	70	SB-001 (49.5-50)	Moist	74

DRILLING LOG	DIVISION	INSTALLATION	HOLE No. SB-02	SHEET No. 1 OF 2

1. PROJECT HELSTF Phase III RFI	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)
2. LOCATION (Coordinates or Station)	12. MANUFACTURER'S DESIGNATION OF DRILL
3. DRILLING AGENCY	13. TOTAL No. OF OVERBURDEN SAMPLES TAKEN — DISTURBED — UNDISTURBED
4. HOLE No. (As shown on drawing title and file number) SB-02	14. TOTAL NUMBER CORE BOXES
5. NAME OF DRILLER Raba Kistner	15. ELEVATION GROUND WATER
6. DIRECTION OF HOLE ☒ Vertical ☐ Inclined _____ Degrees from Vertical	16. DATE HOLE 10-13-06 — STARTED 1015 — COMPLETED 1445
7. THICKNESS OF OVERBURDEN	17. ELEVATION TOP OF HOLE
8. DEPTH DRILLED INTO ROCK	18. TOTAL CORE RECOVERY FOR BORING
9. TOTAL DEPTH OF HOLE 50' — 10. SIZE AND TYPE OF BIT 6" Φ HSA	19. SIGNATURE OF INSPECTOR J. Thompson

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significent) g	Blow Count
	5	ML	Gypsum silt	75	—	Dry	24
	10	ML	Gypsum silt w/ some crystals	100	SB-002 (10-10.5)	Dry	105
	15	ML	Gypsum silt	100	—	Dry	111
	20	ML	Gypsum silt w/ some fine sand	100	SB-002 (20-20.5)	Dry	74
	25	CL-ML	silty clay (brown) w/ gyp crystals	100	—	Dry	44
	30	CL-ML	silty clay	100	SB-002 (30-30.5)	Dry	47
	35	CL-ML	silty clay w/ some gyp crystals	100		Dry	40
	40	SM	silty sand	100	SB-002 (40-40.5)	Dry	128

DRILLING LOG (Continuation Sheet)	INSTALLATION	HOLE No. SB-02	SHEET No. 2 OF 2
1. PROJECT HELSTF Phase III RFI	11. ELEVATION OF TOP HOLE		

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	Blow Count
	45	SM	silty sand to 46.7'	100	—	Dry	126
		ML	gyp silt w/ crystals				
	50	CL	clay (brown) w/ gyp cry.	100	SB-002 (49.5-50)	Moist	48

DRILLING LOG	DIVISION	INSTALLATION	HOLE No. SB-03	SHEET No. 1 OF 2

1. PROJECT: HELSTR Phase III RFI	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)
2. LOCATION (Coordinates or Station)	12. MANUFACTURER'S DESIGNATION OF DRILL
3. DRILLING AGENCY	13. TOTAL No. OF OVERBURDEN SAMPLES TAKEN — DISTURBED — UNDISTURBED
4. HOLE No. (As shown on drawing title and file number): SB-03	14. TOTAL NUMBER CORE BOXES
5. NAME OF DRILLER: Raba Kistner	15. ELEVATION GROUND WATER
6. DIRECTION OF HOLE: ☒ Vertical ☐ Inclined _____ Degrees from Vertical	16. DATE HOLE — STARTED: 10-20-06 — COMPLETED: 1400 — 1750
7. THICKNESS OF OVERBURDEN	17. ELEVATION TOP OF HOLE
8. DEPTH DRILLED INTO ROCK	18. TOTAL CORE RECOVERY FOR BORING
9. TOTAL DEPTH OF HOLE: 50' — 10. SIZE AND TYPE OF BIT: 6" Ø HSA	19. SIGNATURE OF INSPECTOR: T. Thompson

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significent) g	Blow Count
	5	ML	Gypsum silt	60	—	dry	63
	10	ML	Gyp silt	60	SB-003 (10.0-~~10.0~~ 10.5)	dry	63
	15	ML	Gyp silt	90	—	dry	157
	20	ML	Gyp silt	80	SB-003 (20.0-20.5)	dry slightly moist @ 22'	112
	25	CL-ML	silty clay (brown) w/ 5% gyp crystals	100	—	moist dry @ 27	31
	30	CL-ML	silty clay (brown) w/ 40% gyp crystals	100	SB-003 (30.0-30.5)	dry	110
	35	CL-ML	silty clay (brown) w/ some gyp crystals	100	—	slightly moist to dry	93
	40	CL-ML SP	silty clay (brown) v. fine sand @41'	100	SB-003 (40.0-40.5)	moist dry	78

DRILLING LOG (Continuation Sheet)	INSTALLATION	HOLE No. SB-03	SHEET No. 2 OF 2
1. PROJECT HELSTF Phase III RFI	11. ELEVATION OF TOP HOLE		

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significent) g	Blow count
	45	SP	v. fine sand	60	—	dry	refusal @ 1.5'
	50	SP	v fine sand w/ gyp cry @ 49'	80	SB-003 (49.5-50.0)	slight moist @ 48.5	refusal @ 1.5'

DRILLING LOG	DIVISION	INSTALLATION	HOLE No. SB-04	SHEET No. 1 OF 2

1. PROJECT HELSTF Phase III RFI	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)
2. LOCATION (Coordinates or Station)	12. MANUFACTURER'S DESIGNATION OF DRILL
3. DRILLING AGENCY	13. TOTAL No. OF OVERBURDEN SAMPLES TAKEN — DISTURBED — UNDISTURBED
4. HOLE No. (As shown on drawing title and file number) SB-04	14. TOTAL NUMBER CORE BOXES
5. NAME OF DRILLER Rabau Kistner	15. ELEVATION GROUND WATER
6. DIRECTION OF HOLE ☒ Vertical ☐ Inclined _____ Degrees from Vertical	16. DATE HOLE 10-20-06 — STARTED 1000 — COMPLETED ~1400
7. THICKNESS OF OVERBURDEN	17. ELEVATION TOP OF HOLE
8. DEPTH DRILLED INTO ROCK	18. TOTAL CORE RECOVERY FOR BORING
9. TOTAL DEPTH OF HOLE 50' — 10. SIZE AND TYPE OF BIT 6" Ø HSA	19. SIGNATURE OF INSPECTOR T. Thompson

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significent) g	Blow count
	5	ML	Gypsum silt	70	—	dry	56
	10	ML	Gypsum silt	80	SB-004 (10.0-10.5)	dry	73
	15	ML	Gyp. silt	100	—	dry moist @ 15.7'	90
	20	ML	Gyp. silt	100	SB-004 (20.0-20.5)	moist dry @ 21'	72
	25	CL	clay (brown) w/ 20% gyp. crystals	100	—	moist	46
	30	CL-ML	Silty clay (brown) w/ 10% gyp cry	100	SB-004 (30.0-30.5)	dry	55
	35	SP ML CL-ML SP	fine sand silt w/ gyp cry. @ 35.5' silty clay (brown) @ 35.8' fine sand @ 36.2'	90	—	dry dry moist dry	54
	40	SP	V. fine sand	60	SB-004 (40.0-40.5)	dry	refusal @ 1.2'

DRILLING LOG (Continuation Sheet)	INSTALLATION	HOLE No. SB-04	SHEET No. 2 OF 2
1. PROJECT HELSTF Phase III RFI	11. ELEVATION OF TOP HOLE		

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	Blow Count
	45	SP	v. fine sand	40	—	dry	refusal @0.5'
		ML	silt w/ sand	80	SB-04 (49.5-50.0)	added ~2gal water to lift cuttings	
	50	CL	clay (brown)			moist @ 48'	58

DRILLING LOG	DIVISION	INSTALLATION	HOLE No. SB-05	SHEET No. 1 OF 2

1. PROJECT HELSTF Phase III RFI	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)
2. LOCATION (Coordinates or Station)	12. MANUFACTURER'S DESIGNATION OF DRILL
3. DRILLING AGENCY	13. TOTAL No. OF OVERBURDEN SAMPLES TAKEN — DISTURBED — UNDISTURBED
4. HOLE No. (As shown on drawing title and file number) SB-05	14. TOTAL NUMBER CORE BOXES
5. NAME OF DRILLER Raba Kistner	15. ELEVATION GROUND WATER
6. DIRECTION OF HOLE ☒ Vertical ☐ Inclined _____ Degrees from Vertical	16. DATE HOLE — STARTED 10-19-06 1330 — COMPLETED 10-20-06 1000
7. THICKNESS OF OVERBURDEN	17. ELEVATION TOP OF HOLE
8. DEPTH DRILLED INTO ROCK	18. TOTAL CORE RECOVERY FOR BORING
9. TOTAL DEPTH OF HOLE 50' — 10. SIZE AND TYPE OF BIT 6" Φ HSA	19. SIGNATURE OF INSPECTOR T. Thompson

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	Blow count
	5	ML	Gypsum silt	70	—	dry	51
	10	ML	Gyp. silt	95	SB-005 (10.0-10.5)	dry	95
	15	ML	gyp. silt	95	—	dry to v. slight moisture	95
	20	CL	clay (brown) w/ 10% gyp. crystals	95	SB-005 (20.0-20.5)	dry	61
	25	CL	clay (brown) w/ 40% gyp. crystals	95	—	slightly moist	61
	30	CL	clay (brown) w/ 20% gyp. crystals	95	SB-005 (30.0-30.5)	slightly moist	53
	35	CL	clay (brown) w/ 10% gyp. crystals	100	—	moist	42
	40	SP	v. fine sand	95	SB-005 (40.0-40.5)	dry	115 @ 1.5'

DRILLING LOG (Continuation Sheet)	INSTALLATION	HOLE No. SB-05	SHEET No. 2 OF 2
1. PROJECT HELSTF Phase III RFI	11. ELEVATION OF TOP HOLE		

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	Blow Count
							45
	45	SP CL	- v. fine sand - clay (brown) @ 46'	100	—	moist	47 ~~44~~
	50	CL SP CL	- clay (brown) - v. fine sand @ 48.2' clay (brown) @ 48.5'	95	SB-005 (49.5-50.0)	moist	44

DRILLING LOG	DIVISION	INSTALLATION	HOLE No. SB-06	SHEET No. 1 OF 2

1. PROJECT HELSTF Phase III RFI	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)
2. LOCATION (Coordinates or Station)	12. MANUFACTURER'S DESIGNATION OF DRILL
3. DRILLING AGENCY	13. TOTAL No. OF OVERBURDEN SAMPLES TAKEN — DISTURBED — UNDISTURBED
4. HOLE No. (As shown on drawing title and file number) SB-06	14. TOTAL NUMBER CORE BOXES
5. NAME OF DRILLER Raba Kistner	15. ELEVATION GROUND WATER
6. DIRECTION OF HOLE ☒ Vertical ☐ Inclined _____ Degrees from Vertical	16. DATE HOLE — STARTED 0855 — COMPLETED 1330 (10-19-06)
7. THICKNESS OF OVERBURDEN	17. ELEVATION TOP OF HOLE
8. DEPTH DRILLED INTO ROCK	18. TOTAL CORE RECOVERY FOR BORING
9. TOTAL DEPTH OF HOLE 50' — 10. SIZE AND TYPE OF BIT 6" Φ HSA	19. SIGNATURE OF INSPECTOR T. Thompson

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significent) g	Blow Count
					SB-006 (0.5-1)	Surface sample from 50' N of SB-06	
	5	ML	Gypsum silt	50	—	Dry	52
	10	ML	Gyp silt	100	SB-006 (10-10.5)	Dry to 11' Moist 11-12	90
	15	ML	Gyp silt	90	—	Dry	97
	20	CL	clay (brown) w/ 40% gyp crystals	100	SB-006 (20-20.5)	Moist	29
	25	CL SP	clay 20% gyp cry to 26.6' very fine sand	100	—	Moist	44
	30	CL	clay w/ 5% gyp crystals	100	SB-006 (30-30.5)	moist	41
	35	CL	clay w/ 10% gyp crystals	100	—	moist	35
	40	CL SP	clay to 40.8' fine sand to 42'	90	SB-006 (40-40.5)	Moist	82

DRILLING LOG (Continuation Sheet)	INSTALLATION	HOLE No. SB-06	SHEET No. 2 OF 2
1. PROJECT HELSTF Ph III RFI	11. ELEVATION OF TOP HOLE		

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	Blow Count
	45 ~~40~~	CL	clay 45-45.5				
		SP	v. fine sand to 45.7	100	—	moist	41
		CL	clay to 47				
		SP	fine sand 48-48.5				
	50	CL	clay w/ some sand to 50'	100	SB-006 (49.5-50)	moist	47

DRILLING LOG	DIVISION	INSTALLATION	HOLE No. SB-07	SHEET No. 1 OF 2

1. PROJECT HELSTF Phase III RFI	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)
2. LOCATION (Coordinates or Station)	12. MANUFACTURER'S DESIGNATION OF DRILL
3. DRILLING AGENCY	13. TOTAL No. OF OVERBURDEN SAMPLES TAKEN — DISTURBED — UNDISTURBED
4. HOLE No. (As shown on drawing title and file number) SB-07	14. TOTAL NUMBER CORE BOXES
5. NAME OF DRILLER Raba Kistner	15. ELEVATION GROUND WATER
6. DIRECTION OF HOLE ☒ Vertical ☐ Inclined _____ Degrees from Vertical	16. DATE HOLE 10-17-06 — STARTED 0930 — COMPLETED 1300
7. THICKNESS OF OVERBURDEN	17. ELEVATION TOP OF HOLE
8. DEPTH DRILLED INTO ROCK	18. TOTAL CORE RECOVERY FOR BORING
9. TOTAL DEPTH OF HOLE 50' — 10. SIZE AND TYPE OF BIT 6" Ø HSA	19. SIGNATURE OF INSPECTOR J. Thompson

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	Blow Count
					SB-007 (0.5-1.5)		
	5	ML	Gyp silt	100	—	Dry	52
	10	ML	Gyp silt	60	SB-007 (10-11)	Dry	107
	15	ML	Gyp silt	95	—	Dry	52
	20	ML	Gyp silt	100	SB-007 (20-21)	Moist	17
	25	ML	Gyp silt some gyp crystals at 26.2'-27'	95	—	Moist to 25.5' Dry	94
	30	ML	Gyp silt w/ gyp crystals	100	SB-007 (30-31)	Moist	65
	35	—	Gyp crystals w/ some clay	100	—	Moist	60
	40	CL	Clay (brwn) w/ gyp crystals	100	SB-007 (40-41)	Slightly Moist	76

DRILLING LOG (Continuation Sheet)	INSTALLATION	HOLE No. SB-07	SHEET No. 2 OF 2
1. PROJECT HELSTF Ph III RFI	11. ELEVATION OF TOP HOLE		

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significent) g	Blow Count
	45	SP	fine sand	100	—	Dry	96
	50	CL	clay (brown) w/ 5% gyp crystals	100	SB-007 (49-50)	Moist	39 ~~3~~

DRILLING LOG	DIVISION	INSTALLATION	HOLE No. SB-08	SHEET No. 1 OF 2

1. PROJECT HELSTF Phase III RFI	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)
2. LOCATION (Coordinates or Station)	12. MANUFACTURER'S DESIGNATION OF DRILL
3. DRILLING AGENCY	13. TOTAL No. OF OVERBURDEN SAMPLES TAKEN — DISTURBED — UNDISTURBED
4. HOLE No. (As shown on drawing title and file number) SB-08	14. TOTAL NUMBER CORE BOXES
5. NAME OF DRILLER Rabea Kistner	15. ELEVATION GROUND WATER
6. DIRECTION OF HOLE ☒ Vertical ☐ Inclined _____ Degrees from Vertical	16. DATE HOLE — STARTED 10-17-06 1400 — COMPLETED 10-18-06 1130
7. THICKNESS OF OVERBURDEN	17. ELEVATION TOP OF HOLE
8. DEPTH DRILLED INTO ROCK	18. TOTAL CORE RECOVERY FOR BORING
9. TOTAL DEPTH OF HOLE 50' — 10. SIZE AND TYPE OF BIT 6" Φ HSA	19. SIGNATURE OF INSPECTOR J. Thompson

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significent) g	Blow Count
					SB-008 (0.5-1.5)		
	5	ML	Silt (brown) w/ 10% Gypsum silt	80	—	Dry	21
	10	ML	Gyp silt	50	SB-008 (10-11)	Dry	110 @ 1 ft
	15	ML	Gyp silt	100	—	Dry Moist @ 16.8'	81
	20	CL-ML	Gyp. silty clay	100	SB-008 (20-21)	Moist	18
	25	ML	Gyp silt w/ 5% gyp crystals	100	—	Dry Moist @ 26'	86
	30	ML	Gyp silt w/ crystals w/ 10% clay (brown)	—	SB-008 (30-31)	Dry	90
	35	CL	clay (brown) w/ 40% gyp. cry.	90	—	Dry to slightly moist	72
	40	CL	clay (brown)	100	SB-008 (40-41)	Dry	66

DRILLING LOG (Continuation Sheet)	INSTALLATION	HOLE No. SB-08	SHEET No. 2 OF 2
1. PROJECT HELSTF Phase III RFI	11. ELEVATION OF TOP HOLE		

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	Blow Count
	45	SP CL	fine sand to 46' gyp cry 46-46.2' clay (brown) to 47'	95	—	dry	71
	50	CL	clay (brown) w/ 10% gyp. cry.	90	SB-008 (49-50)	Dry	44

DRILLING LOG	DIVISION	INSTALLATION	HOLE No. SB-09	SHEET No. 1 OF 2

1. PROJECT HELSTF Phase III RFI	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)
2. LOCATION (Coordinates or Station)	12. MANUFACTURER'S DESIGNATION OF DRILL
3. DRILLING AGENCY	13. TOTAL No. OF OVERBURDEN SAMPLES TAKEN — DISTURBED — UNDISTURBED
4. HOLE No. (As shown on drawing title and file number) SB-09	14. TOTAL NUMBER CORE BOXES
5. NAME OF DRILLER Raloa Kistner	15. ELEVATION GROUND WATER
6. DIRECTION OF HOLE ☒ Vertical ☐ Inclined _____ Degrees from Vertical	16. DATE HOLE 10-18-06 — STARTED 1245 — COMPLETED 1630
7. THICKNESS OF OVERBURDEN	17. ELEVATION TOP OF HOLE
8. DEPTH DRILLED INTO ROCK	18. TOTAL CORE RECOVERY FOR BORING
9. TOTAL DEPTH OF HOLE 58' — 10. SIZE AND TYPE OF BIT 6" Ø HSA	19. SIGNATURE OF INSPECTOR J. Thompson

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significent) g	Blow Count
					SB-009 (.5-1)		
	5	ML	silt (brwn) w/ 10% gypsum silt	60	—	Dry.	33
	10	ML	Gypsum silt	50	SB-009 (10-11)	Dry	150 @ 1ft
	15	ML	Gyp. silt	100	—	Moist 15-15.5 Dry	61 ~~21~~ AFT
	20	ML	Gyp. silt	100	SB-009 (20-21)	Moist	21
	25	ML	Gyp. silt	100	—	Moist Less moist 25.5 - 27	81
	30	ML	Gyp. silt w/ gyp crystals & brwn silt	100	SB-009 (30-31)	Moist	60
	35	SP ML SP	v. fine sand to 35.5' silt w/ gyp. cry. to 36' v. fine sand 36-37'	100	—	moist Dry moist	89
	40	SP CL SP	fine sand clay ~~45~~ 41-41.2 fine sand	100	SB-009 (40-42) SB-109 (40-42)	moist	63

DRILLING LOG (Continuation Sheet)	INSTALLATION	HOLE No. SB-09	SHEET No. 2 OF 2
1. PROJECT HELSTF Phase III RFI	11. ELEVATION OF TOP HOLE		

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	Blow Count
	45	CL	clay (brwn) w/ 5% gyp. crystals	100	—	moist	46
	50	CL	clay (brwn) w/ 5% gyp. crystals	100	SB-009 (49-50)	moist	46

DRILLING LOG	DIVISION	INSTALLATION	HOLE No. SB-10	SHEET No. 1 OF 2

1. PROJECT HELSTF Phase III RFI	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)
2. LOCATION (Coordinates or Station)	12. MANUFACTURER'S DESIGNATION OF DRILL
3. DRILLING AGENCY	13. TOTAL No. OF OVERBURDEN SAMPLES TAKEN — DISTURBED — UNDISTURBED
4. HOLE No. (As shown on drawing title and file number) SB-10	14. TOTAL NUMBER CORE BOXES
5. NAME OF DRILLER Raba Kistner	15. ELEVATION GROUND WATER
6. DIRECTION OF HOLE ☒ Vertical ☐ Inclined _____ Degrees from Vertical	16. DATE HOLE — STARTED 11-01-06 1300 — COMPLETED 1620
7. THICKNESS OF OVERBURDEN	17. ELEVATION TOP OF HOLE
8. DEPTH DRILLED INTO ROCK	18. TOTAL CORE RECOVERY FOR BORING
9. TOTAL DEPTH OF HOLE 50' — 10. SIZE AND TYPE OF BIT 6" Ø HSA	19. SIGNATURE OF INSPECTOR T. Thompson

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significent) g	Blow count
	5	ML	Gypsum silt	60	–	Dry	35
	10	ML	Gyp. silt	95	HLSF-0085 -SB-010 (10-11)	Dry Moist 11.2-11.7'	81
	15	ML CL-ML	Gyp silt w/ 20% gyp cry silty clay w/ 20% gyp cry	100	–	Moist	19
	20	CL-ML	silty clay (brown) w/ 10% gyp cry.	90	SB-010 (20-22) SB-110 (20-22)	Moist PID-17.3 ppm VOC	19
	25	SM	silty sand w/ 10% gyp cry	95	–	moist PID-0.5 ppm VOC	39
	30	SM	silty sand w/ 5% gypsum crystals	90	SB-010 (30-31)	Slightly moist PID-0.2 ppm VOC	70
	35	SP-SM	sand w/ silt	95	–	moist PID-0.2 ppm VOC	97
	40	CL	clay (brown)	100	SB-010 (40-41)	moist	39

DRILLING LOG (Continuation Sheet)	INSTALLATION	HOLE No. SB-10	SHEET No. 2 OF 2
1. PROJECT HELSTF Phase III RFI	11. ELEVATION OF TOP HOLE		

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significent) g	Blow Count
	45	CL	clay (brown) w/ some sand	30	—	moist	35
		SP-SM	sand w/ silt 48-49.6'		SB-010		
	50	CL-ML	silty clay 49.6-50'	100	(49-50)	moist	31

DRILLING LOG	DIVISION	INSTALLATION	HOLE No. SB-11	SHEET No. 1 OF 2

1. PROJECT HELSTF Phase III RFI	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)
2. LOCATION (Coordinates or Station)	12. MANUFACTURER'S DESIGNATION OF DRILL
3. DRILLING AGENCY	13. TOTAL No. OF OVERBURDEN SAMPLES TAKEN — DISTURBED — UNDISTURBED
4. HOLE No. (As shown on drawing title and file number) SB-11	14. TOTAL NUMBER CORE BOXES
5. NAME OF DRILLER Raba Kistner	15. ELEVATION GROUND WATER
6. DIRECTION OF HOLE ☒ Vertical ☐ Inclined _____ Degrees from Vertical	16. DATE HOLE 11-16-06 — STARTED 1300 — COMPLETED 1515
7. THICKNESS OF OVERBURDEN	17. ELEVATION TOP OF HOLE
8. DEPTH DRILLED INTO ROCK	18. TOTAL CORE RECOVERY FOR BORING
9. TOTAL DEPTH OF HOLE 50' — 10. SIZE AND TYPE OF BIT 6" Ø HSA	19. SIGNATURE OF INSPECTOR J. Thompson

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significent) g	Blow Count
						Vac-excavated 0-5 ft bgs	
	5	—	—	50	—	Slough from excavation	26
	10	ML CL	Gypsum silt to 11.1' clay (grey)	100	SB-011 (10.0-11.0)	Dry moist	108
	15	CL	clay (brown) w/ 10%	90	—	PID 58.0 ppm VOC 9.0 ppm CO	26
	20	CL SP-SM	clay (brown) 10% gyp cry to 21.2 fine sand w/ silt	90	SB-011 (20.0-21.0)	moist PID -	~~28~~ 23
	25	SP-SM CL	fine sand w/ silt diesel stains Clay at 26 w/ 5% gyp crystals (grey)	80	—	moist PID 105 ppm VOC	28
	30	CL SP	clay (brown) to 30.3 fine sand	100	SB-011 SB-111 (30-32)	PID 43.6 ppm VOC moist	48
	35	SP-SM SP CL	silty fine sand to 35.8 fine sand to 36.5 clay	100	—	PID 23.6 ppm VOC 3 ppm CO moist	56
	40	SP	fine sand stained black	70		PID 348 ppm VOC 46 CO @1.8'	78

DRILLING LOG (Continuation Sheet)	INSTALLATION	HOLE No. SB-11	SHEET No. 2 OF 2
1. PROJECT HELSTF Phase III RFI	11. ELEVATION OF TOP HOLE		

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significent) g	Blow Count
	45	CL	clay			moist	
			Sandy clay at 46.7	90	—	PID-158 ppm VOC	42
		SP	Med. to fine sand small amount of clay in split spoon nose.	95		wet PID 1.6 ppm VOC	33
	50						

DRILLING LOG	DIVISION	INSTALLATION	HOLE No. SB-13	SHEET No. 1 OF 2

1. PROJECT HELSTF Phase III RFI	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)
2. LOCATION (Coordinates or Station)	12. MANUFACTURER'S DESIGNATION OF DRILL
3. DRILLING AGENCY	13. TOTAL No. OF OVERBURDEN SAMPLES TAKEN — DISTURBED — UNDISTURBED
4. HOLE No. (As shown on drawing title and file number) SB-13	14. TOTAL NUMBER CORE BOXES
5. NAME OF DRILLER Raba Kistner	15. ELEVATION GROUND WATER
6. DIRECTION OF HOLE ☒ Vertical ☐ Inclined _____ Degrees from Vertical	16. DATE HOLE 11-16-06 — STARTED 0825 — COMPLETED 1145
7. THICKNESS OF OVERBURDEN	17. ELEVATION TOP OF HOLE
8. DEPTH DRILLED INTO ROCK	18. TOTAL CORE RECOVERY FOR BORING
9. TOTAL DEPTH OF HOLE 50 ft bgs — 10. SIZE AND TYPE OF BIT 6" Ø HSA	19. SIGNATURE OF INSPECTOR J. Thompson

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significent) g	Blow Count
						Vac-excavated 0-5 ft bgs	
	5	ML	Gypsum silt	80	—	Dry	29
	10	ML	gypsum silt	90	SB-013 (10.0-11.0)	Dry	29
	15	ML	gypsum silt	70	—	Moist PID - 9.6 ppm VOC	49
	20	CL	clay (brown) w/ 20% gyp cry some grey staining	80	SB-013 (20.0-21.0)	Water in split spoon PID - 84.7 ppm VOC	32
	25	SP-SM ML	fine sand w/ silt to 25.5' silt w/ some fine sand	90	—	moist PID - 21.0 ppm CO 12.1 ppm VOC	35
	30	SP	fine to v. fine sand	50	SB-013 (30.0-31.0)	moist PID - 42 ppm CO	91
	35	SP	fine sand	50	—	wet to moist PID - 31 ppm CO 0.4 ppm VOC	82
	40	SP	fine sand w/ dark grey staining & sewage odor	70	SB-013 (40.0-41.0)	Wet PID - 13.0 ppm CO 6.6 ppm VOC	102

DRILLING LOG (Continuation Sheet)	INSTALLATION	HOLE No. SB-13	SHEET No. 2 OF 2
1. PROJECT HELSTF Phase III RFI	11. ELEVATION OF TOP HOLE		

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	Blow Count
						wet to moist	
	45	SP	fine to v. fine sand to 46.5	100	—	PID- 24 ppm CO 0.6 ppm VOC	74
		CL/SP	0.1' clay lense at 46.5 fine to v. fine sand, some gyp cry and clay at 47.				
	50	SP	fine to v. fine sand	50	SB-013 (49.0-50.0)	Wet - most of core was too soupy to remain in spoon.	24

DRILLING LOG	DIVISION	INSTALLATION	HOLE No. SB-14	SHEET No. 1 OF 2

1. PROJECT HELSTF Phase III RFI	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)
2. LOCATION (Coordinates or Station)	12. MANUFACTURER'S DESIGNATION OF DRILL
3. DRILLING AGENCY	13. TOTAL No. OF OVERBURDEN SAMPLES TAKEN — DISTURBED — UNDISTURBED
4. HOLE No. (As shown on drawing title and file number) SB-14	14. TOTAL NUMBER CORE BOXES
5. NAME OF DRILLER Raba Kistner	15. ELEVATION GROUND WATER
6. DIRECTION OF HOLE ☒ Vertical ☐ Inclined _____ Degrees from Vertical	16. DATE HOLE 11-17-06 — STARTED 1145 — COMPLETED 1510
7. THICKNESS OF OVERBURDEN	17. ELEVATION TOP OF HOLE
8. DEPTH DRILLED INTO ROCK	18. TOTAL CORE RECOVERY FOR BORING
9. TOTAL DEPTH OF HOLE 50' — 10. SIZE AND TYPE OF BIT 6" Ø HSA	19. SIGNATURE OF INSPECTOR T. Thompson

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significent) g	Blow Count
						Vac-excavated 0-6.5 ft bgs	
	5	—	No split spoon	—	—	—	—
	10	ML	Gypsum silt	90	SB-014 SB-114 (10.0-12.0)	Moist PID - 3.9 ppm VOC	92
	15	ML	silt stained grey to black	40	—	PID - 154 ppm VOC	35
	20	CL SP	clay 20-20.5 fine sand w/some silt all stained grey	90	SB-014 SB-114 (20-22)	Water in spoon PID - 205 ppm VOC	25
	25	CL-ML	silty clay (light brown) 5% gypsum crystals	90	—	Moist PID - 7.6 ppm VOC	29
	30	SP	fine sand	40	SB-014 (30-31)	Moist PID - 1.3 ppm VOC	54
	35	SP	fine sand	50	—	Moist/Wet PID - 1.8 ppm VOC 3 ppm CO	105
	40	SP CL	fine sand clay w/ 50% gyp crystals at 42.	50	SB-014 (40-41)	PID = 9.8 ppm VOC 17 ppm CO	83

DRILLING LOG (Continuation Sheet)	INSTALLATION	HOLE No. SB-14	SHEET No. 2 OF 2
1. PROJECT HELSTF Phase III RFI	11. ELEVATION OF TOP HOLE		

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	Blow Count
	45	~~CL~~ ML	Silt (brown) ~~w/~~	40	SB-014 (45-46)	Moist PID - 0.0 VOC 0 CO	24
	50	CL ~~ML~~ SP	clay brown to 48.3 fine sand	90	SB-014 (49-50)	moist wet	36

DRILLING LOG	DIVISION	INSTALLATION	HOLE No. SB-15	SHEET No. 1 OF 2

1. PROJECT HELSTF Phase III RFI	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)
2. LOCATION (Coordinates or Station)	12. MANUFACTURER'S DESIGNATION OF DRILL
3. DRILLING AGENCY	13. TOTAL No. OF OVERBURDEN SAMPLES TAKEN — DISTURBED — UNDISTURBED
4. HOLE No. (As shown on drawing title and file number)	14. TOTAL NUMBER CORE BOXES
5. NAME OF DRILLER Raba Kistner	15. ELEVATION GROUND WATER
6. DIRECTION OF HOLE ☒ Vertical ☐ Inclined _____ Degrees from Vertical	16. DATE HOLE 11-02-06 — STARTED 0805 — COMPLETED 1150
7. THICKNESS OF OVERBURDEN	17. ELEVATION TOP OF HOLE
8. DEPTH DRILLED INTO ROCK	18. TOTAL CORE RECOVERY FOR BORING
9. TOTAL DEPTH OF HOLE 50 feet — 10. SIZE AND TYPE OF BIT 6" Ø HSA	19. SIGNATURE OF INSPECTOR J. Thompson

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significent) g	Blow Count
						0-5 ft bgs Vac-excavator	
	5	ML	Gypsum silt	50	—	Moist - likely due to vac-excavator	13
	10	ML	Gyp. silt	60	HLSF-0085 -SB-015 -(10-11)	Moist - vac-excavator	30
	15	ML	Gyp silt w/ 10% gyp. crystals	90	—	Wet PID-44.9 ppm VOC	15
	20	CL-ML SP	silty clay (brown) silty sand @ 22'	90	SB-015 (20-21)	PID-70.3 ppm VOC	26
	25	CL-ML	silty clay (grey/brown)	50	—	PID-2.9 ppm VOC	35
	30	SP	fine sand (tan)	60	SB-015 (30-31)	PID-11.5 ppm VOC @ 32' bgs	74
	35	SP	fine sand (grey)	60	—	PID-21.3 ppm VOC @ 36.5' bgs	91
	40	SP	fine sand (grey/tan)	40	SB-015 (40-41)	PID-2.1 ppm VOC @ 42' bgs	110 @ 1'

DRILLING LOG (Continuation Sheet)	INSTALLATION	HOLE No. SB-15	SHEET No. 2 OF 2
1. PROJECT HELSTF Phase III RFI	11. ELEVATION OF TOP HOLE		

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significent) g Blow Counts
	45	SP	fine sand	60	—	Wet; sand sloughing entering thru auger 34
	50	SP	fine sand	80	SB-015 (49-50)	Wet 61 @ 1 ft

DRILLING LOG	DIVISION	INSTALLATION	HOLE No. SB-16	SHEET No. 1 OF 2

1. PROJECT HELSTF Phase III RFI	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)
2. LOCATION (Coordinates or Station)	12. MANUFACTURER'S DESIGNATION OF DRILL
3. DRILLING AGENCY	13. TOTAL No. OF OVERBURDEN SAMPLES TAKEN — DISTURBED — UNDISTURBED
4. HOLE No. (As shown on drawing title and file number) SB-16	14. TOTAL NUMBER CORE BOXES
5. NAME OF DRILLER Raba Kistner	15. ELEVATION GROUND WATER
6. DIRECTION OF HOLE ☒ Vertical ☐ Inclined _____ Degrees from Vertical	16. DATE HOLE — STARTED 1540 — COMPLETED 11-17-06 ~1130 (DATE: 11-16-06)
7. THICKNESS OF OVERBURDEN	17. ELEVATION TOP OF HOLE
8. DEPTH DRILLED INTO ROCK	18. TOTAL CORE RECOVERY FOR BORING
9. TOTAL DEPTH OF HOLE 50' — 10. SIZE AND TYPE OF BIT 6" Ø HSA	19. SIGNATURE OF INSPECTOR J. Thompson

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significent) g	Blow count
						0-7 ft bgs Vac-excavated	
	5	—	—	—	—	—	
	10	ML	Gypsum silt	60	SB-016 (10.0-11.0)	Dry	50
	15	ML CL	Gypsum silt clay (tan/grey)	100	—	Dry	54
	20	CL	clay w/ 10% gypsum cry.	90	SB-016 (20.0-21.0)	Water in spoon PID - 50.8 ppm VOC	17
	25	CL SP-SM	clay to 26' fine sand w/ silt increase in sand at 27.	80	—	Moist PID - 15.5 ppm VOC 5 ppm CO	42
	30	CL SP	30.8-31' clay 31-32' fine sand	60	SB-016 (30.0-31.0)	Moist PID - 4.3 ppm VOC 15 ppm CO @1.8'	96
	35	SP	fine to v. fine sand	80	—	Moist PID - 27.5 ppm VOC 15 ppm CO	93
	40	SP-SM	v. fine sand w/ some silt	40	SB-016 (40.0-41.0)	Moist PID - ~~3.8~~ 4.3 ppm VOC 34 ppm CO	76

DRILLING LOG (Continuation Sheet)	INSTALLATION	HOLE No. SB-16	SHEET No. 2 OF 2
1. PROJECT HELSTF Phase III RFI	11. ELEVATION OF TOP HOLE		

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	Blow Count
	45	CL	clay (brown)	80	SB-016 (35-36)	Moist 1.2 ppm VOC 3 ppm CO	39
	50	SP-SM	fine sand w/ some silt	80	SB-016 (49-50)	PID – 1.7 ppm VOC 26 ppm CO	53

DRILLING LOG	DIVISION	INSTALLATION	HOLE No. SB-18	SHEET No. 1 OF 2

1. PROJECT: HELSTF Phase III RI	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)
2. LOCATION (Coordinates or Station)	12. MANUFACTURER'S DESIGNATION OF DRILL
3. DRILLING AGENCY	13. TOTAL No. OF OVERBURDEN SAMPLES TAKEN — DISTURBED — UNDISTURBED
4. HOLE No. (As shown on drawing title and file number): SB-18	14. TOTAL NUMBER CORE BOXES
5. NAME OF DRILLER: Raba Kistner	15. ELEVATION GROUND WATER
6. DIRECTION OF HOLE: ☒ Vertical ☐ Inclined _____ Degrees from Vertical	16. DATE HOLE — STARTED: 11-02-06 — COMPLETED: 1305 — 1600
7. THICKNESS OF OVERBURDEN	17. ELEVATION TOP OF HOLE
8. DEPTH DRILLED INTO ROCK	18. TOTAL CORE RECOVERY FOR BORING
9. TOTAL DEPTH OF HOLE: 50 feet — 10. SIZE AND TYPE OF BIT: 6" Ø HSA	19. SIGNATURE OF INSPECTOR: T. Thompson

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significent) g — Blow Count
						Vac-extraction 0-5 ft
	5	ML	Gypsum silt	95	—	moist - likely due to vac-extraction 70
	10	ML	Gyp. silt		HLSF-0085 -SB-018 -(10-11)	Moist PID - 5.0 ppm VOC @ 7 ft bgs 122
	15	ML CL-ML	Gyp. silt (discolored) silty clay (brown) 16-17' 10% gyp crystals	100	—	Moist PID - 45.3 ppm VOC @ 17 ft bgs 21
	20	SP-SM	sand w/ silt (dis-colored)	60	SB-018 (20-21)	-57.6 ppm @ 16 ft bgs Wet PID-94.1 ppm VOC 25
	25	SP-SM CL-ML	sand w/ silt (grey) silty clay 26.5-27' (grey)	90	—	PID-12.4 ppm VOC 45
	30	SP	fine sand (tan)	60	SB-018 (30-31)	PID - 5.0 ppm VOC 46
	35	SP	fine sand (tan)	40	—	PID-0.9 ppm VOC 104 @ 1 ft
	40	SP	fine sand (tan)	50	SB-018 (40-41)	PID - 40.5 ppm VOC 67

DRILLING LOG (Continuation Sheet)	INSTALLATION	HOLE No. SB-18	SHEET No. 2 OF 2
1. PROJECT HELSTF Phase III RFI	11. ELEVATION OF TOP HOLE		

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	Blow Count
	45	SP	fine sand to 46.5'	60	—	Wet PID - 1.2 ppm	60
		CL	clay			Moist	
	50	SP	fine sand	40	SB-018 (49-50)	wet	37

DRILLING LOG	DIVISION	INSTALLATION	HOLE No. SB-19	SHEET No. 1 OF 2

1. PROJECT HELSTF Phase III RFI	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)
2. LOCATION (Coordinates or Station)	12. MANUFACTURER'S DESIGNATION OF DRILL
3. DRILLING AGENCY	13. TOTAL No. OF OVERBURDEN SAMPLES TAKEN — DISTURBED — UNDISTURBED
4. HOLE No. (As shown on drawing title and file number) SB-19	14. TOTAL NUMBER CORE BOXES
5. NAME OF DRILLER Raba Kistner	15. ELEVATION GROUND WATER
6. DIRECTION OF HOLE ☒ Vertical ☐ Inclined _____ Degrees from Vertical	16. DATE HOLE 11-13-06 — STARTED 1340 — COMPLETED 1620
7. THICKNESS OF OVERBURDEN	17. ELEVATION TOP OF HOLE
8. DEPTH DRILLED INTO ROCK	18. TOTAL CORE RECOVERY FOR BORING
9. TOTAL DEPTH OF HOLE 50' — 10. SIZE AND TYPE OF BIT 6" Ø HSA	19. SIGNATURE OF INSPECTOR J. Thompson

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	Blow Count
						Vac-excavated 0-5 ft	
	5	ML	Gypsum silt	40	—		7
	10	ML	gypsum silt	90	HLSF-0085 -SB-019 (10.0-11.0)		98
	15	ML CL-ML	gypsum silt to 16' Silty Clay	100	—	moist	15
	20	CL-ML	silty (brown) clay w/ 5% gyp cry. & grey staining	90	SB-019 SB-119 (20.0-22.0)	moist PID 36.6 ppm VOC	17
	25	CL-M SM	silty clay silty sand @ 26.5'	80	SB-019 SB-119 (25-26)	moist PID 7.6 ppm	33
	30	SM	fine sand	60	SB-019 (30-31)	moist PID 13.6 ppm VOC	84
	35	SM	fine sand (tan) grey @ 36'	80	(36-37) one jar	moist PID 51.2 ppm	51
	40	SM CL	fine sand to 41.5 clay @ 41.5	90		moist	60

DRILLING LOG (Continuation Sheet)	INSTALLATION	HOLE No. SB-19	SHEET No. 2 OF 2
1. PROJECT HELSTF Phase III RFI	11. ELEVATION OF TOP HOLE		

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	Blow Count
	46	SM	Silty sand to 45.4	90	–	moist	34
		CL	CL (brown) 45.4-47				
	50	SM	fine sand to 48.2 medium sand	100		moist	52

DRILLING LOG	DIVISION	INSTALLATION	HOLE No. SB-20	SHEET No. 1 OF 2

1. PROJECT HLSTF Phase III RFI	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)
2. LOCATION (Coordinates or Station)	12. MANUFACTURER'S DESIGNATION OF DRILL
3. DRILLING AGENCY	13. TOTAL No. OF OVERBURDEN SAMPLES TAKEN — DISTURBED — UNDISTURBED
4. HOLE No. (As shown on drawing title and file number) SB-20	14. TOTAL NUMBER CORE BOXES
5. NAME OF DRILLER Raloa Kistner	15. ELEVATION GROUND WATER
6. DIRECTION OF HOLE ☒ Vertical ☐ Inclined _____ Degrees from Vertical	16. DATE HOLE 11-15-06 — STARTED 1005 — COMPLETED 1405
7. THICKNESS OF OVERBURDEN	17. ELEVATION TOP OF HOLE
8. DEPTH DRILLED INTO ROCK	18. TOTAL CORE RECOVERY FOR BORING
9. TOTAL DEPTH OF HOLE 50 ft bgs — 10. SIZE AND TYPE OF BIT 6" ⌀ HSA	19. SIGNATURE OF INSPECTOR T. Thompson

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significent) g	Blow Count
						Vac-excavated 0-5 ft bgs	
	5	ML	Gypsum silt	75	—	Dry	23
	10	ML	Gypsum silt	100	HLSF-0085-SB-020 (10.0-11.0)	Moist	54
	15	ML	Gypsum silt	80	—	Moist	32
	20	CL	clay w/ 10% gypsum crystals	90	HLSF-0085-SB-020 (20.0-22.0)	Moist	15
	25	CL	clay w/ 10% gypsum crystals	90	—	Moist	32
	30	CL SP-SM	clay to 31.6 silty fine sand	95	HLSF-0085-SB-020 (30.0-31.0)	Moist	34
	35	SP	v. fine sand	80	—	moist	53
	40	SP CL-ML SP	v. fine sand silty clay 0.1' at 41' v. fine sand	70	HLSF-0085-SB-020-(40.0-41.0)	moist moist wet	45

DRILLING LOG (Continuation Sheet)	INSTALLATION	HOLE No. SB-20	SHEET No. 2 OF 2
1. PROJECT HELSTE Phase III RFI	11. ELEVATION OF TOP HOLE		

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significent) g	Blow Count
	45	CL	clay (brown)	80	—	Moist	26
		SP-SM	fine sand w/ silt to 48.6	70		Wet	
	50	CL	clay 48.6-50			Moist	51

DRILLING LOG	DIVISION	INSTALLATION	HOLE No. SB-21	SHEET No. 1 OF 2

1. PROJECT HELSTF Phase III RFI	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)
2. LOCATION (Coordinates or Station)	12. MANUFACTURER'S DESIGNATION OF DRILL
3. DRILLING AGENCY	13. TOTAL No. OF OVERBURDEN SAMPLES TAKEN — DISTURBED — UNDISTURBED
4. HOLE No. (As shown on drawing title and file number) SB-21	14. TOTAL NUMBER CORE BOXES
5. NAME OF DRILLER Raba Kistner (Manny Duenez)	15. ELEVATION GROUND WATER
6. DIRECTION OF HOLE ☒ Vertical ☐ Inclined _____ Degrees from Vertical	16. DATE HOLE 11-15-06 — STARTED 1400 — COMPLETED 1630
7. THICKNESS OF OVERBURDEN	17. ELEVATION TOP OF HOLE
8. DEPTH DRILLED INTO ROCK	18. TOTAL CORE RECOVERY FOR BORING
9. TOTAL DEPTH OF HOLE 50' — 10. SIZE AND TYPE OF BIT 6" Ø HSA	19. SIGNATURE OF INSPECTOR J. Thompson

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significent) g	Blow Count
						Vac-excavated 0-6 ft bgs	
	5	—	—	—	—	No split spoon sample due to water on hole	
	10	ML	Gypsum silt	60	HLSF-0085-SB-021 (10.0-11.0)	Dry.	35
	15	ML	Gypsum silt	90	—	Dry Moist at 16.5'	54
	20	CL	Clay brown w/ 20% gypsum crystals	90	HLSF-0085-SB-021 (20.0-22.0)	Moist	24
	25	CL	Clay brown w/ 40% gypsum crystals	90	—	moist	37
	30	CL ML	Clay brown to 31.2 Silt (brown) w/ fine sand	95	HLSF-0085-SB-021 (30.0-31.0)	moist moist	34
	35	SP	V. fine sand	90	—	moist	54
	40	SP-SM SP	silty fine sand to 40.5 fine sand 40.5-42	90	HLSF-0085-SB-021 (40.0-41.0)	moist wet	36

DRILLING LOG (Continuation Sheet)	INSTALLATION	HOLE No. SB-21	SHEET No. 2 OF 2
1. PROJECT HELSTF Phase III RFI	11. ELEVATION OF TOP HOLE		

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	Blow Count
	45	CL	clay some silt at 46.2'. Gyp crystals at 46.5'	100	—	Moist	33
	50	SP SP-SM CL	Fine sand to 48 49.1 Silty fine sand to 49.5 Clay to 50	100	HLSF-0025 -SB-021 -(49.0-50.0)	wet moist moist	36

DRILLING LOG	DIVISION	INSTALLATION	HOLE No. SB-22	SHEET No. 1 OF 2

1. PROJECT HELSTF Phase III RFI	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)
2. LOCATION (Coordinates or Station)	12. MANUFACTURER'S DESIGNATION OF DRILL
3. DRILLING AGENCY	13. TOTAL No. OF OVERBURDEN SAMPLES TAKEN — DISTURBED — UNDISTURBED
4. HOLE No. (As shown on drawing title and file number) SB-22	14. TOTAL NUMBER CORE BOXES
5. NAME OF DRILLER Raba Kistner (Manny Duenez)	15. ELEVATION GROUND WATER
6. DIRECTION OF HOLE ☒ Vertical ☐ Inclined _____ Degrees from Vertical	16. DATE HOLE 11-3-06 — STARTED 0800 — COMPLETED 1045
7. THICKNESS OF OVERBURDEN	17. ELEVATION TOP OF HOLE
8. DEPTH DRILLED INTO ROCK	18. TOTAL CORE RECOVERY FOR BORING
9. TOTAL DEPTH OF HOLE 50' — 10. SIZE AND TYPE OF BIT 6" Φ HSA	19. SIGNATURE OF INSPECTOR J. Thompson

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significent) g	Blow count
						Location "pot-holed" to verify no utilities. 0-5 ft.	
	5	ML	Gypsum silt	70	—	Moist - due to vac-extractor	15
	10	ML	Gypsum silt	70	HLSF-0085 - SB-022 - (10.0-11.0)	Moist	74
	15	CL-ML	Silty clay ~~g~~ w/ 20% gypsum crystals	90	—	moist	21
	20	CL ML	Silty clay (brown) w/ 5% gypsum crystals	95	SB-022 SB-122	moist	17
	25	CL-ML	brown clay 5% gyp cry grey clay 40% gyp crystals	95	—	Moist	41
	30	CL-ML SP ~~SW~~	brown clay @ 30.8-31.5 well graded fine sand @ 31.5-32.	55	SB-022 (31.0-32.0)	(Water is in the borehole) Moist	47
	35	SM	Silty sand	60	—	Moist	—
	40	SP ~~SW~~ CL	well graded fine sand @ 41.6' brown	80	SB-022 (40.0-41.0)	~~wet~~ wet	27

DRILLING LOG (Continuation Sheet)	INSTALLATION	HOLE No. SB-22	SHEET No. 2 OF 2
1. PROJECT HELSTF Phase III RFI	11. ELEVATION OF TOP HOLE		

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	Blow count
	45	CL	brown clay w/ 5% gyp crystals	50	—	Moist	27
	50	CL	brown clay 5% gyp crystals	40	SB-022 -(49.0-50.0)	Moist	39

DRILLING LOG	DIVISION	INSTALLATION	HOLE No. SB-23	SHEET No. 1 OF 2

1. PROJECT HELSTF Phase III RFI	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)
2. LOCATION (Coordinates or Station)	12. MANUFACTURER'S DESIGNATION OF DRILL
3. DRILLING AGENCY	13. TOTAL No. OF OVERBURDEN SAMPLES TAKEN — DISTURBED — UNDISTURBED
4. HOLE No. (As shown on drawing title and file number)	14. TOTAL NUMBER CORE BOXES
5. NAME OF DRILLER Raba Kistner (Manny Chenez)	15. ELEVATION GROUND WATER
6. DIRECTION OF HOLE ☒ Vertical ☐ Inclined _____ Degrees from Vertical	16. DATE HOLE 11-7-06 — STARTED 0800 — COMPLETED 1145
7. THICKNESS OF OVERBURDEN	17. ELEVATION TOP OF HOLE
8. DEPTH DRILLED INTO ROCK	18. TOTAL CORE RECOVERY FOR BORING
9. TOTAL DEPTH OF HOLE 50 ft bgs — 10. SIZE AND TYPE OF BIT 6" Ø HSA	19. SIGNATURE OF INSPECTOR J. Thompson

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	Blow count
						Vac-extraction from 0-5 ft bgs	
	5	ML	Gypsum silt	90	—	Dry	61
	10	ML	Gypsum silt	80	HLSF-0085 SB-023 (10.0-11.0)	Slightly Moist	121
	15	CL-ML	Silty clay w/ decreasing gypsum content	90	—	Moist	24
	20	CL ~~-ML~~	~~Silty~~ clay w/ 20% gypsum crystals	70	HLSF-0085 -SB-023 (20.0-21.0)	Moist	26
	25	CL SP-SM CL-ML	clay ~~25.0-5~~ 25.0-25.2 fine sand w/ silt 25.2-26.5 silty clay 26.5-26.7	80	—	Wet	35
	30	SP-SM SP	v. fine sand w/ silt to 30.5 fine sand to 31.5	70	HLSF-0085 -SB-023 -(30.8-31.0)	wet moist	63
	35	SP CL	fine sand to 36.2 Sandy clay to 36.5	75	—	wet	42
	40	SP SP-SM	fine sand to 41 v. fine sand w/ silt	100	HLSF-0085 -SB-023 (40.0-41.0)	wet	53

DRILLING LOG (Continuation Sheet)	INSTALLATION	HOLE No. SB-23	SHEET No. 2 OF 2
1. PROJECT HELSTF Phase III RFI	11. ELEVATION OF TOP HOLE		

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	Blow Count
	45	SP	fine sand to 46.5	100	–	Wet	
		CL	clay w/ 10% gyp cry			moist	41
		SP-SM	fine sand w/ silt to 48.5	100	HLSF-0085	Wet	
	50	ML	silt w/ sand, 48.5-49.2		-SB-023	wet	42
		CL	clay w/ 5% gyp cry 49.2-50.0		-(48.0-50.0)	moist	

DRILLING LOG	DIVISION	INSTALLATION	HOLE No. SB-24	SHEET No. 1 OF 2

1. PROJECT HELSTF Phase III RFI	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)
2. LOCATION (Coordinates or Station)	12. MANUFACTURER'S DESIGNATION OF DRILL
3. DRILLING AGENCY	13. TOTAL No. OF OVERBURDEN SAMPLES TAKEN — DISTURBED — UNDISTURBED
4. HOLE No. (As shown on drawing title and file number) SB-24	14. TOTAL NUMBER CORE BOXES
5. NAME OF DRILLER Raba Kistner (Manny Duenez)	15. ELEVATION GROUND WATER
6. DIRECTION OF HOLE ☒ Vertical ☐ Inclined _____ Degrees from Vertical	16. DATE HOLE 11-6-06 — STARTED 1315 — COMPLETED 1540
7. THICKNESS OF OVERBURDEN	17. ELEVATION TOP OF HOLE
8. DEPTH DRILLED INTO ROCK	18. TOTAL CORE RECOVERY FOR BORING
9. TOTAL DEPTH OF HOLE 50' — 10. SIZE AND TYPE OF BIT 6" Φ HSA	19. SIGNATURE OF INSPECTOR J. Thompson

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significent) g	Blow Count
						Vac-extraction 0-5 ft bgs.	
	5	ML	Gypsum silt	70	—	Dry	24
	10	ML	Gypsum silt	90	HLSF-0085 ~~HLSF~~ SB-024 -(10.0-11.0)	Moist	87
	15	ML	Gypsum silt to 16' Gypsum silt w/ 20% gyp crystals	95	—	Dry to 15.5' moist	18
	20	ML	Gypsum silt to 20.1	100	HLSF-0085 -SB-024 (20.0-21.0)	Moist	15
	25	SM CL-ML	Silty sand (fine) to 25.7 Gypsum silty clay w/ 20% gyp cry.	80	—	wet	51
	30	SP ~~SW~~ CL	Medium to fine sand ~~to 30.4~~ to 31.5' clay (brown) w/ 5% gyp crystals.	70	HLSF-0085 -SB-024 (30.0-31.0)	wet	61
	35	SM	Silty sand	90	—	wet	—
	40	SM	Silty sand	80	HLSF-0085 -SB-024 -(40.0-41.0)	wet	56

DRILLING LOG (Continuation Sheet)	INSTALLATION	HOLE No. SB-24	SHEET No. 2 OF 2
1. PROJECT HELSTF Phase III RFI	11. ELEVATION OF TOP HOLE		

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	Blow Count
	45	SM	Silty sand to 46'	80	—	Wet	
		CL-ML	Silty clay to 47				33
			Silty clay to 49.5	95	HLSF-0085 SB-024 (49.0-50.0)	Wet	
	50	CL	clay to 50.			Moist	33

DRILLING LOG	DIVISION	INSTALLATION	HOLE No. SB-25	SHEET No. 1 OF 2

1. PROJECT HELSTF Phase III RFI	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)
2. LOCATION (Coordinates or Station)	12. MANUFACTURER'S DESIGNATION OF DRILL
3. DRILLING AGENCY	13. TOTAL No. OF OVERBURDEN SAMPLES TAKEN — DISTURBED — UNDISTURBED
4. HOLE No. (As shown on drawing title and file number) SB-25	14. TOTAL NUMBER CORE BOXES
5. NAME OF DRILLER Raloa Kistner	15. ELEVATION GROUND WATER
6. DIRECTION OF HOLE ☒ Vertical ☐ Inclined _____ Degrees from Vertical	16. DATE HOLE 11-3-06 — STARTED 1240 — COMPLETED 1555
7. THICKNESS OF OVERBURDEN	17. ELEVATION TOP OF HOLE
8. DEPTH DRILLED INTO ROCK	18. TOTAL CORE RECOVERY FOR BORING
9. TOTAL DEPTH OF HOLE 50' ft — 10. SIZE AND TYPE OF BIT 6" Ø HSA	19. SIGNATURE OF INSPECTOR J. Thompson

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	Blow Count
						0-5 ft "pot holed" to clear for utilities.	
	5	ML	Gypsum silt	90	—	Moist	45
	10	ML	Gypsum silt	40	SB-025 (10.0-11.0)	Dry	75 @ 16
	15	ML	Gypsum silt	100	—	Moist @ 15.5'	30
	20	CL-ML	Silty clay (brown) 20% gypsum crystals	80	SB-025 (20.0-21.0)	Wet	22
	25	SM ML	brown silt sand to 26.5 Gyp silt w/ 20% gypsum	90	—	wet	33
	30	CL-ML SP ~~SW~~	silty clay to 30.5' fine sand	70	SB-025 (30.0-31.0)	moist	75
	35	CL-ML ML	silty clay to 36.7 brown silt	80	—	moist wet	41
	40	ML ML	brown silt sandy silt at 41'	90	SB-025 (40.0-41.0)	wet	43

DRILLING LOG (Continuation Sheet)	INSTALLATION	HOLE No. SB-25	SHEET No. 2 OF 2
1. PROJECT HELSTF Phase III RFI	11. ELEVATION OF TOP HOLE		

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g Blow Count
	45	SP ~~SW~~	fine grain sand	100	–	wet 71
	50		Grout borehole to surface.			unable to obtain sample due to heaving sands

DRILLING LOG	DIVISION	INSTALLATION	HOLE No. SB-26	SHEET No. 1 OF 2

1. PROJECT HELSTF Phase III RFI	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)
2. LOCATION (Coordinates or Station) ~~HB~~	12. MANUFACTURER'S DESIGNATION OF DRILL
3. DRILLING AGENCY	13. TOTAL No. OF OVERBURDEN SAMPLES TAKEN — DISTURBED — UNDISTURBED
4. HOLE No. (As shown on drawing title and file number) SB-26	14. TOTAL NUMBER CORE BOXES
5. NAME OF DRILLER Raba Kistner (Manny Duenez)	15. ELEVATION GROUND WATER
6. DIRECTION OF HOLE ☒ Vertical ☐ Inclined _____ Degrees from Vertical	16. DATE HOLE 11-6-07 — STARTED 0840 — COMPLETED 1140
7. THICKNESS OF OVERBURDEN	17. ELEVATION TOP OF HOLE
8. DEPTH DRILLED INTO ROCK	18. TOTAL CORE RECOVERY FOR BORING
9. TOTAL DEPTH OF HOLE 50 ft bgs — 10. SIZE AND TYPE OF BIT 6" Φ HSA	19. SIGNATURE OF INSPECTOR T. Thompson

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	Blow count
						Vacuum excavated for 0-5 ft.	
	5	ML	Gypsum silt	50	—	Moist/dry	22
	10	ML	Gypsum silt	50	HLSF-0085 -SB-026 -(10.0-11.0)	Dry	61
	15	ML	Gypsum silt w/ 5% gypsum crystals	90	—	Moist	17
	20	CL-ML	Silty Clay (brown)	80	HLSF-0085 -SB-026 -(20.0-21.0)	Wet	21
	25	~~CL~~-ML	Silty gypsum w/ some clay 5% gypsum crystals	80	—	Moist	31
	30	SM CL-ML	(brown) silty sand to 31 silty clay (brown)	80	HLSF-0085 SB-026 SB-126 (30.0-32.0)	Moist	46
	35	CL-ML SM	silty clay 35-35.4 fine sand	70	—	Moist	31
	40	CL	clay (brown)	100	SB-026 (40.0-41.0)	Moist	35

DRILLING LOG (Continuation Sheet)	INSTALLATION	HOLE No. SB-26	SHEET No. 2 OF 2
1. PROJECT HELSTF Phase III RFI	11. ELEVATION OF TOP HOLE		

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	Blow Count
	45	CL-ML	silty clay w/ 5% gypsum crystals	100	—	Moist	40 34
	50	CL-ML SM	silty clay to ~~48~~ 49.5 silty sand	100	HLSF-0085 -SB-026 -(49.0-50.0)	Moist	34

DRILLING LOG

DIVISION	INSTALLATION	HOLE No.	SHEET No.
		SB-27	1 OF 2

1. PROJECT: HELSTF Phase III RFI	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)
2. LOCATION (Coordinates or Station)	12. MANUFACTURER'S DESIGNATION OF DRILL
3. DRILLING AGENCY	13. TOTAL No. OF OVERBURDEN SAMPLES TAKEN — DISTURBED — UNDISTURBED
4. HOLE No. (As shown on drawing title and file number): SB-27	14. TOTAL NUMBER CORE BOXES
5. NAME OF DRILLER: Raba Kistner (Manny Duenez)	15. ELEVATION GROUND WATER
6. DIRECTION OF HOLE: [X] Vertical [ ] Inclined ____ Degrees from Vertical	16. DATE HOLE — STARTED: 11-7-06, 1315 — COMPLETED: 1610
7. THICKNESS OF OVERBURDEN	17. ELEVATION TOP OF HOLE
8. DEPTH DRILLED INTO ROCK	18. TOTAL CORE RECOVERY FOR BORING
9. TOTAL DEPTH OF HOLE: 50' — 10. SIZE AND TYPE OF BIT: 6" Ø HSA	19. SIGNATURE OF INSPECTOR: A. Thompson

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significent) g	Blow Count
						Vac-excavated 0-5 ft bgs	
	5	ML	Gypsum silt	55	—	Dry	31
	10	ML	Gypsum silt	80	SB-027 SB-12ft (10-12)	Dry	69
	15	CL-ML	Silty clay w/ decreasing gypsum content	90	SB-027 (15.0-16.0)	Slightly Moist	26
	20	CL-ML	Silty clay w/ 5% gypsum crystals increasing to 20% at 21'	80	SB-027 (20.0-21.0)	Wet	15
	25	CL-ML CL SM	Silty clay 40% gypsum @26' Clay 20% gypsum Sandy silt	90	—	Wet Moist moist	43
	30	CL	Clay 20% gypsum crystals	90	SB-027 (30.0-31.0)	Moist	46
	35	CL	Clay 10% gypsum crystal	100	—	Moist	38
	40	CL	Clay 10% gypsum crystal	100	SB-027 (40.0-41.0)	moist	41

DRILLING LOG (Continuation Sheet)	INSTALLATION	HOLE No. SB-27	SHEET No. 2 OF 2
1. PROJECT HELSTF Phase III RFI	11. ELEVATION OF TOP HOLE		

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	Blow Count
	45	CL	clay 5% gypsum crystals	100	—	moist	30
	50	CL mL CL	clay to 49.2' sand silt 49.2-49.6 clay	100	SB-027 (49-50)	moist	28

DRILLING LOG	DIVISION	INSTALLATION	HOLE No. SB-28	SHEET No. 1 OF 2

1. PROJECT HELSTF Phase III RFI	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)
2. LOCATION (Coordinates or Station)	12. MANUFACTURER'S DESIGNATION OF DRILL
3. DRILLING AGENCY	13. TOTAL No. OF OVERBURDEN SAMPLES TAKEN — DISTURBED — UNDISTURBED
4. HOLE No. (As shown on drawing title and file number) SB-28	14. TOTAL NUMBER CORE BOXES
5. NAME OF DRILLER Raba Kistner (Manny Duenez)	15. ELEVATION GROUND WATER
6. DIRECTION OF HOLE ☒ Vertical ☐ Inclined _____ Degrees from Vertical	16. DATE HOLE — STARTED 11-13-06 — COMPLETED 0920 — 1220
7. THICKNESS OF OVERBURDEN	17. ELEVATION TOP OF HOLE
8. DEPTH DRILLED INTO ROCK	18. TOTAL CORE RECOVERY FOR BORING
9. TOTAL DEPTH OF HOLE 50' — 10. SIZE AND TYPE OF BIT 6" Ø HSA	19. SIGNATURE OF INSPECTOR J. Thompson

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth or weathering, etc., if significent) g	Blow Count
						Vac-excavated 0-5 ft	
	5	ML	gypsum silt	80	—	Moist (due to vac. excavation)	17
	10	ML	gypsum silt	30	~~HLSF-0085-SB-028-(8.0-11.0)~~	Dry.	148
	15	ML CL-ML	gypsum silt w/ 20% crystals 16.-17 silty clay	95	HLSF-0085-SB-028-(15-16)	Moist	12
	20	SM	silty sand	80	HLSF-0085-SB-028-(20-21)	wet	24
	25	SM CL	silty sand, to 25.5 clay w/ 20% gypsum crystals	90	—	wet moist	49
	30	CL	clay w/ 10% gypsum crystals	90	HLSF-0085-SB-028-(30-31)	moist	26
	35	CL CL-ML	clay to 35.4' silty clay w/ increasing silt	90	—	moist	26
	40	CL SM	clay sand @ 42'	100		moist	28

DRILLING LOG (Continuation Sheet)	INSTALLATION	HOLE No. SB-28	SHEET No. 2 OF 2
1. PROJECT HELSTF Phase III RFI	11. ELEVATION OF TOP HOLE		

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	Blow Count
	45	CL CL-ML CL	clay to 46 silty clay 46-46.5 clay	100	—	Moist	27
	50	CL	clay	100	HLSF-0085-SB-028 (49.0-50.0)	Moist	23

DRILLING LOG	DIVISION	INSTALLATION	HOLE No. SB-29	SHEET No. 1 OF 2

1. PROJECT HELSTF Phase III RFI	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)
2. LOCATION (Coordinates or Station)	12. MANUFACTURER'S DESIGNATION OF DRILL
3. DRILLING AGENCY	13. TOTAL No. OF OVERBURDEN SAMPLES TAKEN — DISTURBED — UNDISTURBED
4. HOLE No. (As shown on drawing title and file number) SB-29	14. TOTAL NUMBER CORE BOXES
5. NAME OF DRILLER Raba Kistner	15. ELEVATION GROUND WATER
6. DIRECTION OF HOLE ☒ Vertical ☐ Inclined _____ Degrees from Vertical	16. DATE HOLE 10-10-06 — STARTED 1340 — COMPLETED 1830
7. THICKNESS OF OVERBURDEN	17. ELEVATION TOP OF HOLE
8. DEPTH DRILLED INTO ROCK	18. TOTAL CORE RECOVERY FOR BORING
9. TOTAL DEPTH OF HOLE 50' — 10. SIZE AND TYPE OF BIT 6" Ø HSA	19. SIGNATURE OF INSPECTOR T. Thompson

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	Blow count
	5	ML	Gypsum silt	100	—	Dry	~90
	10	SP	very fine sand w/ gyp. crystals	100	SB-029 (10-10.5)	Dry	47
	15	CL	clay w/ gyp. cry.	100	—	wet	14
	20	CL	clay w/ some sand and gyp. cry.	100	SB-029 (20-21)	moist	24
	25	CL SP-SC	clay w/ gyp. cry. to 26.5' fine sand w/ clay	95	—	moist	43
	30	CL	clay w/ gyp cry some f. sand	95	SB-029 (30-31)	moist	45
	35	CL	clay w/ gyp. cry. Gyp. cry. 36-36.2'	100	—	moist	51
	40	CL ML CL	clay w/ f. sand to 40.6' silt 40.6-41.5' sandy clay 41.5-42'	100	SB-029 (40-41)	moist	65

DRILLING LOG (Continuation Sheet)	INSTALLATION	HOLE No. SB-29	SHEET No. 2 OF 2
1. PROJECT HELSTF Phase III RFI	11. ELEVATION OF TOP HOLE		

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significent) g	Blow Count
	45	CL	clay w/ f. sand 45-46.8'	97	—	moist	25
		SP	fine sand 46.8-47'				
		CL	clay (grey) 48-48.7'	100	SB-029 (49-50')	moist	22
	50		clay (brown) 48.7-50'				

DRILLING LOG	DIVISION	INSTALLATION	HOLE No. SB-30	SHEET No. 1 OF 2

1. PROJECT HELSTF Phase III RFI	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)
2. LOCATION (Coordinates or Station)	12. MANUFACTURER'S DESIGNATION OF DRILL
3. DRILLING AGENCY	13. TOTAL No. OF OVERBURDEN SAMPLES TAKEN — DISTURBED — UNDISTURBED
4. HOLE No. (As shown on drawing title and file number) SB-30	14. TOTAL NUMBER CORE BOXES
5. NAME OF DRILLER Raba Kistner	15. ELEVATION GROUND WATER
6. DIRECTION OF HOLE ☒ Vertical ☐ Inclined ____ Degrees from Vertical	16. DATE HOLE 10-11-06 — STARTED 0825 — COMPLETED 1240
7. THICKNESS OF OVERBURDEN	17. ELEVATION TOP OF HOLE
8. DEPTH DRILLED INTO ROCK	18. TOTAL CORE RECOVERY FOR BORING
9. TOTAL DEPTH OF HOLE 50' — 10. SIZE AND TYPE OF BIT 6" Ø HSA	19. SIGNATURE OF INSPECTOR T. Thompson

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significent) g	Blow count
	5	ML	Gypsum silt	80	—	Dry	94 @ 1.5 ft
	10	ML CL	Gypsum silt to 11' clay w/ f. sand to 12'	100	SB-030 (10-11)	Dry	35
	15	CL	clay w/ f. sand to 15.2' clay (brown) to 17'	100	—	Dry	~10 ?
	20	CL	clay w/ gypsum crystals	100	SB-030 (20-22); SB-130 (20-22)	Moist - water infiltrating from above	35
	25	CL ML	clay w/ gyp. cry. to 26' silt w/ f. sand	80	—	moist	38
	30	CL	clay w/ gyp. cry and some sand 30.5-32'	100	SB-030 (30-31)	moist	21
	35	CL	clay (brown) w/ large gyp. cry.	100	—	moist	37
	40	ML	silt w/ sand	80	SB-030 (40-41)	moist	63

DRILLING LOG (Continuation Sheet)	INSTALLATION	HOLE No. SB-30	SHEET No. 2 OF 2
1. PROJECT HELSTF Phase III RFI	11. ELEVATION OF TOP HOLE		

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significent) g	Blow count
	45	CL	clay (brown) w/ f. sand	80	—	moist	44
	50	CL	clay w/ gyp. cry.	100	SB-030 (49-50)	moist	27

DRILLING LOG	DIVISION	INSTALLATION	HOLE No. SB-31	SHEET No. 1 OF 2

1. PROJECT HELSTF Phase III RFI	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)
2. LOCATION (Coordinates or Station)	12. MANUFACTURER'S DESIGNATION OF DRILL
3. DRILLING AGENCY	13. TOTAL No. OF OVERBURDEN SAMPLES TAKEN — DISTURBED — UNDISTURBED
4. HOLE No. (As shown on drawing title and file number) SB-31	14. TOTAL NUMBER CORE BOXES
5. NAME OF DRILLER Raba Kistner (Manny Buenez)	15. ELEVATION GROUND WATER
6. DIRECTION OF HOLE ☒ Vertical ☐ Inclined _____ Degrees from Vertical	16. DATE HOLE — STARTED 10-11-06 1600 — COMPLETED 10-12-06 1830
7. THICKNESS OF OVERBURDEN	17. ELEVATION TOP OF HOLE
8. DEPTH DRILLED INTO ROCK	18. TOTAL CORE RECOVERY FOR BORING
9. TOTAL DEPTH OF HOLE 50' — 10. SIZE AND TYPE OF BIT 6" Φ HSA	19. SIGNATURE OF INSPECTOR J. Thompson

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significent) g	Blow Count
	5	ML	Gypsum silt	95	—	Dry	63
	10	ML CL	Silt Gypsum clay w/ gyp crystals	100	SB-031 (10-11)	Dry to moist	40
	15	CL	clay w/ Gyp cry.	100	—	Moist/wet	18
	20	CL	Clay w/ Gyp. cry.	100	SB-031 (20-21)	moist	38
	25	CL ML	clay w/ gyp. cry to 26' silt w/ f. sand to 27'	80	—	moist	46
	30	CL	clay w/ gyp. cry.	50	SB-031 (30-31)	moist	30
	35	CL	clay w/ gyp. cry.	100	—	moist	43
	40	CL	clay w/ gyp. cry.	100	SB-031 (40-41)	moist	37

DRILLING LOG (Continuation Sheet)	INSTALLATION	HOLE No. SB-31	SHEET No. 2 OF 2
1. PROJECT HELSTF Phase III RFI	11. ELEVATION OF TOP HOLE		

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significent) g	Blow Count
	45	ML	silt w/ fine sand to 45.5'				
		CL	clay w/ gyp cry to 46.5'	100	—	moist	39
			clay w/ fine sand to 47'				
	50	CL	clay (brown)	—	SB-031 (49-50)	moist	34

DRILLING LOG	DIVISION	INSTALLATION	HOLE No. SB-32	SHEET No. 1 OF 2

1. PROJECT HELSTF Phase III RFI	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)
2. LOCATION (Coordinates or Station)	12. MANUFACTURER'S DESIGNATION OF DRILL
3. DRILLING AGENCY	13. TOTAL No. OF OVERBURDEN SAMPLES TAKEN — DISTURBED — UNDISTURBED
4. HOLE No. (As shown on drawing title and file number) SB-32	14. TOTAL NUMBER CORE BOXES
5. NAME OF DRILLER Raba Kistner	15. ELEVATION GROUND WATER
6. DIRECTION OF HOLE ☒ Vertical ☐ Inclined _____ Degrees from Vertical	16. DATE HOLE 10-24-06 — STARTED 0805 — COMPLETED 1120
7. THICKNESS OF OVERBURDEN	17. ELEVATION TOP OF HOLE
8. DEPTH DRILLED INTO ROCK	18. TOTAL CORE RECOVERY FOR BORING
9. TOTAL DEPTH OF HOLE 50' — 10. SIZE AND TYPE OF BIT 6" Φ HSA	19. SIGNATURE OF INSPECTOR J. Thompson

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significent) g	Blow Count
	5	ML	Gypsum silt	40	—	Dry	100@ 1ft
	10	ML	Gypsum silt	100	SB-032	Dry, Moist @ 11.5'	71
	15	ML SP	silt (light brown) to 16.2 fine to v. fine sand	100	—	moist	62
	20	CL	clay w/ 10% gyp crystals	100	SB-032	moist	29
	25	CL SM	clay w/ 5% gyp crystals silty sand (26.5-27)	100	—	moist	45
	30	CL	clay	100		moist	44
	35	CL	clay brown w/ 5% gyp cry.	100	—	moist	32
	40	CL	clay brown 10% gyp crystals 41-42'	100		moist	34

DRILLING LOG (Continuation Sheet)	INSTALLATION	HOLE No. SB-32	SHEET No. 2 OF 2
1. PROJECT HELSTF Phase III RFI	11. ELEVATION OF TOP HOLE		

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	Blow Counts
	45	CL	clay brown. trc. silt @ 46.5'	100		moist	37
	50	CL	clay w/ some fine sand @ 49.5-50'	100		moist	33

DRILLING LOG	DIVISION	INSTALLATION	HOLE No. SB-33	SHEET No. 1 OF 2

1. PROJECT HELSTF Phase III RFI	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)
2. LOCATION (Coordinates or Station)	12. MANUFACTURER'S DESIGNATION OF DRILL
3. DRILLING AGENCY	13. TOTAL No. OF OVERBURDEN SAMPLES TAKEN — DISTURBED — UNDISTURBED
4. HOLE No. (As shown on drawing title and file number) SB-33	14. TOTAL NUMBER CORE BOXES
5. NAME OF DRILLER Raba Kistner	15. ELEVATION GROUND WATER
6. DIRECTION OF HOLE ☒ Vertical ☐ Inclined _____ Degrees from Vertical	16. DATE HOLE — STARTED 1300 — COMPLETED 1635 — 10-31-06
7. THICKNESS OF OVERBURDEN	17. ELEVATION TOP OF HOLE
8. DEPTH DRILLED INTO ROCK	18. TOTAL CORE RECOVERY FOR BORING
9. TOTAL DEPTH OF HOLE 50' — 10. SIZE AND TYPE OF BIT 6" Φ HSA	19. SIGNATURE OF INSPECTOR T. Thompson

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significent) g	Blow Count
	5	ML	Gypsum silt	50	—	Dry	160@ 1 ft
	10	ML	Gypsum silt	75	HLSF-0085 -SB-033 -(10-11)	Dry	84
	15	CL-ML	silty clay (brown) w/ 10% gypsum crystals	100	—	moist	32
	20	CL-ML	silty clay (brown) w 5% gyp. cry.	100	SB-033 (20-21)	moist	40
	25	SP-SM CL-ML SP-SM	sand w/ silt 25-25.5' silty clay 10% gyp cry 25.5-26.8' sand w/ silt 26.8-27'	85	—	moist	49
	30	CL-ML	silty clay (brown)	100	SB-033 (30-31)	moist	43
	35	CL-ML	silty clay (brown) w/ <5% gyp. crystals	100	—	moist	42
	40	CL ML	clay (brown) silt w/ sand 41.8-42'	100	SB-033 (40-42) SB-133 (40-42)	moist	27

DRILLING LOG (Continuation Sheet)	INSTALLATION	HOLE No. SB-33	SHEET No. 2 OF 2
1. PROJECT HELSTF Phase III RFI	11. ELEVATION OF TOP HOLE		

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significent) g Blow Count
	45	SP-SM	sand w/ silt fine to v. fine	90	—	wet 80
	50	SP	fine to v. fine sand	90	SB-033 (49-50)	wet 34

DRILLING LOG	DIVISION	INSTALLATION	HOLE No. SB-34	SHEET No. 1 OF 2

1. PROJECT HELSTF Phase III RFI	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)
2. LOCATION (Coordinates or Station)	12. MANUFACTURER'S DESIGNATION OF DRILL
3. DRILLING AGENCY	13. TOTAL No. OF OVERBURDEN SAMPLES TAKEN — DISTURBED — UNDISTURBED
4. HOLE No. (As shown on drawing title and file number) SB-34	14. TOTAL NUMBER CORE BOXES
5. NAME OF DRILLER Raba Kistner (Manny Duenez)	15. ELEVATION GROUND WATER
6. DIRECTION OF HOLE ☒ Vertical ☐ Inclined _____ Degrees from Vertical	16. DATE HOLE 10-31-06 — STARTED 0800 — COMPLETED 1140
7. THICKNESS OF OVERBURDEN	17. ELEVATION TOP OF HOLE
8. DEPTH DRILLED INTO ROCK	18. TOTAL CORE RECOVERY FOR BORING
9. TOTAL DEPTH OF HOLE 50 feet — 10. SIZE AND TYPE OF BIT 6" Ø HSA	19. SIGNATURE OF INSPECTOR T. Thompson

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significent) g	Blow count
	5	ML	Gypsum silt	25	—	Dry	100 @6"
	10	ML	Gypsum silt	100	HCSF-0085 -SB-034 (10-11)	Dry Moist 11-11.8'	93
	15	ML ML-CL	Gypsum silt to 15.4' silty clay (brown) to 17' 5% gyp. crystals	90	—	Dry Moist 15.5-17'	40
	20	ML-CL	silty clay (brown) 10% gyp. cry.	100	SB-034 (20-21)	Moist	43
	25	ML-CL SP	silty clay (brown) to 26.8' fine to v. fine sand	100	—	Moist	50
	30	SP	fine to v. fine sand	60	SB-034 (30-31)	Moist	140
	35	SP ML-CL	f. to v.f. sand silty clay (brown) w/ gyp. cry. @ 37'	100	—	wet	88
	40	SP CL ~~SP~~-SM SP	f. to v.f. sand to 40.5' clay (brown) to 41.8' fine sand w/ silt to 42'	100	SB-034 (40-41)	moist	27

DRILLING LOG (Continuation Sheet)	INSTALLATION	HOLE No. SB-34	SHEET No. 2 OF 2
1. PROJECT HELSTF Phase III RFI	11. ELEVATION OF TOP HOLE		

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significent) g	Blow Count
	45	SP-SM	fine sand w/ silt 45-46'	100	-	wet	76
			fine sand 46-47'				
	50	SP	f. to v.f. sand	100	SB-034 (49-50)	wet	96

DRILLING LOG	DIVISION	INSTALLATION	HOLE No. SB-35	SHEET No. 1 OF 2

1. PROJECT HELSTF Phase III RFI	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)
2. LOCATION (Coordinates or Station)	12. MANUFACTURER'S DESIGNATION OF DRILL
3. DRILLING AGENCY	13. TOTAL No. OF OVERBURDEN SAMPLES TAKEN — DISTURBED — UNDISTURBED
4. HOLE No. (As shown on drawing title and file number) ~~SB-0~~ SB-35	14. TOTAL NUMBER CORE BOXES
5. NAME OF DRILLER Rabca Kistner	15. ELEVATION GROUND WATER
6. DIRECTION OF HOLE ☒ Vertical ☐ Inclined _____ Degrees from Vertical	16. DATE HOLE — STARTED 10-23-06 — 0955 — COMPLETED 1455
7. THICKNESS OF OVERBURDEN	17. ELEVATION TOP OF HOLE
8. DEPTH DRILLED INTO ROCK	18. TOTAL CORE RECOVERY FOR BORING
9. TOTAL DEPTH OF HOLE 50' — 10. SIZE AND TYPE OF BIT 6" Φ HSA	19. SIGNATURE OF INSPECTOR T. Thompson

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significent) g	Blow count
	5	ML	gypsum silt	60	—	Dry	124
	10	ML	gypsum silt	90	SB-035 (10.0-11.0)	Dry moist @ 11'	51
	15	CL-ML	clay (brown) w/ 40% gypsum crystals	100	—	moist	78
	20	CL-ML	silty clay (brown) w/ 5% gyp crystals	100	SB-035 (20.0-21.0)	moist	36
	25	CL-ML SP-SM	silty clay (brown) 5% gyp cry v. fine sand @ 26.7 silty	100	—	moist	62
	30	CL	clay (brown) 10% gyp crystals	100	SB-035 (30.0-31.0)	moist	50
	35	CL	clay (brown) 10% gyp crystals	100	—	moist	41
	40	CL SP-SC CL	clay (brown) 5% gyp cry sandy clay @ 41.2' clay @ 41.5'	100	SB-035 (40.0-41.0)	moist	38

DRILLING LOG (Continuation Sheet)	INSTALLATION	HOLE No. SB-35	SHEET No. 2 OF 2
1. PROJECT HELSTF Phase III RFI	11. ELEVATION OF TOP HOLE		

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	Blow Count
	45	SP	fine sand	~~30~~ 41	–	wet	30
	50	SP	fine to v. fine sand?	–	SB-035 (49.0-50.0)	wet	~40

DRILLING LOG	DIVISION	INSTALLATION	HOLE No. SB-36	SHEET No. 1 OF 2

1. PROJECT HELSTF Phase III RFI	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)
2. LOCATION (Coordinates or Station)	12. MANUFACTURER'S DESIGNATION OF DRILL
3. DRILLING AGENCY	13. TOTAL No. OF OVERBURDEN SAMPLES TAKEN — DISTURBED — UNDISTURBED
4. HOLE No. (As shown on drawing title and file number) SB-36	14. TOTAL NUMBER CORE BOXES
5. NAME OF DRILLER Raba Kistner	15. ELEVATION GROUND WATER
6. DIRECTION OF HOLE ☒ Vertical ☐ Inclined _____ Degrees from Vertical	16. DATE HOLE 10-23-06 — STARTED 1500 — COMPLETED 1850
7. THICKNESS OF OVERBURDEN	17. ELEVATION TOP OF HOLE
8. DEPTH DRILLED INTO ROCK	18. TOTAL CORE RECOVERY FOR BORING
9. TOTAL DEPTH OF HOLE 50' — 10. SIZE AND TYPE OF BIT 6" Φ HSA	19. SIGNATURE OF INSPECTOR J. Thompson

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significent) g	Blow Count
	5	ML	Gypsum silt	60	—	dry	119 @ 1.5 ft
	10	ML	Gypsum silt	100		Moist 10-12' Dry 11-12' ~~Moist 0-11'~~	78
	15	CL-ML	Silty clay w/ 40% gypsum crystals	100	—	moist	32
	20	CL-ML	Silty clay w/ 20% gyp crystals	100		moist	35
	25	CL-ML SP-SM	Silty clay w/ 20% gyp cry. poorly grade sand w/ silt	60		moist	51
	30	CL	clay (brown) w/ 5% gyp cry.	100		moist	44
	35	CL	clay (brown) w/ 5% gyp cry.	100		moist	35
	40	CL	clay (brown)	100		moist	39

DRILLING LOG (Continuation Sheet)	INSTALLATION	HOLE No. SB-36	SHEET No. 2 OF 2
1. PROJECT HELSTF Phase III RFI	11. ELEVATION OF TOP HOLE		

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	Blow Count
	45	SP	fine to v. fine poorly graded sand			Wet	31
	50		Sand sloughed into hole @ 48-50' not attempted.			split spoon	

DRILLING LOG	DIVISION	INSTALLATION	HOLE No. SB-37	SHEET No. 1 OF 2

1. PROJECT HELSTF Phase III RFI	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)
2. LOCATION (Coordinates or Station)	12. MANUFACTURER'S DESIGNATION OF DRILL
3. DRILLING AGENCY	13. TOTAL No. OF OVERBURDEN SAMPLES TAKEN — DISTURBED — UNDISTURBED
4. HOLE No. (As shown on drawing title and file number) SB-37	14. TOTAL NUMBER CORE BOXES
5. NAME OF DRILLER Raba Kistner (Manny Duenez)	15. ELEVATION GROUND WATER
6. DIRECTION OF HOLE ☒ Vertical ☐ Inclined _____ Degrees from Vertical	16. DATE HOLE — STARTED 0820 — COMPLETED to 1100 (11-14-06)
7. THICKNESS OF OVERBURDEN	17. ELEVATION TOP OF HOLE
8. DEPTH DRILLED INTO ROCK	18. TOTAL CORE RECOVERY FOR BORING
9. TOTAL DEPTH OF HOLE 50 ft bgs — 10. SIZE AND TYPE OF BIT 6" Ø HSA	19. SIGNATURE OF INSPECTOR J. Thompson

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	Blow Count
						Vac-excavated 0-5 ft bgs	
	5	ML	Gypsum silt	50	—	Dry	48
	10	ML	Gypsum silt	60	HLSF-0085 SB-037-(10.0-11.0)	Dry	84
	15	ML	Gypsum silt	90	—	Moist	58
	20	CL	clay (lorum) w/ 10% gypsum crystals	50	HLSF-0085-SB-037-(20.0-21.0)	Moist	25
	25	SP-SM	Sand w/ silt	100	—	moist	75
	30	SP	v. fine sand	95	HLSF-0085-SB-037 (30.0-31.0)	moist	55
	35	SP SP-SC	fine sand sand w/ clay 36.5-36.9	80	—	moist	47
	40	SP CL-ML	v. fine sand silty clay @ 42	90	(40.0-41.0)	wet	97

DRILLING LOG (Continuation Sheet)	INSTALLATION	HOLE No. SB-37	SHEET No. 2 OF 2
1. PROJECT HELSTF Phase III RFI	11. ELEVATION OF TOP HOLE		

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	Blow Count
	45	SP	fine to v. fine sand	100	—	wet	
		CL	clay 45.6-47			moist	30
		SP-SM	sand w/ silt 48-48.4	95		wet	
	50	CL-ML	silty clay to 49.5			moist	
		SP-SM	sand w/ silt 49.5-49.8				61

DRILLING LOG	DIVISION	INSTALLATION	HOLE No. SB-38	SHEET No. 1 OF 2

1. PROJECT HELSTF Phase III RFI	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)
2. LOCATION (Coordinates or Station)	12. MANUFACTURER'S DESIGNATION OF DRILL
3. DRILLING AGENCY	13. TOTAL No. OF OVERBURDEN SAMPLES TAKEN — DISTURBED — UNDISTURBED
4. HOLE No. (As shown on drawing title and file number) SB-38	14. TOTAL NUMBER CORE BOXES
5. NAME OF DRILLER Raba Kistner (Manny Duenez)	15. ELEVATION GROUND WATER
6. DIRECTION OF HOLE ☒ Vertical ☐ Inclined _____ Degrees from Vertical	16. DATE HOLE — STARTED 11-14-06 15:15 — COMPLETED 11-15-06
7. THICKNESS OF OVERBURDEN	17. ELEVATION TOP OF HOLE
8. DEPTH DRILLED INTO ROCK	18. TOTAL CORE RECOVERY FOR BORING
9. TOTAL DEPTH OF HOLE 50' — 10. SIZE AND TYPE OF BIT 6" Φ HSA	19. SIGNATURE OF INSPECTOR J. Thompson

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significent) g	Blow Count
						Vac-excavation 0-5 ft	
	5	ML	Gypsum silt	90	—	Dry	27
	10	ML	Gypsum silt	60	HLSF-0085-SB-038-(10.0-11.0)	Dry	107 @ 1.5'
	15	ML	Gypsum silt 15-15.3 Silt (brwn) 15.3-16.5 Silt w/ 40% gyp cry to 17	95	—	moist	17
	20	CL	Clay (brwn) w/ 5% gyp cry @ 21.5 40% gyp crystals	90	HLSF-0085-SB-038 (20.0-21.0)	moist	23
	25	ML	Silt (brwn) w/ some fine sand	95	—	moist	46
	30	CL SP	clay fine to v. fine sand	95	HLSF-0085-SB-038 SB-138 (30.0-32.0)	moist	61
	35	SP	fine sand	80	—	moist	101
	40	SP-SM	v. fine silty sand	95	HLSF-0085-SB-038-(40.0-41.0)	wet	78

DRILLING LOG (Continuation Sheet)	INSTALLATION	HOLE No. SB-38	SHEET No. 2 OF 2
1. PROJECT HELSTF Phase III RFI	11. ELEVATION OF TOP HOLE		

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	Blow Count
	45	CL	clay	95	—	moist	29
		SP	sand to 48.7			wet	
		CL	clay to 49.5	90		moist	77
	50	SP	sand fine			wet	

DRILLING LOG

DIVISION	INSTALLATION	HOLE No.	SHEET No.
		SB-39	1 OF 2

1. PROJECT: AELSTF Phase III RFI	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)
2. LOCATION (Coordinates or Station)	12. MANUFACTURER'S DESIGNATION OF DRILL
3. DRILLING AGENCY	13. TOTAL No. OF OVERBURDEN SAMPLES TAKEN — DISTURBED: — UNDISTURBED: —
4. HOLE No. (As shown on drawing title and file number): SB-39	14. TOTAL NUMBER CORE BOXES
5. NAME OF DRILLER: Raba Kistner (Manny Duenez)	15. ELEVATION GROUND WATER
6. DIRECTION OF HOLE: [X] Vertical [ ] Inclined ____ Degrees from Vertical	16. DATE HOLE: 11-14-06 — STARTED: 1230 — COMPLETED: 1500
7. THICKNESS OF OVERBURDEN	17. ELEVATION TOP OF HOLE
8. DEPTH DRILLED INTO ROCK	18. TOTAL CORE RECOVERY FOR BORING
9. TOTAL DEPTH OF HOLE: 50' — 10. SIZE AND TYPE OF BIT: 6" Ø HSA	19. SIGNATURE OF INSPECTOR: J. Thompson

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significent) g	Blow Count
						Vac-excavated 0-5 ft	
	5	ML	Gypsum silt	60	—	Dry	21
	10	ML	Gypsum silt	100	HLSF-0086 SB-039 (10.0-11.0)	Dry	86
	15	ML	Gypsum silt w/ 10% gypsum crystals	95	—	moist	25
	20	CL-ML	Silty clay w/ 5% gyp crystals. v. thin bed of fine sand @ 21.1 ft	90	HLSF-0086 -SB-039 -(20.0-21.0)	moist	18
	25	SP-SM CL-ML	v. fine sand w/ silt to 26.2' silty clay w/ 5% gypsum crystals	90	—	moist	27
	30	CL-ML SP-SM	silty clay to 31.5 v. fine sand w/ silt	90	HLSF-0085 -SB-039 (30.0-31.0)	moist	18
	35	SP	fine to v. fine sand	90	—	moist	48
	40	SP SP-SM	fine to v. fine sand to 44.3 fine sand w/ silt	60		wet moist	84

DRILLING LOG (Continuation Sheet)	INSTALLATION	HOLE No. SB-39	SHEET No. 2 OF 2
1. PROJECT HELSTF Phase III RFI	11. ELEVATION OF TOP HOLE		

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	Blow Count
	45	SP	fine sand to 45.2	95	–	wet	
		CL	clay to 46			moist	44
		SP	fine sand to 47			wet	
	50	SP	fine to v. fine sand	100	HLSF-0085-SB-039 (49.0-50.0)	wet	66